

1R - 426-253

**REPORTS**

**DATE:**

3-12-10

BD Jct O-36  
2009

1R426-253

RECEIVED

ENVIRONMENTAL  
Oil Conservation Division

**DISCLOSURE**

**RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE\* REPORT**

RECEIVED

APP - 6 2010

Environmental Bureau  
Oil Conservation Division

BOX LOCATION							BOX DIMENSIONS* FEET		
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	Length 6'	Width 6'	Depth 4'
Blinberry-Drinkard (BD)	Jct. O-36	O	36	21S	36E	Lea	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 \_\_\_\_\_ *Jordan Woodfin* \_\_\_\_\_ COMPANY \_\_\_\_\_ RICE OPERATING COMPANY \_\_\_\_\_

REPORT ASSEMBLED BY \_\_\_\_\_ Katie Jones \_\_\_\_\_ INITIAL \_\_\_\_\_ *KJ* \_\_\_\_\_

PROJECT LEADER \_\_\_\_\_ Larry Bruce Baker Jr. \_\_\_\_\_ SIGNATURE \_\_\_\_\_ *Larry Bruce Baker Jr.* \_\_\_\_\_ 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

9/3/2008



collecting a soil sample, facing north

9/16/2008





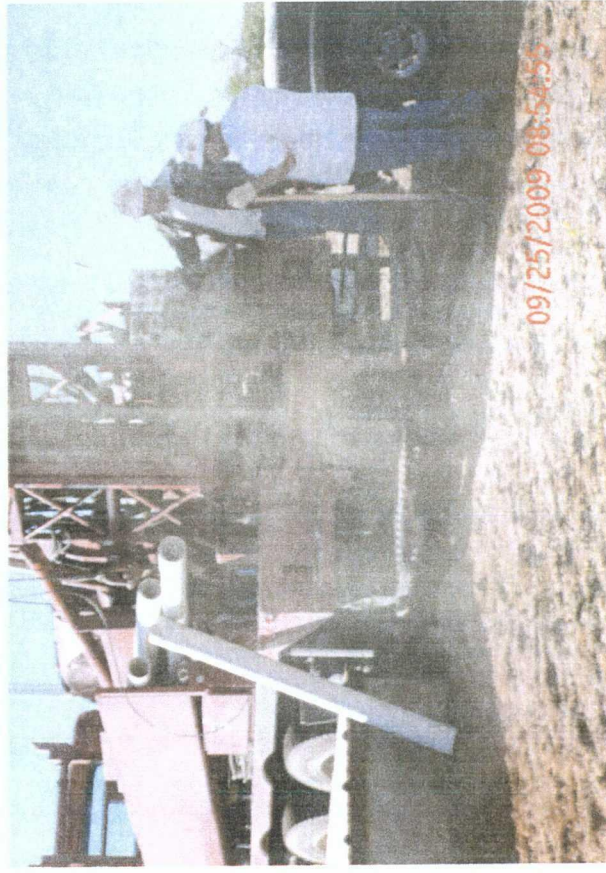
