

1R - 219

**GENERAL
CORRESPONDENCE**

YEAR(S):

2003 → 2001

RICE *Operating Company*

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

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March 31, 2003

APR 02 2003

Mr. William C. Olson
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2002 MONITOR WELL REPORT
GROUNDWATER REMEDIATION/MONITORING
PIPELINE LEAK, WEST COUNTY ROAD SITE, JCT. N-6
HOBBS SWD SYSTEM
SW1/4, NW 1/4, SEC. 5,6, T19S, R38E, LEA COUNTY, NEW MEXICO

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to submit the 2002 Monitor Well Report for the Hobbs Salt Water Disposal System Junction N-6 Release Site in the SW 1/4 NW 1/4 of Sections 5, 6, T19S, R38E, Lea County, New Mexico. This monitoring site is located just south of the intersection of Highway 62-180 and the South Loop of the Hobbs West County Road By-Pass.

The first half of the 2002 quarterly monitoring events for the seven monitor wells were scheduled and conducted by Safety and Environmental Solutions, Inc. (SES) of Hobbs. Cardinal Laboratories of Hobbs conducted analytical tests for these events. Environmental Technology Group, Inc. (ETGI) of Hobbs performed the second half of the 2002 quarterly monitoring events. Analytical tests for these events were conducted by Environmental Lab of Texas of Odessa, Texas. ROC has contracted with ETGI for the 2003 monitor well sampling.

ROC has actively worked toward recovering the phase-separated hydrocarbon (PSH) at the Recovery Well MW-1. The skimmer-type pump was installed in September 1999 under the operation of SES. In May, ROC discovered that the pump was not working properly and could not substantiate several months of SES documentation. ROC released SES from work at the location. ROC operated the pump for 3 months, but due to product viscosity and persistent mechanical problems, the pump became unmanageable.

In 2003, ROC has contracted Trident Environmental of Midland, Texas to devise a recovery method for the PSH in MW-1. A "passive bailer" is being designed for installation in this well that only allows the entry of hydrocarbon. ETGI will continue the quarterly sampling of the monitor wells at the location. All sampling activities will be conducted pursuant to NMOCD guidelines. A secured fiberglass tank is currently at the location for the disposal and measurement (volume) of the recovered fluids. All recovered fluids will be disposed of at a permitted commercial facility.

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

Please find the enclosed summary of recovery activities and analytical reports from the monitor well sampling events. Thank you for consideration concerning this information.

RICE OPERATING COMPANY

Kristin Farris

Kristin Farris
Project Scientist

Enclosures: Summary tables for recovery activities
Summary tables for analytical results
Laboratory analysis

Cc: LBG, CDH, file, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1996	0	0	0.0	0.00	0.00	No recovery operations pending regulatory approval & facility installation
FEB 1996	0	0	0.0	0.00	0.00	
MAR 1996	0	0	0.0	0.00	0.00	
1ST QTR	0	0	0.0	0.00	0.00	
APR 1996	0	0	0.0	30.75	30.75	Groundwater Monitoring Event
MAY 1996	0	0	0.0	7.85	38.60	
JUN 1996	19	19,140	1.1	2.38	40.98	
2ND QTR	19	19,140	0.4	40.98	40.98	
JUL 1996	0	0	0.0	6.50	47.48	Groundwater Monitoring Event
AUG 1996	0	0	0.0	3.27	50.75	
SEP 1996	0	0	0.0	3.75	54.50	
3RD QTR	0	0	0.0	13.52	54.50	
OCT 1996	0	0	0.0	5.00	59.50	Groundwater Monitoring Event
NOV 1996	528	262,080	6.1	1.70	61.20	
DEC 1996	720	561,600	13.0	3.00	64.20	
4TH QTR	1,248	823,680	6.4	9.70	64.20	
1996 TOTALS	1,267	842,820	1.7	64.20	64.20	
JAN 1997	744	580,320	13.0	3.10	67.30	
FEB 1997	672	485,280	13.0	2.80	70.10	
MAR 1997	744	426,240	9.5	2.60	72.70	
1ST QTR	2,160	1,491,840	11.8	8.50	72.70	
APR 1997	0	0	0.0	2.25	74.95	Groundwater Monitoring Event
MAY 1997	408	325,440	7.3	4.45	79.40	
JUN 1997	672	524,160	12.1	2.80	82.20	
2ND QTR	1,080	849,600	6.5	9.50	82.20	
JUL 1997	600	465,120	10.4	2.50	84.70	Groundwater Monitoring Event
AUG 1997	744	580,320	13.0	2.10	86.80	
SEP 1997	720	561,600	13.0	3.00	89.80	
3RD QTR	2,064	1,607,040	12.1	7.60	89.80	
OCT 1997	744	580,320	13.0	3.10	92.90	Groundwater Monitoring Event
NOV 1997	720	541,440	12.5	3.00	95.90	
DEC 1997	48	34,560	0.0	3.70	99.60	
4TH QTR	1,512	1,156,320	8.5	9.80	99.60	
1997 TOTALS	6,816	5,104,800	9.7	35.40	99.60	Total Crude oil recovered from Apr 96 to Dec 97

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1998	0	0	0.0	4.75	104.35	Groundwater Monitoring Event
FEB 1998	240	144,000	3.6	3.25	707.60	
MAR 1998	744	446,400	10.0	3.10	110.70	
1ST QTR	984	590,400	4.5	11.10	110.70	
APR 1998	696	167,040	0.0	2.90	113.60	
MAY 1998	744	178,560	4.0	3.10	116.70	
JUN 1998	740	172,800	4.0	3.00	119.70	
2ND QTR	2,180	518,400	2.7	9.00	119.70	
JUL 1998	576	138,240	4.0	2.40	122.10	Groundwater Monitoring Event
AUG 1998	0	0	0.0	19.50	141.60	
SEP 1998	0	0	0.0	4.63	146.23	
3RD QTR	576	138,240	1.3	26.53	146.23	
OCT 1998	0	0	0.0	8.26	154.49	Groundwater Monitoring Event
NOV 1998	0	0	0.0	11.63	166.12	
DEC 1998	0	0	0.0	10.63	176.75	
4TH QTR	0	0	0.0	30.52	176.75	
1998 TOTALS	3,740	1,247,040	2.1	77.15	176.75	Total Crude oil recovered from Apr 96 to Dec 98
JAN 1999	610.5	127,153	2.5	3.10	179.85	Pulled pump March 13
FEB 1999	672	68,554	1.8	2.80	182.65	
MAR 1999	292.4	6,418	0.4	0.60	183.25	
1ST QTR	1,575	202,125	1.6	6.50	183.25	
APR 1999	0	73	0.0	16.56	199.81	Recovered w/ manual bailer
MAY 1999	0	41	0.0	10.55	210.36	Recovered w/ manual bailer
JUN 1999	0	0	0.0	0.00	210.36	
2ND QTR	0	114	0.0	27.11	210.36	
JUL 1999	0	0	0.0	0.00	210.36	Recovered w/ manual bailer
AUG 1999	0	0	0.0	19.50	229.86	
SEP 1999	0	0	0.0	0.00	229.86	
3RD QTR	0	0	0.0	19.50	229.86	
OCT 1999	116.5	75	0.0	32.00	261.86	Installed skimmer-type pump
NOV 1999	112	151	0.0	60.00	321.86	
DEC 1999	58.5	19	0.0	15.00	336.86	
4TH QTR	287	245	0.0	107.00	336.86	
1999 TOTALS	1,862	202,484	0.4	160.11	336.86	Total Crude oil recovered from Apr 96 to Dec 99

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 2000	93.5	11	0.1	11.00	347.86	Pump ineffecient; serviced
FEB 2000	102	73	0.7	33.20	381.06	
MAR 2000	35	70	2.0	49.60	430.66	
1ST QTR	231	154	0.7	93.80	430.66	
APR 2000	36.5	70	1.9	38.70	469.36	
MAY 2000	36.5	56	1.5	16.50	485.86	
JUN 2000	29.5	37	1.2	9.60	495.46	
2ND QTR	103	162	1.6	64.80	495.46	
JUL 2000	36.5	42	1.2	16.20	511.66	
AUG 2000	32	48	1.5	22.50	534.16	
SEP 2000	42.5	62	1.5	31.50	565.66	
3RD QTR	111	152	1.4	70.20	565.66	
OCT 2000	32	48	1.5	16.00	581.66	
NOV 2000	32	51	1.6	20.00	601.66	
DEC 2000	40	63	1.6	24.00	625.66	
4TH QTR	104	162	1.6	60.00	625.66	
2000 TOTALS	548	630	1.1	288.80	625.66	Total Crude oil recovered from Apr 96 to Dec 00
JAN 2001	32	12	0.4	21.00	646.66	
FEB 2001	32	20	0.6	13.00	659.66	
MAR 2001	41	10	0.2	18.00	677.66	
1ST QTR	105	42	0.4	52.00	677.66	
APR 2001	0	0	0.0	0.00	677.66	Skim pump motor failure
MAY 2001	0	0	0.0	0.00	677.66	Repairs
JUN 2001	0	0	0.0	0.00	677.66	Repairs
2ND QTR	0	0	0.0	0.00	677.66	
JUL 2001	0	0	0.0	0.00	677.66	Repairs
AUG 2001	0	0	0.0	0.00	677.66	Pump repaired, but no service
SEP 2001	0	0	0.0	0.00	677.66	Pump replacement
3RD QTR	0	0	0.0	0.00	677.66	
OCT 2001	35	14	0.4	19.50	697.16	Pump back in service
NOV 2001	29	0	0.0	17.30	714.46	
DEC 2001	34	0	0.0	7.94	722.40	
4TH QTR	98	14	0.1	44.74	722.40	
2001 TOTALS	203	56	0.3	96.74	722.40	Total Crude oil recovered from Apr 96 to Dec 01

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 2002	33	3	0.1	2.77	725.17	
FEB 2002	34.75	2	0.1	2.42	727.59	
MAR 2002	35.75	2	0.0	1.74	729.33	
1ST QTR	104	7	0.1	6.93	729.33	
APR 2002	38.75	2	0.0	1.74	731.07	
MAY 2002	19.5	0	0.0	13.28	744.35	
JUN 2002	14.25	0	0.0	0.00	744.35	
2ND QTR	73	2	0.0	15.02	744.35	
JUL 2002	3	4	1.2	3.50	747.85	
AUG 2002	0.5	4	7.7	1.75	749.60	
SEP 2002	0.75	2	3.3	5.25	754.85	
3RD QTR	4	10	2.3	10.50	754.85	
OCT 2002	3	7	2.3	3.50	758.35	
NOV 2002	0	0	0.0	0.00	758.35	
DEC 2002	10	9	0.9	7.91	766.26	
4TH QTR	13	16	1.2	11.41	766.26	
2002 TOTALS	189	35	0.2	43.86	766.26	Total Crude oil recovered from Apr 96 to Dec 02

SUMMARY OF 1996 - 2002 RECOVERED VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
1996 TOTALS	1,267	842,820	1.7	64.20	64.20	Total Crude oil recovered from Apr 96 to Dec 96
1997 TOTALS	6,816	5,104,800	9.7	35.40	99.60	Total Crude oil recovered from Apr 96 to Dec 97
1998 TOTALS	3,740	1,247,040	2.1	77.15	176.75	Total Crude oil recovered from Apr 96 to Dec 98

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

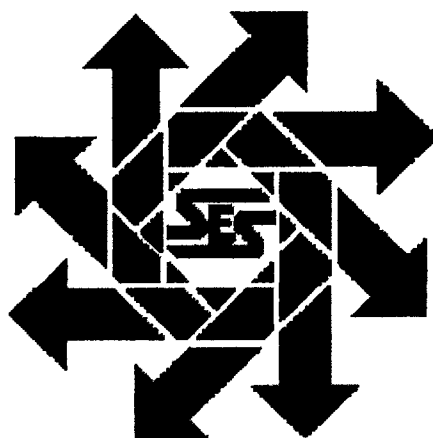
Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
1999 TOTALS	1,862	202,484	0.4	160.11	336.86	Total Crude oil recovered from Apr 96 to Dec 99
2000 TOTALS	548	630	1.1	288.80	625.66	Total Crude oil recovered from Apr 96 to Dec 2000
2001 TOTALS	203	56	0.3	96.74	722.40	Total Crude oil recovered from Apr 96 to Dec 2001
2002 TOTALS	189	35	0.2	43.86	766.26	Total Crude oil recovered from Apr 96 to Dec 2002
5--YEAR TOTAL	14,625	7,397,865		766.26	766.26	Total Volumes recovered from April 1996 to December 2002

**Rice Operating Company
West County Road Monitor Well #1
Skim Pump Report**

**Section 5 and 6, T19S, R38E
Lea County, New Mexico**

COPY

April 2002



Prepared for:

**Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240**

Prepared by:

***Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
(505) 397-0510***

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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to install a skim pump in Monitor Well #1 to remove free phase hydrocarbons at the Line N-6 site which is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The well has a casing size of 4" (See Vicinity Map).

SESI environmental technician Dee Whatley arrived at the site on September 30, 1999 and installed a Skim-Rite skim pump in Monitor Well #1 to facilitate the removal of free phase hydrocarbon from the top of the water table in the well. Beginning on October 26, 1999, the fluid recovered is measured in total volume only, with no breakdown on oil/water percentages.

On February 21, 2000. SESI personnel met with Carolyn Haynes of Rice Operating Company to discuss the performance of the skimming system. The inline flow meter was exhibiting intermittent clogging problems, so it was decided at this time to return to the initial method of fluid recovery, pumping directly into drums at the site to facilitate measurement of recovered product and water volumes.

II. Work Performed

The skim pump is operated one day a week and the fluid in the well is allowed to recover until the next operation day. SESI ran the skim pump 4 days during the month of April 2002. The detail of the hours of operation is as follows:

Date	Start Time	Stop Time	Hours of Operation
04/05/02	7:00am	5:00pm	10 hrs.
04/12/02	7:00am	4:30pm	9.5hrs.
04/19/02	7:00am	4:45pm	9.75hrs.
04/26/02	7:00am	4:30pm	9.5 hrs.

III. Recovery Results

The fluid recovered from the well is pumped into a drum and measurements are taken of the fluid using "Kolor-Kut" and recorded after each day of operation. The details of the product and fluid recovery for each day of operation is as follows:

Date	Hours	Oil Recovered (Gallons)	Water Recovered (Gallons)	Total Fluid Recovered (gallons)
04/05/02	10 hrs.	0.35	0	0.35
04/12/02	9.5 hrs.	0.35	0	0.35
04/19/02	9.75 hrs.	0.69	0	0.69
04/26/02	9.5 hrs.	0.35	0	0.35
April Totals	38.75	1.74	0	1.74

IV. Maps and Exhibits

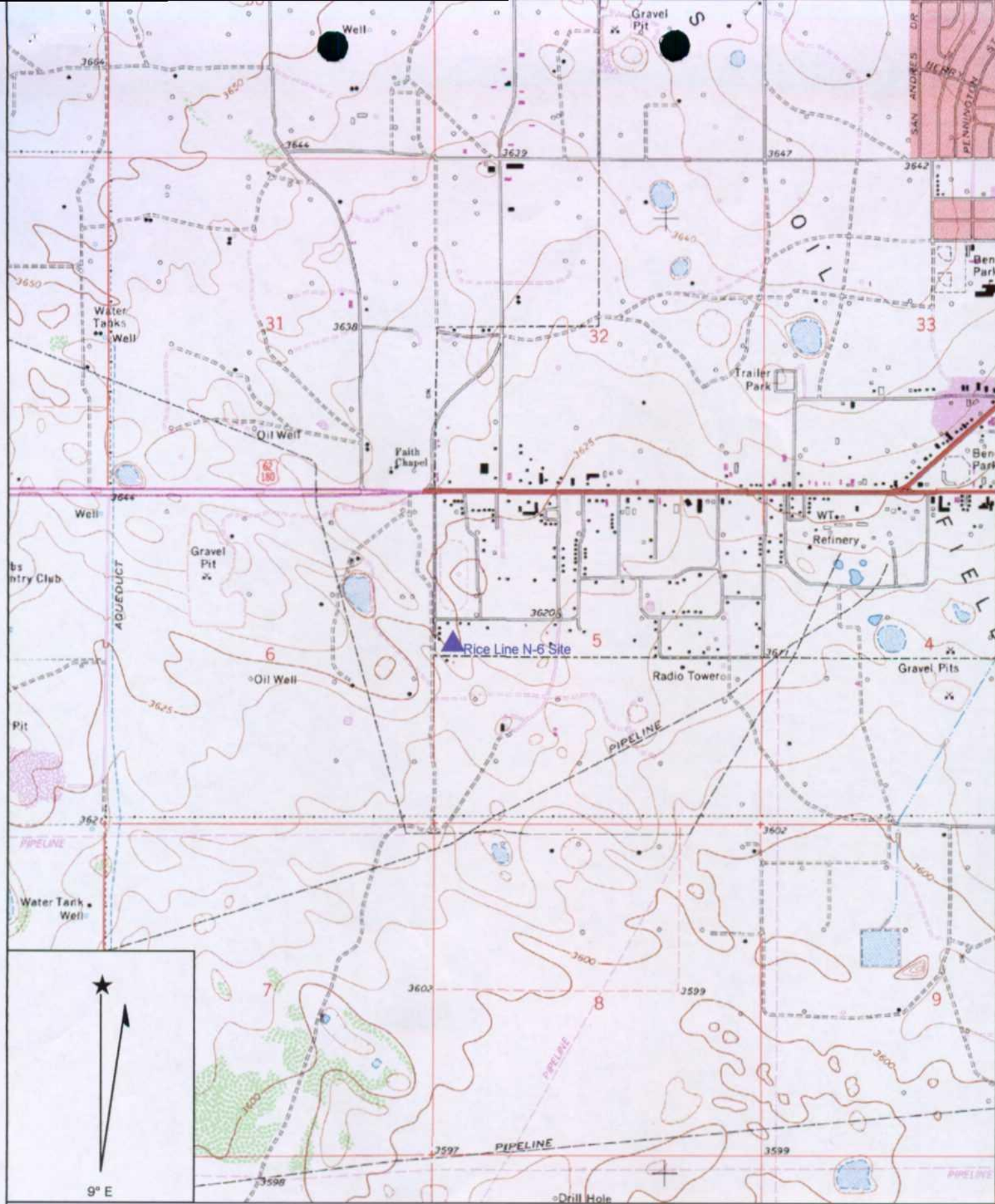
Vicinity Map
Site Map
Cumulative Recovery Data

Skimmer Pump Report
April 2002

Rice Operating Company
Lea County, New Mexico

Exhibit A

Vicinity Map



Name: HOBBS WEST
 Date: 4/4/2002
 Scale: 1 inch equals 2000 feet

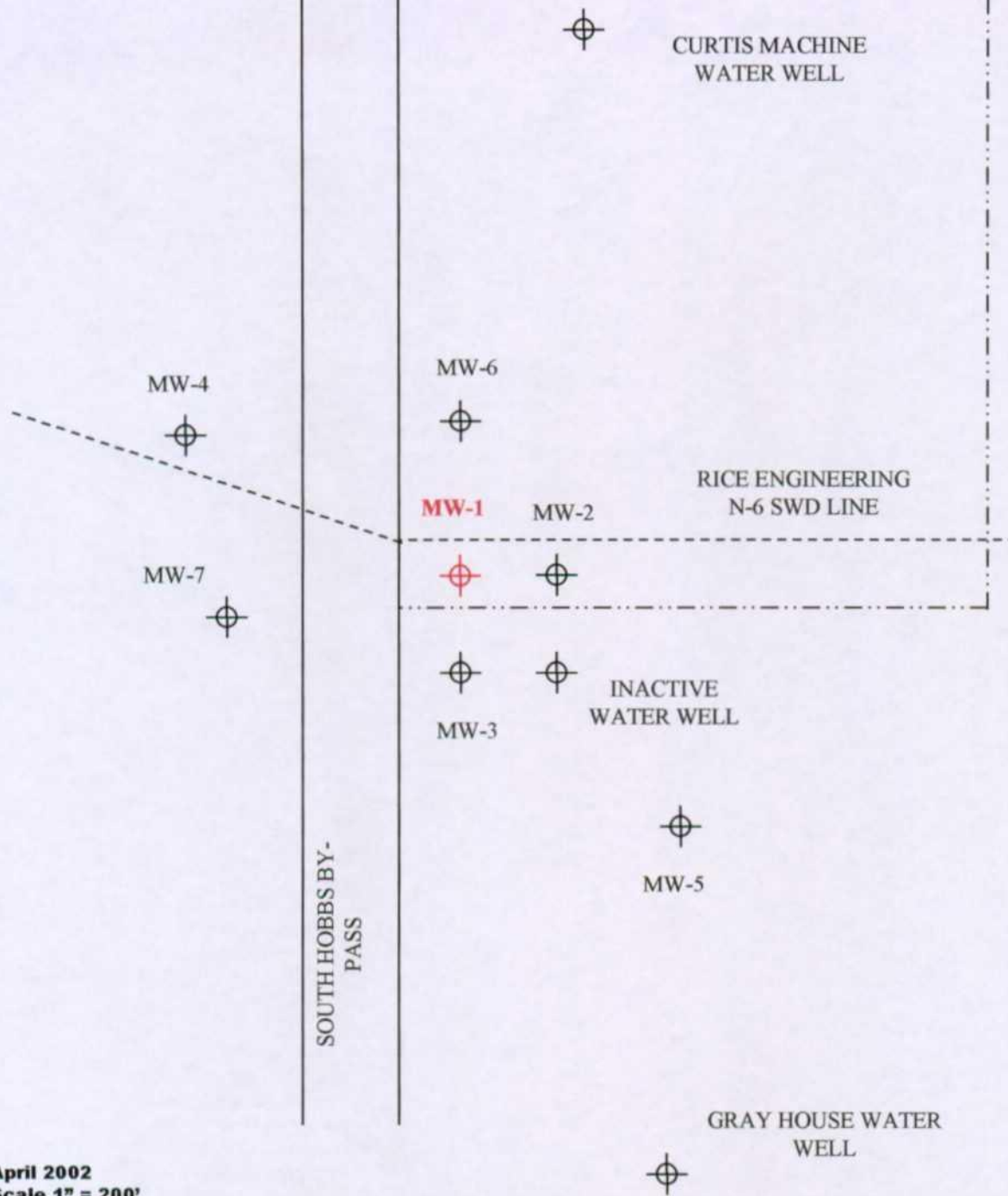
Location: 032° 41' 29.9" N 103° 10' 30.7" W
 Caption: Rice Operating Company
 West County Road
 Vicinity Map

Skimmer Pump Report
April 2002

Rice Operating Company
Lea County, New Mexico

Exhibit B

Site Plan



April 2002
Scale 1" = 200'

**Rice Operating Company
Site Plan**

**Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico**

**Safety & Environmental
Solutions, Inc.**



Skimmer Pump Report
April 2002

Rice Operating Company
Lea County, New Mexico

Exhibit C
Cumulative Recovery Data

Skimmer Pump Recovery Table

April, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
9/30/99	8:00am						
10/1/99	5:00pm	40.13	40.13	0.00			
10/4/99	6:55am	40.02	41.13	1.11			
10/4/99	3:45pm	40.13	40.14	0.01			
10/5/99	7:15am	40.13	40.40	0.27			
10/5/99	3:40pm	40.13	40.14	0.01			
10/6/99	6:55am	40.13	40.40	0.27			
10/6/99	3:45pm	40.16	40.17	0.01			
10/7/99	7:10am	40.14	40.40	0.26			
10/7/99	3:35pm	40.175	40.180	0.01			
10/14/99	8:00am	40.14	40.69	0.55	28.0	18.0	10.0
10/15/99	8:00am	--	40.18	0.00	12.0	6.0	6.0
10/18/99	8:00am	40.06	41.00	0.94			
10/19/99	8:00am	--	40.02	0.00	18.0	6.0	12.0
10/26/99	8:00am	38.68	39.33	0.65	10.0	2.0	8.0
10/26/99	2:00pm	--		0.00	6.5		
11/1/99	7:30am	40.01	41.09	1.08			
11/2/99	9:30am	--	40.22	0.00			
11/4/99	9:30am	40.15	40.73	0.58			
11/5/99	9:30am	--	41.18	0.00			
11/8/99	1:30pm	40.12	40.90	0.78	73.0		
11/9/99	5:00pm	--	40.15	0.00	33.5		
11/16/99	8:20am	39.97	42.11	2.14			
11/16/99	5:20pm	38.97	39.45	0.48	11.0		
11/19/99	8:45am	40.10	41.41	1.31			
11/19/99	4:45pm	40.14	40.86	0.72	0.5		
11/22/99	7:30am	40.10	41.45	1.35			
11/22/99	4:00pm	40.10	40.60	0.50	14.5		
11/29/99	8:00am	40.14	41.41	1.27			
11/29/99	4:00pm	40.19	40.91	0.72	18.5		
12/6/99	8:00am	40.13	41.55	1.42			
12/6/99	5:00pm	40.22	41.02	0.80	4.5		
12/13/99	10:00am	40.03	42.23	2.20			
12/13/99	5:00pm	40.23	41.05	0.82	4.5		
12/17/99	8:00am	40.12	41.85	1.73			
12/17/99	6:00pm	40.27	41.05	0.78	2.0		
12/20/99	8:00am	40.17	41.55	1.38			
12/20/99	4:30pm	40.34	40.65	0.31	3.0		
12/23/99	8:30am	40.23	41.21	0.98			
12/24/99	7:30am	40.27	41.15	0.88	5.0		
1/3/00	9:15am	40.21	40.62	0.41			
1/4/00	9:30am	40.34	40.79	0.45	0.0		
1/10/00	9:00am	40.11	42.10	1.99			

Skimmer Pump Recovery Table

April, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
1/11/00	7:30am	--	40.41	0.00	1.0		
1/18/00	8:00am	41.18	42.08	0.90			
1/19/00	8:00am	--	40.42	0.00	9.0		
1/26/00	10:00am	40.19	42.03	1.84			
1/27/00	9:00am	--	40.46	0.00	1.0		
2/1/00	9:00am	40.29	41.64	1.35			
2/2/00	1:00pm	--	40.46	0.00	24.0		
2/7/00	8:30am	40.31	41.61	1.30			
2/8/00	8:00am	--	40.49	0.00	3.0		
2/15/00	7:00am	40.24	42.10	1.86			
2/16/00	8:30am	--	40.56	0.00	9.0		
2/22/00	8:00am	40.30	41.94	1.64			
2/23/00	8:00am	40.51	40.61	0.10	36.6	7.2	29.4
3/1/00	8:00am	40.29	42.17	1.88			
3/1/00	4:00pm	--	40.60	0.00	11.0	11.0	
3/8/00	8:00am	40.30	42.11	1.81			
3/8/00	4:00pm	--	40.34	0.00	19.3	12.4	6.9
3/15/00	5:30am	40.33	42.17	1.84			
3/15/00	5:30pm	40.52	40.72	0.20	8.3	6.9	1.4
3/22/00	8:00am	40.33	42.17	1.84			
3/22/00	7:00pm	--	40.34	0.00	13.8	8.3	5.5
3/29/00	7:45am	40.35	42.22	1.87			
3/29/00	4:30pm	40.58	40.92	0.34	17.9	11.0	6.9
4/6/00	9:30am	40.50	41.17	0.67			
4/6/00	4:45pm	40.59	40.61	0.02	15.2	6.9	8.3
4/13/00	8:00am	40.41	42.03	1.62			
4/13/00	7:00pm	--	40.62	0.00	17.9	12.4	5.5
4/20/00	7:00am	40.42	42.24	1.82			
4/20/00	4:30pm	--	40.62	0.00	16.6	9.7	6.9
4/26/00	8:00am	40.45	42.04	1.59			
4/26/00	4:30pm	--	40.65	0.00	20.7	9.7	11.0
5/3/00	7:30am	40.45	42.17	1.72			
5/3/00	5:00pm	--	40.66	0.00	13.0	8.0	5.0
5/11/00	8:00am	40.46	42.27	1.81			
5/11/00	5:00pm	42.27	42.20	0.00	8.5	3.5	5.0
5/18/00	8:00am	40.49	42.20	1.71			
5/18/00	5:00pm	42.20	40.50	0.00	16.0	2.0	14.0
5/25/00	8:00am	40.50	42.32	1.82			
5/25/00	5:00pm	42.32	42.16	0.00	18.0	3.0	15.0
6/1/00	5:30am	40.56	42.12	1.54			
6/1/00	5:00pm	42.12	42.09	0.00	29.7	6.2	23.5
6/8/00	8:00am	40.52	42.25	1.73			
6/8/00	4:30pm	42.25	40.79	1.46	2.7	1.7	1.0
6/15/00	7:30am	40.61	42.18	1.57			
6/15/00	5:00pm	42.18	40.79	1.39	4.1	1.7	2.4
7/6/00	8:00am	40.44	41.98	1.54			
7/6/00	5:00pm	40.63	41.22	0.59	11.7	4.1	7.6
7/13/00	8:00am	40.30	41.98	1.68			

Skimmer Pump Recovery Table

April, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
7/13/00	5:00pm	--					
7/20/00	7:30am	40.27	41.77	1.50			
7/20/00	4:30pm	41.77	40.45	1.32	13.8	3.1	10.7
7/27/00	7:00am	40.25	42.06	1.81			
7/27/00	4:30pm	42.06	40.47	1.59	16.6	9.0	7.6
8/4/00	8:00am	40.18	42.48	2.30			
8/4/00	4:00pm	--	40.90		11.0	5.0	6.0
8/11/00	7:30am	40.60	41.55	0.95			
8/11/00	3:30pm	--	40.50		12.5	5.5	7.0
8/18/00	8:00am	40.71	41.95	1.25			
8/18/00	4:00pm	--	41.72		11.0	5.0	6.0
8/25/00	8:00am	40.68	41.98	1.3			
8/25/00	4:00pm	--	41.7		13.0	7.0	6.0
9/1/00	7:00am	40.70	41.83	1.13			
9/1/00	3:00pm	--	41.8		12.0	6.0	6.0
9/8/00	7:00am	40.63	41.44	0.81			
9/8/00	3:30pm	--	40.71		13.0	6.5	6.5
9/15/00	8:00am	41.24	42.98	1.74			
9/15/00	5:00pm		41.38		11.0	4.0	7.0
9/22/00	8:30am	40.89	43.08	2.19			
9/22/00	5:30pm	--	41.76		13.0	8.0	5.0
9/29/00	8:00am	40.44	43.39	2.95			
9/29/00	4:00pm	--	41.90		13.0	7.0	6.0
10/6/00	8:00am	40.35	42.31	1.96			
10/6/00	4:00pm	--	41.92		12.0	5.0	7.0
10/13/00	8:00am	40.42	42.21	1.79			
10/13/00	4:00pm	--	41.87		13.0	3.0	10.0
10/20/00	8:00am	40.40	42.20	1.8			
10/20/00	4:00pm	--	41.85		12.0	4.0	8.0
10/27/00	8:00am	40.46	41.93	1.47			
10/27/00	4:00pm	--	40.9		11.0	4.0	7.0
11/3/00	8:00am	40.5	42.07	1.57			
11/3/00	4:00pm	--	41.03		13.0	5.0	8.0
11/10/00	8:00am	40.61	41.95	1.34			
11/10/00	4:00pm	--	41.1		12.0	6.0	6.0
11/17/00	8:00am	40.58	41.97	1.39			
11/17/00	4:00pm	--	41.03		13.0	5.0	8.0
11/24/00	8:00am	40.52	42.12	1.6			
11/24/00	4:00pm	--	41.52		13.0	4.0	9.0
12/1/00	8:00am	40.48	42.21	1.73			
12/1/00	4:00pm	--	41.6		13.0	5.0	8.0
12/8/00	8:00am	40.51	42.1	1.59			
12/8/00	4:00pm	--	41.34		13.0	4.0	9.0
12/15/00	8:00am	40.52	42.13	1.61			
12/15/00	4:00pm	--	41.52		13.0	5.0	8.0
12/22/00	8:00am	40.5	42.21	1.71			
12/22/00	4:00pm	--	41.70		13.0	5.0	8.0
12/29/00	8:00am	40.79	42.02	1.23			

Skimmer Pump Recovery Table

April, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
12/29/00	4:00pm	--	42.00		11.0	5.0	6.0
1/5/01	8:00am	40.70	42.98	2.28			
1/5/01	4:00pm	--	42.93		9.0	4.0	5.0
1/12/01	8:00am	40.53	42.91	2.38			
1/12/01	4:00pm	--	42.90		9.0	7.0	2.0
1/19/01	8:00am	40.71	43.19	2.48			
1/19/01	4:00pm	--	42.97		9.0	6.0	3.0
1/26/01	8:00am	40.53	42.98	2.45			
1/26/01	4:00pm	--	42.83		6.0	4.0	2.0
2/2/01	8:00am	40.73	43.18	2.45			
2/2/01	4:00pm	--	42.81		8.0	3.0	5.0
2/9/01	8:00am	40.75	43.25	2.5			
2/9/01	4:00pm	--	43.09		8.0	4.0	4.0
2/16/01	8:00am	40.85	42.6	1.75			
2/16/01	4:00pm	--	42.55		12.0	5.0	7.0
2/23/01	8:00am	41.10	43.06	1.96			
2/23/01	4:00pm	--	42.87		8.0	4.0	4.0
3/2/01	8:00am	41.08	41.11	0.03			
3/2/01	4:00pm	--	41.14		5.0	4.0	1.0
3/9/01	8:00am	40.92	42.23	1.31			
3/9/01	5:00pm	--	42.15		5.0	3.0	2.0
3/16/01	8:30am	40.89	42.74	1.85			
3/16/01	4:30pm	--	42.72		4.5	3.0	1.5
3/23/01	8:00am	40.96	42.81	1.85			
3/23/01	4:00pm	--	42.79		6.0	4.0	2.0
3/30/01	8:00am	41.06	42.97	1.91			
3/30/01	4:00pm	--	42.93		7.0	4.0	3.0
10/5/01	7:00am	41.16	44.72	3.56			
10/5/01	4:00pm	--	44.43		7.0	4.0	3.0
10/12/01	7:15am	41.08	43.96	2.88			
10/12/01	5:00pm	--	43.89		10.0	5.0	5.0
10/19/01	7:00am	41.36	44.09	2.73			
10/19/01	4:30pm	41.74	42.08	0.34	9.0	6.0	3.0
10/26/01	7:30am	41.28	45.16	3.88			
10/26/01	4:15pm	41.33	42.41	1.08	7.5	4.5	3.0
11/9/01	8:00am	40.97	46.95	5.98			
11/9/01	4:15pm	41.62	42.38	0.76	11.0	11.0	0.0
11/16/01	8:00am	41.59	42.83	1.24			
11/16/01	2:30pm	--	41.77		2.5	2.5	0.0
11/23/01	8:15am	41.58	42.89	1.31			
11/23/01	3:00pm	--	41.7		2.0	2.0	0.0
11/30/01	8:00am	41.64	42.97	1.33			
11/30/01	3:30pm	--	41.81		1.8	1.8	0.0
12/7/01	8:00pm	41.72	42.46	0.74			
12/7/01	4:00pm	--	41.82		2.1	2.1	0.0
12/14/01	7:15am	41.75	42.49	0.74			
12/14/01	4:45pm	--	41.79		1.4	1.4	0.0
12/21/01	9:00am	41.76	42.44	0.68			

Skimmer Pump Recovery Table

April, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
12/21/01	4:30pm	41.83	41.87	0.04	2.4	2.4	0.0
12/28/01	7:30am	41.74	42.43	0.69			
12/28/01	4:30pm	--	41.83		2.1	2.1	0.0
1/4/02	7:45am	41.85	42.47	0.62			
1/4/02	4:15pm	--	41.93		0.4	0.4	0.0
1/11/02	8:15am	41.86	42.46	0.60			
1/11/02	4:45pm	--	41.91		0.7	0.7	0.0
1/18/02	8:00am	41.85	42.47	0.62			
1/18/02	4:30pm	--	41.92		1.0	1.0	0.0
1/25/02	8:00am	41.87	42.47	0.60			
1/25/02	4:00pm	--	41.91		0.7	0.7	0.0
2/1/02	8:00am	41.88	42.46	0.58			
2/1/02	4:30pm	--	41.89		0.7	0.7	0.0
2/8/02	8:00am	41.85	42.83	0.98			
2/8/02	4:45pm	--	41.9		0.7	0.7	0.0
2/15/02	8:00am	41.87	42.5	0.63			
2/15/02	5:00pm	--	41.86		0.4	0.4	0.0
2/22/02	8:00am	41.86	42.46	0.60			
2/22/02	4:30pm	--	41.7		0.7	0.7	0.0
3/1/02	8:00am	41.81	42.44	0.63			
3/1/02	4:45pm	--	41.8		0.4	0.4	0.0
3/8/02	7:00am	41.83	42.48	0.65			
3/8/02	4:30pm	--	41.86		0.4	0.4	0.0
3/15/02	7:30am	41.80	42.47	0.67			
3/15/02	5:00pm	--	41.85		0.4	0.4	0.0
3/22/02	7:30am	41.85	42.5	0.65			
3/29/02	8:00am	41.84	42.49	0.65			
3/29/02	4:00pm	41.80	42.29	0.49	0.7	0.7	0.0
4/5/02	7:00am	41.86	42.51	0.65			
4/5/02	5:00pm	--	41.82		0.4	0.4	0.0
4/12/02	7:00am	41.84	42.48	0.64			
4/12/02	4:30pm	--	41.85		0.4	0.4	0.0
4/19/02	7:00am	41.90	42.47	0.57			
4/19/02	4:45pm	--	41.87		0.7	0.7	0.0
4/26/02	7:00am	41.89	42.47	0.58			
4/26/02	4:30pm	41.83	41.87	0.04	0.4	0.4	0.0
				Totals:	1038.3	392.2	422.7

SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS 1995 - 2002

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-1	07/24/95	2.8710	<0.0200	0.0120	0.2710	3.1540	25,106	14,091
MW-1	07/24/95	N/A	N/A	N/A	N/A	N/A	4,374	
MW-1 (SPL)	02/18/98	3.4000	0.5700	0.9600	0.7400	5.6700	493	100
MW-1 (SPL)	12/12/98						840	43
MW-1	04/07/99	2.8500	1.3300	2.5200	2.5500	9.2500	1820	1286
MW-2	07/21/95	0.0470	0.0120	0.0330	<0.0010	0.0920	N/A	132
MW-2	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	649	96
MW-2	08/12/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2	11/25/96	0.0019	0.0012	0.0018	<0.0030	0.0049	443	44
MW-2	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	497	50
MW-2	07/02/97	0.0060	0.0070	0.0030	0.0110	0.0270	399	44
MW-2	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	414	40
MW-2 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	455	36
MW-2	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	457	45
MW-2	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	422	47
MW-2	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	464	40
MW-2	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	426	44
MW-2	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	528	45
MW-2	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	41
MW-2	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	574	38
MW-2	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	614	79
MW-2	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	624	171
MW-2	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	557	120
MW-2	03/30/2001	0.0070	<0.0020	<0.0020	<0.0060	N/A	480	68
MW-2	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	592	77
MW-2	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	513	60

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-2	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	511	72
MW-2	06/17/2002	0.0030	<0.0020	<0.0020	<0.0060	N/A	552	64
MW-2	08/14/2002	<0.0010	<0.0010	0.0060	<0.0020	N/A	577	70.9
MW-3 - S	07/21/95	0.0020	<0.0010	<0.0010	<0.0030	0.0020	N/A	256
MW-3	07/21/95	0.0440	0.0610	0.0480	0.0420	0.1950	N/A	N/A
MW-3	06/19/96	0.1320	<0.0010	<0.0010	<0.0010	0.1320	2,684	160
MW-3	11/25/96	1.1700	0.0011	0.0047	0.0150	1.1908	13,890	6,850
MW-3	04/03/97	0.2920	<0.0010	0.0010	0.0050	0.2980	7764	3249
MW-3	07/02/97	0.0020	<0.0010	<0.0010	<0.0030	0.0020	3065	1290
MW-3	12/06/97	0.0120	<0.0020	<0.0020	<0.0060	0.0120	4610	1450
MW-3 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-3 (SPL)	02/18/98	0.0016	<0.0010	<0.0010	<0.0010	0.0016	2,967	1,700
MW-3	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	3,980	1,672
MW-3	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,498	614
MW-3	04/07/99	0.9530	0.0020	0.0040	<0.0060	N/A	20,470	11,770
MW-3	06/28/99	0.6730	<0.0020	0.0020	<0.0060	N/A	15,660	8,567
MW-3	09/17/99	0.7150	<0.0020	<0.0020	<0.0060	N/A	17,730	8,922
MW-3	12/14/99	0.7610	<0.0020	0.0030	<0.0060	N/A	18,120	9,093
MW-3	3/13/00	0.7240	<0.0020	<0.0030	<0.0060	N/A	19,000	9,680
MW-3	6/15/00	0.3920	<0.0020	<0.0020	<0.0060	N/A	19,344	8,361
MW-3	9/18/00	0.3130	<0.0020	<0.0020	<0.0060	N/A	10,510	5,439
MW-3	12/15/00	0.2150	<0.0020	<0.0020	<0.0060	N/A	16,730	11,904
MW-3	03/30/2001	1.0300	<0.0020	<0.0020	<0.0060	N/A	19,430	11,100
MW-3	06/28/2001	0.1110	<0.0020	<0.0020	<0.0060	N/A	18,440	8,646
MW-3	09/21/2001	0.6930	<0.0020	<0.0020	<0.0060	N/A	19,600	9,597
MW-3	12/31/2001	0.6830	<0.0020	<0.0020	<0.0060	N/A	18,596	9,697
MW-3	06/17/2002	0.6450	<0.0020	<0.0020	<0.0060	N/A	18,360	10,097
MW-3	08/14/2002	0.0730	<0.0010	<0.0010	0.0100	N/A	13,900	7,440

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-4	08/10/95	<0.0010	<0.0010	<0.0010	0.0670	0.0670	N/A	332
MW-4	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,114	312
MW-4	11/25/96	0.0029	0.0011	0.0019	<0.0030	0.0059	953	240
MW-4	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	877	196
MW-4	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	788	206
MW-4	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	974	264
MW-4	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,152	294
MW-4	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	910	344
MW-4	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,088	297
MW-4	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,080	279
MW-4	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,187	300
MW-4	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,260	372
MW-4	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,400	376
MW-4	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,707	387
MW-4	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,149	311
MW-4	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	889	277
MW-4	03/30/2001	0.0040	<0.0020	<0.0020	<0.0060	N/A	792	192
MW-4	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	892	215
MW-4	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	787	184
MW-4	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	742	176
MW-4	06/17/2002	<0.0020	<0.0020	<0.0020	<0.0060	N/A	699	148
MW-4	08/14/2002	<0.0010	<0.0010	<0.0010	<0.0020	N/A	654	115
MW-5	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,481	106
MW-5	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	506	44
MW-5	11/25/96	0.0012	0.0012	0.0016	<0.0030	0.0040	506	70
MW-5	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	509	50
MW-5	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	458	50
MW-5	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	506	52
MW-5 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-5 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	426	44
MW-5	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	505	42
MW-5	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	421	47
MW-5	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	40
MW-5	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	449	44
MW-5	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	484	49
MW-5	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	45
MW-5	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	474	49
MW-5	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	559	53
MW-5	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	54
MW-5	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	456	54
MW-5	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	515	52
MW-5	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	514	54
MW-5	09/21/2001	0.0040	<0.0020	<0.0020	<0.0060	N/A	510	52
MW-5	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	478	52
MW-5	06/17/2002	0.0020	<0.0020	<0.0020	<0.0060	N/A	489	52
MW-5	08/14/2002	<0.0010	<0.0010	<0.0010	<0.0020	N/A	530	42.5
MW-6	07/21/95	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	96
MW-6	06/19/96	0.0230	<0.0010	<0.0010	<0.0030	0.0230	524	48
MW-6	11/25/96	0.0160	0.0013	0.0023	0.0047	0.0243	477	38
MW-6	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	404	80
MW-6	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	419	38
MW-6	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	445	28
MW-6 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-6	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	225	20
MW-6	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	363	20
MW-6	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	436	20
MW-6	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	378	28
MW-6	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	428	24
MW-6	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	576	24

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-6	3/13/00	<0.0020	<0.0030	<0.0020	<0.0060	N/A	438	45
MW-6	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	500	34
MW-6	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	443	35
MW-6	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	381	46
MW-6	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	456	48
MW-6	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	491	54
MW-6	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	444	44
MW-6	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	492	48
MW-6	06/17/2002	<0.0020	<0.0020	<0.0020	<0.0060	N/A	528	76
MW-6	08/14/2002	<0.0010	<0.0010	<0.0010	<0.0020	N/A	512	35.4
MW-7	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,218	382
MW-7	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,127	359
MW-7	11/25/96	0.0011	<0.0010	<0.0010	<0.0030	<0.0030	1,090	334
MW-7	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1166	344
MW-7	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1092	264
MW-7	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	806	188
MW-7 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-7	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	802	212
MW-7	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	853	262
MW-7	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1000	245
MW-7	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	938	255
MW-7	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1685	255
MW-7	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	996	258
MW-7	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1022	258
MW-7	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1130	271
MW-7	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	978	260
MW-7	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	826	224
MW-7	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	801	188
MW-7	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	835	192
MW-7	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	758	196

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-7	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	749	196
MW-7	06/17/2002	<0.0020	<0.0020	<0.0020	<0.0060	N/A	871	220
MW-7	08/14/2002	0.0070	<0.0010	<0.0010	<0.0020	N/A	813	230
WHW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	473	32
WHW	N/A	N/A	N/A	N/A	N/A	N/A	898	68
CMW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	448	68
CMW	N/A	N/A	N/A	N/A	N/A	N/A	490	52
GHW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	722	76
GHW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	703	78
IWW	07/24/95	0.7770	<0.0200	<0.0200	0.0300	0.8070	13,889	7,178
IWW	06/19/96	0.0320	<0.0010	<0.0010	<0.0030	0.0320	1,817	828
IWW	11/25/96	0.6550	<0.0010	0.0026	<0.0030	0.6576	10,147	5,300
IWW	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1468	760
IWW	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	663	200
IWW	12/06/97	<0.0020	0.0060	<0.0020	0.0060	0.0120	931	328
IWW (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
IWW (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	491	67
IWW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	67
IWW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	369	74
IWW	04/06/99	0.0630	<0.0020	<0.0020	<0.0060	<0.0060	3310	2275
IWW	06/28/99	0.0130	<0.0020	<0.0020	<0.0060	<0.0060	2780	1893
IWW	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	626	166
IWW	12/13/99	0.0040	<0.0020	<0.0020	<0.0060	<0.0060	1260	505
IWW	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	682	244
IWW	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	751	182
IWW	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	435	82
IWW	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	95
IWW	03/30/2001	<0.0020	0.0030	<0.0020	<0.0060	N/A	485	113
IWW	06/28/2001	0.0022	<0.0020	<0.0020	<0.0060	N/A	876	265

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
IWW	09/21/2001	0.0030	0.0049	<0.0020	<0.0060	N/A	509	76
IWW	12/31/2001	0.0030	0.0015	<0.0020	<0.0060	N/A	502	152
IWW	06/17/2002	0.0050	<0.0020	<0.0020	<0.0060	N/A	486	56
IWW	08/14/2002	<0.0010	<0.0010	<0.0010	<0.0020	N/A	510	57.6
IWW	12/30/2002	<0.001	<0.001	<0.001	<0.002	N/A	2980	1440

Analysis was performed by Cardinal Laboratories in Hobbs, New Mexico.

