# 1R-426-24

# REPORTS

## DATE:



### BD Jct J-25 2009

### RECEIVED

APR - 6 2010

Environmental Bureau Oil Conservation Division

1R426-241

### CLOSURE

RECEIVED

			RICE ( JUNC	DPERATIN TION BOX I	IG COMP	ANY ORT		En Oil C	APP - 6 <sup>Vironmental</sup>	2010 Burea
				BOX LOC	AHON				Unservation	Divisi
SVAD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUMIY	BOX Dily	ENSIONS -		· Divisi
Blinebry-Drinkard	Junction J-		25	215	37E	Lea	Lengin	evitari	Deptil	
(BD)	25		20					Eliminated	(	
LAND TYPE: B	LM	STATE	FEE.LA		Walla D SITE AS	ich Ranch SESSMEN1	OTHER	CORE:	0	
Date Started	9/10/	/2009	Date Cor	mpleted	11/6/2009	OCD V	Vitness	no		
Soil Excavated	400.0	cubic yar	rds Exc	avation Ler	ngth <u>30</u>	Ŵidth_	30	Depth	12feet	
Soil Disposed	372	cubic yar	ds Off	site Facility	Sund	lance	Location	Eunio	ce, NM	
	CAL RE	SULTS:	Samp	9/2 le Date	5/2009, 10/15 11/04/09	6/2009,	Sample Der	oth 27 f	t., 42 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)	GRO ma/ka	DRO mo/ko	Chioride ma/ka
SB#1 @ 27'	0.9	<10.0	<10.0	2800
SB#1 @ 42'	1.2	<10.0	<10.0	112
4-WALL COMP.	2.2	<10.0	21.9	592
BOTTOM COMP.	2.1	<10.0	<10.0	3440
BLENDED BACKFILL	1.7	<10.0	<10.0	1060
BLENDED BACKFILL	0.0	<10.0	17	160

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#### CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wail comp.	n/a	1174
bottom comp	12'	2579
Blended Backfill	n/a	1049
Blended Backfill	n/a	240
Background	6"	240
	15'	1985
	18'	2351
	21'	2546
	24'	1544
Soil bore 15 ft.	27'	2620
south of former	30'	1405
Junction box	33'	842
]	36'	619
	39'	449
	42'	364

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

General Description of Remedial Action: This junction was eliminated under the

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. A one foot thick clay layer was installed at 12 ft. BGS and compaction test performed. The backfill was blended with clean imported soil and

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 15 ft. south of the former junction box site. The bore was advanced to 30 ft. BGS, while soil samples were collected every 3 ft. and tested for chloride concentrations and organics. At 27 ft. and 42 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 62 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 43 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, bure 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.	16B		
PROJECT LEADER	Larry Bruce Baker Jr.	_SIGNATURE _	Lany Bruce Baker fr.	E/A TE _	3-23-10

**BD** Junction J-25







Installing clay layer

0/16/2009



Backfilling site







Plugging soil bore with bentonite

Unit J, Section 25, T21S, R37E





11/25/2009 Seeding and tilling excavation

Log	ger:	Lai	ra Weinhe	eimer		DPE	ERATING DOA
Deillin		Harris	on & Coo	per, inc.	BD rct J-25	Alian	Thomas
Driller:		N/A		tion hor		4-E 10405050	
Consult	ant:	U	pgrade p	lan	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		BINCE 1955
Drilling !	Method:		Air rotar	у	Frm. jct. boxes		and a solution of the solution
Start Dat	te:		11/4/200	9	Inactive Lines		
End Date	e:		11/4/200	9	BD J-25 EOL	Project Name	Well ID:
Comm	ents:	All sa	mples	from cu	attings. Drilled down to 80 feet	BD jct.	J-25 SB#1
and lef	t open f	or 48	hours 1	to deter	mine status of groundwater.	Location:	UL/J sec. 25 T21S R37E
Located '	15 feet so TE	0 = 80	the forme ) ft	r jct. box	GW = None	Lat: 32 26 47 Long: 103°6'	48.983"W State: NM
Depth (feet)	chlor field t	ride ests	LAB	PID	Description	Lithology	Well Construction
				-	10 10 5		
					12 - 16 R		
15	198	35		0.4	VERY FINE TO FINE SAND, SANDSTONE & CALICHE	- Andrews	
					l <mark>ight</mark> brown, dry, no od <b>or</b>		
						Torneral	
18	235	1		0.8			
					18 - 21 ft		
					VERY FINE TO FINE SAND		
21	254	6		0.8	slight orangey brown, dry, no odor		
					21 - 24 ft	建工作	
					VERY FINE TO FINE SAND, SANDSTONE & CALICHE		
24	154	4		0.7	slight orangey brown, dry, no odor		
					24 - 27 ft		
					VERY FINE TO FINE SAND		
			Cŀ-		orangey brown dry no odor	A The second	
27	262	0	2800 GRO	0.9			
			<10.0				
			0R0 <10.0				
30	140	5		1		Cost.	hantaaita
- 50	140	5			07 00 8		Dentonite
					27 - 39 π		seal
					VERY FINE TO FINE WITH SANDSTONE	e se la	
33	842	2		0.9	orangey brown, dry, no odor		
			-		CAR ISWI		
36	619	9		1.4		and the second	

