

AP - 49

ANNUAL MONITORING REPORT

YEAR(S):

2003

RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

RECEIVED

MAR 24 2004

OIL CONSERVATION
DIVISION

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 1350

March 19, 2004

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

RE: 2003 MONITOR WELL REPORT/SAMPLING SUMMARY
H-2 SWD FACILITY, JUSTIS SWD SYSTEM
UNIT 'H', SEC. 2, T26S, R37E
LEA COUNTY, NEW MEXICO

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2003 Monitor Well Report for the H-2 Salt Water Disposal Facility located near Jal, New Mexico. Groundwater impact became evident during the removal of redwood tanks in 2001. Three monitoring wells were installed at that time. Two more monitor wells were recently installed in February of 2004. Each of the wells are sampled quarterly pursuant to NMOCD guidelines.

In 2004, Highlander Environmental Corp. (Highlander) of Midland, Texas will continue to sample the wells at this site. Environmental Lab of Texas of Odessa, Texas will continue to conduct the analysis of the water samples.

Highlander has been contracted by ROC to address the groundwater concerns at this site according to the NMOCD-approved work plan (9/8/2003). In 2004, Highlander will continue to investigate and characterize groundwater issues at this site and NMOCD will be notified of any significant events.

ROC is the service provider (operator) for the Justis Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The Justis SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

RICE OPERATING COMAPANY

Kristin Loria

enclosures: **summary table**
 graphs
 analytical results

**cc: LBG, CDH, file, Rob Roy Industries, Chris Williams
NM OCD, District I Office
1625 N. French Drive
Hobbs, NM 88240**

Justis H-2

H, 2, 26S, 37E SWD facility

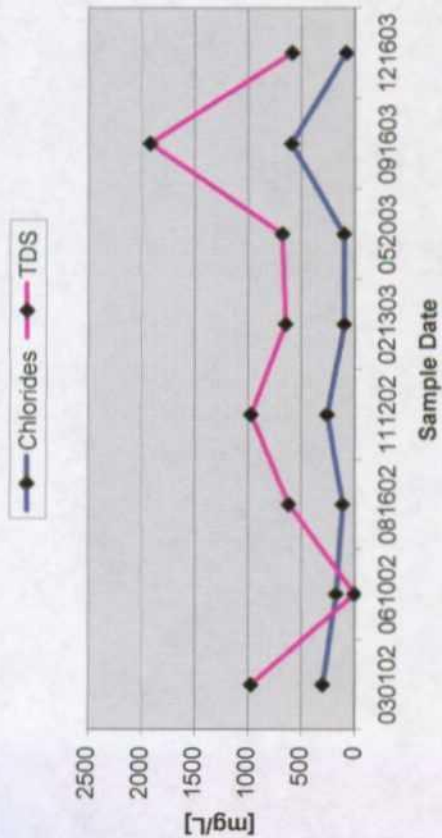
Rice Operating Co. Monitor Well Data Sheet

All parameter concentrations are in mg/L.

