

### REPORTS

### DATE:



EME H-27-1

IR0427-159

### FINAL

### REPORT

### RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT

				BOX LOCA	TION				
SWD SYSTEM J	UNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUN	TY BOX D	MENSIONS - FEI	ET
EME	H-27-1	н	27	19S	36E	Lea	eli	minatedno box	
	STAT							··· ·· ·· ·· ·· ·	,
Depth to Groupdw	o	50	foot		SITE ASSE	SSMEN		CORE	10
Date Started	9131200	A	Date Co		11/12/2004	NM			
	00								<b>2</b>
Soll Excavated	90	cubic ya	ras Ex	cavation L	ength 20	W	lidth10		<u> </u>
Soil Disposed	0	cubic ya	irdis Of	ffsite Facility	/n	la	Location	n/a	
FINAL ANALYTI	CAL RES	ULTS:	Samp	le Date	9/9/20 11/12/2	04, 004	Sample De	epth 12	2, 45 ft
Procure 5-point cor excavation sidewalls. an approved lab	nposite samp TPH and ch and testing p	le of botto loride labo rocedures	om and 4-po pratory test s pursuant f	oint compos results com to NMOCD	site sample o Ipleted by us guidelines.	f ing	CHLOR	RIDE FIELD TES	STS
	-						LOCATION	DEPTH (ft)	ppm
Sample	PID	<u>G</u>	RO	DRO	Chloride	2		3	509
Location	ppm	mg	g/kg	mg/kg	mg/kg			4	810
4-WALL COMP.	0.0	<1	0.0	<10.0	542		5 ft WEST	5	449
BOTTOM COMP.	0.0	<1	10.0	<10.0	1000		of junction	6	510
REMED. BACKFILL	0.0	<1	10.0	52.9	287			7	449
SOIL BORE @ 45 ft	OIL BORE @ 45 ft 1.7 <10.0 <10.0 <20								
								3	629
								4	599
General Description o	f Remedial A	ction:	This junction	n box site was	located just			5	570
east of a lease road. The	junction was elii	ninated with	the pipeline	replacement p	project. The bo	<u>×</u>		6	509
lumber was removed and	he site was deli	neated usin	g a backhoe v	while PID read	lings and chlori	de	15 ft WEST	7	539
field tests were conducted	at regular interv	als. Sampl	es were taker	n from the 10 ;	c 10 x 12-ft-dee	<u>р</u>	of junction	8	480
excavation for lab confirmation	ation (results list	ed above).	The bottom c	omposite resu	ult was			9	539
incongruent with chloride f	ield tests so the	excavation	was extended	to more accu	rately characte	rize		10	390
chloride impact. 5 ft west of	of the junction ex	hibited elev	ated chloride	levels so the	excavation was	<u> </u>		11	239
extended to 15 ft west whe	ere a conclusive	decline with	depth and bi	readth was		<u> </u>		12	210
established (see graph). 1	The final 10 x 20	x 13-ft-dee	p excavation	vield elevated	chloride on the	<u>ا</u>		20	827
east side of the excavation	at 13 ft BGS.	A soil bore v	vas initiated o	n 11/12/04 to	further			25	1183
characterize chloride conc	erns east of the	box site. A	conclusive tre	end of decline	was observed,		Soil Bore 5 ft	30	393
indicative of non-saturated	vadose condition	ons. The bo	re was aborte	ed at 45 ft BG	S where lab		EAST of	41	90
results yielded non-detect	chloride levels (	<20 ppm) in	the sample.	The 10 x 20 >	13 ft excavation	n	Junction	42	47
was backfilled to 6 ft BGS	with the excava	ted soil that	was remedia	ted on site. A	t 6 ft, a 1-ft-thic	<u>k</u>		43	52
compacted clay barrier wa	s installed to in	nibit further o	downward mig	gration of chlo	ride. The			45	56
remaining spoils were bac	kfilled on top of	the clay and	l leveled to th	e surface. Or	10/7/04 the	<u> </u>			
disturbed surface was see	ded with a blend	t of native v	egetation. Ar	identification	plate has been	placed o	n the surface to m	ark the clay below.	A junction
box is no longer required a	at this site.								
			enclosures: cl	hloride graphs	, photos, lab re	sults, PID	field screenings,	clay test, bore log,	cross-section
							· · · · · · · · · · · · · · · · · · ·	<u> </u>	
	000000	• • • • · · -		<b></b>					
I HEREBY	CERTIFY TH	AT THE I	NFORMATI KNO\	ION ABOVE NLEDGE A	E IS TRUE A ND BELIEF.	ND CO	MPLETE TO TH	IE BEST OF M	Y
SITE SUPERVISOR	Rob Elam	SIG	NATURE	not a	vailable	C	OMPANY Curt's E	EnvironmentalOde	essa, TX

