

**AP – 049**

**ANNUAL GW  
MONITOR REPORT**

**DATE:**

**2006**



# Highlander Environmental Corp.

Midland, Texas

AP-49  
Annual GW Mon.  
Report  
2006

CERTIFIED MAIL  
RETURN RECEIPT NO. 7005 1160 0005 3780 7341

March 7, 2007

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

2007 MAR 14 PM 4 02

**Re: 2006 Annual Groundwater Summary Report & Project Status Report, 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, NMOCD CASE #1R0423-01 (AP-49)**

Dear Mr. Price:

Highlander Environmental Corp. (Highlander) takes this opportunity to submit the 2006 Annual Summary Report for the Rice Operating Company (ROC) Justis SWD Well #H-2 site located in the Justis Salt Water Disposal System (AP-49).

## Background

On August 2, 2001, ROC submitted a Redwood Tank Replacement Closure Plan with the NMOCD. Tank replacement activities began at the Justis H-2 SWD facility on November 6, 2001 and are complete. On December 12, 2002, ROC submitted a Redwood Tank and Emergency Pit Closure Report for the Justis SWD Facility H-2. Soil samples were collected during tank replacement and sample results prompted the placement of monitor wells.

In January 2002, three (3) monitor wells were installed to evaluate groundwater in the vicinity of the H-2 injection facility. Originally, two monitor wells, MW-1 and MW-2 showed elevated chloride levels. On January 18, 2002, the NMOCD was notified of groundwater impact. After several quarterly sampling events, MW-2 continued to show elevated chloride levels. As a result, two (2) additional monitor wells were installed in February 2004.

On May 5, 2005, Daniel Sanchez with the NMOCD requested a Rule 19, Stage I Abatement Plan for this site. On July 13, 2005 a Stage I Abatement Plan was submitted to the NMOCD. The Stage I Abatement Plan approval was received, dated February 23, 2006.

## Stage 2 Abatement Plan

A Stage 2 Abatement Plan was prepared and submitted to the NMOCD on May 25, 2006. On June 7, 2006, the NMOCD certified the plan "Administratively Complete". A public notice was submitted and approved on July 21, 2006. Final approval for the Stage 2 Abatement plan was received on October 3, 2006. The abatement system was installed on November 6, 2006 and started. As of January 3, 2007, a total of 14,707 gallons of water had been pumped from MW-2, with 9,700 gallons re-injected at the site, and 5007 gallons sent to disposal. All remediated water that is injected into MW-1 at the site is tested for chloride and conductivity prior to injection. The overall unit treatment efficiency in 2006 was 66%, with the 34% reject water waste stream being sent to disposal. An R/O System Operating summary is included in Appendix A.

## Monitor Well Sampling

All five of the site monitoring wells were sampled on February 27, June 14, September 13 and December 5, 2006 (Quarterly). Prior to sampling, the wells were gauged for static water levels. 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.

Each well was purged using a portable submersible pump. Approximately three casing volumes of water were purged from each well prior to sampling. Between wells, the pump and associated tubing were decontaminated with a laboratory grade detergent and rinsed with deionized water. Cumulative water level measurements and purge volumes for the monitor wells are included in the Tables Section of this report.

Each well was inspected for the presence of phase-separated hydrocarbons (PSH). Groundwater samples were collected as soon as possible after the groundwater returned to its static level.

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 of 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, by methods 310.1, 9253 and 375.4, cations by method 6010B, Total Dissolved Solids (TDS) by method 160.1 and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by method EPA 8021B. Copies of the laboratory reports are enclosed in Appendix B.

Water table maps were generated for all four quarterly sampling events, using the water level measurement data and are included as Figures 3-6. The general hydraulic gradient appears to be consistently towards the north-northwest.

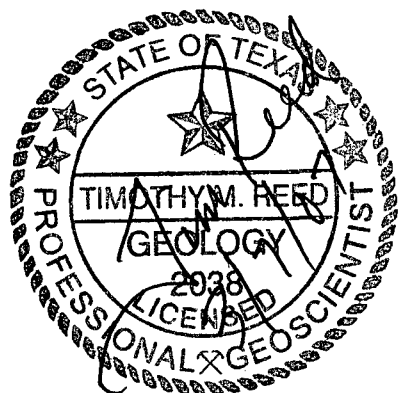


## Monitor Well Sample Results

Chloride concentrations from monitor wells MW-3, MW-4 and MW-5 were all below the New Mexico Water Quality Control Commission (WQCC) standards of 250 mg/L during all four quarters of 2006. Chloride concentrations in MW-1 fluctuated from 206 mg/L to 430 mg/L. MW-2 exceeded the WQCC standard for all four quarters. No BTEX concentrations were detected at or above reporting limits in 2006. Cumulative analytical data is summarized in the Table Section of this report. Water levels rose slightly in 2006.

## Conclusions

1. In 2006, there were no BTEX constituents at or above the New Mexico Water Quality Control Commission (WQCC) standards.
2. Chloride and TDS concentrations from monitor wells MW-3, MW-4 and MW-5 were all below the New Mexico Water Quality Control Commission (WQCC) standards of 250 mg/L and 1000 mg/L, respectively, during all four quarters of 2006. MW-1 fluctuated between 206 mg/L and 430 mg/L. Only MW-2 exceeded the WQCC standard for all four quarters.
3. In 2006, water levels rose slightly. The hydraulic gradient continues to trend towards the north-northwest, although the regional hydraulic gradient is towards the southeast.
4. The Stage 2 Abatement Plan has been implemented and the remediation system will be monitored and maintained throughout 2007.
5. Quarterly monitoring at this site will continue and an annual report will be prepared and submitted to the NMOCD in the first quarter of 2008.



Respectfully Submitted,  
HIGHLANDER ENVIRONMENTAL CORP.

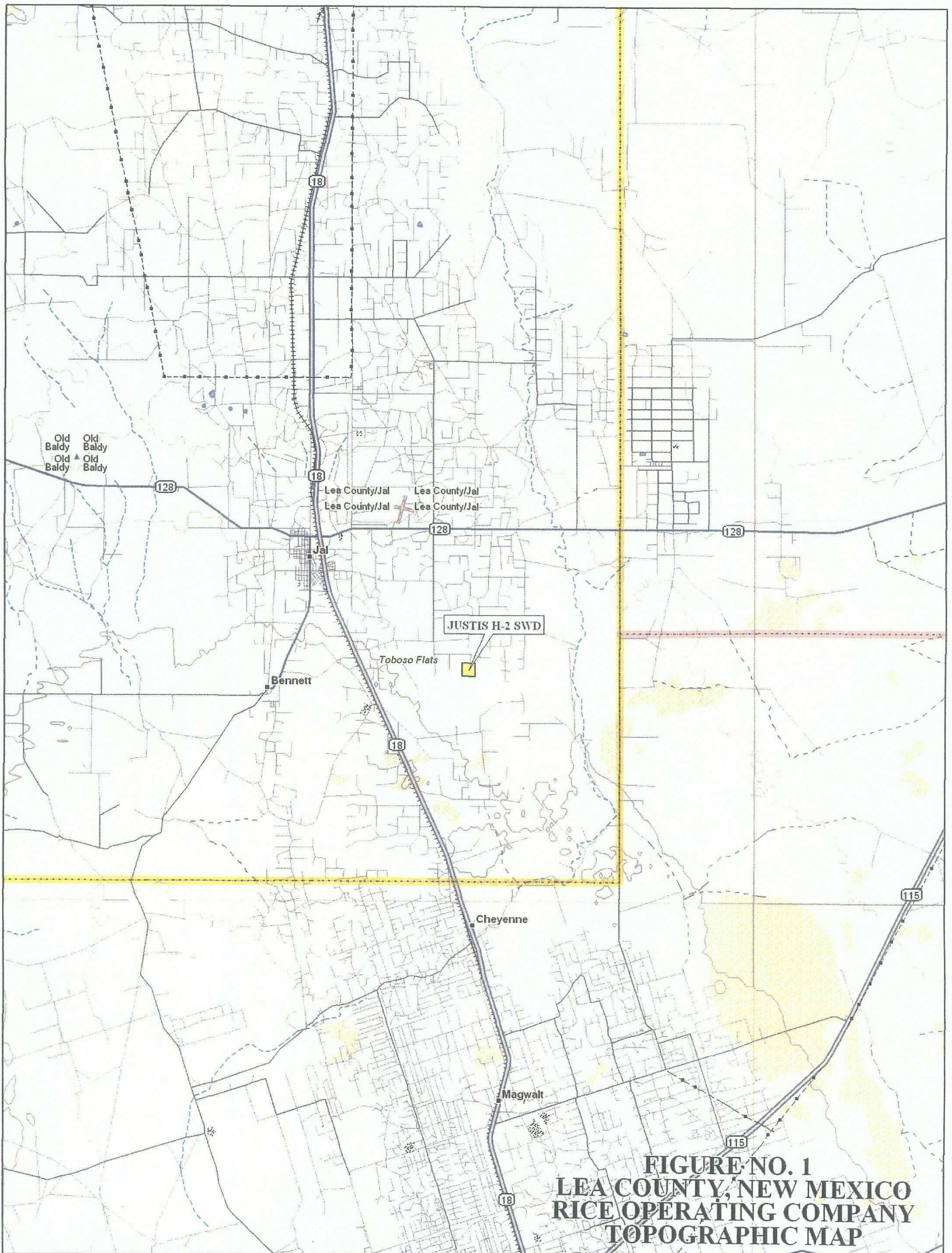
  
\_\_\_\_\_  
Timothy M. Reed, P.G.  
Vice President

cc: ROC, Edward Hansen – NMOCD  
Enclosures: Figures, Tables, Laboratory Analysis





## FIGURES

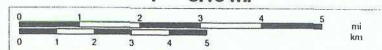


**FIGURE NO. 1  
LEA COUNTY, NEW MEXICO  
RICE OPERATING COMPANY  
TOPOGRAPHIC MAP**



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Scale 1 : 200,000  
1" = 3.16 mi

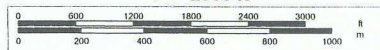




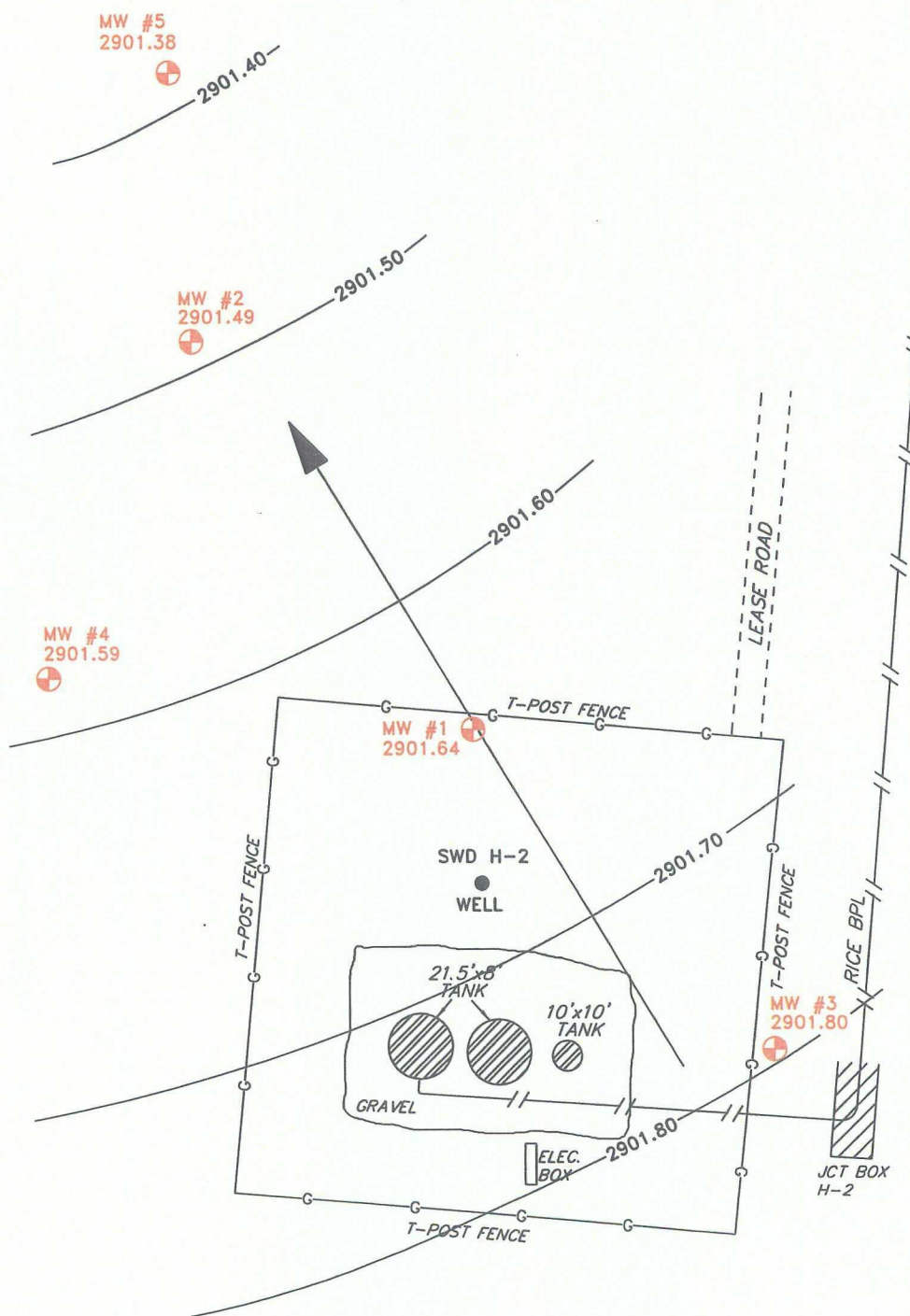


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Scale 1 : 24,000  
1" = 2000 ft







WELL#	ELEVATION (PVC)
MW #1	3023.45'
MW #2	3022.89'
MW #3	3019.98'
MW #4	3023.15'
MW #5	3021.06'

 MONITOR WELL LOCATION

SCALE: 1"=60'

