AP - 58

STAGE 1 & 2 REPORTS

DATE: 8-3-10

TRIDENT ENVIRONMENTAL

CERTIFIED MAIL
RETURN RECEIPT NO. 7008 1300 0002 4401 9979

August 3, 2010

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

RE: STAGE 2 PROGRESS REPORT
BD SANTA RITA EOL RELEASE SITE (AP-58)
T22S, R37E, SECTION 27, UNIT LETTER A
LEA COUNTY, NEW MEXICO

Mr. Hansen:

On behalf of Rice Operating Company (ROC), we would like to submit this Stage 2 Progress Report to document the corrective actions performed at the BD Santa Rita EOL Release site (AP-58). Excavation, backfilling, lining, and re-seeding of the vadose zone have been completed. Documentation of these activities is included in Attachment A. In addition, a downgradient monitoring well (MW-4) and recovery well (RW-1) were installed (Attachment B), and groundwater recovery activities were initiated at RW-1 on June 22, 2010. A chronology of these Stage 2 corrective actions follows on page 2.

ROC is the service provider (agent) for the Blinebry Drinkard (BD) Saltwater Disposal (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 Parties, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this progress report. If you have any questions, please contact Hack Conder at (575) 393-9174.

Sincerely,

Gilbert J. Van Deventer, PG, REM

cc: Hack Conder (ROC)
Buddy Hill (NMOCD-District 1)

Enclosures: chronology of corrective actions, lab analyses, photo documentation, lithologic logs, well completion diagrams

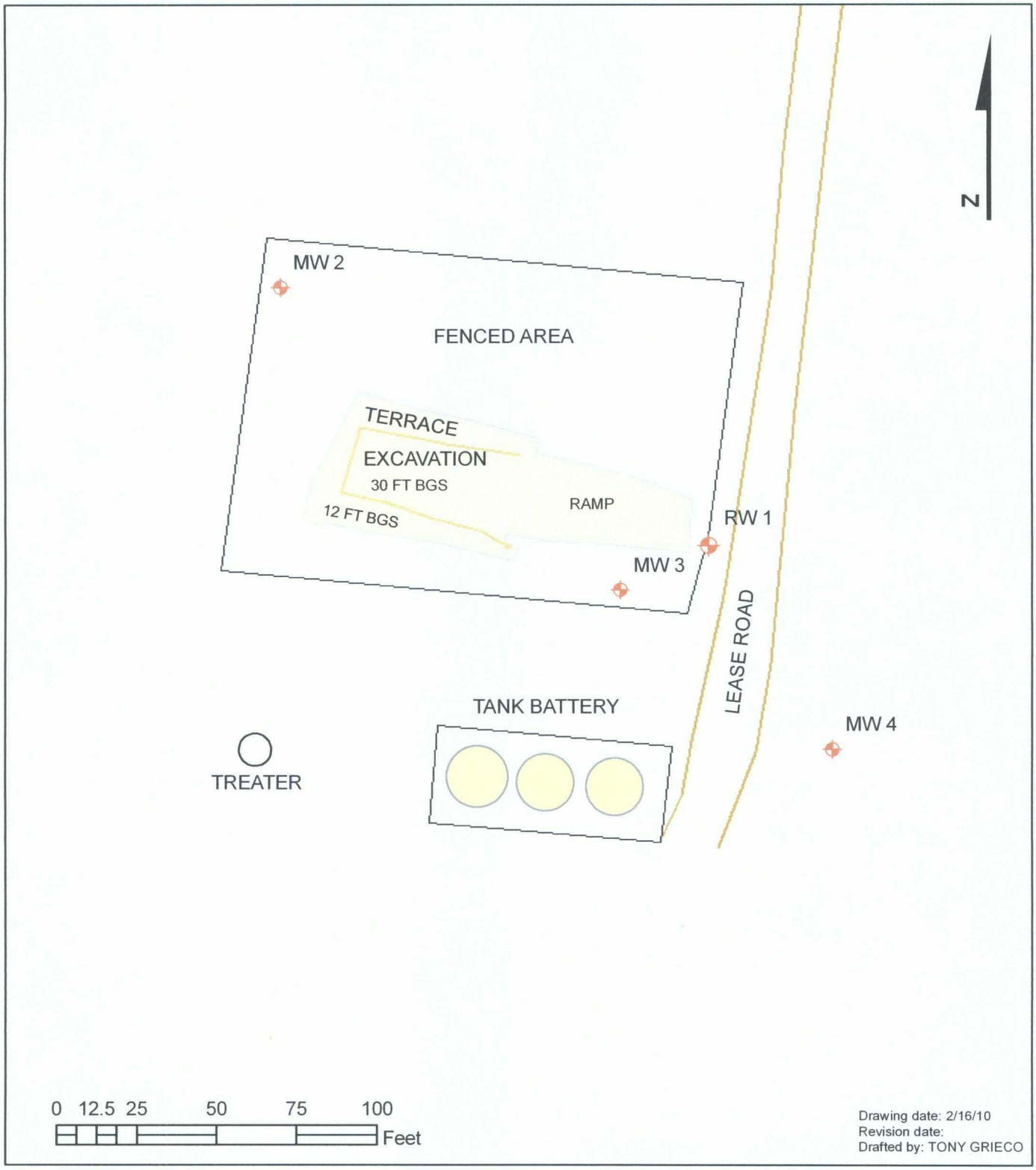
Chronology of Stage 2 Corrective Actions

