

1R - 423-18

# REPORTS

DATE:

1-18-10

NMOCD Case #: 1R423-18

RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE\* REPORT

RECEIVED OOD

2010 MAR - 7 11:50

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
Justis	P-2 vent	P	2	25S	37E	Lea	Length 6'	Width 5'	Depth 4'
							eliminated		

LAND TYPE: BLM STATE X FEE LANDOWNER OTHER

Depth to Groundwater 86 feet NMOCD SITE ASSESSMENT RANKING SCORE: 50\*

Date Started 1/4/2005 Date Completed 11/5/2009 OCD Witness no

Soil Excavated 200.0 cubic yards Excavation Length 30 Width 30 Depth 6 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 1/10/2005, 1/17/2005, 11/5/2009 Sample Depth 6 ft, 66 ft, 81 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.

CHLORIDE FIELD TESTS

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	0.1	ND	35.1	1,220
BOTTOM COMP.	0.1	J[6.79]	688	1,700
REMEDIED BACKFILL	0.1	J[6.31]	132	596
SB #1 66 ft GRAB	6.8	<10.0	<10.0	4,680
SB #1 81 ft GRAB	4.8	<10.0	<10.0	288

**General Description of Remedial Action:** This junction box was addressed during the pipeline replacement/upgrade program. After the former junction box was removed, an investigation was conducted at the former junction box site using a backhoe to collect soil samples at regular intervals creating an excavation with overall dimensions of approximately 30x30x6 ft. Chloride field tests were performed on each sample which yielded elevated concentrations. Organic vapors were measured using a PID which yielded low concentrations. The excavated soil was remediated on site with clean, imported soil. Representative composite samples were collected from the excavation walls, bottom, and remediated backfill and sent to a commercial laboratory for analysis of chloride and TPH. Laboratory analysis confirmed elevated concentrations of chloride and low concentrations of TPH. A 1-ft thick clay barrier was installed at the bottom of the excavation at 6-5 ft below ground surface (BGS) and a compaction test was performed on 5/8/2006. The remediated backfill was returned to the excavation to ground surface and contoured to the surrounding area. An identification plate was placed on the surface at the former junction box site to mark the presence of the clay below. On 10/20/2006, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. To further investigate depth of chloride presence, a soil bore was initiated at the former junction box site on 11/5/2009 with soil samples collected at regular intervals. Chloride field tests were performed on each sample which yielded elevated concentrations. The 66 and 81 ft samples were sent to a commercial laboratory for analysis of chloride and TPH. Lab analysis yielded low concentrations of TPH and elevated chloride concentrations that decreased with depth. The entire borehole was plugged with bentonite to the ground surface. NMOCD was notified of potential groundwater impact on 11/20/2009. \*Inactive well 435 ft SW and cattle water pond 980 ft SE.

ADDITIONAL EVALUATION IS HIGH PRIORITY

enclosures: photos, lab results, PID (field) screenings, bore log, cross-section, compaction test, chloride curve

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	1120
bottom comp.	6'	1759
SOIL BORING at the junction source (11/5/2009)	3'	868
	6'	598
	9'	877
	12'	892
	15'	917
	18'	1,251
	21'	1,255
	24'	1,354
	27'	1,801
	30'	1,738
	33'	2,050
	36'	2,573
	39'	1,717
	42'	1,372
	45'	1,280
	48'	1,495
	51'	1,836
	54'	1,540
	57'	1,069
	60'	3,345
	63'	1,213
	66'	3,362
	69'	1,646
	72'	1,782
	75'	1,040
	78'	705
	81'	556