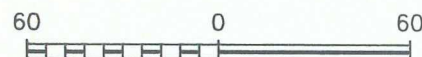


FIGURE NO. 3

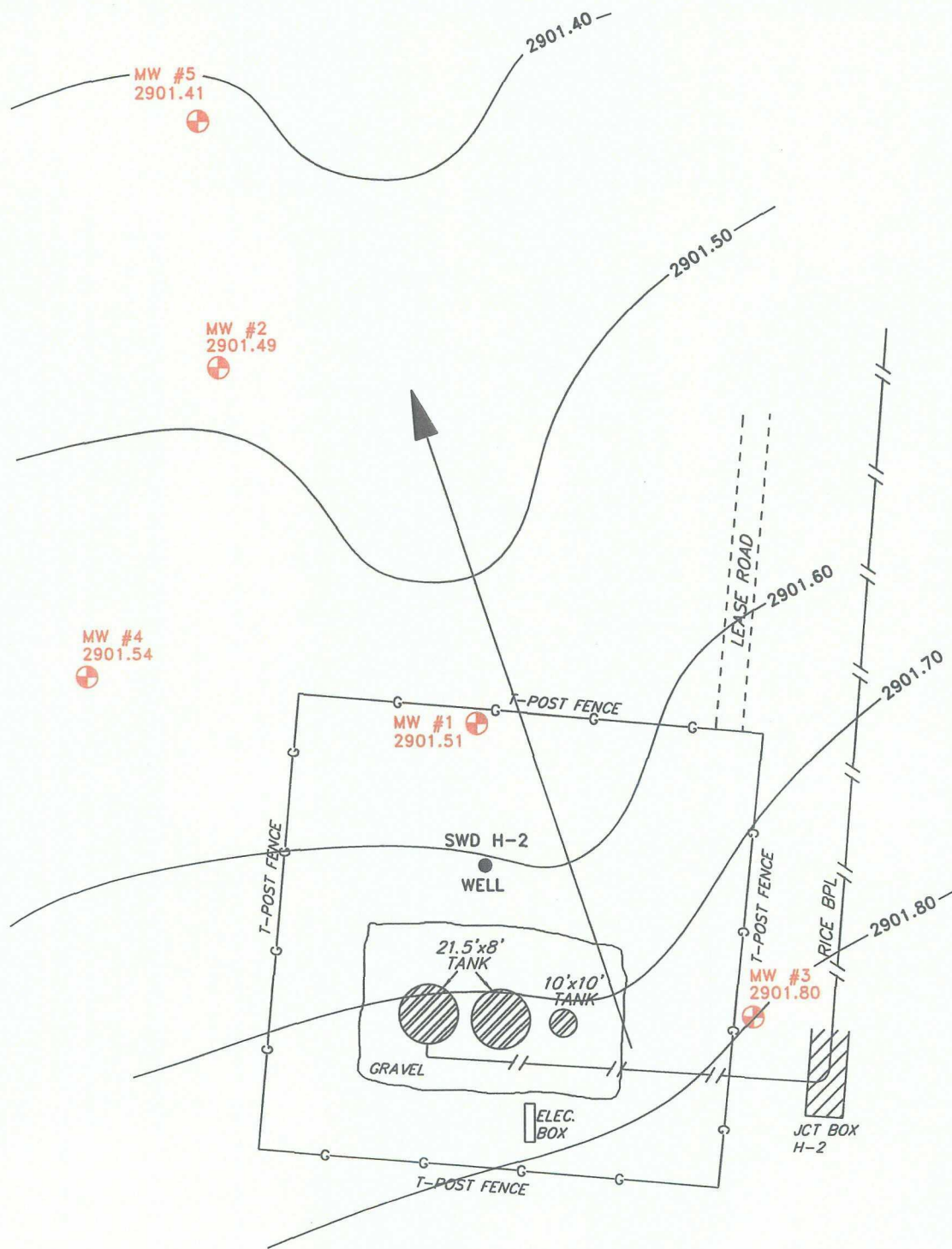
LEA COUNTY, NEW MEXICO

RICE OPERATING COMPANY

JUSTIS H-2 SWD  
2/27/06 WATER TABLE MAP

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

DATE:  
3/6/06  
DWG. BY:  
JJ  
FILE:  
C:\RICE\1663\  
WTM 2-06



WELL #	ELEVATION (PVC)
MW #1	3023.45'
MW #2	3022.89'
MW #3	3019.98'
MW #4	3023.15'
MW #5	3021.06'

 MONITOR WELL LOCATION

SCALE: 1"=60'

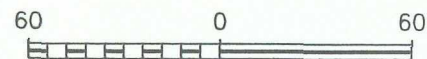


FIGURE NO. 4

LEA COUNTY, NEW MEXICO

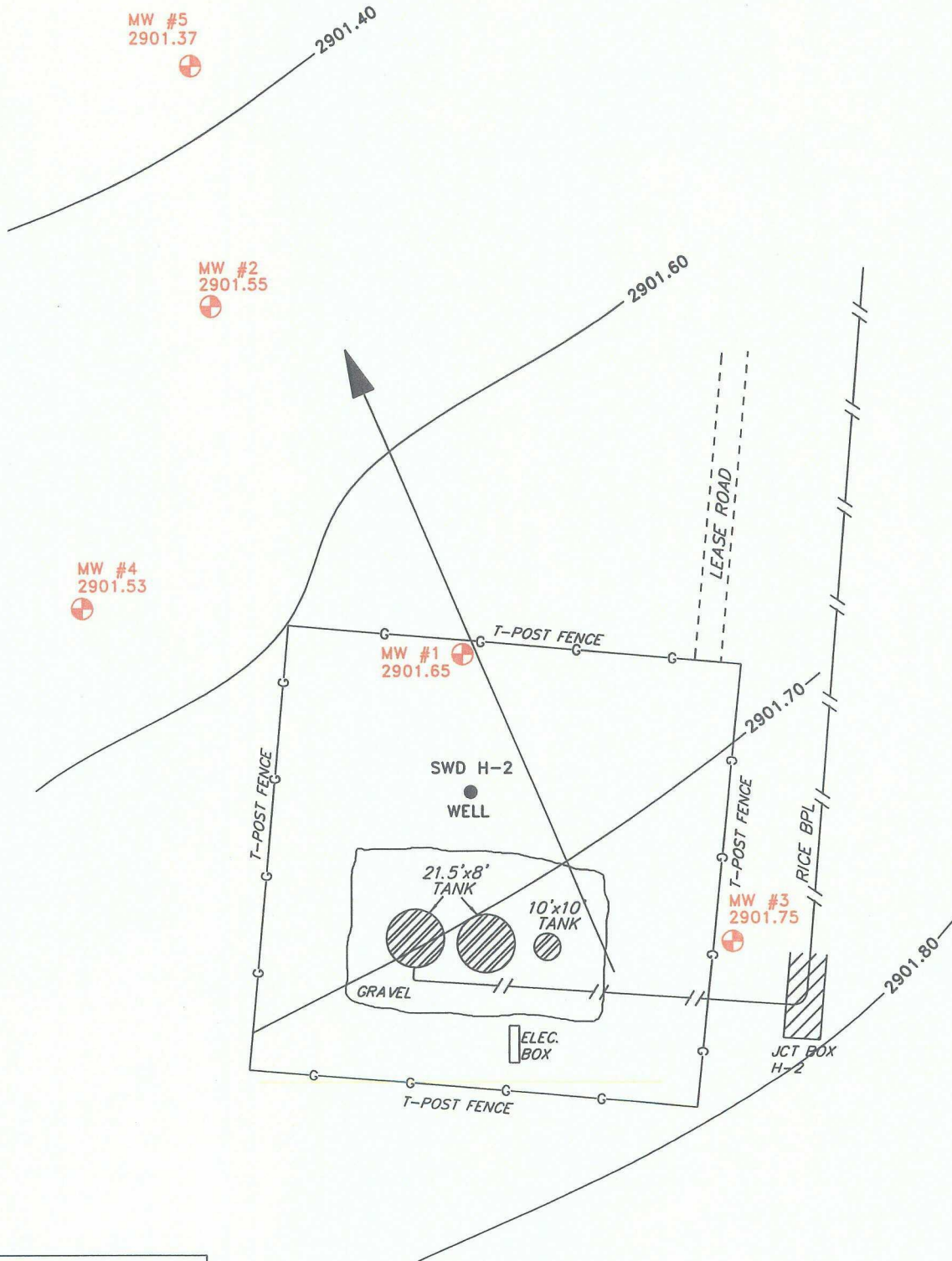
RICE OPERATING COMPANY

JUSTIS H-2 SWD  
6/14/06 WATER TABLE MAP

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

DATE:  
2/8/07  
DWG. BY:  
JJ  
FILE:  
C:\RICE\1063\  
WTM 2-06





WELL#	ELEVATION (PVC)
MW #1	3023.45'
MW #2	3022.89'
MW #3	3019.98'
MW #4	3023.15'
MW #5	3021.06'

 MONITOR WELL LOCATION

SCALE: 1"=60'

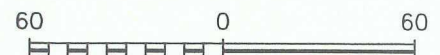


FIGURE NO. 5

LEA COUNTY, NEW MEXICO

RICE OPERATING COMPANY

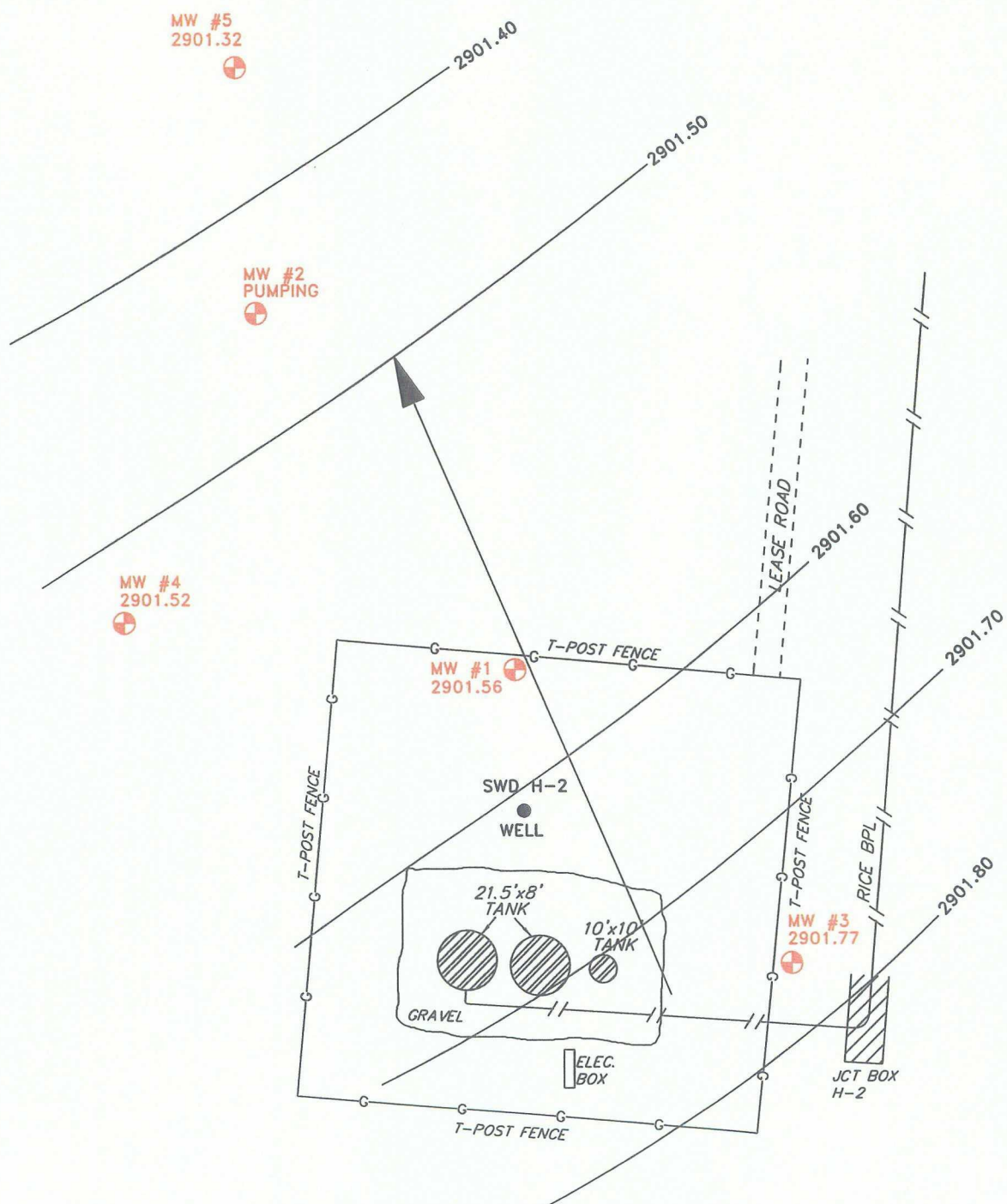
JUSTIS H-2 SWD  
9/13/06 WATER TABLE MAP

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

DATE:  
2/8/07

DWG. BY:  
JJ

FILE:  
C:\RICE\1063\  
WTM 2-06



WELL#	ELEVATION (PVC)
MW #1	3023.45'
MW #2	3022.89'
MW #3	3019.98'
MW #4	3023.15'
MW #5	3021.06'

 MONITOR WELL LOCATION

SCALE: 1"=60'

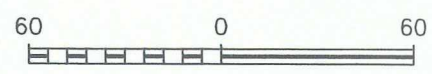


FIGURE NO. 6

LEA COUNTY, NEW MEXICO
RICE OPERATING COMPANY
JUSTIS H-2 SWD
12/5/06 WATER TABLE MAP
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE:  
2/8/07  
DWG. BY:  
JJ  
FILE:  
C:\RICE\1863\  
WTM 2-06