February 27, 2009	Monitoring Well MW-1 plugged to allow excavation operations.
March 24, 2009	Excavation activities initiated. A 5 point bottom composite was collected at 15 ft below ground surface (BGS) and at 20 ft BGS. 600 yd^3 of excavated soil hauled to Sundance Services, Inc. (NM1-3-0)
March 25, 2009	A 5 point bottom composite was collected at 25 ft BGS. 960 yd^3 of excavated soil hauled to Sundance Services, Inc. (NM1-3-0)
March 26, 2009	A 5 point bottom composite was collected at 30 ft BGS. 280 yd^3 of excavated soil hauled to Sundance Services, Inc. (NM1-3-0)
March 27, 2009	240 yd^3 of excavated soil hauled to Sundance Services, Inc. (NM1-3-0)
March 30, 2009	Excavation activities completed. Total of 2,080 yd^3 soil hauled off.
April 1, 2009	36 yd^3 of clay (40 ft by 20 ft) installed at bottom of excavation (30 ft bgs) Compaction test result = 96.7.
April 6, 2009	20-mil plastic liner (40 ft by 20 ft) installed on top of clay barrier (29 ft bgs) 36 yd^3 of sand installed on top of plastic liner (top of sand at 28 ft bgs) 696 yd^3 of caliche installed above sand layer (top of caliche 12 ft bgs)
April 7, 2009	96 yd^3 of clay installed on top of caliche and bench (top of clay at 11 ft bgs) Compaction test result = 95.6. 20-mil plastic liner (40 ft by 50 ft) installed above clay layer (11 ft bgs) 72 yd^3 of sand installed on top of plastic liner (top of sand at 10 ft bgs) 264 yd^3 of caliche to begin backfilling site.
April 8, 2009	240 yd^3 of caliche installed above sand layer (top of caliche 5 ft bgs)
April 13-14, 2009	792 yd^3 of sand installed above caliche layer (top of sand 0 ft bgs)
April 16, 2009	60 yd^3 of peanut hay blended with peat moss (40 bags), soil conditioner (30 bags), and topsoil. Disked onto surface (13,208 ft^2)
April 17, 2009	Ditched and installed a poly line across site and recovered with backfill. Applied 30 lbs of Boyd seed mix over site (13,208 ft^2) using tractor. Installed fence and wind barrier.
June 16, 2009	Downgradient monitoring well (MW-4) installed.
June 17, 2009	Recovery well (RW-1) installed.
June 22, 2010	Groundwater recovery activities initiated at recovery well RW-1.

ATTACHMENT A

EXCAVATION, BACKFILLING, CLAY/PLASTIC LAYERS, SEEDING

- Site Map
- Cross Sections
- Photo documentation
- Laboratory Analytical Reports
- Compaction and Hydraulic Conductivity Tests



RICE OPERATING COMPANY
ROC
SINCE 1955

Blinebry Drinkard (BD)

SANTA RITA EOL (AP-58)

