1R - 426-289

REPORTS

DATE:

3-3-11

IR426-289

BD Jct. G-12

2010

DISCLOSURE

RICE OPERATING COMPANY
JUNCTION BOX Disclosure* REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length 5 ft.	Width 5 ft.	Depth 3 ft.
Blinebry-Drinkard (BD)	Jct. G-12	G	12	22S	37E	Lea	New water tight box built 196 ft. west		

LAND TYPE: BLM ___ STATE ___ FEE LANDOWNER Walco Ranch, LLC OTHER ___

Depth to Groundwater 55 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 8/9/2010 Date Completed 9/16/2010 OCD Witness no

Soil Excavated 222.2 cubic yards Excavation Length 25 Width 20 Depth 12 feet

Soil Disposed 144 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS: **Sample Date** 9/2/2010 **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.

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	13.2	<10.0	<10.0	528
BOTTOM COMP.	20.3	<10.0	122	2,080
BACKFILL COMP.	13.1	<10.0	44.4	544

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	456
bottom comp.	12'	1,168
backfill comp.	n/a	504
background	6"	151
vertical delineation at 5 ft. south of junction (source)	2'	297
	4'	1,476
	6'	1,934
	8'	2,367
	10'	3,972
	12'	5,414

General Description of Remedial Action: This junction 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 creating a 25X20X12-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 some elevated 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 sent to a commercial laboratory for analysis of chloride and TPH. The excavation was backfilled to 5 ft. below ground surface (BGS) with the blended backfill. At 5 ft. BGS, a 1-ft. thick clay barrier was installed with compaction test performed on 9/16/2010. The remaining blended backfill was hauled to a NMOCD approved facility. The remaining excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area. An identification marker was placed at the site of the former junction box to mark the presence of clay below. On 9/30/2010, the site was seeded with a blend of native vegetation and is expected to return to productive capacity at a normal rate. A new water tight junction box was built 296 ft. west. NMOCD was notified of potiental groundwater impact on 3/02/2011.

ADDITIONAL EVALUATION IS HIGH PRIORITY

enclosures: photos, lab results, PID (field) screenings, cross-section, compaction results, hydraulic conductivity, proctor, chloride curve

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

SITE SUPERVISOR John Harrison SIGNATURE [signature] 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 3-3-11

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

BD Jct. G-12

Unit G, Section 12, T22S, R37E

Site prior to delineation

Delineation trench being excavated 8/30/2010

Compaction test 9/16/2010

Seeding excavation 9/30/2010

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	09/02/2010	Sampling Date:	09/02/2010
Reported:	09/10/2010	Sampling Type:	Soil
Project Name:	BD JCT G-12 22/37	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: 5 PT. BOTTOM COMP (H020793-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2080**	16.0	09/03/2010	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/09/2010	ND	161	80.5	200	0.619	
DRO >C10-C28	**122**	10.0	09/09/2010	159	162	81.0	200	0.615	

Surrogate: 1-Chlorooctane	*83.2 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*87.5 %*	*70-130*

Sample ID: 4 WALL COMP (H020793-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	09/03/2010	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/09/2010	ND	161	80.5	200	0.619	
DRO >C10-C28	<10.0	10.0	09/09/2010	159	162	81.0	200	0.615	

Surrogate: 1-Chlorooctane	*77.5 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*84.0 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	09/02/2010	Sampling Date:	09/02/2010
Reported:	09/10/2010	Sampling Type:	Soil
Project Name:	BD JCT G-12 22/37	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: BLENDED BACKFILL (H020793-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**544**	16.0	09/03/2010	ND	416	104	400	3.77	

TPH 8015M **mg/kg** **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/09/2010	ND	161	80.5	200	0.619	
DRO >C10-C28	**44.4**	10.0	09/09/2010	159	162	81.0	200	0.615	

Surrogate: 1-Chlorooctane	*81.7 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*85.4 %*	*70-130*

COPY

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	RECE OPERATING	**BILL TO**	
Project Manager:	BRUCE BAKER	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	BO JCT G-12 22/37	State: Zip:	
Project Location:		Phone #:	
Sampler Name:	HARRESON	Fax #:	

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH	CHLORIDES
H20793-1	SPT BOT COMP	C	1			✓					✓		9/2/10	1:25	✓	✓
2	4WALL COMP	C	1			✓					✓		9/2/10	1:34	✓	✓
3	BLENDED BACKFILL	C	1			✓					✓		9/2/10	2:20	✓	✓

COPY

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 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 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.

