

AP - 75

ANNUAL MONITORING REPORT

YEAR(S):

2008

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RETURN RECEIPT NO. 7099 3400 0017 1737 1957

February 18, 2009

Mr. Brad Jones
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: **2008 ANNUAL GROUNDWATER MONITORING REPORT
BD JCT. J-26 SITE (AP-75)
T21S, R37E, SECTION 26, UNIT LETTER J
LEA COUNTY, NEW MEXICO**

Mr. Jones:

On behalf of Rice Operating Company (ROC), Trident Environmental takes this opportunity to submit the 2008 Annual Groundwater Monitoring Report for the BD Jct. J-26 Site located in the Blinbry-Drinkard (BD) Salt Water Disposal (SWD) System.

ROC is the service provider (agent) for the BD SWD System and has no ownership of any portion of pipeline, well, or facility. The BD 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 annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me at (432) 638-8740 or Hack Conder at (575) 393-9174.

Sincerely,

Gilbert J. Van Deventer, REM, PG

cc: HC, MB

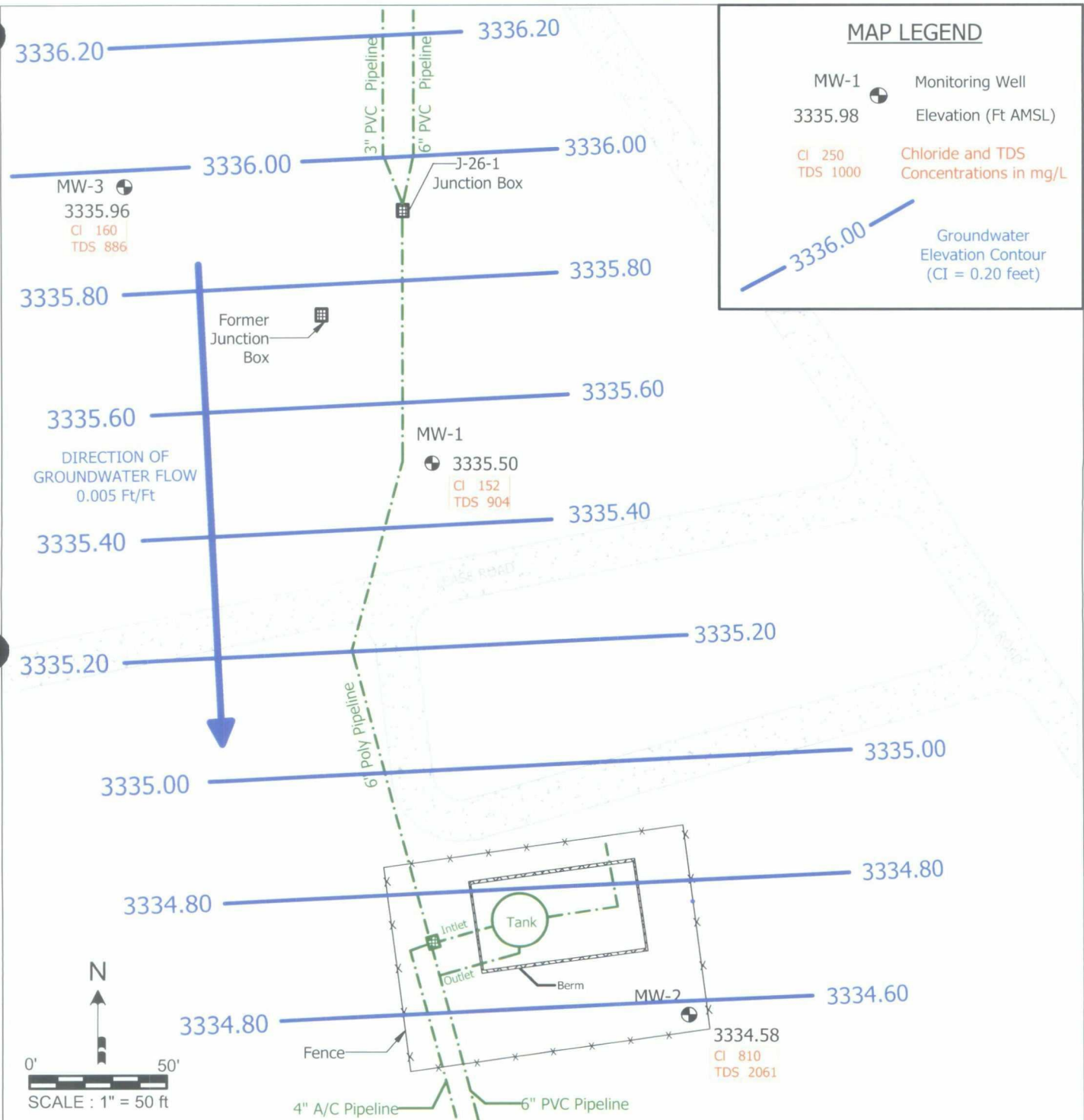
enclosures: maps, table, graphs, laboratory analytical reports, and well sampling data forms