## TABLES



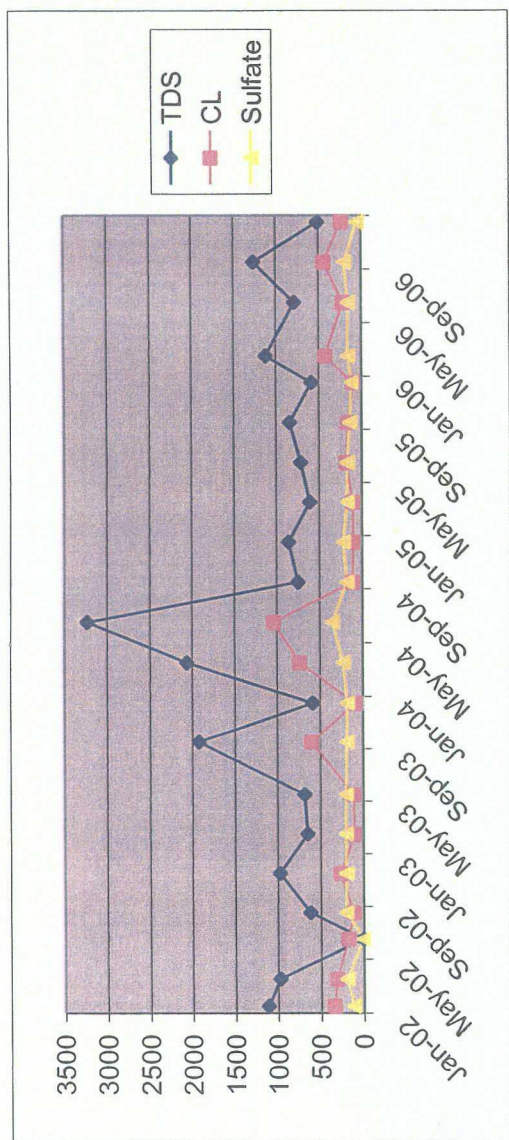
## Rice Engineering Operating

H-2

Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	116.20	145.00	18.80	56.4	01/03/02	336	1112	<0.002	<0.002	<0.002	<0.002	116	
1	XXX	XXX	XXX	XXX	03/01/02	301	971	XXX	XXX	XXX	XXX	190	
1	XXX	XXX	XXX	XXX	06/10/02	173	XXX	0.001	0.008	0.01	0.066	XXX	
1	116.20	137.00	XXX	66.0	08/16/02	111	619	<0.001	<0.001	<0.001	<0.001	202	
1	123.32	144.00	XXX	60.0	11/12/02	257	971	<0.001	<0.001	<0.001	<0.001	194	
1	122.95	144.00	XXX	70.0	02/13/03	97.5	647	<0.001	<0.001	<0.001	<0.001	200	
1	123.34	144.00	XXX	70.0	05/20/03	102	682	<0.001	<0.001	<0.001	<0.001	196	
1	122.94	144.00	XXX	70.0	09/16/03	594	1920	<0.001	<0.001	<0.001	<0.001	186	
1	123.19	144.00	XXX	70.0	12/16/03	81.5	587	0.013	<0.001	<0.001	<0.001	180	
1	122.43	144.00	XXX	70.0	03/11/04	727	2060	<0.001	<0.001	<0.001	<0.001	227	
1	122.24	144.00	XXX	70.0	06/28/04	1030	3230	0.0056	<0.001	<0.001	<0.001	349	
1	122.22	144.00	XXX	70.0	09/23/04	106	749	<0.001	<0.001	<0.001	<0.001	175	
1	122.18	144.00	XXX	68.0	12/21/04	93.1	858	<0.001	<0.001	<0.001	0.00108	215	
1	121.97	144.00	XXX	75.0	03/29/05	98.2	608	<0.001	<0.001	<0.001	<0.001	169	
1	122.08	144.00	XXX	80.0	06/16/05	173	711	<0.001	<0.001	<0.001	<0.001	166	
1	XXX	XXX	XXX	XXX	09/15/05	151	840	<0.001	<0.001	<0.001	<0.001	133	
1	122.12	153.00	31.50	100.0	12/05/05	93.5	586	<0.001	<0.001	<0.001	<0.001	114	
1	121.81	153.00	31.80	100.0	02/27/06	414	1120	<0.001	<0.001	<0.001	<0.001	157	
1	121.94	153.00	31.70	100.0	06/14/06	206	782	<0.001	<0.001	<0.001	<0.001	151	
1	121.80	153.00	31.80	100.0	09/13/06	430	1,260	<0.001	<0.001	<0.001	<0.001	194	
1	121.89	153.00	31.70	100.0	12/05/06	223	512	<0.001	<0.001	<0.001	<0.001	47.6	

MW-1

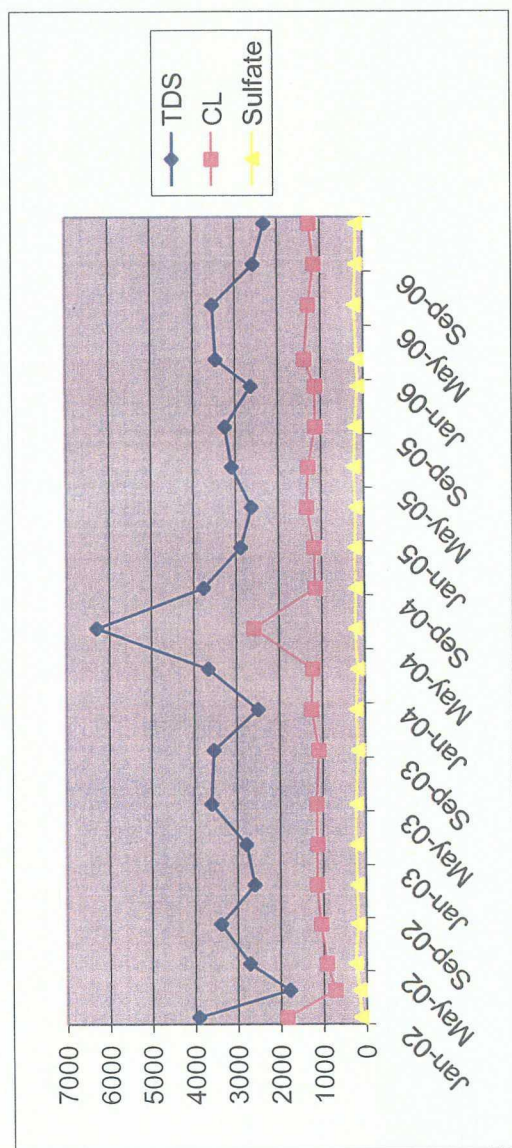


Rice Engineering Operating

H-2

Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	122.00	142.60	13.40	40.3	01/07/02	1839	3908	<0.002	<0.002	<0.002	<0.002	120	
2	XXX	XXX	XXX	XXX	03/01/02	700	1780	XXX	XXX	XXX	XXX	150	
2	XXX	XXX	XXX	XXX	05/23/02	904	2710	<0.001	<0.001	<0.001	<0.001	243	
2	121.85	142.00	XXX	25.0	08/16/02	1040	3390	<0.001	<0.001	<0.001	<0.001	188	
2	122.10	142.00	XXX	25.0	11/12/02	1130	2600	0.002	0.003	<0.001	<0.002	200	
2	121.71	142.00	XXX	25.0	02/13/03	1110	2780	<0.001	<0.001	<0.001	<0.001	216	
2	122.08	142.00	XXX	25.0	05/20/03	1130	3600	<0.001	<0.001	<0.001	<0.001	215	
2	121.70	142.00	XXX	25.0	09/16/03	1070	3540	<0.001	<0.001	<0.001	<0.001	167	
2	122.00	142.00	XXX	30.0	12/16/03	1230	2490	0.032	0.003	<0.001	<0.001	202	
2	121.87	142.00	XXX	30.0	03/11/04	1200	3660	<0.001	<0.001	<0.001	<0.001	164	
2	121.74	142.00	XXX	30.0	06/28/04	2570	6290	0.0112	<0.001	<0.001	<0.001	208	
2	121.70	142.00	XXX	25.0	09/23/04	1130	3760	<0.001	<0.001	<0.001	<0.001	198	
2	121.65	142.00	XXX	10.0	12/21/04	1150	2877	<0.001	<0.001	<0.001	<0.001	210	
2	121.45	142.00	XXX	25.0	03/29/05	1310	2620	<0.001	<0.001	<0.001	<0.001	186	
2	121.58	142.00	XXX	30.0	06/16/05	1280	3080	<0.001	<0.001	<0.001	<0.001	221	
2	XXX	XXX	XXX	XXX	09/15/05	1110	3240	<0.001	<0.001	<0.001	<0.001	196	
2	121.52	142.60	3.40	20.0	12/05/05	1110	2630	<0.001	<0.001	<0.001	<0.001	134	
2	121.40	142.60	3.40	20.0	02/27/06	1360	3450	<0.001	<0.001	<0.001	<0.001	139	
2	121.40	142.60	3.40	15.0	06/14/06	1260	3520	<0.001	<0.001	<0.001	<0.001	204	
2	121.34	142.60	3.40	15.0	09/13/06	1130	2,560	<0.001	<0.001	<0.001	<0.001	166	
2	Pump	142.60	XXX	XXX	12/05/06	1240	2300	<0.001	<0.001	<0.001	<0.001	156	



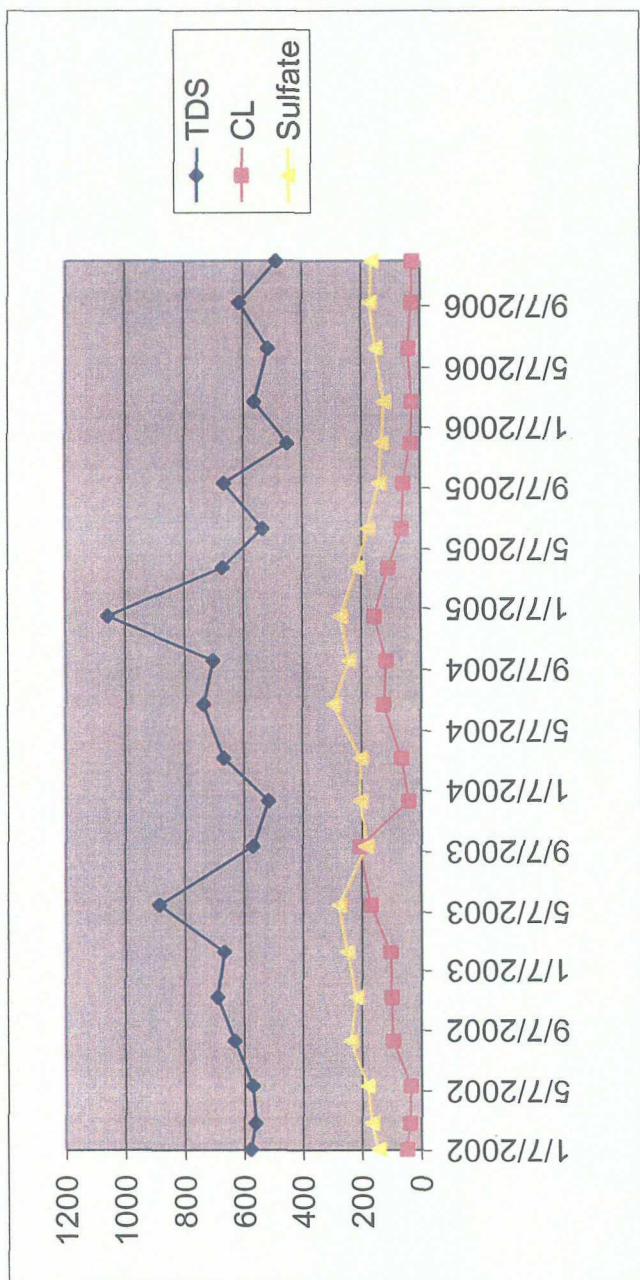
Rice Engineering Operating

H-2

Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
3	122.10	137.50	10.00	30.1	01/07/02	48	577	<0.005	<0.005	<0.005	<0.015	145	
3	XXX	XXX	XXX	XXX	03/01/02	37.2	561	XXX	XXX	XXX	XXX	167	
3	XXX	XXX	XXX	XXX	05/16/02	35.4	570	<0.001	<0.001	<0.001	<0.001	182	
3	118.68	133.00	XXX	20.0	08/16/02	93.1	631	<0.001	<0.001	<0.001	<0.001	238	
3	118.90	133.00	XXX	25.0	11/12/02	97.5	688	0.030	0.014	0.002	0.003	219	
3	118.53	133.00	XXX	25.0	02/13/03	102	666	<0.001	<0.001	<0.001	<0.001	250	
3	118.87	133.00	XXX	25.0	05/20/03	168	885	<0.001	<0.001	<0.001	<0.001	278	
3	118.53	133.00	XXX	25.0	09/16/03	204	568	<0.001	<0.001	<0.001	<0.001	184	
3	118.53	133.00	XXX	25.0	09/16/03	204	568	<0.001	<0.001	<0.001	<0.001	184	
3	118.79	133.00	XXX	30.0	12/16/03	40.8	517	0.013	<0.001	<0.001	<0.001	204	
3	118.71	133.00	XXX	30.0	03/11/04	65	666	<0.001	<0.001	<0.001	<0.001	203	
3	118.53	133.00	XXX	30.0	06/28/04	124	735	0.0124	<0.001	<0.001	<0.001	295	
3	118.52	133.00	XXX	25.0	09/23/04	115	703	0.00113	<0.001	<0.001	<0.001	242	
3	118.52	133.00	XXX	7.0	12/21/04	154	1057	0.0127	<0.001	0.00144	<0.001	272	
3	118.31	133.00	XXX	25.0	03/29/05	108	670	<0.001	<0.001	<0.001	<0.001	215	
3	118.41	133.00	XXX	30.0	06/16/05	62.4	535	<0.001	<0.001	<0.001	<0.001	180	
3	XXX	XXX	XXX	XXX	09/15/05	56.4	664	<0.001	<0.001	<0.001	<0.001	139	
3	118.25	133.70	2.50	20.0	12/05/05	30.7	450	<0.001	<0.001	<0.001	<0.001	131	
3	118.18	133.70	2.50	15.0	02/27/06	26.8	562	<0.001	<0.001	<0.001	<0.001	123	
3	118.18	133.70	2.50	15.0	06/14/06	38.3	514	<0.001	<0.001	<0.001	<0.001	151	
3	118.23	133.70	2.50	15.0	09/13/06	28	610	<0.001	<0.001	<0.001	<0.001	170	
3	118.21	133.70	2.50	10.0	12/05/06	26.1	486	<0.001	<0.001	<0.001	<0.001	164	



