AP - 58

STAGE 1 & 2 WORKPLANS

DATE:

Aug. 28, 2006

TRIDENT ENVIRONMENTAL

P. O. Box 7624 ▲ Midland TX 79708 ▲ 432.638.8740 ▲ Fax: 413.403.9968

CERTIFIED MAIL - RETURN RECIEPT NO. 7099 3400 0017 2299

August 28, 2006

AP-58

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Investigation & Characterization Plan: Santa Rita EOL Release Site
T22S - R37E – Section 27 – Unit Letter A

Dear Mr. Price:

On behalf of Rice Operating Company, please accept this Investigation & Characterization Plan (ICP) for the Santa Rita EOL Release Site. A compact disk containing the ICP for this site in Adobe™ Acrobate Reader format (filename: SREOL ICP.pdf) is enclosed. A hardbound copy is also provided for your convenience. NMOCD approval to move forward with this ICP will facilitate approval of expenditures by the System Partners.

If you have any questions please call me at 432-638-8740 or Kristin Farris Pope at 505-393-9174.

Sincerely,
Trident Environmental

Gilbert Van Deventer
Project Manager

cc: Carolyn Haynes, Rice Operating Company - Hobbs
Kristin Pope, Rice Operating Company – Hobbs
Randy Hicks, R. T. Hicks Consultants, Ltd. - Albuquerque

August 28, 2006

INVESTIGATION & CHARACTERIZATION PLAN

BD Santa Rita EOL Release Site

T22S, R37E, Section 27, Unit Letter A
Lea County, New Mexico

Prepared for:

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

TRIDENT ENVIRONMENTAL

P. O. Box 7624 ▲ Midland, TX 79708-7624 ▲ 432.638.8740 ▲ Fax: 413.403.9968

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BD Santa Rita EOL Release Site
T22S, R37E, Section 27, Unit Letter A
Lea County, New Mexico

Prepared by:

TRIDENT ENVIRONMENTAL

P. O. Box 7624
Midland, Texas 79708

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RICE *Operating Company*

122 West Taylor

Hobbs, New Mexico 88240

Gilbert J. Van Deventer

August 29, 2006

GILBERT J. VAN DEVENTER
TRIDENT ENVIRONMENTAL

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1.0 EXECUTIVE SUMMARY

The Santa Rita EOL Release site is operated by Rice Operating Company (ROC) and is located in Township 22 South, Range 37 East, Section 27, unit letter A approximately 4.5 miles southeast of Eunice, NM. This Investigation and Characterization Plan (ICP) incorporates the preliminary findings from previous investigations and recommendations for additional assessment activities.

The discovery of a brine water release from a 2-inch PVC compression coupling occurred on November 22, 2003. Initial characterization of soil impacts were conducted at the site on November 26, 2003 using a backhoe. On January 6, 2004, ROC disclosed this site to OCD as potential groundwater impact and the site was placed on a prioritized list of similar sites. After landowner access was granted , soil samples were collected at 16 locations to depths of 3 to 4 feet bgs with a hand auger to determine the horizontal extent of the impacted soils. on August 9, 2005. Vadose zone samples taken from trenches indicated a maximum chloride concentration of 3,284 mg/kg at a depth of 5-feet below ground surface (bgs) directly adjacent to the release point. On August 30, 2005, chloride concentrations ranging from 121 mg/kg at 5-feet bgs to 2,696 mg/kg at 45-feet bgs were analyzed from vadose zone samples collected during the construction of monitoring well (MW-1) which was located approximately 5-feet east of the release point. The depth to ground water at the site is approximately 51 feet bgs. The total dissolved solids (TDS), chloride, and sulfate concentrations in ground water at the on-site monitoring well are 14,300 milligrams per liter (mg/L), 7,100 mg/L, and 675 mg/L, respectively, based on analysis of samples obtained during the most recent sampling event on April 24, 2006.

We propose the work elements described in detail in Section 7.0 to delineate the extent and magnitude of regulated constituents of concern in the vadose zone. The constituents of concern are chloride, sulfate, and TDS. Although existing data show that benzene, toluene, ethylbenzene, and xylenes (BTEX) are not present in the vadose zone or ground water, this proposal includes testing for these constituents. The purpose of these work elements is to assist ROC in selecting the soil and/or ground water remedy that is commensurate with any contribution from the Santa Rita EOL Release site to the regional ground water quality. The proposed work elements are summarized below:

- Define regional ground water flow direction, potential sources of chloride in ground water and ambient ground water chemistry
- Expand our ground water characterization to include evaluation of monitoring data from other ground water investigation sites in the area.
- Install additional soil borings and monitoring wells for evaluation of constituents of concern in the vadose zone and ground water.

When implementing any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs.

ROC is the service provider (agent) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental projects of this magnitude require System Partner Authorization for Expenditure (AFE) approval and work begins as funds are received. In general, project funding is not forthcoming until OCD approves the work plan.

2.0 CHRONOLOGY OF EVENTS

November 22, 2003	Release of approximately 50 barrels (bbls) discovered as a result of the failure of a compression fitting on the 2-inch PVC line. Approximately 40 bbls was recovered. The fitting was replaced and a new 10-ft joint of PVC was installed.
November 26, 2003	Initial subsurface soil sampling activities were conducted with a backhoe at six locations. Soil samples were field tested for chloride and hydrocarbon levels. This investigation indicated chloride impact to the vadose zone.
December 1, 2003	ROC submitted initial C-141 form to NMOCD.
December 19, 2003	Confirmation samples taken at 12 feet bgs directly beneath the source and at 12 feet bgs at a point 5 feet east of the source were submitted to Cardinal Laboratories in Hobbs. The analysis indicated chloride concentrations of 2,495 mg/kg and 2,623 mg/kg, respectively.
January 6, 2004	ROC disclosed this site to OCD as potential groundwater impact and the site was placed on a prioritized list of similar sites.
August 9, 2005	Soil samples were collected at 16 locations to depths of 3 to 4 feet bgs with a hand auger to determine the horizontal extent of the impacted soils.
August 30, 2005	A monitoring well was installed immediately adjacent to the source of the release point.
October 3, 2005	ROC notified the OCD office in Santa Fe that ground water impact was confirmed based on laboratory results of ground water samples analyzed from the on site monitoring well.

3.0 BACKGROUND

3.1 Site Location and Land Use

The Santa Rita EOL Release site and release is located on land owner by Irwin Boyd in Township 22 South, Range 37 East, Section 27, unit letter A approximately 4.5 miles southeast of Eunice, NM as shown on the attached Site Location Map (Plate 1). Produced water gathered by the BD SWD System in the site area is sent to the H-35 SWD well, which is located approximately 1.6 miles southeast of the Santa Rita EOL Release site. Land in the site area is primarily utilized for crude oil, gas production, and cattle ranching. Plate 2 is a recent aerial photograph at the same scale as Plate 1 showing the land use.

According to production data records from the OCD Online database, Moriah Resources Inc., Lewis B Burleson Inc., John H. Hendrix Corp., Arch Petroleum Inc., and Encore Operating LP, are the most active in crude oil and gas production in the area. Based on the OCD OnGuard database the oil and gas wells listed in Table 1 below are located within a half-mile of the site.

Table 1: Active Oil, Gas, and Injection Wells Within ½ mile of the Site

OPERATOR	WELL NAME	WELL TYPE
LAURA J MAY #001	ARCH PETROLEUM INC	OIL
HSOG #002	ENCORE OPERATING LP	OIL
SHIRLEY BOYD #001	JOHN H HENDRIX CORP	OIL
SANTA RITA #001	LEWIS B BURLESON INC	OIL
SANTA RITA #011	LEWIS B BURLESON INC	OIL
SANTA RITA #002	LEWIS B BURLESON INC	OIL
LANGLIE MATTIX PENROSE SAND UNIT #138	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #311	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #137	MORIAH RESOURCES, INC.	INJECTION
LANGLIE MATTIX PENROSE SAND UNIT #310	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #136	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #315	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #194	MORIAH RESOURCES, INC.	INJECTION
LANGLIE MATTIX PENROSE SAND UNIT #171	MORIAH RESOURCES, INC.	INJECTION
LANGLIE MATTIX PENROSE SAND UNIT #172	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #161	MORIAH RESOURCES, INC.	OIL
LANGLIE MATTIX PENROSE SAND UNIT #152	MORIAH RESOURCES, INC.	INJECTION

3.2 Nature of Release and Summary of Previous Work

The BD Santa Rita EOL (end-of-line) site experienced an accidental discharge on November 22, 2003 due to the separation of a compression coupling on a 2-inch PVC pipeline. This discharge occurred on the pipeline 82 ft north of the BD Santa Rita EOL junction box. A C-141 form (initial) was submitted to the Hobbs District 1 office on December 1, 2003. Soil samples were collected for chloride delineation on November 26 and December 19, 2003 using a backhoe. ROC concluded that further characterization was warranted. On January 16, 2004, ROC

disclosed this site to OCD as potential groundwater impact and the site was placed on a prioritized list of similar sites.

A delineation soil bore was initiated near the pipeline break on August 30, 2005 where groundwater was encountered at approximately 51 feet below ground surface and a 2-inch monitoring well was installed to a depth of approximately 61 feet as chloride impact was indicated by field tests. The investigations indicated chloride impact to the vadose zone and groundwater, however no indication of hydrocarbon impact was evident based on field screening with a photoionization detector (all readings were less than 0.1 ppm). Soil sample results are depicted in Plate 3.

The monitoring well (MW-1) has been sampled and analyzed for BTEX, major ions, and TDS on a quarterly basis since September 2, 2005. On October 3, 2005, ROC notified the OCD office in Santa Fe that ground water impact was confirmed based on laboratory results of ground water samples analyzed from the on site monitoring well. The constituents of concern include chloride, sulfate, TDS. No constituents of BTEX have been detected (< 0.001 mg/L).

Photographs of the site are included in Appendix A.

4.0 GEOLOGY AND HYDROGEOLOGY

4.1 Regional and Local Geology

According to published information (Nicholson and Clebsch, 1961, Barnes, 1976, and Anderson, Jones, and Green, 1997) the site is underlain by Quaternary eolian and piedmont deposits composed of sand, silt, and gravel deposited by slopewash, and talus from the Ogallala Formation. The eolian and piedmont deposits are often calichified (indurated with cemented calcium carbonate) with caliche layers from 1- to 20-feet thick. The lithology of the eolian and piedmont deposits is very similar to that of the Ogallala since the Ogallala is the source of these re-deposited colluvial sediments. The nearest outcropping of the Ogallala Formation occurs approximately two miles east of the site along what is known as Rattlesnake Ridge. The thickness of the colluvium deposits and Ogallala Formation is estimated at 75-feet, however it varies locally as a result of significant paleo-topography at the top of the underlying Triassic Dockum Group. Since Cretaceous Age rocks in the region have been removed by pre-Tertiary erosion, the colluvial deposits and Ogallala Formation rest unconformably on the Triassic Dockum Group. Plate 4 displays the portion of the geologic map of southern Lea County southeast of Eunice, New Mexico (Nicholsen and Clebsch, 1961). The Ogallala Formation underlies the City of Eunice and the eastern boundary of the map. Quaternary erosion and deposition removed the Ogallala and deposited alluvium within the central part of Plate 4, which effectively outlines the active channel of Monument Draw. The Santa Rita EOL site is plotted on Plate 4 and is in the middle of the alluvium within Monument Draw.