Samples labeled (SPL) analyzed by Southern Petroleum Laboratories, Houston, Texas.

Benzene, toluene, ethylbenzene, and xylene (BTEX); total dissolved solids (TDS); and chloride analyses were conducted using

EPA Methods 8020, 160.1, and 352.3, respectively.

Results presented in bold print exceed NMWQCC human health standards for ground water.

All results are reported in milligrams per liter (mg/l); parts per million (ppm).

SUMMARY OF GROUNDWATER MEASUREMENTS by QUARTER
WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
IWW	07/26/95	35.75	62.26	98.01	97.8	0.00
IWW	06/24/96	35.50	62.51	98.01	97.8	0.00
IWW	08/02/96	35.60	62.41	98.01	97.8	0.00
IWW	11/22/96	37.00	61.01	98.01	97.8	0.00
IWW	07/02/97	37.00	61.01	98.01	97.8	0.00
IWW	08/07/97	37.78	60.23	98.01	97.8	0.00
IWW	12/06/97	37.51	60.50	98.01	97.8	0.00
IWW	02/14/98	37.14	60.90	98.04	97.8	0.00
IWW	04/07/99	38.06	60.11	98.17	97.8	0.00
IWW	06/28/99	38.18	59.99	98.17	97.8	0.00
IWW	09/17/99	38.23	59.94	98.17	97.8	0.00
IWW	12/13/99	38.44	59.73	98.17	97.8	0.00
IWW	3/13/00				97.8	0.00
IWW	6/15/00	38.81	59.29	98.10	97.8	0.00
IWW	9/18/00	38.81	59.29	98.10	97.8	0.00
IWW	12/15/00	38.94	59.16	98.10	97.8	0.00
IWW	03/30/2001	39.20	58.90	98.10	97.8	0.00
IWW	06/28/2001	39.39	58.71	98.10	97.8	0.00
IWW	09/21/2001	39.63	58.47	98.10	98.8	0.00
IWW	12/31/2001	40.00	58.10	98.10	97.8	0.00
IWW	06/17/2002	40.25	57.85	98.10	97.8	0.00
IWW	08/14/2002	40.42	57.68	98.10	97.8	0.00
IWW	4 th Quarter Results N/A					
MW-1	07/26/95	42.09	57.91	100.00	97.3	N/A
MW-1	06/24/96	40.73	59.27	100.00	97.3	N/A
MW-1	08/07/97	39.00	62.50	100.00	97.3	1.83
MW-1	02/14/98	39.26	60.86	100.00	97.3	0.15
MW-1	10/26/98	40.50	60.05	100.00	97.3	0.67
MW-1	04/07/99	42.17	57.83	100.00	97.3	
MW-1	06/28/99	44.67	55.33	100.00	97.3	
MW-1	09/17/99	free	product		97.3	
MW-1	12/13/99	42.23	55.07	100.00	97.3	2.20
MW-1	3/15/00	42.17	55.13	100.00	97.3	1.84
MW-1	6/15/00	42.18	57.82	100.00	97.3	1.57'
MW-1	9/15/00	42.98	54.32	100.00	97.3	1.74
MW-1	12/15/00	42.13	55.17	100.00	97.30	1.61
MW-1	01/05/2001	42.98	54.32	100.00	97.30	2.28
MW-1	03/30/2001	42.97	54.33	100.00	97.30	1.91
MW-1	10/05/2001	44.72	52.58	100.00	97.30	3.56
MW-1	12/25/2001	42.47	54.83	100.00	97.30	0.60
MW-1	06/17/2002	N/A	N/A	100.00	97.30	N/A

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-2	07/26/95	37.45	60.46	97.91	98.5	0.00
MW-2	06/18/96	35.16	62.75	97.91	98.5	0.00
MW-2	06/24/96	35.24	62.67	97.91	98.5	0.00
MW-2	08/02/96	35.30	62.61	97.91	98.5	0.00
MW-2	11/22/96	37.00	60.91	97.91	98.5	0.00
MW-2	07/02/97	36.70	61.21	97.91	98.5	0.00
MW-2	08/07/97	37.80	60.11	97.91	98.5	0.00
MW-2	12/06/97	37.32	60.59	97.91	98.5	0.00
MW-2	02/14/98	37.70	60.24	97.94	98.5	0.00
MW-2	04/07/99	37.83	60.06	97.89	98.5	0.00
MW-2	06/28/99	37.92	59.97	97.89	98.5	0.00
MW-2	09/17/99	38.00	59.89	97.89	98.5	0.00
MW-2	12/13/99	38.15	59.74	97.89	98.5	0.00
MW-2	3/13/00	38.37	59.52	97.89	98.5	0.00
MW-2	6/15/00	38.57	59.35	97.92	98.5	0.00
MW-2	9/18/00	38.55	59.37	97.92	98.5	0.00
MW-2	12/15/00	38.72	59.20	97.92	98.5	0.00
MW-2	03/30/2001	38.96	58.96	97.92	98.5	0.00
MW-2	06/28/2001	39.12	58.80	97.92	98.5	0.00
MW-2	09/21/2001	39.39	58.53	97.92	98.5	0.00
MW-2	12/31/2001	39.77	58.15	97.92	98.5	0.00
MW-2	06/17/2002	40.02	57.90	97.92	98.5	0.00
MW-2	08/14/2002	40.20	57.72	97.92	98.5	0.00
MW-2	12/06/2002	40.34	57.58	97.92	98.5	0.00
MW-3	07/26/95	34.97	62.57	97.54	98.1	0.00
MW-3	06/24/96	35.54	62.00	97.54	98.1	0.00
MW-3	08/02/96	36.60	60.94	97.54	98.1	0.00
MW-3	11/22/96	35.70	61.84	97.54	98.1	0.00
MW-3	07/02/97	36.20	61.34	97.54	98.1	0.00
MW-3	08/07/97	36.80	60.74	97.54	98.1	0.00
MW-3	12/06/97	36.80	60.74	97.54	98.1	0.00
MW-3	02/14/98	36.88	60.77	97.65	98.1	0.00
MW-3	04/07/99	38.52	59.13	97.65	98.1	0.00
MW-3	06/28/99	38.60	59.05	97.65	98.1	0.00
MW-3	09/17/99	38.58	59.07	97.65	98.1	0.00
MW-3	12/13/99	38.75	58.90	97.65	98.1	0.00
MW-3	3/13/00	38.98	58.67	97.65	98.1	0.00
MW-3	6/15/00	39.16	58.45	97.61	98.1	0.00
MW-3	9/18/00	39.10	58.51	97.61	98.1	0.00
MW-3	12/15/00	39.29	58.32	97.61	98.1	0.00
MW-3	03/30/2001	39.53	58.08	97.61	98.1	0.00
MW-3	06/28/2001	39.68	57.93	97.61	98.1	0.00
MW-3	09/21/2001	39.93	57.68	97.61	98.1	0.00
MW-3	12/31/2001	40.28	57.33	97.61	98.1	0.00
MW-3	06/17/2002	40.49	57.12	97.61	98.1	0.00
MW-3	08/14/2002	40.57	57.04	97.61	98.1	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-3	12/06/2002	40.76	56.85	97.61	98.1	0.00
MW-4	07/26/95	37.40	62.95	100.35	100.8	0.00
MW-4	06/24/96	37.20	63.15	100.35	100.8	0.00
MW-4	08/02/96	35.80	64.55	100.35	100.8	0.00
MW-4	11/22/96	38.25	62.10	100.35	100.8	0.00
MW-4	07/02/97	38.30	62.05	100.35	97.4	0.00
MW-4	08/07/97	37.50	62.85	100.35	97.4	0.00
MW-4	12/06/97	39.30	61.05	100.35	97.4	0.00
MW-4	02/14/98	No data		99.93	97.4	0.00
MW-4	04/07/99	40.01	60.25	100.26	97.4	0.00
MW-4	06/28/99	40.80	59.46	100.26	97.4	0.00
MW-4	09/17/99	40.16	60.10	100.26	97.4	0.00
MW-4	12/13/99	40.35	59.91	100.26	97.4	0.00
MW-4	3/13/00	40.54	59.72	100.26	97.4	0.00
MW-4	6/15/00	40.77	59.60	100.37	97.4	0.00
MW-4	9/18/00	40.72	59.65	100.37	97.4	0.00
MW-4	12/15/00	40.92	59.45	100.37	97.4	0.00
MW-4	03/30/2001	41.17	59.20	100.37	97.4	0.00
MW-4	06/28/2001	41.35	59.02	100.37	97.4	0.00
MW-4	09/21/2001	41.60	58.77	100.37	97.4	0.00
MW-4	12/31/2001	42.00	58.37	100.37	97.4	0.00
MW-4	06/17/2002	42.26	58.11	100.37	97.4	0.00
MW-4	08/14/2002	42.42	57.95	100.37	97.4	0.00
MW-4	12/06/2002	42.64	57.73	100.37	97.4	0.00
MW-5	07/26/95	33.91	62.25	96.16	96.0	0.00
MW-5	06/18/96	33.61	62.55	96.16	96.0	0.00
MW-5	06/24/96	33.72	62.44	96.16	96.0	0.00
MW-5	08/02/96	33.58	62.58	96.16	96.0	0.00
MW-5	11/22/96	34.60	61.56	96.16	96.0	0.00
MW-5	07/02/97	34.97	61.19	96.16	96.0	0.00
MW-5	08/07/97	35.70	60.46	96.16	96.0	0.00
MW-5	12/06/97	35.76	60.40	96.16	96.0	0.00
MW-5	02/14/98	35.30	60.91	96.21	96.0	0.00
MW-5	04/07/99	36.28	60.17	96.45	96.0	0.00
MW-5	06/28/99	36.40	60.05	96.45	96.0	0.00
MW-5	09/17/99	36.49	59.96	96.45	96.0	0.00
MW-5	12/13/99	36.64	59.81	96.45	96.0	0.00
MW-5	3/13/00	36.84	59.61	96.45	96.0	0.00
MW-5	6/15/00	37.05	59.16	96.21	96.0	0.00
MW-5	9/18/00	37.06	59.15	96.21	96.0	0.00
MW-5	12/15/00	37.23	58.98	96.21	96.0	0.00
MW-5	03/30/2001	37.44	58.77	96.21	96.0	0.00
MW-5	06/28/2001	37.62	58.59	96.21	96.0	0.00
MW-5	09/21/2001	37.87	58.34	96.21	96.0	0.00
MW-5	12/31/2001	38.25	57.96	96.21	96.0	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-5	06/17/2002	38.48	57.73	96.21	96.0	0.00
MW-5	08/14/2002	38.66	57.55	96.21	96.0	0.00
MW-5	12/06/2002	38.85	57.36	96.21	96.0	0.00
MW-6	07/26/95	35.69	62.83	98.52	98.8	0.00
MW-6	06/18/96	35.56	62.96	98.52	98.8	0.00
MW-6	06/24/96	35.68	62.84	98.52	98.8	0.00
MW-6	08/02/96	35.68	62.84	98.52	98.8	0.00
MW-6	11/22/96	37.29	61.23	98.52	98.8	0.00
MW-6	07/02/97	37.10	61.42	98.52	98.8	0.00
MW-6	08/07/97	38.20	60.32	98.52	98.8	0.00
MW-6	12/06/97	37.74	60.78	98.52	98.8	0.00
MW-6	02/14/98	No data		98.53	98.8	0.00
MW-6	04/07/99	38.27	60.17	98.44	98.8	0.00
MW-6	06/28/99	38.37	60.07	98.44	98.8	0.00
MW-6	09/17/99	38.45	59.99	98.44	98.8	0.00
MW-6	12/13/99	38.62	59.82	98.44	98.8	0.00
MW-6	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-6	6/15/00	39.04	59.52	98.56	98.8	0.00
MW-6	9/18/00	38.99	59.57	98.56	98.8	0.00
MW-6	12/15/00	39.16	59.40	98.56	98.8	0.00
MW-6	03/30/2001	39.41	58.15	98.56	98.8	0.00
MW-6	06/28/2001	39.59	58.97	98.56	98.8	0.00
MW-6	09/21/2001	39.86	58.70	98.56	98.8	0.00
MW-6	12/31/2001	40.22	58.34	98.56	98.8	0.00
MW-6	06/17/2002	40.50	58.06	98.56	98.8	0.00
MW-6	08/14/2002	40.70	57.86	98.56	98.8	0.00
MW-6	12/06/2002	40.87	57.69	98.56	98.8	0.00
MW-7	07/26/95	37.92	60.57	98.49	98.8	0.00
MW-7	06/24/96	35.76	62.73	98.49	98.8	0.00
MW-7	08/02/96	36.10	62.39	98.49	98.8	0.00
MW-7	11/22/96	36.84	61.65	98.49	98.8	0.00
MW-7	07/02/97	37.38	61.11	98.49	98.8	0.00
MW-7	08/07/97	37.30	61.19	98.49	98.8	0.00
MW-7	12/06/97	37.81	60.68	98.49	98.8	0.00
MW-7	02/14/98	No data		98.53	98.8	0.00
MW-7	04/07/99	38.40	60.04	98.44	98.8	0.00
MW-7	06/28/99	38.46	59.98	98.44	98.8	0.00
MW-7	09/17/99	38.56	59.88	98.44	98.8	0.00
MW-7	12/13/99	38.73	59.71	98.44	98.8	0.00
MW-7	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-7	6/15/00	39.15	59.32	98.47	98.8	0.00
MW-7	9/18/00	39.12	59.35	98.47	98.8	0.00
MW-7	12/15/00	39.30	59.17	98.47	98.8	0.00
MW-7	03/30/2001	39.57	58.90	98.47	98.8	0.00
MW-7	06/28/2001	39.71	58.76	98.47	98.8	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-7	09/21/2001	39.99	58.48	98.47	98.8	0.00
MW-7	12/31/2001	40.37	58.10	98.47	98.8	0.00
MW-7	06/17/2002	40.64	57.83	98.47	98.8	0.00
MW-7	08/14/2002	40.74	57.73	98.47	98.8	0.00
MW-7	12/06/2002	40.94	57.53	98.47	98.8	0.00

TABLE 3
SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS
WATER QUALITY DATA
WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-1	04/17/96	865	7.88	250	223.9	57.9	123.4	12.0	0	200
MW-1	11/25/96	782	N/A	94	190.0	37.6	217.0	16.0	0	268
MW-1	04/03/97	1,042	7.44	258	250.0	83.0	200.0	25.0	0	346
MW-1	07/02/97	1,066	N/A	250	N/A	N/A	N/A	N/A	N/A	N/A
MW-1	12/06/97	449	N/A	80	N/A	N/A	N/A	N/A	N/A	N/A
MW-1	02/14/98	493	7.88	100	98.0	24.0	81.0	9.0	<1	151.0
MW-1	04/07/99	1,820	8.12	1,286	728.0	48.0	61.0	79.0	0.0	244.0
MW-1	12/12/2002	504	N/A	27	147.0	14.8	18.4	5.0	<0.10	282.0
MW-2	04/17/96	394	7.96	46	35.4	71.7	57.4	16.1	0.0	160.0
MW-2	11/25/96	408	N/A	52	26.8	66.4	90.8	25.8	0.0	200.0
MW-2*	04/03/97	497	7.40	50	165.0	78.0	110.0	18.0	0.0	327.0
MW-2	07/02/97	464	N/A	96	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	12/06/97	857	N/A	180	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	02/14/98	455	N/A	36	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	04/06/99	464	7.82	40	20	62	80	29	0	224
MW-2	06/28/99	426	7.37	44	7	75	66	27	0	229
MW-2	09/17/99	528	7.59	45	31	72	83	21	0	229
MW-2	12/14/99	596	7.76	41	63	58	77	13	0	249
MW-2	03/13/2000	574	7.25	38	229	88	94	25	0	244
MW-2	06/15/2000	614	7.39	79	24	92	87	23	0	249
MW-2	09/18/2000	624	7.26	171	160	75	112	15	0	325
MW-2	12/15/2000	557	7.23	120	62	98	54	23	0	310
MW-2	03/30/2001	480	6.78	68	68	85	127	20	0	286
MW-2	06/28/2001	592	7.26	77	139	80	58	21	0	297
MW-2	09/21/2001	513	7.19	60	40	106	85	23	0	291
MW-2	12/31/2001	522	7.42	72	68	120	152	18	0	324
MW-2	06/17/2002	552	7.61	64	61	76	84	25	0	309
MW-2	08/14/2002	577	N/A	71	76	86	110	12	<0.10	250
MW-3	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-3	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-3*	04/03/97	7,764	7.14	3,249	1692.0	115.0	300.0	263.0	0.0	224.0
MW-3	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	02/14/98	2,967	7.40	1,700	300.0	607.0	<1	111.0	<1	141.0
MW-3	04/07/99	20,470	6.87	11,770	6251.0	928.0	640.0	388.0	0.0	415.0
MW-3	06/28/99	15,660	6.62	8,567	4531.0	918.0	1067.0	301.0	0.0	332.0
MW-3	09/17/99	17,730	6.86	8,922	4814.0	1120.0	1052.0	243.0	0.0	288.0
MW-3	12/14/99	18,120	7.12	9,093	6074.0	138.0*	581.0	29*	0.0	366.0
MW-3	03/13/2000	19,000	6.85	9,680	6450.0	802.0	1180.0	486.0	0.0	346.0
MW-3	06/15/2000	19,344	7.17	8,361	3410.0	992.0	1090.0	283.0	0.0	346.0
MW-3	09/18/2000	10,510	6.85	5,439	3188.0	444.0	640.0	121.0	0.0	315.0
MW-3	12/15/2000	16,730	6.80	11,904	6179.0	1042.0	598.0	379.0	0.0	415.0
MW-3	03/30/2001	19,430	6.78	11,100	6056.0	984.0	1105.0	358.0	0.0	431.0
MW-3	06/28/2001	18,440	6.79	8,646	5180.0	552.0	82.6	199.0	0.0	501.0
MW-3	09/21/2001	19,600	6.70	9,597	4040.0	1152.0	699.0	425.0	0.0	431.0
MW-3	12/31/2001	18,956	6.92	9,697	4803.0	1202.0	1359.0	450.0	0.0	458.0
MW-3	06/17/2002	18,360	6.83	10,097	3872.0	724.0	1076.0	1296.0	0.0	423.0
MW-3	08/14/2002	13,900	N/A	7,440	6820.0	603.0	1180.0	14.2	<0.10	354.0

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-4	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-4	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-4*	04/03/97	877	7.18	196	76.0	117.0	92.0	29.0	0.0	254.0
MW-4	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	04/06/99	1,088	7.65	297	44.00	142.00	78.00	51.00	0.00	205.00
MW-4	06/28/99	1,080	7.18	279	48.00	142.00	88.00	49.00	0.00	220.00
MW-4	09/17/99	1,187	7.38	300	61.00	138.00	87.58	50.00	0.00	215.00
MW-4	12/13/99	1,260	7.55	372	191.00	113.00	79.30	26.00	0.00	249.00
MW-4	03/13/2000	1,400	7.19	376	287.00	173.00	88.00	40.00	0.00	239.00
MW-4	06/15/2000	1,707	7.36	387	84.00	183.00	87.00	41.00	0.00	249.00
MW-4	09/18/2000	1,149	7.21	311	175.00	118.00	129.00	23.00	0.00	315.00
MW-4	12/15/2000	889	7.43	277	97.00	137.00	55.00	29.00	0.00	280.00
MW-4	03/30/2001	792	7.31	192	140.00	110.00	145.00	18.00	0.00	270.00
MW-4	06/28/2001	892	7.34	215	245.00	102.00	69.60	30.10	0.00	286.00
MW-4	09/21/2001	787	7.27	184	117.00	130.00	86.00	30.00	0.00	269.00
MW-4	12/31/2001	742	7.52	176	87.00	130.00	178.00	29.00	0.00	253.00
MW-4	06/17/2002	699	7.40	148	87.00	87.00	82.00	26.00	0.00	222.00
MW-4	08/14/2002	654	N/A	115	115.00	93.00	1180.00	14.20	<0.10	205.00
MW-5	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-5	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-5*	04/03/97	509	7.73	50	66.0	74.0	103.0	21.0	0.0	288.0
MW-5	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-5	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-5	02/14/98	426	7.74	44	16.0	81.0	56.0	14.0	<1	214.0
MW-5	04/06/99	491	7.78	40	7.00	75.00	87.00	33.00	0.00	239.00
MW-5	06/28/99	449	7.63	44	26.00	85.00	93.00	23.00	0.00	254.00
MW-5	09/17/99	484	7.75	49	33.00	83.00	88.59	21.00	0.00	254.00
MW-5	12/13/99	596	7.75	45	54.00	67.00	84.40	22.00	0.00	278.00
MW-5	03/13/2000	474	7.49	49	108.00	85.00	97.00	23.00	0.00	259.00
MW-5	06/15/2000	559	7.78	53	12.00	92.00	87.00	19.00	0.00	204.00
MW-5	09/18/2000	527	7.59	54	130.00	76.00	148.00	11.00	0.00	330.00
MW-5	12/15/2000	456	7.70	54	25.00	82.00	50.00	24.00	0.00	285.00
MW-5	03/30/2001	515	7.51.00	52	85.00	88.00	138.00	15.00	0.00	297.00
MW-5	06/28/2001	514	7.40	54	231.00	80.40	56.40	19.50	0.00	313.00
MW-5	09/21/2001	510	7.38	52	41.00	110.00	88.00	27.00	0.00	307.00
MW-5	12/31/2001	478	7.74	52	45.00	112.00	138.00	19.00	0.00	297.00
MW-5	06/17/2002	489	7.52	52	18.00	73.00	70.00	39.00	0.00	293.00
MW-5	08/14/2002	530	N/A	43	78.80	100.00	104.00	13.70	<0.10	240.00
MW-6	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-6	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-6*	04/03/97	404	7.19	80	82.0	70.0	88.0	20.0	0.0	283.0
MW-6	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-6	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-6	04/06/99	436	7.84	20	21.0	59.0	74.0	24.0	0.0	234.0
MW-6	06/28/99	378	7.43	28	25.0	66.0	78.0	23.0	0.0	239.0
MW-6	09/17/99	428	7.33	24	18.0	69.0	74.3	25.0	0.0	254.0
MW-6	12/13/99	576	7.59	24	39.0	58.0	68.2	22.0	0.0	284.0
MW-6	03/13/2000	438	7.32	45	197.0	71.0	82.0	20.0	0.0	254.0
MW-6	06/15/2000	500	7.87	34	12.0	75.0	77.0	22.0	0.0	259.0
MW-6	09/18/2000	443	7.35	35	100.0	58.0	91.0	11.0	0.0	305.0
MW-6	12/15/2000	381	7.51	46	27.0	75.0	44.0	19.0	0.0	265.0
MW-6	03/30/2001	456	7.33	48	48.0	79.0	73.1	13.0	0.0	270.0

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-6	06/28/2001	491	7.21	54	264.0	74.5	46.3	17.7	0.0	297.0
MW-6	09/21/2001	444	7.25	44	25.0	96.0	62.0	23.0	0.0	275.0
MW-6	12/31/2001	492	7.46	48	51.0	96.0	156.0	27.0	0.0	286.0
MW-6	06/17/2002	528	7.44	76	17.0	72.0	71.0	44.0	0.0	271.0
MW-6	08/14/2002	512	N/A	35	75.9	62.8	74.4	11.8	<0.10	218.0
MW-7	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-7	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-7*	04/03/97	1,166	7.84	344	327.0	70.0	162.0	17.0	0.0	376.0
MW-7	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-7	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-7	04/06/99	1,000	7.57	245	79.0	120.0	114.0	57.0	0.0	307.0
MW-7	06/28/99	938	7.23	255	122.0	126.0	111.0	33.0	0.0	303.0
MW-7	09/17/99	1,665	7.42	255	140.0	118.0	113.1	32.0	0.0	317.0
MW-7	12/13/99	996	7.46	258	233.0	73.0	101.0	9.3	0.0	322.0
MW-7	03/13/2000	1,022	7.18	258	220.0	131.0	118.0	35.0	0.0	307.0
MW-7	06/15/2000	1,130	7.48	271	122.0	143.0	109.0	33.0	0.0	337.0
MW-7	09/18/2000	978	7.77	260	371.0	46.0	123.0	13.0	0.0	505.0
MW-7	12/15/2000	826	7.45	224	134.0	112.0	96.0	26.0	0.0	325.0
MW-7	03/30/2001	801	7.44	141	155.0	102.0	141.0	18.0	0.0	324.0
MW-7	06/28/2001	835	7.37	87	291.0	86.2	87.4	20.4	0.0	323.0
MW-7	09/21/2001	758	7.21	97	84.0	112.0	97.0	32.0	0.0	297.0
MW-7	12/31/2001	749	7.48	150	126.0	114.0	150.0	27.0	0.0	297.0
MW-7	06/17/2002	871	7.42	220	152.0	80.0	81.0	27.0	0.0	309.0
MW-7	08/14/2002	813	N/A	230	256.0	100.0	116.0	13.5	<0.10	230.0
IWW	04/17/96	1,231	N/A	545	N/A	N/A	N/A	N/A	N/A	N/A
IWW	11/25/96									
IWW*	04/03/97	1,468	7.38	760	552.0	61.0	150.0	23.0	0.0	283.0
IWW	07/02/97	836	N/A	246	N/A	N/A	N/A	N/A	N/A	N/A
IWW	02/14/98	491	N/A	67	N/A	N/A	N/A	N/A	N/A	N/A
IWW	04/07/99	3,310	9.97	2,275	930.0	80.0	173.0	316.0	0.0	195.0
IWW	06/28/99	2,780	7.23	1,893	1149.0	116.0	246.0	79.0	0.0	254.0
IWW	09/17/99	626	7.61	166	104.0	74.0	84.3	21.0	0.0	224.0
IWW	12/14/99	1,260	7.78	505	345.0	54.0	76.1	26.0	0.0	259.0
IWW	03/13/2000	682	7.44	244	472.0	69.0	94.0	27.0	0.0	264.0
IWW	06/15/2000	751	7.54	182	135.0	78.0	85.0	21.0	0.0	268.0
IWW	09/18/2000	435	7.60	82	140.0	58.0	94.0	12.0	0.0	325.0
IWW	12/15/2000	527	7.49	95	81.0	73.0	52.0	16.0	0.0	295.0
IWW	03/30/2001	485	7.33	56	90.0	76.0	113.0	16.0	0.0	307.0
IWW	06/28/2001	876	7.38	265	233.0	58.4	47.6	22.1	0.0	307.0
IWW	09/21/2001	509	7.31	100	80.0	90.0	76.0	21.0	0.0	297.0
IWW	12/31/2001	502	7.72	72	79.0	92.0	152.0	28.0	0.0	324.0
IWW	06/17/2002	486	7.79	56	61.0	66.0	72.0	22.0	0.0	293.0
IWW	08/14/2002	510	N/A	58	154.0	71.0	87.8	10.9	<0.10	246.0
IWW	12/12/2002	2,980	N/A	1,440	992.0	66.0	275.0	30.4	<0.10	247.0

Analysis was performed by Cardinal Laboratories in Hobbs, New Mexico.

Analyses were conducted using EPA Methods 160.1 - TDS, 352.3 - chloride, 3111B - major cation/anions, 375.4 - sulfate, and 2320B - CO3, HCO3.

COL-6 = City of Lovington Well No. 6.

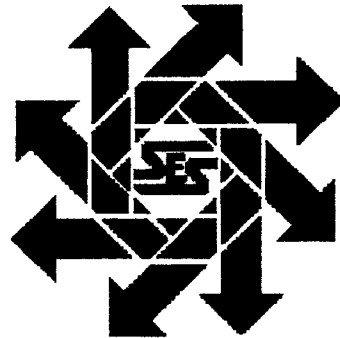
All results are reported in milligrams per liter (mg/l); parts per million (ppm). Results presented in bold print exceed NMWQCC human health standards for ground water.

4

Date	Time	Top of Oil	Top of Water	Oil Column	Fluid	Oil	Water
		(Feet)	(Feet)	(Feet)	Recovered	Recovered	Recovered
					(Gallons)	(Gallons)	(Gallons)
06/03/2002	15 Min	42.17	42.43	3.12	--	--	--
06/05/2002	3 Hours	42.16	42.51	4.2	--	--	--
06/07/2002	4 Hours	42.14	42.6	5.52	--	--	--
06/10/2002	4 Hours	42.13	42.71	6.96	--	--	--
06/12/2002	30 Min	42.13	42.8	8.04	--	--	--
06/14/2002	30 Min	42.13	42.86	8.76	--	--	--
06/17/2002	30 Min	42.27	43.37	1.1	--	--	--
06/21/2002	30 Min	42.27	43.77	1.5	--	--	--
06/24/2002	1 Hour	42.27	43.77	1.5	--	--	--
07/15/2002	2 Hours	42.35	43.85	1.5	7	3.5	3.5
07/16/2002	1 Hour	43.3	43.4	.10	0	0	0
08/16/2002	30 Min	42.01	43.51	1.5	5.6	1.75	3.85
09/11/2002	15 Min	42.35	42.56	1.9	0	0	0
09/13/2002	30 Min	42.41	42.63	1.10	7.7	5.25	2.45
10/04/2002	2 Hours	42.75	44.35	1.6	10.5	3.5	7
10/10/2002	1 Hour	42.62	44.42	1.8	0	0	0
12/11/2002	3 Hours	42.24	44.04	1.8	0	0	0
12/12/2002	3 Hours	42.24	44.04	1.8	15.4	7.07	8.33
12/26/2002	1 Hour	43.75	44.15	0.4	0	0	0
12/27/2002	3 Hours	43.75	44.15	0.4	1.75	0.84	0.91
Total Hours 31.5 Hours		Total fluid recovered from well.			47.95		
The total of gallons of oil, and water recovered off of well.						21.91	26.04
					Total gallons		47.95

**Rice Operating Company
Line N-6 Monitor Well Report
Sections 5 & 6, T19S, R38E
Lea County, New Mexico**

June 30, 2002



Prepared for:

**Rice Operating Company
122 W. Taylor
Hobbs, New Mexico 88240**

By:

**Safety & Environmental Solutions, Inc.
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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection of the seven (7) ground water monitor wells and one (1) inactive water well at the Line N - 6 leak site (See Vicinity Map). The subject area is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The wells vary in casing size from 2" to 5".

II. Work Performed

SESI's environmental technician arrived at the site on June 17, 2002. Ground water samples were taken from each well after either hand bailing or a submersible pump purged the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was pumped into a tank and transported to a Rice Operating disposal line located off-site. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses requested by Rice Operating Company included Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) and Major Cations and Anions. (See Analytical Data) As in previous quarters, Monitor Well #1 had free product in it and was not sampled for testing.

In addition to the sampling, SESI also measured the depth to the top of ground water using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. A summary of this data follows:

ID	DATE	CASING ELEVATION (ft.)	DEPTH TO WATER (ft.)	POTENTIO- METRIC ELEVATION (ft.)	TOTAL WELL DEPTH (ft.)	FREE PRODUCT THICKNESS (ft.)
IWW	06/17/02	98.10	40.25	57.85	98.35	0.00
MW - 1	06/17/02	100.00	--	--	--	--
MW - 2	06/17/02	97.92	40.02	57.90	51.85	0.00
MW - 3	06/17/02	97.61	40.49	57.12	155.00	0.00
MW - 4	06/17/02	100.37	42.26	58.11	58.05	0.00
MW - 5	06/17/02	96.21	38.48	57.73	50.99	0.00
MW - 6	06/17/02	98.56	40.50	58.06	56.00	0.00
MW - 7	06/17/02	98.47	40.64	57.83	46.83	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
IWW	0.005	<0.002	<0.002	<0.006
MW-2	0.003	<0.002	<0.002	<0.006
MW-3	0.645	<0.002	<0.002	<0.006
MW-4	<0.002	<0.002	<0.002	<0.006
MW-5	0.002	<0.002	<0.002	<0.006
MW-6	<0.002	<0.002	<0.002	<0.006
MW-7	<0.002	<0.002	<0.002	<0.006

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
IWW	61	66	22	4.17	799	240
MW-2	61	76	25	4.09	787	253
MW-3	3,872	724	1,296	99.5	25,382	346
MW-4	67	87	26	4.08	1,000	182
MW-5	18	73	39	3.00	721	240
MW-6	17	72	44	4.64	761	222
MW-7	152	80	27	5.20	1,288	253

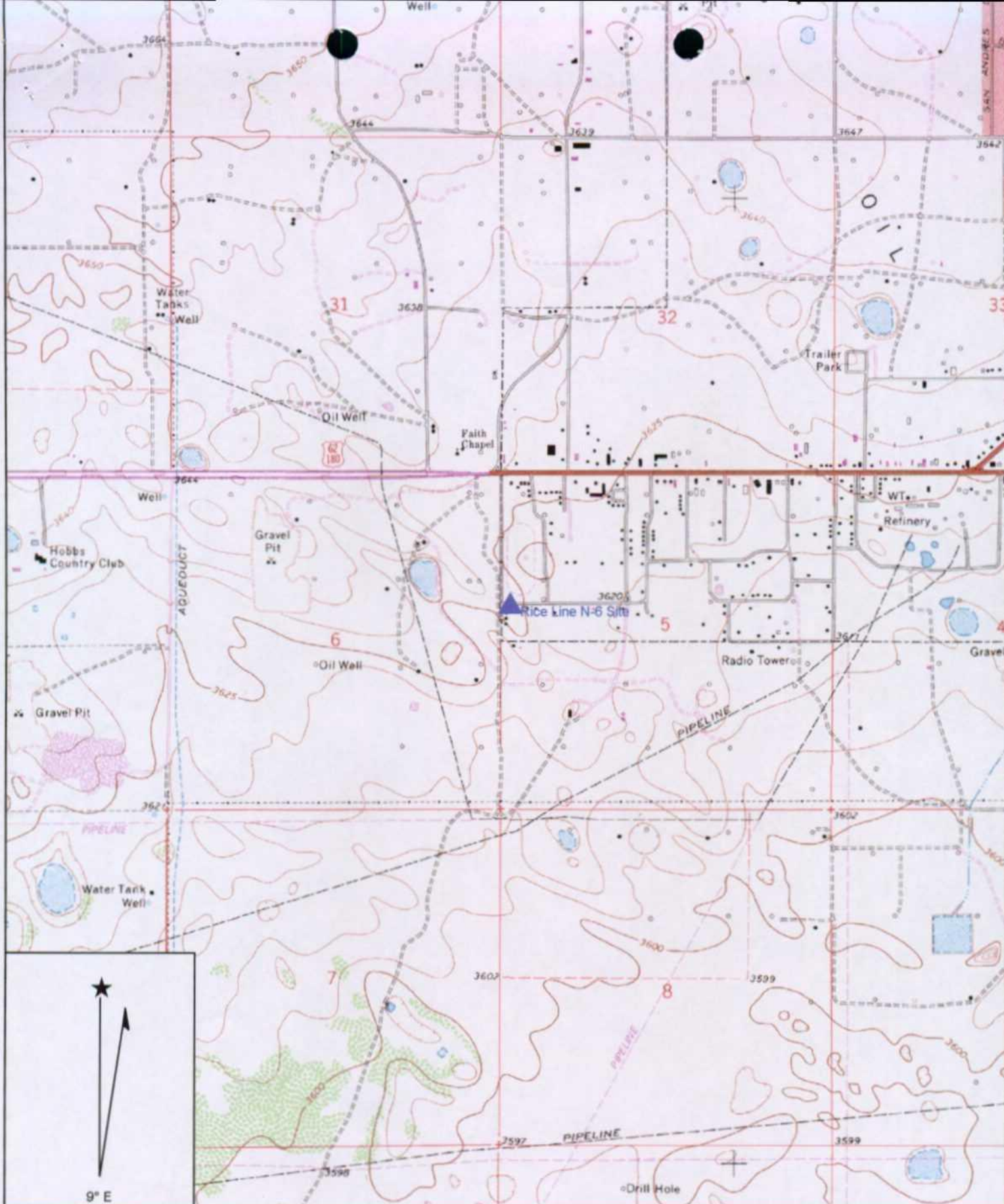
SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
IWW	56	72	0	293	7.79	486
MW-2	64	84	0	309	7.61	552
MW-3	10,097	1,076	0	423	6.83	18,360
MW-4	148	82	0	222	7.40	699
MW-5	52	70	0	293	7.52	489
MW-6	76	71	0	271	7.44	528
MW-7	220	81	0	309	7.42	871

* Red exceeds NM WQCC Groundwater Standards (See Appendix A)

IV. Maps and Appendices

Vicinity Map
Potentiometric Map
Cumulative Well Water Quality Data
Analytical Results
Water Analysis Validation

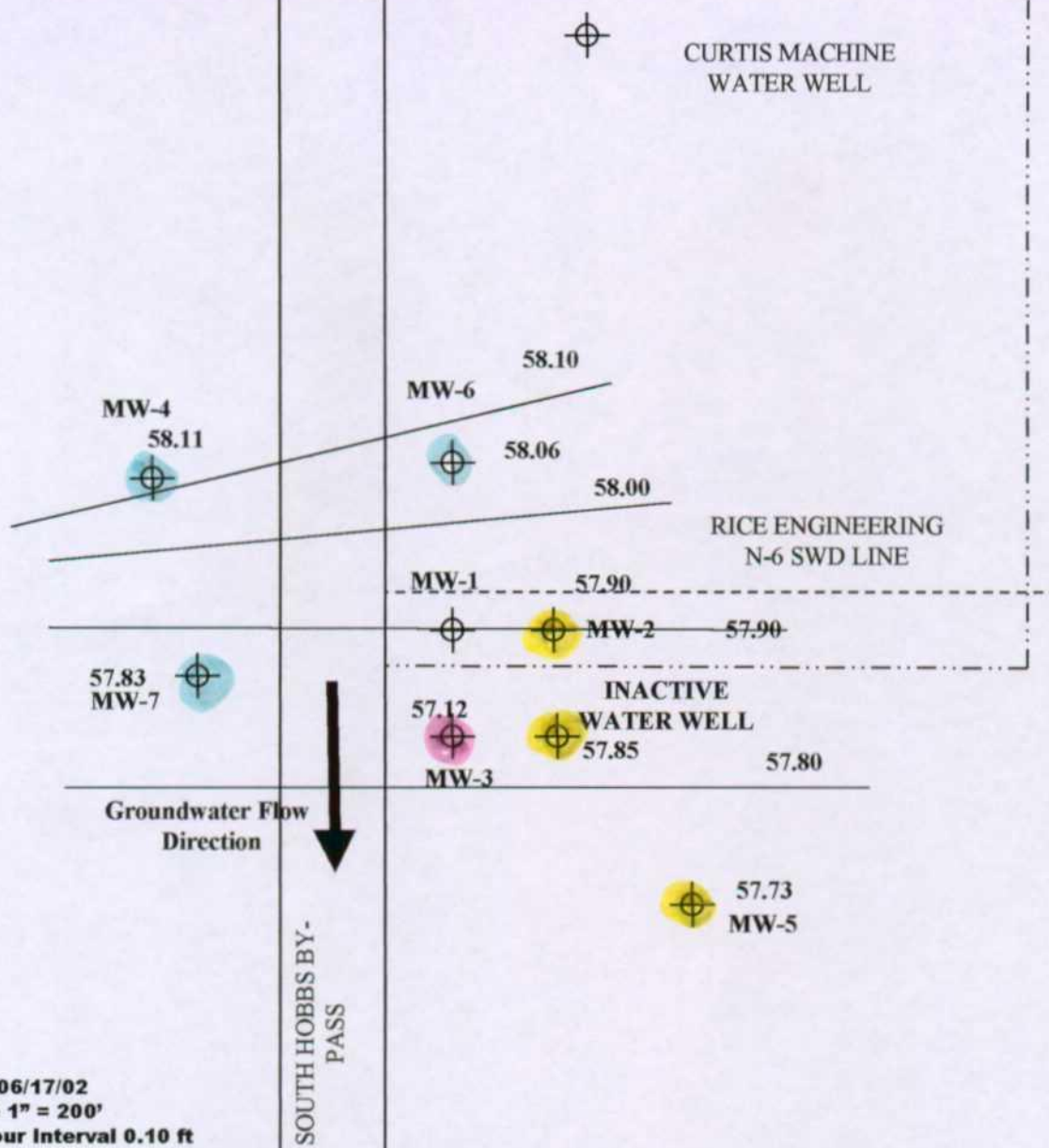
Figure 1
Vicinity Map



Name: HOBBS WEST
 Date: 1/9/2002
 Scale: 1 inch equals 2000 feet

Location: 032° 41' 27.1" N 103° 10' 42.5" W
 Caption: Rice Operating Company
 Line N-6 Monitor Wells
 Sections 5, 6, T19S, R38E

**Figure 2
Potentiometric Map**



Notes: MW - 1 Contains hydrocarbon product; water level not used in drawing map contours
MW - 3 Completed in deeper aquifer zone; water level not used in drawing map contours
Elevations relative to top of casing datum of 100 ft. at MW -1

GRAY HOUSE WATER WELL



Rice Operating Company
Potentiometric Map

Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico

Safety & Environmental
Solutions, Inc.