UL/A , SEC 27, T-22-S, R-37-E
GW: 54 FT

Figure 1

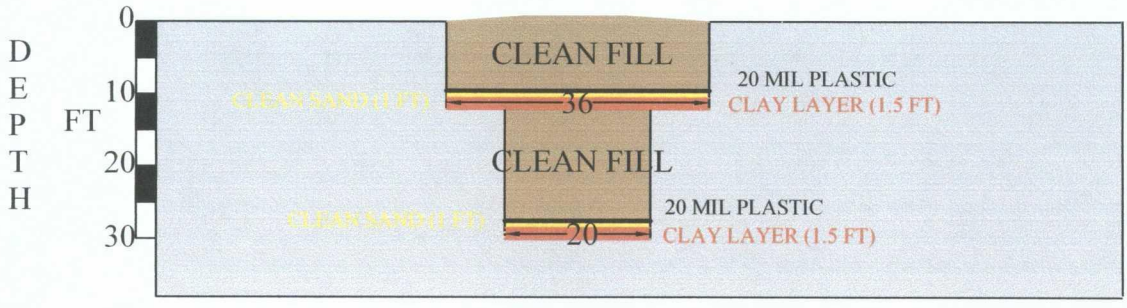
SITE MAP

SANTA RITA LEAK CROSS SECTIONS

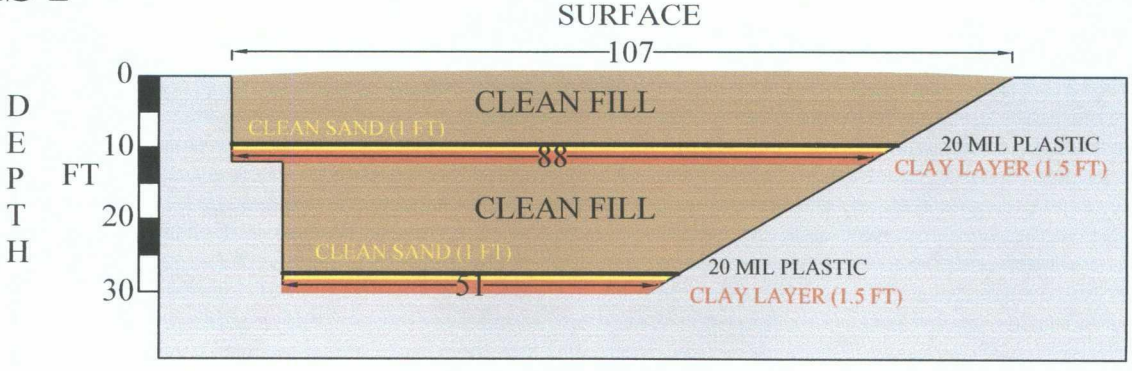
UL/A SEC 27 T-22-S R-37-E

GW 54 FT

NORTH SOUTH



EAST WEST



Surface excavation size: 36' x 107'
Top shelf excavation size: 36' x 88' x 12'
Bottom shelf excavation size: 20' x 51' x 30'

BD Santa Rita EOL Release Site (AP-58)

Facing SE: Source area and MW-1 after plugging

Facing WNW: Source area just prior to excavation


Facing WNW: Excavation completed to 30 ft bgs (3-30-09)


First clay layer (20 ft by 40 ft) at 30 ft bgs (04-01-09)


Plastic liner above first clay layer at 29 ft bgs (04-06-09)


Sand layer above first plastic layer (04-06-09)

BD Santa Rita EOL Release Site (AP-58)

Caliche backfill up to ~12 ft bgs (04-07-09)

Second clay layer (40 ft by 50 ft) at 12 ft bgs (04-07-09)

Plastic liner above second clay layer at 11 ft bgs (04-07-09)

Sand layer above second plastic layer (04-07-09)

Caliche backfill up to ~5 ft bgs (04-08-09)

Sand layer up to surface grade (04-14-09)

BD Santa Rita EOL Release Site (AP-58)

Peanut hay, peat moss, and soil conditioner (04-16-09)

Final cover (04-16-09)

New poly line across site (04-17-09)

Disking and seeding site (04-17-09)

Healthy vegetation growth established soon after seeding (06/25/09)

Recent photo (07/15/10) showing healthy vegetation growth (foreground) and groundwater recovery system (background)

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: DARNELL MITCHELL
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 03/26/09
Reporting Date: 03/26/09
Project Number: NOT GIVEN
Project Name: SANTA RITA
Project Location: B.D SANTA RITA

Analysis Date: 03/26/09
Sampling Date: 03/24/09 & 03/25/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: TR

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H17135-1	15 FT. 5PT. COMPOSITE	1,700
H17135-2	20 FT. 5PT. COMPOSITE	2,600
H17135-3	25 FT. 5PT. COMPOSITE	3,000
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-Cl'B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

03/27/09
Date

H17135 RICE

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Page____ of____

Company Name:	Rice Operating
Project Manager:	Darwell Mitchell
Address:	122 W. Taylor
City:	Hobbs State: N.M Zip: 88240
Phone #:	Fax #: 575-397-1471
Project #:	Project Owner:
Project Name:	SANTA RITA
Project Location:	B.D SANTA RITA
Sampler Name:	Darwell Mitchell

BILL TO

P.O. #:	
Company:	SAME
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER	SAMPLING: DATE	TIME	Chlorides
H17135- 1	15 FT. 5PT. COMPOSIT	C	1			✓					✓		3-24-09	1:15pm	✓
2	20 FT 5PT. COMPOSIT	C	1			✓					✓		3-24-09	5:pm	✓
3	25FT. 5PT. COMPOSIT	C	1			✓					✓		3-25-09	5:30pm	✓

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:	Received By:	
	Time:		
Relinquished By: Darwell Mitchell	Date: 3/26/09 Time: 10:20am	Received By: Tich Keene	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Temp.	Sample Condition: Cool/Intact ☐ Yes ☐ Yes ☐ No ☐ No	CHECKED BY: (Initials) CK

Phone Result:	☐	No	Add'l Phone #:
Fax Result:	☐	No	Add'l Fax #:

REMARKS:

RESULTS B. Baker @ Rice Swd .com

J Puruis @ Rice Swd .com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: DARNELL MITCHELL
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 03/26/09
Reporting Date: 03/26/09
Project Number: NOT GIVEN
Project Name: SANTA RITA
Project Location: B.D SANTA RITA

Analysis Date: 03/26/09
Sampling Date: 03/26/09
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: TR

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H17139-1	30 FT. 5PT. COMPOSITE	1,140
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-Cl B

Note: Analysis performed on a 1:4 w:v aqueous extract.