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

SITE SUPERVISOR Joe Gatts SIGNATURE not available COMPANY RICE OPERATING COMPANY

REPORT ASSEMBLED BY Katie Jones INITIAL KJ

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Baker Jr. DATE 1-19-10

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

# Justis P-2 vent

Unit P, Section 2, T25S, R37E



former junction box site, facing north

12/9/2004



installing a clay barrier, facing west

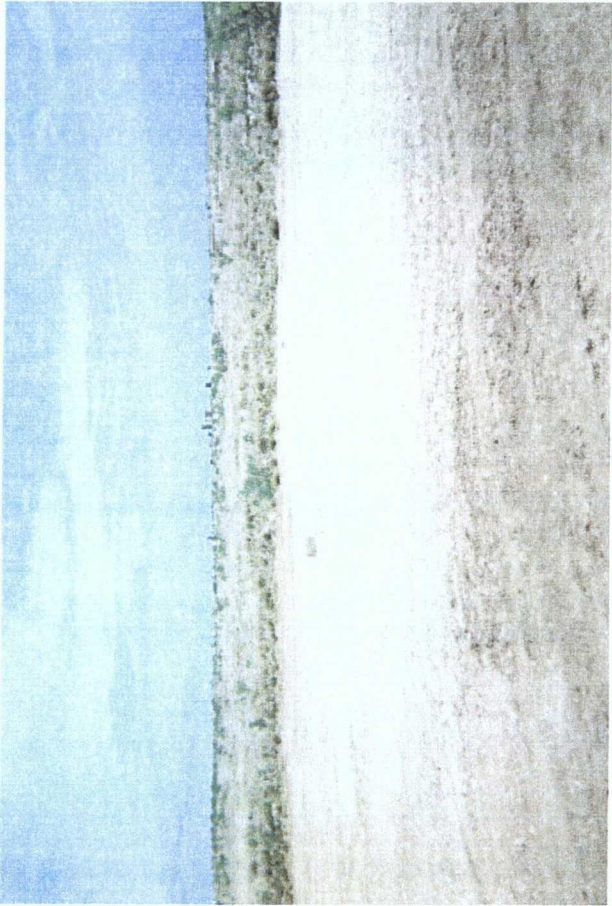
5/5/2006



backfilling final excavation, facing east

5/10/2006





site complete with clay marker, facing north

5/15/2006



seeding backfilled site

10/20/2006



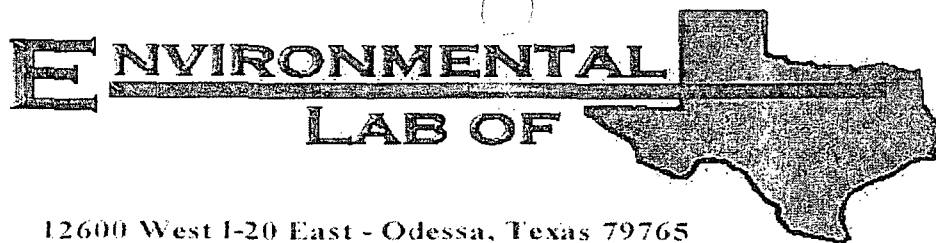
drilling SB #1 at the former junction box site

11/5/2009



plugging SB #1 with bentonite

11/5/2009



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

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

COPY

Project: Justis P-2  
Project Number: None Given  
Location: None Given

Lab Order Number: 5A21002

Report Date: 01/24/05

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/24/05 16:42

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Remd Backfill	5A21002-01	Soil	01/17/05 15:30	01/21/05 07:50

COPY

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/24/05 16:42

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Remd Backfill (5A21002-01) Soil</b>									
Gasoline Range Organics C6-C12	J [6.31]	10.0	mg/kg dry	1	EA52110	01/21/05	01/21/05	EPA 8015M	J
Diesel Range Organics >C12-C35	132	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	132	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		121 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		127 %	70-130		"	"	"	"	

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/25/05 12:14

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Remd Backfill (5A21002-01) Soil</b>									
Chloride	596	5.00	mg/kg Wet	2	EA52105	01/21/05	01/21/05	SW 846 9253	
% Moisture	7.2		%	1	EA52405	01/21/05	01/24/05	% calculation	



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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/24/05 16:42

COPY

**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
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**Batch EA52110 - Solvent Extraction (GC)**

**Blank (EA52110-BLK1)**

Prepared & Analyzed: 01/21/05

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	"							
Surrogate: 1-Chlorooctane	41.7		mg/kg	50.0		83.4	70-130			
Surrogate: 1-Chlorooctadecane	46.9		"	50.0		93.8	70-130			

**LCS (EA52110-BS1)**

Prepared & Analyzed: 01/21/05

Gasoline Range Organics C6-C12	448	10.0	mg/kg wet	500		89.6	75-125			
Diesel Range Organics >C12-C35	545	10.0	"	500		109	75-125			
Total Hydrocarbon C6-C35	993	10.0	"	1000		99.3	75-125			
Surrogate: 1-Chlorooctane	51.8		mg/kg	50.0		104	70-130			
Surrogate: 1-Chlorooctadecane	49.7		"	50.0		99.4	70-130			

**Calibration Check (EA52110-CCV1)**

Prepared & Analyzed: 01/21/05

Gasoline Range Organics C6-C12	441		mg/kg	500		88.2	80-120			
Diesel Range Organics >C12-C35	539		"	500		108	80-120			
Total Hydrocarbon C6-C35	980		"	1000		98.0	80-120			
Surrogate: 1-Chlorooctane	50.0		"	50.0		100	70-130			
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130			

**Matrix Spike (EA52110-MS1)**

Source: 5A21003-01

Prepared & Analyzed: 01/21/05

Gasoline Range Organics C6-C12	530	10.0	mg/kg dry	582	ND	91.1	75-125			
Diesel Range Organics >C12-C35	600	10.0	"	582	ND	103	75-125			
Total Hydrocarbon C6-C35	1130	10.0	"	1160	ND	97.4	75-125			
Surrogate: 1-Chlorooctane	58.9		mg/kg	50.0		118	70-130			
Surrogate: 1-Chlorooctadecane	57.6		"	50.0		115	70-130			

