1R - 427-287

REPORTS

DATE:

7-18-12

Rice Environmental Consulting & Safety
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

CERTIFIED MAIL
RETURN RECEIPT NO. 7007 2560 0000 4569 9583

July 18th, 2012

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: **ICP Report and Termination Request**
Rice Operating Company – EME SWD System
EME Jct. P-24 (1R427-287): UL/P sec. 24 T19S R36E

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the EME Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Background and Previous Work
The site is located approximately 2.5 miles northwest of Monument, New Mexico at UL/P sec. 24 T19S R36E as shown on the Site Location Map (Figure 1). NM OSE records indicate that groundwater will likely be encountered at a depth of approximately 57 +/- feet.

In 2005, ROC initiated work on the former EME P-24 junction box. The site was delineated using a backhoe to form a 40 ft x 50 ft x 12 ft deep excavation and soil samples were screened at regular intervals for both hydrocarbons and chlorides. From the excavation, the four-wall composite, the bottom composite and the backfill were taken to a commercial laboratory for analysis. Laboratory tests of the four-wall composite showed a chloride reading of 428 mg/kg, a gasoline range organics (GRO) reading of 56 mg/kg and a diesel range organics (DRO) reading of 546 mg/kg. The bottom composite showed a chloride laboratory reading of 528 mg/kg, a GRO reading of 197 mg/kg and a DRO reading of 549 mg/kg. Laboratory results for BTEX resulted in a benzene concentration of J[0.0167] mg/kg, a toluene concentration of 0.314 mg/kg, an ethyl benzene concentration of 0.361 mg/kg, and a total xylenes concentration of 0.809 mg/kg. The excavated soil was blended on site and returned to the excavation. Laboratory analysis of the blended backfill returned a chloride reading of 305 mg/kg, a GRO reading of 12.1 mg/kg and a DRO reading of 403 mg/kg.

The area was contoured to the surrounding landscape, seeded, and an identification plate was placed on the surface of the site to mark its location for future environmental considerations. NMOCD was notified of potential groundwater impact on August 11th, 2008 and a junction box disclosure report was submitted to NMOCD with all the 2008 junction box closures and disclosures.

ICP Investigative Results

As part of the Investigation and Characterization Plan (ICP) submitted to NMOCD on May 22nd, 2012 and approved on May 30th, 2012, RECS personnel were on site to conduct a soil bore installation on June 15th, 2012 (Figure 2). The soil bore was installed 26 ft to the west of the former junction box to address the area with the highest concentrations of chlorides and hydrocarbons encountered during the initial junction box delineation in 2005. The soil bore was advanced to 25 ft bgs and samples were taken at regular intervals and field tested for both chlorides and hydrocarbons. Representative samples from the bore were taken to a commercial laboratory for confirmation of field numbers (Appendix A). The 15 ft sample returned a laboratory chloride reading of 400 mg/kg and a GRO and DRO reading of non-detect and the 25 ft sample returned a laboratory chloride reading of 96 mg/kg and a GRO and DRO reading of non-detect.

Conclusions and Recommendations

Site investigation activities proved that chlorides and hydrocarbons are not constituents of concern at the site and will in no way affect groundwater beneath the site. As observed in the site photos (Appendix B), the site has returned to normal vegetative capacity. Since the soil investigation showed low levels of chlorides and hydrocarbons at the site and the site has returned to normal vegetative capacity, RECS requests 'remediation termination' status of the regulatory file.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

