

1R - 426-242

**REPORTS**

**DATE:**

3-3-10

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Jct  
BD J-25 EOL  
^ 2009

1R426-242

RECEIVED

APR - 6, 2009  
Environmental Bureau  
Oil Conservation Division

CLOSURE

RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT

RECEIVED

APP - 6 2010

Environmental Bureau  
Oil & Gas Division

BOX LOCATION							BOX DIMENSIONS		
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	Length	Width	Depth
Blinebry-Drinkard (BD)	J-25 EOL	J	25	21S	37E	Lea			
							Eliminated		

LAND TYPE: BLM STATE FEE LANDOWNER Wallach Ranch OTHER

Depth to Groundwater none feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 9/9/2009 Date Completed 11/6/2009 OCD Witness no

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

Soil Disposed 196 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS: Sample Date 10/28/2009, 10/30/2009, 11/04/09 Sample Depth 30 ft., 54 ft., & 12 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.

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SB#1 @ 30'	1.5	<10.0	<10.0	5900
SB#1 @ 54'	1.4	<10.0	<10.0	8600
4-WALL COMP.	1.7	<10.0	<10.0	1170
BOTTOM COMP.	2.1	<10.0	<10.0	2600
BLENDED BACKFILL	n/a	<10.0	<10.0	368

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	1174
bottom comp.	12'	2579
Background	6"	206
Soil bore 10 ft. east of former junction box	15'	2706
	18'	3627
	21'	3446
	24'	3831
	27'	3520
	30'	5470
	33'	1050
	36'	2802
	39'	600
	42'	3169
	45'	3471
	48'	4305
	51'	1506
	54'	2127

**General Description of Remedial Action:** This junction was eliminated under the pipeline replacement/upgrade program. After the former box was removed, an investigation was conducted using a backhoe to collect soil samples at regular intervals producing a 30x30x12-ft deep hole. Each sample was field tested for chlorides and organic vapors. Field chloride tests yielded elevated chloride concentrations that did not relent with depth. Representative composite samples were sent to a commercial laboratory for analysis. The excavated soil was then blended on site and returned to the excavation to 5 ft. BGS. A one foot thick clay layer was installed and compaction test performed. The remaining blended backfill was returned to the excavation to ground surface and contoured to the surrounding area. To further investigate the depth of chloride presence, a soil boring was initiated on 11/04/2009 10 ft. east of the former junction box site. The boring was advanced to 80 ft. BGS, while soil samples were collected every 3 ft and tested for chloride concentrations and organics. At 30 ft and 54 ft BGS, the soil samples were sent to a commercial laboratory for analysis. The groundwater data suggested that water would be encounter at approximately 35 ft. BGS. At 57 ft. BGS the soil lithology changed to chinle red bed clay and bore was advanced to 80 ft. BGS. The bore hole was left open and after 48 hrs no moisture content was detected when gauging bore hole. The entire bore hole was plugged with bentonite to ground surface. On 11/25/2009, site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate.

enclosures: photos, lab results, compaction results, PID (field) screenings, soil bore log, bore hole condition report, cross-section, chloride graph

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

SITE SUPERVISOR Eric Garrison SIGNATURE not available COMPANY RICE OPERATING COMPANY

REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL LBB

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Baker Jr. DATE 3-3-10



# BD J-25 EOL

Unit J, Section 25, T21S, R37E



Delineation trench at former junction box

9/28/2009



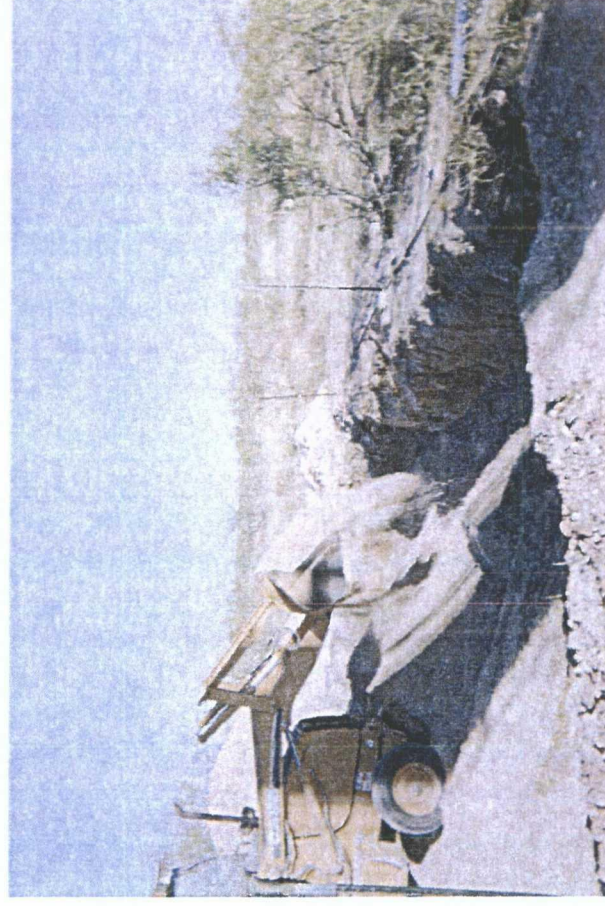
Excavation complete

10/29/2009



Clay layer complete