ATTACHMENT A

Site Maps

Table

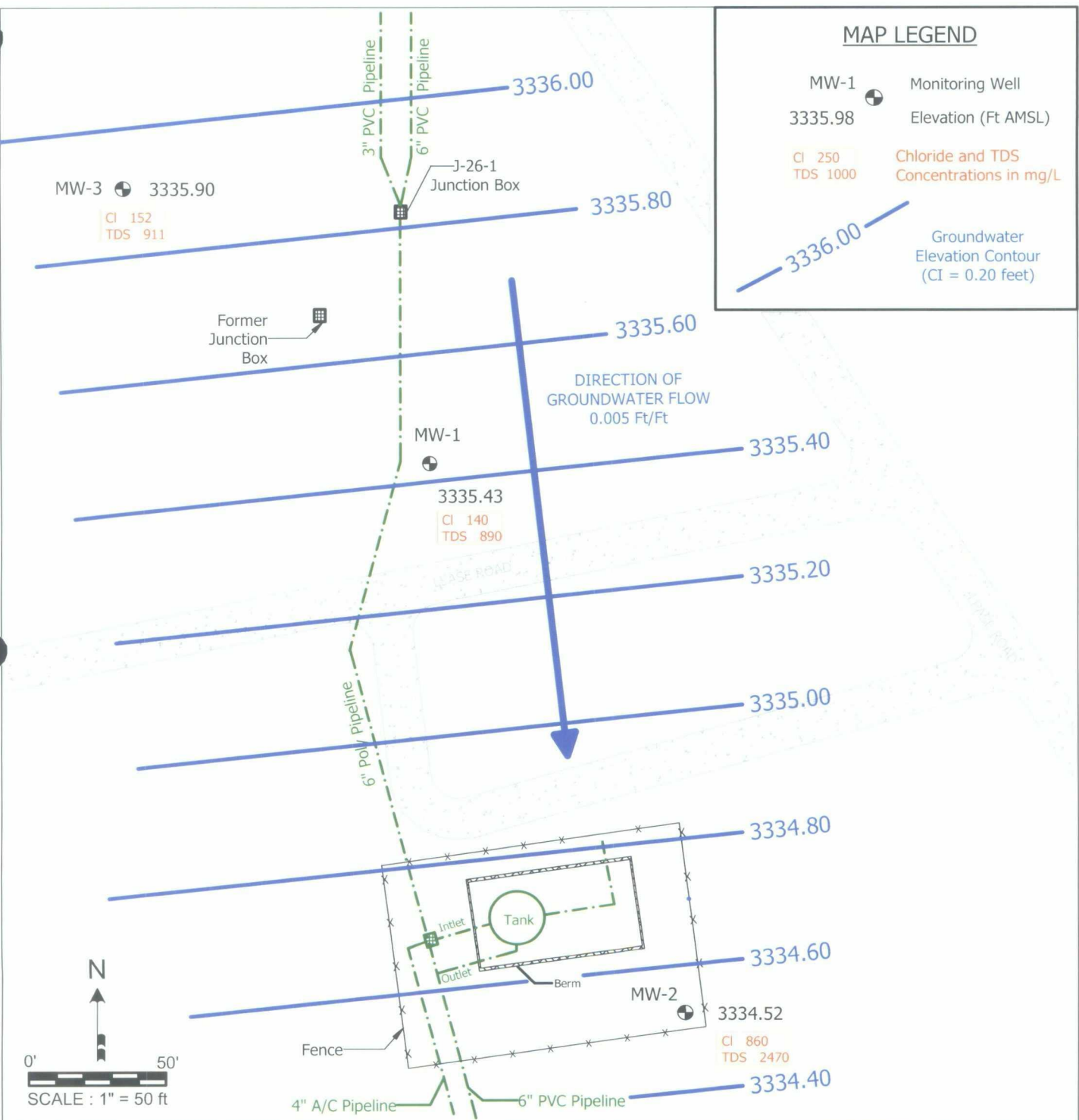
Graphs



BD Jct. J-26 Site
 T21S - R37E - Section 26 - Unit J
RICE Operating Company

GROUNDWATER GRADIENT AND
 CHLORIDE, TDS, & BTEX
 CONCENTRATION MAP

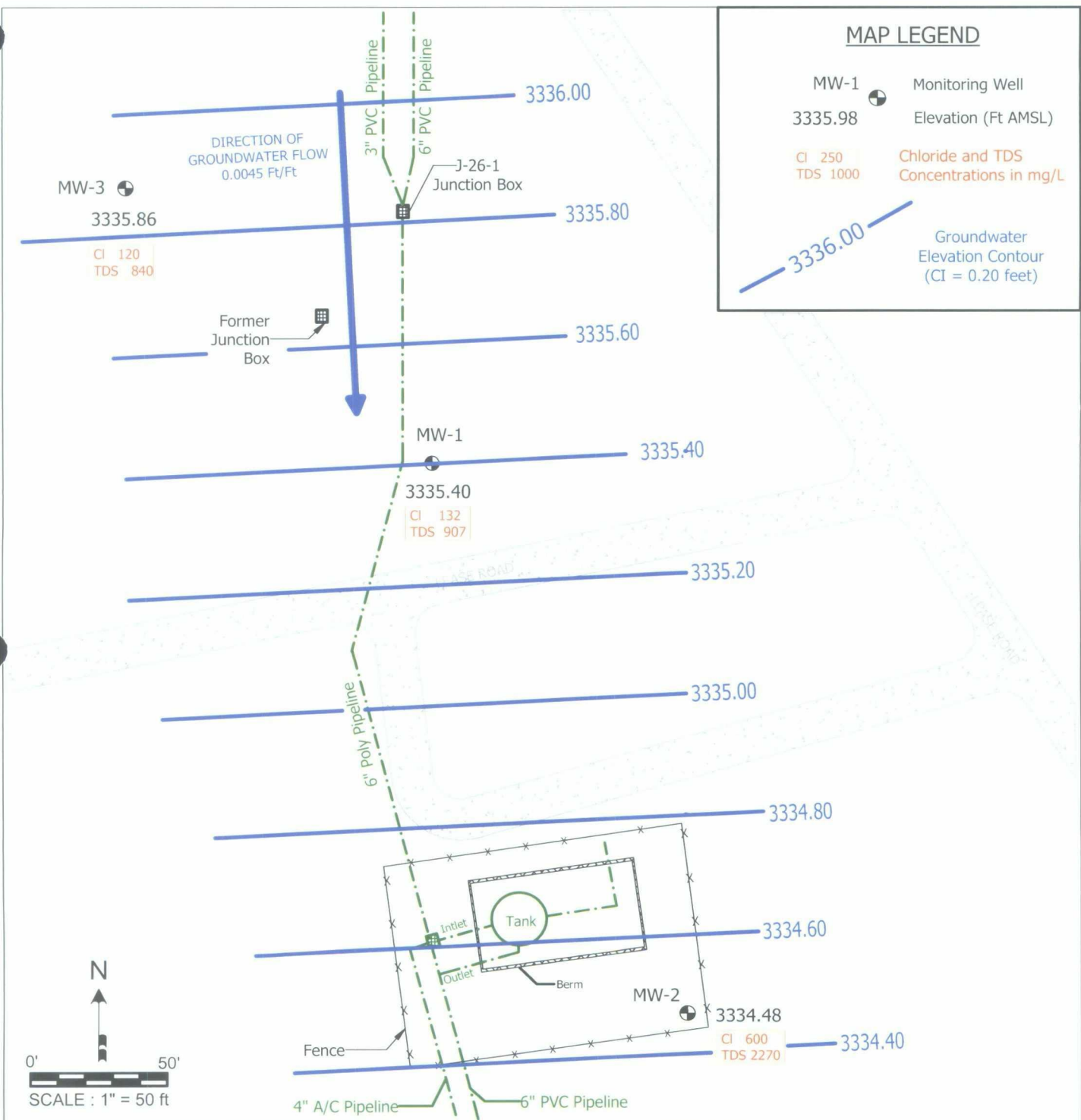
FEBRUARY 14, 2008



BD Jct. J-26 Site