**Matrix Spike Dup (EA52110-MSD1)**

Source: 5A21003-01

Prepared & Analyzed: 01/21/05

Gasoline Range Organics C6-C12	520	10.0	mg/kg dry	582	ND	89.3	75-125	1.90	20	
Diesel Range Organics >C12-C35	603	10.0	"	582	ND	104	75-125	0.499	20	
Total Hydrocarbon C6-C35	1120	10.0	"	1160	ND	96.6	75-125	0.889	20	
Surrogate: 1-Chlorooctane	59.7		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	58.1		"	50.0		116	70-130			

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/25/05 12:14

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EA52105 - Water Extraction**

**Blank (EA52105-BLK1)**

Prepared & Analyzed: 01/21/05

Chloride ND 2.50 mg/kg Wet

**Matrix Spike (EA52105-MS1)**

Source: 5A20007-01

Prepared & Analyzed: 01/21/05

Chloride 489 5.00 mg/kg Wet 500 0.00 97.8 80-120

**Matrix Spike Dup (EA52105-MSD1)**

Source: 5A20007-01

Prepared & Analyzed: 01/21/05

Chloride 489 5.00 mg/kg Wet 500 0.00 97.8 80-120 0.00 20

**Reference (EA52105-SRM1)**

Prepared & Analyzed: 01/21/05

Chloride 5050 2.50 mg/kg Wet 5000 101 80-120

**Batch EA52405 - General Preparation (Prep)**

**Blank (EA52405-BLK1)**

Prepared: 01/21/05 Analyzed: 01/24/05

% Moisture 0.001 %

**Duplicate (EA52405-DUP1)**

Source: 5A21002-01

Prepared: 01/21/05 Analyzed: 01/24/05

% Moisture 7.3 % 7.2 1.38 20

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/24/05 16:42

### Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
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  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

COPY

Report Approved By:

*Coley D. Keene*

Date:

*01/25/05*

Raland K. Tuttle, Lab Manager  
Coley 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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If you have received this material in error, please notify us immediately at 432-563-1800.





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

Client: Rice Operating Co.

Date/Time: 01-21-03 @ 0750

Order #: 5A21002

Initials: JMM

COPY

## Sample Receipt Checklist

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

Other observations:

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## Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
Regarding: \_\_\_\_\_

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Corrective Action Taken:

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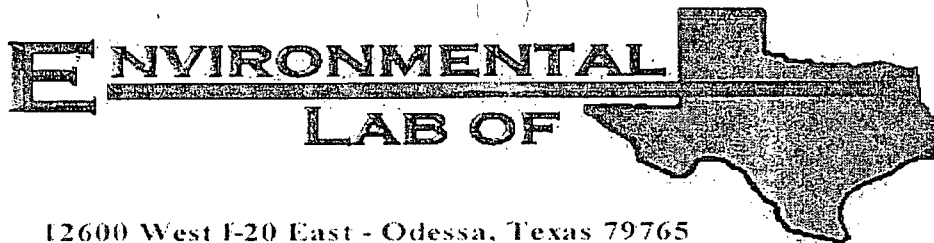
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12600 West F-20 East - Odessa, Texas 79765

COPY

## Analytical Report

**Prepared for:**

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

Project: Justis P-2  
Project Number: None Given  
Location: None Given

Lab Order Number: 5A11004

Report Date: 01/17/05

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

COPY

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom Comp. 6'	5A11004-01	Soil	01/10/05 11:45	01/11/05 07:40
4 Wall Comp.	5A11004-02	Soil	01/10/05 11:30	01/11/05 07:40

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Bottom Comp. 6' (5A11004-01) Soil</b>									
Gasoline Range Organics C6-C12	J [6.79]	10.0	mg/kg dry	1	EA51108	01/11/05	01/15/05	EPA 8015M	J
Diesel Range Organics >C12-C35	688	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	688	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		95.4 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		89.2 %	70-130		"	"	"	"	
<b>4 Wall Comp. (5A11004-02) Soil</b>									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EA51108	01/11/05	01/15/05	EPA 8015M	
Diesel Range Organics >C12-C35	35.1	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	35.1	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		102 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		95.6 %	70-130		"	"	"	"	



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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:

01/17/05 15:06

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**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Bottom Comp. 6' (5A11004-01) Soil</b>									
Chloride	1700	20.0	mg/kg Wet	2	EA51412	01/11/05	01/14/05	SW 846 9253	
% Moisture	11.9		%	1	EA51113	01/11/05	01/12/05	% calculation	
<b>4 Wall Comp. (5A11004-02) Soil</b>									
Chloride	1220	20.0	mg/kg Wet	2	EA51412	01/11/05	01/14/05	SW 846 9253	
% Moisture	1.2		%	1	EA51113	01/11/05	01/12/05	% calculation	