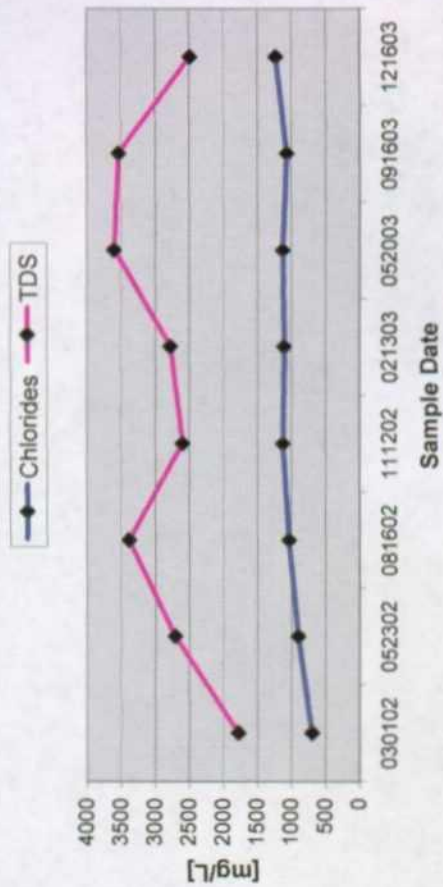
MW #	(ft)		TOTAL DEPTH	(gal)		SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES
	WATER LEVEL	TOTAL		WELL VOLUME	VOLUME BAILED								
1 (5")	XXX	XXX	XXX	XXX	XXX	030102	1356	301	971	XXX	XXX	XXX	XXX
	105.00	160.00	160.00	150.00	55.000	061002	XXX	173	XXX	0.001	0.008	0.010	0.066
	116.2	137.20	137.20	66.00	21.000	081602	1230	111	619	<0.001	<0.001	<0.001	<0.001
	123.32	144.00	144.00	60.00	42.862	111202	1035	257	971	<0.001	0.001	<0.001	<0.001
	122.95	144.00	144.00	70.00	XXX	021303	1045	97.5	647	<0.001	<0.001	<0.001	<0.001
	123.34	144.00	144.00	70.00	XXX	052003	1115	102	682	<0.001	<0.001	<0.001	<0.001
	122.94	144.00	144.00	70.00	XXX	091603	1200	594	1920	<0.001	<0.001	<0.001	<0.001
	123.19	144.00	144.00	70.00	XXX	121603	1045	81.5	587	0.013	<0.001	<0.001	<0.001
2	XXX	XXX	XXX	XXX	XXX	030102	1330	700	1780	XXX	XXX	XXX	XXX
	121.80	145.75	145.75	11.50	3.832	052302	1150	904	2710	<0.001	<0.001	<0.001	<0.001
	121.85	142.10	142.10	25.00	3.240	081602	1420	1040	3390	<0.001	<0.001	<0.001	<0.001
	122.10	142.00	142.00	25.00	3.184	111202	1330	1130	2600	0.002	0.003	<0.001	<0.002
	121.71	142.00	142.00	25.00	XXX	021303	1230	1110	2780	<0.001	<0.001	<0.001	<0.001
	122.08	142.00	142.00	25.00	XXX	052003	1150	1130	3600	<0.001	<0.001	<0.001	<0.001
	121.70	142.00	142.00	25.00	XXX	091603	1240	1070	3540	<0.001	<0.001	<0.001	<0.001
	122.00	142.00	142.00	30.00	XXX	121603	1135	1230	2490	0.032	0.003	<0.001	<0.001
3	XXX	XXX	XXX	XXX	XXX	030102	1342	37.2	561	XXX	XXX	XXX	XXX
	118.68	135.95	135.95	8.50	2.760	051602	1130	35.4	570	<0.001	<0.001	<0.001	<0.001
	118.68	133.30	133.30	20.00	2.340	081602	1340	93.1	631	<0.001	<0.001	<0.001	<0.001
	118.90	133.00	133.00	25.00	2.256	111202	845	97.5	688	0.030	0.014	0.002	0.003
	118.53	133.00	133.00	25.00	XXX	021303	1135	102	666	<0.001	<0.001	<0.001	<0.001
	118.87	133.00	133.00	25.00	XXX	052003	1240	168	885	<0.001	<0.001	<0.001	<0.001
	118.53	133.00	133.00	25.00	XXX	091603	1045	204	568	<0.001	<0.001	<0.001	<0.001
	118.79	133.00	133.00	30.00	XXX	121603	1230	40.8	517	0.013	<0.001	<0.001	<0.001

All parameter concentrations are in mg/L.

Justis H-2 SWD facility Monitor Well #1



Justis H-2 SWD facility Monitor Well #2



Justis H-2 SWD facility Monitor Well #3



ANALYTICAL REPORT

Prepared for:

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Project: Rice Operating/ Justis SWD Well#H-2

PO#:

Order#: G0305723

Report Date: 02/21/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705
682-3946

Order#: G0305723
Project: 1863
Project Name: Rice Operating/ Justis SWD Well#H-2
Location: Lea County, NM

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>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305723-01	MW-1	WATER	2/13/03 10:45	2/14/03 17:10	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						
0305723-02	MW-2	WATER	2/13/03 12:30	2/14/03 17:10	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						
0305723-03	MW-3	WATER	2/13/03 11:35	2/14/03 17:10	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0305723
Project: 1863
Project Name: Rice Operating/ Justis SWD Well#H-2
Location: Lea County, NM

Lab ID: 0305723-01

Sample ID: MW-1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004696-02		2/20/03 11:12	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	98%	80	120

Lab ID: 0305723-02

Sample ID: MW-2

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004696-02		2/20/03 11:32	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	95%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0305723
Project: 1863
Project Name: Rice Operating/ Justis SWD Well#H-2
Location: Lea County, NM

