

1R - 426-283

REPORTS

DATE:

3-22-11

1R426-283

Jet
BD I-25 EOL
^
2010

RECEIVED
APR -1 2011

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

CLOSURE

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
Blinebry-Drinkard (BD)	3+ I-25 EOL	I	25	21S	36E	Lea	Length	Width	Depth
							Eliminated		

LAND TYPE: BLM STATE FEE LANDOWNER George W. Brownlee OTHER

Depth to Groundwater 148 feet NMOC SITE ASSESSMENT RANKING SCORE: 0

Date Started 11/3/2009 Date Completed 5/13/2010 OCD Witness no

Soil Excavated 266.7 cubic yards Excavation Length 30 Width 20 Depth 12 feet

Soil Disposed 126 cubic yards Offsite Facility Sundance Services Location Eunice, NM

FINAL ANALYTICAL RESULTS: Sample Date 12/17/09, 12/23/09, 5/13/2010 Sample Depth 12 ft., 20 ft., 35 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 NMOC guidelines.

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
4-WALL COMP.	0.4	<10.0	<10.0	1,070
BOTTOM COMP.	1.4	<10.0	<10	870
BACKFILL COMP.	0.4	<10.0	<10.0	752
BLENDED BACKFILL WITH IMPORTED SOIL	0.0	N/A	N/A	256
SB #1 @ 20 ft.	0.6	<10.0	<10.0	1,490
SB #1 @ 35 ft.	0.4	<10.0	<10.0	144

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	837
bottom comp.	12'	695
backfill comp.	n/a	638
blended backfill with imported soil	n/a	408
SB #1 at the former junction (source)	15'	649
	20'	1,928
	25'	606
	30'	281
	35'	200

General Description of Remedial Action: This junction and line were eliminated during

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 creating a 30x20x12-ft. deep excavation. Chloride field test performed on

each sample yielded concentrations that did not relent with depth. Organic vapors were measured using a PID, which yielded low concentrations

The excavated soil was blended on site and representative samples were collected from the blended backfill, the bottom of the excavation, and

excavation walls. The representative samples were taken to a commercial laboratory for analysis of chloride and TPH. The blended backfill

was returned to the excavation to 5 ft. below ground surface (BGS). At 5-4 ft. BGS, a 1-ft. thick clay barrier was installed with compaction

test performed on 12/28/2009. 126 yards of contaminated soil was hauled to an NMOC approved facility. The remaining blended backfill

was blended on site with clean imported soil. A representative sample was collected from the blended backfill with clean imported soil and

sent to a commercial laboratory for analysis of chloride. The remaining excavation was backfilled to ground surface and contoured to the

surrounding area. On 12/29/2009, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at

a normal rate. To further investigate the depth of chloride presence, a soil bore was initiated on 5/13/2010 at the source of the former junction

box. The soil boring was advaced to 35 ft. BGS with samples collected every 5 ft. between 15-35 ft. Chloride field test on each sample

yielded chloride concentrations that did relent with depth. Organic vapors were measured using a PID, which yielded low concentrations. The

20 ft. and 35 ft. samples were sent to a commercial laboratory for analysis of chloride and TPH. The entire bore hole was plugged with

bentonite to ground surface.

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 Darnell Mitchell SIGNATURE n/a 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 3-22-11

BD I-25 EOL
Unit I, Section 25, T21S, R36E



Taking samples

12/10/2009



Excavation

12/23/2009



Backfilling Site

12/20/2009



Seeding Site

12/29/2009






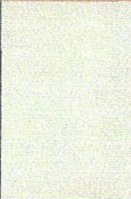


Drilling the bore hole

5/13/2010



Plugging the bore hole with Bentonite

5/13/2010

Logger:	Jordan Woodfin	 SB-1										
Driller:	Harrison & Cooper											
Consultant:	Rice Operating											
Drilling Method:	Air Rotary											
Start Date:	5/13/2010											
End Date:	5/13/2010											
Comments:			All samples from cuttings. Located at the source of the former junction box.		Project Name: BD I-25 EOL			Well ID: SB # 1				
			Drafted by: Jordan Woodfin		Location: UL/I SEC 25 T21S R36S			Lat: N 32° 26' 54.741"		County: Lea		
			TD = 35 ft		Estimated depth to GW = 148 ft			Lon: W 103° 12' 46.364"			State: NM	
Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction						
				0ft-12ft								
5 ft				CALICHE AND SAND								
				tan to light brown, (backfill)								
10 ft												
				12ft-20ft								
15 ft	649		0.8	SAND								
				white, light tan								
				20ft-35ft								
20 ft	1928	CI- 1490	0.6									
		GRO	<10									
		DRO	<10									
25 ft	606		0.5									
30 ft	281		0.8									
35 ft	200	CI- 144	0.4									
		GRO	<10									
		DRO	<10									

COPY

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
112 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 05/13/10
Reporting Date: 05/18/10
Project Number: NOT GIVEN
Project Name: BD I-25 EOL (21/36)
Project Location: BD I-25 EOL (21/36)

Sampling Date: 05/13/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB/HM

LAB NUMBER SAMPLE ID

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

[illegible]

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

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

Reported on wet weight.