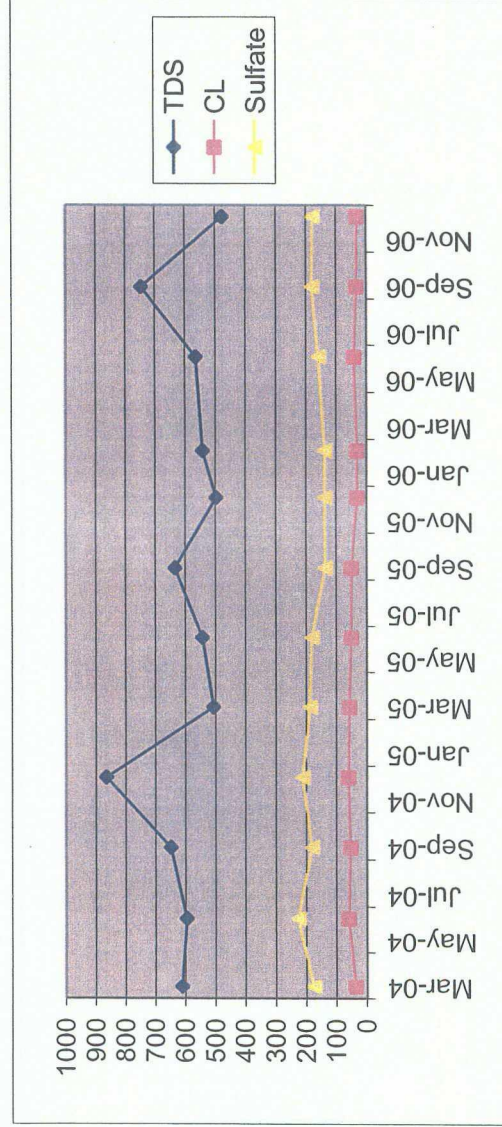


Rice Engineering Operating

H-2

Lea County, New Mexico

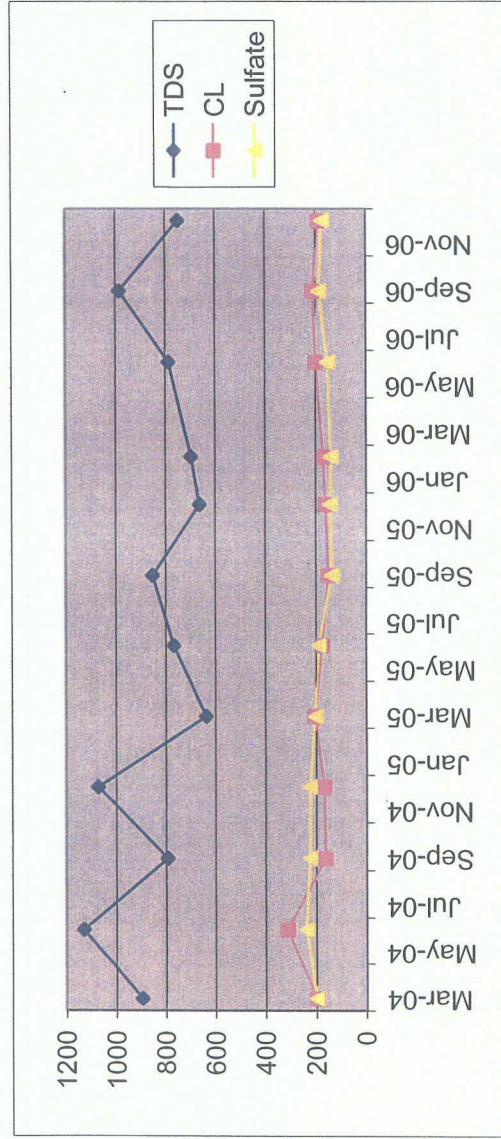
MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
4	122.12	137.00	XXX	30.0	03/11/04	35.4	610	<0.001	<0.001	<0.001	<0.001	174	
4	121.96	137.00	XXX	30.0	06/28/04	57.6	596	0.00749	<0.001	<0.001	<0.001	225	
4	121.93	137.00	XXX	25.0	09/23/04	53.2	648	<0.001	<0.001	<0.001	<0.001	180	
4	121.88	137.00	XXX	8.0	12/21/04	59.1	865	0.00275	<0.001	<0.001	<0.001	210	
4	121.66	137.00	XXX	25.0	03/29/05	55.7	506	<0.001	<0.001	<0.001	<0.001	186	
4	121.80	137.00	XXX	30.0	06/16/05	49.8	543	<0.001	<0.001	<0.001	<0.001	179	
4	XXX	XXX	XXX	XXX	09/15/05	48.2	634	<0.001	<0.001	<0.001	<0.001	135	
4	121.81	141.40	3.10	20.0	12/05/05	29.1	496	<0.001	<0.001	<0.001	<0.001	136	
4	121.59	141.40	3.20	20.0	02/27/06	29.1	542	<0.001	<0.001	<0.001	<0.001	136	
4	121.61	141.40	3.20	15.0	06/14/06	39.6	564	<0.001	<0.001	<0.001	<0.001	157	
4	121.62	141.40	3.20	15.0	09/13/06	31.3	746	<0.001	<0.001	<0.001	<0.001	180	
4	121.63	141.40	3.20	15.0	12/05/06	30.0	476	<0.001	<0.001	<0.001	<0.001	176	





Rice Engineering Operating  
H-2  
Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	CI	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
5	120.15	135.00	XXX	30.0	03/11/04	195	894	<0.001	<0.001	<0.001	<0.001	198	
5	120.04	135.00	XXX	30.0	06/28/04	310	1130	0.0105	<0.001	<0.001	<0.001	238	
5	119.98	135.00	XXX	25.0	09/23/04	160	792	<0.001	<0.001	<0.001	<0.001	224	
5	119.93	135.00	XXX	8.0	12/21/04	165	1072	0.00292	<0.001	<0.001	<0.001	224	
5	119.73	135.00	XXX	25.0	03/29/05	202	636	<0.001	<0.001	<0.001	<0.001	201	
5	119.88	135.00	XXX	30.0	06/16/05	172	767	<0.001	<0.001	<0.001	<0.001	187	
5	XXX	XXX	XXX	XXX	09/15/05	147	852	<0.001	<0.001	<0.001	<0.001	136	
5	119.80	140.00	3.20	20.0	12/05/05	159	662	<0.001	<0.001	<0.001	<0.001	142	
5	119.68	140.00	3.30	20.0	02/27/06	167	696	<0.001	<0.001	<0.001	<0.001	139	
5	119.65	140.00	3.30	15.0	06/14/06	197	786	<0.001	<0.001	<0.001	<0.001	152	
5	119.69	140.00	3.20	15.0	09/13/06	209	984	<0.001	<0.001	<0.001	<0.001	186	
5	119.74	140.00	3.20	15.0	12/05/06	186	748	<0.001	<0.001	<0.001	<0.001	173	





## APPENDIX A

### R/O System

### Rice Operating Company - H-2 RO System Operating Recap - 2006

Date	Activity	Conductivity	Field Cl- mg/L	Lab Cl- mg/L	MW-2 Conductivity or Lab data	Water injected into MW-1 from T-2 in gallons	Elevated Cl water trans. from T-2 to T- 1 for reprocessing in gallons	Waste water metered to disposal in gallons
11/6/2006	Set unit and load tanks with fresh water, approximately 1300 gallons, start up unit							
11/9/2006	Discharge water to MW-1				Field 1160 mg/L	925		197
11/17/2006	Discharge water to MW-1	983µS Lab	318	171		1250		551
11/21/2006	Transfer water from T- 2 to T-1 for makeup						130	868
11/25/2006	Transfer water from T- 2 to H-2 Disposal	819 µS	260					1579
11/26/2006	Transfer water from T- 2 to T-1 for makeup						400	1875
11/28/2006	Transfer water from T- 2 to H-2 Disposal							1766
12/5/2006	Transfer water from T- 2 to T-1 for makeup				lab 1240 mg/L 4,500µS		200	1792
12/8/2006	Discharge water to MW-1			130		1165		1936
12/12/2006	Discharge water to MW-1	174 µS field 179µS Lab	90	48		560		2225
12/13/2006	Discharge water to MW-1	170 µS	70			425		2327
12/14/2006	Discharge water to MW-1	202 µS	50			750		2462
12/14/2006	Discharge water to MW-1	193 µS	90			500		2648
12/19/2006	Discharge water to MW-1	185 µS				675		2887
12/21/2006	Discharge water to MW-1	189 µS	69			475		3221
12/22/2006	Discharge water to MW-1	185 µS	70			330		3367
12/26/2006	Discharge water to MW-1	186 µS field 201 µS Lab	60	60		515		3976
12/27/2006	Discharge water to MW-1	199 µS	80		Field 5,084µS 1600 mg/L	600		4166
12/28/2006	Discharge water to MW-1	192 µS	60			605		4372
12/30/2006	Discharge water to MW-1	200 µS	70			175		4455
1/3/2007	Discharge water to MW-1	202.8 µS Field 203 µS Lab	70	56		750		5007
	Totals					9700	730	5007
	Total volume of water processed	14707 gallons				66%		33%

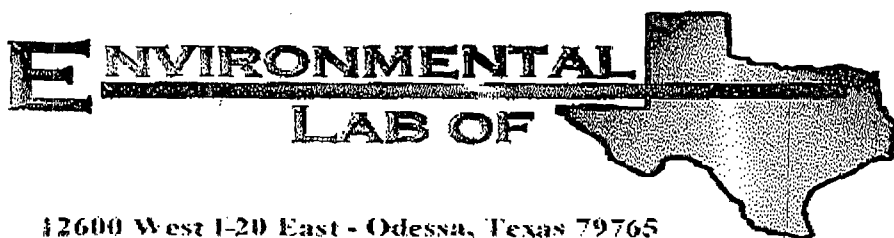


## **APPENDIX B**

### **Lab Analysis**

**Lab Analysis**

**3/16/2006**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Justis H-2 SWD

Project Number: None Given

Location: Lea County

Lab Order Number: 6C02021

Report Date: 03/16/06

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471  
Reported:  
03/16/06 16:49

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6C02021-01	Water	02/27/06 14:50	03/02/06 16:05
Monitor Well #2	6C02021-02	Water	02/27/06 10:00	03/02/06 16:05
Monitor Well #3	6C02021-03	Water	02/27/06 13:05	03/02/06 16:05
Monitor Well #4	6C02021-04	Water	02/27/06 12:00	03/02/06 16:05
Monitor Well #5	6C02021-05	Water	02/27/06 11:10	03/02/06 16:05

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6C02021-01) Water</b>									
Benzene	ND	0.00100	mg/L	1	EC60704	03/07/06	03/08/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.8 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	80-120	"	"	"	"	"	
<b>Monitor Well #2 (6C02021-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	EC60704	03/07/06	03/08/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.0 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.0 %	80-120	"	"	"	"	"	
<b>Monitor Well #3 (6C02021-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	EC60704	03/07/06	03/08/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		90.8 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	80-120	"	"	"	"	"	
<b>Monitor Well #4 (6C02021-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	EC60704	03/07/06	03/08/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		89.5 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.8 %	80-120	"	"	"	"	"	

Environmental Lab of Texas

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Page 2 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #5 (GC02021-05) Water</b>									
Benzene	ND	0.00100	mg/L	1	EC00704	03/07/06	03/08/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		91.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	80-120		"	"	"	"	

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Page 3 of 11



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471  
Reported:  
03/16/06 16:49

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6C02021-01) Water</b>									
Total Alkalinity	154	2.00	mg/L	1	EC60905	03/09/06	03/09/06	EPA 310.1M	
Chloride	414	10.0	"	20	EC60320	03/03/06	03/07/06	EPA 300.0	
Total Dissolved Solids	1120	5.00	"	1	EC60607	03/03/06	03/06/06	EPA 160.1	
Sulfate	157	10.0	"	20	EC60320	03/03/06	03/07/06	EPA 300.0	
<b>Monitor Well #2 (6C02021-02) Water</b>									
Total Alkalinity	110	2.00	mg/L	1	EC60905	03/09/06	03/09/06	EPA 310.1M	
Chloride	1360	12.5	"	25	EC60320	03/03/06	03/07/06	EPA 300.0	
Total Dissolved Solids	3450	5.00	"	1	EC60607	03/03/06	03/06/06	EPA 160.1	
Sulfate	139	12.5	"	25	EC60320	03/03/06	03/07/06	EPA 300.0	
<b>Monitor Well #3 (6C02021-03) Water</b>									
Total Alkalinity	162	2.00	mg/L	1	EC60905	03/09/06	03/09/06	EPA 310.1M	
Chloride	26.8	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	
Total Dissolved Solids	562	5.00	"	1	EC60607	03/03/06	03/06/06	EPA 160.1	
Sulfate	123	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	
<b>Monitor Well #4 (6C02021-04) Water</b>									
Total Alkalinity	166	2.00	mg/L	1	EC60905	03/09/06	03/09/06	EPA 310.1M	
Chloride	29.1	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	
Total Dissolved Solids	542	5.00	"	1	EC60607	03/03/06	03/06/06	EPA 160.1	
Sulfate	136	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	
<b>Monitor Well #5 (6C02021-05) Water</b>									
Total Alkalinity	142	2.00	mg/L	1	EC60905	03/09/06	03/09/06	EPA 310.1M	
Chloride	167	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	
Total Dissolved Solids	696	5.00	"	1	EC60607	03/03/06	03/06/06	EPA 160.1	
Sulfate	139	5.00	"	10	EC60320	03/03/06	03/07/06	EPA 300.0	

Environmental Lab of Texas

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Page 4 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471  
Reported:  
03/16/06 16:49

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6C02021-01) Water</b>									
Calcium	144	0.500	mg/L	50	EC60711	03/07/06	03/07/06	EPA 6010B	
Magnesium	54.7	0.0100	"	10	"	"	"	"	
Potassium	8.81	0.500	"	"	"	"	"	"	
Sodium	186	0.500	"	50	"	"	"	"	
<b>Monitor Well #2 (6C02021-02) Water</b>									
Calcium	349	0.500	mg/L	50	EC60711	03/07/06	03/07/06	EPA 6010B	
Magnesium	144	0.0500	"	"	"	"	"	"	
Potassium	14.5	0.500	"	10	"	"	"	"	
Sodium	229	0.500	"	50	"	"	"	"	
<b>Monitor Well #3 (6C02021-03) Water</b>									
Calcium	45.6	0.100	mg/L	10	EC60711	03/07/06	03/07/06	EPA 6010B	
Magnesium	24.6	0.0100	"	"	"	"	"	"	
Potassium	5.30	0.500	"	"	"	"	"	"	
Sodium	59.8	0.100	"	"	"	"	"	"	
<b>Monitor Well #4 (6C02021-04) Water</b>									
Calcium	38.1	0.100	mg/L	10	EC60711	03/07/06	03/07/06	EPA 6010B	
Magnesium	21.0	0.0100	"	"	"	"	"	"	
Potassium	4.86	0.500	"	"	"	"	"	"	
Sodium	56.4	0.100	"	"	"	"	"	"	
<b>Monitor Well #5 (6C02021-05) Water</b>									
Calcium	70.0	0.100	mg/L	10	EC60711	03/07/06	03/07/06	EPA 6010B	
Magnesium	34.2	0.0100	"	"	"	"	"	"	
Potassium	5.91	0.500	"	"	"	"	"	"	
Sodium	77.5	0.500	"	50	"	"	"	"	