T21S - R37E - Section 26 - Unit J
RICE Operating Company

GROUNDWATER GRADIENT AND
CHLORIDE, TDS, & BTEX
CONCENTRATION MAP

APRIL 4, 2008

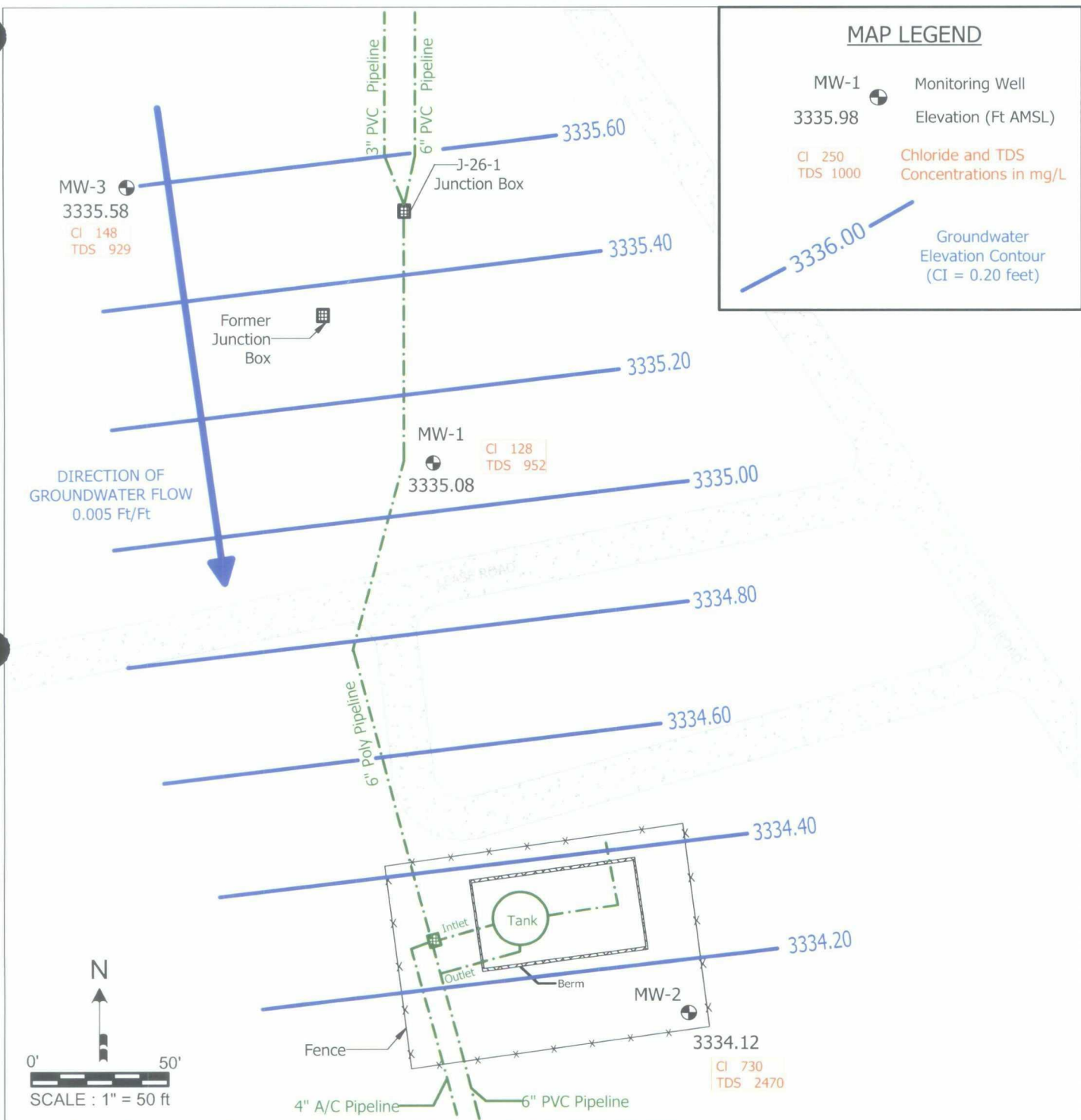


BD Jct. J-26 Site
T21S - R37E - Section 26 - Unit J

RICE Operating Company

GROUNDWATER GRADIENT AND
CHLORIDE, TDS, & BTEX