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

**COPY**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EA51108 - Solvent Extraction (GC)**

**Blank (EA51108-BLK1)**

Prepared: 01/11/05 Analyzed: 01/14/05

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	"							
Surrogate: 1-Chlorooctane	45.2		mg/kg	50.0		90.4	70-130			
Surrogate: 1-Chlorooctadecane	40.0		"	50.0		80.0	70-130			

**Blank (EA51108-BLK2)**

Prepared: 01/11/05 Analyzed: 01/15/05

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	"							
Surrogate: 1-Chlorooctane	44.7		mg/kg	50.0		89.4	70-130			
Surrogate: 1-Chlorooctadecane	44.6		"	50.0		89.2	70-130			

**LCS (EA51108-BS1)**

Prepared: 01/11/05 Analyzed: 01/14/05

Gasoline Range Organics C6-C12	476	10.0	mg/kg wet	500		95.2	75-125			
Diesel Range Organics >C12-C35	452	10.0	"	500		90.4	75-125			
Total Hydrocarbon C6-C35	928	10.0	"	1000		92.8	75-125			
Surrogate: 1-Chlorooctane	45.3		mg/kg	50.0		90.6	70-130			
Surrogate: 1-Chlorooctadecane	36.2		"	50.0		72.4	70-130			

**LCS (EA51108-BS2)**

Prepared: 01/11/05 Analyzed: 01/15/05

Gasoline Range Organics C6-C12	445	10.0	mg/kg wet	500		89.0	75-125			
Diesel Range Organics >C12-C35	507	10.0	"	500		101	75-125			
Total Hydrocarbon C6-C35	952	10.0	"	1000		95.2	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	44.6		"	50.0		89.2	70-130			

**Calibration Check (EA51108-CCV1)**

Prepared: 01/11/05 Analyzed: 01/14/05

Gasoline Range Organics C6-C12	454		mg/kg	500		90.8	80-120			
Diesel Range Organics >C12-C35	525		"	500		105	80-120			
Total Hydrocarbon C6-C35	979		"	1000		97.9	80-120			
Surrogate: 1-Chlorooctane	46.7		"	50.0		93.4	70-130			
Surrogate: 1-Chlorooctadecane	44.7		"	50.0		89.4	70-130			

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

**COPY**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EA51108 - Solvent Extraction (GC)**

**Calibration Check (EA51108-CCV2)**

Prepared: 01/11/05 Analyzed: 01/15/05

Gasoline Range Organics C6-C12	474		mg/kg	500		94.8	80-120			
Diesel Range Organics >C12-C35	488		"	500		97.6	80-120			
Total Hydrocarbon C6-C35	962		"	1000		96.2	80-120			
Surrogate: 1-Chlorooctane	52.8		"	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	46.0		"	50.0		92.0	70-130			

**Matrix Spike (EA51108-MS1)**

Source: 5A10012-13

Prepared: 01/11/05 Analyzed: 01/14/05

Gasoline Range Organics C6-C12	555	10.0	mg/kg dry	571	ND	97.2	75-125			
Diesel Range Organics >C12-C35	612	10.0	"	571	ND	107	75-125			
Total Hydrocarbon C6-C35	1170	10.0	"	1140	ND	103	75-125			
Surrogate: 1-Chlorooctane	50.6		mg/kg	50.0		101	70-130			
Surrogate: 1-Chlorooctadecane	49.8		"	50.0		99.6	70-130			

**Matrix Spike (EA51108-MS2)**

Source: 5A10012-21

Prepared: 01/11/05 Analyzed: 01/15/05

Gasoline Range Organics C6-C12	514	10.0	mg/kg dry	554	ND	92.8	75-125			
Diesel Range Organics >C12-C35	562	10.0	"	554	ND	101	75-125			
Total Hydrocarbon C6-C35	1080	10.0	"	1110	ND	97.3	75-125			
Surrogate: 1-Chlorooctane	58.6		mg/kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	63.0		"	50.0		126	70-130			

**Matrix Spike Dup (EA51108-MSD1)**

Source: 5A10012-13

Prepared: 01/11/05 Analyzed: 01/14/05

Gasoline Range Organics C6-C12	526	10.0	mg/kg dry	571	ND	92.1	75-125	5.37	20	
Diesel Range Organics >C12-C35	614	10.0	"	571	ND	108	75-125	0.326	20	
Total Hydrocarbon C6-C35	1140	10.0	"	1140	ND	100	75-125	2.60	20	
Surrogate: 1-Chlorooctane	52.8		mg/kg	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	49.5		"	50.0		99.0	70-130			

