

AP - 66

ANNUAL MONITORING REPORT

YEAR(S):

2008

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FEB 23 PM 1 11



February 20, 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
EME JCT. N-5 SITE (AP-66)
T20S, R37E, SECTION 5, UNIT LETTER N
LEA COUNTY, NEW MEXICO**

Mr. Jones:

On behalf of Rice Operating Company (ROC), Trident Environmental takes this opportunity to submit the 2008 Annual Monitoring Well Report for the Jct. N-5 Site (AP-66) located in the Eunice-Monument-Eumont (EME) Salt Water Disposal (SWD) System.

ROC is in the process of obtaining BLM approval for site access to begin pump operations; therefore, it is necessary that we request an extension for the submission of the report documenting "*the results of the delineation*" (60 days of pumping) "*to the OCD within 90 days*" of the OCD's January 8th email (attached). We will keep NMOCD updated and notify when BLM approval is granted and begin pumping within 30 days of BLM approval.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Gilbert J. Van Deventer".

Gilbert J. Van Deventer, PG, REM

cc: HC, MB

enclosures: maps, table, graphs, laboratory analytical reports, email communication

From: Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]
Sent: Thursday, January 08, 2009 9:40 AM
To: Hack Conder
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; Gil Van Deventer
Subject: Request for Closure of the Amended Stage 2 Abatement Plan (AP-66) further delineation

RE: Request for Closure of the Amended Stage 2 Abatement Plan (AP-66) further Delineation for the Rice Operating Company's EME SWD Jct. N-5 Site Unit Letter N, Section 5, T20S, R37E, Lea County, New Mexico

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received the Request for Closure of the Amended Stage 2 Abatement Plan (AP-66) for the EME Jct. N-5 Site, dated July 16, 2008, and has conducted a review of the Plan. The Request, submitted for the above-referenced site, indicates that Rice Operating Company (ROC) has not met the requirements of OCD Part 30 (formerly, Rule 19) for termination. Therefore, the OCD hereby cannot approve the Request for Closure for above-referenced site, dated July 16, 2008, in accordance with 19.15.30 NMAC. The OCD recommends that ROC perform short-term (at least 60 days) aggressive pumping at groundwater monitoring well MW-2 at the site to further delineate the release.

Please submit a report with the results of the delineation to the OCD within 90 days for review.

ROC must continue to perform groundwater monitoring at the site.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

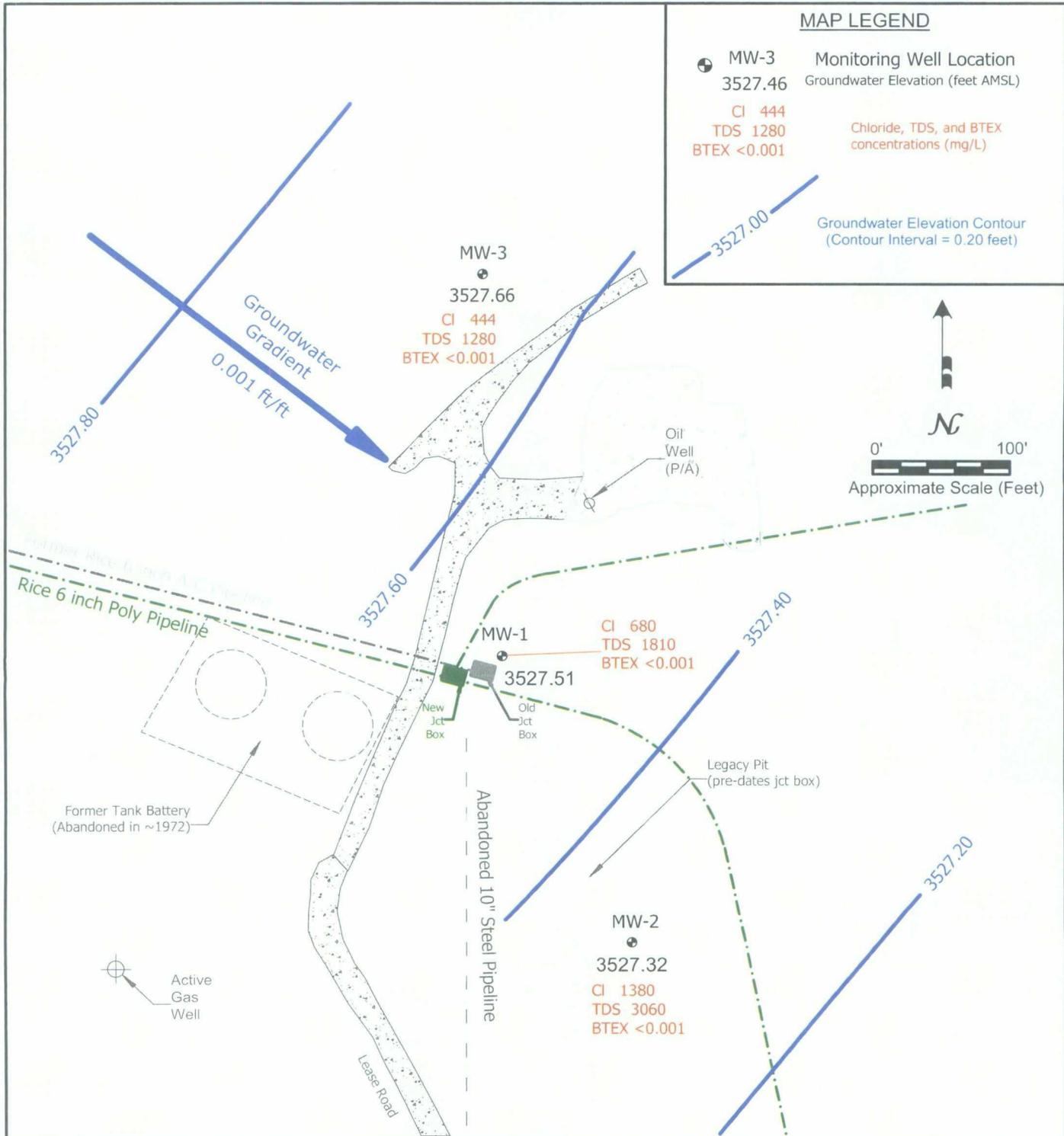
Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

