1R - 426-55

REPORTS

DATE:

10/17/2002

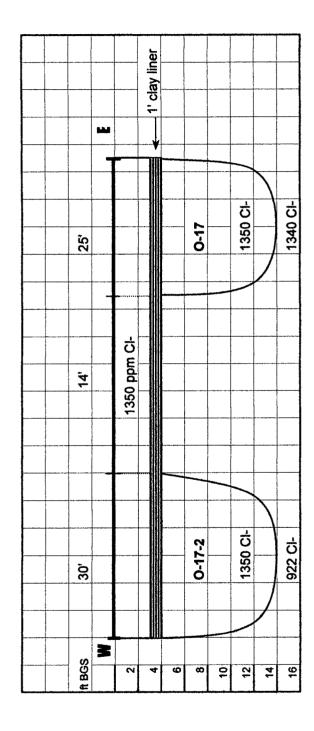
1R-426-55

FINAL

REPORT

RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT

				BOX LOC						
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY		DIMENSIONS	· · · · · · · · · · · · · · · · · · ·	4
Blinebry-Drinkard	0-17	0	17	21 S	37 E	Lea	Length 12'	Width 6'	Depth 8'	
LAND TYPE: E	BLM S	TATE	FEE LA	NDOWNER	Millard-	Deck Estate	OTHE	₹		_
Depth to Grour									10	
	9/6/200								lo	
Soil Excavated										
·					-					_ fee
Soil Disposed	0	cubic yar	ds Of	fsite Facility	<u> </u>	/a	Location]	n/a	
FINAL ANALY	TICAL RE	STILIS	' Samni	o Dato	0/17/2	ากว	Sample D	anth	14 ft BGS	
	HOAL NL	.GOL10	. Sampi	e Date	3/1//20	002	Sample D	ehm	14 11 1500	
	ocure 5-point	-	•		•	•	•			
ļ	BTEX and Chl						oved lab a	nd testing		
		þ	rocedures	pursuant to	NMOCD gu	idelines.				
Sample	Benzene	Tolu	ene Fi	thyl Benzene	Total Xylen	es G	RO I	DRO	Chloride	
Location	mg/kg	mg		mg/kg	mg/kg		/kg	mg/kg	mg/kg	
SIDEWALLS	<0.025	<0.0	025	<0.025	<0.025	<1	0.0	<10.0	369	
BOTTOM	<0.025	<0.0		<0.025	<0.025		0.0	<10.0	1340	
REMEDIATED	<0.025	<0.0)25	<0.025	< 0.025	<1	0.0	481	1350	
General Description		-	······································		rtical chloride		CHLO	RIDE FIELD	TESTS	
ontinued to be minima	al in all lateral dire	ections.				L	CATION	DEPTH	І ррі	m
25' x 16' area was ex			ensure that a	II measurable	TPH would be		Vertical	5	206	
emoved, bottom and v							•	7	61	 2
emediated on location			-,					9	76	2
hlorides. The remaini	ng chloride conc	entration is	not consider	ed threatening	to groundwate	er		11	155	51
ecause a compacted	clay liner was ins	stalled to int	ibit downwai	d migration ar	d the surface	is		13	174	18
expected to re-vegetate	e. At 4' BGS, the	e 1' clay line	r was installe	ed and extende	ed to connect v	vith				
nother junction box (C)-17-2) that was i	remediated	at the same	time (see attac	ched diagram)					
he top 3' of the excav		lled with the	blended soil	A water-tight	junction box					
as since been built at			·		• • • • • • • • • • • • • • • • • • • •					
c: lab results, diagram	1	·						<u> </u>		
I HEREBY	CERTIFY TH	AT THE		TION ABOV			PLETE TO	THE BEST (OF MY	
ATE/	0-17-08	3		PRI	NTED NAME		Kr	stin Farris		
GIGNATURE	nistin	dans	روי		TITLE		Environment	al Projects Sci	entist	