 SITE SUPERVISOR
 Rob Elam
 SIGNATURE
 not available
 COMPANY\_Curt's Environmental-Odessa, TX

 REPORT ASSEMBLED BY
 Kristin Farris Pope
 SIGNATURE
 Initial Odessa, TX

 DATE
 12/17/2004
 TITLE
 Project Scientist

EME jct. H-27



undisturbed junction box before excavation

unit 'H', sec. 27, T19S, R36E



excavation & delineation 10 x 10 x 7-ft



testing clay barrier at 6 ft BGS

# EME jct. H-27-1

k



10/7/2004 seeding disturbed area at backfilled site; clay ID plate at feet



### EME jct. H-27-1 20 x 10 x 13 ft



## **RICE** Operating Company

# **EME jct. H-27-1** unit 'H', Sec. 27, T19S, R36E

## 15 ft WEST of junction

[CI] ppm	589	629	599	570	509	539	480	539	390	239	210
Depth bgs (ft)	3	4	5	9	L	8	6	10	11	12	13

Groundwater = 59 ft



CHLORIDE CONCENTRATION CURVE

## RICE Operating Company

# **EME jct. H-27-1** unit 'H', Sec. 27, T19S, R36E

# SOIL BORE 5 ft EAST of junction

[CI] ppm	827	1183	393	60	47	52	20 *
Depth bgs (ft)	20	25	30	41	42	43	45

\* Lab results yielded chloride concentration <20 ppm.

Groundwater = 59 ft



### LOG OF BORING K. Farris RICE Operating Company

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r	Logger:		Israel Juarez: Mort Bates	Client:	Well ID:
Detille	Driller:	- 1	Atkins Engineering Associates, Inc.	RICE Operating Company	
Unim	Start Date:		11/12/2004	EME jct. H-27-1	
Notes	End Date:	L	11/12/2004	EME SWD System	SB-1
		TD = 4	5 ft Groundwater = 59 ft	unit 'H', sec. 27, T19S, R36E Lea County, NM	
Denth	Collit Sr	007		T	Additional
(feet)	chioride	PiD	Description		Notes
1.0					0-3 ft hydrated
2.0					bentonite seal
3.0					
4.0					
5.0			0 -10 ft SILTY SAND		
6.0			loose, light tan, damp		
7.0					
8.0					
9.0	<b>.</b>				
40.0	470	0.0			
10.0	1/2	0.2			
11.0					
12.0	<u> </u>				
13.0		<b></b>			
14.0					
15.0	299	0.4	10 - 20 ft		
16.0			SILTY GRAVEL w/some SAND		
17.0					
18.0				S S	
19.0				E State Stat	
20.0	927	20			
20.0	021	2.0	· · · · · · · · · · · · · · · · · · ·	÷	
21.0			:		
22.0			20 - 24 ft CLAYEY SAND	ackt	
23.0			loose, brown, dry	e c	
24.0				e e	
25.0	1183	1.8			
26.0					
27.0					
28.0	<u> </u>		04 00 D	🗱 🗱 🔋 🛛	
29.0			24 - 33 π SILTY SAND w/ BROKEN		
30.0	393	0.6	SANDSTONE firm, tan, dry		
31.0					
32.0					
33.0					
34.0	ļ				
25.0	ļ		33 - 35 ft SANDSTONE		
	1		hard, tan, dry		
36.0	<u> </u>				
37.0					
38.0					
39.0					
40.0			35 - ft SILTY SAND		
41.0	90	1.6	loose, tan, damp		
42.0	47	0.7			42-45 ft
43.0	52	1.4			nydrated bentonite
44.0					seal
45.0	56	1.7			lab = <20 ppm CF