ATTACHMENT A

Site Maps

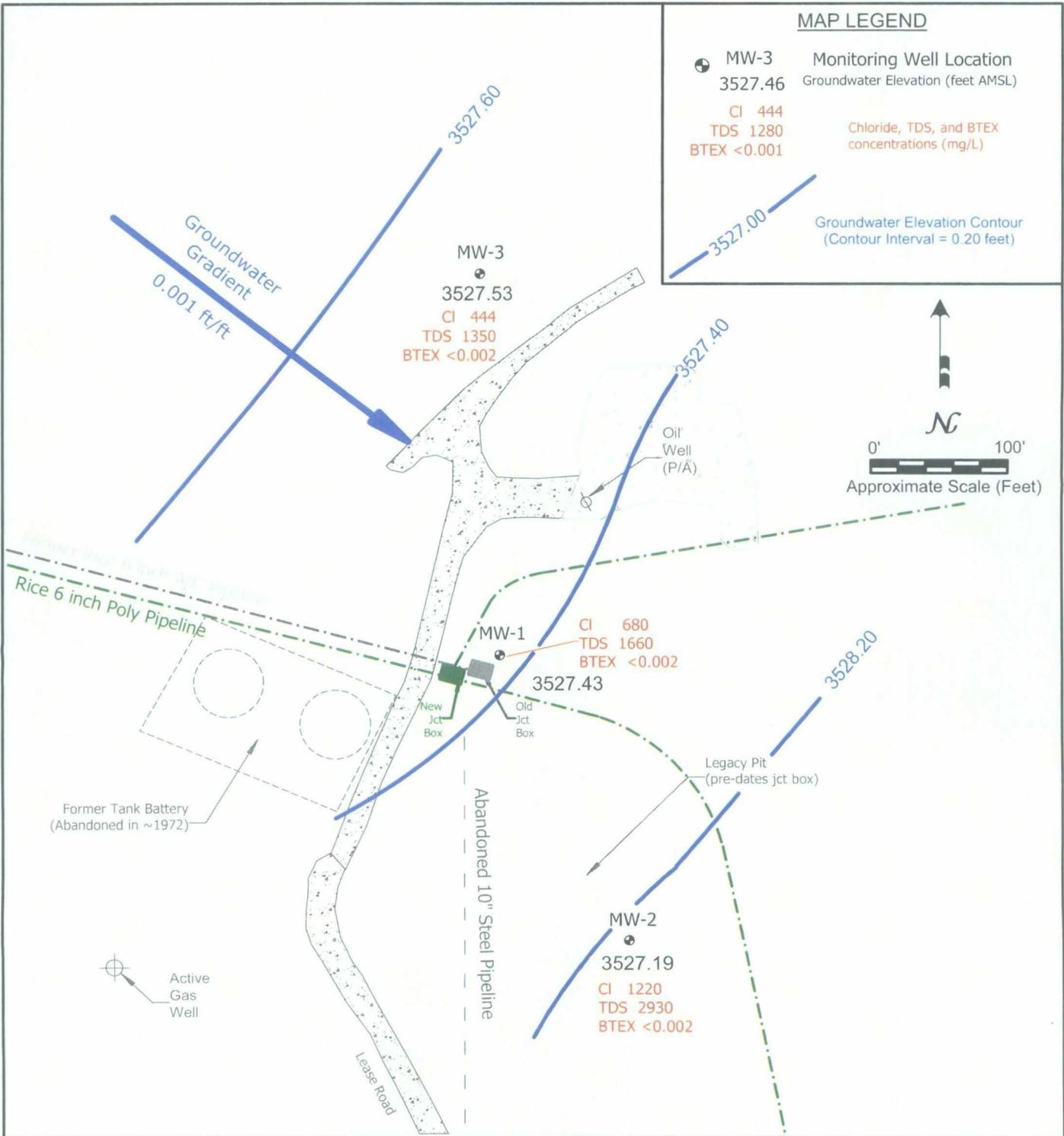
Table

Graphs



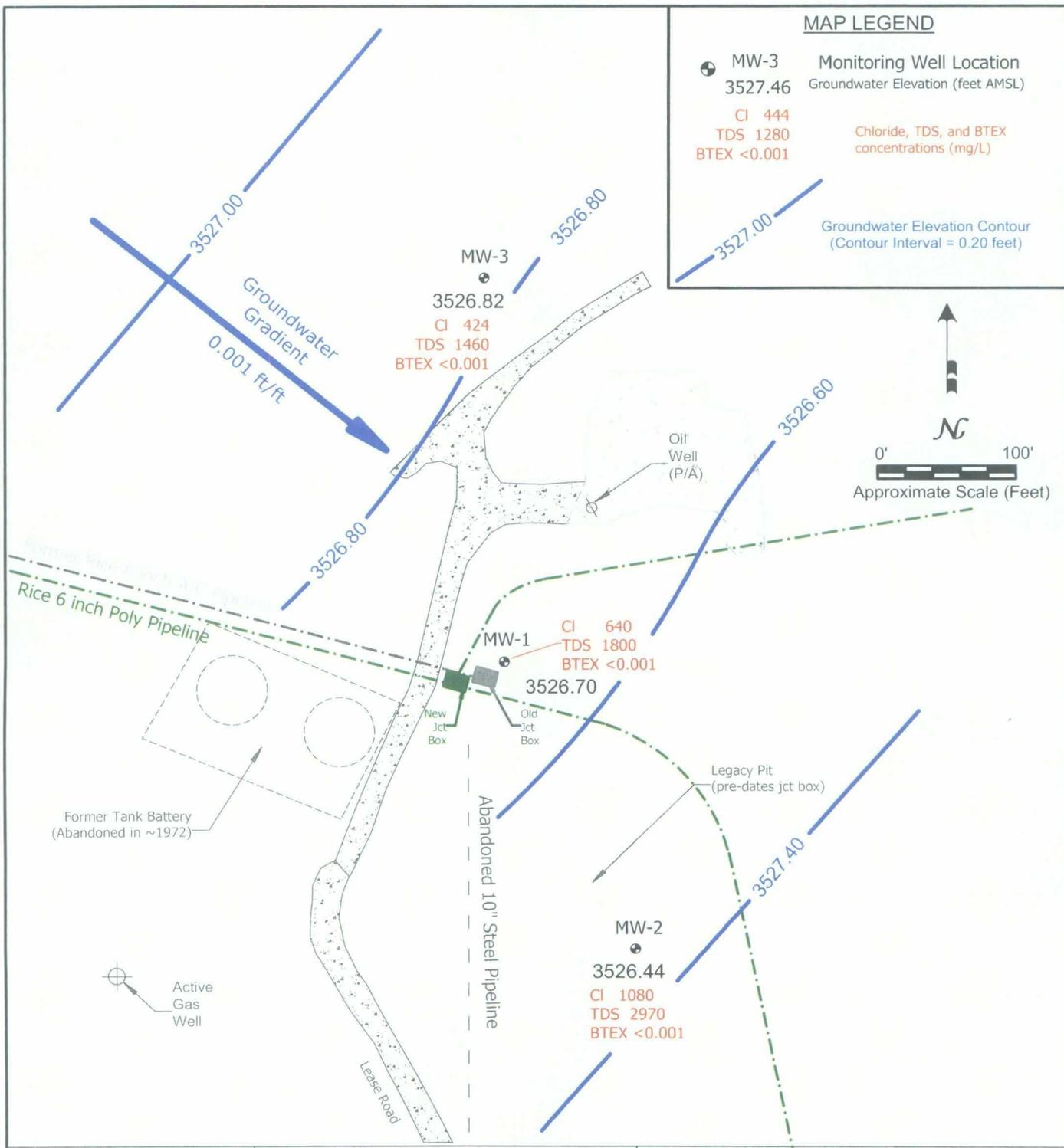
EME Jct. N-5 Site (AP-66)
T20S - R37E - Section 5- Unit N
RICE Operating Company