O-17 wall

ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 **ODESSA, TX 79768**

Project:

Rice

PO#:

Order#:

G0204542

Report Date:

09/24/2002

Certificates

US EPA Laboratory Code TX00158

SAMPLE WORK LIST

RE ENVIRONMENTAL

P.O. BOX 13418

ODESSA, TX 79768

366-0804

Order#:

G0204542

Project:

Project Name: Rice

Location:

O-17 (Old)

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u> 0204542-01	Sample: 5 pt. Bottom Comp. @ 14'	Matrix:		Collected 9/17/02 11:00	Pate / Time Received 9/18/02 8:45	Container 4 oz glass	Preservative Ice
<u>La</u>	ab Testing: 8015M 8021B/5030 BTEX Chloride	Rejected:	No	Ten	np: 3.5 C		
0204542-02	4 pt. Wall Comp. @ 13'	SOIL		9/17/02 11:00	9/18/02 8:45	4 oz glass	Ice
<u>La</u>	ab Testing: 8015M 8021B/5030 BTEX Chloride	Rejected:	No	Ten	np: 3.5 C		

ANALYTICAL REPORT

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768 Order#:

G0204542

Project:

Project Name:

Rice

Location:

O-17 (Old)

Lab ID:

0204542-01

Sample ID:

5 pt. Bottom Comp. @ 14'

8015M

Method Blank Date Prepared Date Analyzed Sample Amount Dilution <u>Factor</u>

Analyst

st Method

9/18/02

1

CK 8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method <u>Blank</u> 0003198-02 Date <u>Prepared</u> Date <u>Analyzed</u> 9/21/02 1:55 Sample Amount Dilution Factor 25

Analyst CK Method 8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	< 0.025	0.025
p/m-Xylene	< 0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)		
aaa-Toluene	101%	80	120	
Bromofluorobenzene	97%	80	120	

ANALYTICAL REPORT

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 **ODESSA, TX 79768**

Order#:

G0204542

Project:

Project Name:

Rice

Location:

O-17 (Old)

Lab ID:

0204542-02

Sample ID:

4 pt. Wall Comp. @ 13'

8015M

Method Blank

Date Prepared

Date Analyzed 9/18/02

Sample Amount

Dilution

Factor

Analyst CK

Method 8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method Blank 0003198-02

Date **Prepared**

Date <u>Analyzed</u> 9/21/02 2:18

Sample Amount 1

Dilution **Factor** 25

<u>Analyst</u> CK

Method 8021B

Result RLParameter mg/kg Benzene < 0.025 0.025 0.025 < 0.025 Ethylbenzene 0.025 <0.025 Toluene 0.025 p/m-Xylene < 0.025 0.025 <0.025 o-Xylene

Surrogates	% Recovered		QC Limits (%)		
aaa-Toluene	106%	80	120		
Bromofluorobenzene	102%	80	120		

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ANALYTICAL REPORT

LOGAN ANDERSON **RE ENVIRONMENTAL** P.O. BOX 13418

ODESSA, TX 79768

Order#:

G0204542

Project:

Project Name:

Rice

Location:

O-17 (Old)

<u>RL</u>

20.0

Lab ID:

0204542-01

Sample ID:

5 pt. Bottom Comp. @ 14'

Test Parameters

Parameter Chloride

Units

Dilution **Factor**

1

Method 9253

<u>Analyst</u> CK

Lab ID:

0204542-02

Sample ID:

Chloride

4 pt. Wall Comp. @ 13'

Test Parameters

Parameter

Result 369

Result

1340

Units

mg/kg

mg/kg

Dilution **Factor** 1

RL20.0 Method

9253

Date Analyzed <u>Analyst</u> 9/20/02 CK

Date

Analyzed

9/20/02

Approval:

Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech. Sara Molina, Lab Tech.