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### Analytical Report

### **Prepared for:**

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

Project: EME Jct. H-27-1 5.8. Project Number: None Given Location: EME

Lab Order Number: 4K15006

Report Date: 11/22/04

Rice Operating Co.Project:EME Jct. H-27-1Fax: (505) 397-1471122 W. TaylorProject Number:None GivenReported:Hobbs NM, 88240Project Manager:Roy Rascon11/22/04 11:08

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB @ 45' on East Wall	4K15006-01	Soil	11/12/04 14:45	11/15/04 07:25

Rice Operating Co. 122 W. Taylor Hobbs NM, 88240		Project: EME Jct. H-27-1 Project Number: None Given Project Manager: Roy Rascon						Fax: (505) 397-1471 <b>Reported:</b> 11/22/04 11:08			
		Or Environn	ganics b nental L	y GC ab of T	Texas						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes		
SB @ 45' on East Wall (4K15006-01)	Soil										
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK41509	11/15/04	11/16/04	EPA 8015M			
Diesel Range Organics >C12-C35	ND	10.0	n	u	"	u	"	17			
Total Hydrocarbon C6-C35	ND	10.0	н	n	н	**	11	11			

70-130

70-130

"

,,

,,

77.3 %

87.4 %

Environmental Lab of Texas

Surrogate: 1-Chlorooctane

Surrogate: 1-Chlorooctadecane

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Rice Operating Co.	Project: EME Jct. H-27-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Roy Rascon	11/22/04 11:08

### General Chemistry Parameters by EPA / Standard Methods

### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 45' on East Wall (4k	(15006-01) Soil							
Chloride	ND	20.0 mg/kg Wet	2	EK41905	11/15/04	11/19/04	SW 846 9253	
% Moisture	3.0	%	1	EK41601	11/15/04	11/16/04	% calculation	

Environmental Lab of Texas

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Rice Operating Co.	Project: EME Jct. H-27-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Roy Rascon	11/22/04 11:08

### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

A1-+0	Popult	Reporting	Linita	Spike	Source	4/DEC	%REC	DDD	RPD	Mada
Апацие				Levei	Result	MREC		KPD		inotes
Batch EK41509 - Solvent Extraction	(GC)									
Blank (EK41509-BLK1)				Prepared:	11/15/04	Analyzed:	11/16/04			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	11							
Total Hydrocarbon C6-C35	ND	10.0	n				•			
Surrogate: 1-Chlorooctane	37.0		"	50.0		74.0	70-130			·······
Surrogate: 1-Chlorooctadecane	40.6		n	50.0		81.2	70-130			
LCS (EK41509-BS1)				Prepared:	11/15/04	Analyzed:	11/16/04			
Gasoline Range Organics C6-C12	536	10.0	mg/kg wet	500		107	75-125			
Diesel Range Organics >C12-C35	624	10.0	"	500		125	75-125			
Total Hydrocarbon C6-C35	1160	10.0	11	1000		116	75-125			
Surrogate: 1-Chlorooctane	54.8		"	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	52.1		"	50.0		104	70-130			
Calibration Check (EK41509-CCV1)				Prepared:	: 11/15/04	Analyzed:	11/17/04	-		
Gasoline Range Organics C6-C12	465		mg/kg	500		93.0	80-120		•	s
Diesel Range Organics >C12-C35	600		"	500		120	80-120			
Total Hydrocarbon C6-C35	1060		n	1000		106	80-120			
Surrogate: 1-Chlorooctane	53.8		mg/kg wet	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	53.9		"	50.0		108	70-130			
Matrix Spike (EK41509-MS1)	So	urce: 4K15	003-02	Prepared	: 11/15/04	Analyzed	: 11/16/04			
Gasoline Range Organics C6-C12	477	10.0	mg/kg dry	538	ND	88.7	75-125		·	
Diesel Range Organics >C12-C35	628	10.0	н	538	ND	117	75-125			
Total Hydrocarbon C6-C35	1100	10.0	н	1080	ND	102	75-125			
Surrogate: 1-Chlorooctane	53.8		н	53.8		100	70-130			
Surrogate: 1-Chlorooctadecane	50.1		"	<i>53.8</i>		93.1	70-130			
Matrix Spike Dup (EK41509-MSD1)	So	ource: 4K15	003-02	Prepared	: 11/15/04	Analyzed	: 11/16/04			
Gasoline Range Organics C6-C12	446 -	10.0	mg/kg dry	538	ND	82.9	75-125	6.72	20	
Diesel Range Organics >C12-C35	596	10.0		538	ND	111	75-125	5.23	20	
Total Hydrocarbon C6-C35	1040	10.0	) "	1080	ND	96.3	75-125	5.61	20	
Surrogate: 1-Chlorooctane	51.5		"	53.8		95.7	70-130		. <u></u>	
Surrogate: 1-Chlorooctadecane	48.3		"	53.8		89.8	70-130			