GROUNDWATER GRADIENT AND
CHLORIDE/TDS/BTEX
CONCENTRATION MAP
FEBRUARY 21, 2008



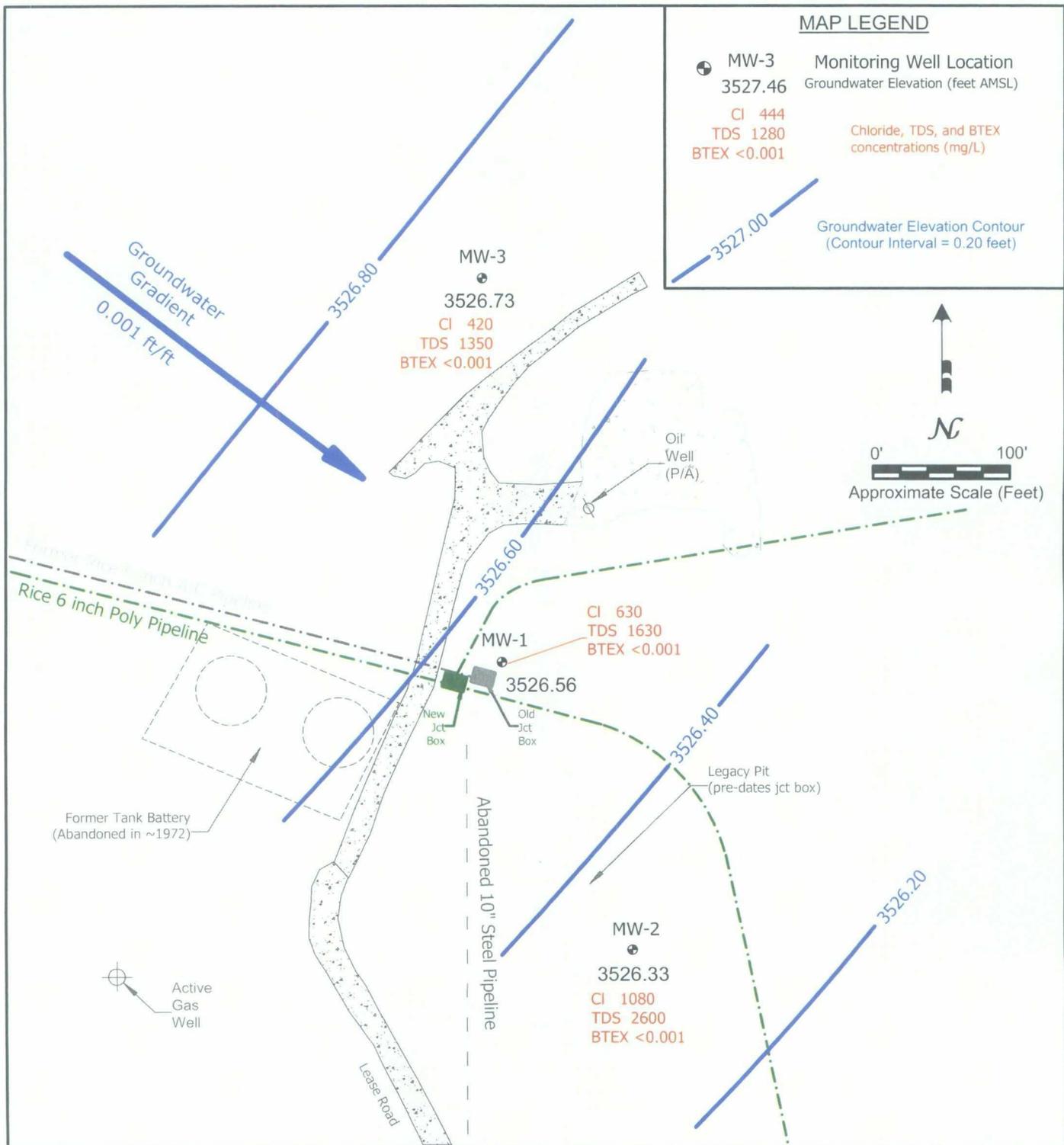
EME Jct. N-5 Site (AP-66)
T20S - R37E - Section 5- Unit N
RICE Operating Company