QUALITY CONTROL REPORT

8015M

BLANK SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003181-02			<10.0		
CONTROL SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003181-03		952	1120	117.6%	
CONTROL DUP SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003181-04		952	1120	117.6%	0.%
SRM SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003181-05		1000	1120	112.%	

QUALITY CONTROL REPORT

8021B/5030 BTEX

BLANK	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003198-02			<0.025		
Ethylbenzene-mg/kg		0003198-02			<0.025		
Toluene-mg/kg		0003198-02			<0.025		
p/m-Xylene-mg/kg		0003198-02			<0.025		
o-Xylene-mg/kg	 	0003198-02			<0.025		
MS	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204546-03	0	0.1	0.102	102.%	
Ethylbenzene-mg/kg		0204546-03	0	0.1	0.108	108.%	
Toluene-mg/kg	······································	0204546-03	0	0.1	0.108	108.%	
p/m-Xylene-mg/kg		0204546-03	0	0.2	0.226	113.%	·
o-Xylene-mg/kg		0204546-03	0	0.1	0.106	106.%	
MSD	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204546-03	0	0.1	0.100	100.%	2.%
Ethylbenzene-mg/kg		0204546-03	0	0.1	0.109	109.%	0.9%
Toluene-mg/kg		0204546-03	0	0.1	0.104	104.%	3.8%
p/m-Xylene-mg/kg		0204546-03	0	0.2	0.225	112.5%	0.4%
o-Xylene-mg/kg		0204546-03	0	0.1	0.105	105.%	0.9%
SRM	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003198-05		0.1	0.101	101.%	
Ethylbenzene-mg/kg		0003198-05		0.1	0.105	105.%	
Toluene-mg/kg		0003198-05	-	0.1	0.107	107.%	·, ·, ·, · · · · · · · · · · · · · · ·
p/m-Xylene-mg/kg		0003198-05		0.2	0.218	109.%	
o-Xylene-mg/kg		0003198-05		0.1	0.104	104.%	

QUALITY CONTROL REPORT

Test Parameters

BLANK	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003189-01			<20.0		
MS	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	· · · · · · · · · · · · · · · · · · ·	0204538-01	19500	10000	28000	85.%	
MSD	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204538-01	19500	10000	28500	90.%	1.8%
SRM	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003189-04	•	5000	4960	99.2%	

FAT bisbust8 ambada<mark>2-arg) TAT H2UA</mark> CHAIN OF CUSTORY RECORD AND ANALYSIS REQUEST Temperature Upon Recept Samble Contamers Ictacl? Laboratory Comments: 0.03100000Anahae Semivolatiles səlileloy Wetgle: Vs Vg Ba Cd ⊂r Pb Hg Se OSICIOSES WISTOR HALL Project Lac: Project #: PO # Project Name: 11111X 1002/1000 9-802 8-15 1911/11/11 Eme วากพร 🕻 กิงรถเ (viboda) milio otipnys Water (भारतसंद्र) सम्प्रत onott tes II Hort 101 'orn' No. of Confainers Fax No: 11/01/1/07/ poldrand orall Tiskin Farris 11 rod, Received by: invironmental Lab of Texas, Inc. bolquies sied RECNOTORMENT 9-18-02 Si45A -ogan Ander son Phone: 915-563-1500 Fax: 915-563-1713 Cate FIELD CODE Project Manager: City/State/Zip: Sampler Signature: ogen Hall so Company Name Company Address: Telephone No: 600 West I-20 East fessa, Texas 79763 Special Instructions: AB # Nab use only) 5 Reinquished by:

0-17-2 Rimediated

ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 **ODESSA, TX 79768**

Project:

Rice

PO#:

Order#:

G0204605

Report Date:

09/30/2002

Certificates

US EPA Laboratory Code TX00158

SAMPLE WORK LIST

RE ENVIRONMENTAL P.O. BOX 13418

ODESSA, TX 79768

366-0804

Order#:

G0204605

Project:

Project Name: Rice

Location:

