

1R - 426-100

**REPORTS**

**DATE:**

8/04/2004

BD JCH N-16A

1R0926-100

# DISCLOSURE REPORT

**RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
BD	N-16 A	N	16	21S	37E	Lea	Moved 15 ft West		

LAND TYPE: BLM \_\_\_\_\_ STATE X FEE LANDOWNER \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater 65 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 4/16/2004 Date Completed 6/2/2004 OCD Witness No

Soil Excavated 400 cubic yards Excavation Length 30 Width 30 Depth 12 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

**FINAL ANALYTICAL RESULTS:** Sample Date 4/21/2004 Sample Depth 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.

**CHLORIDE FIELD TESTS**

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	0.0	<10.0	<10.0	736
BOTTOM COMP.	0.0	<10.0	<10.0	1420
REMEDI. BACKFILL	0.0	<10.0	<10.0	608
SOIL BORE @ 55 ft	XXX	XXX	XXX	176

LOCATION	DEPTH (ft)	ppm
Vertical	8	1006
at junction	9	1328
	10	1081
	11	1335
	12	1641
15 ft East	8	1378
	9	1524
	10	2130
	11	2709
	12	3159
23 ft East	8	1306
	9	1298
	10	1919
	11	2084
	12	2157
4-wall comp.	n/a	913
bottom comp.	12	1400
remedi. backfill	n/a	653
Soil Bore	55	365

**General Description of Remedial Action:** This junction box was delineated using a backhoe while chloride field tests and PID field screenings were conducted at regular intervals. A decline in chloride concentrations with depth or breadth was not observed within the 30 x 30 x 12-ft-deep excavation. All PID readings were relatively low and TPH lab results confirmed concentrations well below NMOCD guidelines. The excavated soils were blended on site and then backfilled to 6 ft BGS. At 6 ft, a 1-ft compacted clay barrier was installed to inhibit further downward chloride migration. The remainder of the excavation was backfilled to the surface. On 6/2/2004, a hollow stem soil bore was initiated to further characterize chloride impact. Although a general decline in chloride was observed, results were not conclusive as moisture was encountered at approx. 40 ft to 60 ft (see graph). The borehole was plugged and sealed with bentonite (see bore log). A new watertight junction box was built 15 ft west of this site.

**ADDITIONAL EVALUATION IS LOW PRIORITY**

enclosures: chloride graph, photos, lab results, PID field screenings, clay test, bore log, diagram

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

SITE SUPERVISOR Joe Gatts SIGNATURE *Joe Gatts* COMPANY RICE Operating Company

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE *Kristin Farris Pope*  
DATE 8/4/2004 TITLE Project Scientist

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

# BD jct. N-16 'A'

unit 'N', Sec. 16, T21S, R37E



undisturbed junction box 11/5/2003



vertical delineation trench at junction box 4/16/2004



delineation 10 ft south of junction 4/16/2004



testing compacted clay 5/10/2004

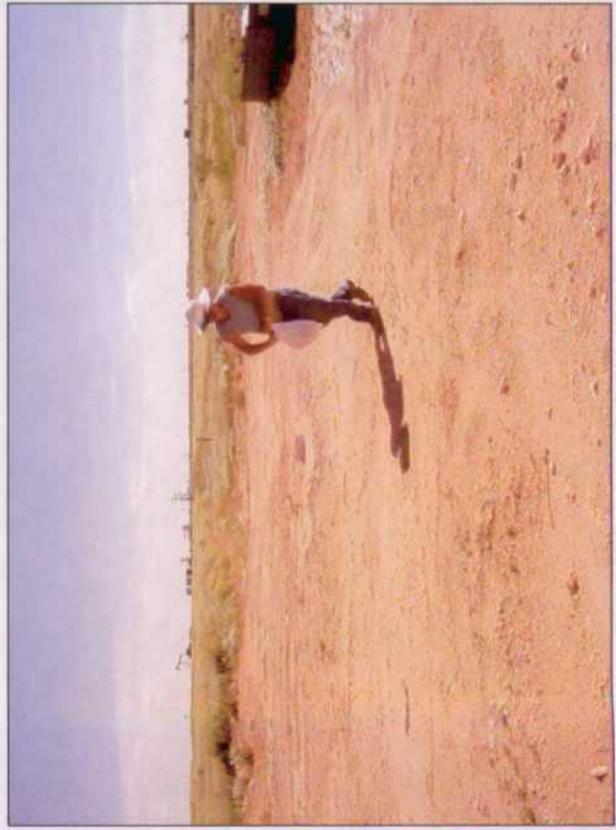
# BD jct. N-16 'A'