11/02/2009



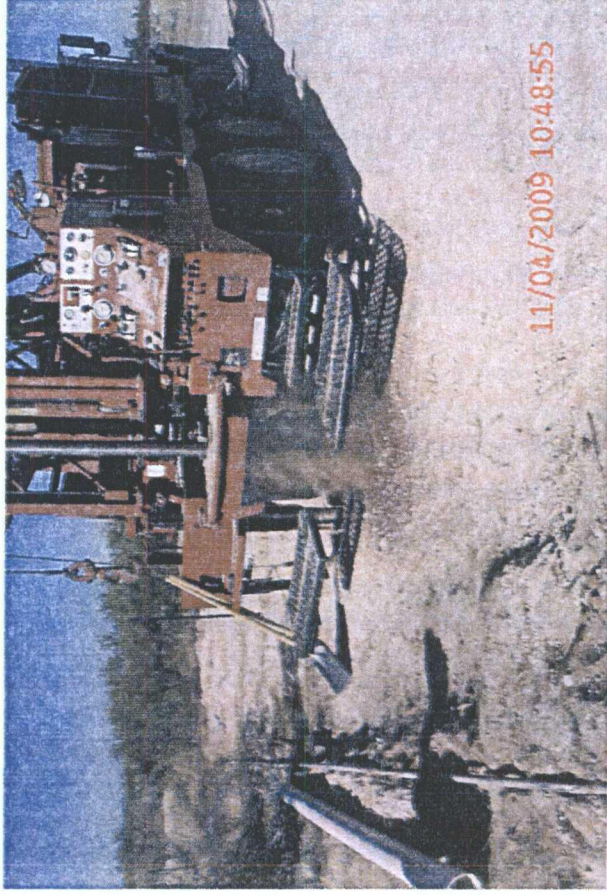
Backfilling excavation

11/02/2009



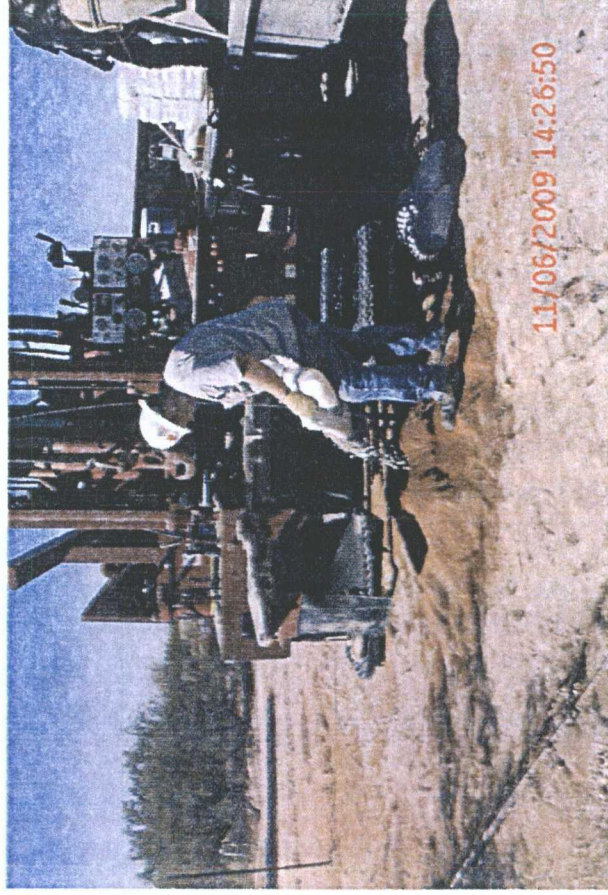
# BD J-25 EOL

Unit J, Section 25, T21S, R37E



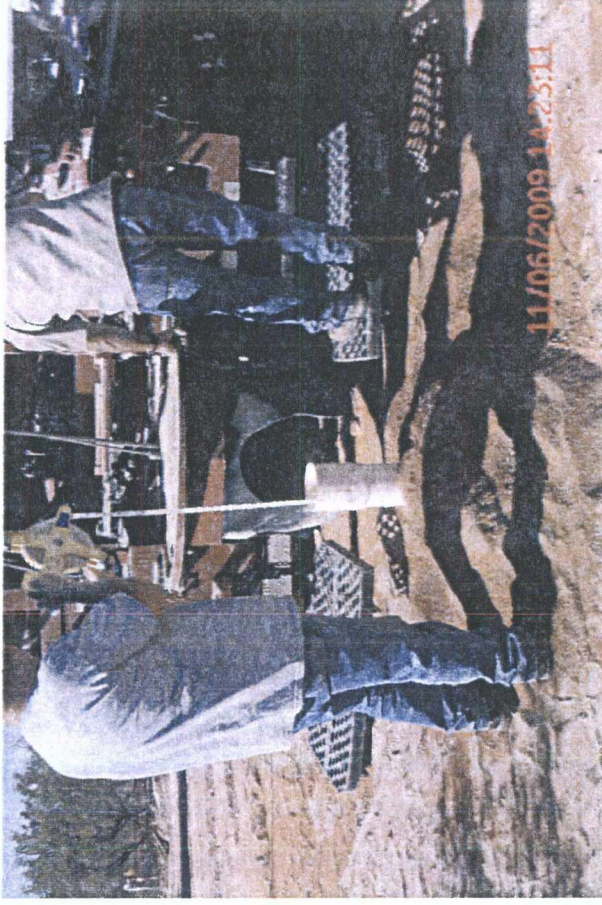
Soil Bore # 1

11/04/2009



Plugging soil bore with bentonite

11/06/2009



Measuring for groundwater after 48 hrs.