clay compaction test, facing west

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





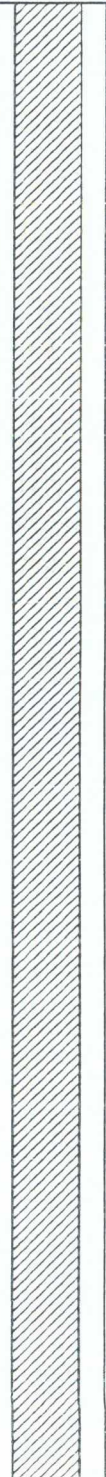

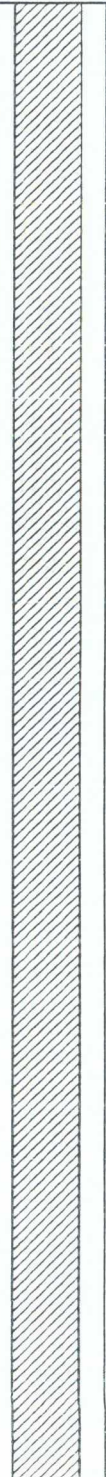

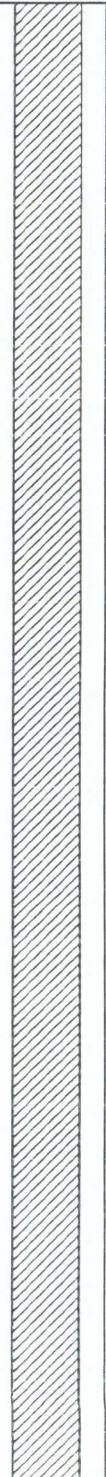

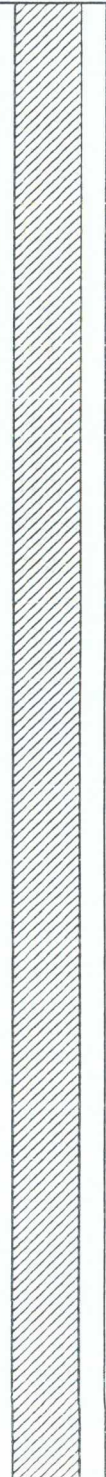
plugging SB #1 with bentonite

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	Project Name: BD jct. O-36 Well ID: SB #1
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		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	
				10 - 30 ft  VERY FINE TO FINE SAND WITH  CONSOL. ROCK  light brown, dry, no odor			
15	4131	CI-5600	0.4				
		GRO <10.0					
		DRO < 10.0					
20	3343		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				
				35 - 60 ft  VERY FINE TO FINE SAND WITH  CONSOL. ROCK  light brown, dry, no odor			
40	2668		0.2				
45	2339		0.2				
50	1987		0.3				
55	1910		0.2				
				60 - 65 ft  VERY FINE TO FINE SAND WITH  CONSOL. ROCK  light brown, dry, no odor			
60	1652		0.2				