Chemist

03/27/09
Date

H17139 RICE

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Company Name:	Rice Operating
Project Manager:	Darnell Mitchell
Address:	122 W. Taylor
City:	Hobbs
State:	N.M
Zip:	88240
Phone #:	
Fax #:	575-397-1471
Project #:	
Project Owner:	
Project Name:	SANTA RITA
Project Location:	B.O SANTA RITA
Sampler Name:	Darnell Mitchell

BILL TO

P.O. #:	
Company:	SAME
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

Chlorides ✓

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV.: ACID/BASE	ICE / COOL	OTHER	SAMPLING: DATE	TIME
H17139-1	30FT SPT. Composit	C	1			✓					✓		3-26-15	3:50pm

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: Darnell Mitchell	Date: 3-26-15 Time: 4:05	Received By:	
Relinquished By:	Date: 3-26-15 Time: 1:32	Received By: Misty LeBaut	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Temp.	Sample Condition: Cool ☐ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) MLB

Phone Result:	☐	No	Add'l Phone #:
Fax Result:	☐	No	Add'l Fax #:

REMARKS:

RESULTS B. Baker @ Rice Swd .com

J Duruis @ Rice Swd .com

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

amec

PROJECT:	Rice Operating-Cooper Red Clay	**JOB NO:**	8-119-000624
LOCATION:	Hobbs, New Mexico	**WORK ORDER NO:**	11
MATERIAL:	Native Soil	**LAB NO:**	23
SAMPLE SOURCE:	Cooper Red Clay	**DATE SAMPLED:**	1/22/09
SAMPLE PREP:	Remolded to 95% max dry density and optimum moisture		
TARGET:	Max dry density D698A 100.4 pcf @ 21.6% opt. moisture		

MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER (ASTM 5084-00)
"CV" METHOD F

AVERAGE PERMEABILITY			2.16E-08 cm/sec
INITIAL LENGTH OF SPECIMEN			7.18 cm
INITIAL DIAMETER OF SPECIMEN			7.15 cm
INITIAL WATER CONTENT			21.3 %
INITIAL DRY UNIT WEIGHT			95.3 pcf
INITIAL VOLUME			17.59 cu.in
PERMEANT LIQUID			BOTTLED WATER
MAGNITUDE OF TOTAL BACK PRESSURE			72.2 psi
EFFECTIVE CONSOLIDATION STRESS			5 psi
RANGE OF HYDRAULIC GRADIENT USED	31.7	to	29.5
FINAL LENGTH OF SPECIMEN			7.21 cm
FINAL DIAMETER OF SPECIMEN			7.19 cm
FINAL WATER CONTENT			29.6 %
FINAL DRY UNIT WEIGHT			93.8 pcf
FINAL VOLUME			17.86 cu.in
DEGREE OF SATURATION (BEFORE AND AFTER TEST)	77%	and	103%
SPECIFIC GRAVITY USED IN CALCULATIONS OF SATURATION			2.651

TIME INTERVAL	K	K
sec	cm/sec	ft/yr.
390	2.19E-08	0.02
514	2.15E-08	0.02
890	2.15E-08	0.02
1146	2.14E-08	0.02

AASHTO R18

REVIEWED BY

LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.

1110 N. GRIMES
HOBBS, NM 88240
(575) 393-9827

AASHTO R18

DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS. III, P.E./P.S.

To: Rice Operating Company
Attn: Hack Conder
122 W. Taylor
Hobbs, NM 88240

Material: Cooper Red Clay

Test Method: ASTM: D 2922

Project: General Information
Project No. 2008.1069

Date of Test: April 1, 2009

Depth: See Below

Depth of Probe: 12"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 11	Building Box - 8' E. & 18' S. of NW Corner	96.7	14.4	28' Below Surface

Control Density: 100.4
ASTM: D 698

Optimum Moisture: 21.6%

Required Compaction: 90 - 95%

Densometer ID: 5357

Lab No.: 09 1990-1991

PETTIGREW & ASSOCIATES

Copies To: Rice Operating

BY: Erica M Hart

BY: _____ P.E.

*Corrected Copy 5/21/10

LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.
1110 N. GRIMES
HOBBS, NM 88240
(575) 393-9827

AASHTO R18

DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS. III, P.E./P.S.