11/06/2009



Seeding site

11/25/2009

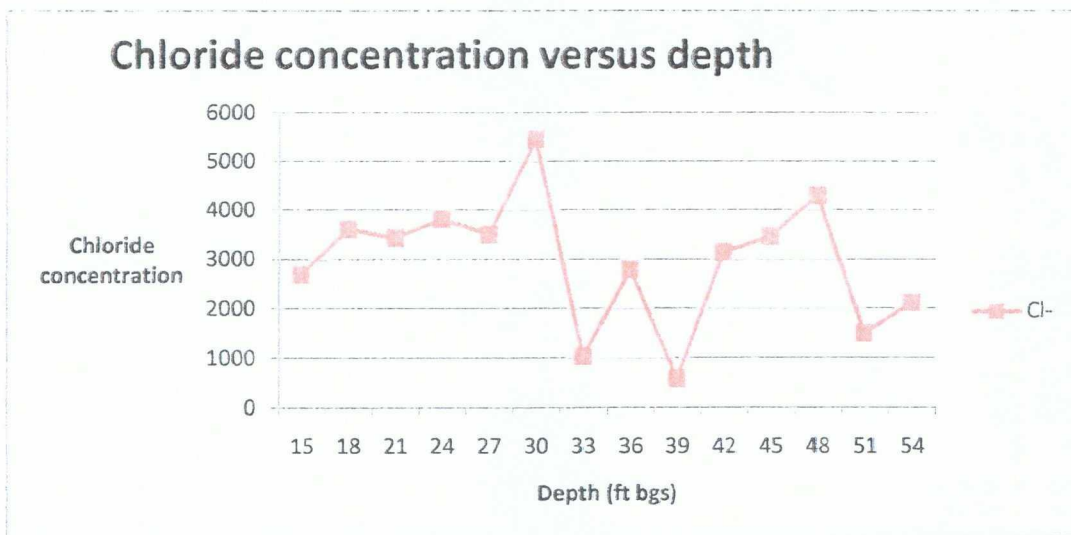


<b>Logger:</b>	Lara Weinheimer					
<b>Driller:</b>	Harrison & Cooper, Inc. Drilling					
<b>Consultant:</b>	N/A - ROC junction box upgrade plan					
<b>Drilling Method:</b>	Air rotary					
<b>Start Date:</b>	11/4/2009					
<b>End Date:</b>	11/4/2009		<b>Project Name:</b>	BD J-25 EOL	<b>Well ID:</b>	SB #1
<b>Comments:</b>			All samples from cuttings. Drilled to 80 feet and left open for 48 hours to check for groundwater. Located 10 feet east for former jct. box. Drafted by: Lara Weinheimer TD = 80 ft      GW = none			
<b>Location:</b>	UL/J sec. 25 T21S R37E					
<b>Lat:</b>	32°26'46.322"N		<b>County:</b>	Lea		
<b>Long:</b>	103°6'49.902" W		<b>State:</b>	NM		

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
12 - 15 ft				VERY FINE TO FINE SAND; CALICHE & SANDSTONE		
				light orangey brown, dry, no odor		
15	2706		1.9			
15 - 21 ft				VERY FINE TO FINE SAND; CALICHE & SANDSTONE		
				orangey brown, dry, no odor		
18	3627		1.7			
21 - 24 ft				VERY FINE TO FINE SAND		
				slight orangey brown, dry, no odor		
21	3446		2			
24 - 36 ft				VERY FINE TO FINE SAND; SANDSTONE		
				light brown, dry, no odor		
24	3831		2.1			
27	3520		2.1			
30	5470	CL 5-900 GRO <10.0 DRO <10.0	1.5			
33	1050		1.2			





COPY



# HARRISON & COOPER, INC.

*Drilling & Pump Professionals*

7414 85<sup>th</sup> Street, Lubbock, Texas 79424-4951

P.O. Box 96, Wolfforth, Texas 79382-0096

Ph: (806) 866-4026

Fax: (806) 866-4044

[harrisoncooper-drilling.com](http://harrisoncooper-drilling.com)

December 2, 2009

Rice Operating Co.  
122 W. Taylor  
Hobbs, NM 88240

Attn: Lara Weinheimer

**RE: BD J-25 EOL, Eunice, NM  
Bore Hole Condition**

To whom it may concern:

On November 4, 2009, Harrison and Cooper were contracted by Rice Operating to drill and sample a soil boring at the subject site. The soil boring was drilled to approximately 80 feet in an effort to determine whether or not a saturated interval existed. After a forty-eight hour holdover time the moisture content at that depth was NON-detectable.

If any questions arise from this issue, do not hesitate to contact a representative with Harrison and Cooper.