GROUNDWATER GRADIENT AND
CHLORIDE/TDS/BTEX
CONCENTRATION MAP
MAY 15, 2008



EME Jct. N-5 Site (AP-66)
 T20S - R37E - Section 5- Unit N
RICE Operating Company

GROUNDWATER GRADIENT AND
 CHLORIDE/TDS/BTEX
 CONCENTRATION MAP
 AUGUST 20, 2008



EME Jct. N-5 Site (AP-66)
 T20S - R37E - Section 5- Unit N
RICE Operating Company

GROUNDWATER GRADIENT AND
 CHLORIDE/TDS/BTEX
 CONCENTRATION MAP
 NOVEMBER 19, 2008

Chloride, TDS, and Groundwater Elevation Values Versus Time

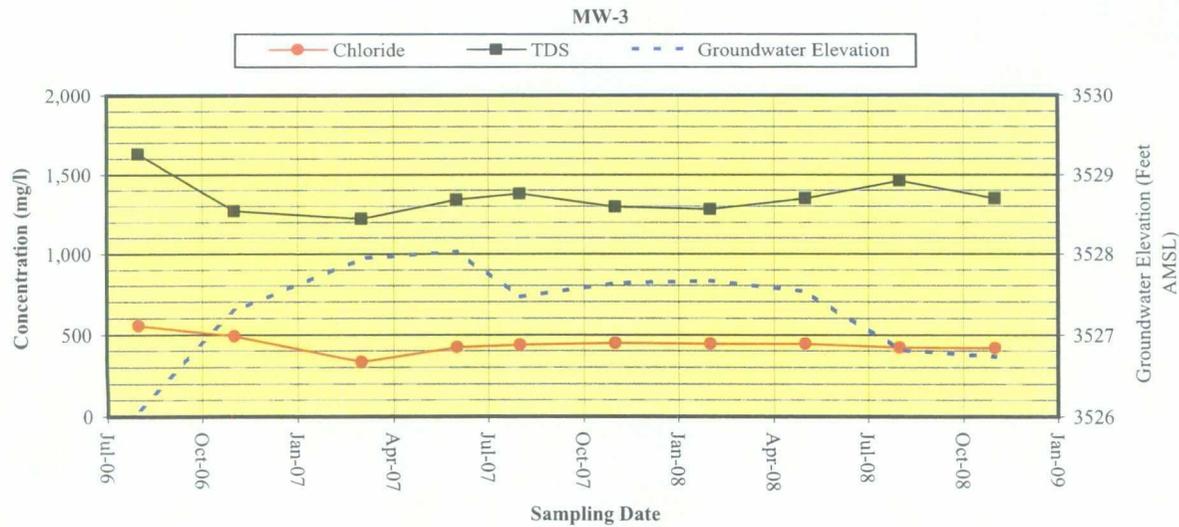
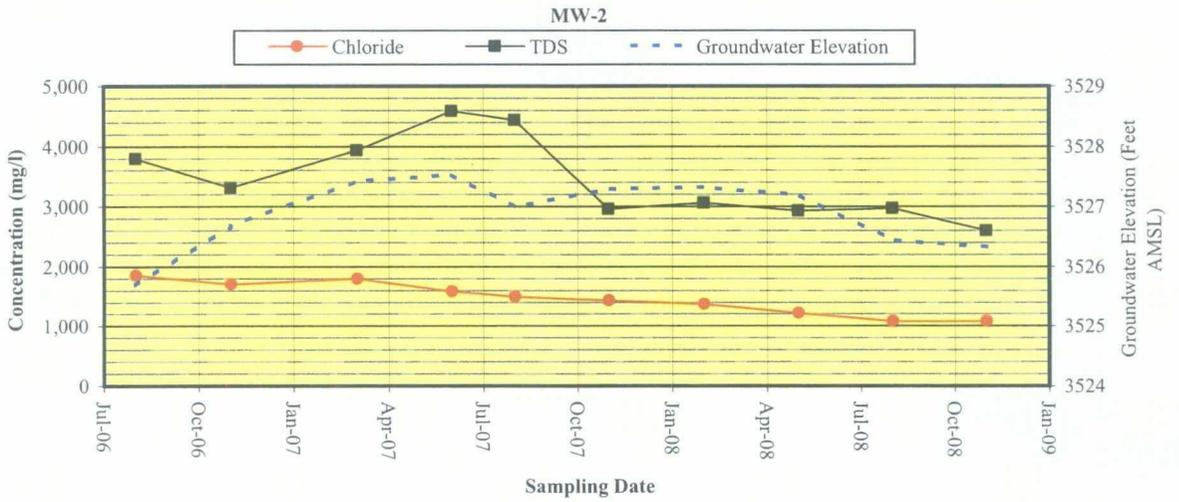
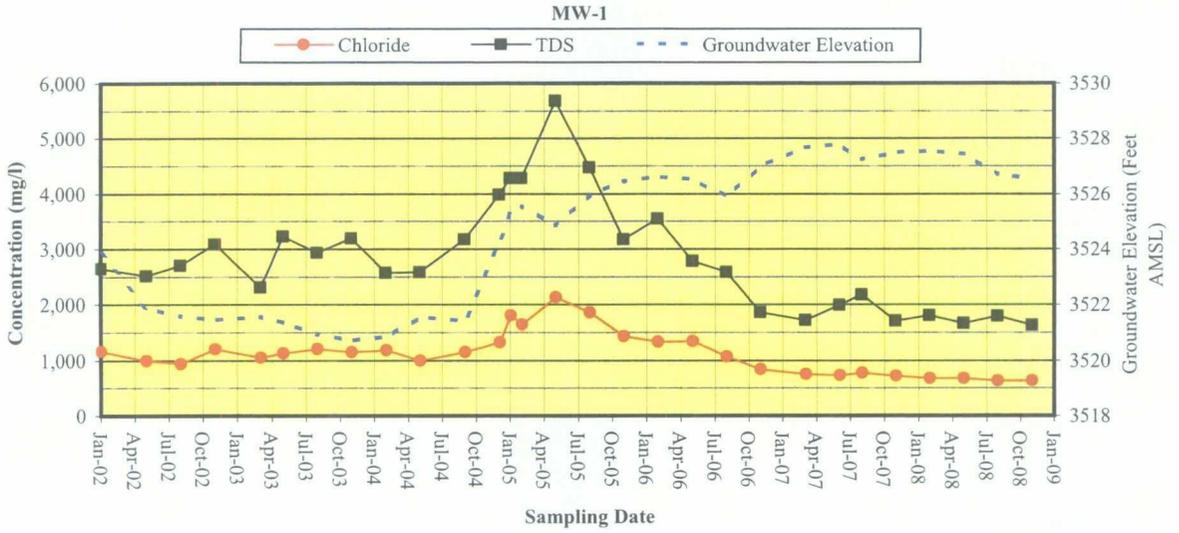