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F (100) 5(0 151)

Rice Operating Co.	Project: EME Jct. H-27-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Roy Rascon	11/22/04 11:08

### General Chemistry Parameters by EPA / Standard Methods - Quality Control

### **Environmental Lab of Texas**

		Reporting	Spike	Source		%REC		RPD	
Analyte	Result	Limit Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EK41601 - General Preparation	(Prep)								
Blank (EK41601-BLK1)			Prepared:	11/15/04	Analyzed:	11/16/04			
% Moisture	0.0	%							
Duplicate (EK41601-DUP1)	Sou	irce: 4K12010-01	Prepared:	11/15/04	Analyzed:	11/16/04			
% Moisture	8.0	%		8.0			0.00	20	
Batch EK41905 - Water Extraction									
Blank (EK41905-BLK1)			Prepared:	11/15/04	Analyzed:	11/19/04			
Chloride	ND	20.0 mg/kg Wet						· · · · · · · · · · · · · · · · · · ·	
Matrix Spike (EK41905-MS1)	So	ırce: 4K12018-01	Prepared:	11/15/04	Analyzed:	11/19/04			
Chloride	, 574	20.0 mg/kg Wet	500	106	93.6	80-120			
Matrix Spike Dup (EK41905-MSD1)	So	ırce: 4K12018-01	Prepared:	11/15/04	Analyzed:	11/19/04			
Chloride	584	20.0 mg/kg Wet	500	106	95.6	80-120	1.73	20	
Reference (EK41905-SRM1)	• .		Prepared	& Analyz	ed: 11/19/0	)4			
Chloride	5000	mg/kg	5000		100	80-120			

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ported:
2/04 11:08
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ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported

- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Analyte DETECTED

LCS Laboratory Control Spike

- MS Matrix Spike
- Dup Duplicate

DET

alandk lu Report Approved By: 11-22-04 Date:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Sanchez, Lab Tech.

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### Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: <u>Rice Operating</u>	
Date/Time: <u>11-15-04 @ 0430</u>	
Order #: 4K15006	

JMM

Initials:

### Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	.4.0 C
Shipping container/cooler in good condition?	Ves'	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	(Yes)	> No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	Fes	No	
Chain of custody agrees with sample label(s)	Tes	No	
Container labels legible and intact?	(res)	No	
Sample Matrix and properties same as on chain of custody?	Tes	No	
Samples in proper container/bottle?	(Tes)	No	
Samples properly preserved?	Tes	No	-
Sample bottles intact?	Tes	No	
Preservations documented on Chain of Custody?	res	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Xes)	No	Not Applicable

Other observations:

Contact Person: Regarding:	Variance Documentation: Date/Time:	Contacted by:
		······································
Corrective Action Taken:		· ·
	· · · · · · · · · · · · · · · · · · ·	
	-	

### HOBBS, NEW MEXICO 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 **VOC FIELD TEST REPORT FORM** MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