soil bore; new junction box 15 ft west of the old one 6/2/2004



tilling disturbed surface 9/17/2004



seeding 9/17/2004

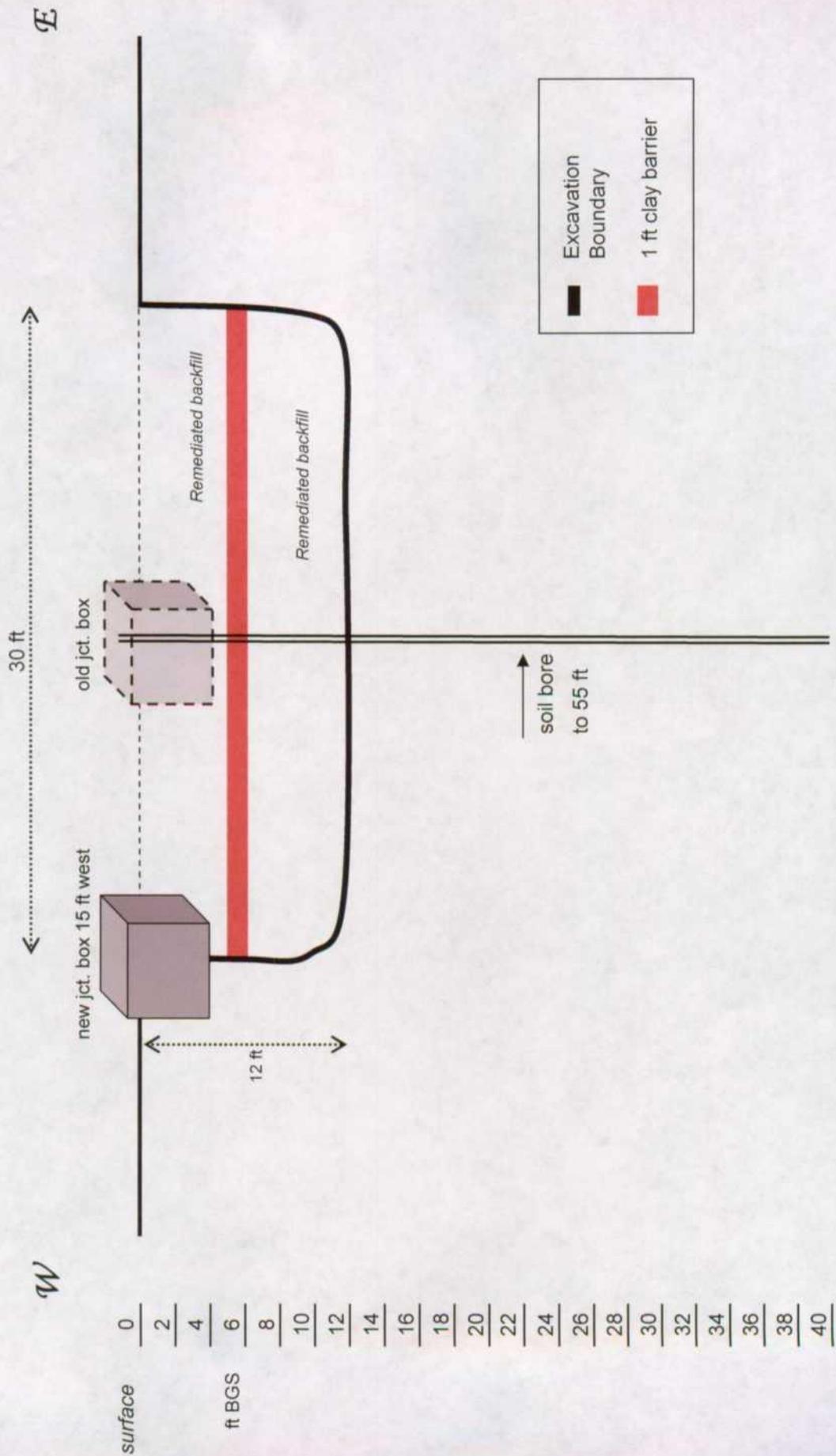


watering seed 9/17/2004

# BD jct. N-16 A

30 x 30 x 12 ft

Excavation Cross-Section

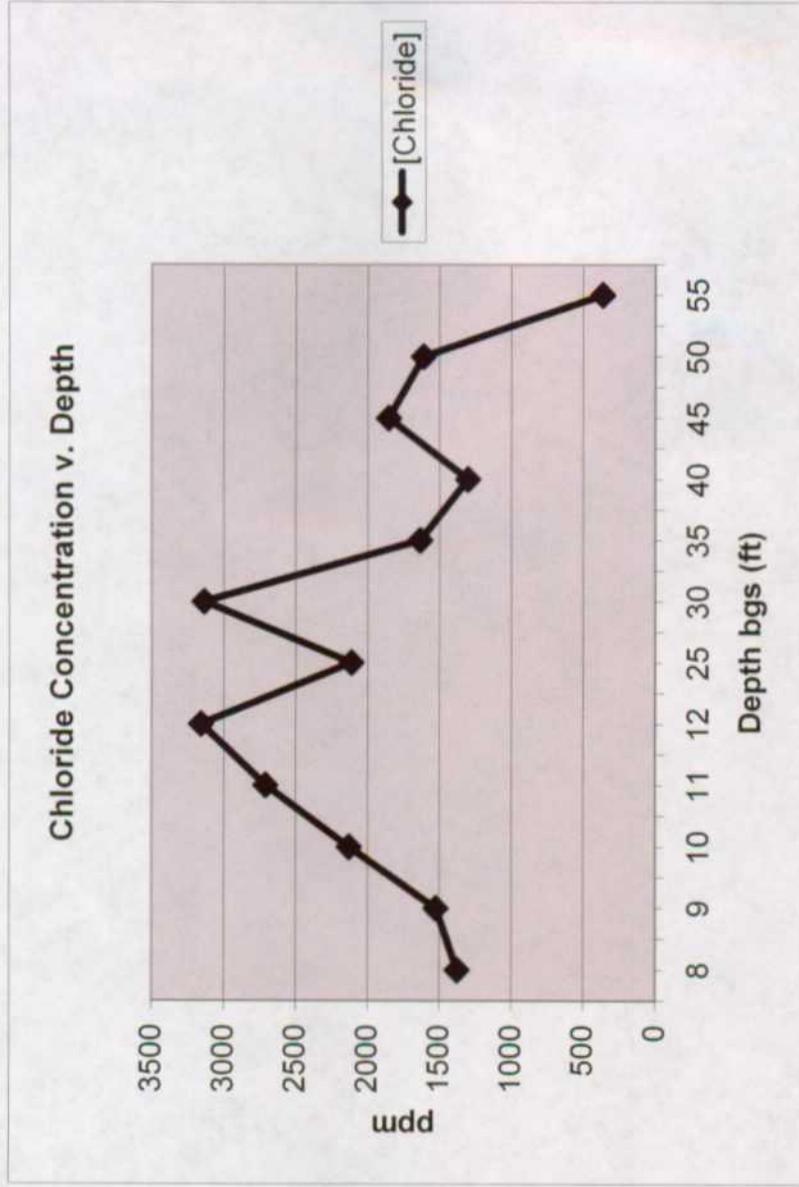


**BD N-16 A**

T21S, R37E

15 ft East of Junction

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
8	1378
9	1524
10	2130
11	2709
12	3159
25	2113
30	3135
35	1635
40	1302
45	1854
50	1612
55	365



Groundwater = 65 ft

# LOG OF SOIL BORE

Kristin Farris Pope  
RICE Operating Company

<b>Logger:</b>	Drew Parker, Mort Bates	<b>Client:</b>	RICE Operating Company	<b>Well ID:</b>  SB-1
<b>Driller:</b>	Atkins Engineering Associates, Inc.	<b>Project Name:</b>		
<b>Drilling Method:</b>	Hollow Stem Auger	Jct. N-16 'A'		
<b>Start Date:</b>	6/2/2004	<b>Location:</b>		
<b>End Date:</b>	6/2/2004	BD SWD System		
<b>Notes:</b>		Sec. 16, T21S, R37E		
TD = 60 ft      Groundwater = 65 ft		Lea County, NM		