To: Rice Operating Company
Attn: Hack Conder
122 W. Taylor
Hobbs, NM 88240

*** Material:** Cooper Red Clay

Test Method: ASTM: D 2922

Project: General Information
Project No. 2008.1069

Date of Test: April 7, 2009

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 11a	Santa Rita BD System	95.6	17.0	FSG

***Control Density:** 100.4
ASTM: D 698

Optimum Moisture: 21.6%

Required Compaction: 90 - 95%

Densometer ID: 5357

Lab No.: 10 4869-4870

PETTIGREW & ASSOCIATES

Copies To: Rice Operating

BY: Erica McDaniel

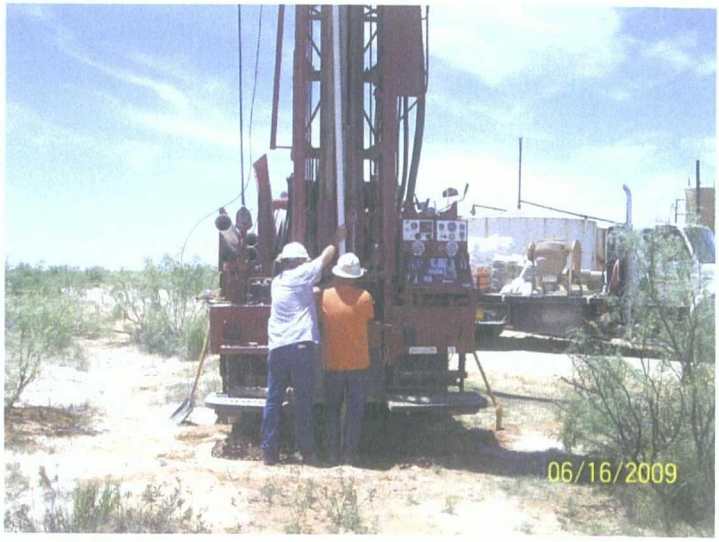
BY: Debra P. Hicks **P.E.**

ATTACHMENT B

INSTALLATION OF MW-4 AND RW-1

- Photo documentation
- MW-4: Lithologic Log & Well Construction
- RW-1: Well Construction Diagram
- Groundwater Gradient Map (April 9, 2010)
- Laboratory Analytical Report (April 9, 2010)

BD Santa Rita - drilling MW-4

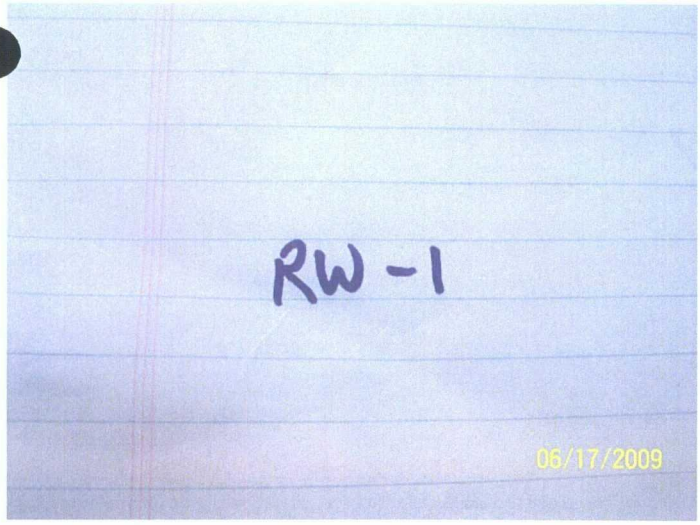


Setting the casing for MW-4

Putting in the sand filter

Concreting the well in

Completed MW-4



BD Santa Rita

Drilling RW-1

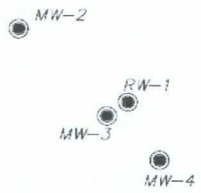
Mudding in the well

Placing the casing

Sealing the well with bentonite

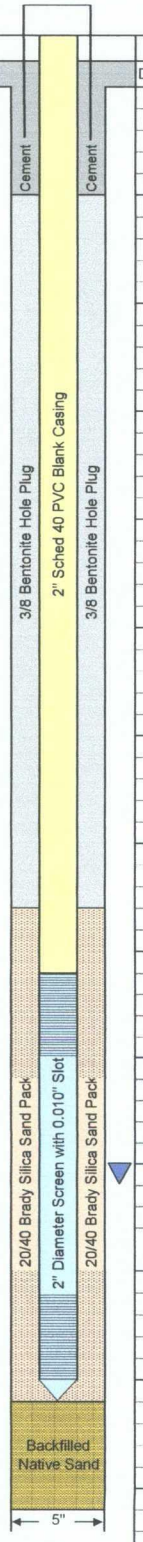
Concreting the well in

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



MONITORING WELL NO.: MW-4
SITE NAME: BD Santa Rita EOL Release Site
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 06/16/09
COMPLETION DATE: 06/16/09
COMMENTS: Located approximately 73 feet southeast of MW-3. Hydrocarbons are not a constituent of concern therefore, cutting samples were collected and no PID readings taken.