Table 1
Summary of Groundwater Sampling Results

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Water Table Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
MW-1	01/10/02	35.50	3523.85	1,160	2,652	<0.002	<0.002	<0.006	<0.006
	05/13/02	37.47	3521.88	993	2,520	<0.001	0.002	0.003	0.009
	08/12/02	37.75	3521.60	939	2,700	<0.001	<0.001	<0.001	0.001
	11/04/02	37.90	3521.45	1,200	3,083	<0.002	<0.002	<0.002	<0.006
	03/14/03	37.78	3521.57	1,050	2,310	<0.001	0.002	0.004	0.011
	05/29/03	38.00	3521.35	1,130	3,230	<0.001	0.001	0.004	0.01
	08/22/03	38.42	3520.93	1,200	2,930	---	---	---	---
	11/20/03	38.63	3520.72	1,150	3,200	<0.001	0.002	0.003	0.012
	02/20/04	38.50	3520.85	1,180	2,575	<0.002	<0.002	<0.002	<0.006
	05/26/04	37.80	3521.55	1,000	2,583	<0.002	0.005	0.005	0.010
	09/02/04	37.94	3521.41	1,150	3,170	<0.001	0.001	0.002	0.003
	12/21/04	35.12	3524.23	1,330	3,990	<0.001	<0.001	<0.001	<0.001
	01/26/05	34.03	3525.32	1,810	4,280	<0.001	<0.001	0.001	0.001
	02/08/05	33.79	3525.56	1,640	4,280	<0.001	<0.001	0.002	0.001
	05/02/05	34.50	3524.85	2,140	5,680	<0.001	<0.001	0.003	0.002
	08/11/05	33.39	3525.96	1,860	4,480	<0.001	<0.001	<0.001	<0.001
	11/28/05	32.90	3526.45	1,430	3,180	<0.001	<0.001	<0.001	<0.001
	02/21/06	32.72	3526.63	1,340	3,550	<0.001	<0.001	<0.001	<0.001
	05/17/06	32.83	3526.52	1,350	2,780	<0.001	<0.001	<0.001	<0.001
	08/21/06	33.45	3525.90	1,070	2,580	<0.001	0.001	0.001	0.004
11/07/06	32.35	3527.00	841	1,860	0.002	<0.001	0.001	0.001	
03/06/07	31.67	3527.68	757	1,720	<0.001	0.001	0.001	<0.001	
06/07/07	31.57	3527.78	731	1,990	<0.001	0.001	0.001	<0.001	
08/27/07	32.12	3527.23	780	2,183	<0.002	<0.002	<0.002	<0.006	
11/09/07	31.84	3527.51	724	1,707	<0.001	<0.001	<0.001	<0.003	
02/21/08	31.81	3527.54	680	1,810	<0.001	<0.001	<0.001	<0.003	
05/15/08	31.92	3527.43	680	1,660	<0.002	<0.002	<0.002	<0.006	
08/20/08	32.65	3526.70	640	1,800	<0.001	<0.001	<0.001	<0.003	
11/19/08	32.79	3526.56	630	1,630	<0.001	<0.001	<0.001	<0.003	
MW-2	08/21/06	33.04	3525.70	1,860	3,800	<0.001	<0.001	<0.001	<0.001
	11/07/06	32.06	3526.68	1,710	3,310	<0.001	<0.001	<0.001	<0.001
	03/06/07	31.32	3527.42	1,800	3,940	<0.001	<0.001	<0.001	<0.001
	06/07/07	31.22	3527.52	1,590	4,590	<0.001	<0.001	<0.001	<0.001
	08/27/07	31.75	3526.99	1,500	4,441	<0.002	<0.002	<0.002	<0.006
	11/09/07	31.45	3527.29	1,440	2,962	<0.001	<0.001	<0.001	<0.003
	02/21/08	31.42	3527.32	1,380	3,060	<0.001	<0.001	<0.001	<0.003
	05/15/08	31.55	3527.19	1,220	2,930	<0.002	<0.002	<0.002	<0.006
	08/20/08	32.30	3526.44	1,080	2,970	<0.001	<0.001	<0.001	<0.003
11/19/08	32.41	3526.33	1,080	2,600	<0.001	<0.001	<0.001	<0.003	
MW-3	08/21/06	31.86	3526.10	553	1,630	<0.001	<0.001	<0.001	<0.001
	11/07/06	30.68	3527.28	491	1,270	<0.001	<0.001	<0.001	<0.001
	03/06/07	30.02	3527.94	333	1,220	<0.001	<0.001	<0.001	<0.001
	06/07/07	29.93	3528.03	425	1,340	<0.001	<0.001	<0.001	<0.001
	08/27/07	30.50	3527.46	440	1,379	<0.002	<0.002	<0.002	<0.006
	11/09/07	30.33	3527.63	448	1,296	<0.001	<0.001	<0.001	<0.003
	02/21/08	30.30	3527.66	444	1,280	<0.001	<0.001	<0.001	<0.003
	05/15/08	30.43	3527.53	444	1,350	<0.002	<0.002	<0.002	<0.006
	08/20/08	31.14	3526.82	424	1,460	<0.001	<0.001	<0.001	<0.003
11/19/08	31.23	3526.73	420	1,350	<0.001	<0.001	<0.001	<0.003	
WQCC Standards				250	1,000	0.01	0.75	0.75	0.62