Relinquished By:	Date:	Received By:	
ROBERT HARRESON	Time:		
Relinquished By:	Date: 9/2/10	Received By: Jodi Henson	
	Time: 4:07		
Delivered By: (Circle One)		Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) GH
Sampler - UPS - Bus - Other:		4°C	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
EMAIL RESULTS

FORM-006
Revision 1.0

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

#26

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 7300	Serial No: 590-000183			Model: PGM 7600	Serial No: 110-023920
✓	Model: PGM 7300	Serial No: 590-000508			Model: PGM 7600	Serial No: 110-013744
	Model: PGM 7300	Serial No: 590-000504			Model: PGM 7600	Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 930360	EXPIRATION DATE: 5/24/13
FILL DATE:	METER READING ACCURACY: 100.0 ppm

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	G-12	G	12	22S	37E

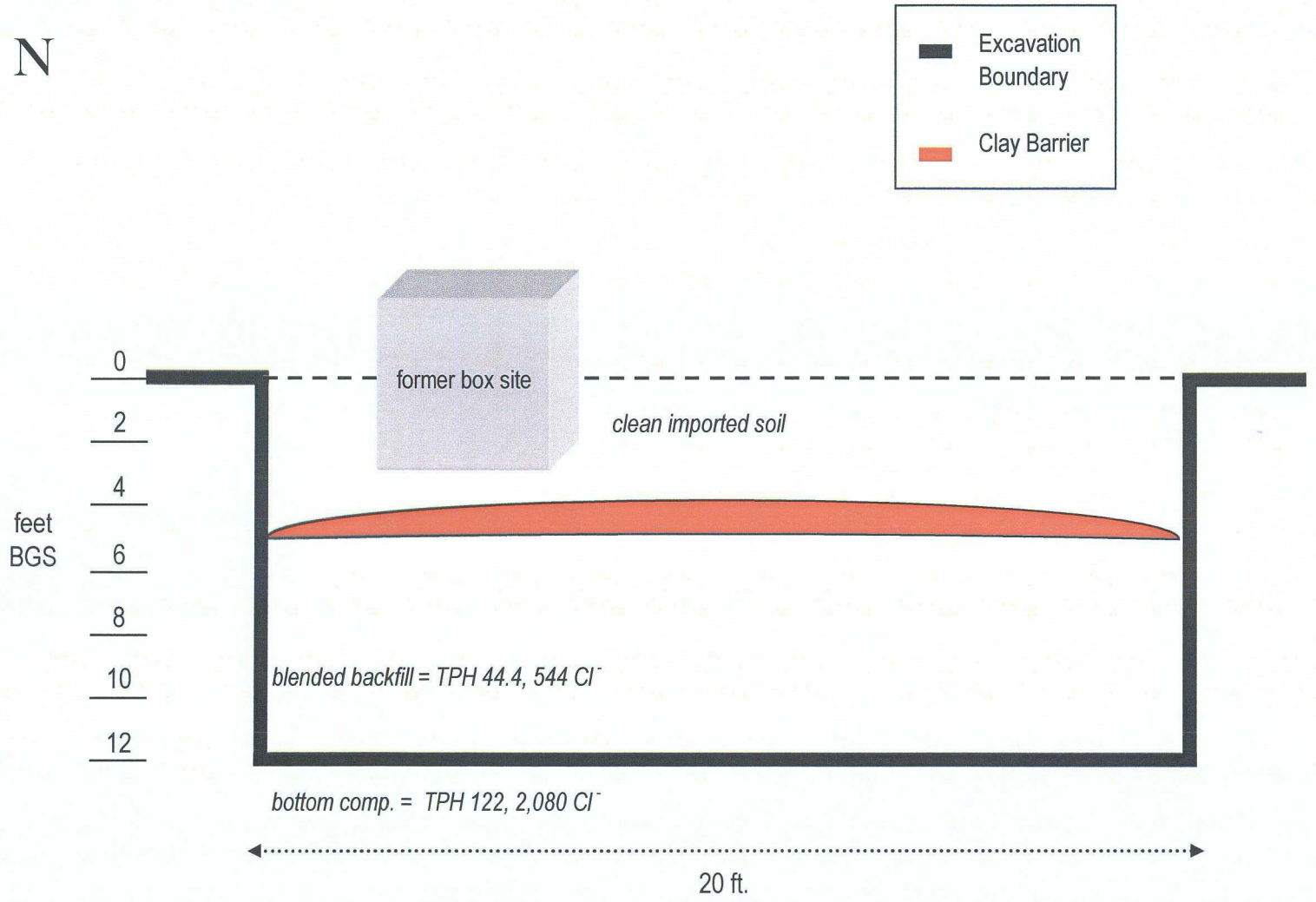
SAMPLE ID	PID	SAMPLE ID	PID
15'W 2'	88.6		
4'	131.9		
6'	62.8		
8'	77.4		
10'	45.1		
12'	55.3		
SA BOT COMP	20.3		
4 WALL COMP	13.2		
BLENDED BACKFILL	13.1		