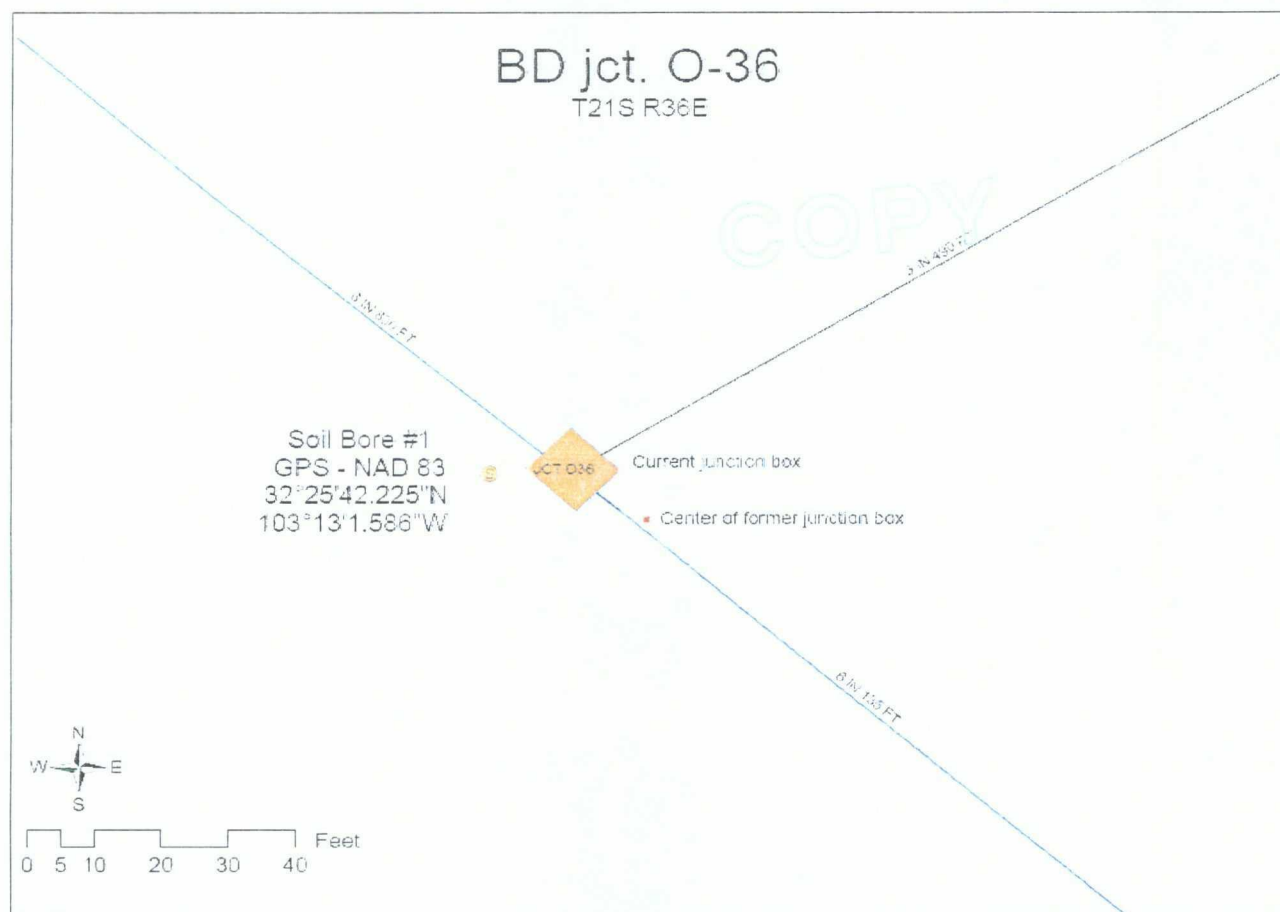
Page 1 of 3

bentonite  
seal

				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			
85	556		0.5	VERY FINE TO FINE SAND			
				reddish-orange, dry, no odor			
90	520		0.5				
				90 - 93 ft			
93	424		0.4	VERY FINE TO FINE SAND			
				light orangey-brown, dry, no odor			
		Cl- 224					
100	378	DRO & GRO < 10.0	0.2				

**Chloride concentration versus depth**









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

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

Receiving Date: 09/25/09  
Reporting Date: 09/30/09  
Project Owner: NOT GIVEN  
Project Name: BD JCT O-36  
Project Location: BD JCT O-36

Sampling Date: 09/25/09  
Sample Type: SOIL  
Sample Condition: INTACT  
Sample Received By: AB  
Analyzed By: AB/HM

LAB NUMBER SAMPLE ID

GRO DRO  
(C<sub>6</sub>-C<sub>10</sub>) (>C<sub>10</sub>-C<sub>28</sub>) CI\*  
(mg/kg) (mg/kg) (mg/kg)

ANALYSIS DATE	09/29/09	09/29/09	09/25/09
H18343-1 SB #1 @ 15'	<10.0	<10.0	5,600
H18343-2 SB #1 @ 100'	<10.0	<10.0	224
Quality Control	509	505	500
True Value QC	500	500	500
% Recovery	102	101	100
Relative Percent Difference	0.6	1.6	<0.1

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

\*Analyses performed on 1:4 w/v aqueous extracts. Reported on wet weight.

Chemist

Date

H18343 TOL RICE

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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

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

NEED SAMPLES BACK, PLEASE

# RICE OPERATING COMPANY

122 West Taylor ~ Hobbs, NM 88240

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

## PID METER CALIBRATION & FIELD REPORT FORM

CK	
MODEL	✓
NO.	