ATTACHMENT B

Laboratory Analytical Reports

And

Chain of Custody Documentation



ARDINAL 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: 02/22/08
Reporting Date: 02/29/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5 N-LEA COUNTY, NM

Sampling Date: 02/21/08
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:	02/28/08	02/28/08	02/28/08	02/27/08	02/26/08	02/26/08
H14310-1 MONITOR WELL #1	327	202	56.5	7.43	2,840	356
H14310-2 MONITOR WELL #2	577	359	98.8	6.73	4,870	328
H14310-3 MONITOR WELL #3	273	144	43.6	4.95	2,160	368
Quality Control	NR	50.6	50.8	3.25	1,428	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	101	102	108	101	NR
Relative Percent Difference	NR	< 0.1	1.6	4.4	0.8	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	02/27/08	02/28/08	02/26/08	02/26/08	02/26/08	02/26/08
H14310-1 MONITOR WELL #1	680	138	0	434	6.89	1,810
H14310-2 MONITOR WELL #2	1,380	284	0	400	6.83	3,060
H14310-3 MONITOR WELL #3	444	139	0	449	6.99	1,280
Quality Control	490	24.9	NR	1000	7.05	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	98.0	99.5	NR	100	101	NR
Relative Percent Difference	2.0	8.2	NR	1.2	0.1	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Kristin Farris-Pope

Chemist

03-03-08

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. H14310-1-3. 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.



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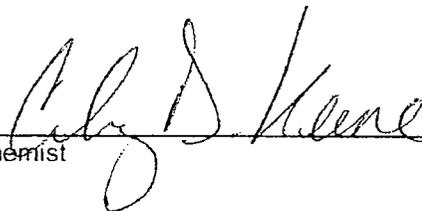
ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 02/22/08
Reporting Date: 02/26/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5 N ~ LEA COUNTY, NM

Sampling Date: 02/21/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB

LAB NO.	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
	ANALYSIS DATE	02/25/08	02/25/08	02/25/08	02/25/08
H14310-1	MONITOR WELL #1	<0.001	<0.001	<0.001	<0.003
H14310-2	MONITOR WELL #2	<0.001	<0.001	<0.001	<0.003
H14310-3	MONITOR WELL #3	<0.001	<0.001	<0.001	<0.003
	Quality Control	0.092	0.083	0.086	0.248
	True Value QC	0.100	0.100	0.100	0.300
	% Recovery	92.1	83.2	86.1	82.5
	Relative Percent Difference	0.9	1.0	1.8	1.7

METHOD: EPA SW-846 8021B



Chemist



Date

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

 Receiving Date: 05/19/08
 Reporting Date: 05/27/08
 Project Number: NOT GIVEN
 Project Name: EME JUNCTION N-5
 Project Location: T20S-R37E-SEC5 N-LEA COUNTY, NM

 Sampling Date: 05/15/08
 Sample Type: WATER
 Sample Condition: COOL & INTACT
 Sample Received By: NF
 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:		05/27/08	05/22/08	05/23/08	05/23/08	05/21/08	05/21/08
H14834-1	MONITOR WELL #1	315	208	56	5.52	2,800	360
H14834-2	MONITOR WELL #2	541	345	68	7.82	4,510	332
H14834-3	MONITOR WELL #3	268	156	36	5.25	2,130	372
Quality Control		NR	52.1	51.0	2.91	1,409	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	104	102	97.0	99.7	NR
Relative Percent Difference		NR	< 0.1	4.8	3.0	0.8	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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LAB NUMBER	SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		05/21/08	05/27/08	05/21/08	05/21/08	05/21/08	05/22/08
H14834-1	MONITOR WELL #1	680	120	0	439	6.93	1,660
H14834-2	MONITOR WELL #2	1,220	268	0	405	6.88	2,930
H14834-3	MONITOR WELL #3	444	125	0	454	7.02	1,350
Quality Control		500	59.9	NR	976	7.07	NR
True Value QC		500	60.0	NR	1000	7.00	NR
% Recovery		100	99.8	NR	97.6	101	NR
Relative Percent Difference		< 0.1	0.9	NR	< 0.1	0.7	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Kristin Supriolo
 Chemist

05/28/08
 Date



ARDINAL LABORATORIES

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

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

Receiving Date: 05/19/08

Reporting Date: 05/23/08

Project Number: NOT GIVEN

Project Name: EME JUNCTION N-5

Project Location: T20S-R37E-SEC5 N ~ LEA CO., NM

Sampling Date: 05/15/08

Sample Type: WATER

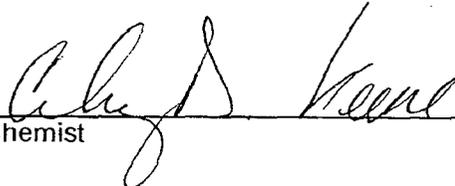
Sample Condition: COOL & INTACT

Sample Received By: NF

Analyzed By: CK

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		05/20/08	05/20/08	05/20/08	05/20/08
H14834-1	MONITOR WELL #1	<0.002	<0.002	<0.002	<0.006
H14834-2	MONITOR WELL #2	<0.002	<0.002	<0.002	<0.006
H14834-3	MONITOR WELL #3	<0.002	<0.002	<0.002	<0.006
Quality Control		0.092	0.094	0.110	0.340
True Value QC		0.100	0.100	0.100	0.300
% Recovery		92.1	93.6	110	113
Relative Percent Difference		4.0	4.5	2.8	0.9