Appendix A
Cumulative Well Water Quality Data

Cumulative Data on Line N-6 (West County Road) Monitor Wells

Monitor Well #1

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)
Sodium	N/A	728	*
Calcium	N/A	48	*
Magnesium	N/A	79	*
Potassium	N/A	37	*
Conductivity	N/A	4,710	*
T-Alkalinity	N/A	200	*
Chlorides	250	1,286	*
Sulfate (SO ₄)	600	61	*
Carbonate (CO ₃)	N/A	0	*
HCO ₃	N/A	244	*
TDS	1,000	1,820	*
pH	> 6 & <9	8.12	*
Benzene	0.01	2.85	*
Toluene	0.75	1.33	*
Ethyl Benzene	0.75	2.52	*
Total Xylenes	0.62	2.55	*

*Free product in well on 6/28/99 and subsequent test dates – no water samples obtained.

Monitor Well #2

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	20	7	31	63
Calcium	N/A	62	75	72	58
Magnesium	N/A	29	27	21	13
Potassium	N/A	3.62	3.41	3.01	4.4
Conductivity	N/A	718	670	682	663
T-Alkalinity	N/A	184	188	188	204
Chlorides	250	40	44	45	41
Sulfate (SO ₄)	600	80	66	83.01	77.6
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	224	229	229	249
TDS	1,000	464	426	528	596
pH	> 6 & <9	7.82	7.37	7.59	7.76
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	229	24	160	62
Calcium	N/A	88	92	75	98
Magnesium	N/A	25	23	15	23
Potassium	N/A	2.5	1.7	1.85	4.31
Conductivity	N/A	852	802	908	1029
T-Alkalinity	N/A	200	204	267	254
Chlorides	250	38	79	171	120
Sulfate (SO ₄)	600	94	87	112	54
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	244	249	325	310
TDS	1,000	574	614	624	557
pH	> 6 & <9	7.25	7.39	7.26	7.23
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	68	139	40	68
Calcium	N/A	85	80.4	106	120
Magnesium	N/A	20	21.3	23	18
Potassium	N/A	2.7	3.2	2.98	4.41
Conductivity	N/A	757	769	746	859
T-Alkalinity	N/A	234	243	239	252
Chlorides	250	68	77	60	72
Sulfate (SO ₄)	600	127	57.9	85	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	286	297	291	324
TDS	1,000	480	592	513	511
PH	> 6 & <9	6.78	7.26	7.19	7.42
Benzene	0.01	0.007	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/4/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	24	61
Calcium	N/A	90	76
Magnesium	N/A	23	25
Potassium	N/A	2.77	4.09
Conductivity	N/A	789	787
T-Alkalinity	N/A	231	253
Chlorides	250	56	64
Sulfate (SO ₄)	600	63	84
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	282	309
TDS	1,000	502	552
pH	> 6 & <9	7.01	7.61
Benzene	0.01	<0.002	0.003
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Monitor Well #3

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	6,251	4,531	4,614	6,074
Calcium	N/A	928	916	1,120	138
Magnesium	N/A	388	301	243	29
Potassium	N/A	68	56.3	52.19	34.9
Conductivity	N/A	37,800	21,500	1,856	23,900
T-Alkalinity	N/A	340	272	236	300
Chlorides	250	11,770	8,567	8,922	9,093
Sulfate (SO ₄)	600	640	1,067	1,052	581
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	415	332	288	366
TDS	1,000	20,470	15,660	17,730	18,120
pH	> 6 & <9	6.87	6.62	6.86	7.12
Benzene	0.01	0.953	0.673	0.715	0.761
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.004	<0.002	<0.002	0.003
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	6,450	24	3,188	6,179
Calcium	N/A	802	92	444	1,042
Magnesium	N/A	486	23	121	379
Potassium	N/A	42.9	1.7	21.4	103
Conductivity	N/A	26,325	802	15,585	27,840
T-Alkalinity	N/A	284	204	258	340
Chlorides	250	9,680	8,361	5,439	11,904
Sulfate (SO ₄)	600	1,180	1,090	640	598
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	346	346	315	415
TDS	1,000	19,000	19,344	10,510	16,730
PH	> 6 & <9	6.65	7.17	6.85	6.80
Benzene	0.01	0.724	0.392	0.313	0.215
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.003	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.002

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	6,056	5,180	4,040	4,803
Calcium	N/A	984	552	1,152	1,202
Magnesium	N/A	358	199	425	450
Potassium	N/A	47.9	84.6	67.8	118
Conductivity	N/A	25264	23650	26700	28242
T-Alkalinity	N/A	354	411	354	376
Chlorides	250	11,100	8,646	9,597	9,697
Sulfate (SO ₄)	600	1,105	82.6	699	1,359
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	431	501	431	458
PH	1,000	6.78	6.79	6.70	6.92
TDS	> 6 & <9	19,430	18,440	19,600	18,956
Benzene	0.01	1.03	0.111	0.693	0.683
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/4/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	4441	3872
Calcium	N/A	962	724
Magnesium	N/A	462	1296
Potassium	N/A	81.3	99.5
Conductivity	N/A	27301	25382
T-Alkalinity	N/A	337	346
Chlorides	250	9197	10097
Sulfate (SO ₄)	600	742	1076
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	412	423
TDS	1,000	17090	18360
pH	> 6 & <9	6.59	6.83
Benzene	0.01	0.405	0.645
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Monitor Well #4

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	44	46	61	191
Calcium	N/A	142	142	138	113
Magnesium	N/A	51	49	50	26
Potassium	N/A	5.44	5.82	4.87	5.3
Conductivity	N/A	1,536	1,500	1,436	1,499
T-Alkalinity	N/A	168	180	176	204
Chlorides	250	297	279	300	372
Sulfate (SO ₄)	600	78	88	87.56	79.3
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	205	220	215	249
TDS	1,000	1,088	1,080	1,187	1,260
PH	> 6 & <9	7.65	7.18	7.38	7.55
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	287	84	175	97
Calcium	N/A	173	183	118	137
Magnesium	N/A	40	41	23	29
Potassium	N/A	3.7	3.0	4.02	3.68
Conductivity	N/A	1,879	1,821	1,602	1,523
T-Alkalinity	N/A	239	204	258	230
Chlorides	250	376	387	311	277
Sulfate (SO ₄)	600	88	87	129	55
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	249	315	280
TDS	1,000	1,400	1,707	1,149	889
PH	> 6 & <9	7.19	7.36	7.21	7.43
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	140	245	117	87
Calcium	N/A	110	102	130	130
Magnesium	N/A	18	30.1	30	29
Potassium	N/A	2.99	3.7	3.68	5.89
Conductivity	N/A	1,168	1,180	1,163	1,170
T-Alkalinity	N/A	221	234	212	208
Chlorides	250	192	215	184	176
Sulfate (SO ₄)	600	145	69.6	86	178
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	286	259	253
TDS	1,000	792	892	787	742
pH	> 6 & <9	7.31	7.34	7.27	7.52
Benzene	0.01	0.004	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	72	67
Calcium	N/A	103	87
Magnesium	N/A	22	26
Potassium	N/A	4.56	4.08
Conductivity	N/A	1090	1000
T-Alkalinity	N/A	213	182
Chlorides	250	152	148
Sulfate (SO ₄)	600	79	82
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	260	222
TDS	1,000	631	699
pH	> 6 & <9	7.20	7.40
Benzene	0.01	0.003	<0.002
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Monitor Well #5

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	7	26	33	54
Calcium	N/A	75	85	83	67
Magnesium	N/A	33	23	21	22
Potassium	N/A	3.01	2.71	2.92	4.9
Conductivity	N/A	770	763	718	693
T-Alkalinity	N/A	196	208	208	228
Chlorides	250	40	44	49	45
Sulfate (SO ₄)	600	87	93	88.59	84.4
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	254	254	278
TDS	1,000	491	449	484	596
PH	> 6 & <9	7.78	7.63	7.75	7.75
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	108	12	130	25
Calcium	N/A	85	92	76	82
Magnesium	N/A	23	19	11	24
Potassium	N/A	2.4	1.2	1.71	2.19
Conductivity	N/A	800	748	839	776
T-Alkalinity	N/A	259	208	271	234
Chlorides	250	49	53	54	54
Sulfate (SO ₄)	600	97	87	148	50
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	259	204	330	285
TDS	1,000	474	559	527	456
pH	> 6 & <9	7.49	7.78	7.59	7.70
Benzene	0.01	<0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	85	231	41	45
Calcium	N/A	88	80.4	110	112
Magnesium	N/A	15	19.5	27	19
Potassium	N/A	1.78	2.2	3.46	4.20
Conductivity	N/A	726	684	771	774
T-Alkalinity	N/A	243	257	252	243
Chlorides	250	52	54	52	52
Sulfate (SO ₄)	600	136	56.4	88	138
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	297	313	307	297
TDS	1,000	515	514	510	478
PH	> 6 & <9	7.51	7.40	7.38	7.74
Benzene	0.01	<0.002	<0.002	0.004	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	49	18
Calcium	N/A	88	73
Magnesium	N/A	9	39
Potassium	N/A	3.35	3.00
Conductivity	N/A	773	721
T-Alkalinity	N/A	231	240
Chlorides	250	48	52
Sulfate (SO ₄)	600	66	70
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	282	293
TDS	1,000	442	489
pH	> 6 & <9	7.29	7.52
Benzene	0.01	<0.002	0.002
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Monitor Well #6

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	21	25	18	39
Calcium	N/A	59	66	69	56
Magnesium	N/A	24	23	25	22
Potassium	N/A	3.18	2.86	3.22	3.8
Conductivity	N/A	663	644	643	586
T-Alkalinity	N/A	192	196	208	216
Chlorides	250	20	28	24	24
Sulfate (SO ₄)	600	74	78	74.32	68.2
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	234	239	254	264
TDS	1,000	436	378	428	576
PH	> 6 & <9	7.84	7.43	7.33	7.59
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	197	12	100	27
Calcium	N/A	71	75	58	75
Magnesium	N/A	20	22	11	19
Potassium	N/A	1.9	1.7	2.32	2.15
Conductivity	N/A	686	662	681	710
T-Alkalinity	N/A	254	212	250	217
Chlorides	250	45	34	35	46
Sulfate (SO ₄)	600	82	77	91	44
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	254	259	305	265
TDS	1,000	438	500	443	381
PH	> 6 & <9	7.32	7.62	7.35	7.51
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	0.003	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	48	264	25	51
Calcium	N/A	79	74.5	96	96
Magnesium	N/A	13	17.7	23	27
Potassium	N/A	2.26	2.3	2.57	1.56
Conductivity	N/A	655	656	686	717
T-Alkalinity	N/A	221	243	225	234
Chlorides	250	48	54	44	48
Sulfate (SO ₄)	600	73.1	46.3	62	156
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	297	275	286
TDS	1,000	456	491	444	492
pH	> 6 & <9	7.33	7.21	7.25	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	35	17
Calcium	N/A	83	72
Magnesium	N/A	11	44
Potassium	N/A	3.52	4.64
Conductivity	N/A	713	761
T-Alkalinity	N/A	213	222
Chlorides	250	48	76
Sulfate (SO ₄)	600	50	71
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	260	271
TDS	1,000	443	528
pH	> 6 & <9	7.19	7.44
Benzene	0.01	<0.002	<0.002
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Monitor Well #7

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	79	122	140	233
Calcium	N/A	120	126	118	73
Magnesium	N/A	57	33	32	9.3
Potassium	N/A	6.55	5.00	5.21	4.4
Conductivity	N/A	1,663	1,568	1,535	1,401
T-Alkalinity	N/A	252	248	260	264
Chlorides	250	245	255	255	258
Sulfate (SO ₄)	600	114	111	113.11	101
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	303	317	322
TDS	1,000	1,000	938	1,685	996
pH	> 6 & <9	7.57	7.23	7.42	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	220	122	371	134
Calcium	N/A	131	143	46	112
Magnesium	N/A	35	33	13	26
Potassium	N/A	3.9	3.1	3.79	3.01
Conductivity	N/A	1,694	1,633	1,657	1,499
T-Alkalinity	N/A	307	276	414	267
Chlorides	250	258	271	260	224
Sulfate (SO ₄)	600	118	109	123	96
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	337	505	325
TDS	1,000	1,022	1,130	978	826
pH	> 6 & <9	7.18	7.48	7.77	7.45pm
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #7 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	155	291	84	126
Calcium	N/A	102	86.2	112	114
Magnesium	N/A	18	20.4	32	27
Potassium	N/A	3.61	4.8	5.80	4.16
Conductivity	N/A	1,190	1,201	1,255	1,317
T-Alkalinity	N/A	265	265	243	243
Chlorides	250	188	192	196	196
Sulfate (SO ₄)	600	141	87.4	97	150
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	324	323	297	297
TDS	1,000	801	835	758	749
pH	> 6 & <9	7.44	7.37	7.21	7.48
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	125	152
Calcium	N/A	96	80
Magnesium	N/A	20	27
Potassium	N/A	6.92	5.20
Conductivity	N/A	1341	1288
T-Alkalinity	N/A	231	253
Chlorides	250	212	220
Sulfate (SO ₄)	600	70	81
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	282	309
TDS	1,000	775	871
pH	> 6 & <9	7.21	7.42
Benzene	0.01	<0.002	<0.002
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	930	1,149	104	345
Calcium	N/A	80	116	74	54
Magnesium	N/A	316	79	21	26
Potassium	N/A	17	14.94	5.44	10.1
Conductivity	N/A	7,790	5,690	1,028	1,990
T-Alkalinity	N/A	160	208	184	212
Chlorides	250	2,275	1,893	166	505
Sulfate (SO ₄)	600	173	248	84.31	78.1
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	195	254	224	259
TDS	1,000	3,310	2,780	626	1,260
pH	> 6 & <9	6.97	7.23	7.61	7.78
Benzene	0.01	0.063	0.013	<0.002	0.004
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	472	135	140	81
Calcium	N/A	69	78	58	73
Magnesium	N/A	27	21	12	16
Potassium	N/A	5.7	3.8	2.29	4.15
Conductivity	N/A	1,309	1,156	767	900
T-Alkalinity	N/A	216	220	267	242
Chlorides	250	244	182	82	95
Sulfate (SO ₄)	600	94	85	94	52
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	264	268	325	295
TDS	1,000	682	751	435	527
pH	> 6 & <9	7.44	7.54	7.60	7.49
Benzene	0.01	0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	90	233	80	79
Calcium	N/A	76	58.4	90	92
Magnesium	N/A	16	22.1	21	28
Potassium	N/A	4.31	6.7	6.22	6.00
Conductivity	N/A	705	1,397	881	862
T-Alkalinity	N/A	252	252	243	265
Chlorides	250	56	265	100	72
Sulfate (SO ₄)	600	113	47.6	76	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	307	297	324
TDS	1,000	485	876	509	502
pH	> 6 & <9	7.33	7.38	7.31	7.72
Benzene	0.01	<0.002	0.00221	0.003	0.003
Toluene	0.75	<0.002	0.00304	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	0.00486	<0.002	<0.002
Total Xylenes	0.62	<0.006	0.00149	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)	TEST DATE 6/17/02 (mg/L)
Sodium	N/A	58	61
Calcium	N/A	79	66
Magnesium	N/A	16	22
Potassium	N/A	3.88	4.17
Conductivity	N/A	792	799
T-Alkalinity	N/A	262	240
Chlorides	250	60	56
Sulfate (SO ₄)	600	45	72
Carbonate (CO ₃)	N/A	0	0
HCO ₃	N/A	320	293
TDS	1,000	431	486
pH	> 6 & <9	7.12	7.79
Benzene	0.01	0.002	0.005
Toluene	0.75	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006

Appendix B
Analytical Results



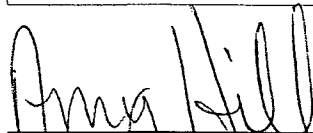
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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.ATTN: BOB ALLEN
703 E. CLINTON, STE 103
HOBBS, NM 88240Receiving Date: 06/17/02
Reporting Date: 06/18/02
Project Number: NOT GIVEN
Project Name: RICE N LINE 6
Project Location: WEST COUNTY ROADSampling Date: 06/17/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		06/18/02	06/17/02	06/17/02	06/17/02	06/17/02	06/17/02
H6806-1	VW	61	66	22	4.17	799	240
H6806-2	MW #2	61	76	25	4.09	787	253
H6806-3	MW #3	3872	724	1296	99.5	25382	346
H6806-4	MW #4	67	87	26	4.08	1000	182
H6806-5	MW #5	18	73	39	3.00	721	240
H6806-6	MW #6	17	72	44	4.64	761	222
H6806-7	MW #7	152	80	27	5.20	1288	253
Quality Control		NR	48.3	50.2	5.10	1451	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	96.5	100	102	103	NR
Relative Percent Difference		NR	0	0	0.6	0.1	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		06/17/02	06/17/02	06/17/02	06/17/02	06/17/02	06/18/02
H6806-1	VW	56	72	0	293	7.79	486
H6806-2	MW #2	64	84	0	309	7.61	552
H6806-3	MW #3	10097	1076	0	423	6.83	18360
H6806-4	MW #4	148	82	0	222	7.40	699
H6806-5	MW #5	52	70	0	293	7.52	489
H6806-6	MW #6	76	71	0	271	7.44	528
H6806-7	MW #7	220	81	0	309	7.42	871
Quality Control		1020	49.2	NR	880	6.97	NR
True Value QC		1000	50.0	NR	1000	7.00	NR
% Recovery		102	98.4	NR	88	99.6	NR
Relative Percent Difference		4.0	6.2	NR	6.8	0.1	8.8
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1


Chemist6-18-02
Date

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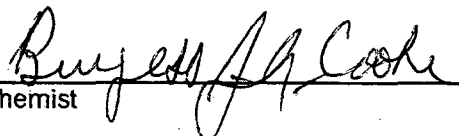
ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 06/17/02
Reporting Date: 06/18/02
Project Number: NOT GIVEN
Project Name: RICE N-LINE 6
Project Location: WEST COUNTY ROAD

Sampling Date: 06/17/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		06/17/02	06/17/02	06/17/02	06/17/02
H6806-1	VVV	0.005	<0.002	<0.002	<0.006
H6806-2	MW #2	0.003	<0.002	<0.002	<0.006
H6806-3	MW #3	0.645	<0.002	<0.002	<0.006
H6806-4	MW #4	<0.002	<0.002	<0.002	<0.006
H6806-5	MW #5	0.002	<0.002	<0.002	<0.006
H6806-6	MW #6	<0.002	<0.002	<0.002	<0.006
H6806-7	MW #7	<0.002	<0.002	<0.002	<0.006
Quality Control		0.097	0.101	0.104	0.301
True Value QC		0.100	0.100	0.100	0.300
% Recovery		97.4	101	104	100
Relative Percent Difference		<0.1	<0.1	1.5	<0.1

METHOD: EPA SW-846 8260


Chemist

6/18/02
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. On no basis shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

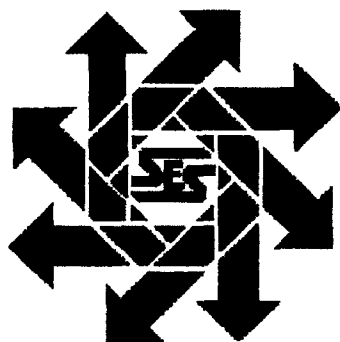
† Cardinal cannot accept verbal changes. Please fax written changes to (916) 673-7020.

**Appendix C
Water Analysis Validation**

Cations and Anions Calculation Check								
	Sample Name	H6806-1	H6806-2	H6806-3	H6806-4	H6806-5	H6806-6	H6806-7
	Well Number	IWW	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Date	06/17/02	06/17/02	06/17/02	06/17/02	06/17/02	06/17/02	06/17/02
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	61	61	3,872	67	18	17	152
20.04	Calcium (mg/L)	66	76	724	87	73	72	80
12.15	Magnesium (mg/L)	22	25	1,296	26	39	44	27
39.09	Potassium (mg/L)	4.2	4.1	99.5	4.1	3.0	4.6	5.2
35.45	Chloride (mg/L)	56	64	10,097	148	52	76	220
48.04	Sulfate (mg/L)	72	84	1,076	82	70	71	81
30.00	Carbonate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.01	Bicarbonate (mg/L)	293	309	423	222	293	271	309
50.04	Alkalinity (mg/L CaCO ₃)	240	253	346	182	240	222	253
62.00	Nitrate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Elect. Conductivity (umhos/cm)	799	787	25,382	1,000	721	761	1,288
	Measured TDS (evap., mg/L)	486	552	18,360	699	489	528	871
	Sum Cations (meq/L)	7.9	8.6	313.8	9.5	7.7	8.1	13.0
	Sum Anions (meq/L)	7.9	8.6	314.1	9.5	7.7	8.1	12.9
1.	Percent Difference	0.1	0.0	0.1	0.1	0.1	-0.1	0.0
	TDS (calc. USGS sum, mg/L)	425	466	17,372	523	399	418	717
2.	TDS (meas.) / TDS (calc. USGS)	1.1	1.2	1.1	1.3	1.2	1.3	1.2
	TDS (calc. sum, mg/L)	574	623	17,588	636	548	556	874
	TDS (C*0.7, mg/L)	559	551	17,767	700	505	533	902
3.	TDS (calc. USGS) / Conductivity	0.53	0.59	0.68	0.52	0.55	0.55	0.56
Test Criteria								
1. Anion-Cation Balance:			Anion Sum	Max % diff.				
			0 - 3.0	± 0.2				
			3.0 - 10.0	± 2				
			10.0 - 800	± 5				
2. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2					
3. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7					

**Rice Operating Company
Line N-6 Monitor Well Report
Sections 5 & 6, T19S, R38E
Lea County, New Mexico**

April 4, 2002



Prepared for:

**Rice Operating Company
122 W. Taylor
Hobbs, New Mexico 88240**

By:

**Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
(505) 397-0510**

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II. Work Performed	2
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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection of the seven (7) ground water monitor wells and one (1) inactive water well at the Line N - 6 leak site (See Vicinity Map). The subject area is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The wells vary in casing size from 2" to 5".

II. Work Performed

SESI's environmental technician arrived at the site on March 4, 2002. Ground water samples were taken from each well after either hand bailing or a submersible pump purged the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was pumped into the Rice Operating disposal line located on-site. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses requested by Rice Operating Company included Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) and Major Cations and Anions. (See Analytical Data) As in previous quarters, Monitor Well #1 had free product in it and was not sampled for testing.

In addition to the sampling, SESI also measured the depth to the top of ground water using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. A summary of this data follows:

ID	DATE	CASING ELEVATION (ft.)	DEPTH TO WATER (ft.)	POTENTIO- METRIC ELEVATION (ft.)	TOTAL WELL DEPTH (ft.)	FREE PRODUCT THICKNESS (ft.)
IWW	04/04/02	98.10	40.09	58.01	98.35	0.00
MW - 1	04/04/02	100.00	--	--	--	--
MW - 2	04/04/02	97.92	39.84	58.08	51.85	0.00
MW - 3	04/04/02	97.61	41.34	56.27	155.00	0.00
MW - 4	04/04/02	100.37	42.10	58.27	58.05	0.00
MW - 5	04/04/02	96.21	38.31	57.90	50.99	0.00
MW - 6	04/04/02	98.56	40.32	58.24	56.00	0.00
MW - 7	04/04/02	98.47	40.47	58.00	46.83	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
IWW	0.002	<0.002	<0.002	<0.006
MW-2	<0.002	<0.002	<0.002	<0.006
MW-3	0.405	<0.002	<0.002	<0.006
MW-4	0.003	<0.002	<0.002	<0.006
MW-5	<0.002	<0.002	<0.002	<0.006
MW-6	<0.002	<0.002	<0.002	<0.006
MW-7	<0.002	<0.002	<0.002	<0.006

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
IWW	58	79	16	3.88	792	262
MW-2	24	90	23	2.77	789	231
MW-3	4441	962	462	81.3	27301	337
MW-4	72	103	22	4.56	1090	213
MW-5	49	88	9	3.35	773	231
MW-6	35	83	11	3.52	713	213
MW-7	125	96	20	6.92	1341	231

SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
IWW	60	45	0	320	7.12	431
MW-2	56	63	0	282	7.01	502
MW-3	9197	742	0	412	6.59	17090
MW-4	152	79	0	260	7.20	631
MW-5	48	66	0	282	7.29	442
MW-6	48	50	0	260	7.19	443
MW-7	212	70	0	282	7.21	775

* Red exceeds NM WQCC Groundwater Standards (See Appendix A)

IV. Maps and Appendices

Vicinity Map
Potentiometric Map
Cumulative Well Water Quality Data
Analytical Results
Water Analysis Validation

Line N-6 Monitor Well Report
April 4, 2002

Rice Operating Company
Lea County, New Mexico

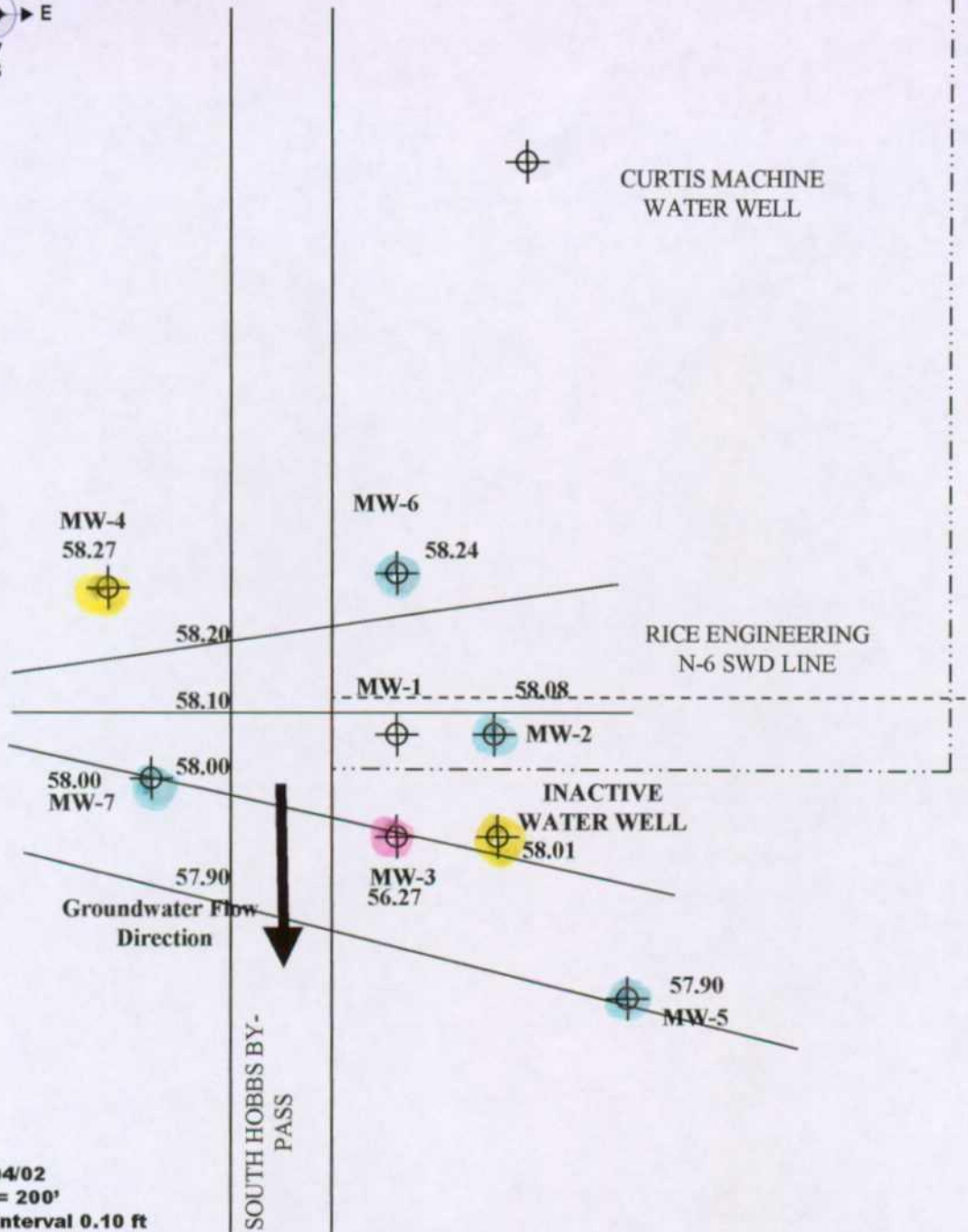
Figure 1
Vicinity Map

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**Line N-6 Monitor Well Report
April 4, 2002**

**Rice Operating Company
Lea County, New Mexico**

**Figure 2
Potentiometric Map**



Date 04/04/02
Scale 1" = 200'
Contour Interval 0.10 ft

Notes: MW - 1 Contains hydrocarbon product; water level not used in drawing map contours
MW - 3 Completed in deeper aquifer zone; water level not used in drawing map contours
Elevations relative to top of casing datum of 100 ft. at MW -1

GRAY HOUSE WATER WELL

Rice Operating Company
Potentiometric Map

Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico

Safety & Environmental
Solutions, Inc.



Line N-6 Monitor Well Report
April 4, 2002

Rice Operating Company
Lea County, New Mexico

Appendix A
Cumulative Well Water Quality Data

Cumulative Data on Line N-6 (West County Road) Monitor Wells

Monitor Well #1

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)
Sodium	N/A	728	*
Calcium	N/A	48	*
Magnesium	N/A	79	*
Potassium	N/A	37	*
Conductivity	N/A	4,710	*
T-Alkalinity	N/A	200	*
Chlorides	250	1,286	*
Sulfate (SO ₄)	600	61	*
Carbonate (CO ₃)	N/A	0	*
HCO ₃	N/A	244	*
TDS	1,000	1,820	*
pH	> 6 & <9	8.12	*
Benzene	0.01	2.85	*
Toluene	0.75	1.33	*
Ethyl Benzene	0.75	2.52	*
Total Xylenes	0.62	2.55	*

*Free product in well on 6/28/99 and subsequent test dates – no water samples obtained.

Monitor Well #2

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	20	7	31	63
Calcium	N/A	62	75	72	58
Magnesium	N/A	29	27	21	13
Potassium	N/A	3.62	3.41	3.01	4.4
Conductivity	N/A	718	670	682	663
T-Alkalinity	N/A	184	188	188	204
Chlorides	250	40	44	45	41
Sulfate (SO ₄)	600	80	66	83.01	77.6
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	224	229	229	249
TDS	1,000	464	426	528	596
pH	> 6 & <9	7.82	7.37	7.59	7.76
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	229	24	160	62
Calcium	N/A	88	92	75	98
Magnesium	N/A	25	23	15	23
Potassium	N/A	2.5	1.7	1.85	4.31
Conductivity	N/A	852	802	908	1029
T-Alkalinity	N/A	200	204	267	254
Chlorides	250	38	79	171	120
Sulfate (SO ₄)	600	94	87	112	54
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	244	249	325	310
TDS	1,000	574	614	624	557
pH	> 6 & <9	7.25	7.39	7.26	7.23
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	68	139	40	68
Calcium	N/A	85	80.4	106	120
Magnesium	N/A	20	21.3	23	18
Potassium	N/A	2.7	3.2	2.98	4.41
Conductivity	N/A	757	769	746	859
T-Alkalinity	N/A	234	243	239	252
Chlorides	250	68	77	60	72
Sulfate (SO ₄)	600	127	57.9	85	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	286	297	291	324
TDS	1,000	480	592	513	511
PH	> 6 & <9	6.78	7.26	7.19	7.42
Benzene	0.01	0.007	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/4/02 (mg/L)
Sodium	N/A	24
Calcium	N/A	90
Magnesium	N/A	23
Potassium	N/A	2.77
Conductivity	N/A	789
T-Alkalinity	N/A	231
Chlorides	250	56
Sulfate (SO ₄)	600	63
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	282
TDS	1,000	502
pH	> 6 & <9	7.01
Benzene	0.01	<0.002
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.002

Monitor Well #3

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	6,251	4,531	4,614	6,074
Calcium	N/A	928	916	1,120	138
Magnesium	N/A	388	301	243	29
Potassium	N/A	68	56.3	52.19	34.9
Conductivity	N/A	37,800	21,500	1,856	23,900
T-Alkalinity	N/A	340	272	236	300
Chlorides	250	11,770	8,567	8,922	9,093
Sulfate (SO ₄)	600	640	1,067	1,052	581
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	415	332	288	366
TDS	1,000	20,470	15,660	17,730	18,120
pH	> 6 & <9	6.87	6.62	6.86	7.12
Benzene	0.01	0.953	0.673	0.715	0.761
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.004	<0.002	<0.002	0.003
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	6,450	24	3,188	6,179
Calcium	N/A	802	92	444	1,042
Magnesium	N/A	486	23	121	379
Potassium	N/A	42.9	1.7	21.4	103
Conductivity	N/A	26,325	802	15,585	27,840
T-Alkalinity	N/A	284	204	258	340
Chlorides	250	9,680	8,361	5,439	11,904
Sulfate (SO ₄)	600	1,180	1,090	640	598
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	346	346	315	415
TDS	1,000	19,000	19,344	10,510	16,730
PH	> 6 & <9	6.65	7.17	6.85	6.80
Benzene	0.01	0.724	0.392	0.313	0.215
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.003	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.002

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD D (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	6,056	5,180	4,040	4,803
Calcium	N/A	984	552	1,152	1,202
Magnesium	N/A	358	199	425	450
Potassium	N/A	47.9	84.6	67.8	118
Conductivity	N/A	25264	23650	26700	28242
T-Alkalinity	N/A	354	411	354	376
Chlorides	250	11,100	8,646	9,597	9,697
Sulfate (SO ₄)	600	1,105	82.6	699	1,359
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	431	501	431	458
PH	1,000	6.78	6.79	6.70	6.92
TDS	> 6 & <9	19,430	18,440	19,600	18,956
Benzene	0.01	1.03	0.111	0.693	0.683
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	4441
Calcium	N/A	962
Magnesium	N/A	462
Potassium	N/A	81.3
Conductivity	N/A	27301
T-Alkalinity	N/A	337
Chlorides	250	9197
Sulfate (SO ₄)	600	742
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	412
TDS	1,000	17090
pH	> 6 & <9	6.59
Benzene	0.01	0.405
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Monitor Well #4

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	44	46	61	191
Calcium	N/A	142	142	138	113
Magnesium	N/A	51	49	50	26
Potassium	N/A	5.44	5.82	4.87	5.3
Conductivity	N/A	1,536	1,500	1,436	1,499
T-Alkalinity	N/A	168	180	176	204
Chlorides	250	297	279	300	372
Sulfate (SO ₄)	600	78	88	87.56	79.3
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	205	220	215	249
TDS	1,000	1,088	1,080	1,187	1,260
PH	> 6 & <9	7.65	7.18	7.38	7.55
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	287	84	175	97
Calcium	N/A	173	183	118	137
Magnesium	N/A	40	41	23	29
Potassium	N/A	3.7	3.0	4.02	3.68
Conductivity	N/A	1,879	1,821	1,602	1,523
T-Alkalinity	N/A	239	204	258	230
Chlorides	250	376	387	311	277
Sulfate (SO ₄)	600	88	87	129	55
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	249	315	280
TDS	1,000	1,400	1,707	1,149	889
PH	> 6 & <9	7.19	7.36	7.21	7.43
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	140	245	117	87
Calcium	N/A	110	102	130	130
Magnesium	N/A	18	30.1	30	29
Potassium	N/A	2.99	3.7	3.68	5.89
Conductivity	N/A	1,168	1,180	1,163	1,170
T-Alkalinity	N/A	221	234	212	208
Chlorides	250	192	215	184	176
Sulfate (SO ₄)	600	145	69.6	86	178
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	286	259	253
TDS	1,000	792	892	787	742
pH	> 6 & <9	7.31	7.34	7.27	7.52
Benzene	0.01	0.004	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	72
Calcium	N/A	103
Magnesium	N/A	22
Potassium	N/A	4.56
Conductivity	N/A	1090
T-Alkalinity	N/A	213
Chlorides	250	152
Sulfate (SO ₄)	600	79
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	260
TDS	1,000	631
pH	> 6 & <9	7.20
Benzene	0.01	0.003
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Monitor Well #5

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	7	26	33	54
Calcium	N/A	75	85	83	67
Magnesium	N/A	33	23	21	22
Potassium	N/A	3.01	2.71	2.92	4.9
Conductivity	N/A	770	763	718	693
T-Alkalinity	N/A	196	208	208	228
Chlorides	250	40	44	49	45
Sulfate (SO ₄)	600	87	93	88.59	84.4
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	254	254	278
TDS	1,000	491	449	484	596
PH	> 6 & <9	7.78	7.63	7.75	7.75
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	108	12	130	25
Calcium	N/A	85	92	76	82
Magnesium	N/A	23	19	11	24
Potassium	N/A	2.4	1.2	1.71	2.19
Conductivity	N/A	800	748	839	776
T-Alkalinity	N/A	259	208	271	234
Chlorides	250	49	53	54	54
Sulfate (SO ₄)	600	97	87	148	50
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	259	204	330	285
TDS	1,000	474	559	527	456
pH	> 6 & <9	7.49	7.78	7.59	7.70
Benzene	0.01	,0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	85	231	41	45
Calcium	N/A	88	80.4	110	112
Magnesium	N/A	15	19.5	27	19
Potassium	N/A	1.78	2.2	3.46	4.20
Conductivity	N/A	726	684	771	774
T-Alkalinity	N/A	243	257	252	243
Chlorides	250	52	54	52	52
Sulfate (SO ₄)	600	136	56.4	88	138
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	297	313	307	297
TDS	1,000	515	514	510	478
PH	> 6 & <9	7.51	7.40	7.38	7.74
Benzene	0.01	<0.002	<0.002	0.004	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	49
Calcium	N/A	88
Magnesium	N/A	9
Potassium	N/A	3.35
Conductivity	N/A	773
T-Alkalinity	N/A	231
Chlorides	250	48
Sulfate (SO ₄)	600	66
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	282
TDS	1,000	442
pH	> 6 & <9	7.29
Benzene	0.01	<0.002
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Monitor Well #6

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	21	25	18	39
Calcium	N/A	59	66	69	56
Magnesium	N/A	24	23	25	22
Potassium	N/A	3.18	2.86	3.22	3.8
Conductivity	N/A	663	644	643	586
T-Alkalinity	N/A	192	196	208	216
Chlorides	250	20	28	24	24
Sulfate (SO ₄)	600	74	78	74.32	68.2
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	234	239	254	264
TDS	1,000	436	378	428	576
PH	> 6 & <9	7.84	7.43	7.33	7.59
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	197	12	100	27
Calcium	N/A	71	75	58	75
Magnesium	N/A	20	22	11	19
Potassium	N/A	1.9	1.7	2.32	2.15
Conductivity	N/A	686	662	681	710
T-Alkalinity	N/A	254	212	250	217
Chlorides	250	45	34	35	46
Sulfate (SO ₄)	600	82	77	91	44
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	254	259	305	265
TDS	1,000	438	500	443	381
PH	> 6 & <9	7.32	7.62	7.35	7.51
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	0.003	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	48	264	25	51
Calcium	N/A	79	74.5	96	96
Magnesium	N/A	13	17.7	23	27
Potassium	N/A	2.26	2.3	2.57	1.56
Conductivity	N/A	655	656	686	717
T-Alkalinity	N/A	221	243	225	234
Chlorides	250	48	54	44	48
Sulfate (SO ₄)	600	73.1	46.3	62	156
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	297	275	286
TDS	1,000	456	491	444	492
pH	> 6 & <9	7.33	7.21	7.25	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	35
Calcium	N/A	83
Magnesium	N/A	11
Potassium	N/A	3.52
Conductivity	N/A	713
T-Alkalinity	N/A	213
Chlorides	250	48
Sulfate (SO ₄)	600	50
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	260
TDS	1,000	443
pH	> 6 & <9	7.19
Benzene	0.01	<0.002
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Monitor Well #7

