1R-427-361

REPORTS

DATE:
4-17-12

1R427-361

EME A-24 EOL
2011

DISCLOSURE

RICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE* REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Eunice Monument Eumont (EME)	A-24 EOL	A	24	19S	36E	Lea	Eliminated		

LAND TYPE: BLM ___ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 57 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 1/24/2011 Date Completed 4/7/2011 OCD Witness No

Soil Excavated 133.3 cubic yards Excavation Length 20 Width 15 Depth 12 feet

Soil Disposed 168 cubic yards Offsite Facility C & C Landfarm Location Monument, NM

FINAL ANALYTICAL RESULTS: **Sample Date** 3/8/2011 **Sample Depth** 12'

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
BOTTOM COMP.	3.7	<10.0	396	976
4-WALL COMP.	54.9	115	1900	656
BLENDED BACKFILL	15.6	98.2	1200	208

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
bottom comp.	12'	671
4-wall comp.	N/A	613
blended backfill	N/A	184
background	6"	144
vertical delineation trench at 10' south of source	2'	151
	4'	149
	6'	625
	8'	288
	10'	662
	12'	1,019

General Description of Remedial Action: This junction and line were eliminated 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 producing a 20x15x12-ft excavation. Chloride field tests performed on each sample yielded elevated concentrations that increased with depth. Organic vapors were measured using a PID which yielded relatively low concentrations. The excavated soil was blended on site, and representative composite samples of the excavation bottom, the excavation walls, and the blended backfill were sent to a commercial laboratory for analysis of chloride and TPH. The blended backfill was properly disposed of at a NMOCD approved facility. The excavation was backfilled with clean imported soil to 5 ft below ground surface (BGS). At 5-4 ft BGS, a 1 ft thick clay layer was installed with a compaction test performed on 4/7/2011. The excavation was then backfilled with clean imported soil to ground surface and contoured to the surrounding area. On 11/10/2011, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. NMOCD was notified of potential groundwater impact on 4/9/2012.

ADDITIONAL EVALUATION IS HIGH PRIORITY

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

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

SITE SUPERVISOR Oscar Frayre SIGNATURE _____

REPORT ASSEMBLED BY Amy C. Ruth SIGNATURE _____ COMPANY RICE OPERATING COMPANY

PROJECT LEADER Zach Conder SIGNATURE _____ DATE 4-17-12

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

EME A-24 EOL

Unit A, Section 24, T19S, R36E

Site prior to excavation, facing south 1.24.11

Collecting sample, facing south 1.24.11

Exporting soil, facing west 4.5.11

Backfilling site up to 5 ft BGS, facing northeast4.7.11

Compaction test on clay liner, facing north 4.7.11

Seeding site, facing south 11.10.11

CARDINAL Laboratories

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

March 11, 2011

Bruce Baker

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME A-24 EOL (19/36)

Enclosed are the results of analyses for samples received by the laboratory on 03/08/11 16:20.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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:	03/08/2011	Sampling Date:	03/08/2011
Reported:	03/11/2011	Sampling Type:	Soil
Project Name:	EME A-24 EOL (19/36)	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Hope S. Moreno
Project Location:	NOT GIVEN		

Sample ID: 4-WALL COMP (H100455-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	03/09/2011	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**115**	50.0	03/10/2011	ND	170	85.2	200	0.285	
DRO >C10-C28	**1900**	50.0	03/10/2011	ND	173	86.4	200	3.27	

Surrogate: 1-Chlorooctane	*123 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*114 %*	*70-130*

Sample ID: 5 PT BOTTOM COMP (H100455-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**976**	16.0	03/09/2011	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2011	ND	170	85.2	200	0.285	
DRO >C10-C28	**396**	10.0	03/10/2011	ND	173	86.4	200	3.27	

Surrogate: 1-Chlorooctane	*124 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*117 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

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:	03/08/2011	Sampling Date:	03/08/2011
Reported:	03/11/2011	Sampling Type:	Soil
Project Name:	EME A-24 EOL (19/36)	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Hope S. Moreno
Project Location:	NOT GIVEN		

Sample ID: BLENDED BACKFILL COMP (H100455-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	03/09/2011	ND	416	104	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**98.2**	50.0	03/10/2011	ND	170	85.2	200	0.285	
DRO >C10-C28	**1200**	50.0	03/10/2011	ND	173	86.4	200	3.27	