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: 924408	EXPIRATION DATE: 7-29-2012
FILL DATE: 7-30-04	METER READING ACCURACY: 100.1
ACCURACY: +/- 2%	

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
B0	jet 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

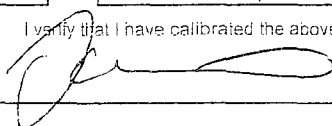
DEPTH	PID
90'	0.5
95'	0.4
100'	0.2

DEPTH	PID

DEPTH	PID

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

Signature



Date

9-25-04

SITE MAP

N ↑





# 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 By: ML  
Analyzed By: AE/HM

SOIL

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/kg)	DRO (C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	CI* (mg/kg)
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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-CI\*

\*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.



# 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  
Model: PGM 7300  
Model: PGM 7300

Serial No: 590-000183  
Serial No: 590-000508  
Serial No: 590-000504


Model: PGM 7600  
Model: PGM 7600  
Model: PGM 7600

Serial No: 110-023920  
Serial No: 110-013744  
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	21S	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:

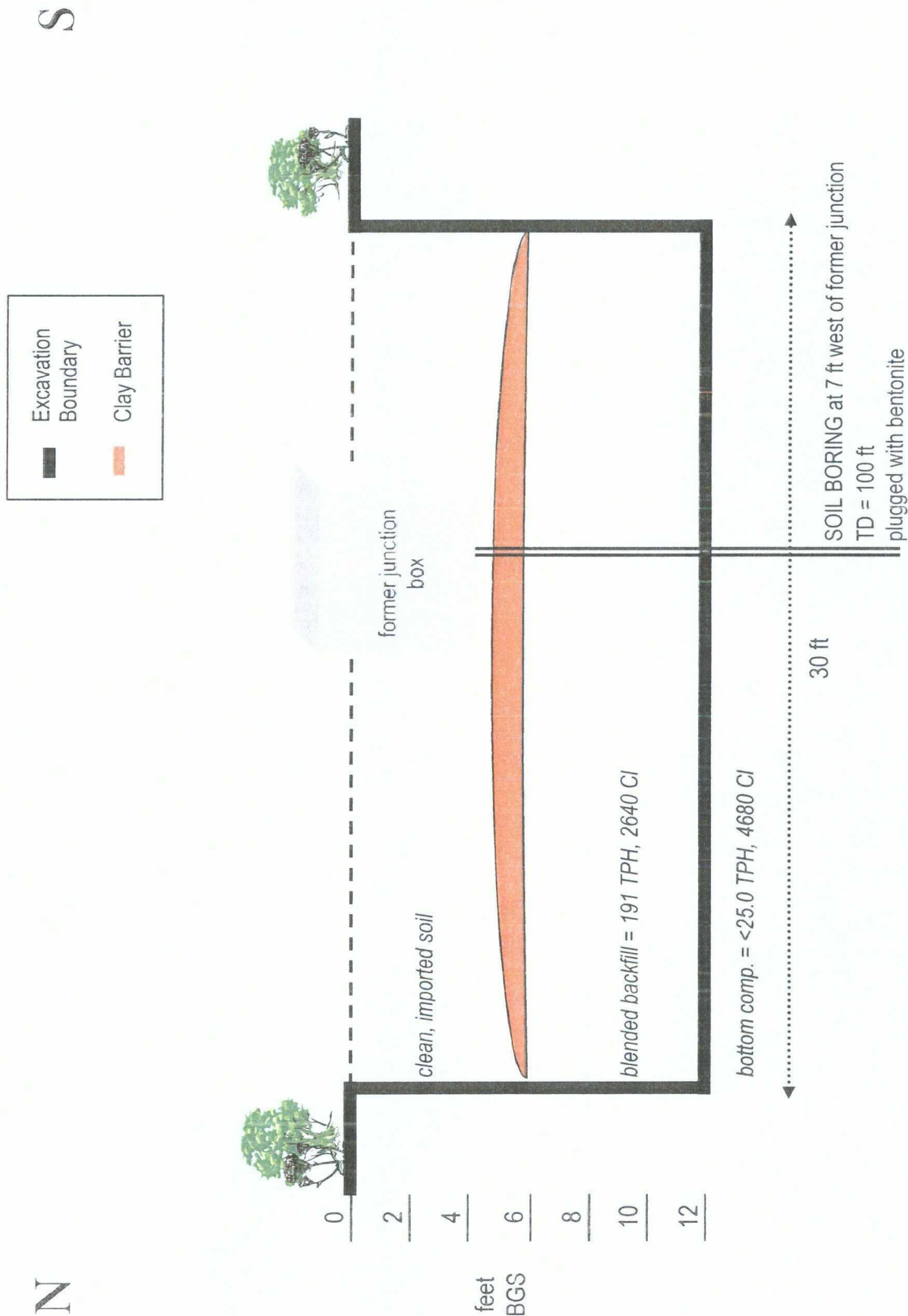
*Jordan Wood*

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

Test Method: ASTM: D 2922

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

Date of Test: September 29, 2008

COPY

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

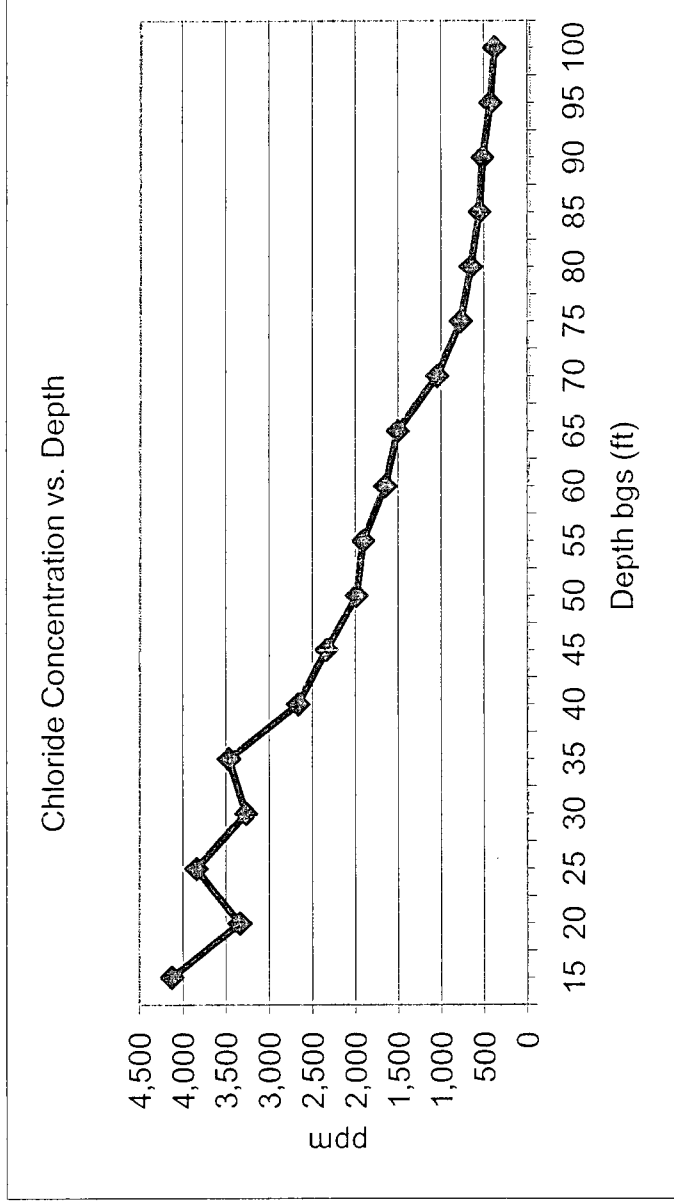
RICE Operating Company

## 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