Depth (feet)	Split Spoon		Description	Lithology	bore hole	Additional Notes
	chloride	PID				
0.0			0 - 20 ft CLAYEY SAND w/CALICHE loose, tan, dry		remainder of bore hole backfilled with drill cuttings	← 3 ft of bentonite seal
5.0						
10.0						
15.0						
20.0						
25.0	2113	9.0				
30.0	3135	2.7	27 - 32 ft CLAYEY GRAVELS loose, tan, dry			
35.0	1635	3.3	32 - 37 ft CALICHE firm, white, dry			
40.0	1302	2.7	37 - 42 ft CLAYEY SAND loose, tan, damp			
45.0	1854	3.3	42 - 53 ft CLAYEY SAND loose, tan to brown, damp			
50.0	1612	0.1				
55.0	365	0.0				
60.0			53 - 60 ft SILTY SAND loose, red, moist		lab = 176 ppm Cl	



PHONE (325) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79803

PHONE (505) 383-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
 RICE OPERATING CO.  
 ATTN: JOE GATTS  
 122 W. TAYLOR  
 HOBBS, NM 88240  
 FAX TO:

Receiving Date: 04/21/04  
 Reporting Date: 04/22/04  
 Project Number: NOT GIVEN  
 Project Name: N-16  
 Project Location: BD

Sampling Date: 04/21/04  
 Sample Type: SOIL  
 Sample Condition: COOL & INTACT  
 Sample Received By: GP  
 Analyzed By: BC/AH

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)	Cl* (mg/Kg)
ANALYSIS DATE		04/21/04	04/21/04	04/22/04
H8625-1	BOTT. COMP. AT 12'	<10.0	<10.0	1420
H8625-2	4 WALL COMP	<10.0	<10.0	736
H8625-3	REMD. BACKFILL	<10.0	<10.0	608
Quality Control		777	736	1000
True Value QC		800	800	1000
% Recovery		97.2	92.0	100
Relative Percent Difference		2.6	0.4	5.0

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

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

*Russell A. Coyle*  
 Chemist

4/22/04  
 Date

H8625.XLS

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.



SOIL BORE



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ANALYTICAL RESULTS FOR  
RICE OPERATING  
ATTN: KRISTIN FARIS  
122 W. TAYLOR  
HOBBS, NM 88240  
FAX TO: (505) 397-1471

Receiving Date: 06/14/04  
Reporting Date: 06/15/04  
Project Number: NOT GIVEN  
Project Name: N-16 SOIL BORE  
Project Location: B-D N-16

Analysis Date: 06/15/04  
Sampling Date: 06/02/04  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/Kg)
H8823-1	N-16 55' BGS	176
Quality Control		1020
True Value QC		1000
% Recovery		102
Relative Percent Difference		1.0

METHOD: Standard Methods      4500-ClB

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

Amy Hill  
Chemist

6/15/04  
Date

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# RICE OPERATING COMPANY

122 WEST TAYLOR

HOBBS, NEW MEXICO 88240

PHONE: (505) 393-9174 FAX: (505) 397-1471

## VOC FIELD TEST REPORT FORM

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 104412

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 02-22-30

FILL DATE: 5/20/03

EXP. DATE: 11/20/04

ACCURACY: + or - 2%

METER READING

ACCURACY: 99.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
BD	N-16	N	16	21	37

SAMPLE	PID RESULT	SAMPLE	PID RESULT
N. WALL Comp.	0		
Both Comp.	0		
Land. Backfill	0		
N. WALL	0		
S. WALL	0		
E. WALL	0		
W. WALL	0		

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

  
 \_\_\_\_\_  
 Signature

4/21/04  
 Date



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  
Attn: Carolyn Haynes  
122 W. Taylor  
Hobbs, NM 88240

Material: Red Clay

Test Method: ASTM: D 2922

Project: BD N - 16

Date of Test: May 10, 2004

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	Pit - 20' W. & 10' S. of the NE Corner	103.1	13.9	

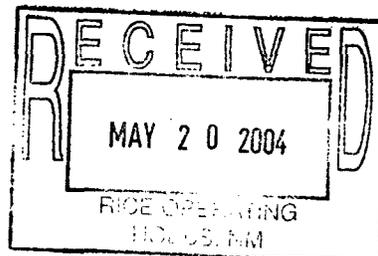
Control Density: 109.5  
ASTM: D 698

Optimum Moisture: 16.6%

Required Compaction: 95%

Lab No.: 04 6434-6435

Copies To: Rice



PETTIGREW & ASSOCIATES

BY  S.E.T.