Chemist

05/19/10
Date

H19891 TCL 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.

ARDINAL 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

† 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

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: 927041	EXPIRATION DATE: 11-16-12
FILL DATE: 11-17-09	METER READING ACCURACY: 100

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	I-25 Ea	I	25	21	36

SAMPLE ID	PID	SAMPLE ID	PID
SB # 1			
15'	0.8		
20'	0.6		
25'	0.5		
30'	0.8		
35'	0.4		

COPY

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

SIGNATURE:

Jordan Wood

DATE: 5-13-10



Sampling Date: 12/17/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AB/HM

GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)	Cl*
--	--	-----

Date _____

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.

(575) 393-2326 Fax (575) 393-2476

† 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

CK.	<input type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-001413
MODEL	<input type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-000508
NO.	<input type="checkbox"/>	MODEL: PGM 7320	SERIAL NO: 592-903318
	<input checked="" type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-000183

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : N/A	EXPIRATION DATE: 7/05/2010
METER READING ACCURACY: 99.9	

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	I-25 EOL	I	25	21S	36E

SAMPLE ID	PID	SAMPLE ID	PID
5 pt. btm comp.	1.4		
4-wall comp.	0.4		
blended backfill	0.4		

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

SIGNATURE: *Larry Bruce Baker Jr.*

DATE: 12/17/2009

* PID numbers compiled from field data and accurate to the best of my knowledge.



Analysis Date: 12/28/09
Sampling Date: 12/23/09
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: AB
Analyzed By: HM

METHOD: Standard Methods	4500-CIB
Note: Analysis performed on a 1:4 w:v aqueous extract.	

12/30/09

Date

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.



101 East Marland, Hobbs, NM 88240

(575) 393-2326 Fax (575) 393-2476

Page ____ of ____

Company Name: KICE OPERATIONS				ANALYSIS REQUEST			
Project Manager: BRUCE BAKER							
Address: 122 W TAYLOR							
City: HOBBS							
Phone #: 575 391-7468							
Fax #: 575 391-7468							
Project Owner: Project Name: Blended Backfill with Imported Soil							
Project Location: B.D JCT. I-25 EOL							
Sampler Name: Daniel Mitchell							
Lab I.D. Sample I.D.							
Matrix: GROUNDWATER							
# CONTAINERS 1							
(C) RAB OR (C) OMP C							
WASTEWATER							
SOIL							
OIL							
SLUDGE							
OTHER:							
ACID/BASE:							
ICE / COOL							
OTHER:							
DATE 12-23-09				TIME 10:50 AM			
SAMPLING							

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 the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Daniel Mitchell Relinquished By: Bruce Baker		Received By: Bruce Baker	
Date: 12-23-09 Time: 12:55 PM		Date: 12/23/09 Time: 1:30P	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Temp: 13.5°C Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
Checked By: UB		Checked By: UB	

Phone Result: ☐ **No** ☐ **Add'l Phone #:**

Fax Result: ☐ **No** ☐ **Add'l Fax #:**

REMARKS:
E-MAIL TO B. BAKER @ RICE SWD.COM
J PURVIS @ RICE SWD.COM

† 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

CK.		MODEL: PGM 7300	SERIAL NO: 590-001413
MODEL		MODEL: PGM 7300	SERIAL NO: 590-000508
NO.		MODEL: PGM 7320	SERIAL NO: 592-903318
	X	MODEL: PGM 7300	SERIAL NO: 590-000183