Plate 4 also shows the elevation of the top of the red-bed surface, which occurs at approximately 130 feet below ground surface at the Santa Rita EOL site. The Dockum Group red beds are an aquiclude below the Ogallala and alluvial aquifers. In the area of the Santa Rita EOL site, the red bed elevation contours define a paleo-valley just west of and sub-parallel to Monument Draw. The elevation of the red-bed surface exerts controls on ground water flow. Where this surface is higher than the water table elevation, it obviously creates a barrier to flow. Where the red-bed surface is an expression of a paleo-valley, such as our area of interest, ground water may be directed toward the axis of this subsurface feature and the saturated thickness of the aquifer can increase as a result.

Plate 5 is the ground water map of southern Lea County (Nicholsen and Clebsch, 1961) covering the same area as Plate 4. This plate shows that the water table elevation mimics the red-bed elevation. At the Santa Rita EOL site site, ground water flows southeast towards the axis of Monument Draw. Nicholsen and Clebsch (1961) concluded, "The bulk of the water [in the sediments along Monument Draw and under the Eunice Plain] is derived by underground flow from the Laguna Valley [Monument] area." The red-bed surface map and the water table map support this hypothesis.

Based on the lithologic log description for the monitoring well on site (Appendix B) the subsurface soils are composed of light-brown sandy loam (0-2 ft), light-brown silty clayey sand (2-6 ft), sandy caliche (6-25 ft), calcareous fine sand with intermittent hard streaks (25-35 ft), silty fine sand (35-45 ft), and fine sand (45-61 ft).

4.2 Regional and Local Hydrogeology

Potable ground water used in southern Lea County is derived primarily from the Ogallala Formation (including the colluvial deposits) and the Quaternary alluvium. Lower yields have also been provided by water bearing zones within the Triassic Dockum Group in a few scattered areas within southern Lea County. No potable water is known to be derived below the Triassic Dockum Group. Water from the Ogallala and alluvium aquifers in southern Lea County is used for irrigation, stock, domestic, industrial, and public supply purposes.

Nicholsen and Clebsch (1961) found that the regional gradient of the Ogallala and interconnected colluvial aquifer in the site area generally flows toward the southeast and the hydraulic gradient varies from approximately 0.001 to 0.01 feet/feet. Recent data from ROC sites within two miles from the Santa Rita EOL site (E-15 junction box, Zachary Hinton EOL 0-12) confirm a similar potentiometric surface.

Recharge to the Ogallala aquifer occurs primarily by infiltration of precipitation at a slow rate (typically one quarter to one half inch of water per year) due to the characteristically arid climate of southern Lea County (Nicholson and Clebsch, 1961).

Hydraulic conductivity values are estimated between 26 and 50-feet per day and specific yields of 0.23 for the Ogallala aquifer near the site area based on limited published information (Hart & McAda, 1985). There are no natural surface water bodies located within a mile of the site.

Depth to ground water beneath the site area is approximately 51-feet below ground surface.

5.0 VADOSE ZONE CHARACTERISTICS

ROC conducted initial upper vadose zone delineation field activities on November 26 and December 19, 2003. Investigation activities were conducted with a backhoe by trenching to 12-feet below ground surface (bgs) at 6 locations immediately adjacent to the source of the leak and in areas where pooling was observed (Plate 3). Soil samples were analyzed in the field for chlorides using field-adapted Method 9253 (QP-03). Field chlorides ranged from a concentration of 1128 parts per million (ppm) at sample point TP-2 located 50 feet northwest of the release point and 2 feet deep to 5,530 ppm at the surface of sample point TP-1 located 45 feet northeast of the release point (Plate 3).

On August 9, 2005, soil samples were collected by ROC with a hand auger at 16 locations within a 25-foot grid spacing that encompassed the area where the spill had encroached. The hand augerred borings did not go further than 4 feet below ground surface due to encountering a hard caliche layer. Soil samples were analyzed in the field for chlorides using field-adapted Method 9253 (QP-03). Field chlorides ranged from a concentration of 41 ppm at sample point SP-3 located about 55 feet east of the release point and 3 feet deep to 851 ppm at the surface of sample point SP-5 located 85 feet east of the release point along the lease road (Plate 3).

To further delineate depth of impact in the vadose zone and to assess ground water quality, a monitoring well (MW-1) was installed immediately adjacent to the release point on August 30, 2005, to a depth of 61-feet bgs. Chloride concentrations in the boring samples ranged from 121 ppm at 5 feet bgs to 2,696 ppm at 45 feet bgs, and then decreasing to 2,313 ppm at 50 feet bgs immediately above the water table. A duplicate of the sample collected at 45 feet bgs was submitted to the laboratory which indicated a chloride concentration of 3,570 mg/kg. A more detailed description of the lithology, field chloride tests, and well construction is shown on the boring log in Appendix B.

Copies of the laboratory analytical reports and chain of custody forms are included in Appendix C.

6.0 GROUND WATER QUALITY

6.1 Groundwater Monitoring Program

Monitoring well (MW-1) has been sampled on a quarterly basis for major ions, TDS, and BTEX since September 9, 2005. A summary of historical analytical results and ground water elevations is listed in Table 2. Analytical results for the most recent sampling event conducted on July 19, 2006, are also depicted in graphical format in Figure 1. A copy of the laboratory analytical report and chain of custody form for the most recent ground water sampling event is included in Appendix C.

Table 2: Summary of Ground Water Monitoring Results (MW-1)

Sample Date	Depth to Groundwater (feet BTOC)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
09/02/05	54.04	**4,480**	**1,380**	**7,600**	<0.001	<0.001	<0.001	<0.001
10/24/05	53.85	**7,170**	**726**	**16,400**	<0.001	<0.001	<0.001	<0.001
01/23/06	53.98	**7,450**	**723**	**14,300**	<0.001	<0.001	<0.001	<0.001
04/24/06	54.07	**7,100**	**675**	**14,300**	<0.001	<0.001	<0.001	<0.001
07/19/06	54.08	**6,180**	412	**14,000**	<0.001	<0.001	<0.001	<0.001
WQCC Standards		250	600	1,000	0.01	0.75	0.75	0.62

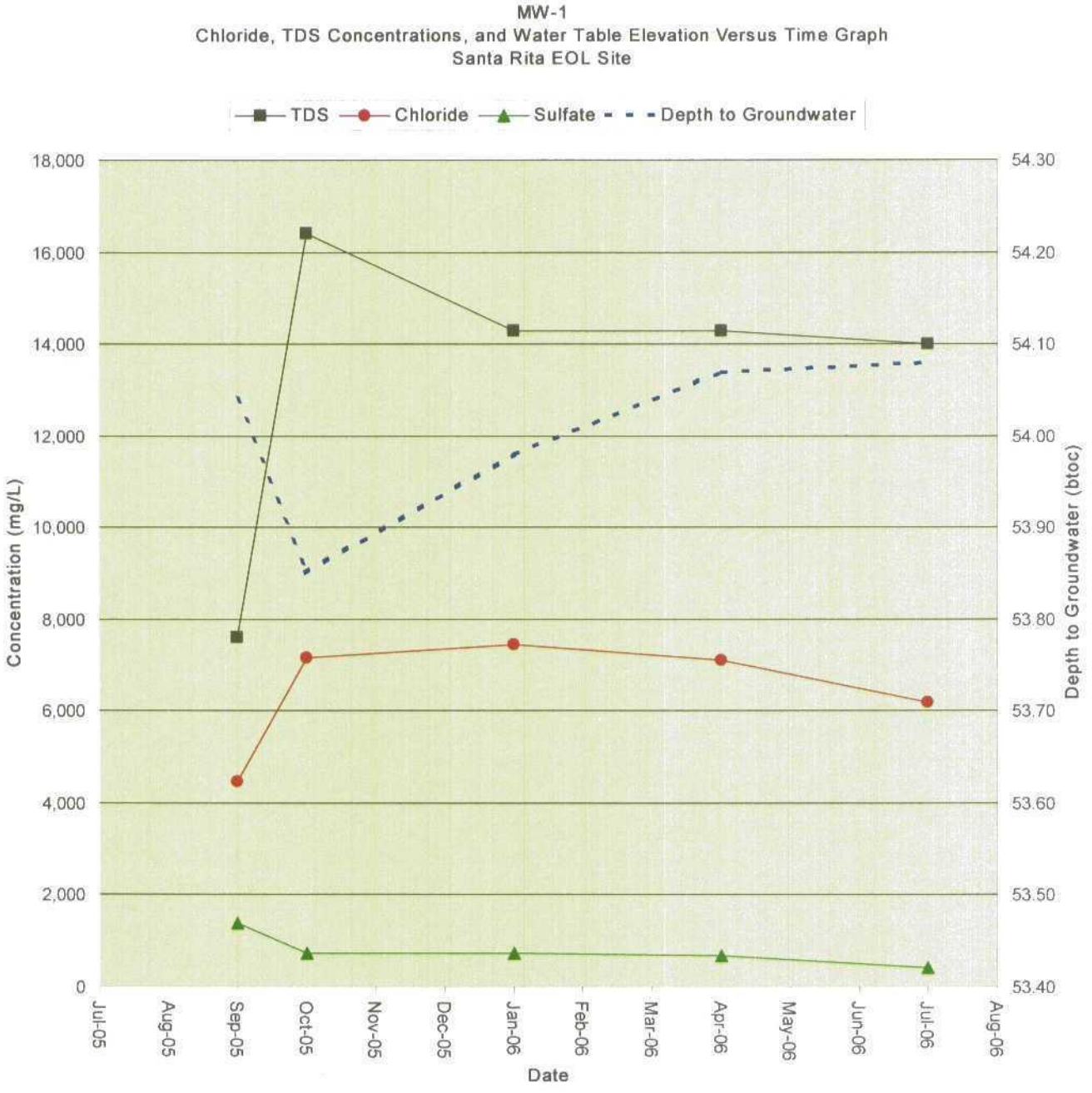
6.2 Hydrocarbons in Ground Water

All BTEX concentrations in monitoring well MW-1 have been below the laboratory detection limit of 0.001 mg/L in every sampling event.