Sincerely,

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

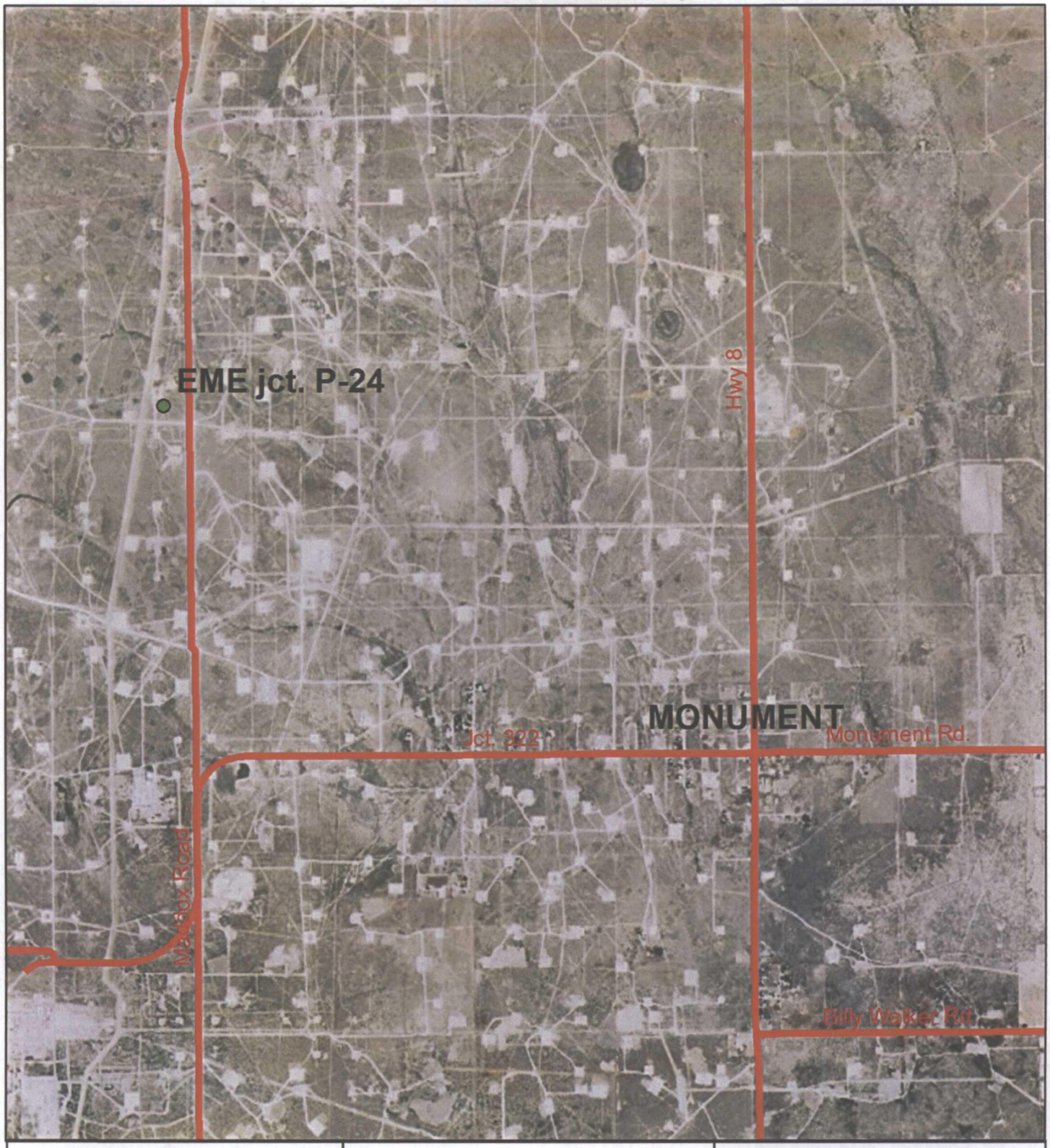
Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Soil Bore Installation Map
- Appendix A – Soil Bore Installation Documentation
- Appendix B – Site Photo