Lab ID: 0305723-03
Sample ID: MW-3

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004696-02		2/20/03 11:52	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	81%	80	120
Bromofluorobenzene	93%	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

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0305723
Project: 1863
Project Name: Rice Operating/ Justis SWD Well#H-2
Location: Lea County, NM

Lab ID: 0305723-01

Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	168	mg/L	1	2.00	310.1	2/17/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
Chloride	97.5	mg/L	1	5.00	9253	2/17/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
SULFATE, 375.4	200	mg/L	5	2.5	375.4	2/17/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	71.7	mg/L	10	0.10	6010B	2/21/03	SM
Magnesium	30.2	mg/L	10	0.010	6010B	2/21/03	SM
Potassium	6.62	mg/L	10	0.50	6010B	2/21/03	SM
Sodium	91.4	mg/L	10	0.10	6010B	2/21/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	647	mg/L	1	5.0	160.1	2/17/03	TAL

Lab ID: 0305723-02

Sample ID: MW-2

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	118	mg/L	1	2.00	310.1	2/17/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
Chloride	1110	mg/L	1	5.00	9253	2/17/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
SULFATE, 375.4	216	mg/L	5	2.5	375.4	2/17/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	293	mg/L	100	1.0	6010B	2/21/03	SM
Magnesium	150	mg/L	100	0.10	6010B	2/21/03	SM
Potassium	14.4	mg/L	10	0.50	6010B	2/21/03	SM
Sodium	163	mg/L	100	1.0	6010B	2/21/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2780	mg/L	1	5.0	160.1	2/17/03	TAL

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 ~ Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0305723
Project: 1863
Project Name: Rice Operating/ Justis SWD Well#H-2
Location: Lea County, NM

Lab ID: 0305723-03

Sample ID: MW-3

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	155	mg/L	1	2.00	310.1	2/17/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
Chloride	102	mg/L	1	5.00	9253	2/17/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/17/03	SB
SULFATE, 375.4	250	mg/L	5	2.5	375.4	2/17/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	60.6	mg/L	10	0.10	6010B	2/21/03	SM
Magnesium	30.1	mg/L	10	0.010	6010B	2/21/03	SM
Potassium	6.35	mg/L	10	0.50	6010B	2/21/03	SM
Sodium	109	mg/L	10	0.10	6010B	2/21/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	666	mg/L	1	5.0	160.1	2/17/03	TAL

Approval:

 2/21/03
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.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305723

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004696-02			<0.001		
Toluene-mg/L		0004696-02			<0.001		
Ethylbenzene-mg/L		0004696-02			<0.001		
p/m-Xylene-mg/L		0004696-02			<0.001		
o-Xylene-mg/L		0004696-02			<0.001		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0305718-08	0	0.1	0.100	100.0%	
Toluene-mg/L		0305718-08	0	0.1	0.103	103.0%	
Ethylbenzene-mg/L		0305718-08	0	0.1	0.102	102.0%	
p/m-Xylene-mg/L		0305718-08	0	0.2	0.213	106.5%	
o-Xylene-mg/L		0305718-08	0	0.1	0.104	104.0%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0305718-08	0	0.1	0.097	97.0%	3.0%
Toluene-mg/L		0305718-08	0	0.1	0.099	99.0%	4.0%
Ethylbenzene-mg/L		0305718-08	0	0.1	0.098	98.0%	4.0%
p/m-Xylene-mg/L		0305718-08	0	0.2	0.205	102.5%	3.8%
o-Xylene-mg/L		0305718-08	0	0.1	0.101	101.0%	2.9%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004696-05		0.1	0.093	93.0%	
Toluene-mg/L		0004696-05		0.1	0.095	95.0%	
Ethylbenzene-mg/L		0004696-05		0.1	0.095	95.0%	
p/m-Xylene-mg/L		0004696-05		0.2	0.198	99.0%	
o-Xylene-mg/L		0004696-05		0.1	0.097	97.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0305723

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0004654-01			<2.00		
Carbonate Alkalinity-mg/L		0004655-01			<0.10		
Chloride-mg/L		0004658-01			<5.00		
Hydroxide Alkalinity-mg/L		0004656-01			<0.10		
SULFATE, 375.4-mg/L		0004657-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0305723-01	168		169		0.6%
Carbonate Alkalinity-mg/L		0305723-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0305723-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0305723-01	200		200		0.0%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0305723-01	97.5	250	346	99.4%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0305723-01	97.5	250	341	97.4%	1.5%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0004654-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0004655-04		0.05	0.0496	99.2%	
Chloride-mg/L		0004658-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0004656-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0004657-04		50	51.0	102.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305723