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	79	122	140	233
Calcium	N/A	120	126	118	73
Magnesium	N/A	57	33	32	9.3
Potassium	N/A	6.55	5.00	5.21	4.4
Conductivity	N/A	1,663	1,568	1,535	1,401
T-Alkalinity	N/A	252	248	260	264
Chlorides	250	245	255	255	258
Sulfate (SO ₄)	600	114	111	113.11	101
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	303	317	322
TDS	1,000	1,000	938	1,685	996
pH	> 6 & <9	7.57	7.23	7.42	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	220	122	371	134
Calcium	N/A	131	143	46	112
Magnesium	N/A	35	33	13	26
Potassium	N/A	3.9	3.1	3.79	3.01
Conductivity	N/A	1,694	1,633	1,657	1,499
T-Alkalinity	N/A	307	276	414	267
Chlorides	250	258	271	260	224
Sulfate (SO ₄)	600	118	109	123	96
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	337	505	325
TDS	1,000	1,022	1,130	978	826
pH	> 6 & <9	7.18	7.48	7.77	7.45pm
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #7 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	155	291	84	126
Calcium	N/A	102	86.2	112	114
Magnesium	N/A	18	20.4	32	27
Potassium	N/A	3.61	4.8	5.80	4.16
Conductivity	N/A	1,190	1,201	1,255	1,317
T-Alkalinity	N/A	265	265	243	243
Chlorides	250	188	192	196	196
Sulfate (SO ₄)	600	141	87.4	97	150
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	324	323	297	297
TDS	1,000	801	835	758	749
pH	> 6 & <9	7.44	7.37	7.21	7.48
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	125
Calcium	N/A	96
Magnesium	N/A	20
Potassium	N/A	6.92
Conductivity	N/A	1341
T-Alkalinity	N/A	231
Chlorides	250	212
Sulfate (SO ₄)	600	70
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	282
TDS	1,000	775
pH	> 6 & <9	7.21
Benzene	0.01	<0.002
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	930	1,149	104	345
Calcium	N/A	80	116	74	54
Magnesium	N/A	316	79	21	26
Potassium	N/A	17	14.94	5.44	10.1
Conductivity	N/A	7,790	5,690	1,028	1,990
T-Alkalinity	N/A	160	208	184	212
Chlorides	250	2,275	1,893	166	505
Sulfate (SO ₄)	600	173	248	84.31	78.1
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	195	254	224	259
TDS	1,000	3,310	2,780	626	1,260
pH	> 6 & <9	6.97	7.23	7.61	7.78
Benzene	0.01	0.063	0.013	<0.002	0.004
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	472	135	140	81
Calcium	N/A	69	78	58	73
Magnesium	N/A	27	21	12	16
Potassium	N/A	5.7	3.8	2.29	4.15
Conductivity	N/A	1,309	1,156	767	900
T-Alkalinity	N/A	216	220	267	242
Chlorides	250	244	182	82	95
Sulfate (SO ₄)	600	94	85	94	52
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	264	268	325	295
TDS	1,000	682	751	435	527
pH	> 6 & <9	7.44	7.54	7.60	7.49
Benzene	0.01	0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	90	233	80	79
Calcium	N/A	76	58.4	90	92
Magnesium	N/A	16	22.1	21	28
Potassium	N/A	4.31	6.7	6.22	6.00
Conductivity	N/A	705	1,397	881	862
T-Alkalinity	N/A	252	252	243	265
Chlorides	250	56	265	100	72
Sulfate (SO ₄)	600	113	47.6	76	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	307	297	324
TDS	1,000	485	876	509	502
pH	> 6 & <9	7.33	7.38	7.31	7.72
Benzene	0.01	<0.002	0.00221	0.003	0.003
Toluene	0.75	<0.002	0.00304	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	0.00486	<0.002	<0.002
Total Xylenes	0.62	<0.006	0.00149	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 4/04/02 (mg/L)
Sodium	N/A	58
Calcium	N/A	79
Magnesium	N/A	16
Potassium	N/A	3.88
Conductivity	N/A	792
T-Alkalinity	N/A	262
Chlorides	250	60
Sulfate (SO ₄)	600	45
Carbonate (CO ₃)	N/A	0
HCO ₃	N/A	320
TDS	1,000	431
pH	> 6 & <9	7.12
Benzene	0.01	0.002
Toluene	0.75	<0.002
Ethyl Benzene	0.75	<0.002
Total Xylenes	0.62	<0.006

Line N-6 Monitor Well Report
April 4, 2002

Rice Operating Company
Lea County, New Mexico

Appendix B

Analytical Results



ARDINAL LABORATORIES

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

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

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 04/04/02
Reporting Date: 04/09/02
Project Number: RIC-00-001
Project Name: WEST CO. RD.
Project Location: HOBBS, NM

Sampling Date: 04/04/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		04/09/02	04/05/02	04/05/02	04/05/02	04/05/02	04/05/02
H6650-1	WW	58	79	16	3.88	792	262
H6650-2	MW #2	24	90	23	2.77	789	231
H6650-3	MW #3	4441	962	462	81.3	27301	337
H6650-4	MW #4	72	103	22	4.56	1090	213
H6650-5	MW #5	49	88	9	3.35	773	231
H6650-6	MW #6	35	83	11	3.52	713	213
H6650-7	MW #7	125	96	20	6.92	1341	231
Quality Control		NR	55	49	5.27	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	110	97.2	105	105	NR
Relative Percent Difference		NR	0	6.0	0	0.3	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1	

		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		04/05/02	04/05/02	04/05/02	04/05/02	04/05/02	04/09/02
H6650-1	WW	60	45	0	320	7.12	431
H6650-2	MW #2	56	63	0	282	7.01	502
H6650-3	MW #3	9197	742	0	412	6.59	17090
H6650-4	MW #4	152	79	0	260	7.20	631
H6650-5	MW #5	48	66	0	282	7.29	442
H6650-6	MW #6	48	50	0	260	7.19	443
H6650-7	MW #7	212	70	0	282	7.21	775
Quality Control		1040	52.66	NR	975	6.98	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		104	105	NR	97.5	99.7	NR
Relative Percent Difference		1.0	0.6	NR	2.7	0.3	8.1
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Jimmy Hill
Chemist

4-9-02
Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H6650



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

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

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

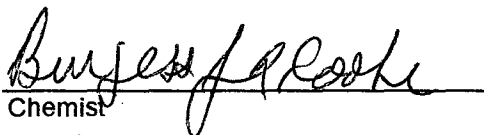
Receiving Date: 04/04/02
Reporting Date: 04/09/02
Project Number: RIC-00-001
Project Name: WEST CO. RD.
Project Location: HOBBS, NM

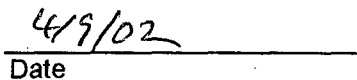
Sampling Date: 04/04/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		04/04/02	04/04/02	04/04/02	04/04/02
H6650-1	WW	0.002	<0.002	<0.002	<0.006
H6650-2	MW #2	<0.002	<0.002	<0.002	<0.006
H6650-3*	MW #3	0.405	<0.002	<0.002	<0.006
H6650-4	MW #4	0.003	<0.002	<0.002	<0.006
H6650-5	MW #5	<0.002	<0.002	<0.002	<0.006
H6650-6	MW #6	<0.002	<0.002	<0.002	<0.006
H6650-7	MW #7	<0.002	<0.002	<0.002	<0.006
Quality Control		0.104	0.102	0.103	0.296
True Value QC		0.100	0.100	0.100	0.300
% Recovery		104	102	103	98.7
Relative Percent Difference		0.9	0.3	5.1	5.3

*Final analysis on 04/08/02

METHOD: EPA SW-846 8260


Chemist


Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H6650B.XLS



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240

(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: <u>SEST</u>		Project Manager:		BILL TO PO #:		ANALYSIS REQUEST																				
Address: <u>703 E. CLINTON, #103</u>		City: <u>HOBBS</u> State: <u>NM</u> Zip: <u>88240</u>		Company: <u>SAME</u>		B-T E X Cations & Anions																				
Phone #: <u>(505) 397-0510</u>		Attn:		Address:																						
Fax #: <u>(505) 393-4388</u>		City:		State:																						
Project #: <u>REC-00-001</u> Project Owner: <u>Rice</u>		Zip:		Phone #:																						
Project Name: <u>West Co. Rd.</u>		Fax #:																								
Project Location: <u>Hobbs, NM</u>																										
FOR LAB USE ONLY						MATRIX		PRES.		SAMPLING																
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID:	ICE COOL:	OTHER:	DATE	TIME												
<u>H6650-1</u>	<u>WW</u>		<u>1</u>	☒							☒		<u>4-4-02</u>	<u>1020A</u>												
<u>-2</u>	<u>MW #2</u>		<u>3</u>	☒							☒			<u>1000P</u>												
<u>-3</u>	<u>MW #3</u>		<u>3</u>	☒							☒			<u>1000A</u>												
<u>-4</u>	<u>MW #4</u>		<u>3</u>	☒							☒			<u>1100A</u>												
<u>-5</u>	<u>MW #5</u>		<u>3</u>	☒							☒			<u>1100P</u>												
<u>-6</u>	<u>MW #6</u>		<u>3</u>	☒							☒			<u>1220P</u>												
<u>-7</u>	<u>MW #7</u>		<u>3</u>	☒							☒		<u>★</u>	<u>1200P</u>												

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:		Date: <u>4-4-02</u>	Received By:		Phone Result ☐ Yes ☐ No Additional Fax #:		
<u>Robert Husby</u>		Time: <u>1:35P</u>			Fax Result: ☐ Yes ☐ No		
Relinquished By:		Date:	Received By: (Lab Staff)		REMARKS:		
		Time:	<u>Amy Hill</u>		<u>7 CATIONS & Anions @ #135 = 945</u> <u>7 BTEX @ #60 = 420</u> <u>\$1365</u>		
Delivered By: (Circle One)		Sample Condition		CHECKED BY:			
<u>Sampler</u> - UPS - Bus - Other:		Cool Intact ☒ Yes ☐ No		(Initials)			

Line N-6 Monitor Well Report
April 4, 2002

Rice Operating Company
Lea County, New Mexico

Appendix C

Water Analysis Validation

Cations and Anions Calculation Check								
	Sample Name	H6650-1	H6650-2	H6650-3	H6650-4	H6650-5	H6650-6	H6650-7
	Well Number	IWW	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Date	04/04/02	04/04/02	04/04/02	04/04/02	04/04/02	04/04/02	04/04/02
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	58	24	4,441	72	49	35	125
20.04	Calcium (mg/L)	79	90	962	103	88	83	96
12.15	Magnesium (mg/L)	16	23	462	22	9	11	20
39.09	Potassium (mg/L)	3.9	2.8	81.3	4.6	3.4	3.5	6.9
35.45	Chloride (mg/L)	60	60	9,197	152	48	48	212
48.04	Sulfate (mg/L)	45	45	742	79	66	50	70
30.00	Carbonate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.01	Bicarbonate (mg/L)	320	320	412	260	282	260	282
50.04	Alkalinity (mg/L CaCO ₃)	262	231	337	213	231	213	231
62.00	Nitrate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Elect. Conductivity (umhos/cm)	792	789	27,301	1,090	773	713	1,341
	Measured TDS (evap., mg/L)	431	502	17,090	631	442	443	775
	Sum Cations (meq/L)	7.9	7.5	281.3	10.2	7.3	6.7	12.1
	Sum Anions (meq/L)	7.9	7.2	281.6	10.2	7.3	6.7	12.1
1.	Percent Difference	-0.1	-1.7	0.1	0.0	0.0	-0.1	0.0
	TDS (calc. USGS sum, mg/L)	419	383	16,088	560	402	358	669
2.	TDS (meas.) / TDS (calc. USGS)	1.0	1.3	1.1	1.1	1.1	1.2	1.2
	TDS (calc. sum, mg/L)	582	565	16,297	693	545	491	812
	TDS (C*0.7, mg/L)	554	552	19,111	763	541	499	939
3.	TDS (calc. USGS) / Conductivity	0.53	0.49	0.59	0.51	0.52	0.50	0.50
Test Criteria								
1. Anion-Cation Balance:			Anion Sum	Max % diff.				
			0 - 3.0	± 0.2				
			3.0 - 10.0	± 2				
			10.0 - 800	± 5				
2. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2					
3. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7					

3rd qtr. 2002

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project: N-6
PO#: 641
Order#: G0204220
Report Date: 08/22/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

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

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204220-01	MW 2	WATER	8/14/02 9:30	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0204220-02	MW 3	WATER	8/14/02 13:40	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0204220-03	MW 4	WATER	8/14/02 14:45	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0204220-04	MW 5	WATER	8/14/02 11:30	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0204220-05	MW 6	WATER	8/14/02 10:30	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

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

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	Total Dissolved Solids (TDS)					
0204220-06	MW 7	WATER	8/14/02 14:15	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No	Temp:	4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0204220-07	IWW	WATER	8/14/02 11:00	8/14/02 20:00	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No	Temp:	4.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-01

Sample ID: MW 2

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/16/02 15:56	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	0.006	0.001
Toluene	<0.001	0.001
p/m-Xylene	0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	101%	73	115
Bromofluorobenzene	110%	72	110

Lab ID: 0204220-02

Sample ID: MW 3

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/16/02 16:18	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.073	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	0.004	0.001
o-Xylene	0.006	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	73	115
Bromofluorobenzene	122%	72	110

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

Page 1 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-03

Sample ID: MW 4

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/20/02 21:40	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	73	115
Bromofluorobenzene	116%	72	110

Lab ID: 0204220-04

Sample ID: MW 5

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/20/02 22:02	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	73	115
Bromofluorobenzene	104%	72	110

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

Page 2 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-05

Sample ID: MW 6

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/20/02 22:24	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	94%	73	115
Bromofluorobenzene	108%	72	110

Lab ID: 0204220-06

Sample ID: MW 7

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/20/02 22:46	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.007	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	97%	73	115
Bromofluorobenzene	113%	72	110

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

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

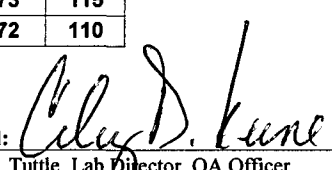
Lab ID: 0204220-07
Sample ID: IWW

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0002915-02		8/20/02 23:09	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	97%	73	115
Bromofluorobenzene	109%	72	110

Approval: 
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date 8/22/02

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-01

Sample ID: MW 2

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	86	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	12.4	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	4.07	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	75.5	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM

Lab ID: 0204220-02

Sample ID: MW 3

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	603	mg/L	100	1.0	6010B	08/21/2002	8/22/02	SM
Magnesium	182	mg/L	100	0.10	6010B	08/21/2002	8/22/02	SM
Potassium	194	mg/L	100	5.0	6010B	08/21/2002	8/22/02	SM
Sodium	6820	mg/L	1000	10.0	6010B	08/21/2002	8/22/02	SM

Lab ID: 0204220-03

Sample ID: MW 4

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	93	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	14.2	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	6.14	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	115	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM

Lab ID: 0204220-04

Sample ID: MW 5

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	100	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	13.7	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	5.48	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	78.8	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM

N/A = Not Applicable RL = Reporting Limit

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-05
Sample ID: MW 6

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	82.8	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	11.8	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	5.42	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	75.9	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM

Lab ID: 0204220-06
Sample ID: MW 7

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	100	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	13.5	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	9.9	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	256	mg/L	100	1.0	6010B	08/21/2002	8/22/02	SM

Lab ID: 0204220-07
Sample ID: IWW

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	71	mg/L	10	0.10	6010B	08/21/2002	8/22/02	SM
Magnesium	10.9	mg/L	1	0.001	6010B	08/21/2002	8/22/02	SM
Potassium	8.08	mg/L	1	0.050	6010B	08/21/2002	8/22/02	SM
Sodium	154	mg/L	100	1.0	6010B	08/21/2002	8/22/02	SM

Approval:

Coley D. Keene
Randal K. Tuttle, Lab Director, QA Officer
Coley D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

N/A = Not Applicable RL = Reporting Limit

Page 2 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-01
Sample ID: MW 2

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	250	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	70.9	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	110	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	577	mg/L	1	5.0	160.1	8/15/02	SB

Lab ID: 0204220-02
Sample ID: MW 3

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	354	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	7440	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	1180	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	13900	mg/L	1	5.0	160.1	8/15/02	SB

Lab ID: 0204220-03
Sample ID: MW 4

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	205	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	115	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	116	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	654	mg/L	1	5.0	160.1	8/15/02	SB

RL = Reporting Limit N/A = Not Applicable

Page 1 of 3

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-04
Sample ID: MW 5

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	240	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	42.5	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	104	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	530	mg/L	1	5.0	160.1	8/15/02	SB

Lab ID: 0204220-05
Sample ID: MW 6

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	218	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	35.4	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	74.4	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	512	mg/L	1	5.0	160.1	8/15/02	SB

Lab ID: 0204220-06
Sample ID: MW 7

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	230	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	230	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	116	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	813	mg/L	1	5.0	160.1	8/15/02	SB

RL = Reporting Limit N/A = Not Applicable

Page 2 of 3

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204220
Project:
Project Name: N-6
Location: Hobbs, NM

Lab ID: 0204220-07
Sample ID: IWW

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	246	mg/L	1	2.00	310.1	8/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
Chloride	57.6	mg/L	1	5.00	9253	8/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/15/02	SB
SULFATE, 375.4	87.8	mg/L	1	0.5	375.4	8/16/02	SB

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	510	mg/L	1	5.0	160.1	8/15/02	SB

Approval:

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

8-23-02
Date

RL = Reporting Limit N/A = Not Applicable

Page 3 of 3

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204220

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-mg/L		0002915-02			<0.001	
Ethylbenzene-mg/L		0002915-02			<0.001	
Toluene-mg/L		0002915-02			<0.001	
p/m-Xylene-mg/L		0002915-02			<0.001	
o-Xylene-mg/L		0002915-02			<0.001	
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-mg/L		0204268-01	0	0.1	0.095	95.%
Ethylbenzene-mg/L		0204268-01	0	0.1	0.097	97.%
Toluene-mg/L		0204268-01	0	0.1	0.099	99.%
p/m-Xylene-mg/L		0204268-01	0	0.2	0.201	100.5%
o-Xylene-mg/L		0204268-01	0	0.1	0.094	94.%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-mg/L		0204268-01	0	0.1	0.099	99.% 4.1%
Ethylbenzene-mg/L		0204268-01	0	0.1	0.101	101.% 4.%
Toluene-mg/L		0204268-01	0	0.1	0.103	103.% 4.%
p/m-Xylene-mg/L		0204268-01	0	0.2	0.210	105.% 4.4%
o-Xylene-mg/L		0204268-01	0	0.1	0.100	100.% 6.2%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-mg/L		0002915-05		0.1	0.104	104.%
Ethylbenzene-mg/L		0002915-05		0.1	0.107	107.%
Toluene-mg/L		0002915-05		0.1	0.106	106.%
p/m-Xylene-mg/L		0002915-05		0.2	0.222	111.%
o-Xylene-mg/L		0002915-05		0.1	0.106	106.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204220

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Calcium-mg/L		0002943-02			<0.01	
Magnesium-mg/L		0002943-02			<0.001	
Potassium-mg/L		0002943-02			<0.05	
Sodium-mg/L		0002943-02			<0.01	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Calcium-mg/L		0204220-04	100		99.5	0.5%
Magnesium-mg/L		0204220-04	13.7		13.5	1.5%
Potassium-mg/L		0204220-04	5.48		5.4	1.5%
Sodium-mg/L		0204220-04	78.8		78.7	0.1%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Calcium-mg/L		0002943-05		2	2.02	101.%
Magnesium-mg/L		0002943-05		2	1.91	95.5%
Potassium-mg/L		0002943-05		2	1.94	97.%
Sodium-mg/L		0002943-05		2	2	100.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204220

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0002845-01			<2.00	
Carbonate Alkalinity-mg/L		0002847-01			<0.10	
Chloride-mg/L		0002896-01			<5.00	
Hydroxide Alkalinity-mg/L		0002849-01			<0.10	
SULFATE, 375.4-mg/L		0002859-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0204220-01	250		251	0.4%
Carbonate Alkalinity-mg/L		0204220-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0204220-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0204220-01	110		110	0.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0204220-01	70.9	250	319	99.2%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0204220-01	70.9	250	319	99.2%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0002845-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0002847-04		0.05	0.0496	99.2%
Chloride-mg/L		0002896-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0002849-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0002859-04		50	49.4	98.8%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204220

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0002883-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0204220-01	577		588		1.9%

Environmental Lab of Texas I, Ltd.

12600 West I-20 East
Odessa, Texas 79763

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

COCs 130

Project Manager: K. Farris
Company Name: RICE OPERATING
Company Address: 122 W TAYLOR
City/State/Zip: HOBBS, NM 88240
Telephone No: (505) 393-9174
Sampler Signature: Simon Casas

Project Name: N-6
Project #: _____
Project Loc: HOBBS NM
PO #: 641

Fax No: (505) 397-1471

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative						Matrix				Analyze For:										RUSH TAT (Pre-Schedule)	Standard TAT					
					Ice	HNO ₃	HCl	NaOH	H ₂ SO ₄	None	Other (Specify)	Water	Sludge	Soil	Other (specify):	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5000	RCI			TDS (as per Kristin 8/15/02)				
01	MW 2	8-14	0930	3	X		X			X		X					X	X					X								
02	MW 3		1340	3																											
03	MW 4		1445	4																											
04	MW 5		1130	3																											
05	MW 6		1030	3																											
06	MW 7		1415	4																											
07	IWW		1100	3																											

Special Instructions: Major Ions

Relinquished by: Simon Casas Date: 8/14/02 Time: 1520 Received by: Kristin Harris Date: 8-14-02 Time: 1520

Relinquished by: CD Hansen Date: 8/14 Time: 20:00 Received by ELOT: Richard J... Date: 8/14/02 Time: 2000

Sample Containers Intact? Y Temperature Upon Receipt: See 4.0°C. Laboratory Comments: See 4.0°C.

ENVIRONMENTAL LAB OF I, LTD.

"Don't Treat Your Soil Like Dirt!"

REMIT TO:
12600 West I-20 East
Odessa, Texas 79765
(915) 563-1800
Fax (915) 563-1713

Invoice

BILL TO
RICE OPERATING CO. KRISTIN FARRIS 122 WEST TAYLOR HOBBS, NM 88240

DATE	INVOICE NO.
8/25/2002	14780

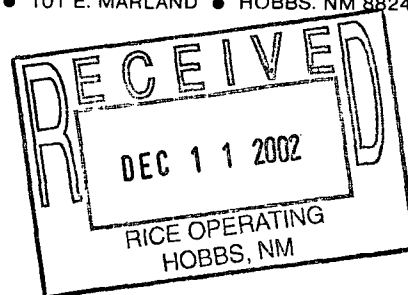
TERMS	P.O. NO.	PROJECT
Net 15	641	N-6

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
CATIONS	ELT#0204220-01 THRU 07			
ANIONS	K,Mg,Ca,Na	7	60.00	420.00
	ANIONS (Cl, SO4, CO3, HCO3)-WATER	7	49.00	343.00
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENE	7	65.00	455.00
TDS	TOTAL DISSOLVED SOLIDS (160.1)	7	20.00	140.00
641-9653 Kristin Farris 8-30-02 RECEIVED AUG 29 2002 RICE OPERATING HOBBS, NM				
We appreciate your business.			Total	\$1,358.00



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

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



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

Receiving Date: 12/06/02
Reporting Date: 12/10/02
Project Number: N-6
Project Name: RICE ENGINEERING SWD LINE N-6
Project Location: HOBBS, NM

Sampling Date: 12/06/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		12/10/02	12/09/02	12/09/02	12/09/02	12/09/02	12/09/02
H7290-1	MW2	113	70	12	3.13	437	275
H7290-2	MW3	4255	279	94	78.5	14027	375
H7290-3	MW4	88	69	15	3.06	648	210
H7290-4	MW5	70	70	20	2.57	478	275
H7290-5	MW6	53	62	16	2.73	446	235
H7290-6	MW7	123	69	14	4.54	559	167
Quality Control		NR	42	41	4.67	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	84.0	82.0	93.4	93.6	NR
Relative Percent Difference		NR	0.8	1.4	1.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/09/02	12/09/02	12/09/02	12/09/02	12/09/02	12/10/02
H7290-1	MW2	96	59.9	0	336	6.65	572
H7290-2	MW3	6498	870	0	458	7.01	11380
H7290-3	MW4	108	63.8	0	256	7.11	590
H7290-4	MW5	48	67.5	0	336	7.16	522
H7290-5	MW6	52	30.0	0	287	7.03	476
H7290-6	MW7	204	46.5	0	204	7.13	744
Quality Control		970	50.20	NR	1068	6.76	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		97.0	100	NR	107	96.6	NR
Relative Percent Difference		1.0	0.7	NR	7.7	0.3	0.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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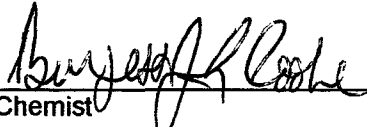
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 12/06/02
Reporting Date: 12/09/02
Project Number: N-6
Project Name: RICE ENGINEERING SWD LINE N-6
Project Location: HOBBS, NM

Sampling Date: 12/06/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		12/07/02	12/07/02	12/07/02	12/07/02
H7290-1	MW 2	0.006	<0.002	0.015	0.007
H7290-2	MW 3	0.034	<0.002	<0.002	<0.006
H7290-3	MW 4	<0.002	<0.002	<0.002	<0.006
H7290-4	MW 5	<0.002	<0.002	<0.002	<0.006
H7290-5	MW 6	<0.002	<0.002	<0.002	<0.006
H7290-6	MW 7	0.007	<0.002	<0.002	<0.006
H7290-7	E.B.-1	<0.002	<0.002	<0.002	<0.006
Quality Control		0.104	0.103	0.104	0.296
True Value QC		0.100	0.100	0.100	0.300
% Recovery		104	103	104	98.8
Relative Percent Difference		2.3	1.7	0.2	1.5

METHOD: EPA SW-846 8260


Chemist

12/9/02
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(815) 873-7001 Fax (915) 873-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

COC: 206

Page 1 of 1

Company Name: **E.B.I**
Project Manager:
Address: **2540 W. Marland**
City: **Hobbs** State: **NM** Zip: **88240**
Phone #: **505-397-4882**
Fax #: **505-397-2470**
Project #: **N-6** Project Owner: **Rice Operating**
Project Name: **Rice Engineering SWD Line N-6**
Project Location: **Hobbs NM**

Company: **Rice Operating**
Attn: **Kristin Farris**
Address: **122 W. Taylor**
City: **Hobbs**
State: **NM** Zip: **88240**
Phone #: **505-393-9174**
Fax #: **505-317-1471**

ANALYSIS REQUEST

FOR LAB USE ONLY			MATRIX							PRES.		SAMPLING		
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :	DATE	TIME
H7240 - 1	mw 2		3	X							X		12-6-02	1407
- 2	mw 3		3											1150
- 3	mw 4		3											1225
- 4	mw 5		3											1435
- 5	mw 6		3											0938
- 6	mw 7		3											1245
- 7	E.B. - 1		2	↓						↓			↓	1253

BTEX 8020
Anions

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's obligation hereby for any claims arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: Date: Time: Received By: Phone Result: ☐ Yes ☐ No Additional Fax #: Fax Result: ☐ Yes ☐ No

Relinquished By: Date: 12-6-02 Received By: (Lab Staff) REMARKS: Bill directly to Rice Operating

Delivered By: (Circle One) Sample Condition: Cool Intact: ☒ Yes ☐ No Checked By: (Initials): ace

Sampler: ☒ UPS ☐ Bus ☐ Other:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-873-7020.

ANALYTICAL REPORT

Prepared for:

CAROLYN HAYNES
RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240

Project: MW Samples

PO#:

Order#: G0205259

Report Date: 12/19/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240
505-397-1471

Order#: G0205259
Project: Hobbs N-6 Site
Project Name: MW Samples
Location: Hobbs N-6 Site

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

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0205259-01	IWW Sample	WATER	12/12/02 16:30	12/13/02 17:44	1 L Plastic	n/a
	<u>Lab Testing:</u>	Rejected: No		Temp: 3C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0205259-02	N-6 MW Sample	WATER	12/12/02 16:30	12/13/02 17:44	1 L Plastic	n/a
	<u>Lab Testing:</u>	Rejected: No		Temp: 3C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CAROLYN HAYNES
RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240

Order#: G0205259
Project: Hobbs N-6 Site
Project Name: MW Samples
Location: Hobbs N-6 Site

Lab ID: 0205259-01
Sample ID: IWW Sample

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	66.0	mg/L	10	0.10	6010B	12/19/2002	12/19/02	SM
Magnesium	30.4	mg/L	10	0.010	6010B	12/19/2002	12/19/02	SM
Potassium	29.0	mg/L	10	0.50	6010B	12/19/2002	12/19/02	SM
Sodium	992	mg/L	100	1.0	6010B	12/19/2002	12/19/02	SM

Lab ID: 0205259-02
Sample ID: N-6 MW Sample

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	14.8	mg/L	10	0.10	6010B	12/19/2002	12/19/02	SM
Magnesium	5.04	mg/L	1	0.0010	6010B	12/19/2002	12/19/02	SM
Potassium	20.4	mg/L	10	0.50	6010B	12/19/2002	12/19/02	SM
Sodium	147	mg/L	100	1.0	6010B	12/19/2002	12/19/02	SM

Approval:

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

12-20-02
Date

N/A = Not Applicable RL = Reporting Limit

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CAROLYN HAYNES
RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240

Order#: G0205259
Project: Hobbs N-6 Site
Project Name: MW Samples
Location: Hobbs N-6 Site

Lab ID: 0205259-01
Sample ID: IWW Sample

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	247	mg/L	1	2.00	310.1	12/14/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	12/14/02	SB
Chloride	1440	mg/L	1	5.00	9253	12/14/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	12/14/02	SB
SULFATE, 375.4	275	mg/L	5	2.5	375.4	12/15/02	SB

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2980	mg/L	1	5.0	160.1	12/15/02	SB

Lab ID: 0205259-02
Sample ID: N-6 MW Sample

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	282	mg/L	1	2.00	310.1	12/14/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	12/14/02	SB
Chloride	26.6	mg/L	1	5.00	9253	12/14/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	12/14/02	SB
SULFATE, 375.4	18.4	mg/L	1	0.5	375.4	12/15/02	SB

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	504	mg/L	1	5.0	160.1	12/15/02	SB

Approval:

Raland K. Tuttle 12-20-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0205259

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0004069-01			<2.00	
Carbonate Alkalinity-mg/L		0004071-01			<0.10	
Chloride-mg/L		0004067-01			<5.0	
Hydroxide Alkalinity-mg/L		0004073-01			<0.10	
SULFATE, 375.4-mg/L		0004076-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0205259-01	247		248	0.4%
Carbonate Alkalinity-mg/L		0205259-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0205259-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0205254-01	104		103	1.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0205235-01	88.6	250	337	99.4%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0205235-01	88.6	250	341	101.0% 1.2%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0004069-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0004071-04		0.05	0.0496	99.2%
Chloride-mg/L		0004067-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0004073-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0004076-04		50	51.0	102.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0205259

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0004113-02			<0.010		
Magnesium-mg/L		0004113-02			<0.001		
Potassium-mg/L		0004113-02			<0.050		
Sodium-mg/L		0004113-02			<0.010		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0205254-01	83.6		85.4		2.1%
Magnesium-mg/L		0205254-01	18.2		17.8		2.2%
Potassium-mg/L		0205254-01	8.78		8.71		0.8%
Sodium-mg/L		0205254-01	52.1		51.5		1.2%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0004113-05		2	2.02	101.%	
Magnesium-mg/L		0004113-05		2	2.19	109.5%	
Potassium-mg/L		0004113-05		2	1.90	95.%	
Sodium-mg/L		0004113-05		2	1.95	97.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0205259

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0004094-01			<5.0		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0205249-01	649		640		1.4%

12600 West I-20 East
Odessa, Texas 79763

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

Project Name: MW Samples
Project #: MW samples.
Project Loc: Hobbs N-6 site
PO #:

Project Manager: Chris Rodriguez
Company Name: Rice Operating Co.
Company Address: 722 W. Taylor
City/State/Zip: Hobbs N.M. 88240
Telephone No. (505) 393-9174 Fax No. (505) 397-1477
Sampler Signature: Chris Rodriguez

[illegible]

ANALYTICAL REPORT

Prepared for:

CHRIS RODRIGUEZ
RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240

Project: None Given

PO#:

Order#: G0205344

Report Date: 12/31/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240
505-397-1471

Order#: G0205344
Project: None Given
Project Name: None Given
Location: None Given

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

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0205344-01	IWW @ West County Rd	WATER	12/26/02 12:35	12/27/02 16:40	40 oz glass	n/a
<u>Lab Testing:</u>		Rejected: No	Temp: 3.0 C			
8021B/5030 BTEX						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CHRIS RODRIGUEZ
RICE OPERATING CORP.
122 WEST TAYLOR
HOBBS, NM 88240

Order#: G0205344
Project: None Given
Project Name: None Given
Location: None Given

Lab ID: 0205344-01
Sample ID: IWW @ West County Rd

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0004215-02		12/30/02 22:24	1	1	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	97%	80	120
Bromofluorobenzene	96%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0205344

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004215-02			<0.001	
Toluene-mg/L		0004215-02			<0.001	
Ethylbenzene-mg/L		0004215-02			<0.001	
p/m-Xylene-mg/L		0004215-02			<0.001	
o-Xylene-mg/L		0004215-02			<0.001	
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0205336-17	0	0.1	0.112	112.%
Toluene-mg/L		0205336-17	0	0.1	0.115	115.%
Ethylbenzene-mg/L		0205336-17	0	0.1	0.113	113.%
p/m-Xylene-mg/L		0205336-17	0	0.2	0.223	111.5%
o-Xylene-mg/L		0205336-17	0	0.1	0.105	105.%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0205336-17	0	0.1	0.111	111.%
Toluene-mg/L		0205336-17	0	0.1	0.111	111.%
Ethylbenzene-mg/L		0205336-17	0	0.1	0.109	109.%
p/m-Xylene-mg/L		0205336-17	0	0.2	0.215	107.5%
o-Xylene-mg/L		0205336-17	0	0.1	0.103	103.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004215-05		0.1	0.114	114.%
Toluene-mg/L		0004215-05		0.1	0.114	114.%
Ethylbenzene-mg/L		0004215-05		0.1	0.112	112.%
p/m-Xylene-mg/L		0004215-05		0.2	0.222	111.%
o-Xylene-mg/L		0004215-05		0.1	0.105	105.%

12600 West I-20 East
Odessa, Texas 79763

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

Aug 07 01 10:22a

Project Name: _____

Project #: _____

Project Loc: _____

PO #:

Fax No: 347-1471

Sampler Signature: Chris Rodriguez

[illegible]

112219

RICE Operating Company

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

CERTIFIED MAIL

RETURN RECEIPT NO. 7001 2510 0007 2763 5275

February 26, 2002

RECEIVED

FEB 28 2002

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87504

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2001 MONITOR WELL REPORT
GROUNDWATER REMEDIATION/MONITORING
PIPELINE LEAK, WEST COUNTY ROAD SITE
HOBBS SWD SYSTEM
SW/4 NW/4 JCT. N-6, SEC 5,6, T19S, R38E, LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

Rice Operating Company (ROC) appreciates this opportunity to submit the 2001 Monitor Well Report for the Hobbs Salt Water Disposal System Junction N-6 Release Site in the SW/4 NW/4 of Sections 5, 6, T19S, R38E, Lea County, NM. This monitoring site is situated just south of the intersection of Highway 62-180 and the South Loop of the Hobbs West County Road By-Pass.

The 2001 quarterly monitoring events for the seven monitor wells were scheduled and conducted by Safety and Environmental Solutions, Inc. (SES) of Hobbs. Analytical tests were conducted by Cardinal Laboratories of Hobbs. The 2001 MW Report was compiled by SES.

ROC has contracted with SES for Year 2002 monitor well sampling and SES will schedule all major events with a 48-hour advance notice to the NMOCD. All sampling activities will be conducted pursuant to NMOCD guidelines.

ROC has actively worked toward recovering the phase-separated hydrocarbon (PSH) at the Recovery Well MW-1. The skimmer-type pump was installed in September 1999. This pumping program is monitored weekly to optimize PSH recovery, and it appears the PSH layer has not changed significantly. The Recovery Well MW-1 oil-recovery cumulative results are

summarized in the attached Water and Crude Oil Recovery Volumes table. There was 6 months downtime of the skimmer-pump oil recovery due to mechanical failures and SES service manpower problems. The monitor well water-elevation readings and quarterly groundwater samplings were accomplished each quarter. The analytical cumulative results are also attached.

Recovered fluids from the skimmer pump operation and the monitor well sampling events were discharged into the Hobbs SWD System pipeline for disposal until September 2001. The Hobbs SWD System is now inactive. Recovered fluids obtained since September 2001 have been disposed at a commercial salt-water disposal facility operated by ROC.

In 2002, ROC and SES will concentrate on recovering the remaining PSH in MW-1 and recovering salt-water from MW-3. All recovered fluids will be disposed properly at a commercial disposal facility.

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

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions or if I can be of any service, please don't hesitate to call.

RICE OPERATING COMPANY



Carolyn Doran Haynes
Engineering Manager

Enclosure: 2001 Annual Report
Summary Tables

Cc: LBG, DA, file, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

SUMMARY OF 1996 - 2001 RECOVERED VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
1996 TOTALS	1,267	842,820	1.7	64.20	64.20	Total Crude oil recovered from Apr 96 to Dec 96
1997 TOTALS	6,816	5,104,800	9.7	35.40	99.60	Total Crude oil recovered from Apr 96 to Dec 97
1998 TOTALS	3,740	1,247,040	2.1	77.15	176.75	Total Crude oil recovered from Apr 96 to Dec 98
1999 TOTALS	1,862	202,484	0.4	160.11	336.86	Total Crude oil recovered from Apr 96 to Dec 99
2000 TOTALS	548	630	1.1	288.80	625.66	Total Crude oil recovered from Apr 96 to Dec 2000
2001 TOTALS	203	56	0.3	96.74	722.40	Total Crude oil recovered from Apr 96 to Dec 2001
5-YEAR TOTAL	14,436	7,397,830		722.40	722.40	Total Volumes recovered from April 1996 to December 2001

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1996	0	0	0.0	0.00	0.00	No recovery operations pending regulatory approval & facility installation
FEB 1996	0	0	0.0	0.00	0.00	
MAR 1996	0	0	0.0	0.00	0.00	
1ST QTR	0	0	0.0	0.00	0.00	
APR 1996	0	0	0.0	30.75	30.75	Groundwater Monitoring Event
MAY 1996	0	0	0.0	7.85	38.60	
JUN 1996	19	19,140	1.1	2.38	40.98	
2ND QTR	19	19,140	0.4	40.98	40.98	
JUL 1996	0	0	0.0	6.50	47.48	Groundwater Monitoring Event
AUG 1996	0	0	0.0	3.27	50.75	
SEP 1996	0	0	0.0	3.75	54.50	
3RD QTR	0	0	0.0	13.52	54.50	
OCT 1996	0	0	0.0	5.00	59.50	Groundwater Monitoring Event
NOV 1996	528	262,080	6.1	1.70	61.20	
DEC 1996	720	561,600	13.0	3.00	64.20	
4TH QTR	1,248	823,680	6.4	9.70	64.20	
1996 TOTALS	1,267	842,820	1.7	64.20	64.20	
JAN 1997	744	580,320	13.0	3.10	67.30	
FEB 1997	672	485,280	13.0	2.80	70.10	
MAR 1997	744	426,240	9.5	2.60	72.70	
1ST QTR	2,160	1,491,840	11.8	8.50	72.70	
APR 1997	0	0	0.0	2.25	74.95	Groundwater Monitoring Event
MAY 1997	408	325,440	7.3	4.45	79.40	
JUN 1997	672	524,160	12.1	2.80	82.20	
2ND QTR	1,080	849,600	6.5	9.50	82.20	
JUL 1997	600	465,120	10.4	2.50	84.70	Groundwater Monitoring Event
AUG 1997	744	580,320	13.0	2.10	86.80	
SEP 1997	720	561,600	13.0	3.00	89.80	
3RD QTR	2,064	1,607,040	12.1	7.60	89.80	
OCT 1997	744	580,320	13.0	3.10	92.90	Groundwater Monitoring Event
NOV 1997	720	541,440	12.5	3.00	95.90	
DEC 1997	48	34,560	0.0	3.70	99.60	
4TH QTR	1,512	1,156,320	8.5	9.80	99.60	
1997 TOTALS	6,816	5,104,800	9.7	35.40	99.60	Total Crude oil recovered from Apr 96 to Dec 97

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1998	0	0	0.0	4.75	104.35	Groundwater Monitoring Event
FEB 1998	240	144,000	3.6	3.25	707.60	
MAR 1998	744	446,400	10.0	3.10	110.70	
1ST QTR	984	590,400	4.5	11.10	110.70	
APR 1998	696	167,040	0.0	2.90	113.60	
MAY 1998	744	178,560	4.0	3.10	116.70	
JUN 1998	740	172,800	4.0	3.00	119.70	
2ND QTR	2,180	518,400	2.7	9.00	119.70	
JUL 1998	576	138,240	4.0	2.40	122.10	Groundwater Monitoring Event
AUG 1998	0	0	0.0	19.50	141.60	
SEP 1998	0	0	0.0	4.63	146.23	
3RD QTR	576	138,240	1.3	26.53	146.23	
OCT 1998	0	0	0.0	8.26	154.49	Groundwater Monitoring Event
NOV 1998	0	0	0.0	11.63	166.12	
DEC 1998	0	0	0.0	10.63	176.75	
4TH QTR	0	0	0.0	30.52	176.75	
1998 TOTALS	3,740	1,247,040	2.1	77.15	176.75	Total Crude oil recovered from Apr 96 to Dec 98
JAN 1999	610.5	127,153	2.5	3.10	179.85	Pulled pump March 13
FEB 1999	672	68,554	1.8	2.80	182.65	
MAR 1999	292.4	6,418	0.4	0.60	183.25	
1ST QTR	1,575	202,125	1.6	6.50	183.25	
APR 1999	0	73	0.0	16.56	199.81	Recovered w/ manual bailer
MAY 1999	0	41	0.0	10.55	210.36	Recovered w/ manual bailer
JUN 1999	0	0	0.0	0.00	210.36	
2ND QTR	0	114	0.0	27.11	210.36	
JUL 1999	0	0	0.0	0.00	210.36	Recovered w/ manual bailer
AUG 1999	0	0	0.0	19.50	229.86	
SEP 1999	0	0	0.0	0.00	229.86	
3RD QTR	0	0	0.0	19.50	229.86	
OCT 1999	116.5	75	0.0	32.00	261.86	Installed skimmer-type pump
NOV 1999	112	151	0.0	60.00	321.86	
DEC 1999	58.5	19	0.0	15.00	336.86	
4TH QTR	287	245	0.0	107.00	336.86	
1999 TOTALS	1,862	202,484	0.4	160.11	336.86	Total Crude oil recovered from Apr 96 to Dec 99

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 2000	93.5	11	0.1	11.00	347.86	Pump ineffecient; serviced
FEB 2000	102	73	0.7	33.20	381.06	
MAR 2000	35	70	2.0	49.60	430.66	
1ST QTR	231	154	0.7	93.80	430.66	
APR 2000	36.5	70	1.9	38.70	469.36	
MAY 2000	36.5	56	1.5	16.50	485.86	
JUN 2000	29.5	37	1.2	9.60	495.46	
2ND QTR	103	162	1.6	64.80	495.46	
JUL 2000	36.5	42	1.2	16.20	511.66	
AUG 2000	32	48	1.5	22.50	534.16	
SEP 2000	42.5	62	1.5	31.50	565.66	
3RD QTR	111	152	1.4	70.20	565.66	
OCT 2000	32	48	1.5	16.00	581.66	
NOV 2000	32	51	1.6	20.00	601.66	
DEC 2000	40	63	1.6	24.00	625.66	
4TH QTR	104	162	1.6	60.00	625.66	
2000 TOTALS	548	630	1.1	288.80	625.66	Total Crude oil recovered from Apr 96 to Dec 00
JAN 2001	32	12	0.4	21.00	646.66	
FEB 2001	32	20	0.6	13.00	659.66	
MAR 2001	41	10	0.2	18.00	677.66	
1ST QTR	105	42	0.4	52.00	677.66	
APR 2001	0	0	0.0	0.00	677.66	Skim pump motor failure
MAY 2001	0	0	0.0	0.00	677.66	Repairs
JUN 2001	0	0	0.0	0.00	677.66	Repairs
2ND QTR	0	0	0.0	0.00	677.66	
JUL 2001	0	0	0.0	0.00	677.66	Repairs
AUG 2001	0	0	0.0	0.00	677.66	Pump repaired, but no service
SEP 2001	0	0	0.0	0.00	677.66	Pump replacement
3RD QTR	0	0	0.0	0.00	677.66	
OCT 2001	35	14	0.4	19.50	697.16	Pump back in service
NOV 2001	29	0	0.0	17.30	714.46	
DEC 2001	34	0	0.0	7.94	722.40	
4TH QTR	98	14	0.1	44.74	722.40	
2001 TOTALS	203	56	0.3	96.74	722.40	Total Crude oil recovered from Apr 96 to Dec 01