6.3 Other Constituents of Concern

- Monitoring well MW-1 exceeds the WQCC standard of 250 mg/L for chloride concentration (6,180 mg/L).
- The most recent sulfate concentration for MW-1 (412 mg/L) has decreased to a level below the WQCC standard of 600 mg/L.
- The TDS concentration in monitoring well MW-1 (14,000 mg/L) exceeds the WQCC standard of 1,000 mg/L.

Background and ambient concentrations of these compounds have not been established at this time. Chloride, sulfate, and TDS concentrations in MW-1 have consistently decreased since the initial sampling event. No correlations between chloride/sulfate/TDS concentrations and changes in ground water levels are evident.


MW-1
Chloride, TDS Concentrations, and Water Table Elevation Versus Time Graph
Santa Rita EOL Site
TDS
Chloride
Sulfate
Depth to Groundwater
Concentration (mg/L)
Depth to Groundwater (btoc)
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
54.30
54.20
54.10
54.00
53.90
53.80
53.70
53.60
53.50
53.40
Jul-05
Aug-05
Sep-05
Oct-05
Nov-05
Dec-05
Jan-06
Feb-06
Mar-06
Apr-06
May-06
Jun-06
Jul-06
Aug-06
Date

7.0 Investigation & Characterization Plan

Additional vertical delineation of impact to the vadose zone and groundwater is necessary.

7.1 Evaluate Constituents of Concern in the Vadose Zone

Soil borings will be completed to delineate the lateral and vertical extent of impact to the vadose zone. Soil samples will be collected at regular intervals no less than five feet from ground surface to the water table. We will field test each sample for chloride concentrations. Soil lithology and the presence of any observed staining or odor will be recorded. Samples will also be field screened for headspace analysis using an organic vapor meter (OVM). Selected samples with headspace readings above 100 ppm will also be analyzed by a laboratory for the regulated constituents benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021 or 8260. The following concentrations of analytes will be used to delineate the lateral and vertical extent of impact to the vadose zone:

- 100 ppm PID, and/or 10 mg/kg benzene, and 50 mg/kg BTEX
- 250 ppm chloride

The number and placement of the soil borings is dependent on determinations made in the field of the delineation parameters listed above.

7.2 Define Regional Ground Water Flow Direction, Potential Sources of Chloride in Ground Water and Ambient Ground Water Chemistry

We plan to examine records at the OCD, NMED, Office of the State Engineer (OSE) and the US Geological Survey (USGS) for water quality and water level data. This file search will provide a better understanding of ground water flow and ambient (and possibly background) water chemistry. Plate 6 shows the locations of nearby water supply and monitoring wells obtained from ROC, OCD, NMED, OSE, and USGS databases. Further examination of data for these wells will assist us in understanding the contribution of the Santa Rita EOL site to the observed regional chemistry. Our characterization of ground water will include evaluation of monitoring data from other ground water investigation sites in the area, including the South Eunice gas plant. The water well inventory will also assist in identifying the location of potential water supply receptors (domestic, irrigation, or livestock wells).

7.3 Installation of Additional Monitoring Wells for Further Delineation

Soil boring samples and ground water samples from the existing monitoring well suggest that the release has contributed to a pathway for chlorides and TDS into ground water. For further characterization as to the extent of the release from the line leak, we will construct a second monitoring well between 200-feet and 300-feet down gradient (south-southeast) from the site. Since regional data is insufficient to determine the ambient, or background, chloride concentration in this

area, we will also complete an up gradient monitoring well. We will complete these monitoring wells in accordance with OCD and industry standard methods with 5 feet of well screen above the water table and a minimum of 10 feet of well screen below the water table. We plan to drill to the underlying Triassic red beds (Chinle Formation) for the down gradient monitoring well to define the saturated thickness in the area.

7.4 Corrective Action/Closure

The information gathered from the results of the additional assessment actions described above will be evaluated and utilized to design a soil and ground water remedy. The remedy that offers the greatest environmental benefit while causing the least environmental impairment will be selected. Such recommendations and findings will be presented to OCD in a subsequent Corrective Action Plan or Abatement Plan. When evaluating any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs.

8.0 QUALITY ASSURANCE / QUALITY CONTROL

Sampling and analytical procedures shall be performed in accordance with Title 20 NMAC 6.3107.B and Section 103 of the Water Quality Standards for Interstate and Intrastate Streams in New Mexico (20 NMAC 6.1).

Soil samples will be screened in the field using a PID (QP-07) and field tested for chlorides (QP-03). Soil samples with a PID response of 100 ppm or greater will be submitted to the laboratory for analysis of BTEX. Ten percent (10%) of the soil samples will be submitted for laboratory analysis of chlorides as confirmation of our field analysis.

Ground water samples will be collected in accordance with procedures explained in QP-04 and QP-05, and analyzed for BTEX, major ions, and TDS.

Specific quality procedures for collecting and analyzing soil and ground water samples are included in Appendix D.

9.0 PROPOSED SCHEDULE OF ACTIVITIES

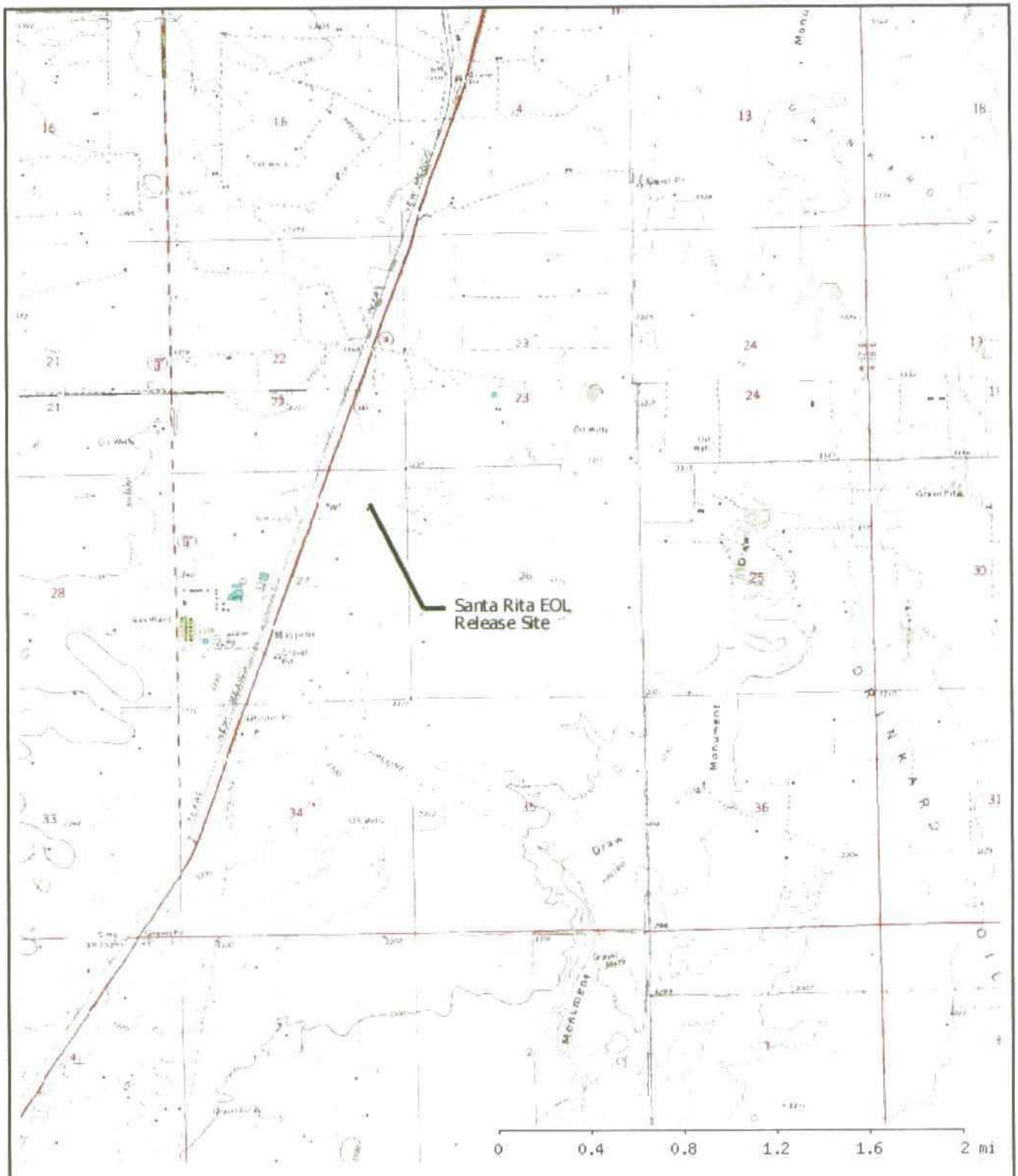
Within 45 days of approval of this ICP from the NMOCD initiate field activities. First we will seek groundwater data from surrounding wells (within a half-mile radius). We plan on using this information to determine the local groundwater gradient direction and ambient groundwater quality to determine the location of an upgradient and downgradient monitoring well on site to delineate and quantify the extent of the release at the Santa Rita EOL site. During the installation of the monitoring wells we will also perform soil borings for delineation of the vadose zone as described in section 7.1.

A remedy will then be proposed to the NMOCD in a subsequent Corrective Action Plan or Abatement Plan based on the findings of the field activities described herein.

Completion dates for the tasks outlined in this ICP will be dependent access to area (off site) wells, contractor availability, weather conditions, and possibly other unforeseen considerations.

PLATES

Plate 1: Site Location Map
Plate 2: Aerial Photographic Map
Plate 3: Preliminary Soil Sample Results
Plate 4: Geologic Map (Nicholson & Clebsch)
Plate 5: Ground Water Map (Nicholson & Clebsch) Plate 6: Water Well Map (NMSEO & USGS)



USGS Rattlesnake Canyon (NM) Quadrangle (1977)
Projection is UTM Zone 13 NAD83 Datum
Source: TopoZone.com - Maps a la carte, Inc.