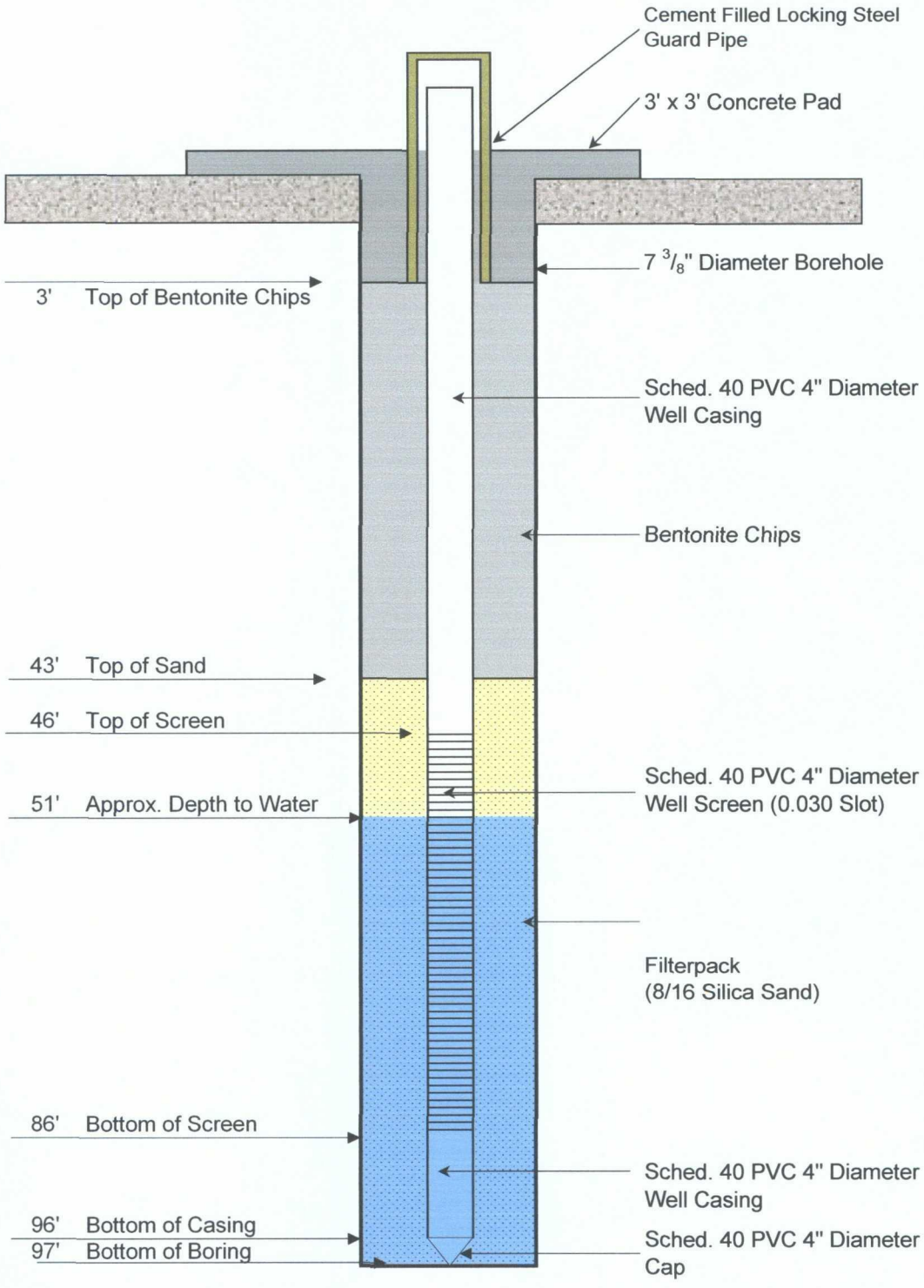
TOTAL DEPTH: 61 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T22S-R37E-Sec 27 - Unit A
FIELD REP.: G. Van Deventer