			-			
						100
39	449		1			
				39 - 62 ft		
				VERY FINE TO FINE WITH SANDSTONE		
42	364	CI- 112	1.2	reddish orange, dry, no odor	Sec. 1	
		GR0 <10.0				
		DR0 <10.0				
62						
				62 - 80 ft		
80				RED BED CLAY		
				chinle red bed, dry, no odor		

. P 3

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

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

## HARRISON & COOPER, INC.

Drilling & Pump Professionals

Fax: (806) 866-4044

harrisencooper-drilling.com

December 2, 2009

Ph: (806) 866-4026

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

Attn: Lara Weinheimer

RE: BD Jct. J-25, 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 fouty-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

<u>C</u>

Copies: File Mail (Rice, Hobbs) Email (Lara Weinheimer)

Regulated by: Texas Dept. of Licensing & Regulation, Water Well Division. P.O. Box 12157, Austin, TX 78711, (800) 803-9202.





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 JCT J-25 Project Location: BD JCT J-25

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

CI\*

GRO DRO

 $(C_{6}-C_{10}) (>C_{10}-C_{28})$ (mg/kg) (mg/kg)(mg/kg)

LAB NUMBER SAMPLE ID

ANALYSIS DATE	11/06/09	11/06/09	11/06/09
H18647-1 SB#1 @ 27'	<10.0	<10.0	2,800
H18647-2 SB#1 @ 42'	<10.0	<10.0	112
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-845 8015 M; CI: Std. Methods 4500-CIE \*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

Chemis

10/09

CCE

### H18647 TCL RICE

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or ton, 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 whiting gard received by Cardinal withing (30) and arg 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.

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood Abilene, TX 79603	(325) G73-7004 EA X (325) G73-7020
st mariand, Hobbs, NM 88240	393-2326 FAX /605139322476
	st Mariand; Hobbs; NN: 88240 2111 Beechwood; Abilene; TX: 79603

Company Name:	Rice Operating Compa	, NUE				ì.			8	1 77	0		14 25 20 20	ľ.		¥.	NAL	<b>SIS</b>	REQ	UES.				
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Phone #: 393-91	74	Fax#: 397-147	-				Ā	ldres	ŝ														. <u></u>	
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Project Name:	30 1.4 .7.25						S	ate:		Zip:			səp	51	X	d								
Project Location:	B0 101 J-2.	s					<u> </u>	anor	÷				DIJI	08	E)	Ľ s								
iampler Name: L	ara Weinheimer						<u> </u>	:# XI					oju	3 F	T8	ex								
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Main April 122 West Taylor ~ Hobbs, NM 88240 PHONE (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

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MODEL:	PGM 7300
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MODEL:	PGM 7600
MODEL:	PGM 7600

SERIAL NO: 590-000183 SERIAL NO: 590-000504 SERIAL NO: 110-12383 SERIAL NO: 110-02920

### GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO:	424908	EXPIRATION DATE: 7-21-2012
FILL DATE:	7-30-09	METER READING ACCURACY: 100.1
ACCURACY: +/- 2%		

SYSTEM SITE UNIT SECTION TOWNSHIP RANGE jet J-25 25 30 J 7215 R37E

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SAMPL	L ID	Doll hore	14				
DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
15'	0.4						
18'	0.8						
271	0.8						
24'	6.7						
ירז'	0.9						
DEPTH	PID	DEPTH	PID	DEPTH	PID	DEPTH	PID
30'	1.0		·				
33'	0.4						
36'	l,y						
391	1.0						
42'	1,2						
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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: ERIC GARRISON 122 W. TAYLOR HOBBS, NM 88240

Receiving Date: 09/25/09 Reporting Date:10/01/09\*\* Project Number: NOT GIVEN Project Name: BD JCT J-25 (21-37) Project Location: BD JCT J-25 (21-37)

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

GRO DRO

LAB NUMBER SAMPLE ID

 $(C_6 - C_{10})$  (>C\_{10} - C\_{28}) CI\* (mg/kg) (mg/kg) (mg/kg)

ANALYSIS E	DATE	09/29/09	09/29/09	10/01/09
H18345-1	5PT BTTM @ 12'	<10.0	<10.0	3,440
H18345-2	4 WALL COMP @ 30X30	<10.0	21.9	592
H18345-3	BLENDED BACKFILL	<10.0	<10.0	1,060
l				·····
		500	505	
Quality Cont	roi	509	505	490
True Vaiue C	20	500	500	500
% Recovery	102	101	98.0	
Relative Per	0.6	1.6	2.0	

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

\*\*Revised Report.