Sincerely,

Kenny Cooper  
Operations Manager

CCB

Copies: File

Mail (Rice, Hobbs)

Email (Lara Weinheimer)



# CARDINAL LABORATORIES

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: 11/04/09  
Reporting Date: 11/09/09  
Project Owner: NOT GIVEN  
Project Name: BD J-25 EOL  
Project Location: BD J-25 EOL

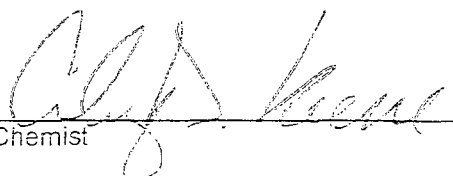
Sampling Date: 11/04/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: ML  
Analyzed By: AB

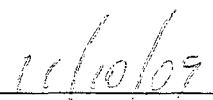
LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C <sub>6</sub> -C <sub>10</sub> ) (>C <sub>10</sub> -C <sub>28</sub> ) (mg/kg)	(mg/kg)	(mg/kg)

ANALYSIS DATE	11/06/09	11/06/09	11/06/09
H18648-1 SB#1 @ 30'	<10.0	<10.0	5,900
H18648-2 SB#1 @ 54'	<10.0	<10.0	8,600
Quality Control	590	591	500
True Value QC	500	500	500
% Recovery	118	118	100
Relative Percent Difference	11.3	15.0	<0.1

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

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

  
Chemist

  
Date

H18648 TCL RICE

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# ARDINAL LABORATORIES

**Company Name:** Rice Operating Company

† 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	<input checked="" type="checkbox"/>
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: 924908	EXPIRATION DATE: 7-29-2012
FILL DATE: 7-30-09	METER READING ACCURACY: 100.1

ACCURACY: +/- 2%

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
BD	Jct J-25	J	25	T21S	R37E

SAMPLE ID: soil bore #1

DEPTH	PID
15'	1.9
18'	1.7
21'	2.0
24'	2.1
27'	2.1

DEPTH	PID
45'	2.2
48'	2.9
51'	0.7
54'	1.4

DEPTH	PID

DEPTH	PID

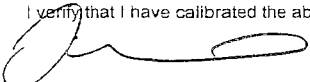
DEPTH	PID
30'	1.5
33'	1.2
36'	1.8
39'	3.4
42'	1.8

DEPTH	PID

DEPTH	PID

DEPTH	PID

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

Signature 

Date 11-4-09

SITE MAP



COPY





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

Receiving Date: 10/28/09  
Reporting Date: 10/29/09  
Project Owner: NOT GIVEN  
Project Name: BD J-25 EOL (21-37)  
Project Location: BD J-25 EOL (21-37)

Sampling Date: 10/27/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: ML  
Analyzed By: AB/HM

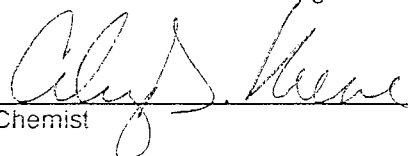
LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C <sub>6</sub> -C <sub>10</sub> )	(>C <sub>10</sub> -C <sub>28</sub> )	
		(mg/kg)	(mg/kg)	(mg/kg)

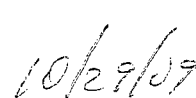
ANALYSIS DATE	10/28/09	10/28/09	10/28/09
H18587-1** 5PT BTM @ 12'	<10.0	<10.0	2,600
H18587-2 4 WALL COMP @ 30x30	<10.0	<10.0	1,170
Quality Control	435	452	500
True Value QC	500	500	500
% Recovery	87.0	90.4	100
Relative Percent Difference	5.3	4.7	< 0.1

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

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

\*\*TPH second surrogate out of historical limits due to matrix interference.

  
Chemist

  
Date

H18587 TCL RICE

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

## CARDINAL LABORATORIES

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

Company Name: <u>Rice Operations</u>		P.O. #:		ANALYSIS REQUEST																					
Project Manager: <u>Brace Barber</u>		Company:																							
Address: <u>122 W Taylor</u>		City: <u>110666</u>		State: <u>NM</u>		Zip: <u>88240</u>																			
Phone #:		Fax #:		Address:		City:		State:		Zip:															
Project #:		Project Owner:		Phone #:		Fax #:																			
Project Name: <u>BD J-25 EOL (21-37)</u>		Project Location: <u>BD J-25 EOL (21-37)</u>		Sampler Name: <u>Eric Garrison</u>		Sample I.D.																			
Lab I.D.		Matrix		PRESERV		SAMPLING																			
DATE		TIME		DATE		TIME																			
11/8/01		5:12 PM		10/27/01		10:30																			
-2		4 WALLCOMP @ 30X20		X		X																			

PLEASE NOTE: Facility and Sample Facility, and Sample Facility, for any chain of custody transfer, shall be limited to the amount paid by the client for the analysis. The amount paid by the client shall be the only amount that shall be used for the analysis. The amount paid by the client shall be the only amount that shall be used for the analysis. The amount paid by the client shall be the only amount that shall be used for the analysis.