Surrogate: 1-Chlorooctane	*127 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*108 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name: Rice	BILL TO
Project Manager: Hank Conder / Bruce Baker	P.O. #:
Address: 122 W. Taylor	Company:
City: Hobbs N.M. 88240 State: N.M Zip: 88240	Attn:
Phone #: 393-9174 Fax #:	Address:
Project #: Project Owner:	City:
Project Name:	State: Zip:
Project Location: EME A-24 EOL 1936	Phone #:
Sampler Name: Oscar Frayre	Fax #:

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	CL-	TPH 8015M
H00455-1	4 WALL Comp	C	1			/					/		3-8-11	12:05	/	/
-2	5 pt Bottom Comp	C	1			/					/		3-8-11	12:10	/	/
-3	Blended Backfill Comp	C	1			/					/		3-8-11	11:59	/	/

COPY

Relinquished By: Oscar Frayre	Date: 3-8-11 Time: 4:20	Received By: Hope S. Moreno	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: HConder@Rice-SWD.com K.Jones@Rice-SWD.com BBaker@Rice-ECS.com OFrayre@Rice-ECS.com ZConder@Rice-ECS.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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: 4-28-13
METER READING ACCURACY: 100.00	

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	A-24EOL	A	24	19S	36E

SAMPLE ID	PID	SAMPLE ID	PID
4 WALL Comp.	54.9		
5pt Bottom Comp	3.7		
Blend Back fill Comp	15.6		

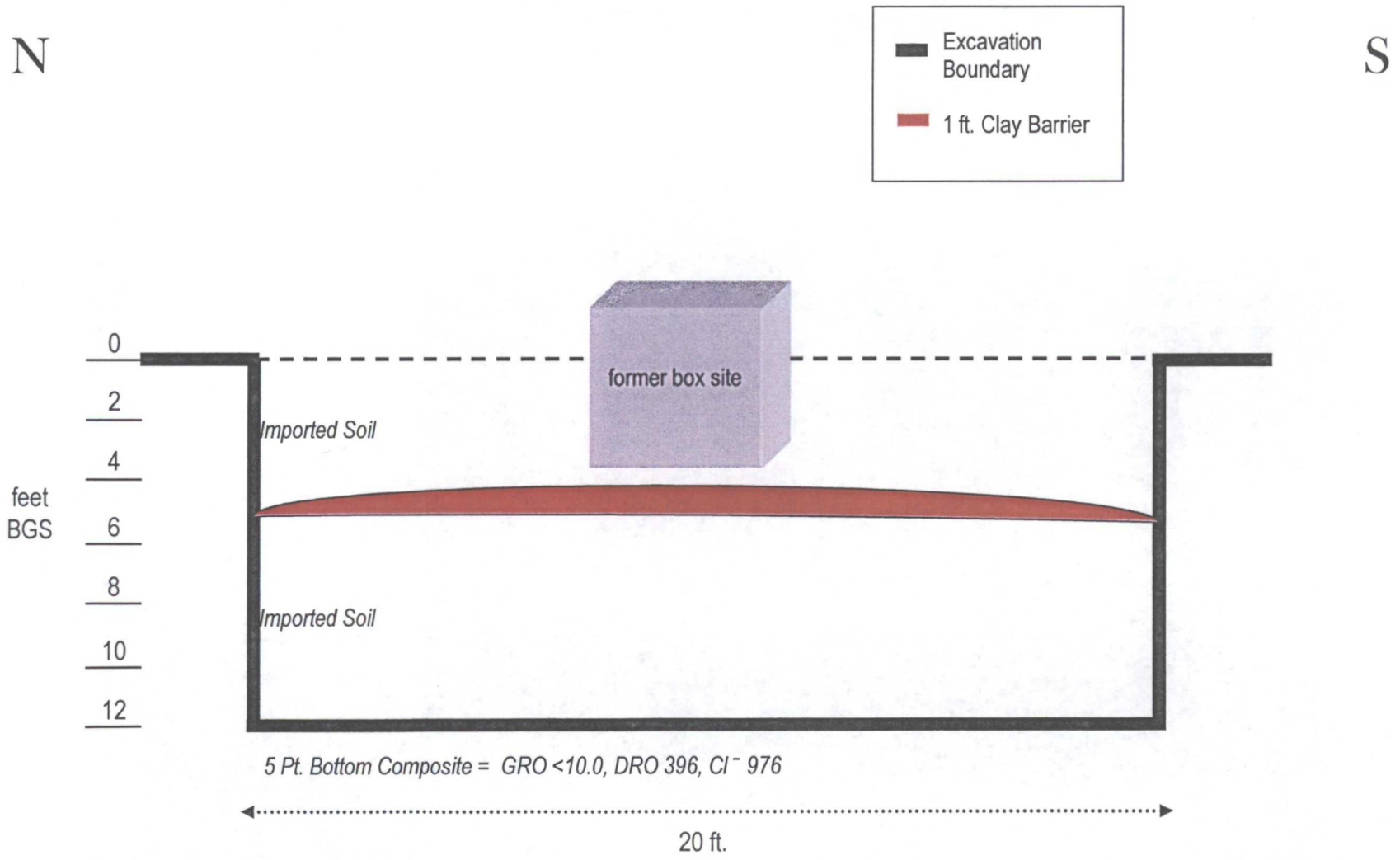
I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATUE: [signature]