Sample Depth	Sample Time	Sample Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
	1145	Surface			SW	Fine- to medium-grained sand (loamy dune sand), light brown (5YR 5/6), well sorted, subrounded grains, dry.
5	1149	Cuttings	138			
10	1150	Cuttings	175		SM/CAL	Very fine- and fine-grained sand, medium orange pink (5YR 8/4) with very pale orange (10YR 8/4) calcium carbonate content in matrix. Sand grains are subrounded and moderately sorted, loose, dry.
15	1151	Cuttings	114			Very fine- and fine-grained sand, medium orange pink (5YR 8/4) with intermittent, moderately hard streaks of caliche. Sand grains are subrounded and moderately sorted, loose, dry.
20	1152	Cuttings	117			Very fine- and fine-grained sand, medium orange pink (5YR 8/4) with intermittent, moderately hard streaks of caliche. Sand grains are subrounded and moderately sorted, loose, dry.
25	1158	Cuttings	86			Very fine- and fine-grained sand, medium orange pink (5YR 8/4) with intermittent, moderately hard streaks of caliche. Sand grains are subrounded and moderately sorted, loose, dry.
30	1200	Cuttings	138		SW	Fine-grained sand, light brown (5YR 6/4) with intermittent sandstone streaks.
35	1210	Cuttings	91		SS	Hard sandstone and chert, pale reddish brown (10R 5/4) and grayish red (10R 4/2).
40	1214	Cuttings	118		SM/CL	Clayey silty fine sand; moderate reddish brown (10R 4/6)
45	1220	Cuttings	90			Clayey silty fine sand; moderate reddish brown (10R 4/6)
50	1240	Cuttings	176		SW/GP	Medium- and coarse-grained sand with some pea size gravel, moderate (reddish) brown (5YR 4/4), moderately well sorted, subrounded grains, moderately hard. Groundwater encountered at approximately 51 feet below ground surface.
55	1242	Cuttings				Medium- and coarse-grained sand with some pea size gravel, moderate (reddish) brown (5YR 4/4), moderately well sorted, subrounded grains, moderately hard.
60	1245	Cuttings				Medium- and coarse-grained sand with some pea size gravel, moderate (reddish) brown (5YR 4/4), moderately well sorted, subrounded grains, moderately hard.
65	1250	Cuttings				Medium- and coarse-grained sand with some pea size gravel, moderate (reddish) brown (5YR 4/4), moderately well sorted, subrounded grains, moderately hard.
70						Total depth of boring reached at 66 ft bgs (5 ft of native sand backfill caved in prior to setting screen and casing).

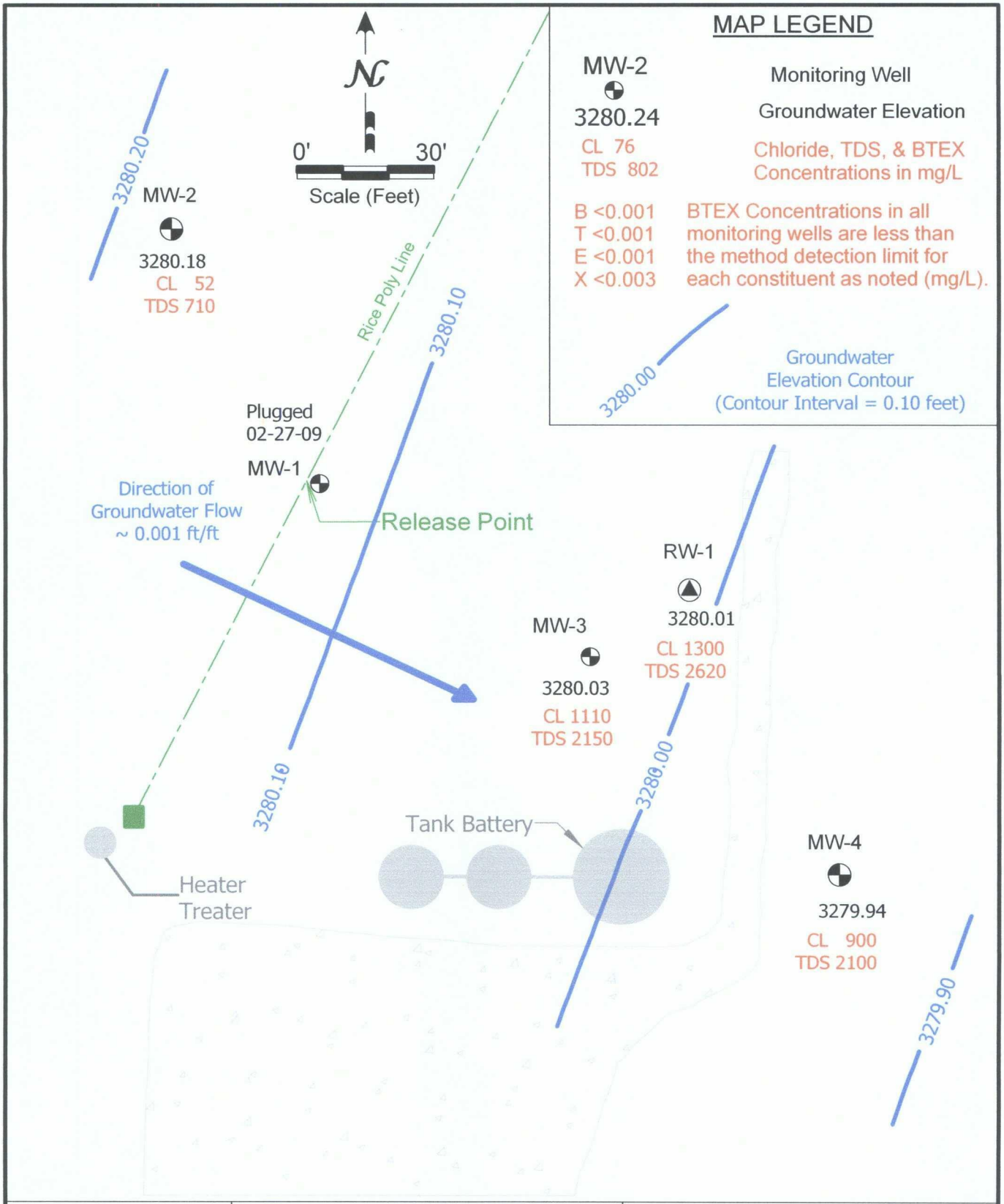
RECOVERY WELL (RW-1) CONSTRUCTION DIAGRAM