CONCENTRATION MAP

JULY 15, 2008



BD Jct. J-26 Site
 T21S - R37E - Section 26 - Unit J
RICE Operating Company

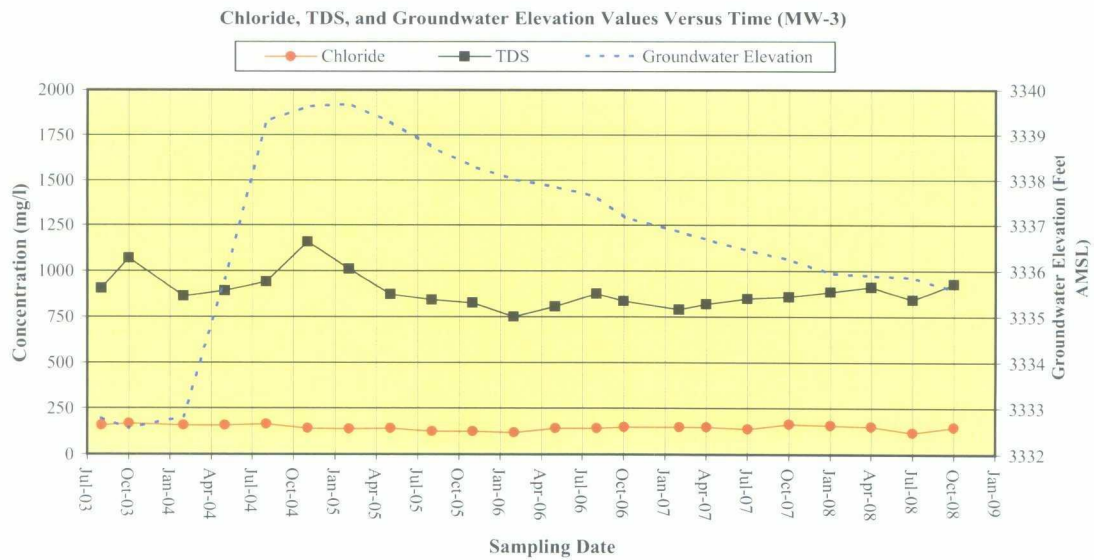
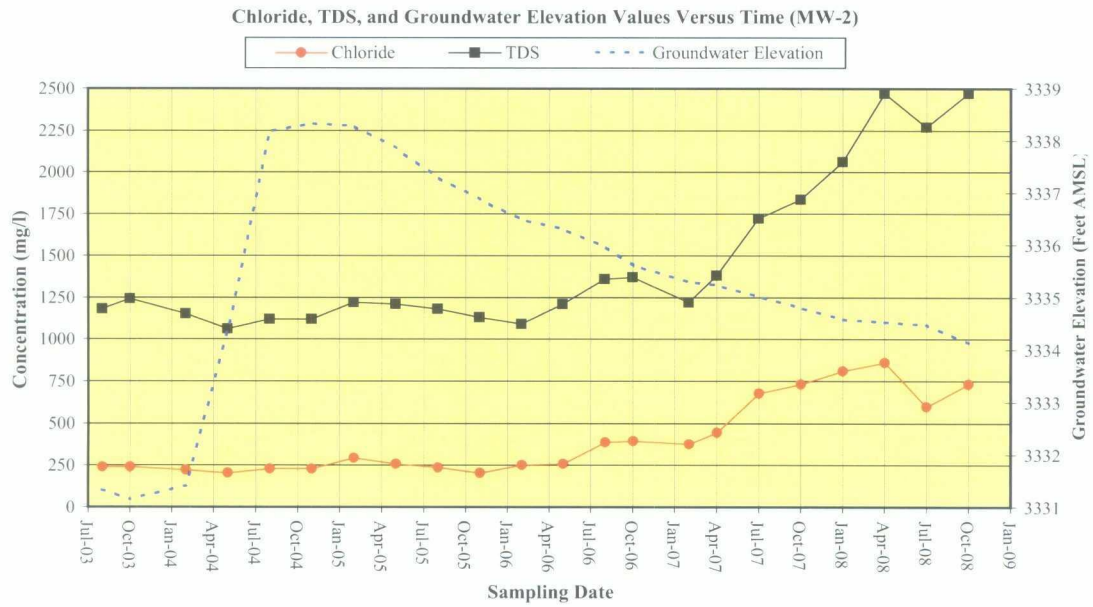
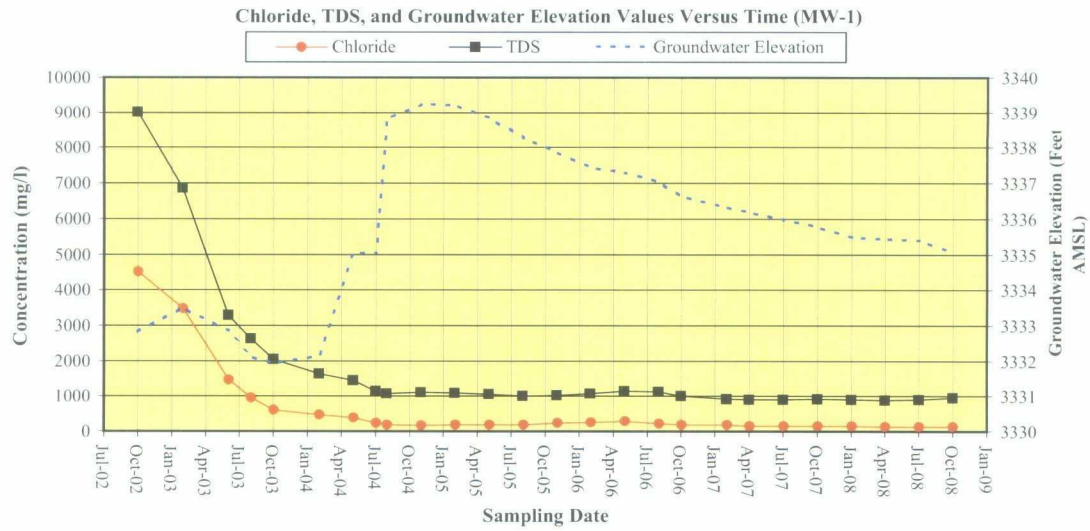
**GROUNDWATER GRADIENT AND
 CHLORIDE, TDS, & BTEX
 CONCENTRATION MAP**