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Site Location Map



RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC
RECS

EME jct. P-24

Legals: UL/P sec. 24
T-19-S R-36-E
LEA COUNTY, NM

Case #: 1R427-287

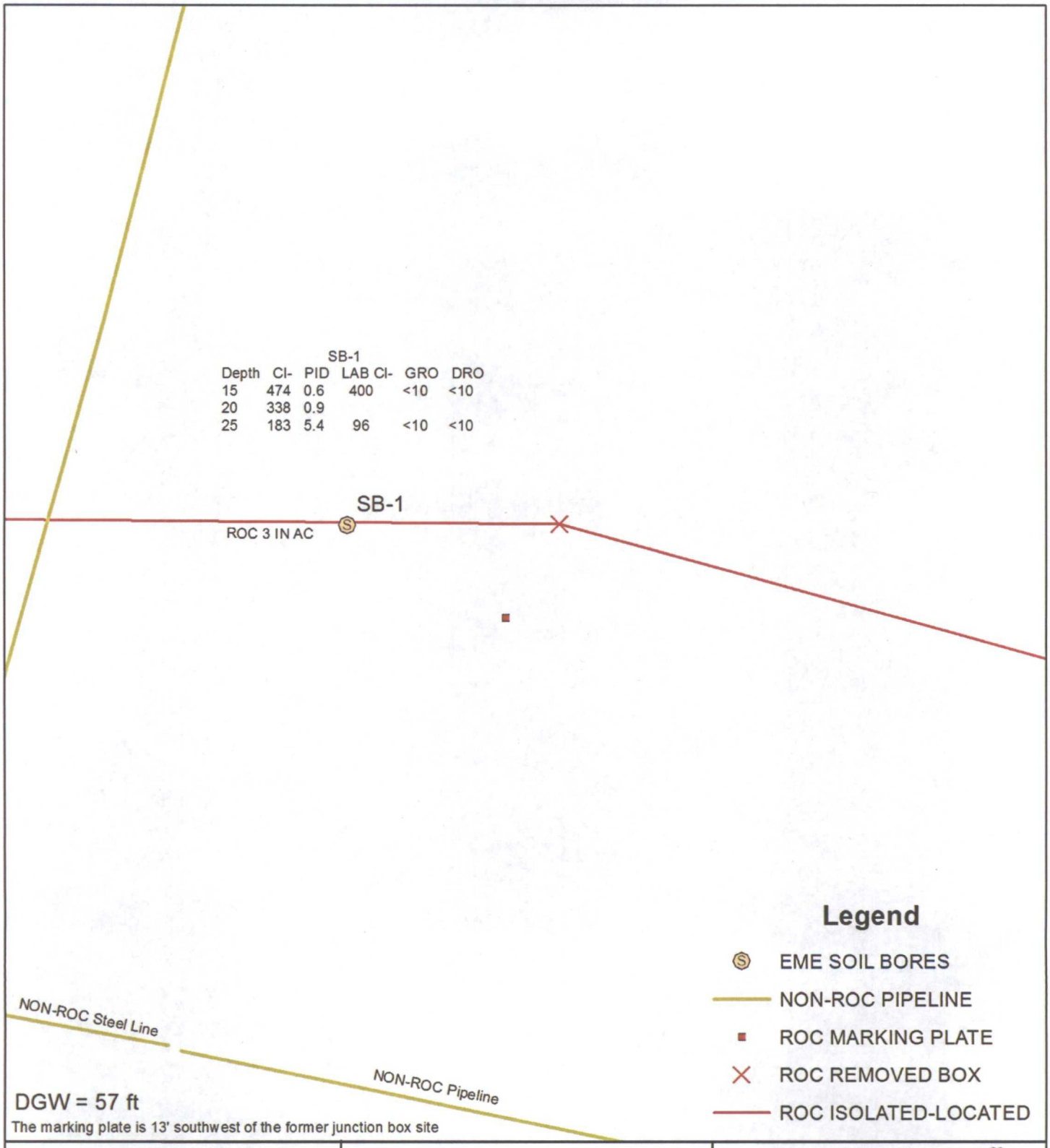
Figure 1

N
W E
S

0 0.2 0.4 0.8
Miles

Drawing date: 5-1-12
Drafted by: L. Weinheimer

Soil Bore Installation



RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC

EME jct. P-24

UL/I & P SECTION 24
T-19-S R-36-E
LEA COUNTY, NM

NMOCD Case #: 1R427-287

Figure 2

N W E S

0 10 20 Feet

GPS date: 5/7/12 by TG
Drawing date: 5/25/12
Drafted by: L. Weinheimer

Appendix A

Soil Bore Installation Documentation

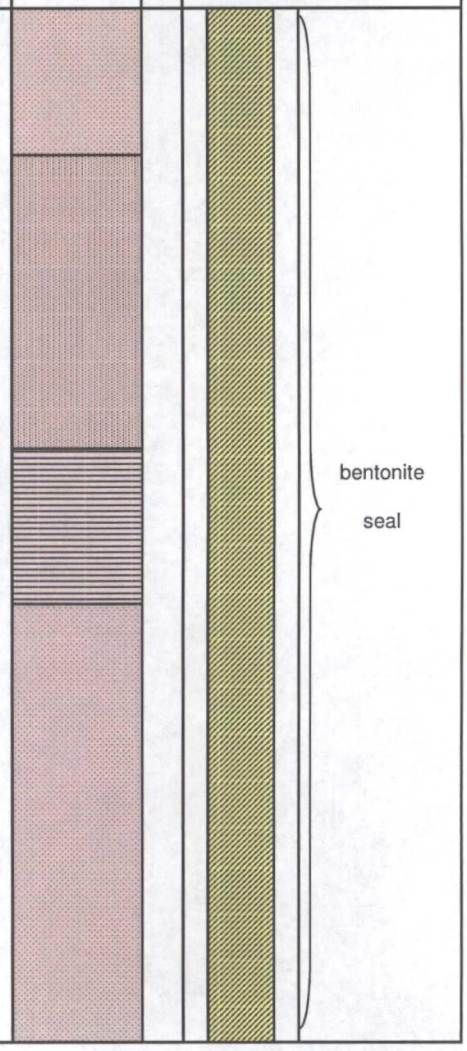
RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Logger:	Kyle Norman		RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC
Driller:	Harrison & Cooper, Inc.		
Drilling Method:	Air rotary		**Project Name:** EME Jct. P-24 **Well ID:** SB-1
Start Date:	6/15/2012		
End Date:	6/15/2012		**Project Consultant:** RECS

Comments: Located 26 ft west of the former junction box site. All samples were from cuttings.
DRAFTED BY: L. Weinheimer
TD = 25 ft GW = 57 ft

Location: UL/I&P sec. 24 T19S R36E
Lat: 32°38'31.412"N **Long:** 103°18'3.481"W
County: Lea **State:** NM

Depth (feet)	Chloride field tests	LAB	PID	Description
				Tan Sand
SS				
				Tan Sand With Some Caliche
5 ft				
10 ft				
				Tan Sand With Sandstone
15 ft	474	Cl- 400	0.6	
		GRO <10		Tan Sand
		DRO <10		
20 ft	338		0.9	
25 ft	183	Cl- 96	5.4	
		GRO <10		
		DRO <10		



CARDINAL Laboratories

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

June 20, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME P-24 JCT 19S/36E

Enclosed are the results of analyses for samples received by the laboratory on 06/15/12 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 (V1, 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
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	06/15/2012	Sampling Date:	06/15/2012