SERIAL NO: 104412

100 PPM BALANCE FILL DATE: <u>7-7-04</u> ACCURACY: <u>1 29</u>~

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	H-27-1	H	27	19	36

EAST W	All BOR	E 5'EAST	a ang sangaga sa sa
SAMPLE	PID RESULT	SAMPLE P	DRESULT
$\omega$ 10	0.2		
1.5	0.4	······································	2 7 7 4 4
20'	2.0		
25	1.8		
30	0.6		
4)	1.6		
42'	D.7		
43'	1.4		
45	1,7		

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

s<u>soul fuare</u> Jignanire

104 Date



### Analytical Report

### **Prepared for:**

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

Project: Jct. H-27-1 Project Number: None Given Location: EME

Lab Order Number: 4I10008

Report Date: 09/15/04

Rice Operating Co.Project: Jct. H-27-1Fax: (505) 397-1471122 W. TaylorProject Number: None GivenReported:Hobbs NM, 88240Project Manager: Roy Rascon09/15/04 07:59

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
12' Bottom Comp.	4I10008-01	Soil	09/09/04 15:00	09/09/04 19:20
Wall Comp.	4110008-02	Soil	09/09/04 15:00	09/09/04 19:20
Backfill Comp.	4110008-03	Soil	09/09/04 15:00	09/09/04 19:20

Rice Operating Co.	Project: Jct. H-27-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Roy Rascon	09/15/04 07:59

### Organics by GC

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
12' Bottom Comp. (4110008-01) Soil			·						
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0		"	*	n	и	"	
Total Hydrocarbon C6-C35	ND	10.0	n	"	**	"	n	"	
Surrogate: 1-Chlorooctane		85.2 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.6 %	70-1	30	"	"	"	"	
Wall Comp. (4110008-02) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	<u></u>
Diesel Range Organics >C12-C35	ND	10.0		n	. 11		"	n	
Total Hydrocarbon C6-C35	ND	10.0		"	n	"	"	11	
Surrogate: 1-Chlorooctane		96.8 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		72.4 %	70-1	30	"	"	"	"	
Backfill Comp. (4110008-03) Soil	•								
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	52.9	10.0	n		71	и	н	n	
Total Hydrocarbon C6-C35	52.9	10.0	"	н	-11	n	n		
Surrogate: 1-Chlorooctane		101 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.8 %	70-1	30	"	"	"	"	

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	Rice Operating Co.	Project: Jct. H-27-1	Fax: (505) 397-1471
	122 W. Taylor	Project Number: None Given	Reported:
į	Hobbs NM, 88240	Project Manager: Roy Rascon	09/15/04 07:59

### General Chemistry Parameters by EPA / Standard Methods

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
12' Bottom Comp. (4I10008-01) Soil	- <u> </u>				<u> </u>	- <u>-</u>		
Chloride	1000	20.0 mg/kg We	t 2	EI41311	09/10/04	09/12/04	SW 846 9253	
% Solids	99.0	%	1	EI41401	09/10/04	09/10/04	% calculation	
Wall Comp. (4110008-02) Soil								
Chloride	542	20.0 mg/kg We	t 2	EI41311	09/10/04	09/12/04	SW 846 9253	
% Solids	99.0	%	1	EI41401	09/10/04	09/10/04	% calculation	
Backfill Comp. (4110008-03) Soil								
Chloride	287	20.0 mg/kg We	at 2	EI41311	09/10/04	09/12/04	SW 846 9253	····.
% Solids	99.0	%	1	EI41401	09/10/04	09/10/04	% calculation	

Environmental Lab of Texas

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### Project: Jct. H-27-1 Project Number: None Given Project Manager: Roy Rascon