OCTOBER 8, 2008

Table 1
Summary of Groundwater Sampling Results

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
MW-1	10/29/02	43.02	3332.82	4520	9020	< 0.001	< 0.001	< 0.001	< 0.001
	02/28/03	42.33	3333.51	3470	6870	< 0.001	< 0.001	< 0.001	< 0.001
	06/05/03	43.00	3332.84	1460	3280	< 0.001	< 0.001	< 0.001	< 0.001
	08/22/03	43.72	3332.12	957	2620	< 0.001	< 0.001	< 0.001	< 0.001
	10/30/03	43.91	3331.93	620	2040	< 0.001	< 0.001	< 0.001	< 0.001
	02/18/04	43.70	3332.14	478	1630	< 0.001	< 0.001	< 0.001	< 0.001
	05/05/04	40.80	3335.04	390	1440	< 0.001	< 0.001	< 0.001	< 0.001
	07/08/04	40.80	3335.04	230	1140	< 0.001	< 0.001	< 0.001	< 0.001
	08/10/04	37.02	3338.82	195	1080	< 0.001	< 0.001	< 0.001	< 0.001
	11/09/04	36.61	3339.23	177	1100	< 0.001	< 0.001	< 0.001	< 0.001
	02/09/05	36.62	3339.22	179	1090	< 0.001	< 0.001	< 0.001	< 0.001
	05/05/05	37.00	3338.84	179	1060	< 0.001	< 0.001	< 0.001	< 0.001
	08/13/05	37.56	3338.28	193	1000	< 0.001	< 0.001	< 0.001	< 0.001
	11/07/05	37.98	3337.86	233	1020	< 0.001	< 0.001	< 0.001	< 0.001
	02/06/06	38.39	3337.45	262	1080	< 0.001	< 0.001	< 0.001	< 0.001
	05/08/06	38.55	3337.29	282	1140	< 0.001	< 0.001	< 0.001	< 0.001
	08/01/06	38.80	3337.04	218	1126	< 0.001	< 0.001	< 0.001	< 0.001
	10/23/06	39.21	3336.63	193	1010	---	---	---	---
	02/08/07	39.52	3336.32	182	912	---	---	---	---
	04/18/07	39.66	3336.18	161	898	---	---	---	---
	07/18/07	39.86	3335.98	149	900	---	---	---	---
	10/10/07	40.07	3335.77	160	915	---	---	---	---
	01/14/08	40.35	3335.49	152	904	---	---	---	---
	04/04/08	40.41	3335.43	140	890	---	---	---	---
	07/15/08	40.44	3335.40	132	907	---	---	---	---
	10/08/08	40.76	3335.08	128	952	---	---	---	---
MW-2	08/22/03	43.99	3331.33	239	1180	< 0.001	< 0.001	< 0.001	< 0.001
	10/30/03	44.17	3331.15	239	1240	< 0.001	< 0.001	< 0.001	< 0.001
	02/18/04	43.91	3331.41	221	1150	< 0.001	0.001	< 0.001	< 0.001
	05/05/04	40.98	3334.34	204	1060	< 0.001	0.001	< 0.001	< 0.001
	08/10/04	37.14	3338.18	230	1120	< 0.001	< 0.001	< 0.001	< 0.001
	11/09/04	36.99	3338.33	230	1120	< 0.001	< 0.001	< 0.001	< 0.001
	02/09/05	37.03	3338.29	294	1220	< 0.001	< 0.001	< 0.001	< 0.001
	05/06/05	37.46	3337.86	257	1210	< 0.001	< 0.001	< 0.001	< 0.001
	08/13/05	38.02	3337.30	237	1180	< 0.001	< 0.001	< 0.001	< 0.001
	11/07/05	38.44	3336.88	206	1130	< 0.001	< 0.001	< 0.001	< 0.001
	02/06/06	38.83	3336.49	250	1090	< 0.001	< 0.001	< 0.001	< 0.001
	05/08/06	39.02	3336.30	257	1210	< 0.001	< 0.001	< 0.001	< 0.001
	08/01/06	39.35	3335.97	387	1358	< 0.001	< 0.001	< 0.001	< 0.001
	10/23/06	39.71	3335.61	395	1370	---	---	---	---
	02/08/07	40.03	3335.29	378	1220	---	---	---	---
	04/18/07	40.09	3335.23	446	1380	---	---	---	---
	07/18/07	40.30	3335.02	679	1720	---	---	---	---
	10/10/07	40.52	3334.80	730	1838	---	---	---	---
	01/14/08	40.74	3334.58	810	2061	---	---	---	---
	04/04/08	40.80	3334.52	860	2470	---	---	---	---
	07/15/08	40.84	3334.48	600	2270	---	---	---	---
	10/08/08	41.20	3334.12	730	2470	---	---	---	---
MW-3	08/22/03	43.06	3332.79	160	904	< 0.001	< 0.001	< 0.001	< 0.001
	10/30/03	43.28	3332.57	168	1070	< 0.001	< 0.001	< 0.001	< 0.001
	02/18/04	43.03	3332.82	160	862	< 0.001	< 0.001	< 0.001	< 0.001
	05/05/04	40.04	3335.81	160	891	< 0.001	< 0.001	< 0.001	< 0.001
	08/10/04	36.55	3339.30	164	941	< 0.001	< 0.001	< 0.001	< 0.001
	11/09/04	36.22	3339.63	142	1160	< 0.001	< 0.001	< 0.001	< 0.001
	02/09/05	36.17	3339.68	138	1010	< 0.001	< 0.001	< 0.001	< 0.001
	05/06/05	36.56	3339.29	141	870	< 0.001	< 0.001	< 0.001	< 0.001
	08/13/05	37.12	3338.73	125	842	< 0.001	< 0.001	< 0.001	< 0.001
	11/07/05	37.55	3338.30	125	826	< 0.001	< 0.001	< 0.001	< 0.001
	02/06/06	37.84	3338.01	119	748	< 0.001	< 0.001	< 0.001	< 0.001
	05/08/06	38.00	3337.85	142	806	< 0.001	< 0.001	< 0.001	< 0.001
	08/01/06	38.22	3337.63	141	876	< 0.001	< 0.001	< 0.001	< 0.001
	10/23/06	38.68	3337.17	147	834	---	---	---	---
	02/08/07	39.01	3336.84	147	788	---	---	---	---
	04/18/07	39.16	3336.69	150	818	---	---	---	---
	07/18/07	39.40	3336.45	139	848	---	---	---	---
	10/10/07	39.60	3336.25	164	857	---	---	---	---
	01/14/08	39.90	3335.95	160	886	---	---	---	---
	04/04/08	39.95	3335.90	152	911	---	---	---	---
	07/15/08	39.99	3335.86	120	840	---	---	---	---
	10/08/08	40.27	3335.58	148	929	---	---	---	---
WQCC Standards				250	1000	0.01	0.75	0.75	0.62