Reported:	06/20/2012	Sampling Type:	Soil
Project Name:	EME P-24 JCT 19S/36E	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 1 @ 15' (H201366-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	06/19/2012	ND	384	96.0	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2012	ND	182	91.2	200	5.14	
DRO >C10-C28	<10.0	10.0	06/19/2012	ND	189	94.5	200	1.59	

Surrogate: 1-Chlorooctane	*94.9 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*112 %*	*63.6-154*

Sample ID: SB 1 @ 25' (H201366-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	06/19/2012	ND	384	96.0	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/19/2012	ND	182	91.2	200	5.14	
DRO >C10-C28	<10.0	10.0	06/19/2012	ND	189	94.5	200	1.59	

Surrogate: 1-Chlorooctane	*85.0 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*103 %*	*63.6-154*

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 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: Rice	**BILL TO**
Project Manager: Hack Conder	P.O. #:
Address:	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name:	State: Zip:
Project Location: EME P-24 Jct 4536E	Phone #:
Sampler Name: Kyle Norman	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	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS					
H2013606																									
1	SB1 @ 15'	G	1			✓					✓		6-15-12	1200	✓	✓									
2	SB1 @ 25'	G	1			✓					✓		6-15-12	1230	✓	✓									

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: Kyle Norman	Date: 6-15-12 Time: 12:55	Received By: Jodi Henson	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 / Intact: Yes / No / No	CHECKED BY: (Initials)	REMARKS: email results: zconder@rice-ecs.com Knorman@rice-ecs.com; lpena@riceswd.com Kjones@riceswd.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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

#216

Appendix B

Site Photo

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

EME Jct. P-24

UL/P sec. 24 T-19-S R-36-E

Site photo toward center, facing north 5/7/12