**Matrix Spike Dup (EA51108-MSD2)**

Source: 5A10012-21

Prepared: 01/11/05 Analyzed: 01/15/05

Gasoline Range Organics C6-C12	515	10.0	mg/kg dry	554	ND	93.0	75-125	0.194	20	
Diesel Range Organics >C12-C35	534	10.0	"	554	ND	96.4	75-125	5.11	20	
Total Hydrocarbon C6-C35	1050	10.0	"	1110	ND	94.6	75-125	2.82	20	
Surrogate: 1-Chlorooctane	48.1		mg/kg	50.0		96.2	70-130			
Surrogate: 1-Chlorooctadecane	45.5		"	50.0		91.0	70-130			

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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch EA51113 - General Preparation (Prep)**

**Blank (EA51113-BLK1)** Prepared: 01/11/05 Analyzed: 01/17/05

% Moisture 0.0 %

**Duplicate (EA51113-DUP1)** Source: 5A10006-01 Prepared: 01/11/05 Analyzed: 01/17/05

% Moisture 6.9 % 5.9 15.6 20

**Batch EA51412 - Water Extraction**

**Blank (EA51412-BLK1)** Prepared: 01/11/05 Analyzed: 01/14/05

Chloride ND 20.0 mg/kg Wet

**Matrix Spike (EA51412-MS1)** Source: 5A07008-01 Prepared: 01/11/05 Analyzed: 01/14/05

Chloride 489 20.0 mg/kg Wet 500 0.00 97.8 80-120

**Matrix Spike Dup (EA51412-MSD1)** Source: 5A07008-01 Prepared: 01/11/05 Analyzed: 01/14/05

Chloride 500 20.0 mg/kg Wet 500 0.00 100 80-120 2.22 20

**Reference (EA51412-SRM1)** Prepared & Analyzed: 01/14/05

Chloride 5000 mg/kg 5000 100 80-120



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

Project: Justis P-2  
Project Number: None Given  
Project Manager: Joe Gatts

Fax: (505) 397-1471

Reported:  
01/17/05 15:06

### Notes and Definitions

COPY

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).  
DET Analyte DETECTED  
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  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

Raland K Tuttle

Date:

1-18-05

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.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

12600 West I-20 East  
Odessa, Texas 79763  
Phone: 915-563-1800  
Fax: 915-563-1713

Phone: 915-563-1800  
Fax: 915-563-1713

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Rox Larson

Company Name

# Rice Operating

Company Address:

122 W. Taylor

City/State/Zip:

nm 58240

Telephone No:

505-393-9170

**Fax No:**

505-397-1471

Sampler Signature:

*Per. Salt*

COPI

[illegible]

Drop Box

# Environmental Lab of T. Las

## Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co.

Date/Time: 01-11-05 @ 0740

Order #: 5A11004

Initials: JMM

COPY

### Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	-0.5 C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Custody Seals intact on shipping container/cooler?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Custody Seals intact on sample bottles?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<u>Not present</u>
Chain of custody present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Instructions complete on Chain of Custody?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<u>see below</u>
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Container labels legible and intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples in proper container/bottle?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Samples properly preserved?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sample bottles intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Not Applicable

Other observations: TDS, Cl, SAR, EC + TPH BODISM was marked on COC

### Variance Documentation:

Contact Person: - Roy Rascon Date/Time: 01-11-05 @ 0930 Contacted by: Jeanne McMurphy

Regarding: analysis request

### Corrective Action Taken:

Run only Cl<sup>-</sup> + BODISM

# 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

MODEL NO: PGM 761S

SERIAL NO: 104412

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 03-2475

FILL DATE: 8/17/03

EXP. DATE: 2/13/05

ACCURACY: + or - 2%

METER READING

ACCURACY: 100.1

COPIES

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
Justis	P-2	P	2	25	37

SAMPLE	PID RESULT	SAMPLE	PID RESULT
15' N. WALL	0.1		
15' S. WALL	0.1		
15' E. WALL	0.1		
15' W. WALL	0.1		
Bottom Comp 6'	0.1		
14' WALL comp	0.1		
REMD. Backfill	0.1		