METHOD: EPA SW-846 8260B



Chemist

05/27/08

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, 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 Marland - 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: **EME Junction N-5**
 Project Location: **T20S-R37E-Sec5 N ~ Lea County - New Mexico** Sampler Signature: *[Signature]* Rozanne Johnson (575) 393-9310
 rozanne@valornet.com

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX PRESERVATIVE METHOD				DATE (2008)	SAMPLING TIME
				WATER	SOIL	AIR	SLUDGE		
H14834-1	Monitor Well #1	G	3	X				2	5-15 12:30
-2	Monitor Well #2	G	3	X				2	5-15 11:40
-3	Monitor Well #3	G	3	X				2	5-15 10:50

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>[Signature]</i>	5/19/08		<i>[Signature]</i>	5/19/08	11:40 AM
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:

Delivered By: (Circle One) UPS - Bus - Other: _____

Sample Condition: Cool Intact

Yes No Yes No

CHECKED BY: *[Signature]* (Initials) *[Signature]*

ANALYSIS REQUEST

(Circle or Specify Method No.)

<input type="checkbox"/>	MTBE 8021B/602
<input type="checkbox"/>	BTEX 8021B/602
<input type="checkbox"/>	TPH 418.1/TX1005 / TX1005 Extended (C35)
<input type="checkbox"/>	PAH 8270C
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B/624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C/625
<input type="checkbox"/>	PCB's 8082/608
<input type="checkbox"/>	Pesticides 8081A/608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content
<input type="checkbox"/>	Cations (Ca, Mg, Na, K)
<input type="checkbox"/>	Anions (Cl, SO4, CO3, HCO3)
<input type="checkbox"/>	Total Dissolved Solids
<input type="checkbox"/>	Chlorides
<input type="checkbox"/>	Turn Around Time ~ 24 Hours

Phone Results	Yes	No	Fax Results	Yes	No	Additional Fax Number:
<input type="checkbox"/>						

REMARKS:

Email Results to: **kpope@riceswd.com**
weinheimer@riceswd.com
rozanne@valornet.com



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: 08/21/08
Reporting Date: 08/27/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5 N ~ LEA COUNTY, NM

Sampling Date: 08/20/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/TR

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		08/26/08	08/26/08	08/26/08	08/26/08	08/25/08	08/25/08
H15790-1	MONITOR WELL #1	299	192	63.2	5.3	2,450	360
H15790-2	MONITOR WELL #2	452	309	82.6	7.4	3,890	332
H15790-3	MONITOR WELL #3	233	156	46.2	4.2	1,880	376
Quality Control		NR	52.1	48.6	3.04	1,412	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	104	97.2	101	99.9	NR
Relative Percent Difference		NR	8.0	1.0	1.3	1.5	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:		08/25/08	08/26/08	08/25/08	08/25/08	08/25/08	
H15790-1	MONITOR WELL #1	640	130	0	439	6.99	1,800
H15790-2	MONITOR WELL #2	1,080	242	0	405	6.87	2,970
H15790-3	MONITOR WELL #3	424	113	0	459	6.97	1,460
Quality Control		510	45.1	NR	976	7.00	NR
True Value QC		500	40.0	NR	1000	7.00	NR
% Recovery		102	113	NR	97.6	100	NR
Relative Percent Difference		< 0.1	2.7	NR	2.5	0.7	NR

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

Alex S. Malone
Chemist

08-27-08
Date



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

Receiving Date: 08/21/08
Reporting Date: 08/25/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5N ~ LEA CO., NM

Sampling Date: 08/20/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: ZL

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		08/22/08	08/22/08	08/22/08	08/22/08
H15790-1	MONITOR WELL #1	<0.001	<0.001	<0.001	<0.003
H15790-2	MONITOR WELL #2	<0.001	<0.001	<0.001	<0.003
H15790-3	MONITOR WELL #3	<0.001	<0.001	<0.001	<0.003
Quality Control		0.050	0.048	0.050	0.155
True Value QC		0.050	0.050	0.050	0.150
% Recovery		100	96.0	100	103
Relative Percent Difference		0.2	3.4	0.9	1.3

METHOD: EPA SW-846 8021B

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES.

[Signature]
Chemist

08.27.08
Date

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

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: **RICE Operating Company** PO# _____
 Project Manager: **Hack Conder** (Street, City, Zip) _____
 Address: 122 W Taylor Street ~ Hobbs, New Mexico 88240
 Phone #: (575) 393-9174
 Fax #: (575) 397-1471
 Project Name: **EME Junction N-5**

LAB Order ID # _____
ANALYSIS REQUEST
 (Circle or Specify Method No.)

LAB #	FIELD CODE	(G)rab or (Comp)	# CONTAINERS	MATRIX			PRESERVATIVE METHOD			SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL (2.4M VOA)	HNO ₃	NAHSO ₄	H ₂ SO ₄	ICE (1-Liter HDPE)
11701	Monitor Well #1	G	3	X				2		1	8-20	11:30
-2	Monitor Well #2	G	3	X				2		1	8-20	10:40
3	Monitor Well #3	G	3	X				2		1	8-20	9:50

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	PCBs 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
X	X	X															X	X	X	

Relinquished by: *Rozanne Johnson* Date: *8/20/08* Time: _____
 Received by: *[Signature]* Date: _____ Time: _____
 Relinquished by: *[Signature]* Date: _____ Time: _____
 Received by: *[Signature]* Date: _____ Time: _____

Phone Results: Yes No
 Fax Results: Yes No
 Additional Fax Number: _____

Delivered By: (Circle One) UPS Bus Other: _____
 Sample Condition: Cool Inact
 Yes No
 Checked By: _____ (Initials)
 Email Results to: hconder@riceswd.com
weinheimer@riceswd.com
rozanne@valmet.com

REMARKS:



ARDINAL LABORATORIES

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

Receiving Date: 11/24/08
Reporting Date: 12/02/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5 N - LEA CO., NM

Sampling Date: 11/19/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: HM/TR