Total Dissolved Solids (TDS), chloride, and BTEX concentrations listed in milligrams per liter (mg/L).
Analyses performed by Cardinal Labs, Hobbs, NM (1995-1998) and Environmental Lab of Texas, Odessa, TX (1999-2003).
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards.
AMSL - Above Mean Sea Level; BTOT - Below Top of Casing
Groundwater flow direction is to the southeast with a gradient of approx. 0.005 ft/ft.
Elevations and state plane coordinates surveyed by Basin Surveys, Hobbs, NM.
--- BTEX analysis discontinued as approved by NMOCDO on 05/19/06.



ATTACHMENT B

Laboratory Analytical Reports

And

Chain of Custody Documentation



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 01/15/08
Reporting Date: 01/22/08
Project Number: NOT GIVEN
Project Name: BD JUNCTION J-26
Project Location: T21S R37E SEC26 J

Sampling Date: 01/14/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:	01/21/08	01/21/08	01/21/08	01/21/08	01/16/08	01/16/08
H14088-1 MONITOR WELL #1	202	63.9	26.6	13.9	1,363	220
H14088-2 MONITOR WELL #2	354	200	80.7	17.8	3,280	200
H14088-3 MONITOR WELL #3	151	74.5	34.7	7.70	1,330	248
Quality Control	NR	49.2	52.4	2.93	1,433	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	98.5	105	97.8	101	NR
Relative Percent Difference	NR	< 0.1	3.0	8.5	1.4	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:	01/16/08	01/17/08	01/16/08	01/16/08	01/16/08	01/18/08
H14088-1 MONITOR WELL #1	152	281	0	268	7.59	904
H14088-2 MONITOR WELL #2	810	272	0	244	7.27	2,061
H14088-3 MONITOR WELL #3	160	186	0	302	7.46	886
Quality Control	500	26.8	NR	1000	7.04	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	100	107	NR	100	100	NR
Relative Percent Difference	2.0	2.0	NR	< 0.1	0.3	NR

METHODS: SM4500-Cl-B 375.4 310.1 310.1 150.1 160.1

Kristin Suproba
Chemist

01/22/08
Date



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

181

Company Name: <u>Rice Operating Company</u>		P.O. #:		BILL TO		ANALYSIS REQUEST																					
Project Manager: <u>Kristin Farris-Pope</u>		Company:																									
Address: <u>122 W Taylor Street</u>		Attn:																									
City: <u>Hobbs, NM</u>		Address:																									
Phone #: <u>(575) 393 9174</u>		Fax #: <u>(575) 397-1471</u>																									
Project #: _____		City:																									
Project Name: <u>BO Junction J-26</u>		State:																									
Project Location: <u>T215 R37E S26T</u>		Phone #:																									
Sampler Name: <u>Rozanne Johnson</u>		Fax #:																									
FOR ABUSE ONLY		MATRIX		PRESERV		SAMPLING																					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL (1/Like)	OTHER:	DATE	TIME	CATIONS (Ca, Mg, Na, K)	ANIONS (Cl, SO4, CO3, HCO3)	Total Dissolved Solids										
H14088-1	Monitor well #1	G	1	X									1-14	10:40	X	X	X										
-2	Monitor well #2	G	1	X									1-14	11:20	X	X	X										
-3	Monitor well #3	G	1	X									1-14	9:50	X	X	X										
PLEASE NOTE: Liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. 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 rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																											
Relinquished By: _____		Date: <u>1-15-2008</u>		Received By: <u>Mark DeBart</u>																							
Time: <u>10:45</u>		Date: _____		Received By: _____																							
Time: _____		Date: _____		Received By: _____																							
Delivered By: (Circle One) Sample - UPS - Bus - Other:		Sample Condition Cool ☒ Intact ☒ Yes ☒ No ☐		CHECKED BY: <u>MSB</u>																							
Cardinal cannot accept verbal changes. Please fax written changes to 505-393-_____																											



CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 04/08/08
Reporting Date: 04/11/08
Project Number: NOT GIVEN
Project Name: BD JUNCTION J-26
Project Location: T21S R37E SEC26 J~LEA COUNTY, NM

Sampling Date: 04/04/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:	04/11/08	04/10/08	04/10/08	04/11/08	04/09/08	04/09/08
H14598-1 MONITOR WELL #1	172	67.9	29.0	24.2	1,320	200
H14598-2 MONITOR WELL #2	357	240	78.6	19.3	3,460	208
H14598-3 MONITOR WELL #3	166	54.6	39.5	10.0	1,330	260
Quality Control	NR	49.2	50.0	3.53	1,429	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	98.5	100	118	101	NR
Relative Percent Difference	NR	2.8	1.6	2.9	0.4	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:	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/08/08
H14598-1 MONITOR WELL #1	140	284	0	244	7.67	890
H14598-2 MONITOR WELL #2	860	292	0	254	7.38	2,470
H14598-3 MONITOR WELL #3	152	191	0	317	7.74	911
Quality Control	490	22.7	NR	1000	7.04	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	98.0	90.7	NR	100	100	NR
Relative Percent Difference	< 0.1	11.9	NR	1.2	< 0.1	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Kristin Supplee
Chemist

04/14/08
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. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

101 East Mainland - Hobbs, New Mexico 88240
Tel (575) 393-2326
Fax (575) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name:

RICE Operating Company

BILL TO Company:

RICE Operating Company

PO#

Project Manager:

Kristin Farris-Pope, Project Scientist

Address:

122 W Taylor Street ~ Hobbs, New Mexico 88240

(Street, City, Zip)

Address: (Street, City, Zip)

122 W Taylor Street ~ Hobbs, New Mexico 88240

Phone#:

(575) 393-9174

Fax#:

(575) 397-1471

Phone #:

(575) 393-9174

Fax #:

(575) 397-1471

Project #:

Project Name: BD Junction J-26

Project Location:

T21S R37E Sec26 J ~ Lea County New Mexico

Sampler Signature:

Rozanne Johnson (575) 631-9310
rozanne@valomet.com

LAB #
(LAB USE ONLY)

(G)rab or (C)omp

CONTAINERS

WATER

SOIL

AIR

SLUDGE

HCL

HNO₃

NaHSO₄

H₂SO₄

ICE (1-1 Liter HDPE)

NONE

DATE (2008)

TIME

MTBE 8021B/602

BTEX 8021B/602

TPH 418.1/TX1005 / TX1005 Extended (C35)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

RCI

GC/MS Vol. 8260B/624

GC/MS Semi. Vol. 8270C/625

PCB's 8082/608

Pesticides 8081A/608

BOD, TSS, pH

Moisture Content

Cations (Ca, Mg, Na, K)

Anions (Cl, SO₄, CO₃, HCO₃)

Total Dissolved Solids

Chlorides

Turn Around Time ~ 24 Hours

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished By: *[Signature]* Date: 4-8-08 Time: 9:20
Rozanne Johnson

Received by:

[Signature] Date: 4/8/08 Time: 9:20
Rozanne Johnson

Relinquished By: Date: Time:

Phone Results: Yes No
Fax Results: Yes No

Additional Fax Number:

Delivered By: (Circle One)

Sample Condition

Cool

Yes

No

Intact

Yes

No

CHECKED BY:

(Initials)

[Signature]

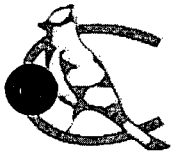
Email Results to:

kfarris@riceswd.com

lweinheimer@riceswd.com

rozanne@valomet.com

Sampler - UPS - Bus - Other:



ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 07/18/08
Reporting Date: 07/27/08
Project Number: NOT GIVEN
Project Name: BD JUNCTION J-26
Project Location: T21S R37E SEC26 J-LEA COUNTY, NM

Sampling Date: 07/15/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		07/25/08	07/25/08	07/25/08	07/27/08	07/23/08	07/23/08
H15189-1	MONITOR WELL #1	145	78.6	23.3	22.8	1,210	208
H15189-2	MONITOR WELL #2	405	184	72.9	10.9	3,100	316
H15189-3	MONITOR WELL #3	145	72.1	20.4	20.6	1,110	196
Quality Control		NR	52.1	51.0	3.03	1,416	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	104	102	101	100	NR
Relative Percent Difference		NR	< 0.1	< 0.1	5.4	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:		07/24/08	07/24/08	07/23/08	07/23/08	07/23/08	07/20/08
H15189-1	MONITOR WELL #1	132	232	0	254	7.59	907
H15189-2	MONITOR WELL #2	600	473	0	386	7.22	2,270
H15189-3	MONITOR WELL #3	120	231	0	239	7.62	840
Quality Control		500	45.5	NR	1010	7.01	NR
True Value QC		500	40.0	NR	1000	7.00	NR
% Recovery		100	114	NR	101	100	NR
Relative Percent Difference		< 0.1	6.2	NR	2.5	0.1	NR

METHODS: SM4500-Cl-B 375.4 310.1 310.1 150.1 160.1

Chemist

Date



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 10/09/08
Reporting Date: 10/14/08
Project Number: NOT GIVEN
Project Name: BD JUNCTION J-26
Project Location: T21S-R37E-SEC26 J ~ LEA CO., NM