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

Joe Ratt  
Signature


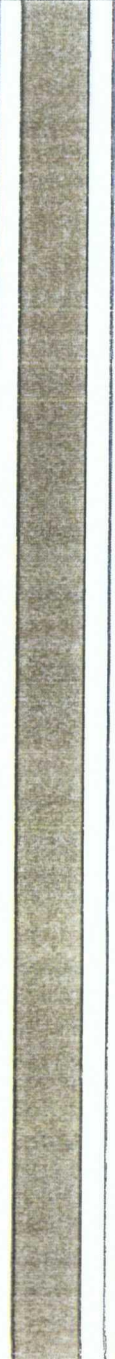



Environmental Tech.  
Title

11/10/05  
Date



Logger:	Lara Weinheimer				
Driller:	Harrison & Cooper, Inc. Drilling				
Consultant:	N/A - ROC Junction Box Upgrade Plan				
Drilling Method:	Air rotary				
Start Date:	11/5/2009				
End Date:	11/5/2009			Project Name:	Well ID:
Comments: All samples from cuttings. Located at source  Drafted by: Lara Weinheimer TD = 81 ft      GW = 84 ft				Justis jct. P-2	SB #1
				Location: UL/P sec. 2 T25S R37E	
				Lat: N32°9'21.486"	County: Lea
				Long: W103°7'39.582"	State: NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				0 - 6 ft		
3	868		3.8	VERY FINE TO FINE SAND; CALICHE brown, dry, no odor		
6	598		6.1			
				6 - 9 ft		
				VERY FINE TO FINE SAND; CALICHE orangey brown, very slightly moist, no odor		
9	877		7.2			
				9 - 15 ft		
12	892		6.8	FINE TO MEDIUM SAND; CALICHE orangey brown, slightly moist, no odor		
15	917		4.2			
18	1251		4.4			
				15 - 27 ft		
				FINE TO MEDIUM SAND; CALICHE reddish-orange, slightly moist, no odor		
21	1255		3.3			
24	1354		4.7			
27	1801		3.5			

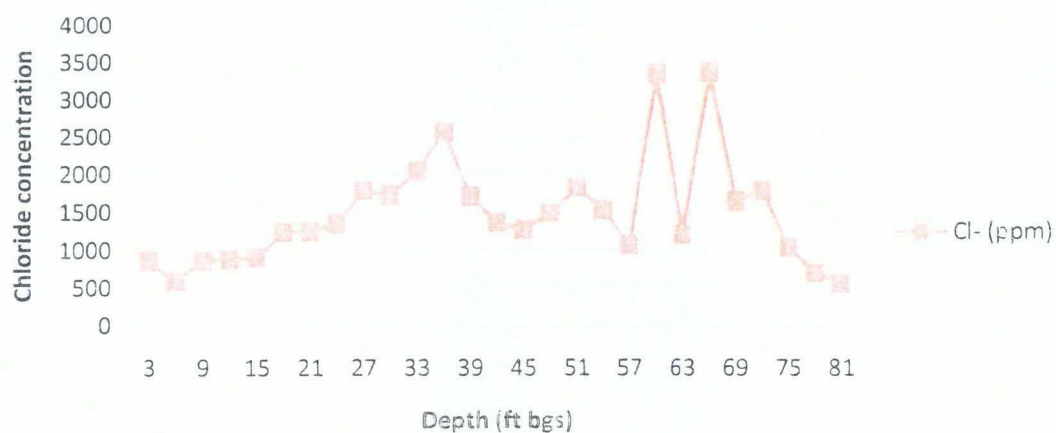
				27 - 30 ft				
				FINE TO MEDIUM SAND; CALICHE				
30	1738		4.3	orangey brown, slightly moist, no odor				
				30 - 36 ft				
				FINE TO MEDIUM SAND; CALICHE				
33	2050		5.6	light orangey brown, dry, no odor				
36	2573		6.2					
				36 - 51 ft				
				VERY FINE TO FINE SAND				
39	1717		3.6	orangey brown, slightly moist, no odor				
42	1372		4.7					
45	1280		4.7					
48	1495		8					
51	1836		6					
				51 - 54 ft				
				VERY FINE TO FINE SAND				
54	1540		6.4	light brown, dry, no odor				
				54 - 57 ft				
				VERY FINE TO FINE SAND				
57	1069		6.7	orangey brown, slightly moist, no odor				
				57 - 60 ft				
				VERY FINE TO FINE SAND, SANDSTONE				
60	3345		7.7	orangey brown, slightly moist, no odor				

bentonite  
seal



				60 - 66 ft				
63	1213		6.1	VERY FINE TO FINE SAND, ROCKY				
				light brown, moist, no odor				
66	3362		6.8					
				66 - 72 ft				
				VERY FINE TO FINE SAND				
69	1646		6.2	light orangey brown, dry, no odor				
72	1782		5.7					
				72 - 81 ft				
				VERY FINE TO FINE SAND				
75	1040		5.8	light brown, dry, no odor				
78	705		4					
81	556		4.8					

Chloride Concentration versus Depth



# RICE OPERATING COMPANY

122 West Taylor ~ Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

CK  
MODEL  
NO.