Relinquished By: <u>Eric Garrison</u>	Date: <u>10-28-01</u>	Received By: <u>Eric Garrison</u>	Date: <u>10-28-01</u>
Relinquished By:	Date:	Received By:	Date:
Delivered By: (Circle One)	Sample Condition	Checked By: <u>MSB</u>	Checked By:
Sampler - UPS - Bus - Other:	Cool Intact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

REMARKS: RESULTS  
egarrison@rice.spd.com  
ABAKER@rice.spd.com  
SPARKV@rice.spd.com  
Kush



# RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 85246

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

PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number:

5

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: 724908	EXPIRATION DATE: 07-29-12
FILL DATE: 07-20-09	METER READING ACCURACY: 100%

ACCURACY: +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BID	J-25 EOL	J	25	21 S	37E

35' NORTH

SAMPLE ID	PID	SAMPLE ID	PID
2	0.2	5FT BTM @ 12'	2.1
4	0	4WALL COMP @ 30FT	1.7
6	0		
8	0		
10	0		
12	0		

COPY

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

SIGNATURE

*[Signature]*

DATE

07-27-09



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

Receiving Date: 10/30/09  
Reporting Date: 11/04/09  
Project Number: NOT GIVEN  
Project Name: BD J-25 (21-37)  
Project Location: BD J-25 (21-37)

Sampling Date: 10/30/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: AB  
Analyzed By: AB/HM

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	11/03/09	11/03/09	11/02/09
H18613-1 BLENDED BACKFILL	<10.0	<10.0	368
Quality Control	570	618	500
True Value QC	500	500	500
% Recovery	114	124	100
Relative Percent Difference	1.3	9.9	2.0

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.

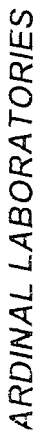
Reported on wet weight.