SUMMARY OF GROUNDWATER MEASUREMENTS by QUARTER

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
IWW	07/26/95	35.75	62.26	98.01	97.8	0.00
IWW	06/24/96	35.50	62.51	98.01	97.8	0.00
IWW	08/02/96	35.60	62.41	98.01	97.8	0.00
IWW	11/22/96	37.00	61.01	98.01	97.8	0.00
IWW	07/02/97	37.00	61.01	98.01	97.8	0.00
IWW	08/07/97	37.78	60.23	98.01	97.8	0.00
IWW	12/06/97	37.51	60.50	98.01	97.8	0.00
IWW	02/14/98	37.14	60.90	98.04	97.8	0.00
IWW	04/07/99	38.06	60.11	98.17	97.8	0.00
IWW	06/28/99	38.18	59.99	98.17	97.8	0.00
IWW	09/17/99	38.23	59.94	98.17	97.8	0.00
IWW	12/13/99	38.44	59.73	98.17	97.8	0.00
IWW	3/13/00				97.8	0.00
IWW	6/15/00	38.81	59.29	98.10	97.8	0.00
IWW	9/18/00	38.81	59.29	98.10	97.8	0.00
IWW	12/15/00	38.94	59.16	98.10	97.8	0.00
IWW	03/30/2001	39.20	58.90	98.10	97.8	0.00
IWW	06/28/2001	39.39	58.71	98.10	97.8	0.00
IWW	09/21/2001	39.63	58.47	98.10	98.8	0.00
IWW	12/31/2001	40.00		98.10	97.8	0.00
MW-1	07/26/95	42.09	57.91	100.00	97.3	N/A
MW-1	06/24/96	40.73	59.27	100.00	97.3	N/A
MW-1	08/07/97	39.00	62.50	100.00	97.3	1.83
MW-1	02/14/98	39.26	60.86	100.00	97.3	0.15
MW-1	10/26/98	40.50	60.05	100.00	97.3	0.67
MW-1	04/07/99	42.17	57.83	100.00	97.3	
MW-1	06/28/99	44.67	55.33	100.00	97.3	
MW-1	09/17/99	free	product		97.3	
MW-1	12/13/99	42.23	55.07	100.00	97.3	2.20
MW-1	3/15/00	42.17	55.13	100.00	97.3	1.84
MW-1	6/15/00	42.18	57.82	100.00	97.3	1.57'
MW-1	9/15/00	42.98	54.32	100.00	97.3	1.74
MW-1	12/15/00	42.13	55.17	100.00	97.30	1.61
MW-1	01/05/2001	42.98	54.32	100.00	97.30	2.28
MW-1	03/30/2001	42.97	54.33	100.00	97.30	1.91
MW-1	10/05/2001	44.72	52.58	100.00	97.30	3.56
MW-1	12/25/2001	42.47	54.83	100.00	97.30	0.60
MW-2	07/26/95	37.45	60.46	97.91	98.5	0.00
MW-2	06/18/96	35.16	62.75	97.91	98.5	0.00
MW-2	06/24/96	35.24	62.67	97.91	98.5	0.00
MW-2	08/02/96	35.30	62.61	97.91	98.5	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-2	11/22/96	37.00	60.91	97.91	98.5	0.00
MW-2	07/02/97	36.70	61.21	97.91	98.5	0.00
MW-2	08/07/97	37.80	60.11	97.91	98.5	0.00
MW-2	12/06/97	37.32	60.59	97.91	98.5	0.00
MW-2	02/14/98	37.70	60.24	97.94	98.5	0.00
MW-2	04/07/99	37.83	60.06	97.89	98.5	0.00
MW-2	06/28/99	37.92	59.97	97.89	98.5	0.00
MW-2	09/17/99	38.00	59.89	97.89	98.5	0.00
MW-2	12/13/99	38.15	59.74	97.89	98.5	0.00
MW-2	3/13/00	38.37	59.52	97.89	98.5	0.00
MW-2	6/15/00	38.57	59.35	97.92	98.5	0.00
MW-2	9/18/00	38.55	59.37	97.92	98.5	0.00
MW-2	12/15/00	38.72	59.20	97.92	98.5	0.00
MW-2	03/30/2001	38.96	58.96	97.92	98.5	0.00
MW-2	06/28/2001	39.12	58.80	97.92	98.5	0.00
MW-2	09/21/2001	39.39	58.53	97.92	98.5	0.00
MW-2	12/31/2001	39.77	58.15	97.92	98.5	0.00
MW-3	07/26/95	34.97	62.57	97.54	98.1	0.00
MW-3	06/24/96	35.54	62.00	97.54	98.1	0.00
MW-3	08/02/96	36.60	60.94	97.54	98.1	0.00
MW-3	11/22/96	35.70	61.84	97.54	98.1	0.00
MW-3	07/02/97	36.20	61.34	97.54	98.1	0.00
MW-3	08/07/97	36.80	60.74	97.54	98.1	0.00
MW-3	12/06/97	36.80	60.74	97.54	98.1	0.00
MW-3	02/14/98	36.88	60.77	97.65	98.1	0.00
MW-3	04/07/99	38.52	59.13	97.65	98.1	0.00
MW-3	06/28/99	38.60	59.05	97.65	98.1	0.00
MW-3	09/17/99	38.58	59.07	97.65	98.1	0.00
MW-3	12/13/99	38.75	58.90	97.65	98.1	0.00
MW-3	3/13/00	38.98	58.67	97.65	98.1	0.00
MW-3	6/15/00	39.16	58.45	97.61	98.1	0.00
MW-3	9/18/00	39.10	58.51	97.61	98.1	0.00
MW-3	12/15/00	39.29	58.32	97.61	98.1	0.00
MW-3	03/30/2001	39.53	58.08	97.61	98.1	0.00
MW-3	06/28/2001	39.68	57.93	97.61	98.1	0.00
MW-3	09/21/2001	39.93	57.68	97.61	98.1	0.00
MW-3	12/31/2001	40.28	57.33	97.61	98.1	0.00
MW-4	07/26/95	37.40	62.95	100.35	100.8	0.00
MW-4	06/24/96	37.20	63.15	100.35	100.8	0.00
MW-4	08/02/96	35.80	64.55	100.35	100.8	0.00
MW-4	11/22/96	38.25	62.10	100.35	100.8	0.00
MW-4	07/02/97	38.30	62.05	100.35	97.4	0.00
MW-4	08/07/97	37.50	62.85	100.35	97.4	0.00
MW-4	12/06/97	39.30	61.05	100.35	97.4	0.00
MW-4	02/14/98	No data		99.93	97.4	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-4	04/07/99	40.01	60.25	100.26	97.4	0.00
MW-4	06/28/99	40.80	59.46	100.26	97.4	0.00
MW-4	09/17/99	40.16	60.10	100.26	97.4	0.00
MW-4	12/13/99	40.35	59.91	100.26	97.4	0.00
MW-4	3/13/00	40.54	59.72	100.26	97.4	0.00
MW-4	6/15/00	40.77	59.60	100.37	97.4	0.00
MW-4	9/18/00	40.72	59.65	100.37	97.4	0.00
MW-4	12/15/00	40.92	59.45	100.37	97.4	0.00
MW-4	03/30/2001	41.17	59.20	100.37	97.4	0.00
MW-4	06/28/2001	41.35	59.02	100.37	97.4	0.00
MW-4	09/21/2001	41.60	58.77	100.37	97.4	0.00
MW-4	12/31/2001	42.00	58.37	100.37	97.4	0.00
MW-5	07/26/95	33.91	62.25	96.16	96.0	0.00
MW-5	06/18/96	33.61	62.55	96.16	96.0	0.00
MW-5	06/24/96	33.72	62.44	96.16	96.0	0.00
MW-5	08/02/96	33.58	62.58	96.16	96.0	0.00
MW-5	11/22/96	34.60	61.56	96.16	96.0	0.00
MW-5	07/02/97	34.97	61.19	96.16	96.0	0.00
MW-5	08/07/97	35.70	60.46	96.16	96.0	0.00
MW-5	12/06/97	35.76	60.40	96.16	96.0	0.00
MW-5	02/14/98	35.30	60.91	96.21	96.0	0.00
MW-5	04/07/99	36.28	60.17	96.45	96.0	0.00
MW-5	06/28/99	36.40	60.05	96.45	96.0	0.00
MW-5	09/17/99	36.49	59.96	96.45	96.0	0.00
MW-5	12/13/99	36.64	59.81	96.45	96.0	0.00
MW-5	3/13/00	36.84	59.61	96.45	96.0	0.00
MW-5	6/15/00	37.05	59.16	96.21	96.0	0.00
MW-5	9/18/00	37.06	59.15	96.21	96.0	0.00
MW-5	12/15/00	37.23	58.98	96.21	96.0	0.00
MW-5	03/30/2001	37.44	58.77	96.21	96.0	0.00
MW-5	06/28/2001	37.62	58.59	96.21	96.0	0.00
MW-5	09/21/2001	37.87	58.34	96.21	96.0	0.00
MW-5	12/31/2001	38.25	57.96	96.21	96.0	0.00
MW-6	07/26/95	35.69	62.83	98.52	98.8	0.00
MW-6	06/18/96	35.56	62.96	98.52	98.8	0.00
MW-6	06/24/96	35.68	62.84	98.52	98.8	0.00
MW-6	08/02/96	35.68	62.84	98.52	98.8	0.00
MW-6	11/22/96	37.29	61.23	98.52	98.8	0.00
MW-6	07/02/97	37.10	61.42	98.52	98.8	0.00
MW-6	08/07/97	38.20	60.32	98.52	98.8	0.00
MW-6	12/06/97	37.74	60.78	98.52	98.8	0.00
MW-6	02/14/98	No data		98.53	98.8	0.00
MW-6	04/07/99	38.27	60.17	98.44	98.8	0.00
MW-6	06/28/99	38.37	60.07	98.44	98.8	0.00
MW-6	09/17/99	38.45	59.99	98.44	98.8	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-6	12/13/99	38.62	59.82	98.44	98.8	0.00
MW-6	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-6	6/15/00	39.04	59.52	98.56	98.8	0.00
MW-6	9/18/00	38.99	59.57	98.56	98.8	0.00
MW-6	12/15/00	39.16	59.40	98.56	98.8	0.00
MW-6	03/30/2001	39.41	58.15	98.56	98.8	0.00
MW-6	06/28/2001	39.59	58.97	98.56	98.8	0.00
MW-6	09/21/2001	39.86	58.70	98.56	98.8	0.00
MW-6	12/31/2001	40.22	58.34	98.56	98.8	0.00
MW-7	07/26/95	37.92	60.57	98.49	98.8	0.00
MW-7	06/24/96	35.76	62.73	98.49	98.8	0.00
MW-7	08/02/96	36.10	62.39	98.49	98.8	0.00
MW-7	11/22/96	36.84	61.65	98.49	98.8	0.00
MW-7	07/02/97	37.38	61.11	98.49	98.8	0.00
MW-7	08/07/97	37.30	61.19	98.49	98.8	0.00
MW-7	12/06/97	37.81	60.68	98.49	98.8	0.00
MW-7	02/14/98	No data		98.53	98.8	0.00
MW-7	04/07/99	38.40	60.04	98.44	98.8	0.00
MW-7	06/28/99	38.46	59.98	98.44	98.8	0.00
MW-7	09/17/99	38.56	59.88	98.44	98.8	0.00
MW-7	12/13/99	38.73	59.71	98.44	98.8	0.00
MW-7	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-7	6/15/00	39.15	59.32	98.47	98.8	0.00
MW-7	9/18/00	39.12	59.35	98.47	98.8	0.00
MW-7	12/15/00	39.30	59.17	98.47	98.8	0.00
MW-7	03/30/2001	39.57	58.90	98.47	98.8	0.00
MW-7	06/28/2001	39.71	58.76	98.47	98.8	0.00
MW-7	09/21/2001	39.99	58.48	98.47	98.8	0.00
MW-7	12/31/2001	40.37	58.10	98.47	98.8	0.00

SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS 1995 - 2001

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-1	07/24/95	2.8710	<0.0200	0.0120	0.2710	3.1540	25,106	14,091
MW-1	07/24/95	N/A	N/A	N/A	N/A	N/A	4,374	
MW-1 (SPL)	02/18/98	3.4000	0.5700	0.9600	0.7400	5.6700	493	100
MW-1 (SPL)	12/12/98						840	43
MW-1	04/07/99	2.8500	1.3300	2.5200	2.5500	9.2500	1820	1286
MW-2	07/21/95	0.0470	0.0120	0.0330	<0.0010	0.0920	N/A	132
MW-2	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	649	96
MW-2	08/12/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2	11/25/96	0.0019	0.0012	0.0018	<0.0030	0.0049	443	44
MW-2	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	497	50
MW-2	07/02/97	0.0060	0.0070	0.0030	0.0110	0.0270	399	44
MW-2	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	414	40
MW-2 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	455	36
MW-2	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	457	45
MW-2	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	422	47
MW-2	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	464	40
MW-2	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	426	44
MW-2	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	528	45
MW-2	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	41
MW-2	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	574	38
MW-2	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	614	79
MW-2	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	624	171
MW-2	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	557	120
MW-2	03/30/2001	0.0070	<0.0020	<0.0020	<0.0060	na	480	68
MW-2	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	na	592	77
MW-2	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	na	513	60

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-2	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	na	511	72
MW-3 - S	07/21/95	0.0020	<0.0010	<0.0010	<0.0030	0.0020	N/A	256
MW-3	07/21/95	0.0440	0.0610	0.0480	0.0420	0.1950	N/A	N/A
MW-3	06/19/96	0.1320	<0.0010	<0.0010	<0.0010	0.1320	2,684	160
MW-3	11/25/96	1.1700	0.0011	0.0047	0.0150	1.1908	13,890	6,850
MW-3	04/03/97	0.2920	<0.0010	0.0010	0.0050	0.2980	7764	3249
MW-3	07/02/97	0.0020	<0.0010	<0.0010	<0.0030	0.0020	3065	1290
MW-3	12/06/97	0.0120	<0.0020	<0.0020	<0.0060	0.0120	4610	1450
MW-3 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-3 (SPL)	02/18/98	0.0016	<0.0010	<0.0010	<0.0010	0.0016	2,967	1,700
MW-3	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	3,980	1,672
MW-3	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,498	614
MW-3	04/07/99	0.9530	0.0020	0.0040	<0.0060	N/A	20,470	11,770
MW-3	06/28/99	0.6730	<0.0020	0.0020	<0.0060	N/A	15,660	8,567
MW-3	09/17/99	0.7150	<0.0020	<0.0020	<0.0060	N/A	17,730	8,922
MW-3	12/14/99	0.7610	<0.0020	0.0030	<0.0060	N/A	18,120	9,093
MW-3	3/13/00	0.7240	<0.0020	<0.0030	<0.0060	N/A	19,000	9,680
MW-3	6/15/00	0.3920	<0.0020	<0.0020	<0.0060	N/A	19,344	8,361
MW-3	9/18/00	0.3130	<0.0020	<0.0020	<0.0060	N/A	10,510	5,439
MW-3	12/15/00	0.2150	<0.0020	<0.0020	<0.0060	N/A	16,730	11,904
MW-3	03/30/2001	1.0300	<0.0020	<0.0020	<0.0060	N/A	19,430	11,100
MW-3	06/28/2001	0.1110	<0.0020	<0.0020	<0.0060	N/A	18,440	8,646
MW-3	09/21/2001	0.6930	<0.0020	<0.0020	<0.0060	N/A	19,600	9,597
MW-3	12/31/2001	0.6830	<0.0020	<0.0020	<0.0060	N/A	18,596	9,697
MW-4	08/10/95	<0.0010	<0.0010	<0.0010	0.0670	0.0670	N/A	332
MW-4	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,114	312
MW-4	11/25/96	0.0029	0.0011	0.0019	<0.0030	0.0059	953	240
MW-4	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	877	196

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-4	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	788	206
MW-4	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	974	264
MW-4	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,152	294
MW-4	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	910	344
MW-4	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,088	297
MW-4	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,080	279
MW-4	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,187	300
MW-4	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,260	372
MW-4	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,400	376
MW-4	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,707	387
MW-4	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,149	311
MW-4	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	889	277
MW-4	03/30/2001	0.0040	<0.0020	<0.0020	<0.0060	N/A	792	192
MW-4	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	892	215
MW-4	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	787	184
MW-4	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	742	176
MW-5	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,481	106
MW-5	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	506	44
MW-5	11/25/96	0.0012	0.0012	0.0016	<0.0030	0.0040	506	70
MW-5	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	509	50
MW-5	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	458	50
MW-5	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	506	52
MW-5 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-5 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	426	44
MW-5	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	505	42
MW-5	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	421	47
MW-5	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	40
MW-5	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	449	44
MW-5	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	484	49
MW-5	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	45

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-5	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	474	49
MW-5	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	559	53
MW-5	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	54
MW-5	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	456	54
MW-5	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	515	52
MW-5	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	514	54
MW-5	09/21/2001	0.0040	<0.0020	<0.0020	<0.0060	N/A	510	52
MW-5	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	478	52
MW-6	07/21/95	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	96
MW-6	06/19/96	0.0230	<0.0010	<0.0010	<0.0030	0.0230	524	48
MW-6	11/25/96	0.0160	0.0013	0.0023	0.0047	0.0243	477	38
MW-6	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	404	80
MW-6	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	419	38
MW-6	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	445	28
MW-6 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-6	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	225	20
MW-6	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	363	20
MW-6	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	436	20
MW-6	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	378	28
MW-6	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	428	24
MW-6	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	576	24
MW-6	3/13/00	<0.0020	<0.0030	<0.0020	<0.0060	N/A	438	45
MW-6	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	500	34
MW-6	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	443	35
MW-6	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	381	46
MW-6	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	456	48
MW-6	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	491	54
MW-6	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	444	44
MW-6	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	492	48

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-7	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,218	382
MW-7	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,127	359
MW-7	11/25/96	0.0011	<0.0010	<0.0010	<0.0030	<0.0030	1,090	334
MW-7	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1166	344
MW-7	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1092	264
MW-7	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	806	188
MW-7 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-7	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	802	212
MW-7	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	853	262
MW-7	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1000	245
MW-7	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	938	255
MW-7	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1685	255
MW-7	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	996	258
MW-7	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1022	258
MW-7	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1130	271
MW-7	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	978	260
MW-7	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	826	224
MW-7	03/30/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	801	188
MW-7	06/28/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	835	192
MW-7	09/21/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	758	196
MW-7	12/31/2001	<0.0020	<0.0020	<0.0020	<0.0060	N/A	749	196
WHW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	473	32
WHW	N/A	N/A	N/A	N/A	N/A	N/A	898	68
CMW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	448	68
CMW	N/A	N/A	N/A	N/A	N/A	N/A	490	52
GHW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	722	76
GHW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	703	78
IWW	07/24/95	0.7770	<0.0200	<0.0200	0.0300	0.8070	13,889	7,178

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
IWW	06/19/96	0.0320	<0.0010	<0.0010	<0.0030	0.0320	1,817	828
IWW	11/25/96	0.6550	<0.0010	0.0026	<0.0030	0.6576	10,147	5,300
IWW	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1468	760
IWW	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	663	200
IWW	12/06/97	<0.0020	0.0060	<0.0020	0.0060	0.0120	931	328
IWW (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
IWW (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	491	67
IWW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	67
IWW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	369	74
IWW	04/06/99	0.0630	<0.0020	<0.0020	<0.0060	<0.0060	3310	2275
IWW	06/28/99	0.0130	<0.0020	<0.0020	<0.0060	<0.0060	2780	1893
IWW	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	626	166
IWW	12/13/99	0.0040	<0.0020	<0.0020	<0.0060	<0.0060	1260	505
IWW	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	682	244
IWW	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	751	182
IWW	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	435	82
IWW	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	95
IWW	03/30/2001	<0.0020	0.0030	<0.0020	<0.0060	N/A	485	113
IWW	06/28/2001	0.0022	<0.0020	<0.0020	<0.0060	N/A	876	265
IWW	09/21/2001	0.0030	0.0049	<0.0020	<0.0060	N/A	509	76
IWW	12/31/2001	0.0030	0.0015	<0.0020	<0.0060	N/A	502	152

Analysis was performed by Cardinal Laboratories in Hobbs, New Mexico.

Samples labeled (SPL) analyzed by Southern Petroleum Laboratories, Houston, Texas.

Benzene, toluene, ethylbenzene, and xylene (BTEX), total dissolved solids (TDS), and chloride analyses were conducted using EPA Methods 8020, 160.1, and 352.3, respectively.

Results presented in bold print exceed NMWQCC human health standards for ground water.

All results are reported in milligrams per liter (mg/l), parts per million (ppm).

TABLE 3
SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS
WATER QUALITY DATA
WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-1	04/17/96	865	7.88	250	223.9	57.9	123.4	12.0	0	200
MW-1	11/25/96	782	N/A	94	190.0	37.6	217.0	16.0	0	268
MW-1	04/03/97	1,042	7.44	258	250.0	83.0	200.0	25.0	0	346
MW-1	07/02/97	1,066	N/A	250	N/A	N/A	N/A	N/A	N/A	N/A
MW-1	12/06/97	449	N/A	80	N/A	N/A	N/A	N/A	N/A	N/A
MW-1	02/14/98	493	7.88	100	98.0	24.0	81.0	9.0	<1	151.0
MW-1	04/07/99	1,820	8.12	1,286	728.0	48.0	61.0	79.0	0.0	244.0
MW-2	04/17/96	394	7.96	46	35.4	71.7	57.4	16.1	0.0	160.0
MW-2	11/25/96	408	N/A	52	26.8	66.4	90.8	25.8	0.0	200.0
MW-2*	04/03/97	497	7.40	50	165.0	78.0	110.0	18.0	0.0	327.0
MW-2	07/02/97	464	N/A	96	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	12/06/97	857	N/A	180	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	02/14/98	455	N/A	36	N/A	N/A	N/A	N/A	N/A	N/A
MW-2	04/06/99	464	7.82	40	20	62	80	29	0	224
MW-2	06/28/99	426	7.37	44	7	75	66	27	0	229
MW-2	09/17/99	528	7.59	45	31	72	83	21	0	229
MW-2	12/14/99	596	7.76	41	63	58	77	13	0	249
MW-2	03/13/2000	574	7.25	38	229	88	94	25	0	244
MW-2	06/15/2000	614	7.39	79	24	92	87	23	0	249
MW-2	09/18/2000	624	7.26	171	160	75	112	15	0	325
MW-2	12/15/2000	557	7.23	120	62	98	54	23	0	310
MW-2	03/30/2001	480	6.78	68	68	85	127	20	0	286
MW-2	06/28/2001	592	7.26	77	139	80	58	21	0	297
MW-2	09/21/2001	513	7.19	60	40	106	85	23	0	291
MW-2	12/31/2001	522	7.42	72	68	120	152	18	0	324
MW-3	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-3	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-3*	04/03/97	7,764	7.14	3,249	1692.0	115.0	300.0	263.0	0.0	224.0
MW-3	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	02/14/98	2,967	7.40	1,700	300.0	607.0	<1	111.0	<1	141.0
MW-3	04/07/99	20,470	6.87	11,770	6251.0	928.0	640.0	388.0	0.0	415.0
MW-3	06/28/99	15,660	6.62	8,567	4531.0	916.0	1067.0	301.0	0.0	332.0
MW-3	09/17/99	17,730	6.86	8,922	4614.0	1120.0	1052.0	243.0	0.0	288.0
MW-3	12/14/99	18,120	7.12	9,093	6074.0	138.0*	581.0	29*	0.0	366.0
MW-3	03/13/2000	19,000	6.65	9,680	6450.0	802.0	1180.0	486.0	0.0	346.0
MW-3	06/15/2000	19,344	7.17	8,361	3410.0	992.0	1090.0	283.0	0.0	346.0
MW-3	09/18/2000	10,510	6.85	5,439	3188.0	444.0	640.0	121.0	0.0	315.0
MW-3	12/15/2000	16,730	6.80	11,904	6179.0	1042.0	598.0	379.0	0.0	415.0
MW-3	03/30/2001	19,430	6.78	11,100	6056.0	984.0	1105.0	358.0	0.0	431.0
MW-3	06/28/2001	18,440	6.79	8,646	5180.0	552.0	82.6	199.0	0.0	501.0
MW-3	09/21/2001	19,600	6.70	9,597	4040.0	1152.0	699.0	425.0	0.0	431.0
MW-3	12/31/2001	18,956	6.92	9,697	4803.0	1202.0	1359.0	450.0	0.0	458.0

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-4	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-4	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-4*	04/03/97	877	7.18	196	76.0	117.0	92.0	29.0	0.0	254.0
MW-4	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-4	04/06/99	1,088	7.65	297	44.00	142.00	78.00	51.00	0.00	205.00
MW-4	06/28/99	1,080	7.18	279	46.00	142.00	88.00	49.00	0.00	220.00
MW-4	09/17/99	1,187	7.38	300	61.00	138.00	87.56	50.00	0.00	215.00
MW-4	12/13/99	1,260	7.55	372	191.00	113.00	79.30	26.00	0.00	249.00
MW-4	03/13/2000	1,400	7.19	376	287.00	173.00	88.00	40.00	0.00	239.00
MW-4	06/15/2000	1,707	7.36	387	84.00	183.00	87.00	41.00	0.00	249.00
MW-4	09/18/2000	1,149	7.21	311	175.00	118.00	129.00	23.00	0.00	315.00
MW-4	12/15/2000	889	7.43	277	97.00	137.00	55.00	29.00	0.00	280.00
MW-4	03/30/2001	792	7.31	192	140.00	110.00	145.00	18.00	0.00	270.00
MW-4	06/28/2001	892	7.34	215	245.00	102.00	69.60	30.10	0.00	286.00
MW-4	09/21/2001	787	7.27	184	117.00	130.00	86.00	30.00	0.00	269.00
MW-4	12/31/2001	742	7.52	176	87.00	130.00	178.00	29.00	0.00	253.00
MW-5	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-5	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-5*	04/03/97	509	7.73	50	66.0	74.0	103.0	21.0	0.0	288.0
MW-5	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-5	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-5	02/14/98	426	7.74	44	16.0	81.0	56.0	14.0	<1	214.0
MW-5	04/06/99	491	7.78	40	7.00	75.00	87.00	33.00	0.00	239.00
MW-5	06/28/99	449	7.63	44	26.00	85.00	93.00	23.00	0.00	254.00
MW-5	09/17/99	484	7.75	49	33.00	83.00	88.59	21.00	0.00	254.00
MW-5	12/13/99	596	7.75	45	54.00	67.00	84.40	22.00	0.00	278.00
MW-5	03/13/2000	474	7.49	49	108.00	85.00	97.00	23.00	0.00	259.00
MW-5	06/15/2000	559	7.78	53	12.00	92.00	87.00	19.00	0.00	204.00
MW-5	09/18/2000	527	7.59	54	130.00	76.00	148.00	11.00	0.00	330.00
MW-5	12/15/2000	456	7.70	54	25.00	82.00	50.00	24.00	0.00	285.00
MW-5	03/30/2001	515	7.51.00	52	85.00	88.00	136.00	15.00	0.00	297.00
MW-5	06/28/2001	514	7.40	54	231.00	80.40	56.40	19.50	0.00	313.00
MW-5	09/21/2001	510	7.38	52	41.00	110.00	88.00	27.00	0.00	307.00
MW-5	12/31/2001	478	7.74	52	45.00	112.00	138.00	19.00	0.00	297.00
MW-6	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-6	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-6*	04/03/97	404	7.19	80	82.0	70.0	88.0	20.0	0.0	283.0
MW-6	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-6	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-6	04/06/99	436	7.84	20	21.0	59.0	74.0	24.0	0.0	234.0
MW-6	06/28/99	378	7.43	28	25.0	66.0	78.0	23.0	0.0	239.0
MW-6	09/17/99	428	7.33	24	18.0	69.0	74.3	25.0	0.0	254.0
MW-6	12/13/99	576	7.59	24	39.0	56.0	68.2	22.0	0.0	264.0
MW-6	03/13/2000	438	7.32	45	197.0	71.0	82.0	20.0	0.0	254.0
MW-6	06/15/2000	500	7.67	34	12.0	75.0	77.0	22.0	0.0	259.0
MW-6	09/18/2000	443	7.35	35	100.0	58.0	91.0	11.0	0.0	305.0
MW-6	12/15/2000	381	7.51	46	27.0	75.0	44.0	19.0	0.0	265.0

Well Name	Date Sampled	TDS	pH (S. U.)	Chloride (Cl)	Sodium (Na)	Calcium (Ca)	Sulfate (SO4)	Magnesium (Mg)	Carbonate (CO3)	Bicarbonate (HCO3)
NMWQCC Standards:		1,000 mg/l		250 mg/l	N/A	N/A	600 mg/l	N/A	N/A	N/A
MW-6	03/30/2001	456	7.33	48	48.0	79.0	73.1	13.0	0.0	270.0
MW-6	06/28/2001	491	7.21	54	264.0	74.5	46.3	17.7	0.0	297.0
MW-6	09/21/2001	444	7.25	44	25.0	96.0	62.0	23.0	0.0	275.0
MW-6	12/31/2001	492	7.46	48	51.0	96.0	156.0	27.0	0.0	286.0
MW-7	04/17/96	389	7.87	52	31.5	76.1	54.3	16.4	0.0	140.0
MW-7	11/25/96	424	N/A	52	34.1	69.6	90.8	17.5	0.0	205.0
MW-7*	04/03/97	1,166	7.84	344	327.0	70.0	162.0	17.0	0.0	376.0
MW-7	07/02/97	454	N/A	58	N/A	N/A	N/A	N/A	N/A	N/A
MW-7	12/06/97	364	N/A	48	N/A	N/A	N/A	N/A	N/A	N/A
MW-7	04/06/99	1,000	7.57	245	79.0	120.0	114.0	57.0	0.0	307.0
MW-7	06/28/99	938	7.23	255	122.0	126.0	111.0	33.0	0.0	303.0
MW-7	09/17/99	1,685	7.42	255	140.0	118.0	113.1	32.0	0.0	317.0
MW-7	12/13/99	996	7.46	258	233.0	73.0	101.0	9.3	0.0	322.0
MW-7	03/13/2000	1,022	7.18	258	220.0	131.0	118.0	35.0	0.0	307.0
MW-7	06/15/2000	1,130	7.48	271	122.0	143.0	109.0	33.0	0.0	337.0
MW-7	09/18/2000	978	7.77	260	371.0	46.0	123.0	13.0	0.0	505.0
MW-7	12/15/2000	826	7.45	224	134.0	112.0	96.0	26.0	0.0	325.0
MW-7	03/30/2001	801	7.44	141	155.0	102.0	141.0	18.0	0.0	324.0
MW-7	06/28/2001	835	7.37	87	291.0	86.2	87.4	20.4	0.0	323.0
MW-7	09/21/2001	758	7.21	97	84.0	112.0	97.0	32.0	0.0	297.0
MW-7	12/31/2001	749	7.48	150	126.0	114.0	150.0	27.0	0.0	297.0
IWW	04/17/96	1,231	N/A	545	N/A	N/A	N/A	N/A	N/A	N/A
IWW	11/25/96									
IWW*	04/03/97	1,468	7.38	760	552.0	61.0	150.0	23.0	0.0	283.0
IWW	07/02/97	836	N/A	246	N/A	N/A	N/A	N/A	N/A	N/A
IWW	02/14/98	491	N/A	67	N/A	N/A	N/A	N/A	N/A	N/A
IWW	04/07/99	3,310	9.97	2,275	930.0	80.0	173.0	316.0	0.0	195.0
IWW	06/28/99	2,780	7.23	1,893	1149.0	116.0	248.0	79.0	0.0	254.0
IWW	09/17/99	626	7.61	166	104.0	74.0	84.3	21.0	0.0	224.0
IWW	12/14/99	1,260	7.78	505	345.0	54.0	78.1	26.0	0.0	259.0
IWW	03/13/2000	682	7.44	244	472.0	69.0	94.0	27.0	0.0	264.0
IWW	06/15/2000	751	7.54	182	135.0	78.0	85.0	21.0	0.0	268.0
IWW	09/18/2000	435	7.60	82	140.0	58.0	94.0	12.0	0.0	325.0
IWW	12/15/2000	527	7.49	95	81.0	73.0	52.0	16.0	0.0	295.0
IWW	03/30/2001	485	7.33	56	90.0	76.0	113.0	16.0	0.0	307.0
IWW	06/28/2001	876	7.38	265	233.0	58.4	47.6	22.1	0.0	307.0
IWW	09/21/2001	509	7.31	100	80.0	90.0	76.0	21.0	0.0	297.0
IWW	12/31/2001	502	7.72	72	79.0	92.0	152.0	28.0	0.0	324.0

Analysis was performed by Cardinal Laboratories in Hobbs, New Mexico.

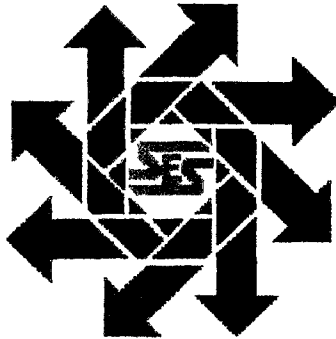
Analyses were conducted using EPA Methods 160.1 - TDS, 352.3 - chloride, 3111B - major cation/anions, 375.4 - sulfate, and 2320B - CO3, HCO3.

COL-6 = City of Lovington Well No. 6.

All results are reported in milligrams per liter (mg/l): parts per million (ppm). Results presented in bold print exceed NMWQCC human health standards for ground water.

**Rice Operating Company
Line N-6 Monitor Well Report
Sections 5 & 6, T19S, R38E
Lea County, New Mexico**

December 31, 2001



Prepared for:

**Rice Operating Company
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Hobbs, New Mexico 88240**

By:

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**Report Approval
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Sent To: *Rice*

Date: *1/9/02*

Custodian: *Carolyn HAYNES*

Dict. _____

OCB L.P. _____

OCB DO _____

Other *ORIGINAL & 1 Copy*

Other _____

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III. Analytical Results	3
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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection of the seven (7) ground water monitor wells and one (1) inactive water well at the Line N - 6 leak site (See Vicinity Map). The subject area is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The wells vary in casing size from 2" to 5".

II. Work Performed

SESI's environmental technician arrived at the site on December 31, 2001. Ground water samples were taken from each well after either hand bailing or a submersible pump developed the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was pumped into the Rice Operating disposal line located on-site. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses requested by Rice Operating Company included Benzene, Toulene, Ethyl Benzene, and Xylenes (BTEX) and Major Cations and Anions. (See Analytical Data) As in previous quarters, Monitor Well #1 had free product in it and was not sampled for testing.

In addition to the sampling, SESI also measured the depth to the top of ground water using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. A summary of this data follows:

ID	DATE	CASING ELEVATION (ft.)	DEPTH TO WATER (ft.)	POTENTIO- METRIC ELEVATION (ft.)	TOTAL WELL DEPTH (ft.)	FREE PRODUCT THICKNESS (ft.)
IWW	12/31/01	98.10	40.00	58.10	98.35	0.00
MW - 1	12/31/01	100.00	--	--	--	--
MW - 2	12/31/01	97.92	39.77	58.15	51.85	0.00
MW - 3	12/31/01	97.61	40.28	57.33	155.00	0.00
MW - 4	12/31/01	100.37	42.00	58.37	58.05	0.00
MW - 5	12/31/01	96.21	38.25	57.96	50.99	0.00
MW - 6	12/31/01	98.56	40.22	58.34	56.00	0.00
MW - 7	12/31/01	98.47	40.37	58.10	46.83	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
IWW	0.003	<0.002	<0.002	<0.006
MW-2	<0.002	<0.002	<0.002	<0.006
MW-3	0.683	<0.002	<0.002	<0.006
MW-4	<0.002	<0.002	<0.002	<0.006
MW-5	<0.002	<0.002	<0.002	<0.006
MW-6	<0.002	<0.002	<0.002	<0.006
MW-7	<0.002	<0.002	<0.002	<0.006

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
IWW	79	92	28	6.00	862	265
MW-2	68	120	18	4.41	859	252
MW-3	4,803	1,202	450	118	28,242	376
MW-4	87	130	29	5.89	1,170	208
MW-5	45	112	19	4.20	774	243
MW-6	51	96	27	1.56	717	234
MW-7	126	114	27	4.16	1,317	243

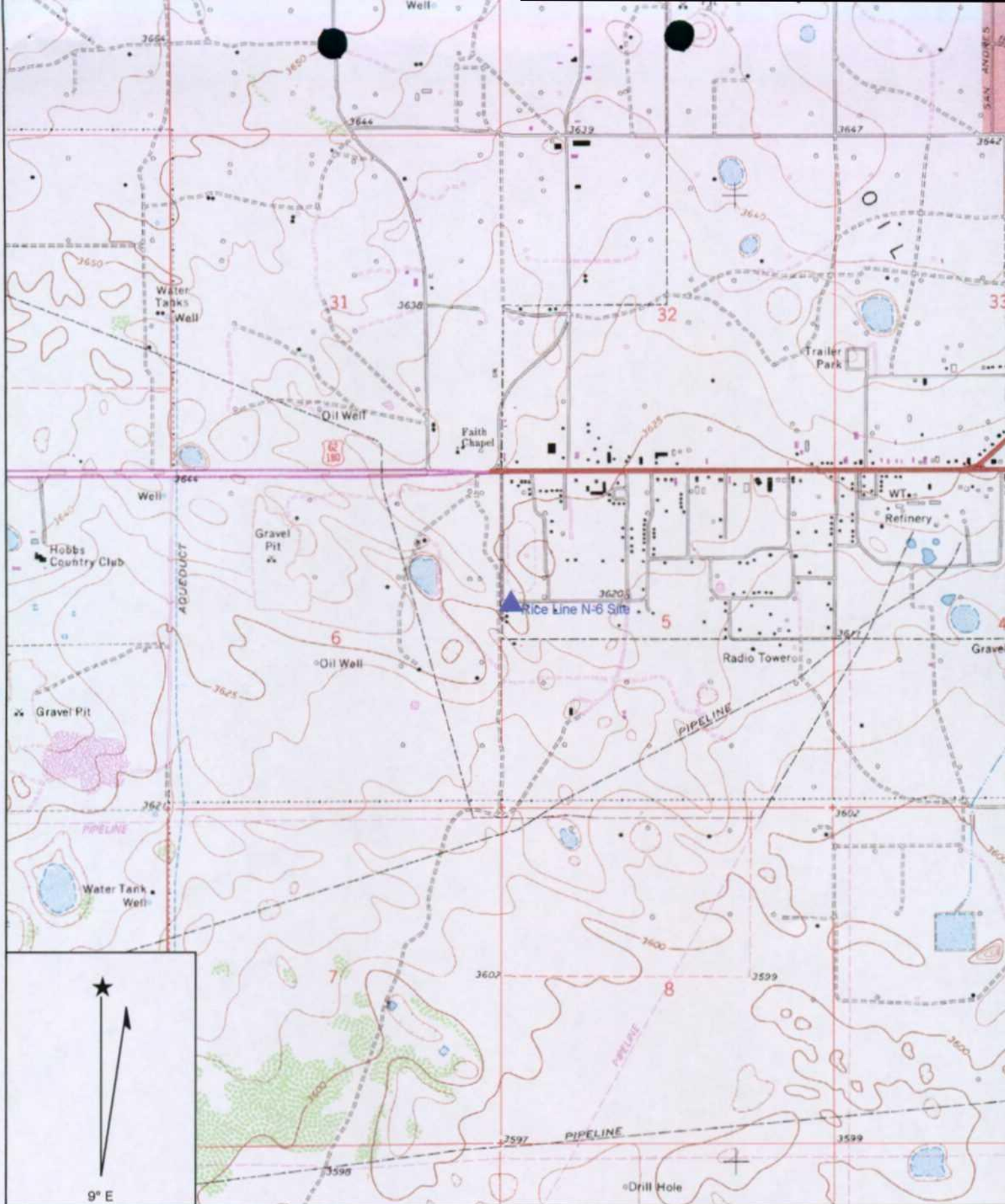
SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
IWW	72	152	0	324	7.72	502
MW-2	72	167	0	307	7.42	511
MW-3	9,697	1,359	0	458	6.92	18,956
MW-4	176	178	0	253	7.52	742
MW-5	52	138	0	297	7.74	478
MW-6	48	156	0	286	7.46	492
MW-7	196	150	0	297	7.48	749

* Red exceeds NM WQCC Groundwater Standards (See Appendix A)

IV. Maps and Appendices

Vicinity Map
Potentiometric Map
Cumulative Well Water Quality Data
Analytical Results
Water Analysis Validation

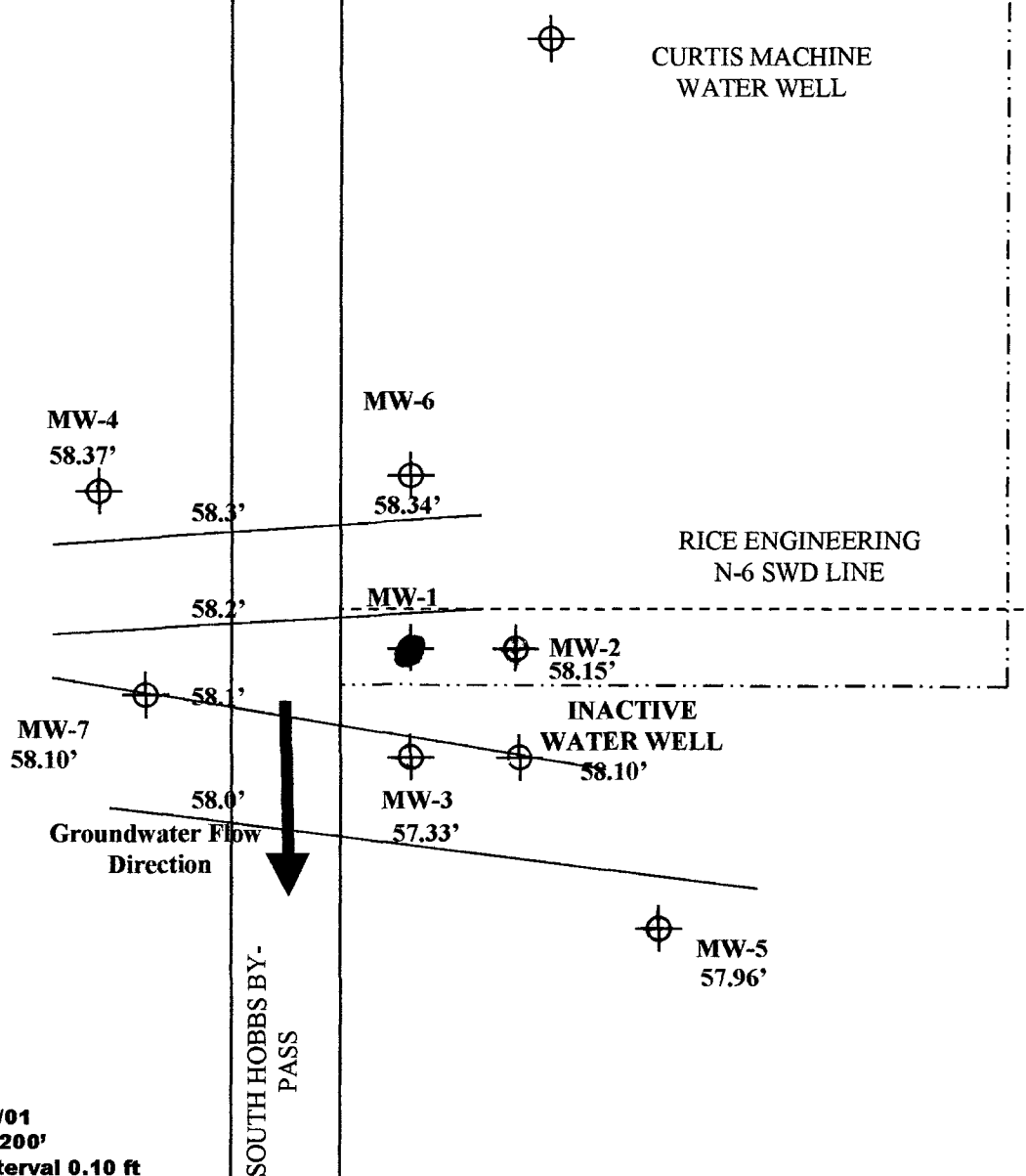
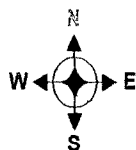
**Figure 1
Vicinity Map**



Name: HOBBS WEST
 Date: 1/9/2002
 Scale: 1 inch equals 2000 feet

Location: 032° 41' 27.1" N 103° 10' 42.5" W
 Caption: Rice Operating Company
 Line N-6 Monitor Wells
 Sections 5, 6, T19S, R38E

**Figure 2
Potentiometric Map**



Date 12/31/01
Scale 1" = 200'
Contour Interval 0.10 ft

Notes: MW - 1 Contains hydrocarbon product; water level not used in drawing map contours
MW - 3 Completed in deeper aquifer zone; water level not used in drawing map contours
Elevations relative to top of casing datum of 100 ft. at MW -1

GRAY HOUSE WATER WELL

Rice Operating Company
Potentiometric Map

Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico

Safety & Environmental
Solutions, Inc.