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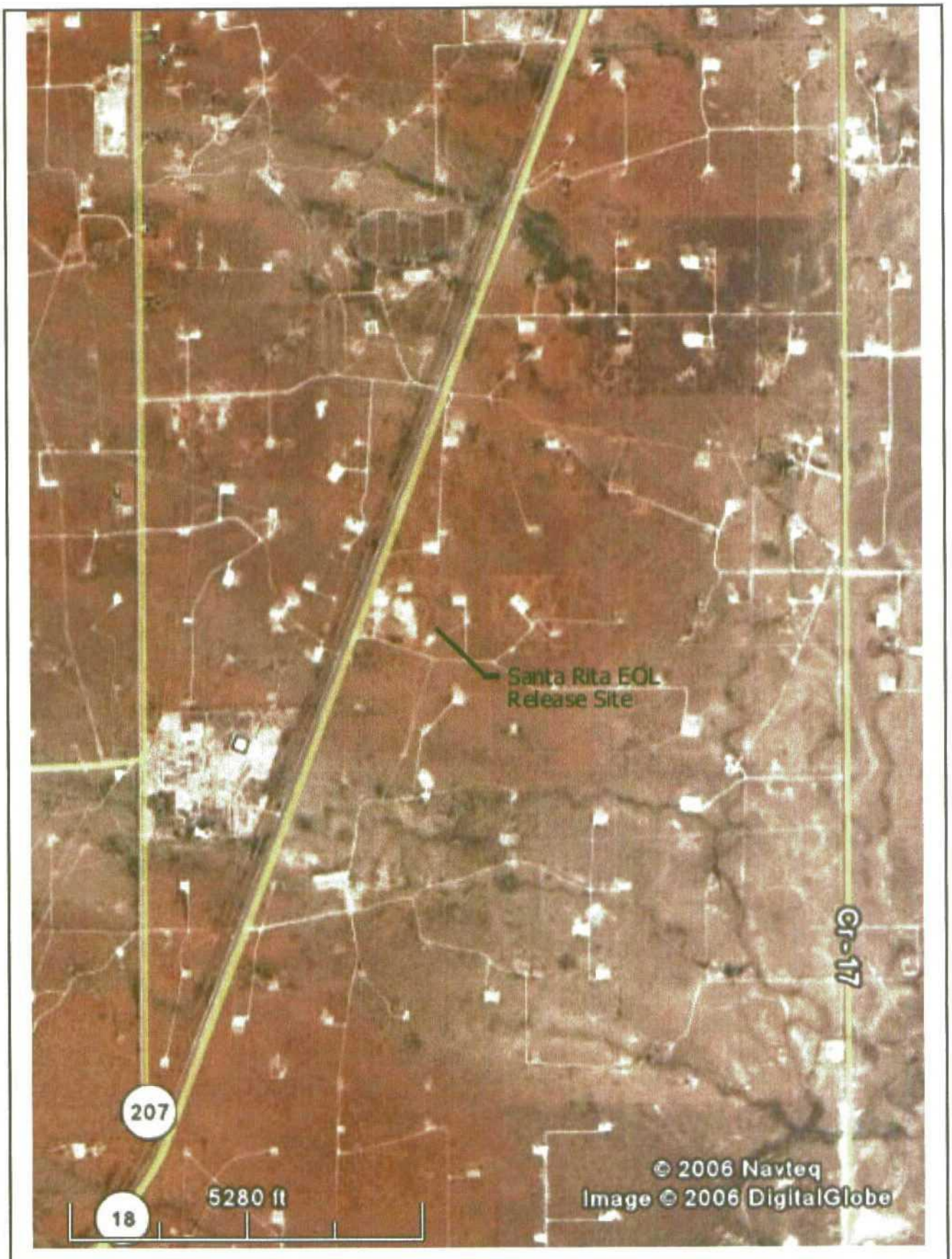
SITE LOCATION MAP
Santa Rita EOL Release Site
RICE *Operating Company*

Plate 1

August 2006



Source: Google Earth – Digital Globe

NORTH

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AERIAL PHOTO MAP
Santa Rita EOL Release Site
RICE *Operating Company*

Plate 2

August 2006

MAP LEGEND

MW-1 — Monitoring Well (8/30/05)

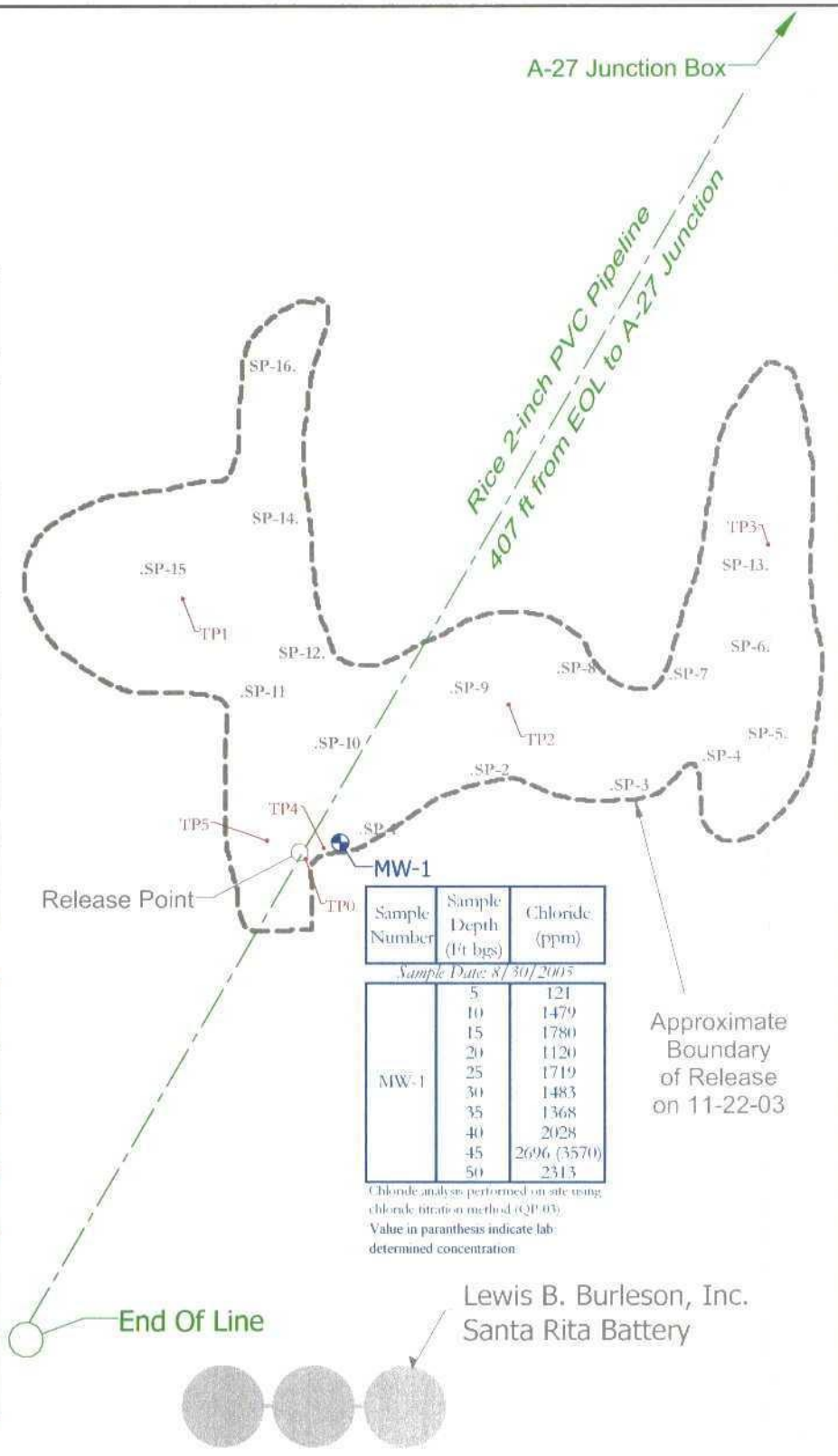
SP-16 — Soil Sample Location (8/9/05)

TP1 — Soil Sample Location (11/22/03)

Sample Number	Sample Depth (Ft bgs)	Chloride (ppm)
Sample Date: 8/9/2005		
SP-1	0	66
	1	76
	2	93
	3	108
	4	78
SP-2	0	45
	1	126
	2	92
	3	47
	4	75
SP-3	0	69
	1	64
	2	67
	3	41
	4	77
SP-4	0	97
	1	64
	2	106
	3	77
	4	65
SP-5	0	851
	1	49
	2	58
	3	129
	4	89
SP-6	0	123
	1	49
	2	55
	3	54
	4	76
SP-7	0	101
	1	159
	2	127
	3	101
	4	90
SP-8	0	114
	1	44
	2	116
	3	119
	4	67
SP-9	0	117
	1	140
	2	90
	3	90
	4	167
SP-10	0	131
	1	105
	2	95
	3	76
	4	50

Sample Number	Sample Depth (Ft bgs)	Chloride (ppm)
Sample Date: 8/9/2005		
SP-11	0	83
	1	50
	2	74
	3	104
	4	170
SP-12	0	72
	1	73
	2	80
	3	48
	4	97
SP-13	0	75
	1	66
	2	60
	3	60
SP-14	0	50
	1	68
	2	79
	3	107
SP-15	0	131
	1	117
	2	50
	3	58
SP-16	0	66
	1	76
	2	90
	3	89

Sample Number	Sample Depth (Ft bgs)	Chloride (ppm)
Sample Date: 11/26/2003		
TP0	5	2343
	6	2761
	12	2495
TP1	0	5530
	1	3482
	2	3157
TP2	0	2346
	1	1834
	2	1128
TP3	0	3136
	1	2657
	2	1778
TP4	5	3284
	6	2681
	8	2992
	10	2908
	12	2816
TP5	6	3130
	7	2793
	10	2684
	12	2764



Sample Number	Sample Depth (Ft bgs)	Chloride (ppm)
Sample Date: 8/30/2005		
MW-1	5	121
	10	1479
	15	1780
	20	1120
	25	1719
	30	1483
	35	1368
	40	2028
	45	2696 (3570)
	50	2313

Chloride analysis performed on site using chloride titration method (QP-03).
Value in paranthesis indicate lab determined concentration