O-17

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

			Date / Time	Date / Time		
Lab ID:	Sample:	Matrix:	Collected	Received	Container	Preservative
0204605-01	Remediated Composite	SOIL	9/24/02	9/25/02	4 oz glass	Ice
	Pile		14:00	8:00		
<u>Lab</u>	Testing:	Rejected: No	Tem	p: 13 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

ANALYTICAL REPORT

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768 Order#:

Location:

G0204605

Project:

Project Name:

Rice O-17

Lab ID:

0204605-01

Sample ID:

Remediated Composite Pile

8015M

Method Blank

Date Prepared Date
Analyzed
9/25/02

Sample Amount 1 Dilution <u>Factor</u>

1

Analyst CK

Method 8015M

 Parameter
 Result mg/kg
 RL

 GRO, C6-C12
 <10.0</td>
 10.0

 DRO, >C12-C35
 481
 10.0

 TOTAL, C6-C35
 481
 10.0

8021B/5030 BTEX

Method
<u>Blank</u>
0003253-02

Date Prepared Date <u>Analyzed</u> 9/29/02 21:04 Sample Amount

Dilution Factor 25

Analyst CK

Method 8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)		
aaa-Toluene	95%	80	120	
Bromofluorobenzene	96%	80	120	

Approval: (

Raland K. Tuttle, Lab Director, QA Officer

Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

Date

9-30-02

ANALYTICAL REPORT

LOGAN ANDERSON RE ENVIRONMENTAL

P.O. BOX 13418 **ODESSA, TX 79768** Order#:

Location:

G0204605

Project:

Project Name:

Rice 0-17

Lab ID:

0204605-01

Sample ID:

Remediated Composite Pile

Test Parameters

Parameter Chloride

Result Units

mg/kg

1350

Dilution **Factor**

1

RL 20

Method Analyzed

9253

Date

9/27/02

Analyst SB

Kalandk Jully 9.30-02 Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech. Sara Molina, Lab Tech.

Date

Page 1 of 1

QUALITY CONTROL REPORT

8015M

BLANK SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003235-02		7,74	<10.0		
CONTROL SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003235-03		952	1120	117.6%	
CONTROL DUP SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003235-04		952	1200	126.1%	6.9%
SRM SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0003235-05		1000	1220	122.%	

QUALITY CONTROL REPORT 8021B/5030 BTEX

Order#: G0204605

BLANK Spike OC Test Sample Pct (%) RPD LAB-ID# Result Concentr. Concentr. SOIL Recovery <0.025 Benzene-mg/kg 0003253-02 Ethylbenzene-mg/kg <0.025 0003253-02 Toluene-mg/kg < 0.025 0003253-02 p/m-Xylene-mg/kg <0.025 0003253-02 o-Xylene-mg/kg < 0.025 0003253-02 Spike QC Test Sample Pct (%) RPD MS LAB-ID# Concentr. Result SOIL Concentr. Recovery Benzene-mg/kg 0 0.1 0.098 98.% 0204592-05 0.100 100.% Ethylbenzene-mg/kg 0 0.1 0204592-05 Toluene-mg/kg 0 0.1 0.100 100.% 0204592-05 p/m-Xylene-mg/kg 0.2 0.212 106.% 0204592-05 0 o-Xylene-mg/kg 0.1 0.100 100.% 0 0204592-05 QC Test Sample Spike Pct (%) MSD RPD LAB-ID# Concentr. Result Concentr. Recovery SOIL 0.099 Benzene-mg/kg 0204592-05 0 0.1 99.% 1.% 0 0.1 0.102 102.% 2.% Ethylbenzene-mg/kg 0204592-05 Toluene-mg/kg 0204592-05 0 0.1 0.102 102.% 2.% p/m-Xylene-mg/kg 0204592-05 0 0.2 0.217 108.5% 2.3% o-Xylene-mg/kg 0.103 103.% 0204592-05 0 0.1 3.% **OC Test SRM** Sample Spike Pct (%) RPD LAB-ID# Result Concentr. Concentr. SOIL Recovery 0.1 0.100 100.% Benzene-mg/kg 0003253-05 Ethylbenzene-mg/kg 0.103 0003253-05 0.1 103.% 0.1 0.103 103.% Toluene-mg/kg 0003253-05 p/m-Xylene-mg/kg 0.2 0.218 109.% 0003253-05 o-Xylene-mg/kg 0.1 0.103 103.% 0003253-05