**Line N-6 Monitor Well Report
December 31, 2001**

**Rice Operating Company
Lea County, New Mexico**

**Appendix A
Cumulative Well Water Quality Data**

Cumulative Data on Line N-6 (West County Road) Monitor Wells

Monitor Well #1

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)
Sodium	N/A	728	*
Calcium	N/A	48	*
Magnesium	N/A	79	*
Potassium	N/A	37	*
Conductivity	N/A	4,710	*
T-Alkalinity	N/A	200	*
Chlorides	250	1,286	*
Sulfate (SO ₄)	600	61	*
Carbonate (CO ₃)	N/A	0	*
HCO ₃	N/A	244	*
TDS	1,000	1,820	*
pH	> 6 & <9	8.12	*
Benzene	0.01	2.85	*
Toluene	0.75	1.33	*
Ethyl Benzene	0.75	2.52	*
Total Xylenes	0.62	2.55	*

*Free product in well on 6/28/99 and subsequent test dates – no water samples obtained.

Monitor Well #2

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	20	7	31	63
Calcium	N/A	62	75	72	58
Magnesium	N/A	29	27	21	13
Potassium	N/A	3.62	3.41	3.01	4.4
Conductivity	N/A	718	670	682	663
T-Alkalinity	N/A	184	188	188	204
Chlorides	250	40	44	45	41
Sulfate (SO ₄)	600	80	66	83.01	77.6
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	224	229	229	249
TDS	1,000	464	426	528	596
pH	> 6 & <9	7.82	7.37	7.59	7.76
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	229	24	160	62
Calcium	N/A	88	92	75	98
Magnesium	N/A	25	23	15	23
Potassium	N/A	2.5	1.7	1.85	4.31
Conductivity	N/A	852	802	908	1029
T-Alkalinity	N/A	200	204	267	254
Chlorides	250	38	79	171	120
Sulfate (SO ₄)	600	94	87	112	54
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	244	249	325	310
TDS	1,000	574	614	624	557
pH	> 6 & <9	7.25	7.39	7.26	7.23
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	68	139	40	68
Calcium	N/A	85	80.4	106	120
Magnesium	N/A	20	21.3	23	18
Potassium	N/A	2.7	3.2	2.98	4.41
Conductivity	N/A	757	769	746	859
T-Alkalinity	N/A	234	243	239	252
Chlorides	250	68	77	60	72
Sulfate (SO ₄)	600	127	57.9	85	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	286	297	291	324
TDS	1,000	480	592	513	511
PH	> 6 & <9	6.78	7.26	7.19	7.42
Benzene	0.01	0.007	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #3

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	6,251	4,531	4,614	6,074
Calcium	N/A	928	916	1,120	138
Magnesium	N/A	388	301	243	29
Potassium	N/A	68	56.3	52.19	34.9
Conductivity	N/A	37,800	21,500	1,856	23,900
T-Alkalinity	N/A	340	272	236	300
Chlorides	250	11,770	8,567	8,922	9,093
Sulfate (SO ₄)	600	640	1,067	1,052	581
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	415	332	288	366
TDS	1,000	20,470	15,660	17,730	18,120
pH	> 6 & <9	6.87	6.62	6.86	7.12
Benzene	0.01	0.953	0.673	0.715	0.761
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.004	<0.002	<0.002	0.003
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	6,450	24	3,188	6,179
Calcium	N/A	802	92	444	1,042
Magnesium	N/A	486	23	121	379
Potassium	N/A	42.9	1.7	21.4	103
Conductivity	N/A	26,325	802	15,585	27,840
T-Alkalinity	N/A	284	204	258	340
Chlorides	250	9,680	8,361	5,439	11,904
Sulfate (SO ₄)	600	1,180	1,090	640	598
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	346	346	315	415
TDS	1,000	19,000	19,344	10,510	16,730
PH	> 6 & <9	6.65	7.17	6.85	6.80
Benzene	0.01	0.724	0.392	0.313	0.215
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	0.003	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.002

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	6,056	5,180	4,040	4,803
Calcium	N/A	984	552	1,152	1,202
Magnesium	N/A	358	199	425	450
Potassium	N/A	47.9	84.6	67.8	118
Conductivity	N/A	25264	23650	26700	28242
T-Alkalinity	N/A	354	411	354	376
Chlorides	250	11,100	8,646	9,597	9,697
Sulfate (SO ₄)	600	1,105	82.6	699	1,359
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	431	501	431	458
PH	1,000	6.78	6.79	6.70	6.92
TDS	> 6 & <9	19,430	18,440	19,600	18,956
Benzene	0.01	1.03	0.111	0.693	0.683
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #4

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	44	46	61	191
Calcium	N/A	142	142	138	113
Magnesium	N/A	51	49	50	26
Potassium	N/A	5.44	5.82	4.87	5.3
Conductivity	N/A	1,536	1,500	1,436	1,499
T-Alkalinity	N/A	168	180	176	204
Chlorides	250	297	279	300	372
Sulfate (SO ₄)	600	78	88	87.56	79.3
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	205	220	215	249
TDS	1,000	1,088	1,080	1,187	1,260
PH	> 6 & <9	7.65	7.18	7.38	7.55
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	287	84	175	97
Calcium	N/A	173	183	118	137
Magnesium	N/A	40	41	23	29
Potassium	N/A	3.7	3.0	4.02	3.68
Conductivity	N/A	1,879	1,821	1,602	1,523
T-Alkalinity	N/A	239	204	258	230
Chlorides	250	376	387	311	277
Sulfate (SO ₄)	600	88	87	129	55
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	249	315	280
TDS	1,000	1,400	1,707	1,149	889
PH	> 6 & <9	7.19	7.36	7.21	7.43
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	140	245	117	87
Calcium	N/A	110	102	130	130
Magnesium	N/A	18	30.1	30	29
Potassium	N/A	2.99	3.7	3.68	5.89
Conductivity	N/A	1,168	1,180	1,163	1,170
T-Alkalinity	N/A	221	234	212	208
Chlorides	250	192	215	184	176
Sulfate (SO ₄)	600	145	69.6	86	178
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	286	259	253
TDS	1,000	792	892	787	742
pH	> 6 & <9	7.31	7.34	7.27	7.52
Benzene	0.01	0.004	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #5

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	7	26	33	54
Calcium	N/A	75	85	83	67
Magnesium	N/A	33	23	21	22
Potassium	N/A	3.01	2.71	2.92	4.9
Conductivity	N/A	770	763	718	693
T-Alkalinity	N/A	196	208	208	228
Chlorides	250	40	44	49	45
Sulfate (SO ₄)	600	87	93	88.59	84.4
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	239	254	254	278
TDS	1,000	491	449	484	596
PH	> 6 & <9	7.78	7.63	7.75	7.75
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	108	12	130	25
Calcium	N/A	85	92	76	82
Magnesium	N/A	23	19	11	24
Potassium	N/A	2.4	1.2	1.71	2.19
Conductivity	N/A	800	748	839	776
T-Alkalinity	N/A	259	208	271	234
Chlorides	250	49	53	54	54
Sulfate (SO ₄)	600	97	87	148	50
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	259	204	330	285
TDS	1,000	474	559	527	456
pH	> 6 & <9	7.49	7.78	7.59	7.70
Benzene	0.01	<0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	85	231	41	45
Calcium	N/A	88	80.4	110	112
Magnesium	N/A	15	19.5	27	19
Potassium	N/A	1.78	2.2	3.46	4.20
Conductivity	N/A	726	684	771	774
T-Alkalinity	N/A	243	257	252	243
Chlorides	250	52	54	52	52
Sulfate (SO ₄)	600	136	56.4	88	138
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	297	313	307	297
TDS	1,000	515	514	510	478
PH	> 6 & <9	7.51	7.40	7.38	7.74
Benzene	0.01	<0.002	<0.002	0.004	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #6

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	21	25	18	39
Calcium	N/A	59	66	69	56
Magnesium	N/A	24	23	25	22
Potassium	N/A	3.18	2.86	3.22	3.8
Conductivity	N/A	663	644	643	586
T-Alkalinity	N/A	192	196	208	216
Chlorides	250	20	28	24	24
Sulfate (SO ₄)	600	74	78	74.32	68.2
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	234	239	254	264
TDS	1,000	436	378	428	576
PH	> 6 & <9	7.84	7.43	7.33	7.59
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	197	12	100	27
Calcium	N/A	71	75	58	75
Magnesium	N/A	20	22	11	19
Potassium	N/A	1.9	1.7	2.32	2.15
Conductivity	N/A	686	662	681	710
T-Alkalinity	N/A	254	212	250	217
Chlorides	250	45	34	35	46
Sulfate (SO ₄)	600	82	77	91	44
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	254	259	305	265
TDS	1,000	438	500	443	381
PH	> 6 & <9	7.32	7.62	7.35	7.51
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	0.003	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	48	264	25	51
Calcium	N/A	79	74.5	96	96
Magnesium	N/A	13	17.7	23	27
Potassium	N/A	2.26	2.3	2.57	1.56
Conductivity	N/A	655	656	686	717
T-Alkalinity	N/A	221	243	225	234
Chlorides	250	48	54	44	48
Sulfate (SO ₄)	600	73.1	46.3	62	156
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	270	297	275	286
TDS	1,000	456	491	444	492
pH	> 6 & <9	7.33	7.21	7.25	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #7

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/06/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/13/99 (mg/L)
Sodium	N/A	79	122	140	233
Calcium	N/A	120	126	118	73
Magnesium	N/A	57	33	32	9.3
Potassium	N/A	6.55	5.00	5.21	4.4
Conductivity	N/A	1,663	1,568	1,535	1,401
T-Alkalinity	N/A	252	248	260	264
Chlorides	250	245	255	255	258
Sulfate (SO ₄)	600	114	111	113.11	101
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	303	317	322
TDS	1,000	1,000	938	1,685	996
pH	> 6 & <9	7.57	7.23	7.42	7.46
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	220	122	371	134
Calcium	N/A	131	143	46	112
Magnesium	N/A	35	33	13	26
Potassium	N/A	3.9	3.1	3.79	3.01
Conductivity	N/A	1,694	1,633	1,657	1,499
T-Alkalinity	N/A	307	276	414	267
Chlorides	250	258	271	260	224
Sulfate (SO ₄)	600	118	109	123	96
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	337	505	325
TDS	1,000	1,022	1,130	978	826
pH	> 6 & <9	7.18	7.48	7.77	7.45pm
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Monitor Well #7 (Continued)

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	155	291	84	126
Calcium	N/A	102	86.2	112	114
Magnesium	N/A	18	20.4	32	27
Potassium	N/A	3.61	4.8	5.80	4.16
Conductivity	N/A	1,190	1,201	1,255	1,317
T-Alkalinity	N/A	265	265	243	243
Chlorides	250	188	192	196	196
Sulfate (SO ₄)	600	141	87.4	97	150
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	324	323	297	297
TDS	1,000	801	835	758	749
pH	> 6 & <9	7.44	7.37	7.21	7.48
Benzene	0.01	<0.002	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	INITIAL TEST 4/07/99 (mg/L)	TEST DATE 6/28/99 (mg/L)	TEST DATE 9/17/99 (mg/L)	TEST DATE 12/14/99 (mg/L)
Sodium	N/A	930	1,149	104	345
Calcium	N/A	80	116	74	54
Magnesium	N/A	316	79	21	26
Potassium	N/A	17	14.94	5.44	10.1
Conductivity	N/A	7,790	5,690	1,028	1,990
T-Alkalinity	N/A	160	208	184	212
Chlorides	250	2,275	1,893	166	505
Sulfate (SO ₄)	600	173	248	84.31	78.1
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	195	254	224	259
TDS	1,000	3,310	2,780	626	1,260
pH	> 6 & <9	6.97	7.23	7.61	7.78
Benzene	0.01	0.063	0.013	<0.002	0.004
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/13/00 (mg/L)	TEST DATE 6/15/00 (mg/L)	TEST DATE 9/18/00 (mg/L)	TEST DATE 12/15/00 (mg/L)
Sodium	N/A	472	135	140	81
Calcium	N/A	69	78	58	73
Magnesium	N/A	27	21	12	16
Potassium	N/A	5.7	3.8	2.29	4.15
Conductivity	N/A	1,309	1,156	767	900
T-Alkalinity	N/A	216	220	267	242
Chlorides	250	244	182	82	95
Sulfate (SO ₄)	600	94	85	94	52
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	264	268	325	295
TDS	1,000	682	751	435	527
pH	> 6 & <9	7.44	7.54	7.60	7.49
Benzene	0.01	0.003	<0.002	<0.002	<0.002
Toluene	0.75	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.62	<0.006	<0.006	<0.006	<0.006

Inactive Water Well

CONTAMINANT	WQCC STANDARD (mg/L)	TEST DATE 3/30/01 (mg/L)	TEST DATE 6/28/01 (mg/L)	TEST DATE 9/21/01 (mg/L)	TEST DATE 12/31/01 (mg/L)
Sodium	N/A	90	233	80	79
Calcium	N/A	76	58.4	90	92
Magnesium	N/A	16	22.1	21	28
Potassium	N/A	4.31	6.7	6.22	6.00
Conductivity	N/A	705	1,397	881	862
T-Alkalinity	N/A	252	252	243	265
Chlorides	250	56	265	100	72
Sulfate (SO ₄)	600	113	47.6	76	152
Carbonate (CO ₃)	N/A	0	0	0	0
HCO ₃	N/A	307	307	297	324
TDS	1,000	485	876	509	502
pH	> 6 & <9	7.33	7.38	7.31	7.72
Benzene	0.01	<0.002	0.00221	0.003	0.003
Toluene	0.75	<0.002	0.00304	<0.002	<0.002
Ethyl Benzene	0.75	<0.002	0.00486	<0.002	<0.002
Total Xylenes	0.62	<0.006	0.00149	<0.006	<0.006

Appendix B

Analytical Results



CARDINAL LABORATORIES

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

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

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 01/02/02
Reporting Date: 01/03/02
Project Owner: RICE
Project Name: WEST COUNTY ROAD
Project Location: HOBBS, NM

Sampling Date: 12/31/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:	01/03/01	01/02/01	01/02/01	01/02/01	01/03/01	01/02/01
H6378-1 WW	79	92	28	6.00	862	265
H6378-2 MW #2	68	120	18	4.41	859	252
H6378-3 MW #3	4803	1202	450	118	28242	376
H6378-4 MW #4	87	130	29	5.89	1170	208
H6378-5 MW #5	45	112	19	4.20	774	243
H6378-6 MW #6	51	96	27	1.56	717	234
H6378-7 MW #7	126	114	27	4.16	1317	243
Quality Control	1.012	55	49	5.27	1489	NR
True Value QC	1.000	50	50	5.00	1413	NR
% Accuracy	101	110	97.2	105	105	NR
Relative Percent Difference	1.2	0	6.0	0	0.3	NR
METHODS:	SM3500-Ca-D 3500-Mg E			8049	120.1	310.1
	Cl ⁻	SO ₄	CO ₃	HCO ₃	pH	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)

ANALYSIS DATE:	01/02/01	01/02/01	01/02/01	01/02/01	01/03/01	01/03/01
H6378-1 WW	72	152	0	324	7.72	502
H6378-2 MW #2	72	167	0	307	7.42	511
H6378-3 MW #3	9697	1359	0	458	6.92	18956
H6378-4 MW #4	176	178	0	253	7.52	742
H6378-5 MW #5	52	138	0	297	7.74	478
H6378-6 MW #6	48	156	0	286	7.46	492
H6378-7 MW #7	196	150	0	297	7.48	749
Quality Control	1050	52.66	NR	984	7.03	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Accuracy	105	105	NR	98.4	100	NR
Relative Percent Difference	3.0	0.6	NR	2.7	0.4	5.1
METHODS:	SM4500-Cl-B			375.4	310.1	150.1
	375.4	310.1	310.1	150.1	160.1	

Chemist

Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H6378



ARDINAL LABORATORIES

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

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

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

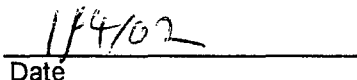
Receiving Date: 01/02/02
Reporting Date: 01/04/02
Project Owner: RICE
Project Name: WEST COUNTY ROAD
Project Location: HOBBS, NM

Sampling Date: 12/31/01
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		01/02/02	01/02/02	01/02/02	01/02/02
H6378-1	WW	0.003	<0.002	<0.002	<0.006
H6378-2	MW #2	<0.002	<0.002	<0.002	<0.006
H6378-3	MW #3	0.683	<0.002	<0.002	<0.006
H6378-4	MW #4	<0.002	<0.002	<0.002	<0.006
H6378-5	MW #5	<0.002	<0.002	<0.002	<0.006
H6378-6	MW #6	<0.002	<0.002	<0.002	<0.006
H6378-7	MW #7	<0.002	<0.002	<0.002	<0.006
Quality Control		0.095	0.096	0.101	0.297
True Value QC		0.100	0.100	0.100	0.300
% Recovery		95.1	96.0	101	98.8
Relative Percent Difference		11.3	5.2	5.7	4.8

METHOD: EPA SW-846 8260


Chemist


Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H6378.XLS

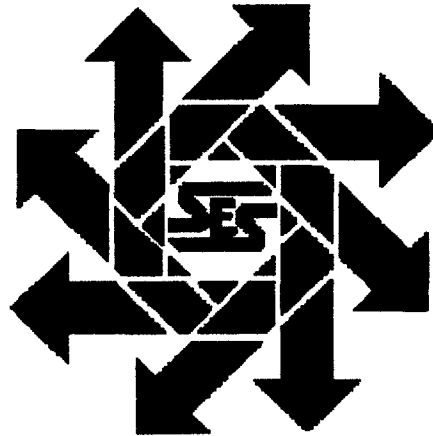
**Appendix C
Water Analysis Validation**

Cations and Anions Calculation Check								
	Sample Name	H6378-1	H6378-2	H6378-3	H6378-4	H6378-5	H6378-6	H6378-7
	Well Number	IWW	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Date	12/31/01	12/31/01	12/31/01	12/31/01	12/31/01	12/31/01	12/31/01
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	79	68	4,803	87	45	51	126
20.04	Calcium (mg/L)	92	120	1,202	130	112	96	114
12.15	Magnesium (mg/L)	28	18	450	29	19	27	27
39.09	Potassium (mg/L)	6.0	4.4	118.0	5.9	4.2	1.6	4.2
35.45	Chloride (mg/L)	72	72	9,697	176	52	48	196
48.04	Sulfate (mg/L)	152	167	1,359	178	138	156	150
30.00	Carbonate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.01	Bicarbonate (mg/L)	324	307	458	253	297	286	297
50.04	Alkalinity (mg/L CaCO ₃)	265	252	376	208	243	234	243
62.00	Nitrate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Elect. Conductivity (umhos/cm)	862	859	28,242	1,170	774	717	1,317
	Measured TDS (evap., mg/L)	502	511	18,956	742	478	492	749
	Sum Cations (meq/L)	10.5	10.5	309.0	12.8	9.2	9.3	13.5
	Sum Anions (meq/L)	10.5	10.5	309.4	12.8	9.2	9.3	13.5
1.	Percent Difference	0.0	0.0	0.1	0.1	-0.1	0.0	0.0
	TDS (calc. USGS sum, mg/L)	588	601	17,855	731	516	520	763
2.	TDS (meas.) / TDS (calc. USGS)	0.9	0.9	1.1	1.0	0.9	0.9	1.0
	TDS (calc. sum, mg/L)	753	756	18,087	859	667	666	914
	TDS (C*0.7, mg/L)	603	601	19,769	819	542	502	922
3.	TDS (calc. USGS) / Conductivity	0.68	0.70	0.63	0.62	0.67	0.73	0.58
Test Criteria								
1. Anion-Cation Balance:			Anion Sum	Max % diff.				
			0 - 3.0	± 0.2				
			3.0 - 10.0	± 2				
			10.0 - 800	± 5				
2. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2					
3. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7					

**Rice Operating Company
West County Road Monitor Well #1
Skim Pump Report**

**Section 5 and 6, T19S, R38E
Lea County, New Mexico**

January 2002



Prepared for:

**Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240**

Prepared by:

***Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 102
Hobbs, New Mexico 88240
(505) 397-0510***

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III. Recovery Results.....	2
IV. Maps and Figures	3

I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to install a skim pump in Monitor Well #1 to remove free phase hydrocarbons at the Line N-6 site which is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The well has a casing size of 4" (See Vicinity Map).

SESI environmental technician Dee Whatley arrived at the site on September 30, 1999 and installed a Skim-Rite skim pump in Monitor Well #1 to facilitate the removal of free phase hydrocarbon from the top of the water table in the well. Beginning on October 26, 1999, the fluid recovered is measured in total volume only, with no breakdown on oil/water percentages.

On February 21, 2000, SESI personnel met with Carolyn Haynes of Rice Operating Company to discuss the performance of the skimming system. The inline flow meter was exhibiting intermittent clogging problems, so it was decided at this time to return to the initial method of fluid recovery, pumping directly into drums at the site to facilitate measurement of recovered product and water volumes.

II. Work Performed

The skim pump is operated one day a week and the fluid in the well is allowed to recover until the next operation day. SESI ran the skim pump 4 days during the month of December, 2001. The detail of the hours of operation is as follows:

Date	Start Time	Stop Time	Hours of Operation
01/04/02	7:45am	4:15pm	8hrs.
01/11/02	8:15am	4:45pm	8.5hrs.
01/18/02	8:00am	4:30pm	8.5hrs.
01/25/02	8:00am	4:00pm	8hrs.

III. Recovery Results

The fluid recovered from the well is pumped into a drum and measurements are taken of the fluid using "Kolor-Kut" and recorded after each day of operation. The details of the product and fluid recovery for each day of operation is as follows:

Skimmer Pump Report
January 2002

Rice Operating Company
Lea County, New Mexico

Date	Hours	Oil Recovered (Gallons)	Water Recovered (Gallons)	Total Fluid Recovered (gallons)
01/04/02	8 hrs.	0.35	0	0.35
01/11/02	8.5 hrs.	0.69	0	0.69
01/18/02	8.5 hrs.	1.04	0	1.04
01/25/02	8 hrs.	0.69	0	0.69
January Totals	33.0	2.77	0	2.77

IV. Maps and Exhibits

Vicinity Map

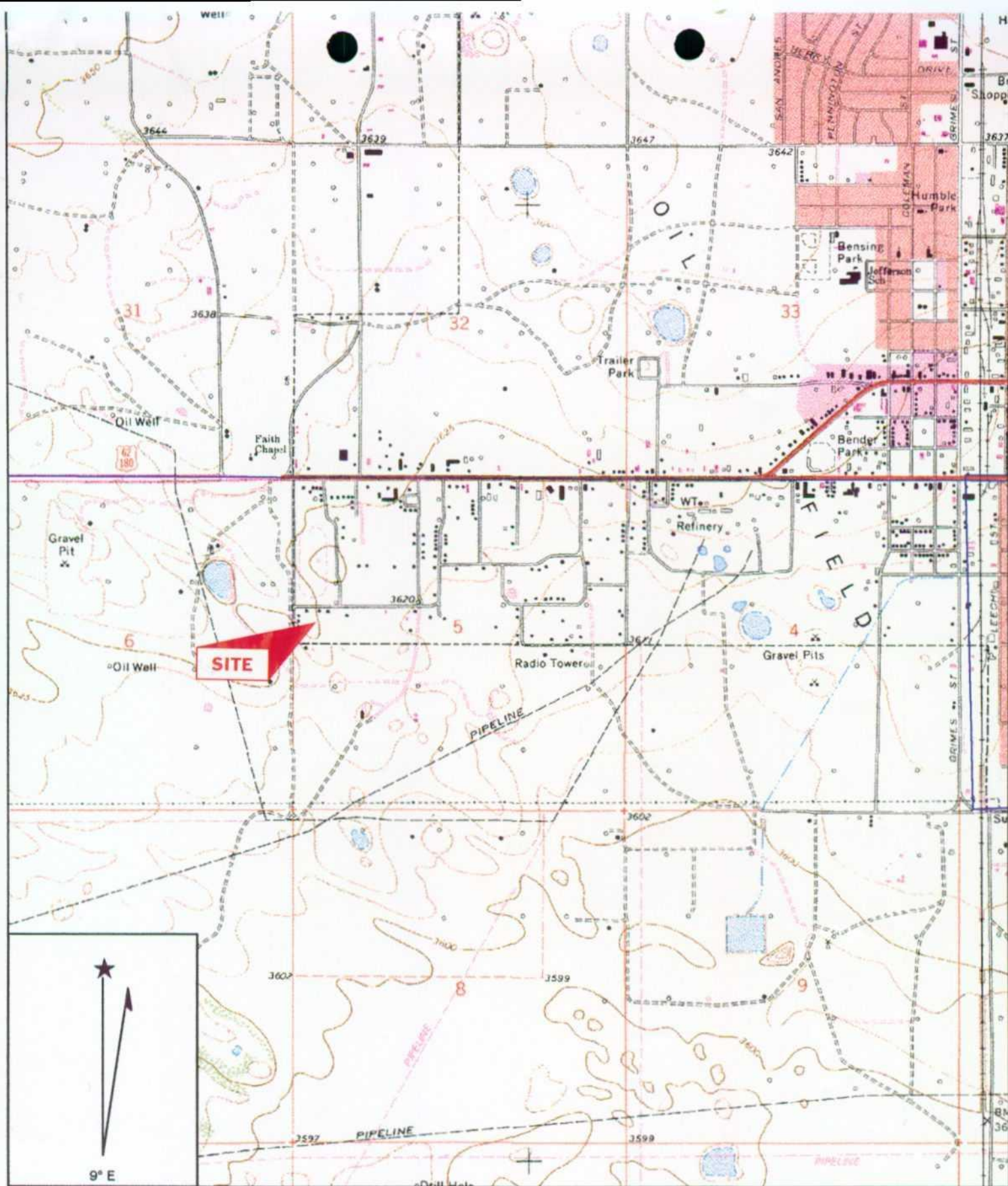
Site Map

Cumulative Recovery Data

Skimmer Pump Report
January 2002

Rice Operating Company
Lea County, New Mexico

Exhibit A
Vicinity Map



Name: HOBBS WEST
 Date: 6/21/2000
 Scale: 1 inch equals 2000 feet

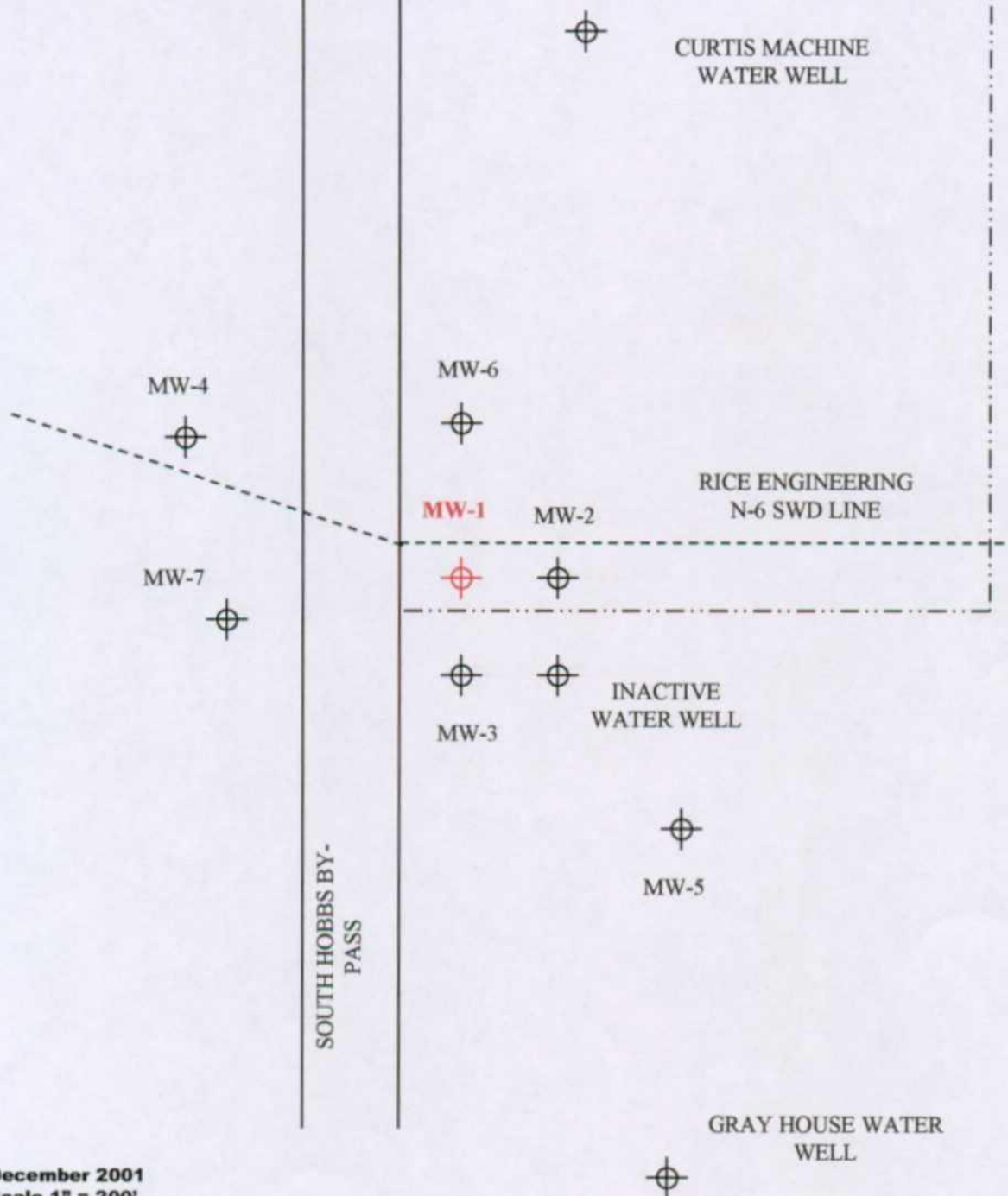
Location: 032° 41' 29.6" N 103° 10' 03.7" W
 Caption: Rice Operating Company
 West County Road
 Vicinity Map

Skimmer Pump Report
January 2002

Rice Operating Company
Lea County, New Mexico

Exhibit B

Site Plan



December 2001
Scale 1" = 200'

**Rice Operating Company
Site Plan**

**Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico**

**Safety & Environmental
Solutions, Inc.**



Skimmer Pump Report
January 2002

Rice Operating Company
Lea County, New Mexico

Exhibit C
Cumulative Recovery Data

Skimmer Pump Recovery Table

January, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
9/30/99	8:00am						
10/1/99	5:00pm	40.13	40.13	0.00			
10/4/99	6:55am	40.02	41.13	1.11			
10/4/99	3:45pm	40.13	40.14	0.01			
10/5/99	7:15am	40.13	40.40	0.27			
10/5/99	3:40pm	40.13	40.14	0.01			
10/6/99	6:55am	40.13	40.40	0.27			
10/6/99	3:45pm	40.16	40.17	0.01			
10/7/99	7:10am	40.14	40.40	0.26			
10/7/99	3:35pm	40.175	40.180	0.01			
10/14/99	8:00am	40.14	40.69	0.55	28.0	18.0	10.0
10/15/99	8:00am	--	40.18	0.00	12.0	6.0	6.0
10/18/99	8:00am	40.06	41.00	0.94			
10/19/99	8:00am	--	40.02	0.00	18.0	6.0	12.0
10/26/99	8:00am	38.68	39.33	0.65	10.0	2.0	8.0
10/26/99	2:00pm	--		0.00	6.5		
11/1/99	7:30am	40.01	41.09	1.08			
11/2/99	9:30am	--	40.22	0.00			
11/4/99	9:30am	40.15	40.73	0.58			
11/5/99	9:30am	--	41.18	0.00			
11/8/99	1:30pm	40.12	40.90	0.78	73.0		
11/9/99	5:00pm	--	40.15	0.00	33.5		
11/16/99	8:20am	39.97	42.11	2.14			
11/16/99	5:20pm	38.97	39.45	0.48	11.0		
11/19/99	8:45am	40.10	41.41	1.31			
11/19/99	4:45pm	40.14	40.86	0.72	0.5		
11/22/99	7:30am	40.10	41.45	1.35			
11/22/99	4:00pm	40.10	40.60	0.50	14.5		
11/29/99	8:00am	40.14	41.41	1.27			
11/29/99	4:00pm	40.19	40.91	0.72	18.5		
12/6/99	8:00am	40.13	41.55	1.42			
12/6/99	5:00pm	40.22	41.02	0.80	4.5		
12/13/99	10:00am	40.03	42.23	2.20			
12/13/99	5:00pm	40.23	41.05	0.82	4.5		
12/17/99	8:00am	40.12	41.85	1.73			
12/17/99	6:00pm	40.27	41.05	0.78	2.0		
12/20/99	8:00am	40.17	41.55	1.38			
12/20/99	4:30pm	40.34	40.65	0.31	3.0		
12/23/99	8:30am	40.23	41.21	0.98			
12/24/99	7:30am	40.27	41.15	0.88	5.0		
1/3/00	9:15am	40.21	40.62	0.41			
1/4/00	9:30am	40.34	40.79	0.45	0.0		
1/10/00	9:00am	40.11	42.10	1.99			

Skimmer Pump Recovery Table

January, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
1/11/00	7:30am	--	40.41	0.00	1.0		
1/18/00	8:00am	41.18	42.08	0.90			
1/19/00	8:00am	--	40.42	0.00	9.0		
1/26/00	10:00am	40.19	42.03	1.84			
1/27/00	9:00am	--	40.46	0.00	1.0		
2/1/00	9:00am	40.29	41.64	1.35			
2/2/00	1:00pm	--	40.46	0.00	24.0		
2/7/00	8:30am	40.31	41.61	1.30			
2/8/00	8:00am	--	40.49	0.00	3.0		
2/15/00	7:00am	40.24	42.10	1.86			
2/16/00	8:30am	--	40.56	0.00	9.0		
2/22/00	8:00am	40.30	41.94	1.64			
2/23/00	8:00am	40.51	40.61	0.10	36.6	7.2	29.4
3/1/00	8:00am	40.29	42.17	1.88			
3/1/00	4:00pm	--	40.60	0.00	11.0	11.0	
3/8/00	8:00am	40.30	42.11	1.81			
3/8/00	4:00pm	--	40.34	0.00	19.3	12.4	6.9
3/15/00	5:30am	40.33	42.17	1.84			
3/15/00	5:30pm	40.52	40.72	0.20	8.3	6.9	1.4
3/22/00	8:00am	40.33	42.17	1.84			
3/22/00	7:00pm	--	40.34	0.00	13.8	8.3	5.5
3/29/00	7:45am	40.35	42.22	1.87			
3/29/00	4:30pm	40.58	40.92	0.34	17.9	11.0	6.9
4/6/00	9:30am	40.50	41.17	0.67			
4/6/00	4:45pm	40.59	40.61	0.02	15.2	6.9	8.3
4/13/00	8:00am	40.41	42.03	1.62			
4/13/00	7:00pm	--	40.62	0.00	17.9	12.4	5.5
4/20/00	7:00am	40.42	42.24	1.82			
4/20/00	4:30pm	--	40.62	0.00	16.6	9.7	6.9
4/26/00	8:00am	40.45	42.04	1.59			
4/26/00	4:30pm	--	40.65	0.00	20.7	9.7	11.0
5/3/00	7:30am	40.45	42.17	1.72			
5/3/00	5:00pm	--	40.66	0.00	13.0	8.0	5.0
5/11/00	8:00am	40.46	42.27	1.81			
5/11/00	5:00pm	42.27	42.20	0.00	8.5	3.5	5.0
5/18/00	8:00am	40.49	42.20	1.71			
5/18/00	5:00pm	42.20	40.50	0.00	16.0	2.0	14.0
5/25/00	8:00am	40.50	42.32	1.82			
5/25/00	5:00pm	42.32	42.16	0.00	18.0	3.0	15.0
6/1/00	5:30am	40.56	42.12	1.54			
6/1/00	5:00pm	42.12	42.09	0.00	29.7	6.2	23.5
6/8/00	8:00am	40.52	42.25	1.73			
6/8/00	4:30pm	42.25	40.79	1.46	2.7	1.7	1.0
6/15/00	7:30am	40.61	42.18	1.57			
6/15/00	5:00pm	42.18	40.79	1.39	4.1	1.7	2.4
7/6/00	8:00am	40.44	41.98	1.54			
7/6/00	5:00pm	40.63	41.22	0.59	11.7	4.1	7.6
7/13/00	8:00am	40.30	41.98	1.68			

Skimmer Pump Recovery Table

January, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
7/13/00	5:00pm	--					
7/20/00	7:30am	40.27	41.77	1.50			
7/20/00	4:30pm	41.77	40.45	1.32	13.8	3.1	10.7
7/27/00	7:00am	40.25	42.06	1.81			
7/27/00	4:30pm	42.06	40.47	1.59	16.6	9.0	7.6
8/4/00	8:00am	40.18	42.48	2.30			
8/4/00	4:00pm	--	40.90		11.0	5.0	6.0
8/11/00	7:30am	40.60	41.55	0.95			
8/11/00	3:30pm	--	40.50		12.5	5.5	7.0
8/18/00	8:00am	40.71	41.95	1.25			
8/18/00	4:00pm	--	41.72		11.0	5.0	6.0
8/25/00	8:00am	40.68	41.98	1.3			
8/25/00	4:00pm	--	41.7		13.0	7.0	6.0
9/1/00	7:00am	40.70	41.83	1.13			
9/1/00	3:00pm	--	41.8		12.0	6.0	6.0
9/8/00	7:00am	40.63	41.44	0.81			
9/8/00	3:30pm	--	40.71		13.0	6.5	6.5
9/15/00	8:00am	41.24	42.98	1.74			
9/15/00	5:00pm		41.38		11.0	4.0	7.0
9/22/00	8:30am	40.89	43.08	2.19			
9/22/00	5:30pm	--	41.76		13.0	8.0	5.0
9/29/00	8:00am	40.44	43.39	2.95			
9/29/00	4:00pm	--	41.90		13.0	7.0	6.0
10/6/00	8:00am	40.35	42.31	1.96			
10/6/00	4:00pm	--	41.92		12.0	5.0	7.0
10/13/00	8:00am	40.42	42.21	1.79			
10/13/00	4:00pm	--	41.87		13.0	3.0	10.0
10/20/00	8:00am	40.40	42.20	1.8			
10/20/00	4:00pm	--	41.85		12.0	4.0	8.0
10/27/00	8:00am	40.46	41.93	1.47			
10/27/00	4:00pm	--	40.9		11.0	4.0	7.0
11/3/00	8:00am	40.5	42.07	1.57			
11/3/00	4:00pm	--	41.03		13.0	5.0	8.0
11/10/00	8:00am	40.61	41.95	1.34			
11/10/00	4:00pm	--	41.1		12.0	6.0	6.0
11/17/00	8:00am	40.58	41.97	1.39			
11/17/00	4:00pm	--	41.03		13.0	5.0	8.0
11/24/00	8:00am	40.52	42.12	1.6			
11/24/00	4:00pm	--	41.52		13.0	4.0	9.0
12/1/00	8:00am	40.48	42.21	1.73			
12/1/00	4:00pm	--	41.6		13.0	5.0	8.0
12/8/00	8:00am	40.51	42.1	1.59			
12/8/00	4:00pm	--	41.34		13.0	4.0	9.0
12/15/00	8:00am	40.52	42.13	1.61			
12/15/00	4:00pm	--	41.52		13.0	5.0	8.0
12/22/00	8:00am	40.5	42.21	1.71			
12/22/00	4:00pm	--	41.70		13.0	5.0	8.0
12/29/00	8:00am	40.79	42.02	1.23			

Skimmer Pump Recovery Table

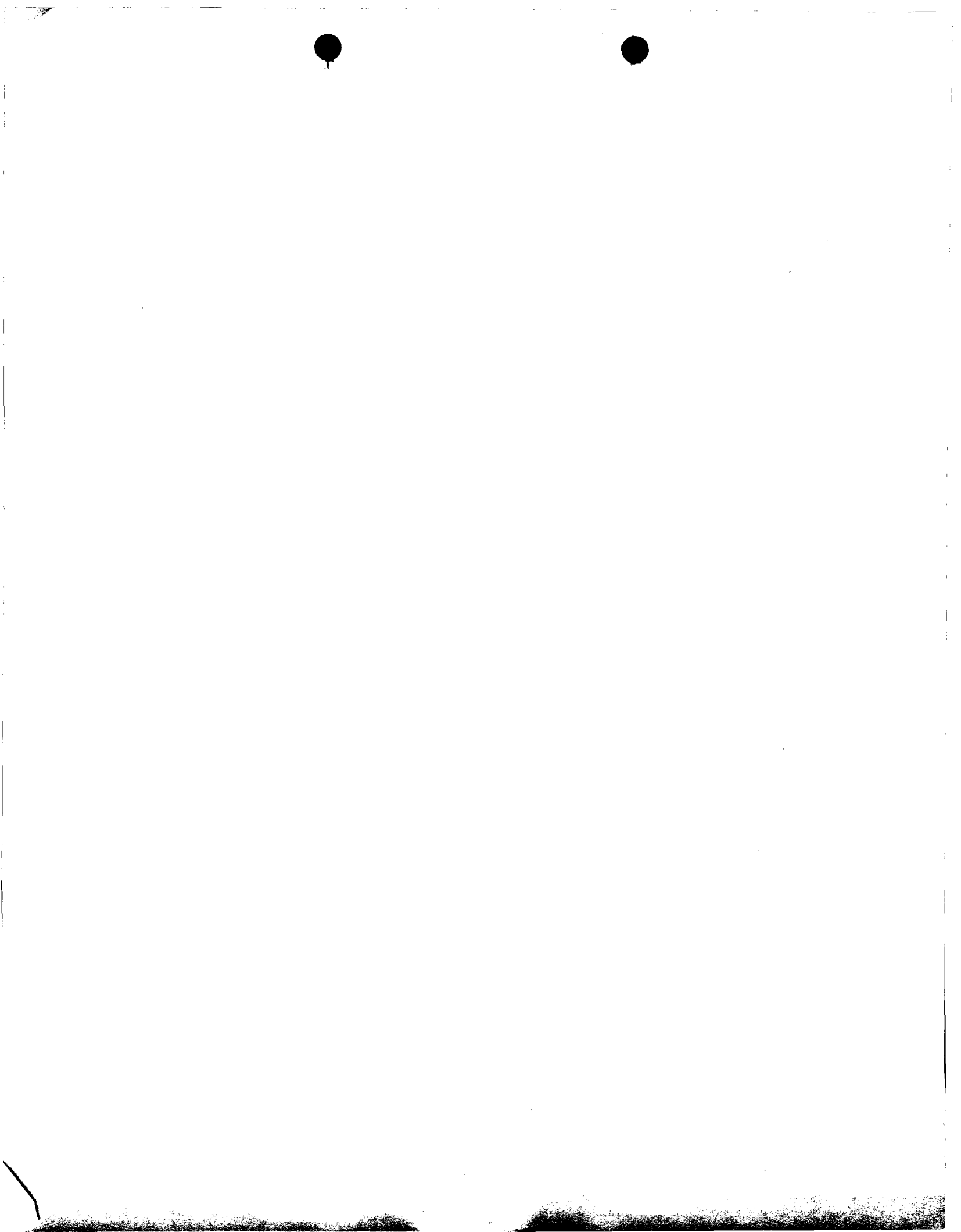
January, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
12/29/00	4:00pm	--	42.00		11.0	5.0	6.0
1/5/01	8:00am	40.70	42.98	2.28			
1/5/01	4:00pm	--	42.93		9.0	4.0	5.0
1/12/01	8:00am	40.53	42.91	2.38			
1/12/01	4:00pm	--	42.90		9.0	7.0	2.0
1/19/01	8:00am	40.71	43.19	2.48			
1/19/01	4:00pm	--	42.97		9.0	6.0	3.0
1/26/01	8:00am	40.53	42.98	2.45			
1/26/01	4:00pm	--	42.83		6.0	4.0	2.0
2/2/01	8:00am	40.73	43.18	2.45			
2/2/01	4:00pm	--	42.81		8.0	3.0	5.0
2/9/01	8:00am	40.75	43.25	2.5			
2/9/01	4:00pm	--	43.09		8.0	4.0	4.0
2/16/01	8:00am	40.85	42.6	1.75			
2/16/01	4:00pm	--	42.55		12.0	5.0	7.0
2/23/01	8:00am	41.10	43.06	1.96			
2/23/01	4:00pm	--	42.87		8.0	4.0	4.0
3/2/01	8:00am	41.08	41.11	0.03			
3/2/01	4:00pm	--	41.14		5.0	4.0	1.0
3/9/01	8:00am	40.92	42.23	1.31			
3/9/01	5:00pm	--	42.15		5.0	3.0	2.0
3/16/01	8:30am	40.89	42.74	1.85			
3/16/01	4:30pm	--	42.72		4.5	3.0	1.5
3/23/01	8:00am	40.96	42.81	1.85			
3/23/01	4:00pm	--	42.79		6.0	4.0	2.0
3/30/01	8:00am	41.06	42.97	1.91			
3/30/01	4:00pm	--	42.93		7.0	4.0	3.0
10/5/01	7:00am	41.16	44.72	3.56			
10/5/01	4:00pm	--	44.43		7.0	4.0	3.0
10/12/01	7:15am	41.08	43.96	2.88			
10/12/01	5:00pm	--	43.89		10.0	5.0	5.0
10/19/01	7:00am	41.36	44.09	2.73			
10/19/01	4:30pm	41.74	42.08	0.34	9.0	6.0	3.0
10/26/01	7:30am	41.28	45.16	3.88			
10/26/01	4:15pm	41.33	42.41	1.08	7.5	4.5	3.0
11/9/01	8:00am	40.97	46.95	5.98			
11/9/01	4:15pm	41.62	42.38	0.76	11.0	11.0	0.0
11/16/01	8:00am	41.59	42.83	1.24			
11/16/01	2:30pm	--	41.77		2.5	2.5	0.0
11/23/01	8:15am	41.58	42.89	1.31			
11/23/01	3:00pm	--	41.7		2.0	2.0	0.0
11/30/01	8:00am	41.64	42.97	1.33			
11/30/01	3:30pm	--	41.81		1.8	1.8	0.0
12/7/01	8:00pm	41.72	42.46	0.74			
12/7/01	4:00pm	--	41.82		2.1	2.1	0.0
12/14/01	7:15am	41.75	42.49	0.74			
12/14/01	4:45pm	--	41.79		1.4	1.4	0.0
12/21/01	9:00am	41.76	42.44	0.68			

Skimmer Pump Recovery Table

January, 2002

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
12/21/01	4:30pm	41.83	41.87	0.04	2.4	2.4	0.0
12/28/01	7:30am	41.74	42.43	0.69			
12/28/01	4:30pm	--	41.83		2.1	2.1	0.0
1/4/02	7:45am	41.85	42.47	0.62			
1/4/02	4:15pm		41.93		0.4	0.4	0.0
1/11/02	8:15am	41.86	42.46	0.60			
1/11/02	4:45pm		41.91		0.7	0.7	0.0
1/18/02	8:00am	41.85	42.47	0.62			
1/18/02	4:30pm		41.92		1.0	1.0	0.0
1/25/02	8:00am	41.87	42.47	0.60			
1/25/02	4:00pm		41.91		0.7	0.7	0.0
				Totals:	1032.4	386.3	422.7



RICE Operating Company

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

CERTIFIED MAIL

RETURN RECEIPT NO. 7099 3220 0001 9928 4621

February 6, 2001

Mr. William C. Olson
NM Energy, Minerals, and Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87504

RE: 2000 MONITOR WELL REPORT
GROUNDWATER REMEDIATION/MONITORING
PIPELINE LEAK, WEST COUNTY ROAD SITE
HOBBS SWD SYSTEM
SW/4 NW/4 JCT. N-6, SEC 5,6, T19S, R38E, LEA COUNTY, NEW MEXICO

Dear Mr. Olson:

Rice Operating Company (ROC) appreciates this opportunity to submit the 2000 Monitor Well Report for the Hobbs Salt Water Disposal System Junction N-6 Release Site in the SW/4 NW/4 of Sections 5, 6, T19S, R38E, Lea County, NM. This monitoring site is situated just south of the intersection of Highway 62-180 and the South Loop of the Hobbs West County Road By-Pass.