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

SIGNATUE: [signature] DATE: 9/2/10

BD JCT G-12
Unit 'G', Sec. 12, T22S, R37E

Excavation Cross-Section



LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.

1110 N. GRIMES
HOBBS, NM 88240
(575) 393-9827

AASHTO R18

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

Test Method: ASTM: D 2922

Project: BD G-12 (22/37)
Project No. 2010.1285

Date of Test: September 16, 2010

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 1	10' N. & 5' E. of SW Corner	83.4	16.8	5' Below Natural Ground
RT SG 1	10' N. & 5' E. of SW Corner	90.5	17.5	5' Below Natural Ground

Control Density: 101.1
ASTM: D 698

Optimum Moisture: 19.0%

Required Compaction: 90-95%

Densometer ID: 5071

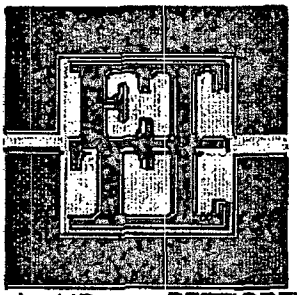
Lab No.: 10 9337-9339

Copies To: Rice Operating

PETTIGREW & ASSOCIATES

BY: _____

BY: _____ P.E.



Home Office - 1717 East Erwin Street
Tyler, Texas 75702-6398
Office: (903) 595-4421 Lab: (903) 595-6402 Fax: (903) 595-6113
Area Offices
210 Beech Street Texarkana, AR 71854 (870) 772-0013
707 West Cotton St. Longview, TX 75604 (903) 758-0402

Acct ID: PETTIGREW File ID: C4535-101 Date Sampled: 08/19/2010
Report Date: 08/27/2010 Sampled By: Client
Project: Pettigrew Associates - Project #2010.1026, Hobbs, NM By Order Of: Erica Hart
Location: Material Origin: Wallach Pit, Sample Location: N/G Order Number:
Client: Pettigrew & Associates, Hobbs, NM
Contractor: Not Given

REPORT: **FLEXIBLE WALL PERMEAMETER** LAB NO: 9881
Test Method: See Below

TEST RESULTS Report No: 1-1201-000005
Page 1 of 2

HYDRAULIC CONDUCTIVITY DETERMINATION
FLEXIBLE WALL PERMEAMETER - CONSTANT VOLUME
(Mercury Permometer Test)

Project : Rice Operating Project 2010.1026 for Pettigrew & Associates, P.A., Hobbs, NM
Date: 8/25/2010 Panel Number : P 2 ; ASTM D 5084
Project No. : C 4535-101 Permometer Data

Boring No.:		ap =	0.031416 cm2	Set Mercury to Pipet Rest		Equilibrium	1.8	cm3
Sample:	9881	aa =	0.767120 cm2			Pipet Rp	6.7	cm3
Depth (ft):		M1 =	0.030180	C =	0.000448509	Annulus Ra	1.5	cm3
Other Location:	Wallach Pit	M2 =	1.040953	T =	0.203785086			

Material Description : Red Clay (Clients Sample No 10 5904-5908) Lab Molded @ ~95% ASTM D 698