TRIDENT ENVIRONMENTAL

Site: BD Santa Rita EOL Release Site

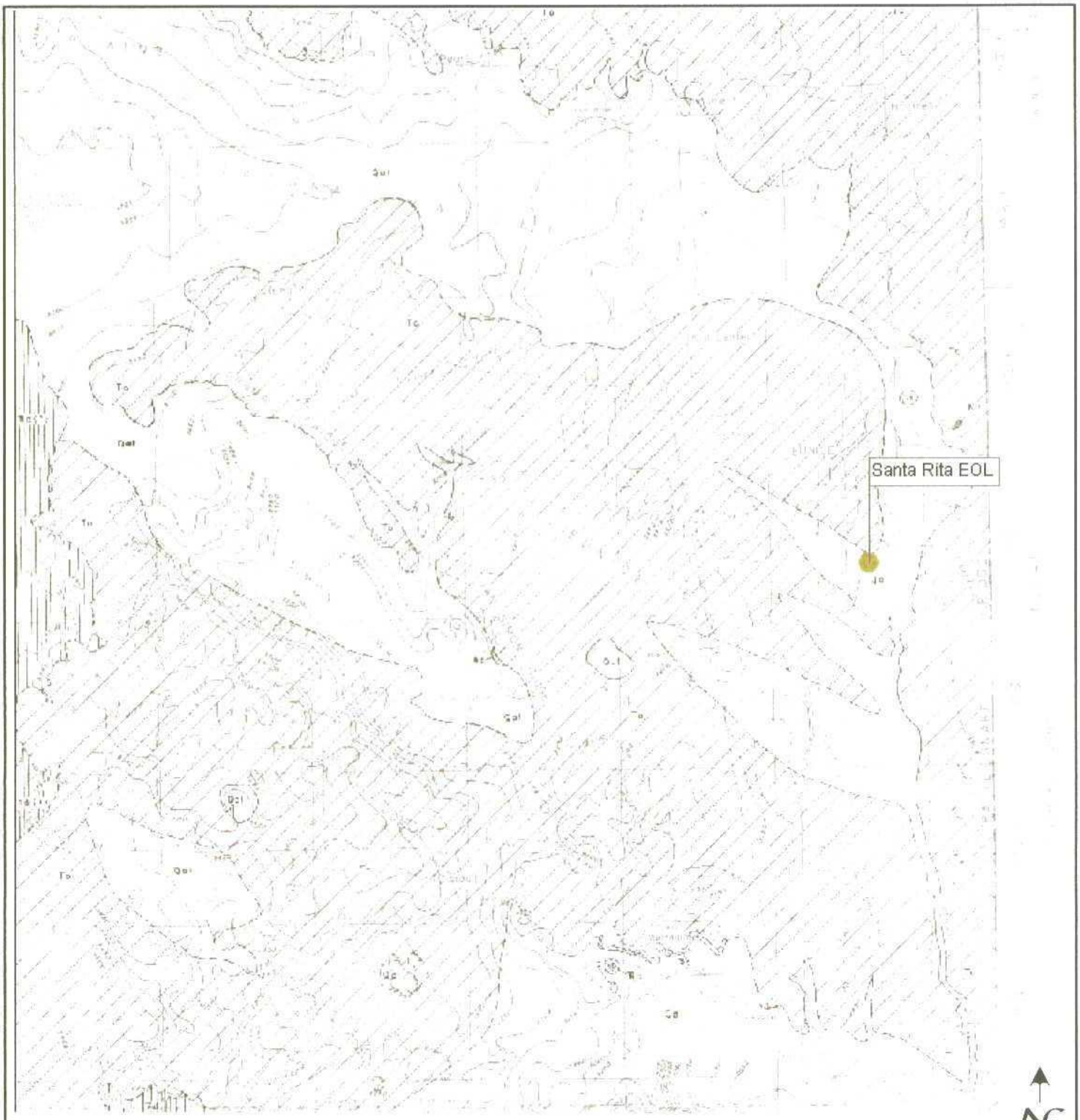
Date: January 30, 2006

Sampled By: Rice Operating Company

Approximate Scale: 1 inch = 30 feet

PLATE 3

PRELIMINARY SOIL SAMPLE RESULTS



Source: Nicholoson & Clebsch (1961)

0 6

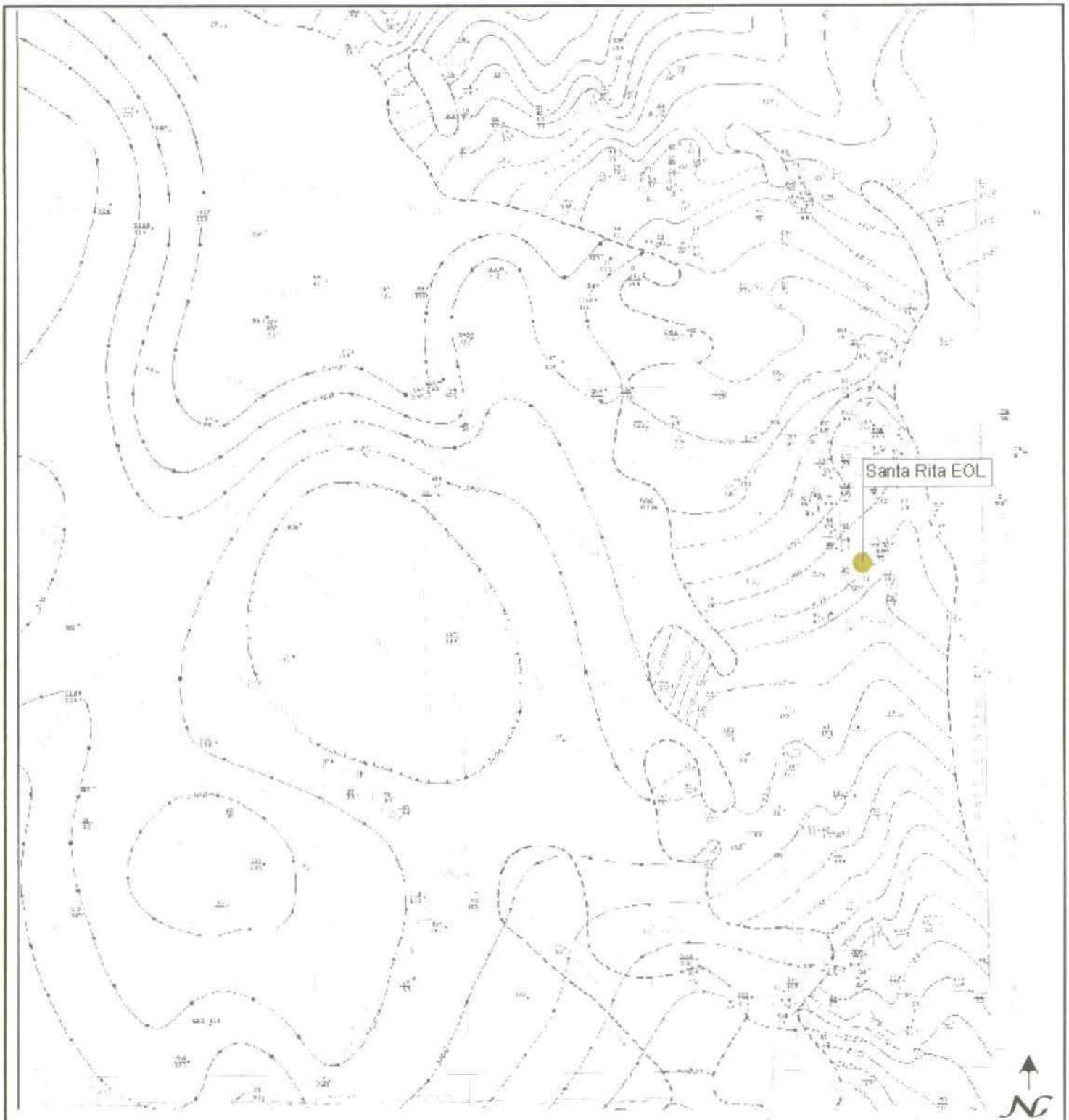
Approximate Scale (Miles)

N

TRIDENT ENVIRONMENTAL	Site: BD Santa Rita EOL Release Site
	Client: RICE Operating Company
	Report Date: August 28, 2006
	Approximate Scale: 1 inch = 6 miles

PLATE 4

GEOLOGIC MAP



Source: Nicholoson & Clebsch (1961)

TRIDENT ENVIRONMENTAL

Site: BD Santa Rita EOL Release Site	PLATE 5
Client: RICE Operating Company	
Report Date: August 28, 2006	GROUNDWATER MAP
Approximate Scale: 1 inch = 6 miles	

Explanation to Geologic Map

Sand

Thin cover of drift sand in most places; locally dunes 20 - 40 feet high

Alluvium

Sand and gravel along dry washes; silt and sand in lake beds; includes some wind-deposited sand around depressions

Ogallala formation

Chiefly sand, poorly to well-cemented with calcium carbonate, contains some clay, silt, and gravel, caliche in most places by caliche

QUATERNARY

TERTIARY

Cretaceous rocks, undifferentiated

Slumped blocks of buff, tan or white fossiliferous limestone

CRETACEOUS

Jackpile sand

Trc - Chinle formation, red and green claystone, minor siltstone, and fine-grained sandstone; Trs - Santa Rosa sandstone, red to white poorly sorted, coarse-grained, crossbedded sandstone; Trd - rocks of the Dockum group, undifferentiated

Upper Triassic

TRIASSIC

Contours on the red-bed & face

Dashed where approximate or inferred. Contour interval 50 feet. Datum mean sea level

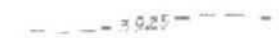
Explanation to Groundwater Map

Water well

Upper figure is depth to water, lower figure is depth of well. Open circles are wells finished in Tertiary or Quaternary rocks; solid circles are wells finished in Triassic rocks

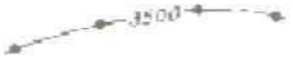
F = Flowing
R = Reported
P = Water level measured when pumping
D = Dry
? = Uncertainly as to location
> = More than
< = Less than

(See tables 5 and 7 for detailed well data)



Water table contour in Tertiary or Cretaceous rocks

Dashed where inferred or uncertain. Contour interval 25 feet. Datum mean sea level