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:		12/01/08	12/01/08	12/01/08	12/01/08	11/25/08	11/25/08
H16412-1	MONITOR WELL #1	372	116	60.8	6.4	2,390	372
H16412-2	MONITOR WELL #2	552	224	77.8	8.9	3,650	320
H16412-3	MONITOR WELL #3	288	89.8	49.6	6.4	1,870	352
Quality Control		NR	48.1	51.0	3.02	1,434	NR
True Value QC		NR	50.0	50.0	3.00	1,413	NR
% Recovery		NR	96.2	102	101	101	NR
Relative Percent Difference		NR	<0.1	4.8	1.3	0.3	NR

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

LAB NUMBER	SAMPLE ID	Cl (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		11/25/08	11/26/08	11/25/08	11/25/08	11/25/08	11/25/08
H16412-1	MONITOR WELL #1	630	93.1	0	454	7.62	1,630
H16412-2	MONITOR WELL #2	1,080	240	0	390	7.44	2,600
H16412-3	MONITOR WELL #3	420	114	0	429	7.56	1,350
Quality Control		500	43.8	NR	1013	7.02	NR
True Value QC		500	40.0	NR	1000	7.00	NR
% Recovery		100	110	NR	101	100	NR
Relative Percent Difference		<0.1	4.9	NR	1.3	<0.1	NR

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


Chemist

12/05/08
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. Cardinal shall not 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.



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

Receiving Date: 11/24/08
Reporting Date: 12/01/08
Project Number: NOT GIVEN
Project Name: EME JUNCTION N-5
Project Location: T20S-R37E-SEC5 N~ LEA CO., NM

Sampling Date: 11/19/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: ZL

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		11/26/08	11/26/08	11/26/08	11/26/08
H16412-1	MONITOR WELL #1	0.001	0.002	0.002	0.004
H16412-2	MONITOR WELL #2	<0.001	<0.001	<0.001	<0.003
H16412-3	MONITOR WELL #3	<0.001	<0.001	<0.001	<0.003
Quality Control		0.048	0.049	0.047	0.147
True Value QC		0.050	0.050	0.050	0.150
% Recovery		96.0	98.0	94.0	98.0
Relative Percent Difference		3.6	3.6	1.8	2.4

METHOD: EPA SW-846 8021B

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES.

Chemist

Date

ATTACHMENT C

Well Sampling Data Forms

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company
 SYSTEM: EME
 SITE LOCATION: Junction N-5

WELL ID: Monitor Well #1
 DATE: February 21, 2008
 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: 40.10 Feet
 DEPTH TO WATER: 31.81 Feet
 HEIGHT OF WATER COLUMN: 8.29 Feet
 WELL VOLUME: 1.3 Gal. 2 In. Well Diameter
5 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:45	18.5	2.84	6.79	Septic Odor / Gray in Color / Heavy Sheen
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #1
 SYSTEM: EME DATE: August 20, 2008
 SITE LOCATION: Junction N-5 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: 40.10 Feet

DEPTH TO WATER: 32.65 Feet

HEIGHT OF WATER COLUMN: 7.45 Feet

WELL VOLUME: 1.2 Gal.

2 In. Well Diameter
5 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
11:30	20.2	2.53	6.98	Septic Odor / Gray in Color / Heavy Sheen
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company
 SYSTEM: EME
 SITE LOCATION: Junction N-5

WELL ID: Monitor Well #1
 DATE: November 19, 2008
 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: 40.10 Feet
 DEPTH TO WATER: 32.79 Feet
 HEIGHT OF WATER COLUMN: 7.31 Feet
 WELL VOLUME: 1.2 Gal.

2 In. Well Diameter
5 Gallons purged prior to sampling

TIME	TEMP. °C	COND. mS/cm	pH	PHYSICAL APPEARANCE AND REMARKS
10:15	18.8	2.94	7.58	Septic Odor / Gray in Color / Heavy Sheen
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: EME DATE: February 21, 2008
 SITE LOCATION: Junction N-5 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: 44.10 Feet
 DEPTH TO WATER: 31.42 Feet
 HEIGHT OF WATER COLUMN: 12.68 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
9:40	18.6	4.95	6.78	Sand to Clear with Slight Odor
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: EME DATE: May 15, 2008
 SITE LOCATION: Junction N-5 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: 44.10 Feet
 DEPTH TO WATER: 31.55 Feet
 HEIGHT OF WATER COLUMN: 12.55 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
				Sand to Clear with Slight Odor
11:40	18.8	4.56	6.72	
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #2
 SYSTEM: EME DATE: August 20, 2008
 SITE LOCATION: Junction N-5 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: 44.10 Feet
 DEPTH TO WATER: 32.30 Feet
 HEIGHT OF WATER COLUMN: 11.80 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
10:40	20.0	3.96	6.85	Sand to Clear with Slight Odor
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company
 SYSTEM: EME
 SITE LOCATION: Junction N-5

WELL ID: Monitor Well #2
 DATE: November 19, 2008
 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: 44.10 Feet
 DEPTH TO WATER: 32.41 Feet
 HEIGHT OF WATER COLUMN: 11.69 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
9:20	18.7	4.20	7.43	Sand to Clear with Slight Odor
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company WELL ID: Monitor Well #3
 SYSTEM: EME DATE: May 15, 2008
 SITE LOCATION: Junction N-5 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: 43.15 Feet
 DEPTH TO WATER: 30.43 Feet
 HEIGHT OF WATER COLUMN: 12.72 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
10:50	18.8	2.23	7.01	Sand to Clear with No Odor
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

WELL SAMPLING DATA FORM

CLIENT: RICE Operating Company
 SYSTEM: EME
 SITE LOCATION: Junction N-5

WELL ID: Monitor Well #3
 DATE: November 19, 2008
 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: 43.15 Feet
 DEPTH TO WATER: 31.23 Feet
 HEIGHT OF WATER COLUMN: 11.92 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
8:40	18.3	2.17	7.52	Sand to Clear with No Odor
				Samples Collected
				BTEX (2-40ml VOA)
				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 BTEX, Major Ions, and TDS analysis.