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : N/A	EXPIRATION DATE: 7/05/2010
METER READING ACCURACY: 100	

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	I-25 EOL	I	25	21S	36E

SAMPLE ID	PID	SAMPLE ID	PID
blended backfill with clean imported soil	0		

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

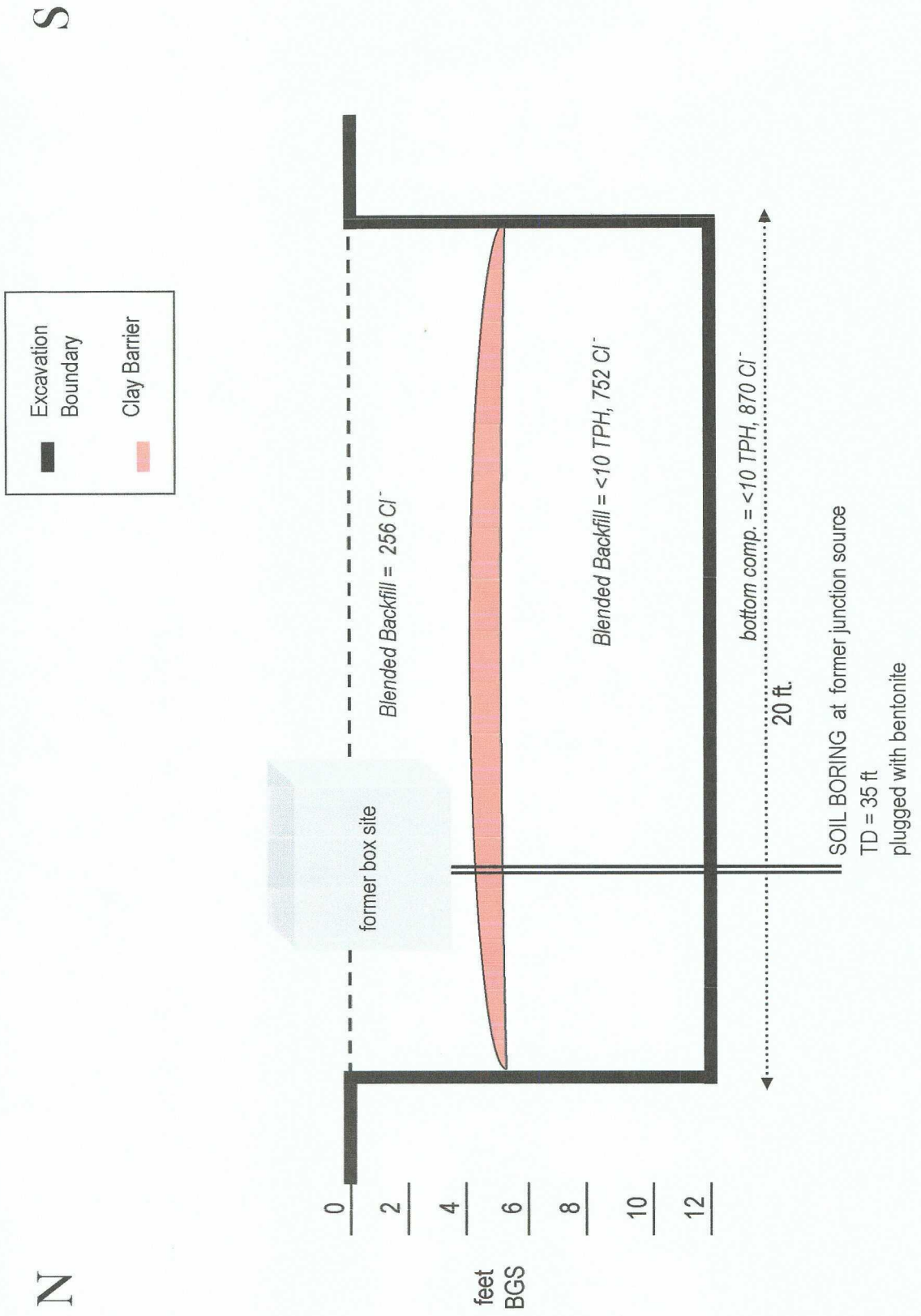
SIGNATURE: *Larry Bruce Baker Jr.*

DATE: 12/23/2009

* PID numbers compiled from field data and accurate to the best of my knowledge.

BD I-25 EOL
Unit 'I', Sec. 25, T21S, R36E

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
122 W. Taylor
Hobbs, NM 88240

Material: Wallach Red Clay

Project: BD Junction J125
Project No. 2009.1260

Test Method: ASTM: D 2922

Date of Test: December 28, 2009

Depth: See Below

Depth of Probe: 6"

Test No.	Location	*Dry Density		% Moisture	Depth
		% Max			
SG 7.	BDJ - 125 - 10' N. & 6' E. of SW Corner of Pad	92.8		15.3	5' Below FG

COPY

Control Density: 100.7
ASTM: D 698


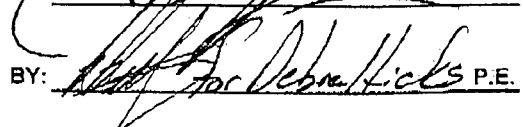
Optimum Moisture: 20.7%

Required Compaction: 91%

Densometer ID: 5572
PETTIGREW & ASSOCIATES

Lab No.: 09 8375-8376

Copies To: Rice Operating

BY: 
BY:  P.E.

CHLORIDE CONCENTRATION CURVE

RICE Operating Company

BD I-25 EOL

Unit 'I', Sec. 25, T21S, R36E

Soil bore at former junction box (source)

Depth bgs (ft)	[Cl ⁻] ppm
15	649
20	1928
25	606
30	281
35	200

Groundwater = 148 ft.