DATE: 3-8-11

EME A-24 EOL
Unit 'A', Sec. 24, T19S, R36E

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: Cooper Red Clay

Test Method: ASTM: D 2922

Project: A24 EOL
Project No. 2011.1191

Date of Test: April 7, 2011

Depth: See Below

Depth of Probe: 12"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 1	A24 EOL Center of Pit	90.9	13.1	4' Below FSG

Control Density: 102.6
ASTM: D 698

Optimum Moisture: 20.7%

Required Compaction: 90-95%

Densometer ID: 5572

Lab No.: 11 3436-3437

Copies To: Rice Operating

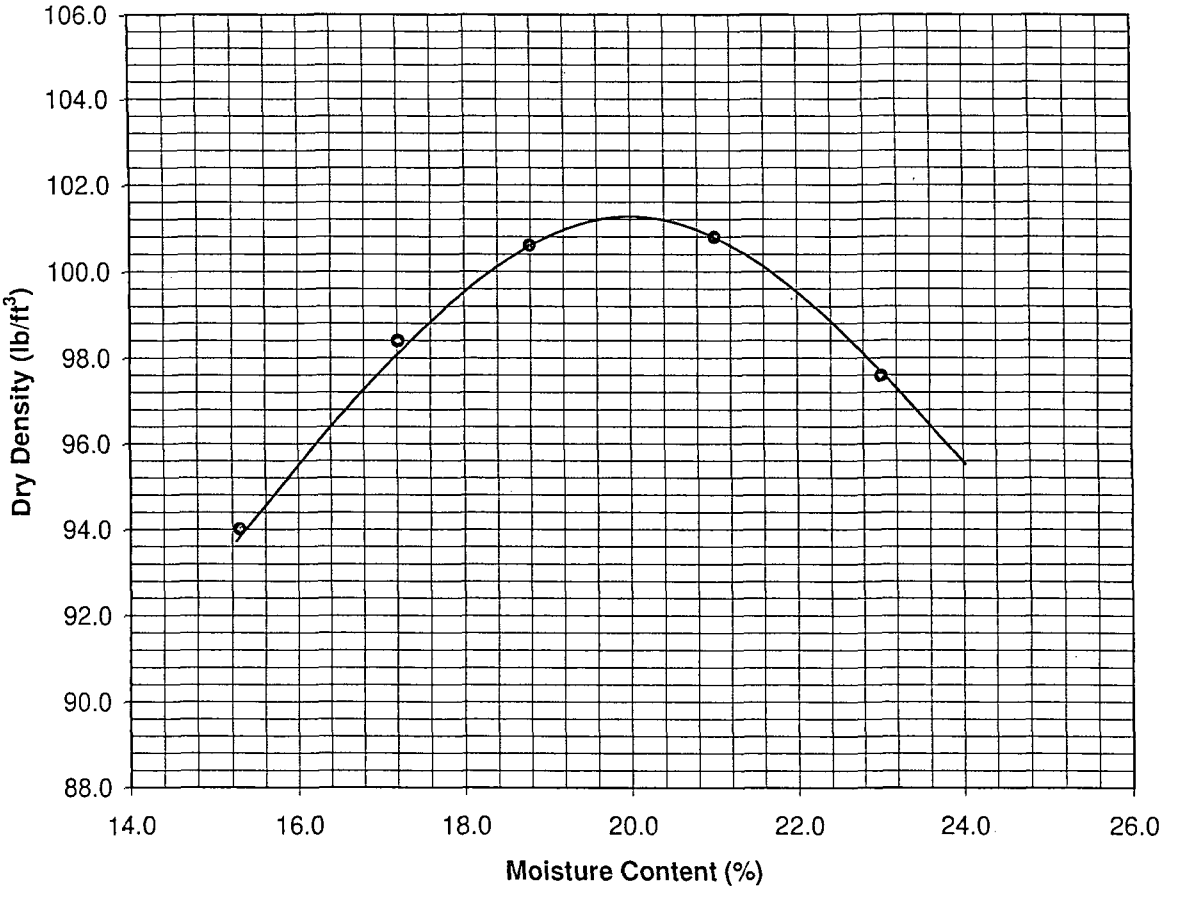
PETTIGREW & ASSOCIATES

BY: _____

BY: _____ P.E.

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

AASHTO R18



General Information

CLIENT: Rice Operating PROJECT: Project No. 2011.1006

SAMPLE LOCATION: Wallach Pit

SOIL DESCRIPTION: Wallach Red Clay

SOIL CLASSIFICATION: _____ TEST METHOD: ASTM: D 698

ATTERBERG: LL _____ PI _____ Sampled & Delivered: 7/6/11

REQUIRED:

DATE: 7/12/11 LAB NO. 11 6628-6629

DRY WEIGHT LB/CU. FT. 101.2 MOISTURE CONTENT % 20.0

SIEVE ANALYSIS - % PASSING										
3"	2"	1"	¾"	½"	⅜"	#4	#10	#40	#80	#200

PETTIGREW & ASSOCIATES

COPIES: Rice Operating

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: C4965-111 Date Sampled: 07/20/2011
Report Date: 08/01/2011 Sampled By: Client
Project: Pettigrew & Associates General File 2011, Hobbs, NM By Order Of: Erica Hart
Location: Job: Rice Operating Order Number:
Client: Pettigrew & Associates, Hobbs, NM