The 2000 quarterly monitoring events for the seven monitor wells were scheduled and conducted by Safety and Environmental Solutions, Inc. (SES) of Hobbs. Analytical tests were conducted by Cardinal Laboratories of Hobbs. The 2000 MW Report was compiled by SES.

ROC has contracted with SES for Year 2001 monitor well sampling and SES will schedule all major events with a 48-hour advance notice to the NMOCD. All sampling activities will be conducted pursuant to NMOCD guidelines.

ROC has actively worked toward recovering the phase-separated hydrocarbon (PSH) at the Recovery Well MW-1. The high-volume submersible pump was removed March 13, 1999 because PSH recovery was negligible compared to the water volume pumped (and disposed.) Manual bailing of the PSH did not realize distinct improvement in reducing the PSH layer, so a

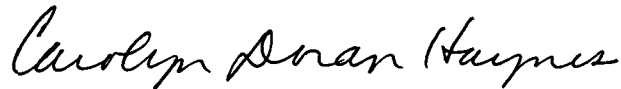
skimmer-type pump was installed in September 1999. This pumping program is monitored weekly to optimize PSH recovery, and it appears the PSH layer is now shrinking. The Recovery Well MW-1 oil-recovery cumulative results are summarized in the attached table. The monitor well water-elevation and analytical cumulative results are also attached.

All recovered fluids from the skimmer pump operation and the monitor well sampling events are discharged into the Hobbs SWD System pipeline for disposal.

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

Thank you for your consideration concerning this yearly summary of groundwater monitoring information. If you have any questions or if I can be of any service, please don't hesitate to call.

RICE OPERATING COMPANY



Carolyn Doran Haynes
Operations Engineer

Enclosure: 2000 Year Report
Summary Tables

Cc: LBG, file, Mr. Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1996	0	0	0.0	0.00	0.00	No recovery operations pending regulatory approval & facility installation
FEB 1996	0	0	0.0	0.00	0.00	
MAR 1996	0	0	0.0	0.00	0.00	
1ST QTR	0	0	0.0	0.00	0.00	
APR 1996	0	0	0.0	30.75	30.75	Groundwater Monitoring Event
MAY 1996	0	0	0.0	7.85	38.60	
JUN 1996	19	19,140	1.1	2.38	40.98	
2ND QTR	19	19,140	0.4	40.98	40.98	
JUL 1996	0	0	0.0	6.50	47.48	Groundwater Monitoring Event
AUG 1996	0	0	0.0	3.27	50.75	
SEP 1996	0	0	0.0	3.75	54.50	
3RD QTR	0	0	0.0	13.52	54.50	
OCT 1996	0	0	0.0	5.00	59.50	Groundwater Monitoring Event
NOV 1996	528	262,080	6.1	1.70	61.20	
DEC 1996	720	561,600	13.0	3.00	64.20	
4TH QTR	1,248	823,680	6.4	9.70	64.20	
1996 TOTALS	1,267	842,820	1.7	64.20	64.20	
JAN 1997	744	580,320	13.0	3.10	67.30	
FEB 1997	672	485,280	13.0	2.80	70.10	
MAR 1997	744	426,240	9.5	2.60	72.70	
1ST QTR	2,160	1,491,840	11.8	8.50	72.70	
APR 1997	0	0	0.0	2.25	74.95	Groundwater Monitoring Event
MAY 1997	408	325,440	7.3	4.45	79.40	
JUN 1997	672	524,160	12.1	2.80	82.20	
2ND QTR	1,080	849,600	6.5	9.50	82.20	
JUL 1997	600	465,120	10.4	2.50	84.70	Groundwater Monitoring Event
AUG 1997	744	580,320	13.0	2.10	86.80	
SEP 1997	720	561,600	13.0	3.00	89.80	
3RD QTR	2,064	1,607,040	12.1	7.60	89.80	
OCT 1997	744	580,320	13.0	3.10	92.90	Groundwater Monitoring Event
NOV 1997	720	541,440	12.5	3.00	95.90	
DEC 1997	48	34,560	0.0	3.70	99.60	
4TH QTR	1,512	1,156,320	8.5	9.80	99.60	
1997 TOTALS	6,816	5,104,800	9.7	35.40	99.60	Total Crude oil recovered from Apr 96 to Dec 97

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 1998	0	0	0.0	4.75	104.35	Groundwater Monitoring Event
FEB 1998	240	144,000	3.6	3.25	707.60	
MAR 1998	744	446,400	10.0	3.10	110.70	
1ST QTR	984	590,400	4.5	11.10	110.70	
APR 1998	696	167,040	0.0	2.90	113.60	
MAY 1998	744	178,560	4.0	3.10	116.70	
JUN 1998	740	172,800	4.0	3.00	119.70	
2ND QTR	2,180	518,400	2.7	9.00	119.70	
JUL 1998	576	138,240	4.0	2.40	122.10	Groundwater Monitoring Event
AUG 1998	0	0	0.0	19.50	141.60	
SEP 1998	0	0	0.0	4.63	146.23	
3RD QTR	576	138,240	1.3	26.53	146.23	
OCT 1998	0	0	0.0	8.26	154.49	Groundwater Monitoring Event
NOV 1998	0	0	0.0	11.63	166.12	
DEC 1998	0	0	0.0	10.63	176.75	
4TH QTR	0	0	0.0	30.52	176.75	
1998 TOTALS	3,740	1,247,040	2.1	77.15	176.75	Total Crude oil recovered from Apr 96 to Dec 98
JAN 1999	610.5	127,153	2.5	3.10	179.85	Pulled pump March 13
FEB 1999	672	68,554	1.8	2.80	182.65	
MAR 1999	292.4	6,418	0.4	0.60	183.25	
1ST QTR	1,575	202,125	1.6	6.50	183.25	
APR 1999	0	73	0.0	16.56	199.81	Recovered w/ manual bailer
MAY 1999	0	41	0.0	10.55	210.36	Recovered w/ manual bailer
JUN 1999	0	0	0.0	0.00	210.36	
2ND QTR	0	114	0.0	27.11	210.36	
JUL 1999	0	0	0.0	0.00	210.36	Recovered w/ manual bailer
AUG 1999	0	0	0.0	19.50	229.86	
SEP 1999	0	0	0.0	0.00	229.86	
3RD QTR	0	0	0.0	19.50	229.86	
OCT 1999	116.5	75	0.0	32.00	261.86	Installed skimmer-type pump
NOV 1999	112	151	0.0	60.00	321.86	
DEC 1999	58.5	19	0.0	15.00	336.86	
4TH QTR	287	245	0.0	107.00	336.86	
1999 TOTALS	1,862	202,484	0.4	160.11	336.86	Total Crude oil recovered from Apr 96 to Dec 99

QUARTERLY SUMMARY OF RECOVERY SYSTEM OPERATIONS

WATER AND CRUDE OIL RECOVERY VOLUMES

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Groundwater Recovery Operations				Crude Oil Recovery Operations		
Date	Time Pumped (hours)	Volume Recovered (gal)	Avg Pump Rate (GPM)	Volume Recovered (gal)	Cumulative Volume (gal)	Description
JAN 2000	93.5	11	0.1	11.00	347.86	Pump ineffecient; serviced
FEB 2000	102	73	0.7	33.20	381.06	
MAR 2000	35	70	2.0	49.60	430.66	
1ST QTR	231	154	0.7	93.80	430.66	
APR 2000	36.5	70	1.9	38.70	469.36	
MAY 2000	36.5	56	1.5	16.50	485.86	
JUN 2000	29.5	37	1.2	9.60	495.46	
2ND QTR	103	162	1.6	64.80	495.46	
JUL 2000	36.5	42	1.2	16.20	511.66	
AUG 2000	32	48	1.5	22.50	534.16	
SEP 2000	42.5	62	1.5	31.50	565.66	
3RD QTR	111	152	1.4	70.20	565.66	
OCT 2000	32	48	1.5	16.00	581.66	
NOV 2000	32	51	1.6	20.00	601.66	
DEC 2000	40	63	1.6	24.00	625.66	
4TH QTR	104	162	1.6	60.00	625.66	
2000 TOTALS	548	630	1.1	288.80	625.66	Total Crude oil recovered from Apr 96 to Dec 00

SUMMARY OF GROUNDWATER MEASUREMENTS by QUARTER
WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
IWW	07/26/95	35.75	62.26	98.01	97.8	0.00
IWW	06/24/96	35.50	62.51	98.01	97.8	0.00
IWW	08/02/96	35.60	62.41	98.01	97.8	0.00
IWW	11/22/96	37.00	61.01	98.01	97.8	0.00
IWW	07/02/97	37.00	61.01	98.01	97.8	0.00
IWW	08/07/97	37.78	60.23	98.01	97.8	0.00
IWW	12/06/97	37.51	60.50	98.01	97.8	0.00
IWW	02/14/98	37.14	60.90	98.04	97.8	0.00
IWW	04/07/99	38.06	60.11	98.17	97.8	0.00
IWW	06/28/99	38.18	59.99	98.17	97.8	0.00
IWW	09/17/99	38.23	59.94	98.17	97.8	0.00
IWW	12/13/99	38.44	59.73	98.17	97.8	0.00
IWW	3/13/00				97.8	0.00
IWW	6/15/00	38.81	59.29	98.10	97.8	0.00
IWW	9/18/00	38.81	59.29	98.10	97.8	0.00
IWW	12/15/00	38.94	59.16	98.10	97.8	0.00
MW-1	07/26/95	42.09	57.91	100.00	97.3	N/A
MW-1	06/24/96	40.73	59.27	100.00	97.3	N/A
MW-1	08/07/97	39.00	62.50	100.00	97.3	1.83
MW-1	02/14/98	39.26	60.86	100.00	97.3	0.15
MW-1	10/26/98	40.50	60.05	100.00	97.3	0.67
MW-1	04/07/99	42.17	57.83	100.00	97.3	
MW-1	06/28/99	44.67	55.33	100.00	97.3	
MW-1	09/17/99	free	product		97.3	
MW-1	12/13/99	42.23	55.07	100.00	97.3	2.20
MW-1	3/15/00	42.17	55.13	100.00	97.3	1.84
MW-1	6/15/00	42.18	57.82	100.00	97.3	1.57'
MW-1	9/15/00	42.98	54.32	100.00	97.3	1.74
MW-1	12/15/00	42.13	55.17	100.00	97.30	1.61
MW-2	07/26/95	37.45	60.46	97.91	98.5	0.00
MW-2	06/18/96	35.16	62.75	97.91	98.5	0.00
MW-2	06/24/96	35.24	62.67	97.91	98.5	0.00
MW-2	08/02/96	35.30	62.61	97.91	98.5	0.00
MW-2	11/22/96	37.00	60.91	97.91	98.5	0.00
MW-2	07/02/97	36.70	61.21	97.91	98.5	0.00
MW-2	08/07/97	37.80	60.11	97.91	98.5	0.00
MW-2	12/06/97	37.32	60.59	97.91	98.5	0.00
MW-2	02/14/98	37.70	60.24	97.94	98.5	0.00
MW-2	04/07/99	37.83	60.06	97.89	98.5	0.00
MW-2	06/28/99	37.92	59.97	97.89	98.5	0.00
MW-2	09/17/99	38.00	59.89	97.89	98.5	0.00
MW-2	12/13/99	38.15	59.74	97.89	98.5	0.00
MW-2	3/13/00	38.37	59.52	97.89	98.5	0.00
MW-2	6/15/00	38.57	59.35	97.92	98.5	0.00
MW-2	9/18/00	38.55	59.37	97.92	98.5	0.00
MW-2	12/15/00	38.72	59.20	97.92	98.5	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-3	07/26/95	34.97	62.57	97.54	98.1	0.00
MW-3	06/24/96	35.54	62.00	97.54	98.1	0.00
MW-3	08/02/96	36.60	60.94	97.54	98.1	0.00
MW-3	11/22/96	35.70	61.84	97.54	98.1	0.00
MW-3	07/02/97	36.20	61.34	97.54	98.1	0.00
MW-3	08/07/97	36.80	60.74	97.54	98.1	0.00
MW-3	12/06/97	36.80	60.74	97.54	98.1	0.00
MW-3	02/14/98	36.88	60.77	97.65	98.1	0.00
MW-3	04/07/99	38.52	59.13	97.65	98.1	0.00
MW-3	06/28/99	38.60	59.05	97.65	98.1	0.00
MW-3	09/17/99	38.58	59.07	97.65	98.1	0.00
MW-3	12/13/99	38.75	58.90	97.65	98.1	0.00
MW-3	3/13/00	38.98	58.67	97.65	98.1	0.00
MW-3	6/15/00	39.16	58.45	97.61	98.1	0.00
MW-3	9/18/00	39.10	58.51	97.61	98.1	0.00
MW-3	12/15/00	39.29	58.32	97.61	98.1	0.00
MW-4	07/26/95	37.40	62.95	100.35	100.8	0.00
MW-4	06/24/96	37.20	63.15	100.35	100.8	0.00
MW-4	08/02/96	35.80	64.55	100.35	100.8	0.00
MW-4	11/22/96	38.25	62.10	100.35	100.8	0.00
MW-4	07/02/97	38.30	62.05	100.35	97.4	0.00
MW-4	08/07/97	37.50	62.85	100.35	97.4	0.00
MW-4	12/06/97	39.30	61.05	100.35	97.4	0.00
MW-4	02/14/98	No data		99.93	97.4	0.00
MW-4	04/07/99	40.01	60.25	100.26	97.4	0.00
MW-4	06/28/99	40.80	59.46	100.26	97.4	0.00
MW-4	09/17/99	40.16	60.10	100.26	97.4	0.00
MW-4	12/13/99	40.35	59.91	100.26	97.4	0.00
MW-4	3/13/00	40.54	59.72	100.26	97.4	0.00
MW-4	6/15/00	40.77	59.60	100.37	97.4	0.00
MW-4	9/18/00	40.72	59.65	100.37	97.4	0.00
MW-4	12/15/00	40.92	59.45	100.37	97.4	0.00
MW-5	07/26/95	33.91	62.25	96.16	96.0	0.00
MW-5	06/18/96	33.61	62.55	96.16	96.0	0.00
MW-5	06/24/96	33.72	62.44	96.16	96.0	0.00
MW-5	08/02/96	33.58	62.58	96.16	96.0	0.00
MW-5	11/22/96	34.60	61.56	96.16	96.0	0.00
MW-5	07/02/97	34.97	61.19	96.16	96.0	0.00
MW-5	08/07/97	35.70	60.46	96.16	96.0	0.00
MW-5	12/06/97	35.76	60.40	96.16	96.0	0.00
MW-5	02/14/98	35.30	60.91	96.21	96.0	0.00
MW-5	04/07/99	36.28	60.17	96.45	96.0	0.00
MW-5	06/28/99	36.40	60.05	96.45	96.0	0.00
MW-5	09/17/99	36.49	59.96	96.45	96.0	0.00
MW-5	12/13/99	36.64	59.81	96.45	96.0	0.00
MW-5	3/13/00	36.84	59.61	96.45	96.0	0.00
MW-5	6/15/00	37.05	59.16	96.21	96.0	0.00
MW-5	9/18/00	37.06	59.15	96.21	96.0	0.00
MW-5	12/15/00	37.23	58.98	96.21	96.0	0.00

Well	Date Gauged	Depth to Water	Water Elevation	Casing Elevation	Surface Elevation	LNAPL Thickness
MW-6	07/26/95	35.69	62.83	98.52	98.8	0.00
MW-6	06/18/96	35.56	62.96	98.52	98.8	0.00
MW-6	06/24/96	35.68	62.84	98.52	98.8	0.00
MW-6	08/02/96	35.68	62.84	98.52	98.8	0.00
MW-6	11/22/96	37.29	61.23	98.52	98.8	0.00
MW-6	07/02/97	37.10	61.42	98.52	98.8	0.00
MW-6	08/07/97	38.20	60.32	98.52	98.8	0.00
MW-6	12/06/97	37.74	60.78	98.52	98.8	0.00
MW-6	02/14/98	No data		98.53	98.8	0.00
MW-6	04/07/99	38.27	60.17	98.44	98.8	0.00
MW-6	06/28/99	38.37	60.07	98.44	98.8	0.00
MW-6	09/17/99	38.45	59.99	98.44	98.8	0.00
MW-6	12/13/99	38.62	59.82	98.44	98.8	0.00
MW-6	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-6	6/15/00	39.04	59.52	98.56	98.8	0.00
MW-6	9/18/00	38.99	59.57	98.56	98.8	0.00
MW-6	12/15/00	39.16	59.40	98.56	98.8	0.00
MW-7	07/26/95	37.92	60.57	98.49	98.8	0.00
MW-7	06/24/96	35.76	62.73	98.49	98.8	0.00
MW-7	08/02/96	36.10	62.39	98.49	98.8	0.00
MW-7	11/22/96	36.84	61.65	98.49	98.8	0.00
MW-7	07/02/97	37.38	61.11	98.49	98.8	0.00
MW-7	08/07/97	37.30	61.19	98.49	98.8	0.00
MW-7	12/06/97	37.81	60.68	98.49	98.8	0.00
MW-7	02/14/98	No data		98.53	98.8	0.00
MW-7	04/07/99	38.40	60.04	98.44	98.8	0.00
MW-7	06/28/99	38.46	59.98	98.44	98.8	0.00
MW-7	09/17/99	38.56	59.88	98.44	98.8	0.00
MW-7	12/13/99	38.73	59.71	98.44	98.8	0.00
MW-7	3/13/00	38.93	59.51	98.44	98.8	0.00
MW-7	6/15/00	39.15	59.32	98.47	98.8	0.00
MW-7	9/18/00	39.12	59.35	98.47	98.8	0.00
MW-7	12/15/00	39.30	59.17	98.47	98.8	0.00

SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS 1995 - 2000

WEST COUNTY ROAD SPILL SITE, HOBBS SWD SYSTEM

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-1	07/24/95	2.8710	<0.0200	0.0120	0.2710	3.1540	25,106	14,091
MW-1	07/24/95	N/A	N/A	N/A	N/A	N/A	4,374	
MW-1 (SPL)	02/18/98	3.4000	0.5700	0.9600	0.7400	5.6700	493	100
MW-1 (SPL)	12/12/98						840	43
MW-1	04/07/99	2.8500	1.3300	2.5200	2.5500	9.2500	1820	1286
MW-2	07/21/95	0.0470	0.0120	0.0330	<0.0010	0.0920	N/A	132
MW-2	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	649	96
MW-2	08/12/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2	11/25/96	0.0019	0.0012	0.0018	<0.0030	0.0049	443	44
MW-2	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	497	50
MW-2	07/02/97	0.0060	0.0070	0.0030	0.0110	0.0270	399	44
MW-2	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	414	40
MW-2 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-2 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	455	36
MW-2	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	457	45
MW-2	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	422	47
MW-2	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	464	40
MW-2	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	426	44
MW-2	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	528	45
MW-2	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	41
MW-2	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	574	38
MW-2	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	614	79
MW-2	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	624	171
MW-2	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	557	120
MW-3 - S	07/21/95	0.0020	<0.0010	<0.0010	<0.0030	0.0020	N/A	256
MW-3	07/21/95	0.0440	0.0610	0.0480	0.0420	0.1950	N/A	N/A

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-3	06/19/96	0.1320	<0.0010	<0.0010	<0.0010	0.1320	2,684	160
MW-3	11/25/96	1.1700	0.0011	0.0047	0.0150	1.1908	13,890	6,850
MW-3	04/03/97	0.2920	<0.0010	0.0010	0.0050	0.2980	7764	3249
MW-3	07/02/97	0.0020	<0.0010	<0.0010	<0.0030	0.0020	3065	1290
MW-3	12/06/97	0.0120	<0.0020	<0.0020	<0.0060	0.0120	4610	1450
MW-3 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-3 (SPL)	02/18/98	0.0016	<0.0010	<0.0010	<0.0010	0.0016	2,967	1,700
MW-3	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	3,980	1,672
MW-3	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,498	614
MW-3	04/07/99	0.9530	0.0020	0.0040	<0.0060	N/A	20,470	11,770
MW-3	06/28/99	0.6730	<0.0020	0.0020	<0.0060	N/A	15,660	8,567
MW-3	09/17/99	0.7150	<0.0020	<0.0020	<0.0060	N/A	17,730	8,922
MW-3	12/14/99	0.7610	<0.0020	0.0030	<0.0060	N/A	18,120	9,093
MW-3	3/13/00	0.7240	<0.0020	<0.0030	<0.0060	N/A	19,000	9,680
MW-3	6/15/00	0.3920	<0.0020	<0.0020	<0.0060	N/A	19,344	8,361
MW-3	9/18/00	0.3130	<0.0020	<0.0020	<0.0060	N/A	10,510	5,439
MW-3	12/15/00	0.2150	<0.0020	<0.0020	<0.0060	N/A	16,730	11,904
MW-4	08/10/95	<0.0010	<0.0010	<0.0010	0.0670	0.0670	N/A	332
MW-4	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,114	312
MW-4	11/25/96	0.0029	0.0011	0.0019	<0.0030	0.0059	953	240
MW-4	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	877	196
MW-4	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	788	206
MW-4	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	974	264
MW-4	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,152	294
MW-4	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	910	344
MW-4	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,088	297
MW-4	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,080	279
MW-4	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,187	300
MW-4	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1,260	372

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-4	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,400	376
MW-4	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,707	387
MW-4	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1,149	311
MW-4	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	889	277
MW-5	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,481	106
MW-5	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	506	44
MW-5	11/25/96	0.0012	0.0012	0.0016	<0.0030	0.0040	506	70
MW-5	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	509	50
MW-5	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	458	50
MW-5	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	506	52
MW-5 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-5 (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	426	44
MW-5	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	505	42
MW-5	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	421	47
MW-5	04/07/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	40
MW-5	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	449	44
MW-5	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	484	49
MW-5	12/14/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	596	45
MW-5	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	474	49
MW-5	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	559	53
MW-5	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	54
MW-5	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	456	54
MW-6	07/21/95	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	96
MW-6	06/19/96	0.0230	<0.0010	<0.0010	<0.0030	0.0230	524	48
MW-6	11/25/96	0.0160	0.0013	0.0023	0.0047	0.0243	477	38
MW-6	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	404	80
MW-6	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	419	38
MW-6	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	445	28
MW-6 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
MW-6	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	225	20
MW-6	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	363	20
MW-6	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	436	20
MW-6	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	378	28
MW-6	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	428	24
MW-6	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	576	24
MW-6	3/13/00	<0.0020	<0.0030	<0.0020	<0.0060	N/A	438	45
MW-6	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	500	34
MW-6	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	443	35
MW-6	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	381	46
MW-7	07/24/95	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,218	382
MW-7	06/19/96	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1,127	359
MW-7	11/25/96	0.0011	<0.0010	<0.0010	<0.0030	<0.0030	1,090	334
MW-7	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1166	344
MW-7	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1092	264
MW-7	12/06/97	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	806	188
MW-7 (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
MW-7	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	802	212
MW-7	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	853	262
MW-7	04/06/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1000	245
MW-7	06/28/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	938	255
MW-7	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	1685	255
MW-7	12/13/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	996	258
MW-7	3/13/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1022	258
MW-7	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	1130	271
MW-7	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	978	260
MW-7	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	826	224
WHW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	473	32
WHW	N/A	N/A	N/A	N/A	N/A	N/A	898	68

Well Name	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	Total BTEX (ppm)	TDS (mg/l)	Chloride (mg/l)
NMWQCC Standards		0.010	0.750	0.750	0.620	N/A	1,000	250
CMW	08/16/96	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	448	68
CMW	N/A	N/A	N/A	N/A	N/A	N/A	490	52
GHW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	722	76
GHW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	703	78
IWW	07/24/95	0.7770	<0.0200	<0.0200	0.0300	0.8070	13,889	7,178
IWW	06/19/96	0.0320	<0.0010	<0.0010	<0.0030	0.0320	1,817	828
IWW	11/25/96	0.6550	<0.0010	0.0026	<0.0030	0.6576	10,147	5,300
IWW	04/03/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	1468	760
IWW	07/02/97	<0.0010	<0.0010	<0.0010	<0.0030	<0.0030	663	200
IWW	12/06/97	<0.0020	0.0060	<0.0020	0.0060	0.0120	931	328
IWW (SPL)	12/06/97	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	N/A	N/A
IWW (SPL)	02/18/98	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	491	67
IWW	08/16/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	491	67
IWW	12/12/98	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	369	74
IWW	04/06/99	0.0630	<0.0020	<0.0020	<0.0060	<0.0060	3310	2275
IWW	06/28/99	0.0130	<0.0020	<0.0020	<0.0060	<0.0060	2780	1893
IWW	09/17/99	<0.0020	<0.0020	<0.0020	<0.0060	<0.0060	626	166
IWW	12/13/99	0.0040	<0.0020	<0.0020	<0.0060	<0.0060	1260	505
IWW	3/13/00	<0.0030	<0.0020	<0.0020	<0.0060	N/A	682	244
IWW	6/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	751	182
IWW	9/18/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	435	82
IWW	12/15/00	<0.0020	<0.0020	<0.0020	<0.0060	N/A	527	95

Analysis was performed by Cardinal Laboratories in Hobbs, New Mexico.

Samples labeled (SPL) analyzed by Southern Petroleum Laboratories, Houston, Texas.

Benzene, toluene, ethylbenzene, and xylene (BTEX); total dissolved solids (TDS); and chloride analyses were conducted using EPA Methods 8020, 160.1, and 352.3, respectively.

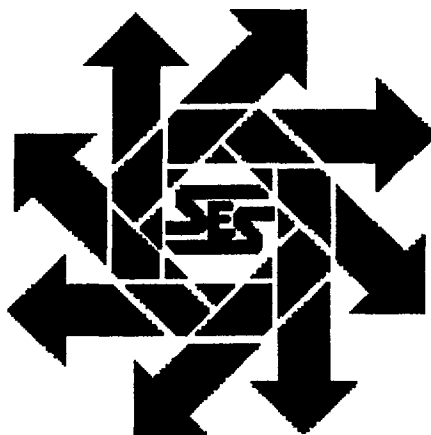
Results presented in bold print exceed NMWQCC human health standards for ground water.

All results are reported in milligrams per liter (mg/l); parts per million (ppm).

**Rice Operating Company
West County Road Monitor Well #1
Skim Pump Report**

**Section 5 and 6, T19S, R38E
Lea County, New Mexico**

December 29, 2000



Prepared for:

**Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240**

Prepared by:

***Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510***

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I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to install a skim pump in Monitor Well #1 to remove free phase hydrocarbons at the Line N-6 site which is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The well has a casing size of 4" (See Vicinity Map).

SESI environmental technician Dee Whatley arrived at the site on September 30, 1999 and installed a Skim-Rite skim pump in Monitor Well #1 to facilitate the removal of free phase hydrocarbon from the top of the water table in the well. Beginning on October 26, 1999, the fluid recovered is measured in total volume only, with no breakdown on oil/water percentages.

On February 21, 2000. SESI personnel met with Carolyn Haynes of Rice Operating Company to discuss the performance of the skimming system. The inline flow meter was exhibiting intermittent clogging problems, so it was decided at this time to return to the initial method of fluid recovery, pumping directly into drums at the site to facilitate measurement of recovered product and water volumes.

II. Work Performed

The skim pump is operated one day a week and the fluid in the well is allowed to recover until the next operation day. SESI ran the skim pump 5 days during the month of December 2000. The detail of the hours of operation is as follows:

Date	Start Time	Stop Time	Hours of Operation
12/1/00	8:00am	4:00pm	8 hrs.
12/8/00	8:00am	4:00pm	8 hrs.
12/15/00	8:00am	4:00pm	8 hrs.
12/22/00	8:00am	4:00pm	8 hrs.
12/29/00	8:00am	4:00pm	8 hrs.

III. Recovery Results

The fluid recovered from the well is pumped into a drum and measurements are taken of the fluid using "Kolor-Kut" and recorded after each day of operation. The details of the product and fluid recovery for each day of operation is as follows:

Skimmer Pump Report
December 29, 2000

Rice Operating Company
Lea County, New Mexico

Date	Hours	Oil Recovered (gallons)	Water Recovered (gallons)	Total Fluid Recovered (gallons)
12/1/00	8hrs.	5.0	8.0	13.00
12/8/00	8hrs.	4.0	9.0	13.00
12/15/00	8hrs.	5.0	8.0	13.00
12/22/00	8hrs.	5.0	8.0	13.00
12/29/00	8 hrs.	5.0	6.0	11.00
August Totals:	40	24.0	39.00	63.00

IV. Maps and Exhibits

Vicinity Map

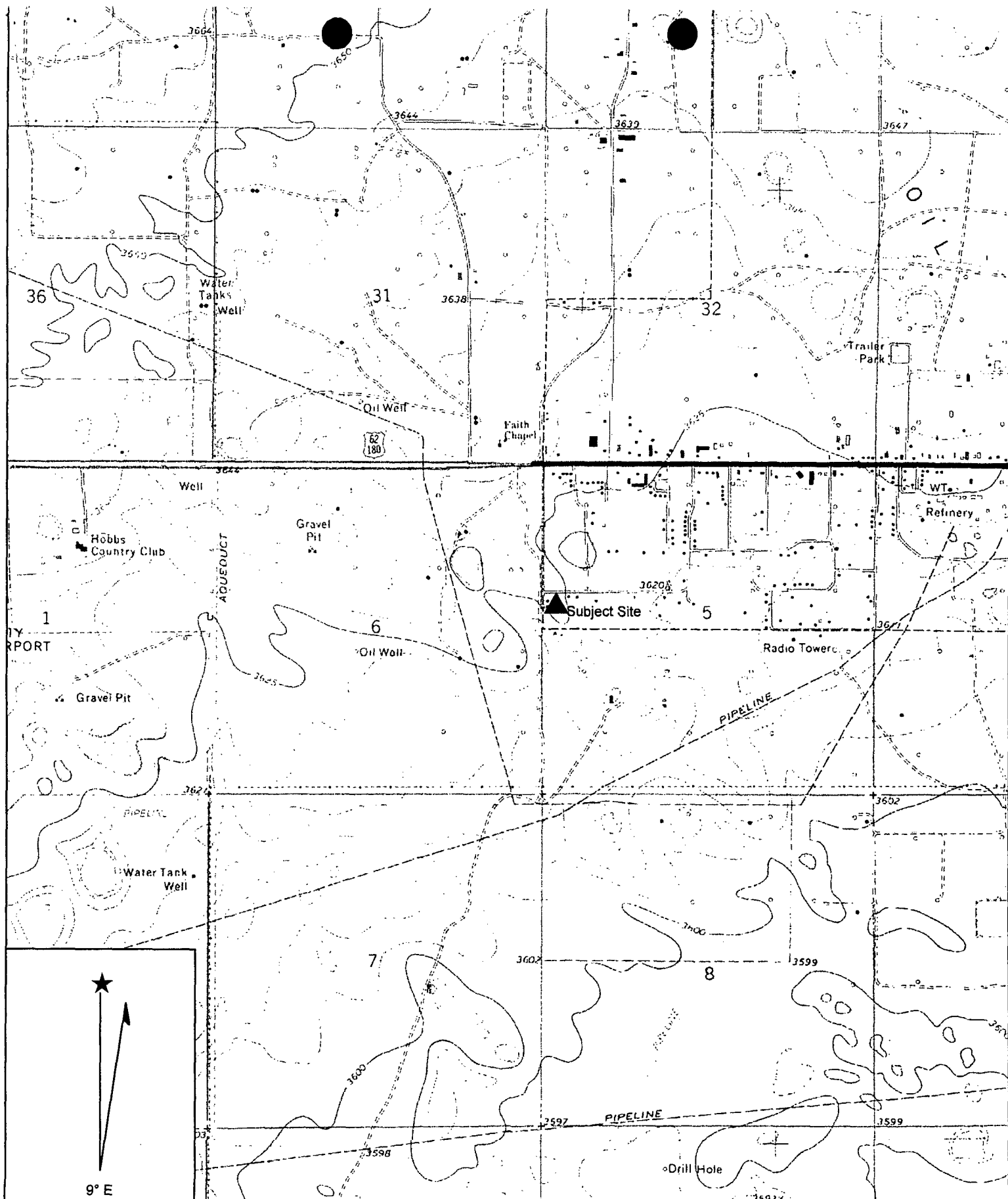
Site Map

Cumulative Recovery Data

*Skimmer Pump Report
December 29, 2000*

*Rice Operating Company
Lea County, New Mexico*

**Exhibit A
Vicinity Map**



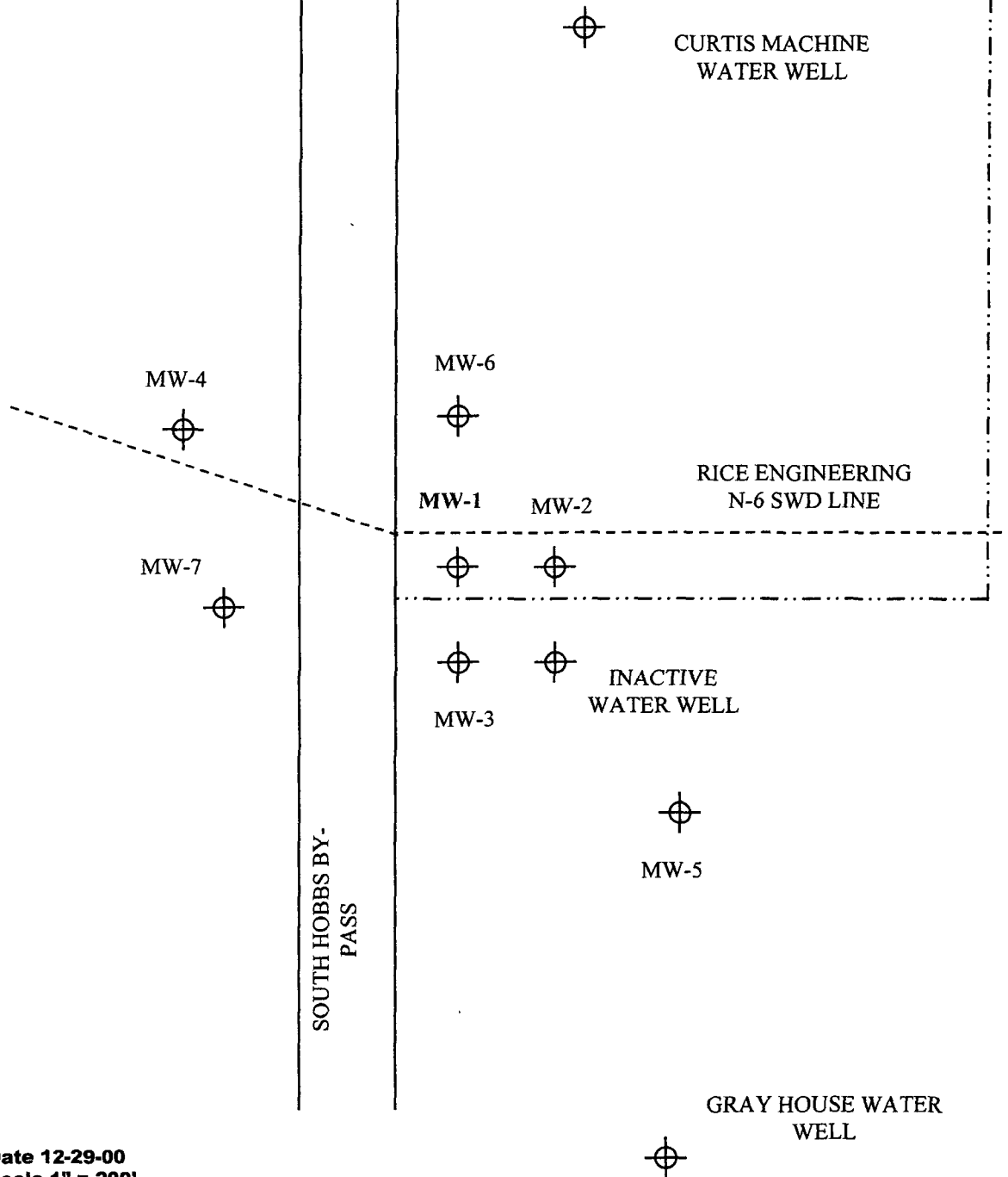
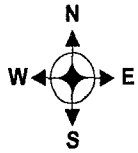
Name: HOBBS WEST
 Date: 1/2/2001
 Scale: 1 inch equals 2000 feet

Location: 032° 41' 25.1" N 103° 10' 50.0" W
 Caption: Rice Operating Company
 West County Road Skim Pump
 Vicinity Map

*Skimmer Pump Report
December 29, 2000*

*Rice Operating Company
Lea County, New Mexico*

Exhibit B Site Plan



Date 12-29-00
Scale 1" = 200'

**Rice Operating Company
Site Plan**

**Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico**

Safety & Environmental Solutions, Inc.