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004707-02			<0.010		
Magnesium-mg/L		0004707-02			<0.001		
Potassium-mg/L		0004707-02			<0.050		
Sodium-mg/L		0004707-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0305723-01	71.7		71.1		0.8%
Magnesium-mg/L		0305723-01	30.2		29.8		1.3%
Potassium-mg/L		0305723-01	6.62		6.2		6.6%
Sodium-mg/L		0305723-01	91.4		93.7		2.5%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004707-05		2	2.11	105.5%	
Magnesium-mg/L		0004707-05		2	2.23	111.5%	
Potassium-mg/L		0004707-05		2	1.93	96.5%	
Sodium-mg/L		0004707-05		2	1.92	96.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305723

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0004670-01			<5.0		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0305723-01	647		633		2.2%

HIGHLANDER ENVIRONMENTAL CORP.

(915) 882-4559

Fax (915) 882-3948

CLIENT NAME:	SITE MANAGER:	PRESERVATIVE
0 . . 2 2 2 - 2 - 1 : 2	T 1 T 2	

SITE MANAGER: Ike Tovar

PROJECT NO.: 10/3	PROJECT NAME: T
-------------------	-----------------

PROJECT NAME: T

Rice / Justis SWD well #H-2

Lea county, NM

SAMPLE IDENTIFICATION	
8	P.

FROM
RAIL

2	
2	
7	

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[illegible]

Date: _____	RECEIVED BY: (Signature)
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NAME	771913	REGISTRATION NO.	1
Time:			

DATE: 5-11-52
TIME: 5:12 PM
RECEIVED BY: (signature)

Date: _____	RECEIVED BY: (Signature)
-------------	--------------------------

Time: no 10 10

RECEIVED BY: (SIGNATURE) *[Signature]*

NAME: _____
 PHONE: _____
 ZIP: _____
 DATE: 2-14-03

NO:	MATRIX:	DATE:
IONS:		

	Y-Water	A-Air	SD-Solid
Q-Qall			
Q-Qdown			
Q-Qdown			

	9-3000	9-30000	9-300000
...	...	...	...

laboratory retains yellow copy -- Return original copy to Highlands

Please fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy Accounting receives Gold copy

ANALYTICAL REPORT

Prepared for:

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Project: Rice/Justis SWD Well H-2

PO#:

Order#: G0307469

Report Date: 09/23/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705
682-3946

Order#: G0307469
Project: 1863
Project Name: Rice/Justis SWD Well H-2
Location: Lea County, N.M.

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>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0307469-01	MW-1	WATER	9/16/03 12:00	9/16/03 16:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No	Temp:	13.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307469-02	MW-2	WATER	9/16/03 12:40	9/16/03 16:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No	Temp:	13.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307469-03	MW-3	WATER	9/16/03 10:45	9/16/03 16:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No	Temp:	13.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307469
Project: 1863
Project Name: Rice/Justis SWD Well H-2
Location: Lea County, N.M.

Lab ID: 0307469-01

Sample ID: MW-1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
Blank	Prepared	Analyzed	Amount	Factor	Analyst	Method
0006840-02		9/17/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	90%	80	120
Bromofluorobenzene	94%	80	120

Lab ID: 0307469-02

Sample ID: MW-2

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
Blank	Prepared	Analyzed	Amount	Factor	Analyst	Method
0006840-02		9/17/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	87%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
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1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307469
Project: 1863
Project Name: Rice/Justis SWD Well H-2
Location: Lea County, N.M.

Lab ID: 0307469-03
Sample ID: MW-3

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0006840-02		9/17/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	93%	80	120
Bromofluorobenzene	81%	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

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
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1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307469
Project: 1863
Project Name: Rice/Justis SWD Well H-2
Location: Lea County, N.M.