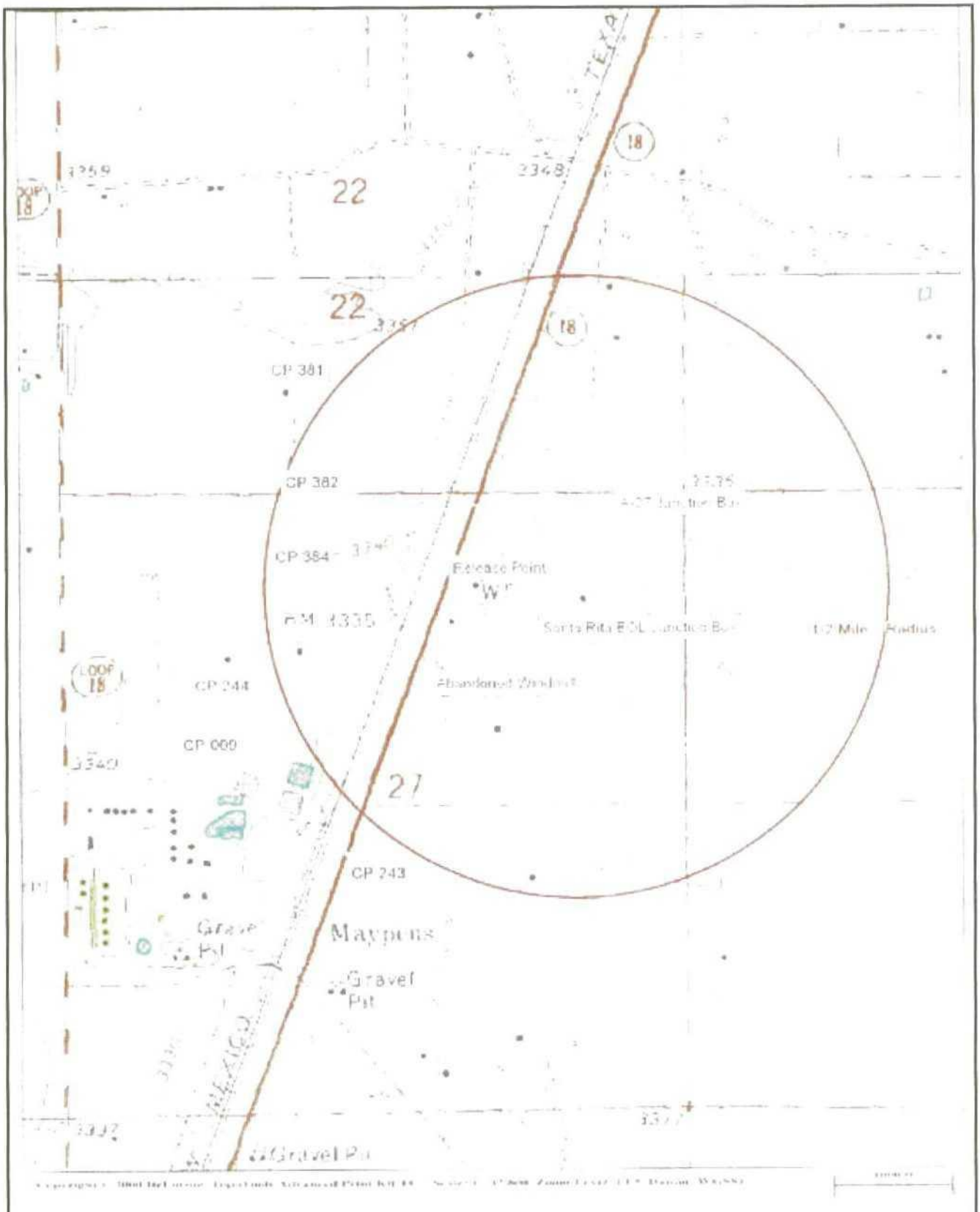


Water-table or piezometric contour in aquifer body in Triassic sediments

Dashed where inferred or uncertain. Contour interval 100 feet. Datum mean sea level

Approximate position of boundary between Triassic rocks and unconsolidated Tertiary and Quaternary rocks

TRIDENT ENVIRONMENTAL	Site: BD Santa Rita EOL Release Site	PLATES 4 & 5
	Client: RICE Operating Company	
	Report Date: August 28, 2006	SUPPLEMENTS
	Source: Nicholson & Clebsch (1961)	



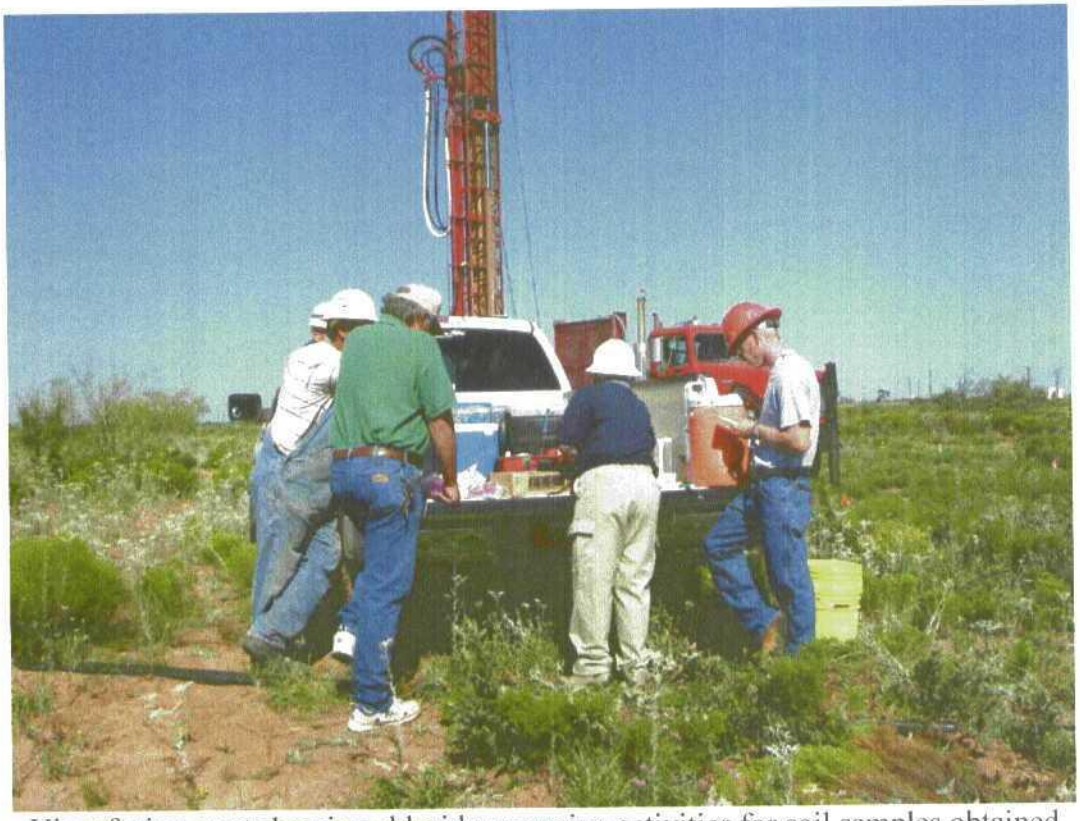
Data Source:, USGS, NMSEO

TRIDENT ENVIRONMENTAL	**WATER WELL MAP** Santa Rita EOL Release Site RICE *Operating Company*	Plate 6 August 2006

APPENDIX A

PHOTODOCUMENTATION

View facing southwest showing drilling of monitoring well MW-1 located adjacent to release point at the Santa Rita EOL Site. (08-30-06)



View facing west showing chloride screening activities for soil samples obtained from monitoring well MW-1 at the Santa Rita EOL site (08-30-06)

APPENDIX B

LITHOLOGIC LOG

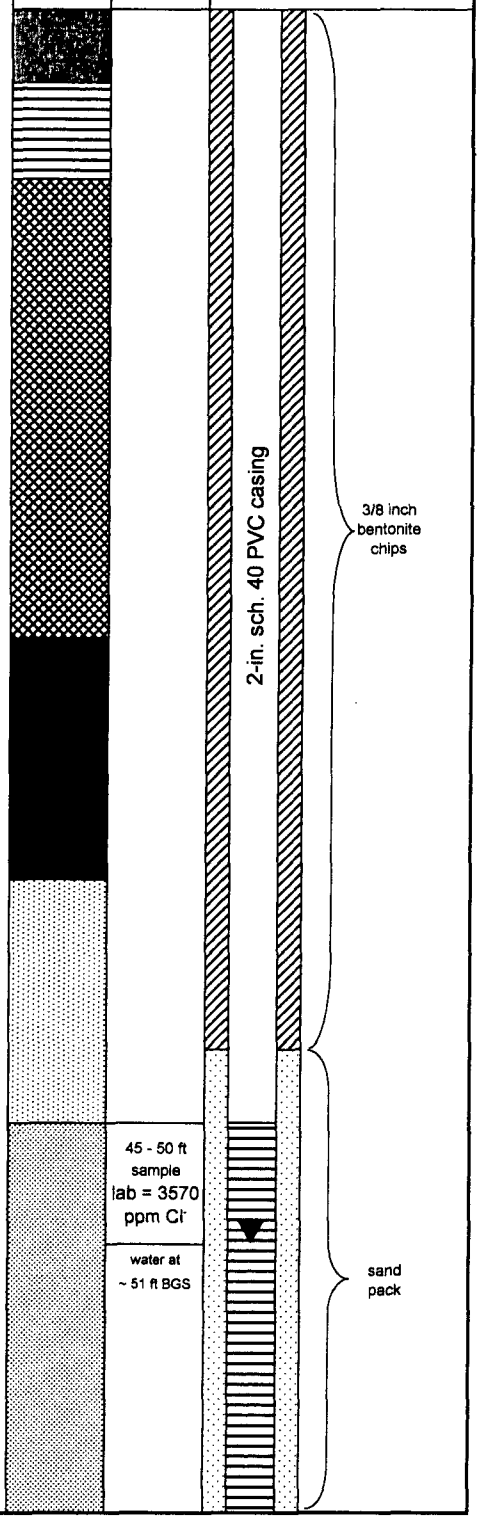
AND

WELL CONSTRUCTION DIAGRAM

LOG OF BORING
K. Farris Pope

Logger:	Gil Van Deventer; Jennifer Johnson	**RICE** *Operating Company*	**Well ID:**
Driller:	Eades Drilling		
Drilling Method:	Air Rotary	**Project Name:** Santa Rita leak	**MW-1**
Start Date:	08/30/05		
End Date:	08/30/05	**Location:** BD SWD System	
Notes:	Approx. 82 ft north of Santa Rita EOL junction box site TD = 61 ft Groundwater = 54.04 ft (TOC)	unit 'A', Sec. 27, T22S, R37E Lea County, NM	

Depth (feet)	cuttings composite chloride (ppm)	cuttings composite PID (ppm)	Description
0.0			0 - 2 ft SANDY LOAM light brown, medium-grained
2.0			
4.0			2 - 6 ft SILTY CLAYEY SAND light brown
	121	1.3	
6.0			6 - 25 ft SANDY CALICHE
8.0	1479	3.3	
10.0			
12.0	1780	1.2	
14.0			
16.0			
18.0	1120	0.5	
20.0			
22.0	1719	0.1	
24.0			
26.0			25 - 35 ft CALCAREOUS FINE SAND with intermittent hard streaks
28.0	1483	0.1	
30.0			
32.0	1368	0.1	
34.0			
36.0			35 - 45 ft SILTY FINE SAND red
38.0	2028	0.1	
40.0			
42.0	2696	0.1	
44.0			
46.0			45 - 61 ft FINE SAND red
48.0	2313	0.1	
50.0			
52.0			
54.0			
56.0			
58.0			
60.0			



APPENDIX C

LABORATORY REPORTS

AND

CHAIN OF CUSTODY DOCUMENTATION

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: BD System Santa Rita EOL Site

Project Number: None Given

Location: BD System Santa Rita EOL Site

Lab Order Number: 5I01023

Report Date: 09/06/05

Rice Operating Co.	Project: BD System Santa Rita EOL Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	09/06/05 11:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1 (40'-45')	5I01023-01	Soil	08/30/05 11:00	09/01/05 12:47

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: BD System Santa Rita EOL Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	09/06/05 11:43

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (40'-45') (5I01023-01) Soil									
Chloride	**3570**	50.0	mg/kg	100	EI50206	09/02/05	09/02/05	EPA 300.0	
% Moisture	**21.6**	0.1	%	1	EI50201	09/01/05	09/02/05	% calculation	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: BD System Santa Rita EOL Site	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	09/06/05 11:43