Contractor: Not Given

REPORT: **FLEXIBLE WALL PERMEAMETER** LAB NO: 10378 A
Test Method: See Below

TEST RESULTS Report No: 1-1355-000009
Page 1 of 2

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

Project : Pettigrew & Associates, Hobbs, NM, Job: Rice Operating
Date: 7/27/2011 Panel Number : P1 ; ASTM D 5084
Project No. : C 4965-111 Permometer Data

Boring No.:		ap =	0.031416 cm2		Set Mercury to Pipet Rdg at	Equilibrium	1.7	cm3
Sample:	10378 A Lab Molded	aa =	0.767120 cm2			Pipet Rp	6.7	cm3
Depth (ft):		M1 =	0.030180	C =	0.000437671	Annulus Ra	1.5	cm3
Other Location:	On Site	M2 =	1.040953	T =	0.201511953			

Material Description : Cooper Red Clay, Molded at about 95% *D* 698

SAMPLE DATA

					Before Test		After Test	
Wet Wt. sample + ring or tare :			539.49	g	Tare No.:	A 1	Tare No.:	T 10
Tare or ring Wt. :			0.0	g	Wet Wt.+tare:	884.84	Wet Wt.+tare	770.82
Wet Wt: of Sample :			539.49	g	Dry Wt.+tare:	744.29	Dry Wt.+tare	660.68
Diameter :	2.77	in	7.03	cm2	Tare Wt:	147.75	Tare Wt:	221.09
Length :	2.79	in	7.10	cm	Dry Wt.:	596.54	Dry Wt.:	439.59
Area:	6.02	in^2	38.83	cm2	Water Wt.:	140.55	Water Wt.:	110.14
Volume :	16.81	in^3	275.53	cm3	% moist.:	23.6	% moist.:	25.1
Unit Wt.(wet):	122.18	pcf	1.96	g/cm^3				
Unit Wt.(dry):	98.88	pcf	1.58	g/cm^3				

Assumed Specific Gravity: 2.70 Max Dry Density(pcf) = 103.6 OMC = 20.8
% of max = 95.4 +/- OMC = 2.76
Calculated % saturation: 96.00 Void ratio (e) = 0.70 Porosity (n)= 0.41