QUALITY CONTROL REPORT

Test Parameters

BLANK	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003244-01			<20.0		
MS	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204605-01	1350	1000	2340	99.%	
MSD	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	 -	0204605-01	1350	1000	2320	97.%	0.9%
SRM	SOIL	LAB-ID#	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003244-04	······································	5000	4960	99.2%	

TAT bisbust alubada<mark>z-a</mark>r<mark>a) TAT H2U</mark>S CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Terriperature Upon Recept Sample Contamors (1222) BTEX 805410/2030 Analyze somyoyuuag Metals As Ag Ba Cd ca Ph Hg Se 0,77 OSICIONES INCLOSTRAL Project #: Project Loc: Project Name: 9.35 Sec DITATIVE /S Miner (specify) Date elipings Date Water (Ajuadg.) Taylo molt Preservative 'os'H Heigh 1-11 'orni tlo of Confainers Fax No: 40014 boldened omit 5-74-BJ Received by: Environmental Lab of Texas, Inc. Date Sampled E Ension ner P. 25-COJ COS:CO ogan Anderson ime Phone: 915-563-1800 Fax: 915-563-1713 Kendlated Conpesite Date Sampler Signature: Company Name Project Manager: Sompany Address: City/State/Zip: Telephone No: 12600 West I-20 East Odessa, Texas 79763 Special Instructions: AB # (lab use only) O



Before Remediation



NORM Removal



Impact excavation from new jct. O-17



Impact excavation from old jct. O-17 location



Excavation clay-lined and Backfilled



Complete Box

BD O-17 jct. box

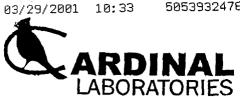


Clay Liner Connecting Sites

RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY		IMENSIONS -	
BD	0-17	0	17	228	37E	LEA	Length 6`	Width 5'	Depth 5`
1				<u> </u>	l	······································			
Land Type:	BLM	STATE	FEE LA	NDOWNER	Millard Deck	Estate	OTHER		
Depth to Ground	twater	64'	feet	NMOCE	SITE ASSE	ESSMENT I	RANKING S	CORE: 20	
Date Started	03/01	/2001	Date Co	mpleted	03/26/2001	OCD \	Witness No		
Soil Excavated	72	cubic ya	rds Exc	cavation Le	ngth <u>15</u>	Width	15`	Depth <u>8 1/</u>	2' feet
Soil Disposed		cubic yard	is Of	fsite Facility	Sundance	Disposal	Location	Euni	ce N.M.
	ocure 5-poi	nt composite Chloride labo	e sample of oratory test	bottom and results comp	darch 26,200 4-point completed by usi	nposite sam		alls. TPH,	8 1/2`
Sample	Benzene	Tolu	iene E	pursuant to	NMOCD gu		₹0	DRO	Chlorides
Location SIDEWALLS	mg/kg <0.005		/kg 005	mg/kg <0.005	mg/kg 0.015		1/kg 50	mg/kg <50	mg/kg 2200
BOTTOM	<0.005		005	<0.005	0.017		50	<50	96
below the NMO							CATION	DEPTH	mg/kg
unction box and t	hen backfille	ed.					wall comp	2' to 5'	1150 ppr
							ast Wall	2' to 5'	650 ppm
						V	Vest Wall	2' to 5'	1800 ppr
						s	outh Wall	2' to 5'	1200 ppr
						N	lorth Wall	2' to 5'	990 ppn
						bo	ttom of Jct	5'	990 ppn
						bo	ttom of Jct	8 1/2 '	100 ppn
								· · · · · · · · · · · · · · · · · · ·	
1 HEREE	BY CERTIFY	THAT THE			E IS TRUE A		LETE TO TI	HE BEST O	= MY
ATE	03/	26/2001			NTED NAME		driguez		
GNATURE	lain A	nd sins	10		TITLE		NMENTAL TE	CHNICIAN	
	JOVE A	1	ই			EHVIILO	WINE THE	O. HITOLAIT	