Chemist

Date

H18613 TCL RICE

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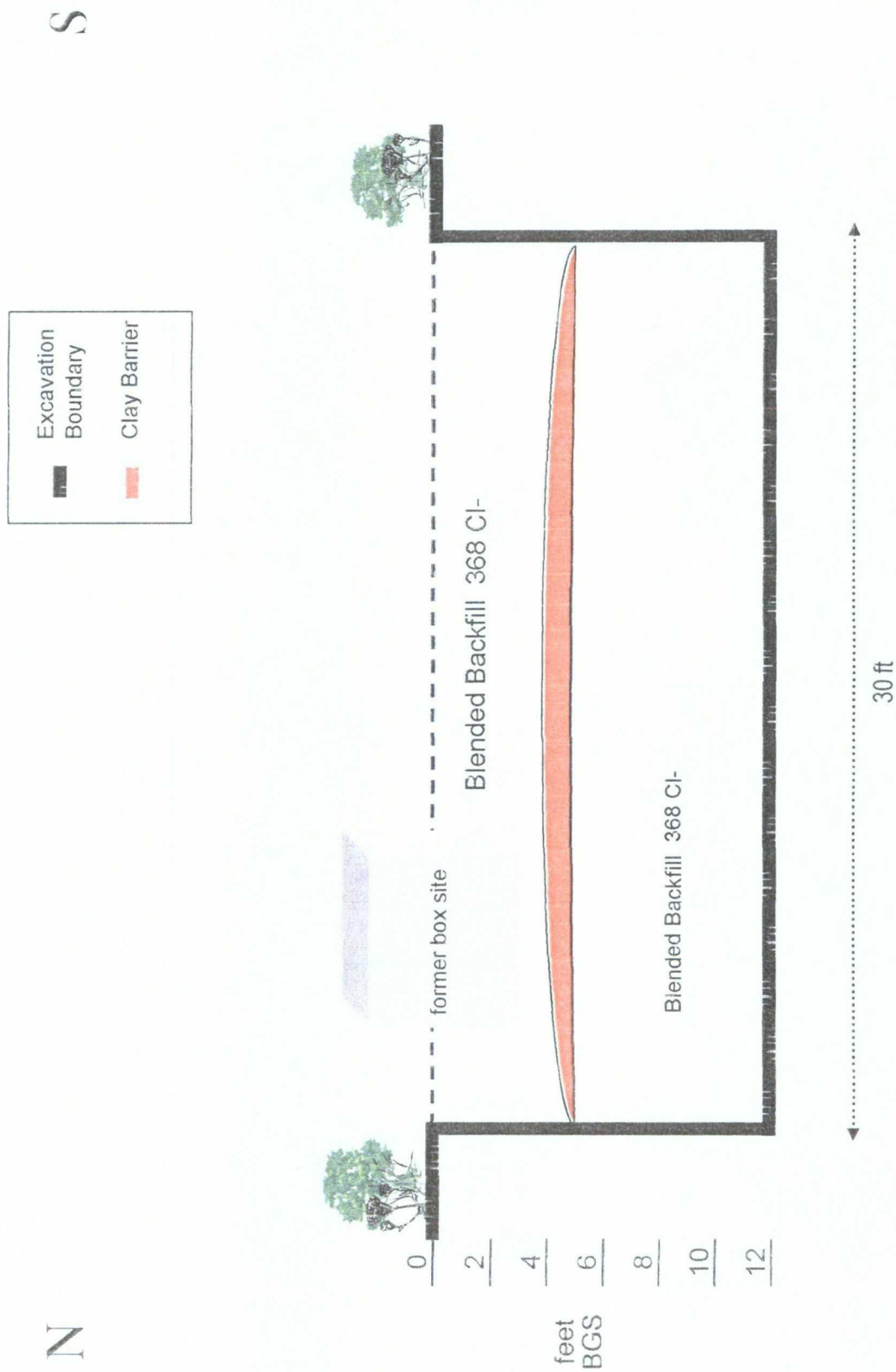
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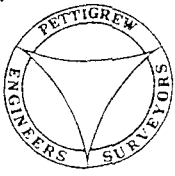
† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



BD J-25 EOL  
Unit 'J', Sec. 25, T21S, R37E

### Excavation Cross-Section





LABORATORY TEST REPORT  
PETTIGREW & ASSOCIATES, P.A.  
1110 N. GRIMES  
HOBBS, NM 88240  
(575) 393-9827



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

To: Rice Operating Company  
Attn: Bruce  
122 W. Taylor  
Hobbs, NM 88240

Material: Wallach Red Clay

Project: BD Junction 25  
EOL 21-37  
Project No. 2009.1260

Test Method: ASTM: D 2922

Date of Test: November 2, 2009

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 4	BDJC-25 EOL 21-37	90.6	15.0	4' Below Surface

*Junction J-25 EOL 21/37*

RECEIVED

DEC 09 2009

RICE OPERATING  
HOBBS, NM

Control Density: 100.7  
ASTM: D 698

Optimum Moisture: 20.7%

Required Compaction: 90%

Densometer ID: 5572

Lab No.: 09 7004-7005

PETTIGREW & ASSOCIATES

Copies To: Rice Operating

BY: 

BY: 

P.E.

# CHLORIDE CONCENTRATION CURVE

RICE Operating Company

## BD J-25 EOL

Unit 'J', Sec. 25, T21S, R37E

Soil bore samples 10 ft. east of former junction box

Depth bgs (ft)	Cl ppm
15	2706
18	3627
21	3446
24	3831
27	3520
30	5470
33	1050
36	2802
39	600
42	3169
45	3471
48	4305
51	1506
54	2127

Groundwater = none