Chemist

eron Inholog

### H18345 TCL RICE

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01 East Mariand, Hobbs, NM 88240 (575) 393-2326 Fax (575) 393-247

(575) 393-232	6 Fax (575) 393-2476		Pageof
Company Name: 🥠 💎 🖉	21.62 1.1.16	BILL TO	ANALYSIS REQUEST
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### RICE OPERATING COMPANY

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

### Check Model Number:


Model: PGM 7300Serial NModel: PGM 7300Serial NModel: PGM 7300Serial N

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

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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 : 924908	EXPIRATION DATE: 7/29/12
FILL DATE: 7/30/09	METER READING ACCURACY: 100.1 ppm

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	Junction J-25	J	25	21S	37E

SAMPLE ID	PID	SAMPLE ID	PID
5 point bottom composite at 12'	2.1		
4 Wall composite	2.2		
Blended Backfill	1.7		
		BAT	

1 verify that I have calibrated the above instrument in accordance to the manufacture operation manual.\* The person working this site is no longer employed by ROC but information was taken from field notes.

Signature:

DATE: 3-3-10 Larry Bruce Baker In.





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

Receiving Date: 10/15/09 Reporting Date: 10/19/09 Project Owner: NOT GIVEN Project Name: B.D. JCT J-25 (21-37) Project Location: B.D. JCT J-25 (21-37) Sampling Date: 10/15/09 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: AB/HM

GRO DRO

(C<sub>6</sub>-C<sub>10</sub>) (>C<sub>10</sub>-C<sub>23</sub>) C/<sup>\*\*</sup> (mg/kg) (mg/kg) (mg/kg)

LAB NUMBER SAMPLE ID

ANALYSIS DATE	10/17/09	10/17/09	10/16/09
H18511-1 BLENDED BACKFILL	<10.0	17.0	1 <b>6</b> 0
Ouglithy Constrai	404	520	= = = = = = = = = = = = = = = = = = = =
	494	238	500
True Value QC	500	500	<b>50</b> 0
% Recovery	98.8	108	100
Relative Percent Difference	2.0	3.0	< 0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB \*Analysis performed on a 1:4 w:v aqueous extract. Reported on wet weight.

10<u>ml</u> Chemist

میت ا<sup>ر</sup> این ا

### H18511 TOL RICE

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ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 (575) 393-2326 Fax (575) 393-2476 npany Name: Cice Of Contract	lect Manager: ress: // US ne #: 5/ 5/ 7/ Fax #: Eax #: Fax #:	E MOTE: Liability and Damajes. Cardinal's liability and client's exclusive termedy for env claim ansing whether based in ex. At claim incluing those for registerious and any one can cause whatsever shall be and the liability and damages. Cardinal is failed and any one cause whatsever shall be and the liability and an operations in a consequented damages including without finaledon, business nature in the period on the period and any and can are and cause whatsever shall be and the liability and the period on the period and any are and any and can are and cause whatsever shall be and the liability and can are and cause whatsever shall be and the period and any are are and are and are

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**Excavation Cross-Section** 







 $\infty$ feet BGS





former box site



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SG 1	Pit - 20' N. & 20' W. of SE Corner	90.0	13.5	FSG
Test No.	Location	Dry Density % Max	% Moisture	Depth
		Depth of Probe	: 6"	
Date of Test:	October 16, 2009	Depth:	See Below	
Project:	BD Junction J-25 2137 Project No. 2009.1260			
	Attn: Bruce 122 W. Taylor Hobbs, NM 88240	Test Method:	ASTM: D 2922	
To:	Rice Operating Company	Material:	Wallach Red Clay	
ENGLASS SUBJ	LABORATO PETTIGREW & 1110 HOBB (575	ORY TEST REPORT ASSOCIATES, P. N. GRIMES S, NM 88240 5) 393-9827	A. Deb Willi/	ASHTO R18 RA P. HICKS, P.E./L.S.I. M. M. HICKS. III, P.E./P.S.

同型 (C, O)

Control Density:	100.7 ASTM: D 698	(
Required Compac	tion: 90 - 95%	E
Lab No.:	09 6051-6052	

Copies To: Rice Operating Optimum Moisture: 20.7%

Densometer ID: 815 PETTIGREW & ASSOCIATES

BY: Crica M Hart

P.E.

CHLORIDE CONCENTRATION CURVE

# RICE Operating Company

# BD Junction J-25 Unit 'J', Sec. 25, T21S, R37E

Soil bore samples 15ft. south of former junction box

[C[] ppm	1985	2351	2546	1544	2620	1405	842	619	449	364
Depth bgs (ft)	15	18	21	24	27	30	33	36	39	42



Groundwater = none