Lab ID: 0307469-01

Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	158	mg/L	1	2.00	310.1	9/18/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
Chloride	594	mg/L	1	5.00	9253	9/18/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
SULFATE, 375.4	186	mg/L	2.5	1.25	375.4	9/22/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	159	mg/L	100	1.0	6010B	9/17/03	SM
Magnesium	81.2	mg/L	10	0.010	6010B	9/17/03	SM
Potassium	11.8	mg/L	10	0.50	6010B	9/17/03	SM
Sodium	188	mg/L	100	1.0	6010B	9/17/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	1920	mg/L	1	5.0	160.1	9/18/03	SB

Lab ID: 0307469-02

Sample ID: MW-2

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	132	mg/L	1	2.00	310.1	9/18/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
Chloride	1070	mg/L	1	5.00	9253	9/18/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
SULFATE, 375.4	167	mg/L	2.5	1.25	375.4	9/22/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	341	mg/L	100	1.0	6010B	9/17/03	SM
Magnesium	170	mg/L	100	0.10	6010B	9/17/03	SM
Potassium	16.6	mg/L	10	0.50	6010B	9/17/03	SM
Sodium	203	mg/L	100	1.0	6010B	9/17/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	3540	mg/L	1	5.0	160.1	9/18/03	SB

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307469
Project: 1863
Project Name: Rice/Justis SWD Well H-2
Location: Lea County, N.M.

Lab ID: 0307469-03

Sample ID: MW-3

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	160	mg/L	1	2.00	310.1	9/18/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
Chloride	204	mg/L	1	5.00	9253	9/18/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	9/18/03	SB
SULFATE, 375.4	184	mg/L	2.5	1.25	375.4	9/22/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	56.8	mg/L	10	0.10	6010B	9/17/03	SM
Magnesium	27.8	mg/L	10	0.010	6010B	9/17/03	SM
Potassium	9.63	mg/L	1	0.050	6010B	9/17/03	SM
Sodium	100	mg/L	10	0.10	6010B	9/17/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	568	mg/L	1	5.0	160.1	9/18/03	SB

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307469

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006840-02			<0.001		
Toluene-mg/L		0006840-02			<0.001		
Ethylbenzene-mg/L		0006840-02			<0.001		
p/m-Xylene-mg/L		0006840-02			<0.001		
o-Xylene-mg/L		0006840-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307467-01	0	0.1	0.104	104.%	
Toluene-mg/L		0307467-01	0	0.1	0.102	102.%	
Ethylbenzene-mg/L		0307467-01	0	0.1	0.097	97.%	
p/m-Xylene-mg/L		0307467-01	0	0.2	0.195	97.5%	
o-Xylene-mg/L		0307467-01	0	0.1	0.093	93.%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307467-01	0	0.1	0.100	100.%	3.9%
Toluene-mg/L		0307467-01	0	0.1	0.099	99.%	3.%
Ethylbenzene-mg/L		0307467-01	0	0.1	0.096	96.%	1.%
p/m-Xylene-mg/L		0307467-01	0	0.2	0.193	96.5%	1.%
o-Xylene-mg/L		0307467-01	0	0.1	0.094	94.%	1.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006840-05		0.1	0.098	98.%	
Toluene-mg/L		0006840-05		0.1	0.097	97.%	
Ethylbenzene-mg/L		0006840-05		0.1	0.093	93.%	
p/m-Xylene-mg/L		0006840-05		0.2	0.186	93.%	
o-Xylene-mg/L		0006840-05		0.1	0.089	89.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307469

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0006878-01			<2.00		
Carbonate Alkalinity-mg/L		0006879-01			<0.10		
Chloride-mg/L		0006876-01			<5.00		
Hydroxide Alkalinity-mg/L		0006880-01			<0.10		
SULFATE, 375.4-mg/L		0006871-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0307469-01	158		159		0.6%
Carbonate Alkalinity-mg/L		0307469-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0307469-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0307469-01	186		184		1.1%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307469-01	594	500	1090	99.2%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307469-01	594	500	1080	97.2%	0.9%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0006878-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0006879-04		0.05	0.0496	99.2%	
Chloride-mg/L		0006876-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0006880-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0006871-04		50	51.2	102.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307469

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0006875-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307469-01	1920		1840		4.3%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307469

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0006842-01			<0.010		
Magnesium-mg/L		0006842-01			<0.001		
Potassium-mg/L		0006842-01			<0.050		
Sodium-mg/L		0006842-01			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0307469-01	159		158		0.6%
Magnesium-mg/L		0307469-01	81.2		81.4		0.2%
Potassium-mg/L		0307469-01	11.8		11.4		3.4%
Sodium-mg/L		0307469-01	188		186		1.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0006842-04		2	2.01	100.5%	
Magnesium-mg/L		0006842-04		2	2.14	107.%	
Potassium-mg/L		0006842-04		2	1.97	98.5%	
Sodium-mg/L		0006842-04		2	2.00	100.%	

HIGHLANDER ENVIRONMENTAL CORP.

Midland, Texas 79705

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