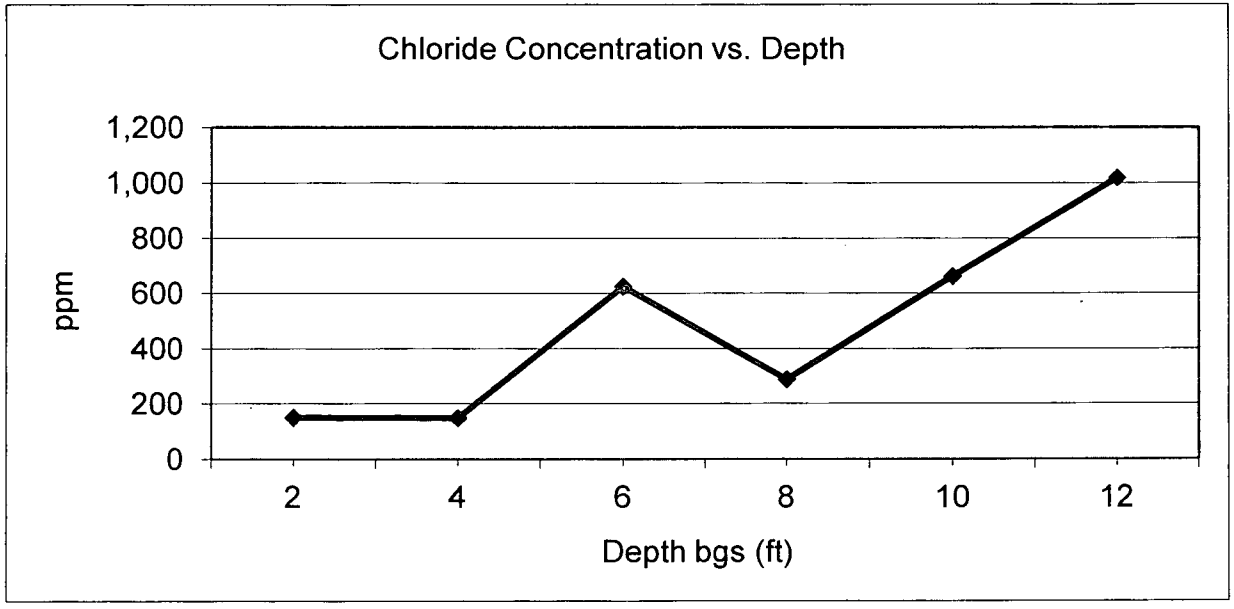
Charge: Pettigrew & Associates Attn: Jessica Buendia
Orig: Pettigrew & Associates, Hobbs, NM Attn: Jessica Buendia
1-cc Pettigrew & Associates, Hobbs, NM Attn: Erica Hart
1-ec Pettigrew & Associates, Hobbs, NM Attn: Jessica Buendia
E-Mail: jbuendia@pettigrew.us
1-ec Pettigrew & Associates, Hobbs, NM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

EME A-24 EOL

Unit 'A', Sec. 24, T19S, R36E

Backhoe samples at 10 ft South of the junction (source)

Depth bgs (ft)	[Cl⁻] ppm
2	151
4	149
6	625
8	288
10	662
12	1,019



Groundwater = 57 ft

RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC

PO Box 5630
Hobbs, NM 88241
Phone: (575) 393-4411
Fax: (575) 393-0293

VEGETATION FORM

1. General Information

Site nam EME A-24 EOL						
U/L A	Section 24	Township 19S	Range 36E	County Lea	Latitude N-32*38'58.15''	Longitude W-103*18'5.32''
Contact Name: Bruce Baker						
Email: bbaker@rice-ecs.com						
Site size:5,600 square feet				Map detail of site attached ☐		
Additional information:						

2. Soils **Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site ☐	Bioremediated ☐	Imported ☒	Blended ☐	Depth (in):
Texture: Sandy	Describe soil & subsoil: Blow sand and subsoil caliche			
Soil prep methods:	Rip ☐ Depth(in):	Disc ☐ Depth (in):	Rollerpack ☐	
Date completed:4-7-11				

3. Bioremediation

Fertilizer ☐	Hay ☐	Other ☐
Type:		Describe:
Lbs/acre:		

4. Seeding **Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix ☒	Prescribed mix ☐	Seed mix name:	Seeding date: 11-10-11
Broadcast ☒ 3LBS BLUE GRAMA 2.5 LBS BLUE GRAMA Method: Portable seeder			
Soil conditions during seeding: Dry ☒ Damp ☐ Wet ☐			
Photos attached ☐ Number of photos:	Observations:		

5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: OSCAR FRAYRE	Title: Environmental Tech.	Date:11/10/11
Signature:		

COPY