AP - 49

STAGE 1 & 2 REPORTS

DATE:

Dec. 3, 2002

Highlander Environmental Corp.

Midland, Texas

December 3, 2002

Ms. Christen Farris
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240

Re: Monitor Well Sampling, Rice Operating Company, Justis Saltwater Disposal System, SWD Well #H-2, Unit H, Section 2, T-26-S, R-37-E, Lea County, New Mexico

Dear Ms. Farris:

This letter details the sampling of three (3) Rice Operating monitor wells at the above-mentioned location.

Highlander was contacted by Rice Operating Company to purge and sample three monitor wells on a site near Jal, New Mexico. On November 12, 2002, Highlander personnel traveled to the location. Since the previous sampling at this site, the excavation has been backfilled. In order to retain the use of monitor well MW-1, the monitor well pipe had been extended approximately 7 feet, as noted in the Table 1 total depth column. Prior to sampling, the wells were gauged for static water levels. Using total depth measurements obtained during the August 16, 2002 monitoring event, and the new total depth measurement for MW-1, accurate purging volumes were calculated.

At the time of sampling, all monitor well caps were opened and water level measurements were taken from the top of the casing. The measurements were taken to the nearest 0.01 feet. The water level measurements and purge volumes for the monitor wells are shown in Table 1. Proper purging procedures were followed for each monitor well. Each well was purged using a portable submersible pump. Between purging events, the pump and associated tubing were washed with a laboratory grade detergent and rinsed with deionized water.

Approximately three casing volumes of water were purged from each well prior to sampling. Groundwater samples were collected as soon as possible after the groundwater returned to its static level. Each well was inspected for the presence of phase-separated hydrocarbons (PSH).

Groundwater samples were collected using clean disposable polyethylene bailers and disposable line. The samples were transferred into labeled and preserved containers provided by the laboratory. All the samples were delivered under proper chain-of-custody control to Environmental Labs of Texas, Inc., Odessa, Texas. The groundwater samples were analyzed for major anions and cations, and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by method EPA 8021B. Copies of the laboratory analyses are enclosed.

Respectfully Submitted,
HIGHLANDER ENVIRONMENTAL CORP.

Tim Reed

Timothy M. Reed, CAPM, REM
Vice President

Rice Engineering - SWD H-2

Table I: ***Water Level Measurements - November 12, 2002***

MW #	Total Depth (TOC) (feet)	Depth to Water (TOC) (feet)	Purge Volume (Gallons)
MW-1	144*	123.32	60
MW-2	142	122.10	25
MW-3	133	118.90	25

*Denotes new TD measurement due to monitor well pipe exension.

APPENDIX A

Analytical Report

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#:	G0205005
Report Date:	11/20/2002

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#: G0205005
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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0205005-01	MW-1	WATER	11/12/02 13:35	11/13/02 9:15	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 2.0 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

0205005-02	MW-2	WATER	11/12/02 14:30	11/13/02 9:15	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 2.0 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

0205005-03	MW-3	WATER	11/12/02 9:45	11/13/02 9:15	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 2.0 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#:	G0205005
Project:	1863
Project Name:	Rice Operating/ Justis SWD Well H-2
Location:	Lea County, NM

Lab ID: 0205005-01
Sample ID: MW-1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003799-02		11/18/02 20:40	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	94%	80	120
Bromofluorobenzene	116%	80	120

Lab ID: 0205005-02
Sample ID: MW-2

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003799-02		11/18/02 21:24	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.002	0.001
Ethylbenzene	<0.001	0.001
Toluene	0.003	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

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0205005
Project: 1863
Project Name: Rice Operating/ Justis SWD Well H-2
Location: Lea County, NM

Lab ID: 0205005-03
Sample ID: MW-3

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003799-02		11/18/02 21:45	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	**0.030**	0.001
Ethylbenzene	**0.002**	0.001
Toluene	**0.014**	0.001
p/m-Xylene	**0.002**	0.001
o-Xylene	**0.001**	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	85%	80	120
Bromofluorobenzene	89%	80	120

Approval: Jeanne McMurrey 11-20-02
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0205005
Project: 1863
Project Name: Rice Operating/ Justis SWD Well H-2
Location: Lea County, NM

Lab ID: 0205005-01
Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	164	mg/L	1	2.00	310.1	11/13/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
Chloride	257	mg/L	1	5.00	9253	11/13/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
SULFATE, 375.4	194	mg/L	5	2.5	375.4	11/14/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	86.7	mg/L	10	0.10	6010B	11/19/02	SM
Magnesium	41.8	mg/L	10	0.010	6010B	11/19/02	SM
Potassium	8.09	mg/L	10	0.50	6010B	11/19/02	SM
Sodium	116	mg/L	100	1.0	6010B	11/19/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	971	mg/L	1	5.0	160.1	11/13/02	TAL

Lab ID: 0205005-02
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	11/13/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
Chloride	1130	mg/L	1	5.00	9253	11/13/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
SULFATE, 375.4	200	mg/L	5	2.5	375.4	11/14/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	286	mg/L	100	1.0	6010B	11/19/02	SM
Magnesium	156	mg/L	100	0.10	6010B	11/19/02	SM
Potassium	15.3	mg/L	10	0.50	6010B	11/19/02	SM
Sodium	160	mg/L	100	1.0	6010B	11/19/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2600	mg/L	1	5.0	160.1	11/13/02	TAL