PHONE (815) 673-7001 - 2111 BEECHWOOD - ABILENE, TX 79803

PHONE (505) 393-2326 · 101 E. MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR RICE OPERATING CO. ATTN: CHRIS RODRIQUEZ 122 W. TAYLOR **HOBBS, NM 88240**

FAX TO:

Receiving Date: 03/26/01 Reporting Date: 03/28/01

Project Number: NOT GIVEN Project Name: JCT 0-17

Project Location: BD SEC 17 T22 R37

Sampling Date: 03/26/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC Analyzed By: BC/AH

	1	GRO	DRO	
		(C ₆ -C ₁₀)	(>C ₁₀ -C ₂₈)	CI-
LAB NUMBER SAMPLE ID		(mg/Kg)	(mg/Kg)	(mg/Kg)

ANALYSIS DAT	Έ	03/27/01	03/27/01	03/27/01
H5736-1	WALL COMPOSITE	<50	<50	2200
H5736-2	ВОТТОМ	<50	<50	96
Quality Control		716	801	980
True Value QC		800	800	1000
% Recovery		89.5	100	98.0
Relative Percent	t Difference	1.7	1.9	1.0

METHODS: TPH GRO & DRO; EPA SW-846 8015 M; Clr. Std. Methods 4500-Clb *Analyses performed on 1:4 w:v aqueous extracts.

PLEADENDE LIBBINITY and Demuges. Cardinal's liability and olient's exclusive remedy for any claim arising, whether based in contract or force ability and be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days effer 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, affillates or successors arising out of or related to the partnmance of services hereundar by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



5053932476

PHONE (915) 673-7001 - 2111 BEECHWOOD - ABILENE, TX 79603

PHONE (605) 393-2328 - 101 E. MARLAND - HOBBS, NM 68240

ANALYTICAL RESULTS FOR RICE OPERATING CO. ATTN: CHRIS RODRIQUEZ 122 W. TAYLOR **HOBBS, NM 88240**

FAX TO:

Receiving Date: 03/26/01

Reporting Date: 03/28/01 Project Number: NOT GIVEN

Project Name: JCT 0-17

Project Location: BD SEC 17 T22 R37

Sampling Date: 03/26/01

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS I	DATE	03/26/01	03/26/01	03/28/01	03/26/01
H5736-1	WALL COMPOSITE	< 0.005	<0.005	< 0.005	0.015
H5738-2	BOTTOM	<0.005	<0.005	<0.005	0.017
Quality Cont	rol	0.108	0.105	0.106	0.317
True Value	3C	0.100	0.100	0.100	0.300
% Recovery		108	105	106	.106
Relative Per	cent Difference	2.2	0.9	2.7	2.4

METHOD: EPA SW-846 8260

PLEASENOTE: Disbling 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 desmed 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 limitedian, 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.

50533324/b Sampler - UP3 - Bus - Other: A PARTY MANAGES Delivered By: (Circle One) roject Manager: They Rodeigus 13 de 15. ATTO METATORY A STORES Hable dress S22 W. Taylor reject Name: Jet 0-17 nome R 393-9/74 † Carolinal cannot accept verbal changes. Please fax written changes to 503-363-2475 ect Location; (915) 673-7001 Fax (915) 673-7020 かり an Conduct Hally and disciss marked in any in Sample LD. 21.735 H PRE Project Owner: States 11. 11. 27: 11.210 (G)RAB OR (C)OMP (505) 393-2328 Fax (505) 393-2476 GROUNDWATER WASTEWATER SOL CRUDE OL BLUDGE OTHER: # 0'd Address: 3202 Wort Taylor Company: Rice 1000 t 393-9/14 1 N. 24 88240 ACID/BASE: ICE / COOL 图 // 图 OTHER: DATE: 24779477 ROISH, Cl ANALYSIS REQUEST