Environmental Lab of Texas

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Page 5 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

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

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

**Batch EC60704 - EPA 5030C (GC)****Blank (EC60704-BLK1)**

Prepared: 03/07/06 Analyzed: 03/08/06

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	37.1		ug/l	40.0		92.8	80-120			
Surrogate: 4-Bromofluorobenzene	32.5		"	40.0		98.8	80-120			

**LCS (EC60704-BS1)**

Prepared: 03/07/06 Analyzed: 03/08/06

Benzene	0.0440	0.00100	mg/L	0.0500		88.0	80-120			
Toluene	0.0489	0.00100	"	0.0500		97.8	80-120			
Ethylbenzene	0.0569	0.00100	"	0.0500		114	80-120			
Xylene (p/m)	0.117	0.00100	"	0.100		117	80-120			
Xylene (o)	0.0590	0.00100	"	0.0500		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.7		ug/l	40.0		96.8	80-120			
Surrogate: 4-Bromofluorobenzene	42.3		"	40.0		106	80-120			

**Calibration Check (EC60704-CCV1)**

Prepared: 03/07/06 Analyzed: 03/09/06

Benzene	40.1		ug/l	50.0		80.2	80-120			
Toluene	40.8		"	50.0		81.6	80-120			
Ethylbenzene	42.9		"	50.0		85.8	80-120			
Xylene (p/m)	88.4		"	100		88.4	80-120			
Xylene (o)	44.3		"	50.0		88.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	34.1		"	40.0		85.2	80-120			
Surrogate: 4-Bromofluorobenzene	32.7		"	40.0		81.8	80-120			

**Matrix Spike (EC60704-MS1)**

Source: 6C03007-06

Prepared: 03/07/06 Analyzed: 03/09/06

Benzene	0.0403	0.00100	mg/L	0.0500	ND	80.6	80-120			
Toluene	0.0432	0.00100	"	0.0500	ND	86.4	80-120			
Ethylbenzene	0.0464	0.00100	"	0.0500	ND	92.8	80-120			
Xylene (p/m)	0.0971	0.00100	"	0.100	ND	97.1	80-120			
Xylene (o)	0.0476	0.00100	"	0.0500	ND	95.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	36.4		ug/l	40.0		91.0	80-120			
Surrogate: 4-Bromofluorobenzene	43.8		"	40.0		110	80-120			

Environmental Lab of Texas

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Page 6 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

## 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
<b>Batch EC60704 - EPA 5030C (GC)</b>										
<b>Matrix Spike Dup (EC60704-MSD1)</b>										
Source: 6C03007-06 Prepared: 03/07/06 Analyzed: 03/09/06										
Benzene	0.0433	0.00100	mg/L	0.0500	ND	86.6	80-120	7.18	20	
Toluene	0.0472	0.00100	"	0.0500	ND	94.4	80-120	8.85	20	
Ethylbenzene	0.0539	0.00100	"	0.0500	ND	108	80-120	15.1	20	
Xylene (p/m)	0.112	0.00100	"	0.100	ND	112	80-120	14.3	20	
Xylene (o)	0.0541	0.00100	"	0.0500	ND	108	80-120	12.6	20	
Surrogate: a,a,a-Trifluorotoluene	36.5		ug/l	40.0		91.2	80-120			
Surrogate: 4-Bromofluorobenzene	38.0		"	40.0		95.0	80-120			

Environmental Lab of Texas

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Page 7 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

# **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 EC60320 - General Preparation (WetChem)**

#### **Blank (EC60320-BLK1)**

Prepared: 03/03/06 Analyzed: 03/07/06

Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							

#### **LCS (EC60320-RS1)**

Prepared: 03/03/06 Analyzed: 03/07/06

Sulfate	8.49		mg/L	10.0		84.9	80-120			
Chloride	8.77		"	10.0		87.7	80-120			

#### **Calibration Check (EC60320-CCV1)**

Prepared: 03/03/06 Analyzed: 03/07/06

Chloride	9.37		mg/L	10.0		93.7	80-120			
Sulfate	9.44		"	10.0		94.4	80-120			

#### **Duplicate (EC60320-DUP1)**

Source: 6C02021-03

Prepared: 03/03/06 Analyzed: 03/07/06

Chloride	27.1	5.00	mg/L		26.8			1.11	20	
Sulfate	124	5.00	"		123			0.810	20	

### **Batch EC60607 - General Preparation (WetChem)**

#### **Blank (EC60607-BLK1)**

Prepared: 03/03/06 Analyzed: 03/06/06

Total Dissolved Solids	ND	5.00	mg/L							
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#### **Duplicate (EC60607-DUP1)**

Source: 6C02020-01

Prepared: 03/03/06 Analyzed: 03/06/06

Total Dissolved Solids	524	5.00	mg/L		538			2.64	5	
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#### **Duplicate (EC60607-DUP2)**

Source: 6C02021-03

Prepared: 03/03/06 Analyzed: 03/06/06

Total Dissolved Solids	570	5.00	mg/L		562			1.41	5	
------------------------	-----	------	------	--	-----	--	--	------	---	--

Environmental Lab of Texas

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Page 8 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

# **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
<b>Batch EC60905 - General Preparation (WetChem)</b>										
<b>Blank (EC60905-BLK1)</b>										
				Prepared & Analyzed: 03/09/06						
Total Alkalinity	ND	2.00	mg/L							
<b>LCS (EC60905-BS1)</b>										
				Prepared & Analyzed: 03/09/06						
Bicarbonate Alkalinity	216	2.00	mg/L	200		108	85-115			
<b>Duplicate (EC60905-DU11)</b>										
				Source: 6C82020-01		Prepared & Analyzed: 03/09/06				
Total Alkalinity	195	2.00	mg/L		194			0.514	20	
<b>Reference (EC60905-SRM1)</b>										
				Prepared & Analyzed: 03/09/06						
Total Alkalinity	97.0		mg/L	100		97.0	90-110			

Environmental Lab of Texas

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Page 9 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:  
03/16/06 16:49

### Total Metals 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 EC60711 - 6010B/No Digestion

##### Blank (EC60711-BLK1)

Prepared &amp; Analyzed: 03/07/06

Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							

##### Calibration Check (EC60711-CCV1)

Prepared &amp; Analyzed: 03/07/06

Calcium	2.04		mg/L	2.00		102	85-115			
Magnesium	2.09		"	2.00		104	85-115			
Potassium	1.90		"	2.00		95.0	85-115			
Sodium	1.85		"	2.00		92.5	85-115			

##### Duplicate (EC60711-DUP1)

Source: 6C02020-01

Prepared &amp; Analyzed: 03/07/06

Calcium	73.7	0.100	mg/L		72.7			1.37	20	
Magnesium	15.8	0.0100	"		15.2			3.87	20	
Potassium	3.61	0.0500	"		3.71			2.73	20	
Sodium	37.6	0.100	"		37.2			1.07	20	

Environmental Lab of Texas

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Page 10 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

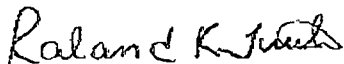
Fax: (505) 397-1471

Reported:  
03/16/06 16:49

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date:

3/16/2006

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

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

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Page 11 of 11



# Environmental Lab of Texas

**12000 West 1-20 East  
Odessa, Texas 79765**

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:** Kristin Farris Pope  
kpriceswd@valomet.com

**Project Name: Justice H-2 SWD**

**Company Name** RICE Operating Company

**Project #:**

**Company Address: 122 W. Taylor Street**

**Protest Loop!**

**CITY/STATE/ZIP: Hobbs, New Mexico 88240**

扶口血

Telephone No: (505) 393-9174

**Fax No: (505) 387-1471**

**Sampler Signature:** Rozanne Johnson (505) 631-9310

**Email:** [rozanne@valornet.com](mailto:rozanne@valornet.com)

[illegible]

**Special Instructions:**

PLEASE Email RESULTS TO: [kpriceswd@valomet.com](mailto:kpriceswd@valomet.com) & [mfranks@raceswd.com](mailto:mfranks@raceswd.com)

### Sample Containers Intact?

Labels on containers

**Custody Sale: Contingent Buyer**

Temperature Vision Receipt:

### Laboratory Comments:

~~Revised by:~~

...

Rozanne J. J. J.

Received by:

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**Dates,**

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# Environmental Lab of Texas

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

Client: Rice Op.  
 Date/Time: 3/2/06 11:05  
 Order #: 1602021  
 Initials: CK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	—, 0	C
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	No		
Custody Seals intact on shipping container/cooler?	<input checked="" type="checkbox"/>	No	Not present	
Custody Seals intact on sample bottles?	<input checked="" type="checkbox"/>	No	Not present	
Chain of custody present?	<input checked="" type="checkbox"/>	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="checkbox"/>	No		
Chain of custody agrees with sample label(s)	<input checked="" type="checkbox"/>	No		
Container labels legible and intact?	<input checked="" type="checkbox"/>	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="checkbox"/>	No		
Samples in proper container/bottle?	<input checked="" type="checkbox"/>	No		
Samples properly preserved?	<input checked="" type="checkbox"/>	No		
Sample bottles intact?	<input checked="" type="checkbox"/>	No		
Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Containers documented on Chain of Custody?	<input checked="" type="checkbox"/>	No		
Sufficient sample amount for indicated test?	<input checked="" type="checkbox"/>	No		
All samples received within sufficient hold time?	<input checked="" type="checkbox"/>	No		
VOC samples have zero headspace?	<input checked="" type="checkbox"/>	No	Not Applicable	

Other observations:

Samples not frozen.

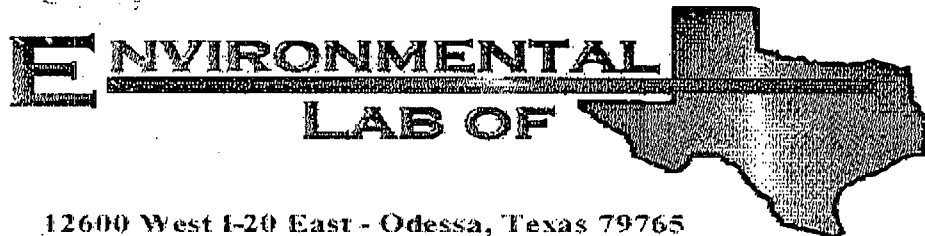
### Variance Documentation:

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

Corrective Action Taken:

**Lab Analysis**

**6/23/2006**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Justis H-2 SWD

Project Number: None Given

Location: Lea County

Lab Order Number: 6F15003

Report Date: 06/23/06

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6F15003-01	Water	06/14/06 09:30	06/15/06 07:50
Monitor Well #2	6F15003-02	Water	06/14/06 12:45	06/15/06 07:50
Monitor Well #3	6F15003-03	Water	06/14/06 10:45	06/15/06 07:50
Monitor Well #4	6F15003-04	Water	06/14/06 13:50	06/15/06 07:50
Monitor Well #5	6F15003-05	Water	06/14/06 14:45	06/15/06 07:50

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6F15003-01) Water</b>									
Benzene	ND	0.00100	mg/L	1	EF61921	06/19/06	06/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	80-120		"	"	"	"	
<b>Monitor Well #2 (6F15003-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	EF61921	06/19/06	06/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		107 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-120		"	"	"	"	
<b>Monitor Well #3 (6F15003-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	EF61921	06/19/06	06/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		93.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	80-120		"	"	"	"	
<b>Monitor Well #4 (6F15003-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	EF61921	06/19/06	06/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		93.0 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	80-120		"	"	"	"	

Environmental Lab of Texas

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Page 2 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #5 (6F15003-05) Water</b>									
Benzene	ND	0.00100	mg/L	1	EF61921	06/19/06	06/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		88.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.5 %	80-120		"	"	"	"	

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Page 3 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6F15003-01) Water</b>									
Total Alkalinity	166	2.00	mg/L	1	EF62316	06/22/06	06/22/06	EPA 310.1M	
Chloride	206	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
Total Dissolved Solids	782	5.00	"	1	EF61918	06/15/06	06/16/06	EPA 160.1	
Sulfate	151	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
<b>Monitor Well #2 (6F15003-02) Water</b>									
Total Alkalinity	148	2.00	mg/L	1	EF62316	06/22/06	06/22/06	EPA 310.1M	
Chloride	1260	25.0	"	50	EF61712	06/17/06	06/17/06	EPA 300.0	
Total Dissolved Solids	3520	5.00	"	1	EF61918	06/15/06	06/16/06	EPA 160.1	
Sulfate	204	25.0	"	50	EF61712	06/17/06	06/17/06	EPA 300.0	
<b>Monitor Well #3 (6F15003-03) Water</b>									
Total Alkalinity	174	2.00	mg/L	1	EF62316	06/22/06	06/22/06	EPA 310.1M	
Chloride	38.3	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
Total Dissolved Solids	514	5.00	"	1	EF61918	06/15/06	06/16/06	EPA 160.1	
Sulfate	151	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
<b>Monitor Well #4 (6F15003-04) Water</b>									
Total Alkalinity	188	2.00	mg/L	1	EF62316	06/22/06	06/22/06	EPA 310.1M	
Chloride	39.6	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
Total Dissolved Solids	564	5.00	"	1	EF61918	06/15/06	06/16/06	EPA 160.1	
Sulfate	157	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
<b>Monitor Well #5 (6F15003-05) Water</b>									
Total Alkalinity	154	2.00	mg/L	1	EF62316	06/22/06	06/22/06	EPA 310.1M	
Chloride	197	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	
Total Dissolved Solids	786	5.00	"	1	EF61918	06/15/06	06/16/06	EPA 160.1	
Sulfate	152	5.00	"	10	EF61712	06/17/06	06/17/06	EPA 300.0	