✓

MODEL: PGM 7300

SERIAL NO: 590-000183

MODEL: PGM 7300

SERIAL NO: 590-000504

MODEL: PGM 7600

SERIAL NO: 110-12383

MODEL: PGM 7600

SERIAL NO: 110-02920

COPY

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 924908	EXPIRATION DATE: 7-29-2012
FILL DATE: 7-30-09	METER READING ACCURACY: 99.9

ACCURACY: +/- 2%

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
<del>Justis</del>	Jet P-2	P	2	T25S	R37E

SAMPLE ID: Soil bore #1

DEPTH	PID
3'	3.8
6'	6.1
9'	7.2
12'	6.8
15'	4.2

DEPTH	PID
33'	5.6
36'	6.2
39'	3.6
42'	4.7
45'	4.7

DEPTH	PID
63'	6.1
66'	6.8
69'	6.2
72'	5.7
75'	5.8

DEPTH	PID

DEPTH	PID
18'	4.4
21'	3.7
24'	4.7
27'	3.5
30'	4.3

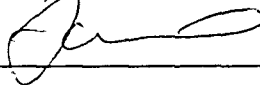
DEPTH	PID
48'	5.0
51'	6.0
54'	6.4
57'	6.7
60'	7.7

DEPTH	PID
78'	4.0
81'	4.8

DEPTH	PID

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

Signature



Date

11-5-09

SITE MAP





# CARDINAL LABORATORIES

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

COPY

Receiving Date: 11/06/09  
Reporting Date: 11/11/09  
Project Owner: NOT GIVEN  
Project Name: JUSTIS JCT P-2  
Project Location: JUSTIS JCT P-2

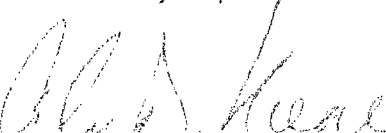
Sampling Date: 11/05/09  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: ML  
Analyzed By: AB/HM

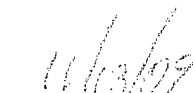
LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C <sub>3</sub> -C <sub>10</sub> )	(>C <sub>10</sub> -C <sub>29</sub> )	
		(mg/kg)	(mg/kg)	(mg/kg)

ANALYSIS DATE	11/10/09	11/10/09	11/10/09
H18680-1 SB#1 @ 66'	<10.0	<10.0	4,680
H18680-2 SB#1 @ 81'	<10.0	<10.0	288
Quality Control	448	509	500
True Value QC	500	500	500
% Recovery	89.6	102	100
Relative Percent Difference	0.5	1.5	< 0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB

\*Analyses performed on 1:4 w/v aqueous extracts. Reported on wet weight.

  
\_\_\_\_\_  
Chemist

  
\_\_\_\_\_  
Date

H18680 TCL RICE

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 client for 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 thirty (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. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



# CARDINAL LABORATORIES

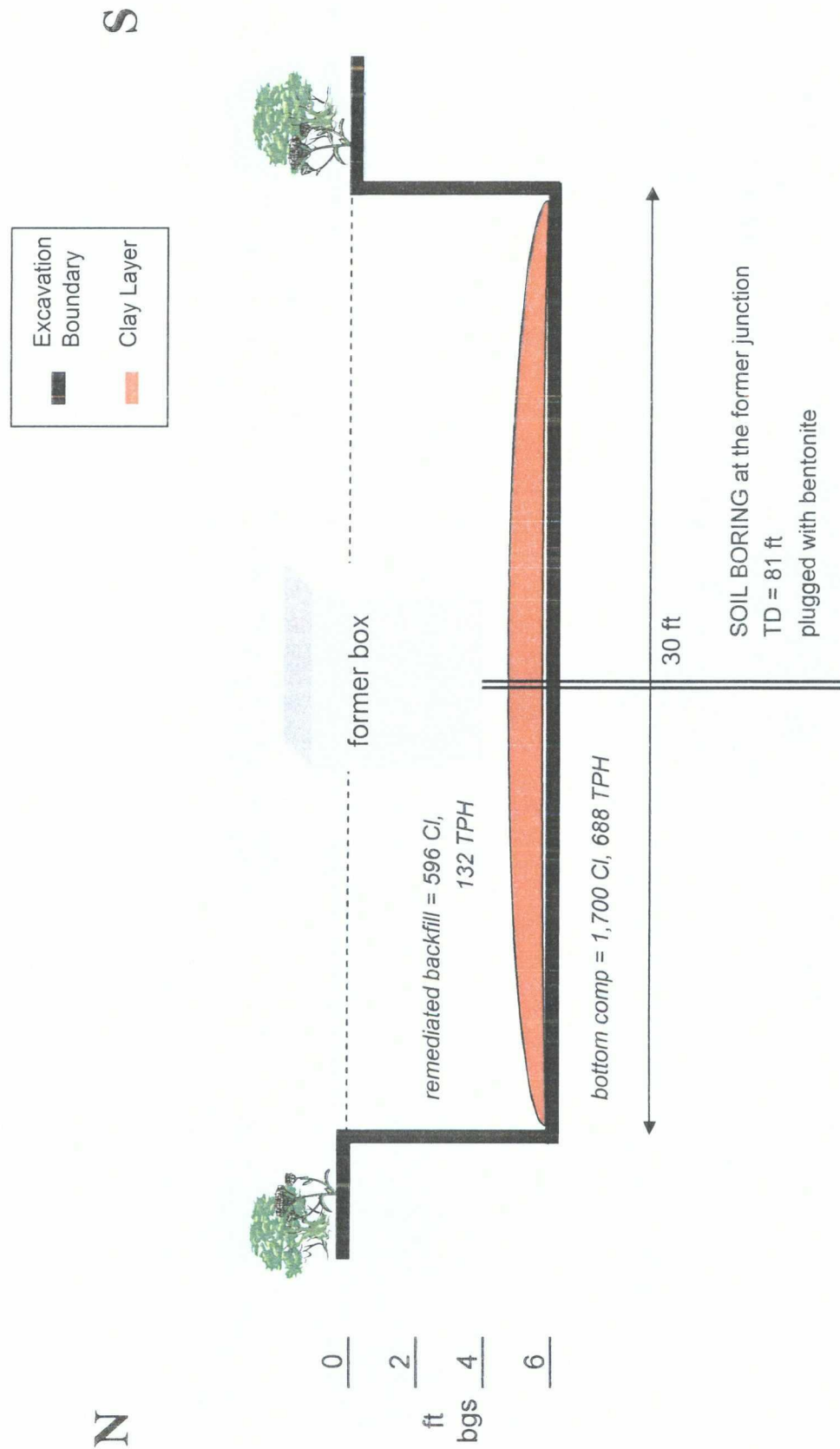
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