SAMPLE DATA

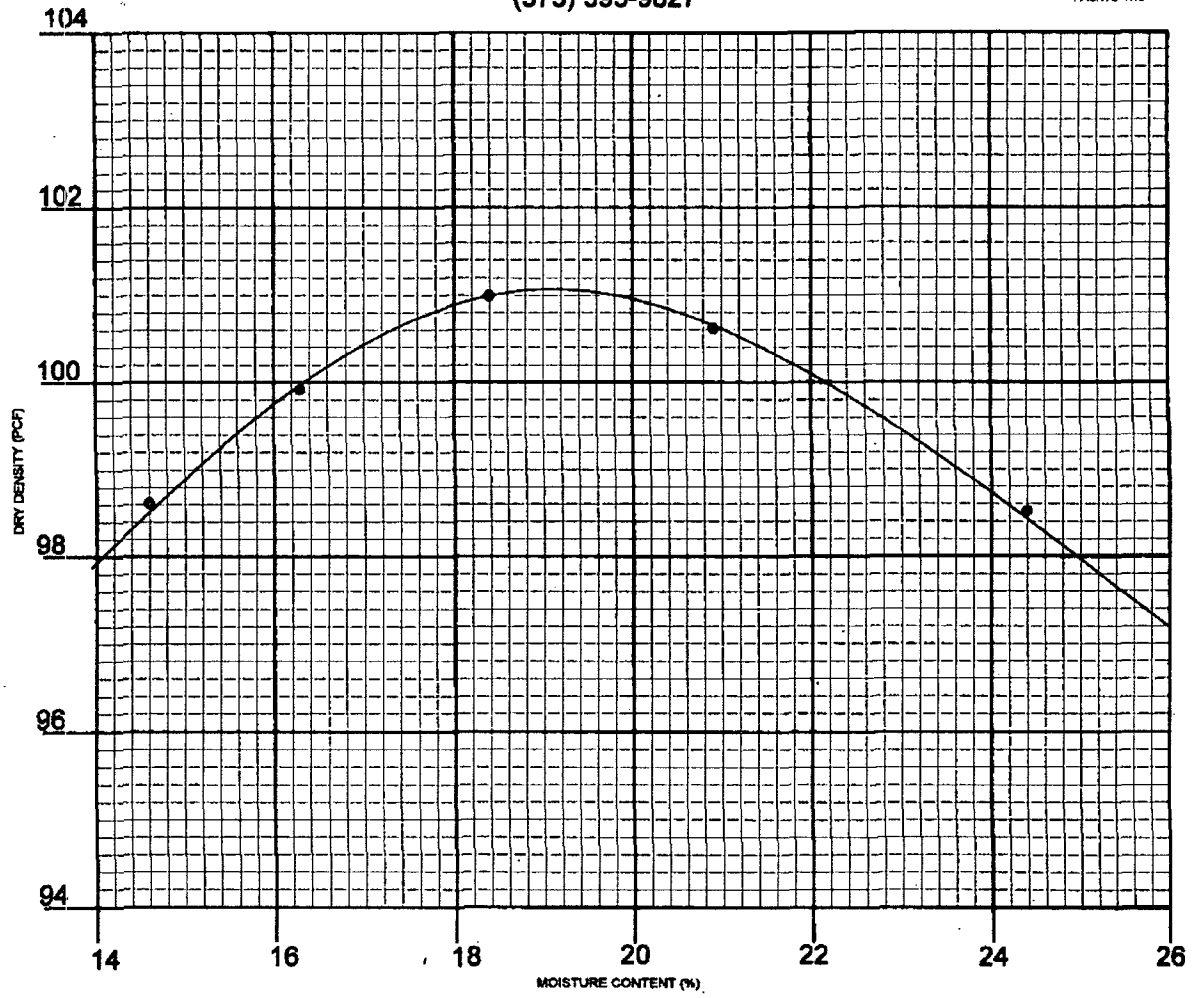
					Before Test		After Test	
Wet Wt. sample + ring or tare :		507.52	g		Tare No.:	T 9	Tare No.:	T 2
Tare or ring Wt. :		0.0	g		Wet Wt.+tare:	850.96	Wet Wt.+tare	726.58
Wet Wt: of Sample :		507.52	g		Dry Wt.+tare:	716.43	Dry Wt.+tare	621.60
Diameter :	2.72 in	6.90	cm2		Tare Wt:	220.51	Tare Wt:	216.59
Length :	2.75 in	6.99	cm		Dry Wt.:	495.92	Dry Wt.:	405.01
Area:	5.79 in^2	37.35	cm2		Water Wt.:	134.53	Water Wt.:	106.98
Volume :	15.94 in^3	261.23	cm3		% moist.:	27.1	% moist.:	26.4
Unit Wt.(wet):	121.23 pcf	1.94	g/cm^3					
Unit Wt.(dry):	95.38 pcf	1.53	g/cm^3					