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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ARDINAL LABORATORIES, INC. 2111 Beechwood, Abilene, TX 79603

101 East Martand, Hobbs, NM 88240

Sundance Services, Inc. P.O. Box 1737 * Eunice, NM 88231

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	(505) 394-2511	00231		
LEASE OPERATOR/SHI	PPER/COMPANY:			
LEASE NAME:	3. 1. S. W. M. T.	er og C2 - 1 Op		
TRANSPORTER COMPA	NY: grand and a second	TIME:	AM/PM	
DATE:	VEHICLE NO.:	DRIVER NO.:		
CHARGE TO:	89.478			
	TYPE OF MATERI	AL SEE 17 TO	5 A 876	
[] Production Water [] Tank Bottoms [] Other Material: Description:	[] Drilling Fluids [] Contaminated soil [] BS&W Content:	[] Completion Fluids	S	
VOLUME OF MATERIAL	[] BBLS: []	YARD: []	
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001, et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.				
ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.				
Statement at the above descri	the above Transporter loaded the n ibed location, and that it was tende l materials were added to this load	red by the above described	shipper. This	
DRIVER:(SIGNATURE)	No	,		
FACILITY REPRESENTATIVE: _	(SIGNATURE)	t was a subsection of the subs		
White-Sundance Canary-Sundance Accts Revised 12/27/95	#I Pink-Sundance Acct#2 Gold-Transporter			

Sundance Services, Inc. 38839 P.O. Box 1737 * Eunice, NM 88231 (505) 394-2511 LEASE OPERATOR/SHIPPER/COMPANY: LEASE NAME: TRANSPORTER COMPANY: TIME: AM/PM **VEHICLE NO.: DRIVER NO.:** DATE: **CHARGE TO:** TYPE OF MATERIAL [] Production Water [] Drilling Fluids [] Completion Fluids [] Tank Bottoms [] Contaminated soil [] C-117 No.: __ [] BS&W Content: __ [] Other Material: VOLUME OF MATERIAL [] BBLS. _____ : [] YARD _____ AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001, et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: _ (SIGNATURE)

FACILITY REPRESENTATIVE: _

Revised 12/27/95

White-Sundance Canary-Sundance Acct#1 Pink-Sundance Acct#2 Gold-Transporter

Sundance Services, Inc. 38832 P.O. Box 1737 ★ Eunice, NM 88231 (505) 394-2511 LEASE OPERATOR/SHIPPER/COMPANY: TIME: TRANSPORTER COMPANY: 🔑 🛒 AM/PM DRIVER NO .: DATE: VEHICLE NO.: -. / CHARGE TO: TYPE OF MATERIAL [] Drilling Fluids [] Production Water [] Completion Fluids [] Contaminated soil [] Tank Bottoms [] C-117 No.: __ [] BS&W Content: ____ [] Other Material: Description: ___ VOLUME OF MATERIAL [] BBLS. _____ : [] YARD ____ : AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001, et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS. PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET. TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident. DRIVER: (SIGNATURE) FACILITY REPRESENTATIVE: _