Environmental Lab of Texas

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Page 4 of 12



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6F15003-01) Water</b>									
Calcium	81.4	0.100	mg/l.	10	EF61505	06/15/06	06/15/06	EPA 6010B	
Magnesium	37.9	0.0100	"	"	"	"	"	"	
Potassium	5.80	0.500	"	"	"	"	"	"	
Sodium	87.0	0.100	"	"	"	"	"	"	
<b>Monitor Well #2 (6F15003-02) Water</b>									
Calcium	341	0.500	mg/l.	50	EF61505	06/15/06	06/15/06	EPA 6010B	
Magnesium	159	0.0500	"	"	"	"	"	"	
Potassium	14.4	0.500	"	10	"	"	"	"	
Sodium	189	0.500	"	50	"	"	"	"	
<b>Monitor Well #3 (6F15003-03) Water</b>									
Calcium	50.8	0.100	mg/L	10	EF61505	06/15/06	06/15/06	EPA 6010B	
Magnesium	25.4	0.0100	"	"	"	"	"	"	
Potassium	4.58	0.500	"	"	"	"	"	"	
Sodium	54.9	0.100	"	"	"	"	"	"	
<b>Monitor Well #4 (6F15003-04) Water</b>									
Calcium	44.0	0.100	mg/L	10	EF61505	06/15/06	06/15/06	EPA 6010B	
Magnesium	24.1	0.0100	"	"	"	"	"	"	
Potassium	5.23	0.500	"	"	"	"	"	"	
Sodium	63.9	0.100	"	"	"	"	"	"	
<b>Monitor Well #5 (6F15003-05) Water</b>									
Calcium	83.9	0.100	mg/L	10	EF61505	06/15/06	06/15/06	EPA 6010B	
Magnesium	42.8	0.0100	"	"	"	"	"	"	
Potassium	5.85	0.500	"	"	"	"	"	"	
Sodium	73.0	0.100	"	"	"	"	"	"	

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Page 5 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EF61921 - EPA 5030C (GC)****Blank (EF61921-BLK1)**

Prepared: 06/19/06 Analyzed: 06/20/06

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	38.4		ug/l	40.0		96.0	80-120			
Surrogate: 4-Bromofluorobenzene	38.4		"	40.0		96.0	80-120			

**LCS (EF61921-BS1)**

Prepared: 06/19/06 Analyzed: 06/20/06

Benzene	0.0529	0.00100	mg/L	0.0500		106	80-120			
Toluene	0.0579	0.00100	"	0.0500		116	80-120			
Ethylbenzene	0.0565	0.00100	"	0.0500		113	80-120			
Xylene (p/m)	0.119	0.00100	"	0.100		119	80-120			
Xylene (o)	0.0589	0.00100	"	0.0500		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.6		ug/l	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	40.7		"	40.0		102	80-120			

**Calibration Check (EF61921-CCV1)**

Prepared: 06/19/06 Analyzed: 06/20/06

Benzene	58.0		ug/l	50.0		116	80-120			
Toluene	59.2		"	50.0		118	80-120			
Ethylbenzene	57.5		"	50.0		115	80-120			
Xylene (p/m)	119		"	100		119	80-120			
Xylene (o)	59.0		"	50.0		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	44.1		"	40.0		110	80-120			
Surrogate: 4-Bromofluorobenzene	38.4		"	40.0		96.0	80-120			

**Matrix Spike (EF61921-MS1)**

Source: 6F15001-01

Prepared: 06/19/06 Analyzed: 06/20/06

Benzene	0.0488	0.00100	mg/L	0.0500	ND	97.6	80-120			
Toluene	0.0539	0.00100	"	0.0500	ND	108	80-120			
Ethylbenzene	0.0501	0.00100	"	0.0500	ND	100	80-120			
Xylene (p/m)	0.115	0.00100	"	0.100	ND	115	80-120			
Xylene (o)	0.0576	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	37.6		ug/l	40.0		94.0	80-120			
Surrogate: 4-Bromofluorobenzene	41.7		"	40.0		104	80-120			

Environmental Lab of Texas

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Page 6 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

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

**Batch EF61921 - EPA 5030C (GC)****Matrix Spike Dup (EF61921-MSD1)**

Source: 6F15001-01

Prepared: 06/19/06

Analyzed: 06/20/06

Benzene	0.0484	0.00100	mg/L	0.0500	ND	96.8	80-120	0.823	20	
Toluene	0.0469	0.00100	"	0.0500	ND	93.8	80-120	14.1	20	
Ethylbenzene	0.0451	0.00100	"	0.0500	ND	90.2	80-120	10.3	20	
Xylene (p/m)	0.0979	0.00100	"	0.100	ND	97.9	80-120	16.1	20	
Xylene (o)	0.0497	0.00100	"	0.0500	ND	99.4	80-120	14.6	20	
Surrogate: a,a,a-Trifluorotoluene	33.7		ug/l	40.0		84.2	80-120			
Surrogate: 4-Bromofluorobenzene	39.1		"	40.0		97.8	80-120			

Environmental Lab of Texas

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Page 7 of 12

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

Project: Justis 14-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EF61712 - General Preparation (WetChem)****Blank (EF61712-BLK1)**

Prepared &amp; Analyzed: 06/17/06

Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							

**LCS (EF61712-BS1)**

Prepared &amp; Analyzed: 06/17/06

Chloride	10.0		mg/L	10.0		100	80-120			
Sulfate	8.16		"	10.0		81.6	80-120			

**Calibration Check (EF61712-CCV1)**

Prepared &amp; Analyzed: 06/17/06

Chloride	10.9		mg/L	10.0		109	80-120			
Sulfate	10.5		"	10.0		105	80-120			

**Duplicate (EF61712-DUP1)**

Source: 6F14013-01

Prepared &amp; Analyzed: 06/17/06

Chloride	47.9	5.00	mg/L		48.8			1.86	20	
Sulfate	69.2	5.00	"		69.8			0.863	20	

**Duplicate (EF61712-DUP2)**

Source: 6F15003-05

Prepared &amp; Analyzed: 06/18/06

Chloride	198	5.00	mg/L		197			0.506	20	
Sulfate	154	5.00	"		152			1.31	20	

**Matrix Spike (EF61712-MS1)**

Source: 6F14013-01

Prepared &amp; Analyzed: 06/17/06

Chloride	157	5.00	mg/L	100	48.8	108	80-120			
Sulfate	154	5.00	"	100	69.8	84.2	75-125			

**Matrix Spike (EF61712-MS2)**

Source: 6F15003-05

Prepared &amp; Analyzed: 06/18/06

Sulfate	249	5.00	mg/L	100	152	97.0	75-125			
Chloride	301	5.00	"	100	197	104	80-120			

Environmental Lab of Texas

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Page 8 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EF61918 - Filtration Preparation****Blank (EF61918-BLK1)**

Prepared: 06/15/06 Analyzed: 06/16/06

Total Dissolved Solids	ND	5.00	mg/L							
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**Duplicate (EF61918-DUP1)**

Source: 6F15001-01

Prepared: 06/15/06 Analyzed: 06/16/06

Total Dissolved Solids	7770	5.00	mg/L		7820			0.641	5	
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**Batch EF62316 - General Preparation (WetChem)****Blank (EF62316-BLK1)**

Prepared &amp; Analyzed: 06/22/06

Total Alkalinity	ND	2.00	mg/L							
Carbonate Alkalinity	ND	0.100	"							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							

**LCS (EF62316-BS1)**

Prepared &amp; Analyzed: 06/22/06

Total Alkalinity	248	2.00	mg/L	250	99.2	85-115				
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**Duplicate (EF62316-DUP1)**

Source: 6F15001-01

Prepared &amp; Analyzed: 06/22/06

Total Alkalinity	380	2.00	mg/L	386			1.57	20		
Carbonate Alkalinity	0.00	0.100	"	0.00				20		
Bicarbonate Alkalinity	380	2.00	"	386			1.57	20		
Hydroxide Alkalinity	0.00	0.100	"	0.00				20		

**Duplicate (EF62316-DUP2)**

Source: 6F22003-01

Prepared &amp; Analyzed: 06/22/06

Total Alkalinity	142	2.00	mg/L	144			1.40	20		
Carbonate Alkalinity	0.00	0.100	"	0.00				20		
Bicarbonate Alkalinity	142	2.00	"	144			1.40	20		
Hydroxide Alkalinity	0.00	0.100	"	0.00				20		

Environmental Lab of Texas

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Page 9 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EF62316 - General Preparation (WetChem)****Reference (EF62316-SRM1)**

Prepared &amp; Analyzed: 06/22/06

Total Alkalinity	78.0	2.00	mg/L	82.0		95.1	85-115			
Bicarbonate Alkalinity	78.0	2.00	"	82.0		95.1	85-115			

Environmental Lab of Texas

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Page 10 of 12

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals 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 EF61505 - 6010B/No Digestion****Blank (EF61505-BLK1)**

Prepared &amp; Analyzed: 06/15/06

Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							

**Calibration Check (EF61505-CCV1)**

Prepared &amp; Analyzed: 06/15/06

Calcium	2.01		mg/L	2.00		100	85-115			
Magnesium	2.12		"	2.00		106	85-115			
Potassium	1.76		"	2.00		88.0	85-115			
Sodium	1.74		"	2.00		87.0	85-115			

**Duplicate (EF61505-DUP1)**

Source: 6F15001-01

Prepared &amp; Analyzed: 06/15/06

Calcium	316	0.500	mg/L		320			1.26	20	
Magnesium	231	0.0500	"		229			0.870	20	
Potassium	38.4	0.500	"		38.5			0.260	20	
Sodium	1740	5.00	"		1760			1.14	20	

Environmental Lab of Texas

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Page 11 of 12

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


Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date: 6-23-06

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

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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Page 12 of 12



**12600 West I-20 East  
Odessa, Texas 79765**

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:** Kristlin Farris Pope      kpope@riceswd.com

Company Name **RICE Operating Company**

**Company Address:** 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174

**Sampler Signature: Rozanne Johnson (505) 631-9310**

**Email: [rozanne@valornet.com](mailto:rozanne@valornet.com)**

Fax No: (505) 397-1471

**Project Name:** Justis H-2 SWD

**Project #:**

**Project Loc:** Lea County

PO#:

[illegible]

# Environmental Lab of Texas

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

Date: 6/15/06  
 Time: 1:50  
 Sample #: 6F15003  
 Comments: OK

### Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.5	C
Shipping container/cooler in good condition?	Yes	No		
Seals intact on shipping container/cooler?	Yes	No	Not present	
Seals intact on sample bottles?	Yes	No	Not present	
Chain of custody present?	Yes	No		
Sample Instructions complete on Chain of Custody?	Yes	No		
Chain of Custody signed when relinquished and received?	Yes	No		
Chain of custody agrees with sample label(s)	Yes	No		
Container labels legible and intact?	Yes	No		
Sample Matrix and properties same as on chain of custody?	Yes	No		
Samples in proper container/bottle?	Yes	No		
Samples properly preserved?	Yes	No		
Sample bottles intact?	Yes	No		
Observations documented on Chain of Custody?	Yes	No		
Containers documented on Chain of Custody?	Yes	No		
Sufficient sample amount for indicated test?	Yes	No		
Samples received within sufficient hold time?	Yes	No		
GC samples have zero headspace?	Yes	No	Not Applicable	

Other observations:

### Variance Documentation:

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

Corrective Action Taken:



# ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

ANALYTICAL RESULTS FOR  
RICE OPERATING COMPANY  
ATTN: KRISTIN FARRIS-POPE  
122 W. TAYLOR STREET  
HOBBS, NM 88240  
FAX TO: (505) 397-1471

Receiving Date: 06/15/06  
Reporting Date: 06/19/06  
Project Number: NOT GIVEN  
Project Name: JUSTIS H-2SWD  
Project Location: LEA COUNTY, NM

Sampling Date: 06/14/06  
Sample Type: GROUNDWATER  
Sample Condition: COOL & INTACT  
Sample Received By: NF  
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
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ANALYSIS DATE:	06/17/06	06/17/06	06/17/06	06/17/06	06/15/06	06/17/06
H11234-1 MONITOR WELL #5	104	96	48.6	9.67	1237	120
Quality Control	NR	48.0	48.6	3.86	1438	NR
True Value QC	NR	50.0	50	4.00	1413	NR
% Recovery	NR	96	97	97	102	NR
Relative Percent Difference	NR	0.0	0.0	16	0.4	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
----------	-------------	-----------	------	-------	-------

Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
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ANALYSIS DATE:	06/16/06	06/17/06	06/17/06	06/17/06	06/15/06	06/16/06
H11234-1 MONITOR WELL #5	196	272	0	146	7.58	870
Quality Control	1000	25.1	NR	976	7.02	NR
True Value QC	1000	25.0	NR	1000	7.00	NR
% Recovery	100	100	NR	98	100	NR
Relative Percent Difference	1.0	13.7	NR	0.0	0.3	

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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*[Signature]*  
Chemist

*06-19-06*  
Date

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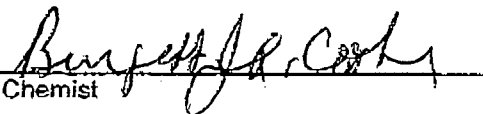
ANALYTICAL RESULTS FOR  
RICE OPERATING COMPANY  
ATTN: KRISTIN FARRIS-POPE  
122 W. TAYLOR STREET  
HOBBS, NM 88240  
FAX TO: (505) 397-1471

Receiving Date: 06/15/06  
Reporting Date: 06/17/06  
Project Number: NOT GIVEN  
Project Name: JUSTIS H-2SWD  
Project Location: LEA COUNTY, NM

Sampling Date: 06/14/06  
Sample Type: GROUNDWATER  
Sample Condition: COOL & INTACT  
Sample Received By: NF  
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		06/15/06	06/15/06	06/15/06	06/15/06
H11234-1	MONITOR WELL #5	<0.002	<0.002	<0.002	<0.006
Quality Control		0.096	0.092	0.095	0.293
True Value QC		0.100	0.100	0.100	0.300
% Recovery		95.7	92.3	95.4	97.5
Relative Percent Difference		5.4	0.7	4.7	4.7