09/15/04 07:59

### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41006 - Solvent Extraction (	GC)									
Blank (EI41006-BLK1)				Prepared:	09/10/04	Analyze	d: 09/13/04			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	**							
Total Hydrocarbon C6-C35	ND	10.0	n							
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	70-130			
Surrogate: 1-Chlorooctadecane	52.2		"	50.0		104	70-130			
Blank (EI41006-BLK2)				Prepared:	: 09/10/04	Analyze	d: 09/14/04			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet						······	
Diesel Range Organics >C12-C35	ND	10.0	"	••						
Total Hydrocarbon C6-C35	ND	10.0	и							
Surrogate: 1-Chlorooctane	52.0		mg/kg	50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	42.9		"	50.0		85.8	70-130			
LCS (EI41006-BS1)				Prepared	: 09/10/04	Analyze	d: 09/13/04			
Gasoline Range Organics C6-C12	422	10.0	mg/kg wet	500		84.4	75-125			······
Diesel Range Organics >C12-C35	518	10.0	n	500		104	75-125			
Total Hydrocarbon C6-C35	940	10.0	. <b>n</b>	1000		94.0	75-125			
Surrogate: 1-Chlorooctane	50.8		mg/kg	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	53.8		"	50.0		108	70-130			
LCS (EI41006-BS2)				Prepared	: 09/10/04	Analyze	d: 09/14/04			
Gasoline Range Organics C6-C12	445	10.0	mg/kg wet	500		89.0	75-125		······································	
Diesel Range Organics >C12-C35	495	10.0	11	500		99.0	75-125			
Total Hydrocarbon C6-C35	940	10.0	"	1000		94.0	75-125			
Surrogate: 1-Chlorooctane	60.5		mg/kg	50.0		121	70-130			·····
Surrogate: 1-Chlorooctadecane	37.6		"	50.0		75.2	70-130			
Calibration Check (EI41006-CCV1)				Prepared	: 09/10/04	Analyze	d: 09/13/04			
Gasoline Range Organics C6-C12	467		mg/kg	500		93.4	80-120			
Diesel Range Organics >C12-C35	564		H	500		113	80-120			
Total Hydrocarbon C6-C35	1030			1000		103	80-120			
Surrogate: 1-Chlorooctane	50.7			50.0		101	70-130	· <del></del>		
Surrogate: 1-Chlorooctadecane	52.9		"	50.0		106	70-130			

Environmental Lab of Texas

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

### Project: Jct. H-27-1 Project Number: None Given Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:

### 09/15/04 07:59

### **Organics by GC - Quality Control**

### **Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch E141006 - Solvent Extraction (	GC)					<u> </u>			<u> </u>	
Calibration Check (EI41006-CCV2)				Prepared	: 09/10/04	Analyzed	1: 09/14/04			
Gasoline Range Organics C6-C12	477		mg/kg	500		95.4	80-120			
Diesel Range Organics >C12-C35	554		H	500		111	80-120			
Total Hydrocarbon C6-C35	1030		н	1000		103	80-120			
Surrogate: 1-Chlorooctane	52.2			50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	51.3		"	50.0		103	7 <b>0-130</b>			
Matrix Spike (EI41006-MS1)	So	urce: 4I1000	8-02	Prepared	: 09/10/04	Analyzed	1: 09/14/04			
Gasoline Range Organics C6-C12	417	10.0	mg/kg dry	505	ND	82.6	75-125			
Diesel Range Organics >C12-C35	519	10.0		505	ND	103	75-125			
Total Hydrocarbon C6-C35	936	10.0	"	1010	ND	92.7	75-125			
Surrogate: 1-Chlorooctane	46.4		mg/kg	50.0		92.8	70-130		·····	
Surrogate: 1-Chlorooctadecane	47.1		"	50.0		94.2	70-130			
Matrix Spike (EI41006-MS2)	So	urce: 411001	l <b>8-0</b> 7	Prepared	: 09/10/04	Analyzed	i: 09/14/04			
Gasoline Range Organics C6-C12	417	10.0	mg/kg dry	500	ND	83.4	75-125			
Diesel Range Organics >C12-C35	499	10.0	11	500	ND	99.8	75-125			
Total Hydrocarbon C6-C35	916	10.0	Ħ	1000	ND	91.6	75-125			
Surrogate: 1-Chlorooctane	49.3		mg/kg	50.0		98.6	70-130		· ·	······································
Surrogate: 1-Chlorooctadecane	42.6		"	50.0		85.2	70-130			
Matrix Spike Dup (EI41006-MSD1)	So	urce: 411000	08-02	Prepared	: 09/10/04	Analyze	d: 09/14/04			
Gasoline Range Organics C6-C12	444	10.0	mg/kg dry	505	ND	87.9	75-125	6.27	20	
Diesel Range Organics >C12-C35	523	10.0	11	505	ND	104	75-125	0.768	20	
Total Hydrocarbon C6-C35	967	10.0	11 ·	1010	ND	95.7	75-125	3.26	20	
Surrogate: 1-Chlorooctane	45.9		mg/kg	50.0		91.8	70-130			
Surrogate: 1-Chlorooctadecane	47.7		"	50.0		95.4	70-130			
Matrix Spike Dup (EI41006-MSD2)	So	urce: 4I1001	18-07	Prepared	: 09/10/04	Analyze	d: 09/14/04			
Gasoline Range Organics C6-C12	433	10.0	mg/kg dry	500	ND	86.6	75-125	3.76	20	
Diesel Range Organics >C12-C35	533	10.0	н	500	ND	107	75-125	6.59	20	
Total Hydrocarbon C6-C35	966	10.0	"	1000	ND	96.6	75-125	5.31	20	
Surrogate: 1-Chlorooctane	51.8		mg/kg	50.0		104	70-130			
Surragate: 1-Chlorooctadecane	46.7		"	50.0		93.4	70-130			