White-Sundance Canary-Sundance Acct#1 Pink-Sundance Acct#2 Gold-Transporter

Revised 12/27/95

Sundance Services, Inc. P.O. Box 1737 * Eunice, NM 88231

38614

(505) 394-2511		
LEASE OPERATOR/SHIPPER/COMPANY:		
LEASE NAME:		
TRANSPORTER COMPANY:	TIME:	AM/PM
DATE: (7) 7 2/2/ VEHICLE NO.: DE	RIVER NO.:	
CHARGE TO:		
TYPE OF MATERIAL		
	[] Completion Flui	
VOLUME OF MATERIAL [] BBLS : [_] YARD _	<i>*.</i> :	[]
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE M JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE V HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AN AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH A AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AF PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATE PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTE FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter loaded the material r Statement at the above described location, and that it was tendered by the will certify that no additional materials were added to this load, and that without incident.	VASTE MATERIAL S ND RECOVERY ACT ND SAF. CODE § 36 FORDED DRILLING TION, DEVELOPMEN THE MATERIALS SH THE MATERIAL DE R TO SUNDANCE SI TEPPESENTED by this the above described	SHIPPED TOF 1976, AS S1.001, et seq., FLUIDS, NT OR HIPPED WITH ELIVERED BY ERVICES, INC.'S Transporter d shipper. This
DRIVER: (SIGNATURE)	r.	<u></u>
FACILITY REPRESENTATIVE: (SIGNATURE)	· ····	

Revised 12/27/95

3	P.O. Box 1737 * Eunice, (505) 394-2511		The state of the s
LEASE OPERATOR/SHIPPER/	COMPANY:		
LEASE NAME:	02 Tro-	17 540,7.75.	25 17 775
TRANSPORTER COMPANY:	Part Buch	TIME:	AM/PM
DATE: VEH	IICLE NO.:	DRIVER NO.:	
CHARGE TO:	2 1 2 C 1 5		
	TYPE OF MATE	RIAL	
[] Production Water [] Tank Bottoms [] Other Material: Description:	[] Drilling Fluids []-Contaminated soil [] BS&W Content:	[] Completion [] C-117 No.: _	
VOLUME OF MATERIAL [] BE	3LS:	[] YARD <u>/-?</u>	[]
AS A CONDITION TO SUNDANCE SE JOB TICKET, OPERATOR/SHIPPER REF HEREWITH IS MATERIAL EXEMPT FROM AMENDED FROM TIME TO TIME, 40 U AND REGULATIONS RELATED THERE PRODUCED WATERS, AND OTHER WAP PRODUCTION OF CRUDE OIL OR NAT	PRESENTS AND WARRANTS OM THE RESOURCE, CONSI J.S.C. § 6901, et seq., THE NI TO, BY VIRTUE OF THE EX ASTE ASSOCIATED WITH TH	THAT THE WASTE MATERL ERVATION AND RECOVERY M HEALTH AND SAF. CODE EMPTION AFFORDED DRILL HE EXPLORATION, DEVELOP	AL SHIPPED ACT OF 1976, AS § 361.001, et seq., ING FLUIDS,
ALSO AS A CONDITION TO SUNDAN THIS JOB TICKET, TRANSPORTER REP OPERATOR/SHIPPER TO TRANSPORTE FACILITY FOR DISPOSAL.	RESENTS AND WARRANTS	THAT ONLY THE MATERIAL	L DELIVERED BY
THIS WILL CERTIFY that the above statement at the above described lowill certify that no additional mater without incident.	ocation, and that it was te	endered by the above descr	ribed shipper. This
DRIVER:	The second secon		
(SIGNATURE) FACILITY REPRESENTATIVE:	ATURE)	and Carrier and a second	

White-Sundance Canary-Sundance Acct#1 Pink-Sundance Acct#2 Gold-Transporter Revised 12/27/95

Sundance Services, Inc. P.O. Box 1737 * Eunice, NM 88231 (505) 394-2511
LEASE OPERATOR/SHIPPER/COMPANY:
LEASE NAME: // 5 32 2 Te - / 7
TRANSPORTER COMPANY: 7 TIME: AM/PM
DATE: 9 12 - 2 VEHICLE NO.: 5 DRIVER NO.:
CHARGE TO:
TYPE OF MATERIAL SECTO TERS REST
[] Production Water
VOLUME OF MATERIAL [] BBLS: [] YARD: []
AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001, et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.
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DRIVER:
(SIGNATURE) White-Sundance Canary-Sundance Acct#1 Pink-Sundance Acct#2 Gold-Transporter Revised 12/27/95