METHOD: EPA SW-846 8260

  
Chemist

6/17/06  
Date

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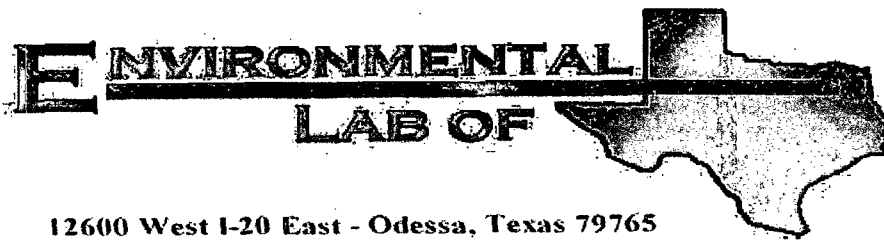
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Page 1 of 1

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**Lab Analysis**

**9/25/2006**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Justis H-2 SWD

Project Number: None Given

Location: T26S-R37E-Sec2H- Lea County, NM

Lab Order Number: 6114012

Report Date: 09/25/06

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6I14012-01	Water	09/13/06 15:50	09-14-2006 16:00
Monitor Well #2	6I14012-02	Water	09/13/06 13:20	09-14-2006 16:00
Monitor Well #3	6I14012-03	Water	09/13/06 09:35	09-14-2006 16:00
Monitor Well #4	6I14012-04	Water	09/13/06 10:50	09-14-2006 16:00
Monitor Well #5	6I14012-05	Water	09/13/06 12:05	09-14-2006 16:00



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6114012-01) Water</b>									
Benzene	ND	0.00100	mg/L	1	EI61906	09/19/06	09/19/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.0 %	80-120		"	"	"	"	
<b>Monitor Well #2 (6114012-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	EI61906	09/19/06	09/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		101 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %	80-120		"	"	"	"	
<b>Monitor Well #3 (6114012-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	EI61906	09/19/06	09/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		105 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.8 %	80-120		"	"	"	"	
<b>Monitor Well #4 (6114012-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	EI61906	09/19/06	09/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		100 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.0 %	80-120		"	"	"	"	

Environmental Lab of Texas

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Page 2 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #5 (6114012-05) Water</b>									
Benzene	ND	0.00100	mg/L	1	EI61906	09/19/06	09/20/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		94.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.8 %	80-120		"	"	"	"	

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods**

**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6114012-01) Water</b>									
Total Alkalinity	164	2.00	mg/L	1	EI62015	09/20/06	09/20/06	EPA 310.1M	
Chloride	430	12.5	"	25	EI61815	09/15/06	09/19/06	EPA 300.0	
Total Dissolved Solids	1260	10.0	"	1	EI61818	09/15/06	09/18/06	EPA 160.1	
Sulfate	194	12.5	"	25	EI61815	09/15/06	09/19/06	EPA 300.0	
<b>Monitor Well #2 (6114012-02) Water</b>									
Total Alkalinity	148	2.00	mg/L	1	EI62015	09/20/06	09/20/06	EPA 310.1M	
Chloride	1130	25.0	"	50	EI61815	09/15/06	09/19/06	EPA 300.0	
Total Dissolved Solids	2560	10.0	"	1	EI61818	09/15/06	09/18/06	EPA 160.1	
Sulfate	166	25.0	"	50	EI61815	09/15/06	09/19/06	EPA 300.0	
<b>Monitor Well #3 (6114012-03) Water</b>									
Total Alkalinity	180	2.00	mg/L	1	EI62015	09/20/06	09/20/06	EPA 310.1M	
Chloride	28.0	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	
Total Dissolved Solids	610	10.0	"	1	EI61818	09/15/06	09/18/06	EPA 160.1	
Sulfate	170	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	
<b>Monitor Well #4 (6114012-04) Water</b>									
Total Alkalinity	178	2.00	mg/L	1	EI62015	09/20/06	09/20/06	EPA 310.1M	
Chloride	31.3	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	
Total Dissolved Solids	746	10.0	"	1	EI61818	09/15/06	09/18/06	EPA 160.1	
Sulfate	180	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	
<b>Monitor Well #5 (6114012-05) Water</b>									
Total Alkalinity	142	2.00	mg/L	1	EI62015	09/20/06	09/20/06	EPA 310.1M	
Chloride	209	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	
Total Dissolved Solids	984	10.0	"	1	EI61818	09/15/06	09/18/06	EPA 160.1	
Sulfate	186	5.00	"	10	EI61815	09/15/06	09/19/06	EPA 300.0	

Environmental Lab of Texas

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Page 4 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6114012-01) Water</b>									
Calcium	118	4.05	mg/L	50	E161801	09/18/06	09/18/06	EPA 6010B	
Magnesium	57.1	0.360	"	10	"	"	"	"	
Potassium	8.77	0.600	"	"	"	"	"	"	
Sodium	166	2.15	"	50	"	"	"	"	
<b>Monitor Well #2 (6114012-02) Water</b>									
Calcium	317	4.05	mg/L	50	E161801	09/18/06	09/18/06	EPA 6010B	
Magnesium	158	1.80	"	"	"	"	"	"	
Potassium	13.8	0.600	"	10	"	"	"	"	
Sodium	190	2.15	"	50	"	"	"	"	
<b>Monitor Well #3 (6114012-03) Water</b>									
Calcium	45.9	0.810	mg/L	10	E161801	09/18/06	09/18/06	EPA 6010B	
Magnesium	25.1	0.360	"	"	"	"	"	"	
Potassium	5.06	0.600	"	"	"	"	"	"	
Sodium	64.6	0.430	"	"	"	"	"	"	
<b>Monitor Well #4 (6114012-04) Water</b>									
Calcium	42.5	0.810	mg/L	10	E161801	09/18/06	09/18/06	EPA 6010B	
Magnesium	23.8	0.360	"	"	"	"	"	"	
Potassium	5.05	0.600	"	"	"	"	"	"	
Sodium	65.3	0.430	"	"	"	"	"	"	
<b>Monitor Well #5 (6114012-05) Water</b>									
Calcium	88.8	0.810	mg/L	10	E161801	09/18/06	09/18/06	EPA 6010B	
Magnesium	36.5	0.360	"	"	"	"	"	"	
Potassium	5.21	0.600	"	"	"	"	"	"	
Sodium	81.9	0.430	"	"	"	"	"	"	

Environmental Lab of Texas

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Page 5 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EI61906 - EPA 5030C (GC)**

**Blank (EI61906-BLK1)**

Prepared: 09/19/06 Analyzed: 09/20/06

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	41.7		ug/l	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	42.7		"	40.0		107	80-120			

**LCS (EI61906-BS1)**

Prepared & Analyzed: 09/19/06

Benzene	0.0553	0.00100	mg/L	0.0500		111	80-120			
Toluene	0.0473	0.00100	"	0.0500		94.6	80-120			
Ethylbenzene	0.0437	0.00100	"	0.0500		87.4	80-120			
Xylene (p/m)	0.105	0.00100	"	0.100		105	80-120			
Xylene (o)	0.0506	0.00100	"	0.0500		101	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.9		ug/l	40.0		99.8	80-120			
Surrogate: 4-Bromofluorobenzene	36.7		"	40.0		91.8	80-120			

**Calibration Check (EI61906-CCV1)**

Prepared: 09/19/06 Analyzed: 09/20/06

Benzene	0.0540		mg/L	0.0500		108	80-120			
Toluene	0.0482		"	0.0500		96.4	80-120			
Ethylbenzene	0.0489		"	0.0500		97.8	80-120			
Xylene (p/m)	0.0966		"	0.100		96.6	80-120			
Xylene (o)	0.0480		"	0.0500		96.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.1		ug/l	40.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	43.3		"	40.0		108	80-120			

**Matrix Spike (EI61906-MS1)**

Source: 6114005-01

Prepared: 09/19/06 Analyzed: 09/20/06

Benzene	0.0597	0.00100	mg/L	0.0500	ND	119	80-120			
Toluene	0.0503	0.00100	"	0.0500	ND	101	80-120			
Ethylbenzene	0.0502	0.00100	"	0.0500	ND	100	80-120			
Xylene (p/m)	0.106	0.00100	"	0.100	ND	106	80-120			
Xylene (o)	0.0511	0.00100	"	0.0500	ND	102	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.8		ug/l	40.0		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	46.6		"	40.0		116	80-120			

Environmental Lab of Texas

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Page 6 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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
<b>Batch EI61906 - EPA 5030C (GC)</b>										
<b>Matrix Spike Dup (EI61906-MSD1)</b>		<b>Source: 6114005-01</b>		<b>Prepared: 09/19/06 Analyzed: 09/20/06</b>						
Benzene	0.0580	0.00100	mg/L	0.0500	ND	116	80-120	2.55	20	
Toluene	0.0510	0.00100	"	0.0500	ND	102	80-120	0.985	20	
Ethylbenzene	0.0506	0.00100	"	0.0500	ND	101	80-120	0.995	20	
Xylene (p/m)	0.106	0.00100	"	0.100	ND	106	80-120	0.00	20	
Xylene (o)	0.0534	0.00100	"	0.0500	ND	107	80-120	4.78	20	
Surrogate: a,a,a-Trifluorotoluene	40.0		ug/l	40.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	46.0		"	40.0		115	80-120			

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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
<b>Batch EI61815 - General Preparation (WetChem)</b>										
<b>Blank (EI61815-BLK1)</b>										
					Prepared: 09/15/06 Analyzed: 09/19/06					
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
<b>LCS (EI61815-BS1)</b>										
					Prepared: 09/15/06 Analyzed: 09/19/06					
Chloride	9.83	0.500	mg/L	10.0		98.3	80-120			
Sulfate	10.1	0.500	"	10.0		101	80-120			
<b>Calibration Check (EI61815-CCV1)</b>										
					Prepared: 09/15/06 Analyzed: 09/19/06					
Chloride	9.86		mg/L	10.0		98.6	80-120			
Sulfate	10.2		"	10.0		102	80-120			
<b>Duplicate (EI61815-DUP1)</b>										
					Source: 6113001-01		Prepared: 09/15/06 Analyzed: 09/19/06			
Chloride	223	5.00	mg/L		221			0.901	20	
Sulfate	80.6	5.00	"		80.7			0.124	20	
<b>Duplicate (EI61815-DUP2)</b>										
					Source: 6114014-02		Prepared: 09/15/06 Analyzed: 09/19/06			
Chloride	547	12.5	mg/L		546			0.183	20	
Sulfate	306	12.5	"		306			0.00	20	
<b>Matrix Spike (EI61815-MS1)</b>										
					Source: 6113001-01		Prepared: 09/15/06 Analyzed: 09/19/06			
Chloride	331	5.00	mg/L	100	221	110	80-120			
Sulfate	185	5.00	"	100	80.7	104	80-120			
<b>Matrix Spike (EI61815-MS2)</b>										
					Source: 6114014-02		Prepared: 09/15/06 Analyzed: 09/19/06			
Chloride	829	12.5	mg/L	250	546	113	80-120			
Sulfate	579	12.5	"	250	306	109	80-120			

Environmental Lab of Texas

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Page 8 of 11



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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
<b>Batch EI61818 - Filtration Preparation</b>										
<b>Blank (EI61818-BLK1)</b> Prepared: 09/15/06 Analyzed: 09/18/06										
Total Dissolved Solids	ND	10.0	mg/L							
<b>Duplicate (EI61818-DUP1)</b> Source: 6114012-01 Prepared: 09/15/06 Analyzed: 09/18/06										
Total Dissolved Solids	1250	10.0	mg/L		1260			0.797	5	
<b>Duplicate (EI61818-DUP2)</b> Source: 6114014-03 Prepared: 09/15/06 Analyzed: 09/18/06										
Total Dissolved Solids	564	10.0	mg/L		562			0.355	5	
<b>Batch EI62015 - General Preparation (WetChem)</b>										
<b>Blank (EI62015-BLK1)</b> Prepared & Analyzed: 09/20/06										
Total Alkalinity	ND	2.00	mg/L							
<b>LCS (EI62015-BS1)</b> Prepared & Analyzed: 09/20/06										
Total Alkalinity	170	2.00	mg/L	200		85.0	85-115			
<b>Duplicate (EI62015-DUP1)</b> Source: 6114012-01 Prepared & Analyzed: 09/20/06										
Total Alkalinity	170	2.00	mg/L	164				3.59	20	
<b>Reference (EI62015-SRM1)</b> Prepared & Analyzed: 09/20/06										
Total Alkalinity	240		mg/L	250		96.0	90-110			

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals 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 EI61801 - 6010B/No Digestion**

**Blank (EI61801-BLK1)**

Prepared & Analyzed: 09/18/06

Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							

**Calibration Check (EI61801-CCV1)**

Prepared & Analyzed: 09/18/06

Calcium	1.89		mg/L	2.00		94.5	85-115			
Magnesium	2.15		"	2.00		108	85-115			
Potassium	1.74		"	2.00		87.0	85-115			
Sodium	1.73		"	2.00		86.5	85-115			

**Duplicate (EI61801-DUP1)**

Source: 6114005-01

Prepared & Analyzed: 09/18/06

Calcium	40.2	0.810	mg/L		44.3			9.70	20	
Magnesium	18.0	0.360	"		17.6			2.25	20	
Potassium	8.88	0.600	"		8.96			0.897	20	
Sodium	48.5	0.430	"		44.7			8.15	20	

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Page 10 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:

*Raland K Tuttle*

Date:

9/25/2006

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

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

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Page 11 of 11

12600 West 1-20 East  
Odessa, Texas 79765

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Name:** Justis H-2 SWD

**Project #:**

**Project Loc:**

T26S-R37E-Sec2H ~ Lea County, NM

Fax No: (505) 397-1471

1-9310

Email: [rozanne@valornet.com](mailto:rozanne@valornet.com)