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI50201 - General Preparation (Prep)										
Blank (EI50201-BLK1)				Prepared: 09/01/05 Analyzed: 09/02/05						
% Solids	100		%							
Duplicate (EI50201-DUP1)	**Source: 5H31020-01**			Prepared: 09/01/05 Analyzed: 09/02/05						
% Solids	91.1		%		90.3			0.882	20	
Duplicate (EI50201-DUP2)	**Source: 5I01027-02**			Prepared: 09/01/05 Analyzed: 09/02/05						
% Solids	90.4		%		90.6			0.221	20	
Batch EI50206 - Water Extraction										
Blank (EI50206-BLK1)				Prepared & Analyzed: 09/02/05						
Chloride	ND	0.500	mg/kg							
LCS (EI50206-BS1)				Prepared & Analyzed: 09/02/05						
Chloride	8.55		mg/L	10.0		85.5	80-120			
Calibration Check (EI50206-CCV1)				Prepared & Analyzed: 09/02/05						
Chloride	9.04		mg/L	10.0		90.4	80-120			
Duplicate (EI50206-DUP1)	**Source: 5I01023-01**			Prepared & Analyzed: 09/02/05						
Chloride	3670	50.0	mg/kg		3570			2.76	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Notes and Definitions

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

Report Approved By: Raland K Tuttle Date: 9/6/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1600
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: Rice Operating Company
Company Address: 122 West Taylor
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: 505-393-9174 Fax No: 505-397-1471
Sampler Signature:

Project Name: Rice Operating Company
Project #:
Project Loc: BD System Santa Rita EOL Site
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO_4, CO_3, HCO_3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids	Chlorides	Vicksburg	RUSH TAT (Pre-Schedule)	Standard TAT
510123					4oz jar											TCLP:				TOTAL:										
-01	MW-1 (40' - 45')	8-30-05	1100	1	X									X				X												X

Special Instructions: Email results to gil@rthicksconsult.com and kpriceswd@valornet.com

Sample Containers Intact? (Y) N
Temperature Upon Receipt: labels up custody seals - sample in chest
Laboratory Comments: Rec 2.0°C

Relinquished by:	Date	Time	Received by:	Date	Time
	9/1/05	12:45			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Rolandk 145	9-01-05	1247

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

Client: Rice Operating

Date/Time: 9-01-05

Order #: 510023

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	2.0 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	Yes	No	(Not Applicable)

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

_____

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: BD Santa Rita Leak

Project Number: None Given

Location: Lea County

Lab Order Number: 5J27005

Report Date: 11/07/05

Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	5J27005-01	Water	10/24/05 16:00	10/27/05 07:50

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (5J27005-01) Water									
Benzene	ND	0.00100	mg/L	1	EJ52806	10/28/05	11/02/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.2 %*	*80-120*		"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (5J27005-01) Water									
Total Alkalinity	**204**	2.00	mg/L	1	EK50216	10/28/05	10/28/05	EPA 310.2M	
Chloride	**7170**	100	"	200	EJ52807	10/28/05	10/28/05	EPA 300.0	
Total Dissolved Solids	**16400**	5.00	"	1	EJ52811	10/27/05	10/28/05	EPA 160.1	
Sulfate	**726**	100	"	200	EJ52807	10/28/05	10/28/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (5J27005-01) Water									
Calcium	**1080**	2.00	mg/L	200	EK50107	10/27/05	10/27/05	EPA 6010B	
Magnesium	**588**	0.200	"	"	"	"	"	"	
Potassium	**42.2**	2.50	"	50	"	"	"	"	
Sodium	**2980**	10.0	"	1000	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ52806 - EPA 5030C (GC)										
Blank (EJ52806-BLK1)				Prepared: 10/28/05 Analyzed: 11/01/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*40.1*		*ug/l*	*40.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.7*		*"*	*40.0*		*81.8*	*80-120*			
LCS (EJ52806-BS1)				Prepared: 10/28/05 Analyzed: 10/31/05						
Benzene	0.0476	0.00100	mg/L	0.0500		95.2	80-120			
Toluene	0.0495	0.00100	"	0.0500		99.0	80-120			
Ethylbenzene	0.0472	0.00100	"	0.0500		94.4	80-120			
Xylene (p/m)	0.0894	0.00100	"	0.100		89.4	80-120			
Xylene (o)	0.0479	0.00100	"	0.0500		95.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.9*		*ug/l*	*40.0*		*82.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.7*		*"*	*40.0*		*81.8*	*80-120*			
Calibration Check (EJ52806-CCV1)				Prepared: 10/28/05 Analyzed: 11/01/05						
Benzene	50.4		ug/l	50.0		101	80-120			
Toluene	51.8		"	50.0		104	80-120			
Ethylbenzene	49.3		"	50.0		98.6	80-120			
Xylene (p/m)	92.9		"	100		92.9	80-120			
Xylene (o)	50.0		"	50.0		100	80-120			
Surrogate: a,a,a-Trifluorotoluene	*44.8*		*"*	*40.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.3*		*"*	*40.0*		*106*	*80-120*			
Matrix Spike (EJ52806-MS1)	**Source: 5J27012-03**			Prepared: 10/28/05 Analyzed: 11/01/05						
Benzene	0.0496	0.00100	mg/L	0.0500	ND	99.2	80-120			
Toluene	0.0505	0.00100	"	0.0500	ND	101	80-120			
Ethylbenzene	0.0481	0.00100	"	0.0500	ND	96.2	80-120			
Xylene (p/m)	0.0899	0.00100	"	0.100	ND	89.9	80-120			
Xylene (o)	0.0488	0.00100	"	0.0500	ND	97.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*42.9*		*ug/l*	*40.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.4*		*"*	*40.0*		*88.5*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ52806 - EPA 5030C (GC)										
Matrix Spike Dup (EJ52806-MSD1)		**Source: 5J27012-03**		Prepared: 10/28/05 Analyzed: 11/01/05						
Benzene	0.0499	0.00100	mg/L	0.0500	ND	99.8	80-120	0.603	20	
Toluene	0.0514	0.00100	"	0.0500	ND	103	80-120	1.96	20	
Ethylbenzene	0.0493	0.00100	"	0.0500	ND	98.6	80-120	2.46	20	
Xylene (p/m)	0.0910	0.00100	"	0.100	ND	91.0	80-120	1.22	20	
Xylene (o)	0.0495	0.00100	"	0.0500	ND	99.0	80-120	1.42	20	
Surrogate: a,a,a-Trifluorotoluene	*42.3*		*ug/l*	*40.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.5*		*"*	*40.0*		*88.8*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ52807 - General Preparation (WetChem)										
Blank (EJ52807-BLK1)				Prepared & Analyzed: 10/28/05						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EJ52807-BS1)				Prepared & Analyzed: 10/28/05						
Chloride	8.37		mg/L	10.0		83.7	80-120			
Sulfate	8.53		"	10.0		85.3	80-120			
Calibration Check (EJ52807-CCV1)				Prepared & Analyzed: 10/28/05						
Sulfate	8.95		mg/L	10.0		89.5	80-120			
Chloride	8.54		"	10.0		85.4	80-120			
Duplicate (EJ52807-DUP1)	**Source: 5J27008-09**			Prepared & Analyzed: 10/28/05						
Chloride	105	5.00	mg/L		108			2.82	20	
Sulfate	49.8	5.00	"		53.3			6.79	20	
Batch EJ52811 - General Preparation (WetChem)										
Blank (EJ52811-BLK1)				Prepared: 10/27/05 Analyzed: 10/28/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EJ52811-DUP1)	**Source: 5J24018-02**			Prepared: 10/27/05 Analyzed: 10/28/05						
Total Dissolved Solids	132	5.00	mg/L		132			0.00	20	
Duplicate (EJ52811-DUP2)	**Source: 5J24018-13**			Prepared: 10/27/05 Analyzed: 10/28/05						
Total Dissolved Solids	140	5.00	mg/L		144			2.82	20	

Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50216 - General Preparation (WetChem)										
Blank (EK50216-BLK1)				Prepared & Analyzed: 10/28/05						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EK50216-DUP1)	**Source: 5J27003-01**			Prepared & Analyzed: 10/28/05						
Total Alkalinity	444	2.00	mg/L		446			0.449	20	
Reference (EK50216-SRM1)				Prepared & Analyzed: 10/28/05						
Bicarbonate Alkalinity	229		mg/L	200		114	80-120			

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Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50107 - 6010B/No Digestion										
Blank (EK50107-BLK1)				Prepared & Analyzed: 10/27/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EK50107-CCV1)				Prepared & Analyzed: 10/27/05						
Calcium	2.08		mg/L	2.00		104	85-115			
Magnesium	2.17		"	2.00		108	85-115			
Potassium	1.87		"	2.00		93.5	85-115			
Sodium	1.84		"	2.00		92.0	85-115			
Duplicate (EK50107-DUP1)	**Source: 5J27003-01**			Prepared & Analyzed: 10/27/05						
Calcium	93.4	0.100	mg/L		92.3			1.18	20	
Magnesium	27.9	0.0100	"		29.0			3.87	20	
Potassium	15.1	0.500	"		15.2			0.660	20	
Sodium	1050	5.00	"		1100			4.65	20	

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Rice Operating Co.	Project: BD Santa Rita Leak	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/07/05 13:44

Notes and Definitions

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

Report Approved By: Raland K Tuttle Date: 11/7/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas I, Ltd.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800 (432)
Fax: 915-563-1713 (432)

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope Kpriceswd@valornet.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: 505) 393-9174
Fax No: (505) 397-1471
Sampler Signature:
rozanne@valornet.com
Rozanne Johnson (505) 631-9310

Project Name: BO Santa Rita Leak
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only) 5527005	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: / TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Gamma	Total Dissolved Solids			RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well # 1	10/24/2005	16:00	3	X		X					X					X	X					X				X				X

Special Instructions: Please email results to: Kpriceswd@valornet.com
mtrantz@riceswd.com

Sample Containers Intact? (Y) N
Temperature Upon Receipt: -0.5 °C
Laboratory Comments: 2-40 mL glass w/HCl Ice w/labels + seal
1-L HDPE

Relinquished by:	Date	Time	Received by:	Date	Time
	10/26/05	17:20	Jamie Johnson	10/26/05	17:21
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
Jamie Johnson	10/27/05	7:50	Jamie Mooney	10-27-05	0750

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

Client: Rice Dp.