## CHAIN OF CUSTODY AND ANALYSIS REQUEST

Company Name: Rice Operating Company		P.O. #:		BILL TO ANALYSIS REQUEST																											
Project Manager: Hack Conder		Company:																													
Address: 122 West Taylor		Attn:																													
City: Hobbs		State: NM		Zip: 88240																											
Phone #: 393-9174		Fax #: 397-1471																													
Project #:		Project Owner:																													
Project Name: Hobbs J-1 P-2																															
Project Location: Hobbs J-1 P-2																															
Sampler Name: Lara Weinheimer																															
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING																									
Lab I.D.		# CONTAINERS		GROUNDWATER		WASTEWATER		SLUDGE		OTHER:		ACID/BASE		ICE/COOL		OTHER:		DATE		TIME											
H10165-1		1		1		1		1		1		1		1		1		11-5-01		9:50											
2		1		1		1		1		1		1		1		1		11-5-01		10:00											

# Justis P-2 vent Unit 'P', Section 2, T25S, R37E

## Excavation Cross-Section





LABORATORY TEST REPORT  
**PETTIGREW & ASSOCIATES, P.A.**  
1110 N. GRIMES  
HOBBS, NM 88240  
(505) 393-9827



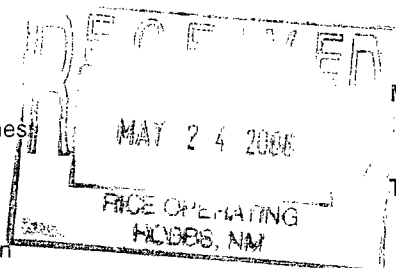
DEBRA P. HICKS, P.E./L.S.I.  
WILLIAM M. HICKS, III, P.E./P.S.

To: Rice Operating  
Attn: Carolyn Haynes  
122 W. Taylor  
Hobbs, NM 88240

Material: Red Clay

Project: General Information  
Project No. 2006.1005

Test Method: ASTM: D 2922



COPY

Date of Test: May 8, 2006

Depth: 5' Below Finished Subgrade

Depth of Probe: 6"

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG 5	Justis P-2 - 15' N. & 15' E. of the SW Corner	95.4	22.4	

Control Density: 105.9  
ASTM: D 698

Optimum Moisture: 17.6

Required Compaction: 95%

Lab No.: 06 2861-2862

PETTIGREW & ASSOCIATES

Copies To: Rice

BY: \_\_\_\_\_ P.E.



# Justis P-2 vent

Unit 'P', Sec. 2, T17S, R35E

Soil Bore samples at the junction (source)

Depth bgs (ft)	Cl <sup>-</sup> ppm
3	868
6	598
9	877
12	892
15	917
18	1,251
21	1,255
24	1,354
27	1,801
30	1,738
33	2,050
36	2,573
39	1,717
42	1,372
45	1,280
48	1,495
51	1,836
54	1,540
57	1,069
60	3,345
63	1,213
66	3,362
69	1,646
72	1,782
75	1,040
78	705
81	556

Groundwater = 86 ft