LAB # (lab use only)		FIELD CODE		Date Sampled	Time Sampled	No. of Containers	Preservative										Matrix										Analyze For:									
							HNO <sub>3</sub>	HCl (2) 40 ml glass vials	NaOH	H <sub>2</sub> SO <sub>4</sub>	None (1) 1 Liter HDPE	Other (Specify)	Water	Sludge	Soil	Other (specify):	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> )	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	N.O.R.M.	Total Dissolved Solids	RUSH TAT (Pre-Schedule)									
		Monitor Well # 1		9/13/2006	15:50	3	X	2			1		X				X	X	X					X		X	Standard TAT									
		Monitor Well # 2		9/13/2006	13:20	3	X	2			1		X				X	X	X					X		X										
		Monitor Well # 3		9/13/2006	9:35	3	X	2			1		X				X	X	X					X		X										
		Monitor Well # 4		9/13/2006	10:50	3	X	2			1		X				X	X	X					X		X										
		Monitor Well # 5		9/13/2006	12:05	3	X	2			1		X				X	X	X					X		X										

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**Special Instructions:**

PLEASE Email RESULTS TO: [kpope@riceswd.com](mailto:kpope@riceswd.com) & [mfranks@riceswd.com](mailto:mfranks@riceswd.com)

[rozanne@valornet.com](mailto:rozanne@valornet.com)

Relinquished by:

Date	Time
5/14/80	10:00

Received by:

Date \_\_\_\_\_

Time

Rozanne Johnson

Date 7/5/

Time

Received by EL-OT:

Date:

Time

**Sample: Containers: Intact?**

### Labels on container?

**Labels Off Container**

Temperature Upon Receipt:

U

**Laboratory Comments:**

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

Client: Price Op.  
 Date/ Time: 9/14/06 16:00  
 Lab ID #: 6H4002  
 Initials: CK

**Sample Receipt Checklist**

Client Initials

1 Temperature of container/ cooler?	Yes	No	21.5 °C	
2 Shipping container in good condition?	Yes	No		
3 Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
4 Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
5 Chain of Custody present?	Yes	No		
6 Sample instructions complete of Chain of Custody?	Yes	No		
7 Chain of Custody signed when relinquished/ received?	Yes	No		
8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
9 Container label(s) legible and intact?	Yes	No	Not Applicable	
10 Sample matrix/ properties agree with Chain of Custody?	Yes	No		
11 Containers supplied by ELOT?	Yes	No		
12 Samples in proper container/ bottle?	Yes	No	See Below	
13 Samples properly preserved?	Yes	No	See Below	
14 Sample bottles intact?	Yes	No		
15 Preservations documented on Chain of Custody?	Yes	No		
16 Containers documented on Chain of Custody?	Yes	No		
17 Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
18 All samples received within sufficient hold time?	Yes	No	See Below	
19 VOC samples have zero headspace?	Yes	No	Not Applicable	

**Variance Documentation**

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

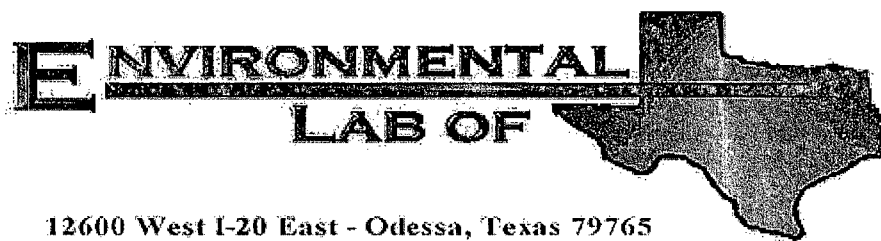
Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event

**Lab Analysis**

**12/19/2006**



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Justis H-2 SWD

Project Number: None Given

Location: T26S R37E Sec. 2H- Lea County, NM

Lab Order Number: 6L07013

Report Date: 12/19/06



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6L07013-01	Water	12/05/06 11:20	12-07-2006 10:50
Monitor Well #2	6L07013-02	Water	12/05/06 11:25	12-07-2006 10:50
Monitor Well #3	6L07013-03	Water	12/05/06 12:20	12-07-2006 10:50
Monitor Well #4	6L07013-04	Water	12/05/06 13:10	12-07-2006 10:50
Monitor Well #5	6L07013-05	Water	12/05/06 13:55	12-07-2006 10:50

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6L07013-01) Water</b>									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		117 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.2 %	80-120		"	"	"	"	
<b>Monitor Well #2 (6L07013-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		119 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.0 %	80-120		"	"	"	"	
<b>Monitor Well #3 (6L07013-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/18/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.0 %	80-120		"	"	"	"	
<b>Monitor Well #4 (6L07013-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		110 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	80-120		"	"	"	"	

Environmental Lab of Texas

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Page 2 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #5 (6L07013-05) Water</b>									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/14/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>116 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>81.5 %</i>	<i>80-120</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6L07013-01) Water</b>									
Total Alkalinity	80.0	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	223	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	512	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	47.6	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
<b>Monitor Well #2 (6L07013-02) Water</b>									
Total Alkalinity	150	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	1240	25.0	"	50	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	2300	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	156	25.0	"	50	EL60801	12/07/06	12/07/06	EPA 300.0	
<b>Monitor Well #3 (6L07013-03) Water</b>									
Total Alkalinity	178	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	26.1	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	486	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	164	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
<b>Monitor Well #4 (6L07013-04) Water</b>									
Total Alkalinity	218	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	30.0	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	476	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	176	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
<b>Monitor Well #5 (6L07013-05) Water</b>									
Total Alkalinity	158	2.00	mg/L	1	EL60807	12/07/06	12/07/06	EPA 310.1M	
Chloride	186	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	
Total Dissolved Solids	748	10.0	"	1	EL60803	12/07/06	12/08/06	EPA 160.1	
Sulfate	173	5.00	"	10	EL60801	12/07/06	12/07/06	EPA 300.0	

Environmental Lab of Texas

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Page 4 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (6L07013-01) Water</b>									
Calcium	61.1	4.05	mg/L	50	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	23.7	0.360	"	10	"	"	"	"	
Potassium	4.82	0.600	"	"	"	"	"	"	
Sodium	76.4	2.15	"	50	"	"	"	"	
<b>Monitor Well #2 (6L07013-02) Water</b>									
Calcium	366	8.10	mg/L	100	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	181	1.80	"	50	"	"	"	"	
Potassium	18.6	0.600	"	10	"	"	"	"	
Sodium	278	4.30	"	100	"	"	"	"	
<b>Monitor Well #3 (6L07013-03) Water</b>									
Calcium	52.2	4.05	mg/L	50	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	25.7	0.360	"	10	"	"	"	"	
Potassium	5.08	0.600	"	"	"	"	"	"	
Sodium	63.8	2.15	"	50	"	"	"	"	
<b>Monitor Well #4 (6L07013-04) Water</b>									
Calcium	48.2	0.810	mg/L	10	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	25.2	0.360	"	"	"	"	"	"	
Potassium	5.66	0.600	"	"	"	"	"	"	
Sodium	67.7	2.15	"	50	"	"	"	"	
<b>Monitor Well #5 (6L07013-05) Water</b>									
Calcium	95.8	4.05	mg/L	50	EL60805	12/08/06	12/11/06	EPA 6010B	
Magnesium	40.7	0.360	"	10	"	"	"	"	
Potassium	6.82	0.600	"	"	"	"	"	"	
Sodium	83.1	2.15	"	50	"	"	"	"	

Environmental Lab of Texas

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Page 5 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EL61404 - EPA 5030C (GC)**

**Blank (EL61404-BLK1)**

Prepared & Analyzed: 12/14/06

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: <i>a,a,a</i> -Trifluorotoluene	45.2		ug/l	40.0		113	80-120			
Surrogate: 4-Bromofluorobenzene	34.5		"	40.0		86.2	80-120			

**LCS (EL61404-BS1)**

Prepared & Analyzed: 12/14/06

Benzene	0.0423	0.00100	mg/L	0.0500		84.6	80-120			
Toluene	0.0430	0.00100	"	0.0500		86.0	80-120			
Ethylbenzene	0.0426	0.00100	"	0.0500		85.2	80-120			
Xylene (p/m)	0.0962	0.00100	"	0.100		96.2	80-120			
Xylene (o)	0.0469	0.00100	"	0.0500		93.8	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	37.6		ug/l	40.0		94.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.8		"	40.0		82.0	80-120			

**Calibration Check (EL61404-CCV1)**

Prepared: 12/14/06 Analyzed: 12/15/06

Benzene	54.4		ug/l	50.0		109	80-120			
Toluene	55.1		"	50.0		110	80-120			
Ethylbenzene	59.3		"	50.0		119	80-120			
Xylene (p/m)	116		"	100		116	80-120			
Xylene (o)	58.7		"	50.0		117	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	47.9		"	40.0		120	80-120			
Surrogate: 4-Bromofluorobenzene	40.0		"	40.0		100	80-120			

**Matrix Spike (EL61404-MS1)**

Source: 6L05006-10

Prepared: 12/14/06 Analyzed: 12/18/06

Benzene	0.0402	0.00100	mg/L	0.0500	ND	80.4	80-120			
Toluene	0.0407	0.00100	"	0.0500	ND	81.4	80-120			
Ethylbenzene	0.0487	0.00100	"	0.0500	ND	97.4	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100	ND	85.3	80-120			
Xylene (o)	0.0444	0.00100	"	0.0500	ND	88.8	80-120			
Surrogate: <i>a,a,a</i> -Trifluorotoluene	32.6		ug/l	40.0		81.5	80-120			
Surrogate: 4-Bromofluorobenzene	38.7		"	40.0		96.8	80-120			

Environmental Lab of Texas

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Page 6 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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 EL61404 - EPA 5030C (GC)**

**Matrix Spike Dup (EL61404-MSD1)**

**Source: 6L05006-10**

Prepared: 12/14/06 Analyzed: 12/18/06

Benzene	0.0422	0.00100	mg/L	0.0500	ND	84.4	80-120	4.85	20	
Toluene	0.0446	0.00100	"	0.0500	ND	89.2	80-120	9.14	20	
Ethylbenzene	0.0464	0.00100	"	0.0500	ND	92.8	80-120	4.84	20	
Xylene (p/m)	0.102	0.00100	"	0.100	ND	102	80-120	17.8	20	
Xylene (o)	0.0513	0.00100	"	0.0500	ND	103	80-120	14.8	20	
Surrogate: a,a,a-Trifluorotoluene	38.2		ug/l	40.0		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	37.7		"	40.0		94.2	80-120			

Environmental Lab of Texas

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Page 7 of 11



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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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
<b>Batch EL60801 - General Preparation (WetChem)</b>										
<b>Blank (EL60801-BLK1)</b>			Prepared & Analyzed: 12/08/06							
Chloride	ND	0.500	mg/L							
Sulfate	0.623	0.500	"							B
<b>LCS (EL60801-BS1)</b>			Prepared & Analyzed: 12/08/06							
Sulfate	10.3	0.500	mg/L	10.0		103	80-120			
Chloride	10.0	0.500	"	10.0		100	80-120			
<b>Calibration Check (EL60801-CCV1)</b>			Prepared & Analyzed: 12/08/06							
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	11.6		"	10.0		116	80-120			
<b>Duplicate (EL60801-DUP1)</b>			Source: 6L07005-01	Prepared & Analyzed: 12/08/06						
Sulfate	13.4	2.50	mg/L		13.4			0.00	20	
Chloride	129	2.50	"		130			0.772	20	
<b>Matrix Spike (EL60801-MS1)</b>			Source: 6L07005-01	Prepared & Analyzed: 12/08/06						
Sulfate	61.4	2.50	mg/L	50.0	13.4	96.0	80-120			
Chloride	189	2.50	"	50.0	130	118	80-120			
<b>Batch EL60803 - Filtration Preparation</b>										
<b>Blank (EL60803-BLK1)</b>			Prepared: 12/07/06 Analyzed: 12/08/06							
Total Dissolved Solids	ND	10.0	mg/L							
<b>Duplicate (EL60803-DUP1)</b>			Source: 6L07005-01	Prepared: 12/07/06 Analyzed: 12/08/06						
Total Dissolved Solids	266	10.0	mg/L		246			7.81	20	

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**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
<b>Batch EL60807 - General Preparation (WetChem)</b>										
<b>Blank (EL60807-BLK1)</b>				Prepared & Analyzed: 12/07/06						
Total Alkalinity	ND	2.00	mg/L							
<b>LCS (EL60807-BS1)</b>				Prepared & Analyzed: 12/07/06						
Bicarbonate Alkalinity	186	2.00	mg/L	200		93.0	85-115			
<b>Duplicate (EL60807-DUP1)</b>				Source: 6L07012-01		Prepared & Analyzed: 12/07/06				
Total Alkalinity	182	2.00	mg/L		184			1.09	20	
<b>Reference (EL60807-SRM1)</b>				Prepared & Analyzed: 12/07/06						
Total Alkalinity	246		mg/L	250		98.4	90-110			

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals 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 EL60805 - 6010B/No Digestion**

**Blank (EL60805-BLK1)**

Prepared: 12/08/06 Analyzed: 12/11/06

Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							

**Calibration Check (EL60805-CCV1)**

Prepared: 12/08/06 Analyzed: 12/11/06

Calcium	2.02		mg/L	2.00		101	85-115			
Magnesium	2.03		"	2.00		102	85-115			
Potassium	1.77		"	2.00		88.5	85-115			
Sodium	2.00		"	2.00		100	85-115			

**Duplicate (EL60805-DUP1)**

Source: 6L07012-01

Prepared: 12/08/06 Analyzed: 12/11/06

Calcium	61.4	4.05	mg/L		66.4			7.82	20	
Magnesium	13.4	0.360	"		12.5			6.95	20	
Potassium	3.81	0.600	"		3.24			16.2	20	
Sodium	73.2	2.15	"		78.4			6.86	20	

Environmental Lab of Texas

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Page 10 of 11

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

Project: Justis H-2 SWD  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

### Notes and Definitions

B Analyte is found in the associated blank as well as in the sample (CLP B-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:

12/19/2006

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

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

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# Environmental Lab of Texas

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

Client: RMC Op.  
 Date/ Time: 12/7/06 10:50  
 Lab ID #: 6L07013  
 Initials: CK

### Sample Receipt Checklist

Client Initials

#1	Temperature of container/ cooler?	Yes	No	-2.0 °C	
#2	Shipping container in good condition?	<u>Yes</u>	No		
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present	
#5	Chain of Custody present?	<u>Yes</u>	No		
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11	Containers supplied by ELOT?	<u>Yes</u>	No		
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below	
#13	Samples properly preserved?	<u>Yes</u>	No	See Below	
#14	Sample bottles intact?	<u>Yes</u>	No		
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below	
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	<u>Not Applicable</u>	
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable	

### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event