(Not to Scale)



TRIDENT ENVIRONMENTAL	Client:	Rice Operating Company
	Site Name:	BD Santa Rita Site (AP-58)
	Completion Date:	June 17, 2009
	On Site Geologist:	Gil Van Deventer

Recovery Well (RW-1) Construction Diagram



TRIDENT ENVIRONMENTAL

BD Santa Rita EOL Release Site

T22S - R37E - Section 27, Unit A

RICE Operating Company

Water Table Elevation and Chloride, TDS, & BTEX Concentration Map

April 9, 2010

CARDINAL LABORATORIES

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

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

Receiving Date: 04/12/10
Reporting Date: 04/14/10
Project Number: NOT GIVEN
Project Name: BD SANTA RITA LEAK
Project Location: T22S R37E SEC27 A ~ LEA COUNTY, NM

Sampling Date: 04/09/10
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: CK/HM

LAB NO.	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	TDS (mg/L)
Analysis Date:		04/14/10	04/14/10	04/13/10
H19647-1	MONITOR WELL #2	1,110	181	2,150
H19647-2	MONITOR WELL #3	52	250	710
H19647-3	MONITOR WELL #4	900	313	2,100
H19647-4	RECOVERY WELL #1	1,300	290	2,620
Quality Control		500	42.4	NR
True Value QC		500	40.0	NR
% Recovery		100	106	NR
Relative Percent Difference		< 0.1	9.1	2.8
METHOD: Standard Methods, EPA		4500-Cl B	375.4	160.1

Not accredited for Chloride, Sulfate and TDS.

Chemist

Date 04/16/10

H19647 RICE

CARDINAL LABORATORIES

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

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

Receiving Date: 04/12/10
Reporting Date: 04/15/10
Project Number: NOT GIVEN
Project Name: BD SANTA RITA LEAK
Project Location: T22S-R37E-SEC27 A~ LEA CO., NM

Sampling Date: 04/09/10
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: ZL

LAB NUMBE SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	04/14/10	04/14/10	04/14/10	04/14/10
H19647-1 MONITOR WELL # 2	<0.001	<0.001	<0.001	<0.003
H19647-2 MONITOR WELL # 3	<0.001	<0.001	<0.001	<0.003
H19647-3 MONITOR WELL # 4	<0.001	<0.001	<0.001	<0.003
H19647-4 RECOVERY WELL # 1	<0.001	<0.001	<0.001	<0.003
Quality Control	0.050	0.051	0.051	0.151
True Value QC	0.050	0.050	0.050	0.150
% Recovery	100	102	102	101
Relative Percent Difference	2.2	2.2	2.2	2.3

METHOD: EPA SW-846 8021B

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

Chemist

04/16/10
Date

H19647YR RICE

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:	BILL TO Company:	PO#
RICE Operating Company	RICE Operating Company	
Project Manager:	**Address:** (Street, City, Zip)	
Hack Conder	122 W Taylor Street ~ Hobbs, New Mexico 88240	
Address: (Street, City, Zip)	**Phone#:**	**Fax#:**
122 W Taylor Street ~ Hobbs, New Mexico 88240	(575) 393-9174	(575)397-1471
Phone #:	**Fax #:**	
(575) 393-9174	(575) 397-1471	
Project #:	**Project Name:**	
	BD Santa Rita Leak	
Project Location:	**Sampler Signature:**	Rozanne Johnson (575)631-9310
T22S R37E Sec27 A ~ Lea County New Mexico		rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2010)	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	Anions (Cl, SO4, CO3, HCO3)	Cations (Ca, Mg, Na, K)	Sulfates (SO4)	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
H9164T-1	Monitor Well #2	G	3	X				2				1		4-9	14:00		X																X	X	X	
2	Monitor Well #3	G	3	X				2				1		4-9	12:15		X																X	X	X	
3	Monitor Well #4	G	3	X				2				1		4-9	13:10		X																X	X	X	
4	Recovery Well #1	G	3	X				2				1		4-9	15:50		X																X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Rozanne Johnson	4-12-10	12:20			
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:
			Jodi Henson	4/12/10	11:20

Delivered By: (Circle One)	Sample Condition		CHECKED BY:
Sampler - UPS - Bus - Other:	Cool: Yes ☑ / No ☐	Intact: Yes ☑ / No ☐	(Initials) JH

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

REMARKS:

Em Email Results to hconder@riceswd.com
lweinheimer@riceswd.com
kjones@riceswd.com
rozanne@valornet.com

#26