Environmental Lab of Texas

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

### Project: Jct. H-27-1 Project Number: None Given Project Manager: Roy Rascon

Reported:

### 09/15/04 07:59

### General Chemistry Parameters by EPA / Standard Methods - Quality Control

### **Environmental Lab of Texas**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EI41311 - Water Extraction										
Blank (EI41311-BLK1)				Prepared:	09/09/04	Analyzed	: 09/12/04			
Chloride	ND	20.0 mg	/kg Wet							
Matrix Spike (EI41311-MS1)	So	urce: 4109005-(	)1	Prepared:	09/09/04	Analyzed	: 09/12/04			
Chloride	3030	20.0 mg	/kg Wet	500	2550	96.0	80-120			
Matrix Spike Dup (EI41311-MSD1)	So	urce: 4109005-(	01	Prepared:	09/09/04	Analyzed	: 09/12/04			
Chloride	3080	20.0 mg	/kg Wet	500	2550	106	80-120	1.64	20	
Reference (EI41311-SRM1)				Prepared	& Analyze	ed: 09/12/	04			
Chloride	5000	1	ng/kg	5000		100	80-120			
Batch EI41401 - General Preparation (	Prep)									
Blank (EI41401-BLK1)				Prepared	& Analyz	ed: 09/10/	04			
% Solids	100	· · · · · · · · · · · · · · · · · · ·	%					· · · · · · · · · · · · · · · · · · ·		
Duplicate (EI41401-DUP1)	So	urce: 4I10004-(	01	Prepared	& Analyz	ed: 09/10/	04			
% Solids	95.0	· · · · · · · · · · · · · · · · · · ·	%		98.0			3.11	20	

Environmental Lab of Texas

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Rice Operating Co. 122 W. Taylor Hobbs NM, 88240		Project: Jct. H-27-1 Project Number: None Given Project Manager: Roy Rascon	Fax: (505) 397-1471 Reported: 09/15/04 07:59			
		Notes and Definitions				
DET	Analyte DETECTED					
ND	Analyte NOT DETECTED at or above the reporting limit					
NR	Not Reported					
dry	Sample results reported on a di	y weight basis				
RPD	Relative Percent Difference					

LCS Laboratory Control Spike

- MS Matrix Spike
- Dup Duplicate

Report Approved By: Date: 9-15-09

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Biezugbe, Lab Tech.