Assumed Specific Gravity: 2.65 Max Dry Density(pcf) = 101.1 OMC = 19
% of max = 94.3 +/- OMC = 8.13
Calculated % saturation: 95.26 Void ratio (e) = 0.73 Porosity (n)= 0.42

Charge: Pettigrew & Associates Attn: Erica Hart
Orig: Pettigrew & Associates, Hobbs, NM Attn: Erica Hart
1-ec Pettigrew & Associates, Hobbs, NM Attn: Erica Hart
E-Mail: ehart@pettigrew.us

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

AASHTO R18



General Information

CLIENT: Rice Operating PROJECT: Project No. 2010.1026

SAMPLE LOCATION: Wallach Pit

SOIL DESCRIPTION: Wallach Red Clay

SOIL CLASSIFICATION: _____ TEST METHOD: ASTM: D 698

ATTERBERG: LL ____ PI ____ Sampled & Delivered 8/13/10

DATE: 8/13/10 LAB NO. 10 5904-5906

DRY WEIGHT LB/CU. FT. 101.1 MOISTURE CONTENT % 19.0

SIEVE ANALYSIS - % PASSING									

PETTIGREW & ASSOCIATES

COPY

BY: Erica Hart

COPIES: Rice Operating

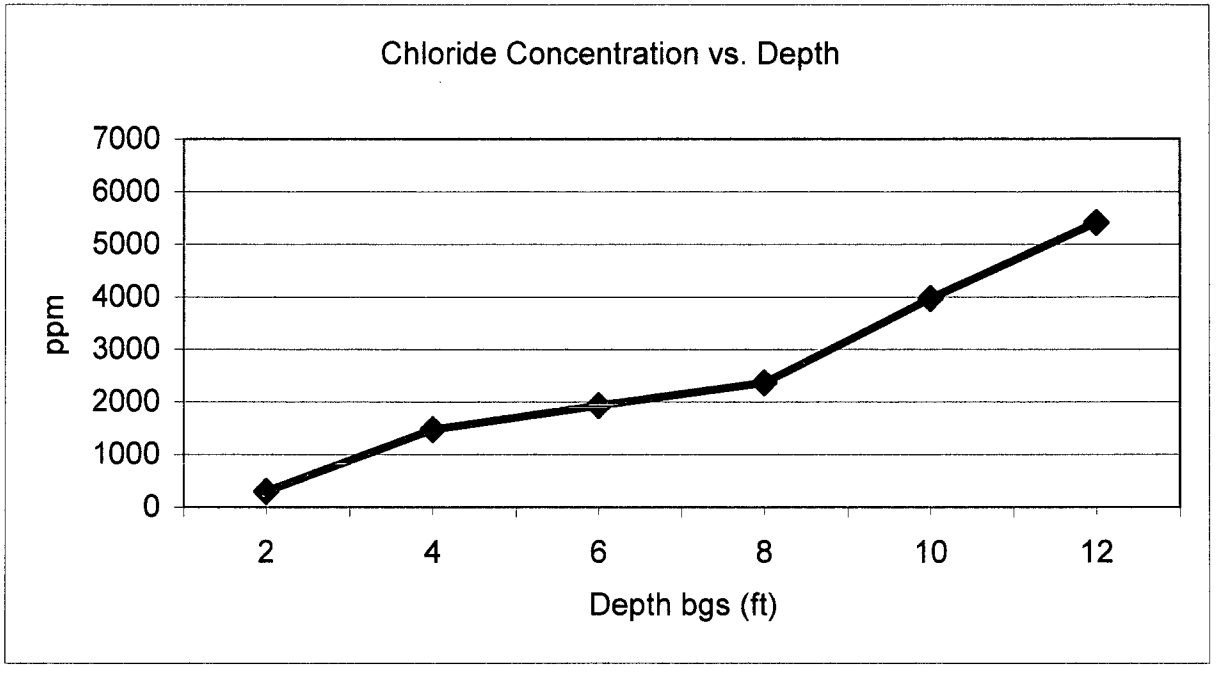
BY: _____ P.E

BD Jct. G-12

Unit 'G', Sec. 12,T22S, R37E

Backhoe samples 5 ft. south of the junction (source)

Depth bgs (ft)	[Cl⁻] ppm
2	297
4	1476
6	1934
8	2367
10	3972
12	5414



Groundwater = 55 ft.