Sampling Date: 10/08/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/TR

LAB NUMBE	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		10/13/08	10/13/08	10/13/08	10/13/08	10/10/08	10/10/08
H16084-1	MONITOR WELL #1	164	62.5	27.2	23.2	1,180	204
H16084-2	MONITOR WELL #2	378	164	75.3	15.2	2,840	232
H16084-3	MONITOR WELL #3	158	51.3	45.7	8.7	1,190	268
Quality Control		NR	48.1	48.6	2.92	1,416	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	96.2	97.2	97.3	100	NR
Relative Percent Difference		NR	<0.1	4.8	3.0	0.2	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:	10/10/08	10/13/08	10/10/08	10/10/08	10/10/08	10/10/08
H16084-1	128	259	0	249	7.40	952
H16084-2	730	289	0	283	6.99	2,470
H16084-3	148	186	0	327	7.33	929
Quality Control	490	44.4	NR	988	7.09	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	98.0	111	NR	98.8	101	NR
Relative Percent Difference	2.0	1.1	NR	<0.1	1.3	NR

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. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

ATTACHMENT C

Well Sampling Data Forms

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #1
SYSTEM: BD DATE: January 14, 2008
SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.78 Feet
DEPTH TO WATER: 40.35 Feet
HEIGHT OF WATER COLUMN: 12.43 Feet
WELL VOLUME: 2.0 Gal. 2 In. Well Diameter
8 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:40	19.2	1.40	7.58	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
SYSTEM: BD DATE: January 14, 2008
SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand/Bailed ☒ Pump, Type: Purge Pump
SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 58.45 Feet
DEPTH TO WATER: 40.74 Feet
HEIGHT OF WATER COLUMN: 17.71 Feet
WELL VOLUME: 2.8 Gal. 2 In. Well Diameter
10 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
11:20	19.0	3.33	7.27	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #3
 SYSTEM: BD DATE: January 14, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 60.05 Feet
 DEPTH TO WATER: 39.90 Feet
 HEIGHT OF WATER COLUMN: 20.15 Feet
 WELL VOLUME: 3.2 Gal. 2 In. Well Diameter
15 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:50	18.7	1.36	7.44	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #1
 SYSTEM: BD DATE: April 4, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.78 Feet
 DEPTH TO WATER: 40.41 Feet
 HEIGHT OF WATER COLUMN: 12.37 Feet
 WELL VOLUME: 2.0 Gal. 2 In. Well Diameter
8 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:50	21.7	1.33	7.53	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:
Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.
Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: BD DATE: April 4, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 58.45 Feet
 DEPTH TO WATER: 40.80 Feet
 HEIGHT OF WATER COLUMN: 17.65 Feet
 WELL VOLUME: 2.8 Gal. 2 In. Well Diameter
10 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:45	20.6	3.47	7.28	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #3
 SYSTEM: BD DATE: April 4, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 60.05 Feet
 DEPTH TO WATER: 39.95 Feet
 HEIGHT OF WATER COLUMN: 20.10 Feet
 WELL VOLUME: 3.2 Gal. 2 In. Well Diameter
15 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:00	22.4	1.31	7.68	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:
 Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.
 Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #1
SYSTEM: BD DATE: July 15, 2008
SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.78 Feet
DEPTH TO WATER: 40.44 Feet
HEIGHT OF WATER COLUMN: 12.34 Feet
WELL VOLUME: 2.0 Gal. 2 In. Well Diameter
8 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
11:05	22.4	1.32	7.53	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: BD DATE: July 15, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 58.45 Feet
 DEPTH TO WATER: 40.84 Feet
 HEIGHT OF WATER COLUMN: 17.61 Feet
 WELL VOLUME: 2.8 Gal. 2 In. Well Diameter
10 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:10	22.4	3.41	7.18	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:
Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.
Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #3
 SYSTEM: BD DATE: July 15, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 60.05 Feet
 DEPTH TO WATER: 39.99 Feet
 HEIGHT OF WATER COLUMN: 20.06 Feet
 WELL VOLUME: 3.2 Gal. 2 In. Well Diameter
15 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
9:15	22.4	1.22	7.59	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #1
 SYSTEM: BD DATE: October 8, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 52.78 Feet
 DEPTH TO WATER: 40.76 Feet
 HEIGHT OF WATER COLUMN: 12.02 Feet
 WELL VOLUME: 1.9 Gal. 2 In. Well Diameter
8 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
12:00	21.2	1.31	7.46	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS: _____

 Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

 Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: BD DATE: October 8, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 58.45 Feet
 DEPTH TO WATER: 41.20 Feet
 HEIGHT OF WATER COLUMN: 17.25 Feet
 WELL VOLUME: 2.8 Gal. 2 In. Well Diameter
10 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
14:00	20.9	3.17	7.00	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:

Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.

Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #3
 SYSTEM: BD DATE: October 8, 2008
 SITE LOCATION: Junction J-26 SAMPLER: Rozanne Johnson

PURGING METHOD: ☐ Hand Bailed ☒ Pump, Type: Purge Pump
 SAMPLING METHOD: ☐ Disposable Bailer ☒ Direct from Discharge Hose ☐ Other: _____

DISPOSAL METHOD OF PURGE WATER: ☐ On-site Drum ☐ Drums ☒ SWD Disposal Facility

TOTAL DEPTH OF WELL: 60.05 Feet
 DEPTH TO WATER: 40.27 Feet
 HEIGHT OF WATER COLUMN: 19.78 Feet
 WELL VOLUME: 3.2 Gal. 2 In. Well Diameter
15 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
12:05	21.6	1.32	7.36	Clear with no odor.
				Samples Collected
				Major Ions/TDS (1-1000ml Plastic)

COMMENTS:
Myron Model 6P instrument used to obtain pH, conductivity, and temperature measurements.
Delivered samples to Cardinal Lab in Hobbs, New Mexico for Major Ions, and TDS analysis.