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0205005
Project: 1863
Project Name: Rice Operating/ Justis SWD Well H-2
Location: Lea County, NM

Lab ID: 0205005-03
Sample ID: MW-3

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	158	mg/L	1	2.00	310.1	11/13/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
Chloride	97.5	mg/L	1	5.00	9253	11/13/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
SULFATE, 375.4	219	mg/L	5	2.5	375.4	11/14/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	54.3	mg/L	10	0.10	6010B	11/19/02	SM
Magnesium	28.4	mg/L	10	0.010	6010B	11/19/02	SM
Potassium	6.88	mg/L	10	0.50	6010B	11/19/02	SM
Sodium	92.7	mg/L	100	1.0	6010B	11/19/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	688	mg/L	1	5.0	160.1	11/13/02	TAL

Approval: Jeanne McMurrey 11-20-02
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.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0205005

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0003799-02			<0.001		
Ethylbenzene-mg/L	0003799-02			<0.001		
Toluene-mg/L	0003799-02			<0.001		
p/m-Xylene-mg/L	0003799-02			<0.001		
o-Xylene-mg/L	0003799-02			<0.001		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003799-03		0.1	0.099	99.%	
Ethylbenzene-mg/L	0003799-03		0.1	0.103	103.%	
Toluene-mg/L	0003799-03		0.1	0.102	102.%	
p/m-Xylene-mg/L	0003799-03		0.2	0.218	109.%	
o-Xylene-mg/L	0003799-03		0.1	0.105	105.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003799-04		0.1	0.098	98.%	1.%
Ethylbenzene-mg/L	0003799-04		0.1	0.102	102.%	1.%
Toluene-mg/L	0003799-04		0.1	0.101	101.%	1.%
p/m-Xylene-mg/L	0003799-04		0.2	0.215	107.5%	1.4%
o-Xylene-mg/L	0003799-04		0.1	0.104	104.%	1.%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003799-05		0.1	0.101	101.%	
Ethylbenzene-mg/L	0003799-05		0.1	0.104	104.%	
Toluene-mg/L	0003799-05		0.1	0.103	103.%	
p/m-Xylene-mg/L	0003799-05		0.2	0.219	109.5%	
o-Xylene-mg/L	0003799-05		0.1	0.106	106.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0205005

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0003746-01			<2.00		
Carbonate Alkalinity-mg/L	0003747-01			<0.10		
Chloride-mg/L	0003750-01			<5.00		
Hydroxide Alkalinity-mg/L	0003748-01			<0.10		
SULFATE, 375.4-mg/L	0003767-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0204999-01	512		510		0.4%
Carbonate Alkalinity-mg/L	0204999-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0204999-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0204999-01	2.8		2.9		3.5%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204999-01	3720	5000	8680	99.2%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204999-01	3720	5000	8600	97.6%	0.9%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0003746-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L	0003747-04		0.05	0.0496	99.2%	
Chloride-mg/L	0003750-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0003748-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0003767-04		50	53.2	106.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0205005

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0003817-02			<0.010		
Magnesium-mg/L	0003817-02			<0.001		
Potassium-mg/L	0003817-02			<0.050		
Sodium-mg/L	0003817-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0204987-02	171		175		2.3%
Magnesium-mg/L	0204987-02	34.1		33.4		2.1%
Potassium-mg/L	0204987-02	7.56		7.65		1.2%
Sodium-mg/L	0204987-02	135		140		3.6%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0003817-05		2	2.03	101.5%	
Magnesium-mg/L	0003817-05		2	2.25	112.5%	
Potassium-mg/L	0003817-05		2	1.82	91.%	
Sodium-mg/L	0003817-05		2	1.97	98.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0205005

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0003753-01			<5.0		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0204999-01	6020		6070		0.8%

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(915) 682-4559 Fax (915) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Rice Operating. SITE MANAGER: IKE Tavarez

PROJECT NO.: 1863 PROJECT NAME: Rice/Justis SWD Well #1-2 Lea County, NM.

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL/Hmlglass	HNO3	ICE/4deg	NONE
205005-01	11/12/02	11:15	W		-	MW-1	3		-		-	-
02	11/12/02	2:30	W		-	MW-2	3		-		-	-
03	11/12/02	9:45	W		-	MW-3	3		-		-	-

ANALYSIS REQUEST (Circle or Specify Method No.)

(BTEX 8020/602)	MTBE 8020/602	TPH 418.1 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)		
X																	Major Ions	TDS
X																	X	X
X																	X	X

RELINQUISHED BY: (Signature) Date: 11/13/02 Time: 9:15
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) IKE Tavarez Date: Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Envirotech Inc.
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 11-13-02 TIME: 0915

HIGHLANDER CONTACT PERSON: IKE Tavarez
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2.10°C

MATRIX: (W-Water) A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: Invoice Rice Operating.

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