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Environmental Lab of Texas

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TAT bisbret2 апьенов-етя) ТАТ Н2UЯ CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Sample Containets Intact? Teurperature Upon Receip Nee 4.0°C aboratory Conneuts Project Hame: Jct. H-27-Analyze For. 0503/81203 XBT8 Sameiovima Voiatiles Project Loc: EME Metals: As Ag Ea Cd Cr Pb Hg Se TCLP: TOTAL: ORDIORD MB108 HAT > Project #: PO #: 7PH TX 1005/1006 9-04-24 / 920 1.814 H9T Тіше CE V RAR 10 ROT Other (specify): Matrix lio2 2 Date Sjnqüe 9/6 VV ater Fax No: (505) 397-147 Other ( Specify) anoN Preservative 'os<sup>z</sup>H HOEN ЮH ONH 901 550/6/20 No. of Containers 3:00 3:00 3:00 bəlqms2.əmiT , 9-9-04 Received by: 9-9-04 9-9-04 balqms2 ajsQ Record Environmental Lab of Texas, Inc. BRAND Company Mame RICE Opicating 0 0 Time Company Address: 122 W. Taylor 4.43 lime Ray Rascon Phone: 915-563-1800 Fax: 915-563-1713 the Clan Telephone Ho: (505) 393-9174 12' Bottom Comp city/State/Zip: Hobbs, NM A-Gog Date Backfill Comp FIELD CODE 6 wall Comp Project Manager: Sampler Signature: Odessa, Texas 79763 12600 West I-20 East 8000111H 95 <u>o</u>1 Special Instructions: LAB # (lab rise only) Retinquished by: Relinquished hy:

### Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client:	Rice Operating Co.	
	· · · · · · · · · · · · · · · · · · ·	

Date/Time: 09-10-04@0900

JMM

Order #: 410008

Initials:

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	4.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present.
Chain of custody present?	(Tes)	No	
Sample Instructions complete on Chain of Custody?	res	No	
Chain of Custody signed when relinquished and received?	(es)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	Kes	No	
Sample Matrix and properties same as on chain of custody?	Kes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	<b>VES</b>	No	
Preservations documented on Chain of Custody?	(Tes)	No	
Containers documented on Chain of Custody?	Ves	No	
Sufficient sample amount for indicated test?	Ces	No	
All samples received within sufficient hold time?	(Tes)	No	
VOC samples have zero headspace?	(Yes/	No	Not Applicable

Other observations:

Contact Person: Regarding:	Variance Documentation: Date/Time:	_ Contacted by:
Corrective Action Taken:		

### **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

104550 ÷ MODEL NO: PGM 761S SERIAL NO: <del>104412-</del> CALIBRATION GAS GAS COMPOSITION: ISOBUTYLENE 100 PPM BALANCE AIR FILL DATE: 4-19-04 LOT NO: D3-2475 EXP. DATE: 10-19-09 ACCURACY: METER READING 100.0 ACCURACY: \_\_\_\_\_

JUNCTION UNIT SECTION TOWNSHIP RANGE SYSTEM 10+10+12 ENE H-27-1 H 27 19 36 Per meeting sauaring PID RESULT PID RESULT Ο 0 0 0 130+++ n O 0 Backfill W  $\Gamma$ d

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

[] F |

Signature

9-9-04

Date

ENGLASSING SHOL	PET	LABORATORY TEST R TIGREW & ASSOC 1110 N. GRIMES HOBBS, NM 88240 (505) 393-9827	EPORT HATES, P.A.	ASHTO R18 DEBRA P. HICKS, P.E./L.S.I. WILLIAM M. HICKS. III, P.E./P.S.
То:	Rice Operating Attn: Carolyn Haynes 122 W. Tavlor		Material:	Red Clay
	Hobbs, NM 88240		Test Method:	ASTM: D 2922
Project:	JCT H-27-1 HE EME			
Date of ⊺est:	October 6, 2004		Depth:	Finished Subgrade

		Dry Density		
Test No.	Location	% Maximum	% Moisture	Depth
SG-1	Pit - 10' W. & 2' N. of SE Corner	98.0	25.8	

E C F. = 10 -OCT 1 5 2004 RICE OFERATING HOEDS, NM

Control Density:	109.5 ASTM: D 698	Optimum Moisture: 16.6
Required Compa	iction: 95%	
Lab No.:	04 11054-11055	PETTIGREW & ASSOCIATES
Copies To:	Rice	BY: On feitefi

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