Skimmer Pump Report
December 29, 2000

Rice Operating Company
Lea County, New Mexico

Exhibit C
Cumulative Recovery Data

Skimmer Pump Recovery Table

December 29, 2000

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
9/30/99	8:00am						
10/1/99	5:00pm	40.13	40.13	0.00			
10/4/99	6:55am	40.02	41.13	1.11			
10/4/99	3:45pm	40.13	40.14	0.01			
10/5/99	7:15am	40.13	40.40	0.27			
10/5/99	3:40pm	40.13	40.14	0.01			
10/6/99	6:55am	40.13	40.40	0.27			
10/6/99	3:45pm	40.16	40.17	0.01			
10/7/99	7:10am	40.14	40.40	0.26			
10/7/99	3:35pm	40.175	40.180	0.01			
10/14/99	8:00am	40.14	40.69	0.55	28.0	18.0	10.0
10/15/99	8:00am	--	40.18	0.00	12.0	6.0	6.0
10/18/99	8:00am	40.06	41.00	0.94			
10/19/99	8:00am	--	40.02	0.00	18.0	6.0	12.0
10/26/99	8:00am	38.68	39.33	0.65	10.0	2.0	8.0
10/26/99	2:00pm	--		0.00	6.5		
11/1/99	7:30am	40.01	41.09	1.08			
11/2/99	9:30am	--	40.22	0.00			
11/4/99	9:30am	40.15	40.73	0.58			
11/5/99	9:30am	--	41.18	0.00			
11/8/99	1:30pm	40.12	40.90	0.78	73.0		
11/9/99	5:00pm	--	40.15	0.00	33.5		
11/16/99	8:20am	39.97	42.11	2.14			
11/16/99	5:20pm	38.97	39.45	0.48	11.0		
11/19/99	8:45am	40.10	41.41	1.31			
11/19/99	4:45pm	40.14	40.86	0.72	0.5		
11/22/99	7:30am	40.10	41.45	1.35			
11/22/99	4:00pm	40.10	40.60	0.50	14.5		
11/29/99	8:00am	40.14	41.41	1.27			
11/29/99	4:00pm	40.19	40.91	0.72	18.5		
12/6/99	8:00am	40.13	41.55	1.42			
12/6/99	5:00pm	40.22	41.02	0.80	4.5		
12/13/99	10:00am	40.03	42.23	2.20			
12/13/99	5:00pm	40.23	41.05	0.82	4.5		
12/17/99	8:00am	40.12	41.85	1.73			
12/17/99	6:00pm	40.27	41.05	0.78	2.0		
12/20/99	8:00am	40.17	41.55	1.38			
12/20/99	4:30pm	40.34	40.65	0.31	3.0		
12/23/99	8:30am	40.23	41.21	0.98			
12/24/99	7:30am	40.27	41.15	0.88	5.0		
1/3/00	9:15am	40.21	40.62	0.41			
1/4/00	9:30am	40.34	40.79	0.45	0.0		
1/10/00	9:00am	40.11	42.10	1.99			
1/11/00	7:30am	--	40.41	0.00	1.0		

Skimmer Pump Recovery Table

December 29, 2000

Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
1/18/00	8:00am	41.18	42.08	0.90			
1/19/00	8:00am	--	40.42	0.00	9.0		
1/26/00	10:00am	40.19	42.03	1.84			
1/27/00	9:00am	--	40.46	0.00	1.0		
2/1/00	9:00am	40.29	41.64	1.35			
2/2/00	1:00pm	--	40.46	0.00	24.0		
2/7/00	8:30am	40.31	41.61	1.30			
2/8/00	8:00am	--	40.49	0.00	3.0		
2/15/00	7:00am	40.24	42.10	1.86			
2/16/00	8:30am	--	40.56	0.00	9.0		
2/22/00	8:00am	40.30	41.94	1.64			
2/23/00	8:00am	40.51	40.61	0.10	36.6	7.2	29.4
3/1/00	8:00am	40.29	42.17	1.88			
3/1/00	4:00pm	--	40.60	0.00	11.0	11.0	
3/8/00	8:00am	40.30	42.11	1.81			
3/8/00	4:00pm	--	40.34	0.00	19.3	12.4	6.9
3/15/00	5:30am	40.33	42.17	1.84			
3/15/00	5:30pm	40.52	40.72	0.20	8.3	6.9	1.4
3/22/00	8:00am	40.33	42.17	1.84			
3/22/00	7:00pm	--	40.34	0.00	13.8	8.3	5.5
3/29/00	7:45am	40.35	42.22	1.87			
3/29/00	4:30pm	40.58	40.92	0.34	17.9	11.0	6.9
4/6/00	9:30am	40.50	41.17	0.67			
4/6/00	4:45pm	40.59	40.61	0.02	15.2	6.9	8.3
4/13/00	8:00am	40.41	42.03	1.62			
4/13/00	7:00pm	--	40.62	0.00	17.9	12.4	5.5
4/20/00	7:00am	40.42	42.24	1.82			
4/20/00	4:30pm	--	40.62	0.00	16.6	9.7	6.9
4/26/00	8:00am	40.45	42.04	1.59			
4/26/00	4:30pm	--	40.65	0.00	20.7	9.7	11.0
5/3/00	7:30am	40.45	42.17	1.72			
5/3/00	5:00pm	--	40.66	0.00	13.0	8.0	5.0
5/11/00	8:00am	40.46	42.27	1.81			
5/11/00	5:00pm	42.27	42.20	0.00	8.5	3.5	5.0
5/18/00	8:00am	40.49	42.20	1.71			
5/18/00	5:00pm	42.20	40.50	0.00	16.0	2.0	14.0
5/25/00	8:00am	40.50	42.32	1.82			
5/25/00	5:00pm	42.32	42.16	0.00	18.0	3.0	15.0
6/1/00	5:30am	40.56	42.12	1.54			
6/1/00	5:00pm	42.12	42.09	0.00	29.7	6.2	23.5
6/8/00	8:00am	40.52	42.25	1.73			
6/8/00	4:30pm	42.25	40.79	1.46	2.7	1.7	1.0
6/15/00	7:30am	40.61	42.18	1.57			
6/15/00	5:00pm	42.18	40.79	1.39	4.1	1.7	2.4
7/6/00	8:00am	40.44	41.98	1.54			
7/6/00	5:00pm	40.63	41.22	0.59	11.7	4.1	7.6
7/13/00	8:00am	40.30	41.98	1.68			
7/13/00	5:00pm	--					

Skimmer Pump Recovery Table

December 29, 2000

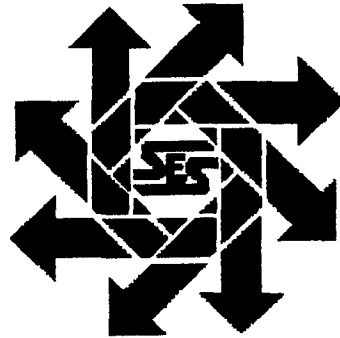
Date	Time	TOO (Feet)	TOW (Feet)	Oil Column (Feet)	Fluid Recovered (gallons)	Oil Recovered (gallons)	Water Recovered (gallons)
7/20/00	7:30am	40.27	41.77	1.50			
7/20/00	4:30pm	41.77	40.45	1.32	13.8	3.1	10.7
7/27/00	7:00am	40.25	42.06	1.81			
7/27/00	4:30pm	42.06	40.47	1.59	16.6	9.0	7.6
8/4/00	8:00am	40.18	42.48	2.30			
8/4/00	4:00pm	--	40.90		11.0	5.0	6.0
8/11/00	7:30am	40.60	41.55	0.95			
8/11/00	3:30pm	--	40.50		12.5	5.5	7.0
8/18/00	8:00am	40.71	41.95	1.25			
8/18/00	4:00pm	--	41.72		11.0	5.0	6.0
8/25/00	8:00am	40.68	41.98	1.3			
8/25/00	4:00pm	--	41.7		13.0	7.0	6.0
9/1/00	7:00am	40.70	41.83	1.13			
9/1/00	3:00pm	--	41.8		12.0	6.0	6.0
9/8/00	7:00am	40.63	41.44	0.81			
9/8/00	3:30pm	--	40.71		13.0	6.5	6.5
9/15/00	8:00am	41.24	42.98	1.74			
9/15/00	5:00pm		41.38		11.0	4.0	7.0
9/22/00	8:30am	40.89	43.08	2.19			
9/22/00	5:30pm	--	41.76		13.0	8.0	5.0
9/29/00	8:00am	40.44	43.39	2.95			
9/29/00	4:00pm	--	41.90		13.0	7.0	6.0
10/6/00	8:00am	40.35	42.31	1.96			
10/6/00	4:00pm	--	41.92		12.0	5.0	7.0
10/13/00	8:00am	40.42	42.21	1.79			
10/13/00	4:00pm	--	41.87		13.0	3.0	10.0
10/20/00	8:00am	40.40	42.20	1.8			
10/20/00	4:00pm	--	41.85		12.0	4.0	8.0
10/27/00	8:00am	40.46	41.93	1.47			
10/27/00	4:00pm	--	40.9		11.0	4.0	7.0
11/3/00	8:00am	40.5	42.07	1.57			
11/3/00	4:00pm	--	41.03		13.0	5.0	8.0
11/10/00	8:00am	40.61	41.95	1.34			
11/10/00	4:00pm	--	41.1		12.0	6.0	6.0
11/17/00	8:00am	40.58	41.97	1.39			
11/17/00	4:00pm	--	41.03		13.0	5.0	8.0
11/24/00	8:00am	40.52	42.12	1.6			
11/24/00	4:00pm	--	41.52		13.0	4.0	9.0
12/1/00	8:00am	40.48	42.21	1.73			
12/1/00	4:00pm	--	41.6		13.0	5.0	8.0
12/8/00	8:00am	40.51	42.1	1.59			
12/8/00	4:00pm	--	41.34		13.0	4.0	9.0
12/15/00	8:00am	40.52	42.13	1.61			
12/15/00	4:00pm	--	41.52		13.0	5.0	8.0
12/22/00	8:00am	40.5	42.21	1.71			
12/22/00	4:00pm	--	41.7		13.0	5.0	8.0
12/29/00	8:00am	40.79	42.02	1.23			
12/29/00	4:00pm	--	42.0		11.0	5.0	6.0

**Skimmer Pump
Recovery Table****December 29, 2000**

<i>Date</i>	<i>Time</i>	<i>TOO</i>	<i>TOW</i>	<i>Oil Column</i>	<i>Fluid</i>	<i>Oil</i>	<i>Water</i>
		<i>(Feet)</i>	<i>(Feet)</i>	<i>(Feet)</i>	<i>Recovered</i>	<i>Recovered</i>	<i>Recovered</i>
					<i>(gallons)</i>	<i>(gallons)</i>	<i>(gallons)</i>
				Totals:	874.4	283.8	367.1

**Rice Operating Company
Line N-6 Monitor Well Report
Sections 5 & 6, T19S, R38E
Lea County, New Mexico**

December 15, 2000



Prepared for:

**Rice Operating Company
122 W. Taylor
Hobbs, New Mexico 88240**

By:

***Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510***

TABLE OF CONTENTS

I. Background.....	2
II. Work Performed	2
III. Analytical Results	3
IV. Maps and Appendices	4

I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged by Rice Operating to perform sampling and data collection of the seven (7) ground water monitor wells and one (1) inactive water well at the Line N - 6 leak site (See Vicinity Map). The subject area is located in Sections 5 & 6, Township 19 S Range 38 E in Lea County, New Mexico. The wells vary in casing size from 2" to 5".

II. Work Performed

SESI's environmental technician arrived at the site on December 12, 2000. Ground water samples were taken from each well after either hand bailing or a submersible pump developed the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was pumped into the Rice Operating disposal line located on-site. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The analyses requested by Rice Operating Company included Benzene, Toulene, Ethyl Benzene, and Xylenes (BTEX) and Major Cations and Anions. (See Analytical Data) As in the previous quarter of 1999, Monitor Well #1 had free product in it and was not sampled for testing.

In addition to the sampling, SESI also measured the depth to the top of ground water using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. A summary of this data follows:

ID	DATE	CASING ELEVATION	DEPTH TO WATER	POTENTIO- METRIC ELEVATION	TOTAL WELL DEPTH	FREE PRODUCT THICKNESS
MW - 1	12/15/00	100.00'				1.57'
MW - 2	12/15/00	97.92'	38.72'	59.20'	51.85'	0.00
MW - 3	12/15/00	97.61'	39.29'	58.32'	155.00'	0.00
MW - 4	12/15/00	100.37'	40.92'	59.45'	58.05'	0.00
MW - 5	12/15/00	96.21'	37.23'	58.98'	50.99'	0.00
MW - 6	12/15/00	98.56'	39.16'	59.40'	56.00'	0.00
MW - 7	12/15/00	98.47'	39.30'	59.17'	46.83'	0.00
IWW	12/15/00	98.10'	38.94'	59.16'	98.35'	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
MW - 2	<0.002	<0.002	<0.002	<0.006
MW - 3	.215	<0.002	<0.002	<0.006
MW - 4	<0.002	<0.002	<0.002	<0.006
MW - 5	<0.002	<0.002	<0.002	<0.006
MW - 6	<0.002	<0.002	<0.002	<0.006
MW - 7	<0.002	<0.002	<0.002	<0.006
IWW	<0.002	<0.002	<0.002	<0.006

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
MW - 2	62	98	23	4.31	1,029	254
MW - 3	6,179	1,042	379	103	27,840	340
MW - 4	97	137	29	3.68	1,523	230
MW - 5	25	82	24	2.19	776	234
MW - 6	27	75	19	2.15	710	217
MW - 7	134	112	26	3.01	1,499	267
IWW	81	73	16	4.15	900	242

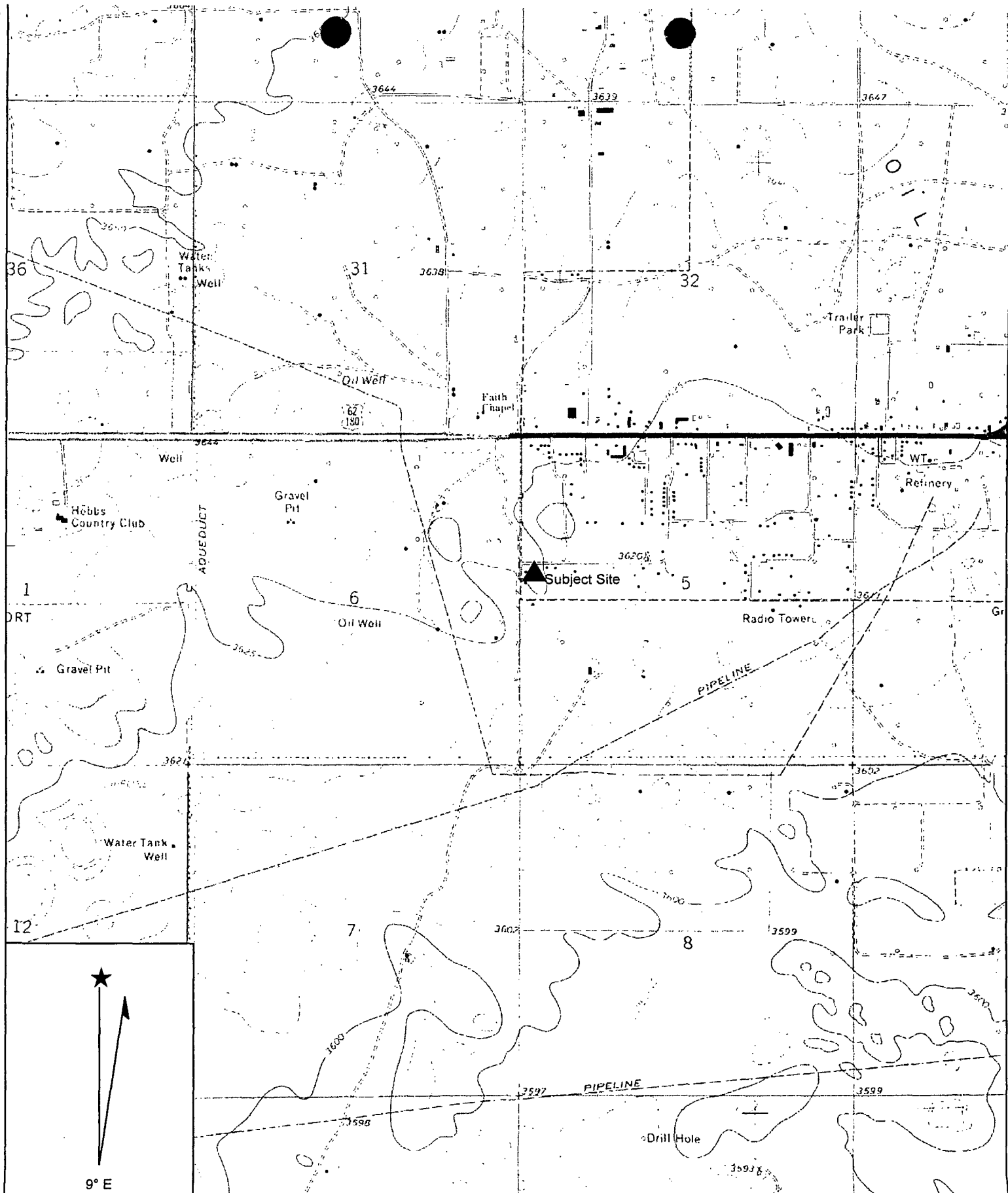
SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
MW - 2	120	54	0	310	7.23	557
MW - 3	11,904	598	0	415	6.80	16,730
MW - 4	277	55	0	280	7.43	889
MW - 5	54	50	0	285	7.70	456
MW - 6	46	44	0	265	7.51	381
MW - 7	224	96	0	325	7.45	826
IWW	95	52	0	295	7.49	527

* Red exceeds NM WQCC Groundwater Standards (See Figure 5)

IV. Maps and Appendices

Vicinity Map
Potentiometric Map
Cumulative Well Water Quality Data
Analytical Results
Water Analysis Validation

Figure 1
Vicinity Map



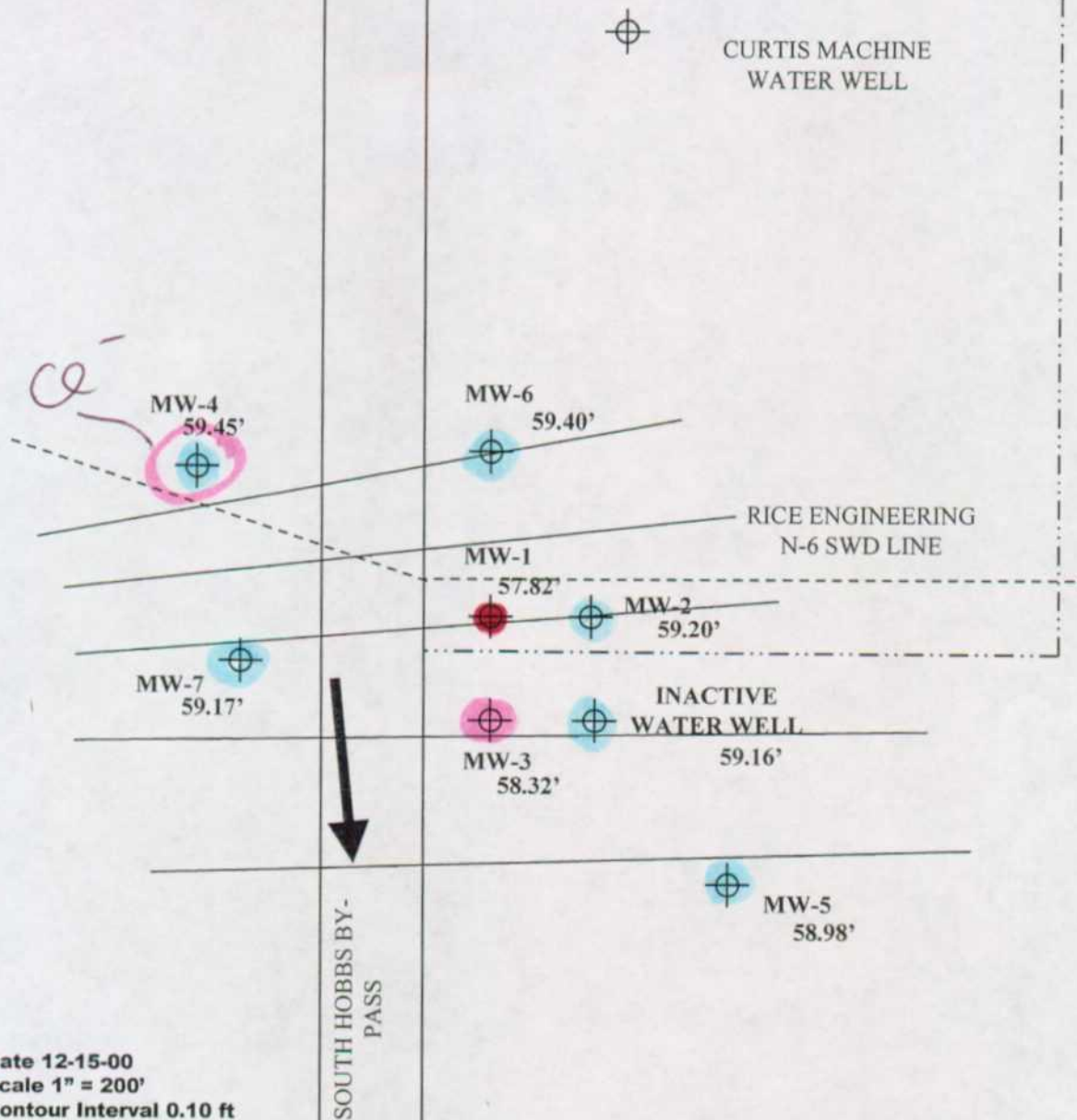
Name: HOBBS WEST
 Date: 12/28/2000
 Scale: 1 inch equals 2000 feet

Location: 032° 41' 21.2" N 103° 10' 46.5" W
 Caption: Rice Operating Company
 Line N-6 Monitor Wells
 Vicinity Map

Line N-6 Monitor Well Report
December 15, 2000

Rice Operating Company
Lea County, New Mexico

Figure 2
Potentiometric Map



Date 12-15-00
Scale 1" = 200'
Contour Interval 0.10 ft

Notes: MW - 1 Contains hydrocarbon product; water level not used in drawing map contours
MW - 3 Completed in deeper aquifer zone; water level not used in drawing map contours
Elevations relative to top of casing datum of 100 ft. at MW -1

GRAY HOUSE WATER WELL

Rice Operating Company
Potentiometric Map

Line N - 6
Sec 5 & 6, T19S, R38E
Lea Co., New Mexico

Safety & Environmental
Solutions, Inc.



*Line N-6 Monitor Well Report
December 15, 2000*

*Rice Operating Company
Lea County, New Mexico*

Appendix A
Cumulative Well Water Quality Data

Cumulative Data on Line N-6 (West County Road) Monitor Wells

Monitor Well #1

CONTAMINANT	WQCC STANDARD	INITIAL TEST 4/07/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/13/99
Sodium	N/A	728ppm	*	*	*
Calcium	N/A	48ppm	*	*	*
Magnesium	N/A	79ppm	*	*	*
Potassium	N/A	37ppm	*	*	*
Conductivity	N/A	4710ppm	*	*	*
T-Alkalinity	N/A	200ppm	*	*	*
Chlorides	250ppm	1286ppm	*	*	*
Sulfate (SO ₄)	600ppm	61ppm	*	*	*
Carbonate (CO ₃)	N/A	0ppm	*	*	*
HCO ₃	N/A	244ppm	*	*	*
TDS	1000.0ppm	1820ppm	*	*	*
pH	> 6 & <9	8.12	*	*	*
Benzene	0.01ppm	2.85ppm	*	*	*
Toluene	0.75ppm	1.33ppm	*	*	*
Ethyl Benzene	0.75ppm	2.52ppm	*	*	*
Total Xylenes	0.62ppm	2.55ppm	*	*	*

*Free product in well – no water samples obtained.

Monitor Well #2

CONTAMINANT	WQCC STANDARD	INITIAL TEST 4/06/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/14/99
Sodium	N/A	20ppm	7ppm	31ppm	63ppm
Calcium	N/A	62ppm	75ppm	72ppm	58ppm
Magnesium	N/A	29ppm	27ppm	21ppm	13ppm
Potassium	N/A	3.62ppm	3.41ppm	3.01ppm	4.4ppm
Conductivity	N/A	718ppm	670ppm	682ppm	663ppm
T-Alkalinity	N/A	184ppm	188ppm	188ppm	204ppm
Chlorides	250ppm	40ppm	44ppm	45ppm	41ppm
Sulfate (SO ₄)	600ppm	80ppm	66ppm	83.01ppm	77.6ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	224ppm	229ppm	229ppm	249ppm
TDS	1000.0ppm	464ppm	426ppm	528ppm	596ppm
pH	> 6 & <9	7.82	7.37	7.59	7.76
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/18/00	TEST DATE 12/15/00
Sodium	N/A	229ppm	24ppm	160ppm	62ppm
Calcium	N/A	88ppm	92ppm	75ppm	98ppm
Magnesium	N/A	25ppm	23ppm	15ppm	23ppm
Potassium	N/A	2.5ppm	1.7ppm	1.85ppm	4.31ppm
Conductivity	N/A	852ppm	802ppm	908ppm	1029ppm
T-Alkalinity	N/A	200ppm	204ppm	267ppm	254ppm
Chlorides	250ppm	38ppm	79ppm	171ppm	120ppm
Sulfate (SO ₄)	600ppm	94ppm	87ppm	112ppm	54ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	244ppm	249ppm	325ppm	310ppm
TDS	1000.0ppm	574ppm	614ppm	624ppm	557ppm
pH	> 6 & <9	7.25	7.39	7.26	7.23
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

Monitor Well #3

CONTAMINANT	WQCC STANDARD	INITIAL TEST DATE 4/07/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/14/99
Sodium	N/A	6251ppm	4531ppm	4614ppm	6074ppm
Calcium	N/A	928ppm	916ppm	1120ppm	138ppm
Magnesium	N/A	388ppm	301ppm	243ppm	29ppm
Potassium	N/A	68ppm	56.3ppm	52.19ppm	34.9ppm
Conductivity	N/A	37800ppm	21500ppm	1856ppm	23900ppm
T-Alkalinity	N/A	340ppm	272ppm	236ppm	300ppm
Chlorides	250ppm	11770ppm	8567ppm	8922ppm	9093ppm
Sulfate (SO ₄)	600ppm	640ppm	1067ppm	1052ppm	581ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	415ppm	332ppm	288ppm	366ppm
TDS	1000.0ppm	20470ppm	15660ppm	17730ppm	18120ppm
pH	> 6 & <9	6.87	6.62	6.86	7.12
Benzene	0.01ppm	.953ppm	0.673ppm	0.715ppm	0.761ppm
Toluene	0.75ppm	0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	0.004ppm	0.002ppm	<0.002ppm	0.003ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/18/00	TEST DATE 12/15/00
Sodium	N/A	6450ppm	34102ppm	3188ppm	6179ppm
Calcium	N/A	802ppm	992ppm	444ppm	1042ppm
Magnesium	N/A	486ppm	2323ppm	121ppm	379ppm
Potassium	N/A	42.9ppm	548.17ppm	21.4ppm	103ppm
Conductivity	N/A	26325ppm	243802ppm	15585ppm	27840ppm
T-Alkalinity	N/A	284ppm	28204ppm	258ppm	340ppm
Chlorides	250ppm	9680ppm	8361ppm	5439ppm	11904ppm
Sulfate (SO ₄)	600ppm	1180ppm	1090ppm	640ppm	598ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	346ppm	346ppm	315ppm	415ppm
TDS	1000.0ppm	19000ppm	19344ppm	10510ppm	16730ppm
pH	> 6 & <9	6.65	7.17	6.85	6.80
Benzene	0.01ppm	.724ppm	0.392ppm	0.313ppm	.215ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002	<0.002ppm
Ethyl Benzene	0.75ppm	0.003ppm	<0.002ppm	<0.002	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006	<0.002ppm

Monitor Well #4

CONTAMINANT	WQCC STANDARD	INITIAL TEST DATE 4/06/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/13/99
Sodium	N/A	44ppm	46ppm	61ppm	191ppm
Calcium	N/A	142ppm	142ppm	138ppm	113ppm
Magnesium	N/A	51ppm	49ppm	50ppm	26ppm
Potassium	N/A	5.44ppm	5.82ppm	4.87ppm	5.3ppm
Conductivity	N/A	1536ppm	1500ppm	1436ppm	1499ppm
T-Alkalinity	N/A	168ppm	180ppm	176ppm	204ppm
Chlorides	250ppm	297ppm	279ppm	300ppm	372ppm
Sulfate (SO ₄)	600ppm	78ppm	88ppm	87.56ppm	79.3ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	205ppm	220ppm	215ppm	249ppm
TDS	1000.0ppm	1088ppm	1080ppm	1187ppm	1260ppm
pH	> 6 & <9	7.65	7.18	7.38	7.55
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/18/00	TEST DATE 12/15/00
Sodium	N/A	287ppm	84ppm	175ppm	97ppm
Calcium	N/A	173ppm	183ppm	118ppm	137ppm
Magnesium	N/A	40ppm	41ppm	23ppm	29ppm
Potassium	N/A	3.7ppm	3.0ppm	4.02ppm	3.68ppm
Conductivity	N/A	1879ppm	1821ppm	1602ppm	1523ppm
T-Alkalinity	N/A	239ppm	204ppm	258ppm	230ppm
Chlorides	250ppm	376ppm	387ppm	311ppm	277ppm
Sulfate (SO ₄)	600ppm	88ppm	87ppm	129ppm	55ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	239ppm	249ppm	315ppm	280ppm
TDS	1000.0ppm	1400ppm	1707ppm	1149ppm	889ppm
pH	> 6 & <9	7.19	7.36	7.21	7.43
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

Monitor Well #5

CONTAMINANT	WQCC STANDARD	INITIAL TEST 4/06/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/13/99
Sodium	N/A	7ppm	26ppm	33ppm	54ppm
Calcium	N/A	75ppm	85ppm	83ppm	67ppm
Magnesium	N/A	33ppm	23ppm	21ppm	22ppm
Potassium	N/A	3.01ppm	2.71ppm	2.92ppm	4.9ppm
Conductivity	N/A	770ppm	763ppm	718ppm	693ppm
T-Alkalinity	N/A	196ppm	208ppm	208ppm	228ppm
Chlorides	250ppm	40ppm	44ppm	49ppm	45ppm
Sulfate (SO ₄)	600ppm	87ppm	93ppm	88.59ppm	84.4ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	239ppm	254ppm	254ppm	278ppm
TDS	1000.0ppm	491ppm	449ppm	484ppm	596ppm
pH	> 6 & <9	7.78	7.63	7.75	7.75
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/18/00	TEST DATE 12/15/00
Sodium	N/A	108ppm	12ppm	130ppm	25ppm
Calcium	N/A	85ppm	92ppm	76ppm	82ppm
Magnesium	N/A	23ppm	19ppm	11ppm	24ppm
Potassium	N/A	2.4ppm	1.2ppm	1.71ppm	2.19ppm
Conductivity	N/A	800ppm	748ppm	839ppm	776ppm
T-Alkalinity	N/A	259ppm	208ppm	271ppm	234ppm
Chlorides	250ppm	49ppm	53ppm	54ppm	54ppm
Sulfate (SO ₄)	600ppm	97ppm	87ppm	148ppm	50ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	259ppm	204ppm	330ppm	285ppm
TDS	1000.0ppm	474ppm	559ppm	527ppm	456ppm
pH	> 6 & <9	7.49	7.78	7.59	7.70
Benzene	0.01ppm	0.003ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

Monitor Well #6

CONTAMINANT	WQCC STANDARD	INITIAL TEST 4/06/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/13/99
Sodium	N/A	21ppm	25ppm	18ppm	39ppm
Calcium	N/A	59ppm	66ppm	69ppm	56ppm
Magnesium	N/A	24ppm	23ppm	25ppm	22ppm
Potassium	N/A	3.18ppm	2.86ppm	3.22ppm	3.8ppm
Conductivity	N/A	663ppm	644ppm	643ppm	586ppm
T-Alkalinity	N/A	192ppm	196ppm	208ppm	216ppm
Chlorides	250ppm	20ppm	28ppm	24ppm	24ppm
Sulfate (SO ₄)	600ppm	74ppm	78ppm	74.32ppm	68.2ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	234ppm	239ppm	254ppm	264ppm
TDS	1000.0ppm	436ppm	378ppm	428ppm	576ppm
pH	> 6 & <9	7.84	7.43	7.33	7.59
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/18/00	TEST DATE 12/15/00
Sodium	N/A	197ppm	12ppm	100ppm	27ppm
Calcium	N/A	71ppm	75ppm	58ppm	75ppm
Magnesium	N/A	20ppm	22ppm	11ppm	19ppm
Potassium	N/A	1.9ppm	1.7ppm	2.32ppm	2.15ppm
Conductivity	N/A	686ppm	662ppm	681ppm	710ppm
T-Alkalinity	N/A	254ppm	212ppm	250ppm	217ppm
Chlorides	250ppm	45ppm	34ppm	35ppm	46ppm
Sulfate (SO ₄)	600ppm	82ppm	77ppm	91ppm	44ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	254ppm	259ppm	305ppm	265ppm
TDS	1000.0ppm	438ppm	500ppm	443ppm	381ppm
pH	> 6 & <9	7.32	7.62	7.35	7.51
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	0.003ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

Monitor Well #7

CONTAMINANT	WQCC STANDARD	INITIAL TEST DATE 4/06/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/13/99
Sodium	N/A	79ppm	122ppm	140ppm	233ppm
Calcium	N/A	120ppm	126ppm	118ppm	73ppm
Magnesium	N/A	57ppm	33ppm	32ppm	9.3ppm
Potassium	N/A	6.55ppm	5.00ppm	5.21ppm	4.4ppm
Conductivity	N/A	1663ppm	1568ppm	1535ppm	1401ppm
T-Alkalinity	N/A	252ppm	248ppm	260ppm	264ppm
Chlorides	250ppm	245ppm	255ppm	255ppm	258ppm
Sulfate (SO ₄)	600ppm	114ppm	111ppm	113.11ppm	101ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	307ppm	303ppm	317ppm	322ppm
TDS	1000.0ppm	1000ppm	938ppm	1685ppm	996ppm
pH	> 6 & <9	7.57	7.23	7.42	7.46
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/13/00	TEST DATE 12/15/00
Sodium	N/A	220ppm	122ppm	371ppm	134ppm
Calcium	N/A	131ppm	143ppm	46ppm	112ppm
Magnesium	N/A	35ppm	33ppm	13ppm	26ppm
Potassium	N/A	3.9ppm	3.1ppm	3.79ppm	3.01ppm
Conductivity	N/A	1694ppm	1633ppm	1657ppm	1499ppm
T-Alkalinity	N/A	307ppm	276ppm	414ppm	267ppm
Chlorides	250ppm	258ppm	271ppm	260ppm	224ppm
Sulfate (SO ₄)	600ppm	118ppm	109ppm	123ppm	96ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	307ppm	337ppm	505ppm	325ppm
TDS	1000.0ppm	1022ppm	1130ppm	978ppm	826ppm
pH	> 6 & <9	7.18	7.48	7.77	7.45pm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

Inactive Water Well #1

CONTAMINANT	WQCC STANDARD	INITIAL TEST DATE 4/07/99	TEST DATE 6/28/99	TEST DATE 9/17/99	TEST DATE 12/14/99
Sodium	N/A	930ppm	1149ppm	104ppm	345ppm
Calcium	N/A	80ppm	116ppm	74ppm	54ppm
Magnesium	N/A	316ppm	79ppm	21ppm	26ppm
Potassium	N/A	17ppm	14.94ppm	5.44ppm	10.1ppm
Conductivity	N/A	7790ppm	5690ppm	1028ppm	1990ppm
T-Alkalinity	N/A	160ppm	208ppm	184ppm	212ppm
Chlorides	250ppm	2275ppm	1893ppm	166ppm	505ppm
Sulfate (SO ₄)	600ppm	173ppm	248ppm	84.31ppm	78.1ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	195ppm	254ppm	224ppm	259ppm
TDS	1000.0ppm	3310ppm	2780ppm	626ppm	1260ppm
pH	> 6 & <9	6.97	7.23	7.61	7.78
Benzene	0.01ppm	0.063ppm	0.013ppm	<0.002ppm	0.004ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

CONTAMINANT	WQCC STANDARD	TEST DATE 3/13/00	TEST DATE 6/15/00	TEST DATE 9/13/00	TEST DATE 12/15/00
Sodium	N/A	472ppm	135ppm	140ppm	81ppm
Calcium	N/A	69ppm	78ppm	58ppm	73ppm
Magnesium	N/A	27ppm	21ppm	12ppm	16ppm
Potassium	N/A	5.7ppm	3.8ppm	2.29ppm	4.15ppm
Conductivity	N/A	1309ppm	1156ppm	767ppm	900ppm
T-Alkalinity	N/A	216ppm	220ppm	267ppm	242ppm
Chlorides	250ppm	244ppm	182ppm	82ppm	95ppm
Sulfate (SO ₄)	600ppm	94ppm	85ppm	94ppm	52ppm
Carbonate (CO ₃)	N/A	0ppm	0ppm	0ppm	0ppm
HCO ₃	N/A	264ppm	268ppm	325ppm	295ppm
TDS	1000.0ppm	682ppm	751ppm	435ppm	527ppm
pH	> 6 & <9	7.44	7.54	7.60	7.49
Benzene	0.01ppm	0.003ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm

*Line N-6 Monitor Well Report
December 15, 2000*

*Rice Operating Company
Lea County, New Mexico*

Appendix B Analytical Results



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

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

ANALYTICAL RESULTS FOR:

SESI

ATTN: BOB ALLEN

703 E. CLINTON, SUITE 103

HOBBS, NM 88240

FAX TO:

Receiving Date: 12/15/00
Project Owner: NOT GIVEN
Project Number: NOT GIVEN
Project Name: RICE-N6
Project Location: WEST CTY. RD.

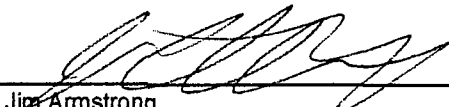
Sampling Date: 12/15/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP-HOBBS
Analyzed By: JA

LAB ID	SAMPLE ID				BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL- BENZENE (ug/L)	TOTAL XYLENES (ug/L)
H5441-1	WW				<2.00	<2.00	<2.00	<6.00
H5441-2	MW #2				<2.00	<2.00	<2.00	<6.00
H5441-3	MW #3				215	<2.00	<2.00	<6.00
H5441-4	MW #4				<2.00	<2.00	<2.00	<6.00
H5441-5	MW #5				<2.00	<2.00	<2.00	<6.00
H5441-6	MW #6				<2.00	<2.00	<2.00	<6.00
H5441-7	MW #7				<2.00	<2.00	<2.00	<6.00

Extraction Date:					12/18/00	12/18/00	12/18/00	12/18/00
Analysis Date:					12/18/00	12/18/00	12/18/00	12/18/00
Method Blank					<2.00	<2.00	<2.00	<6.00
Sample LCS					97.7	106	95.4	297
True Value LCS					100	100	100	300
LCS % Recovery					97.7%	106.0%	95.4%	99.0%
Matrix Spike					94.5	108	96.4	300
True Value Matrix Spike					100	100	100	300
Matrix Spike % Recovery					94.5%	108.0%	96.4%	100.0%
Matrix Spike RSD (%)					3.1%	1.3%	1.8%	0.2%

METHODS:

BTEX/MTBE-EPA SW-846 8021B, 5030B


Jim Armstrong

12-18-00
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



ARDINAL LABORATORIES

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

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

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 12/15/00
Reporting Date: 12/19/00
Project Number: NOT GIVEN
Project Name: RICE-N6
Project Location: WEST CTY. RD.

Sampling Date: 12/15/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		12/19/00	12/19/00	12/19/00	12/19/00	12/19/00	12/19/00
H5441-1	WW	81	73	16	4.15	900	242
H5441-2	MW #2	62	98	23	4.31	1029	254
H5441-3	MW #3	6179	1042	379	103	27840	340
H5441-4	MW #4	97	137	29	3.68	1523	230
H5441-5	MW #5	25	82	24	2.19	776	234
H5441-6	MW #6	27	75	19	2.15	710	217
H5441-7	MW #7	134	112	26	3.01	1499	267
Quality Control		NR	42	53	5.32	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	84	106	106	105	NR
Relative Percent Difference		NR	9.6	0	5.6	0.3	NR
METHODS:		SM3500-Ca-D	3500-Mg E		8049	120.1	310.1

		Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		12/01/00	12/19/00	12/19/00	12/01/00	12/19/00	12/19/00
H5441-1	WW	95	52	0	295	7.49	527
H5441-2	MW #2	120	54	0	310	7.23	557
H5441-3	MW #3	11904	598	0	415	6.80	16730
H5441-4	MW #4	277	55	0	280	7.43	889
H5441-5	MW #5	54	50	0	285	7.70	456
H5441-6	MW #6	46	44	0	265	7.51	381
H5441-7	MW #7	224	96	0	325	7.45	826
Quality Control		932	53.03	NR	988	7.03	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		93.2	106	NR	98.8	100	NR
Relative Percent Difference		6.7	0.8	NR	1.3	0	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1


Chemist

12/19/2000
Date



2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

*Line N-6 Monitor Well Report
December 15, 2000*

*Rice Operating Company
Lea County, New Mexico*

Appendix C Water Analysis Validation

Cations and Anions Calculation Check								
	Sample Name	H5441-2	H5441-3	H5441-4	H5441-5	H5441-6	H5441-7	H5441-1
	Well Number	MW2	MW3	MW4	MW5	MW6	MW7	IWW
	Date	12/15/00	12/15/00	12/15/00	12/15/00	12/15/00	12/15/00	12/15/00
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	62	6,179	97	25	27	134	81
20.04	Calcium (mg/L)	98	1,042	137	82	75	112	73
12.15	Magnesium (mg/L)	23	379	29	24	19	26	16
39.09	Potassium (mg/L)	4.3	103.0	3.7	2.2	2.2	3.0	4.2
35.45	Chloride (mg/L)	120	11,904	277	54	46	224	95
48.04	Sulfate (mg/L)	54	598	55	50	44	96	52
30.00	Carbonate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.01	Bicarbonate (mg/L)	310	415	280	285	265	325	295
50.04	Alkalinity (mg/L CaCO3)	254	340	230	234	217	267	242
62.00	Nitrate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sum Cations (meq/L)	9.6	354.6	13.5	7.2	6.5	13.6	8.6
	Sum Anions (meq/L)	9.6	355.1	13.6	7.2	6.5	13.7	8.6
	Percent Difference	0.0	0.1	0.1	0.2	0.1	0.1	0.1
	Measured TDS (evap., mg/L)	557	16,730	889	456	381	826	527
	TDS (calc. USGS sum, mg/L)	514	20,409	737	378	343	755	466
	TDS (meas.) / TDS (calc. USGS)	1.1	0.8	1.2	1.2	1.1	1.1	1.1
	TDS (calc. sum, mg/L)	671	20,620	879	522	478	920	616
	Elect. Conductivity (umhos/cm)	1,029	27,840	1,523	776	710	1,499	900
	TDS (C*0.7, mg/L)	720	19,488	1,066	543	497	1,049	630
	TDS (calc. USGS) / Conductivity	0.77	0.73	0.48	0.49	0.48	0.50	0.52
Test Criteria								
1. Anion-Cation Balance:			Anion Sum	Max % diff.				
			0 - 3.0	± 0.2				
			3.0 - 10.0	± 2				
			10.0 - 800	± 5				
2. TDS, Measured to Calculated:			1.0 < (measured TDS/calculated TDS) < 1.2					
3. TDS (calculated USGS) to EC Ratio:			Calculated TDS/conductivity = 0.55 - 0.7					