Date/Time: 10/27/05 7:50

Order #: 5J27005

Initials: CR

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	-0.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Kristen Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 17, 2006

Work Order: 6072145

Project Location: Lea County, New Mexico
Project Name: BD Santa Rita Leak
Project Number: BD Santa Rita Leak

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
96142	Monitor Well #1	water	2006-07-19	10:45	2006-07-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 96142 - Monitor Well #1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	Sample Preparation:	2006-07-25	Prepared By:	LJ

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**230**	mg/L as CaCo3	1	4.00
Total Alkalinity		**230**	mg/L as CaCo3	1	4.00

Sample: 96142 - Monitor Well #1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	Sample Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0950	mg/L	1	0.100	95	66.2 - 127.7
4-Bromofluorobenzene (4-BFB)	[1]	0.0576	mg/L	1	0.100	58	70.6 - 129.2

Sample: 96142 - Monitor Well #1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	28357	Date Analyzed:	2006-07-26	Analyzed By:	TP
Prep Batch:	24749	Sample Preparation:	2006-07-24	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**863**	mg/L	10	0.500
Dissolved Potassium		**67.3**	mg/L	1	1.00
Dissolved Magnesium		**438**	mg/L	10	1.00
Dissolved Sodium		**2180**	mg/L	100	1.00

[1] BFB surrogate recovery outside normal limits. ICV/CCV and TFT surrogate recovery show the method to be in control.

Sample: 96142 - Monitor Well #1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	29104 [a]	Date Analyzed:	2006-08-16	Analyzed By:	WB
Prep Batch:	25429	Sample Preparation:	2006-08-15	Prepared By:	WB

[a]Matrix not reported %IA Cl is 124 and SO4 123 and RPD is 2 for CL and 2 for SO4.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6180**	mg/L	500	0.500
Sulfate		**412**	mg/L	50	0.500

Sample: 96142 - Monitor Well #1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	29099 [a]	Date Analyzed:	2006-08-16	Analyzed By:	WB
Prep Batch:	25438	Sample Preparation:	2006-08-15	Prepared By:	WB

[a]duplicate not reported RPD is 6.

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids	[2]	**14000**	mg/L	20	10.00

Method Blank (1) QC Batch: 28277

QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	QC Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000255	mg/L	0.001
Toluene		<0.000210	mg/L	0.001
Ethylbenzene		<0.000317	mg/L	0.001
Xylene		<0.000603	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0949	mg/L	1	0.100	95	76.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0633	mg/L	1	0.100	63	58.5 - 118

Method Blank (1) QC Batch: 28340

QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	QC Preparation:	2006-07-25	Prepared By:	LJ

[2]Reran out of hold time. •

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 28357

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP
Prep Batch: 24749 QC Preparation: 2006-07-24 Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		0.132	mg/L	0.5
Dissolved Potassium		1.08	mg/L	1
Dissolved Magnesium		<0.704	mg/L	1
Dissolved Sodium		0.836	mg/L	1

Method Blank (1) QC Batch: 29099

QC Batch: 29099 Date Analyzed: 2006-08-16 Analyzed By: WB
Prep Batch: 25438 QC Preparation: 2006-08-15 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 29104

QC Batch: 29104 Date Analyzed: 2006-08-16 Analyzed By: WB
Prep Batch: 25429 QC Preparation: 2006-08-15 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0181	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Duplicates (1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ
Prep Batch: 24777 QC Preparation: 2006-07-25 Prepared By: LJ

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20

continued ...

duplicate continued ...

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Bicarbonate Alkalinity	110	108	mg/L as CaCo3	1	2	12.6
Total Alkalinity	110	108	mg/L as CaCo3	1	2	11.5

Laboratory Control Spike (LCS-1)

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT
Prep Batch: 24759 | QC Preparation: 2006-07-24 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.109	mg/L	1	0.100	<0.000255	109	82.2 - 119
Toluene	0.108	mg/L	1	0.100	<0.000210	108	81.2 - 119
Ethylbenzene	0.109	mg/L	1	0.100	<0.000317	109	80 - 122
Xylene	0.322	mg/L	1	0.300	<0.000603	107	81.3 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.104	mg/L	1	0.100	<0.000255	109	82.2 - 119	5	20
Toluene	0.103	mg/L	1	0.100	<0.000210	108	81.2 - 119	5	20
Ethylbenzene	0.101	mg/L	1	0.100	<0.000317	109	80 - 122	8	20
Xylene	0.306	mg/L	1	0.300	<0.000603	107	81.3 - 122	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.100	101	101	81.8 - 114
4-Bromofluorobenzene (4-BFB)	0.112	0.111	mg/L	1	0.100	112	111	72.7 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 28357 | Date Analyzed: 2006-07-26 | Analyzed By: TP
Prep Batch: 24749 | QC Preparation: 2006-07-24 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	51.7	mg/L	1	50.0	<0.0950	103	85 - 115
Dissolved Potassium	50.8	mg/L	1	50.0	<0.377	102	85 - 113
Dissolved Magnesium	51.5	mg/L	1	50.0	<0.704	103	85 - 113
Dissolved Sodium	50.5	mg/L	1	50.0	<0.261	101	85 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	51.7	mg/L	1	50.0	<0.0950	103	85 - 115	0	20
Dissolved Potassium	49.3	mg/L	1	50.0	<0.377	102	85 - 113	3	20
Dissolved Magnesium	49.8	mg/L	1	50.0	<0.704	103	85 - 113	3	20

continued ...

control spikes continued . . .

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	48.6	mg/L	1	50.0	<0.261	101	85 - 111	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 29104 | Date Analyzed: 2006-08-16 | Analyzed By: WB
Prep Batch: 25429 | QC Preparation: 2006-08-15 | Prepared By: WB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11.9	mg/L	1	12.5	<0.0181	95	90 - 110
Sulfate	11.3	mg/L	1	12.5	<0.0485	90	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11.6	mg/L	1	12.5	<0.0181	95	90 - 110	3	20
Sulfate	11.3	mg/L	1	12.5	<0.0485	90	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96149

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT
Prep Batch: 24759 | QC Preparation: 2006-07-24 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.107	mg/L	1	0.100	<0.000255	107	70.9 - 126
Toluene	0.105	mg/L	1	0.100	<0.000210	105	70.8 - 125
Ethylbenzene	0.106	mg/L	1	0.100	<0.000317	106	74.8 - 125
Xylene	0.311	mg/L	1	0.300	<0.000603	104	75.7 - 126

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[3]	NA	mg/L	1	0.100	<0.000255	0	70.9 - 126	200	20
Toluene	[4]	NA	mg/L	1	0.100	<0.000210	0	70.8 - 125	200	20
Ethylbenzene	[5]	NA	mg/L	1	0.100	<0.000317	0	74.8 - 125	200	20
Xylene	[6]	NA	mg/L	1	0.300	<0.000603	0	75.7 - 126	200	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued . . .

[3]RPD is out of range because a matrix spike duplicate was not prepared.
[4]RPD is out of range because a matrix spike duplicate was not prepared.
[5]RPD is out of range because a matrix spike duplicate was not prepared.
[6]RPD is out of range because a matrix spike duplicate was not prepared.

matrix spikes continued ...

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[7]	0.101	NA	mg/L	1	0.1	101	0	73.6 - 121
4-Bromofluorobenzene (4-BFB)	[8]	0.110	NA	mg/L	1	0.1	110	0	81.8 - 114

Matrix Spike (MS-1) Spiked Sample: 96142

QC Batch: 28357 | Date Analyzed: 2006-07-26 | Analyzed By: TP
Prep Batch: 24749 | QC Preparation: 2006-07-24 | Prepared By: TS

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	[9]	884	mg/L	1	50.0	863	42	68.4 - 138
Dissolved Potassium		110	mg/L	1	50.0	67.3	85	82 - 129
Dissolved Magnesium		496	mg/L	1	50.0	438	116	61.2 - 135
Dissolved Sodium	[10]	2200	mg/L	1	50.0	2180	40	81.8 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	[11]	884	mg/L	1	50.0	863	42	68.4 - 138	0	20
Dissolved Potassium		111	mg/L	1	50.0	67.3	87	82 - 129	1	20
Dissolved Magnesium		491	mg/L	1	50.0	438	106	61.2 - 135	1	20
Dissolved Sodium	[12]	2200	mg/L	1	50.0	2180	40	81.8 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.314	105	85 - 115	2006-07-24

Standard (CCV-1)

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT

[7] RPD is out of range because a matrix spike duplicate was not prepared.
[8] RPD is out of range because a matrix spike duplicate was not prepared.
[9] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[10] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[11] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[12] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.105	105	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.106	106	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.311	104	85 - 115	2006-07-24

Standard (ICV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.7	101	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	52.0	104	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	49.6	99	90 - 110	2006-07-26
Dissolved Sodium		mg/L	50.0	50.9	102	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	48.7	97	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	47.4	95	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	47.2	94	90 - 110	2006-07-26
Dissolved Sodium		mg/L	50.0	47.3	95	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 29099 Date Analyzed: 2006-08-16 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1007	101	90 - 110	2006-08-16

Standard (CCV-1)

QC Batch: 29099 Date Analyzed: 2006-08-16 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1031	103	90 - 110	2006-08-16

Standard (ICV-1)

QC Batch: 29104 Date Analyzed: 2006-08-16 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.5	100	90 - 110	2006-08-16
Sulfate		mg/L	12.5	12.2	98	90 - 110	2006-08-16

Standard (CCV-1)

QC Batch: 29104 Date Analyzed: 2006-08-16 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.6	93	90 - 110	2006-08-16
Sulfate		mg/L	12.5	11.3	90	90 - 110	2006-08-16

6701 Aberdeen Ave, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

155 McCutcheon Way, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6072145

Company Name: RICE Operating Company	Phone #: (505)393-9174
Address: (Street, City, Zip) 122 W Taylor Street - Hobbs, New Mexico 88240	Fax #: (505) 397-1471
Contact Person: Kristin Farris - Pope, Project Scientist	kpope@riceswd.com
Invoice to: (If different from above)	
Project #: None Given	Project Name: BD Santa Rita Leak
Project Location: Lea County - New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	$NaHSO_4$	H_2SO_4	ICE	NONE	SAMPLING: DATE 2006	TIME
96142	Monitor Well #1	2	40 ml	X				X				X		7-19	10:45
	Monitor Well #1	1	1L	X								X		7-19	10:45

	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, SSSSO4, CO3, HCO3)	Total Dissolved Solids		Turn Around Time if different from standard	Hold
96142		X																			
																	X	X	X		

Relinquished by: Rozanne Johnson	Date: 7-20-06	Time: 8:00
Relinquished by:	Date:	Time:
Relinquished by:	Date:	Time:
Received by:	Date:	Time:
Received by:	Date:	Time:
Received at Laboratory by: Maya Mitchell	Date: 7-21-06	Time: 1105

LAB USE ONLY
Intact (Y) N
Headspace Y (N)
Temp 4.0 °
Log-in Review MM

REMARKS:
☐ check if special reporting limits needed

Carrier # BUS 0.1169017715-9

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

Cation-Anion Balance Sheet

DATE: 8/16/2006

Sample #	Calcium ppm	Magnesium ppm	Sodium ppm	Potassium ppm	Alkalinity ppm	Sulfate ppm	Chloride ppm	Nitrate ppm	Fluoride ppm	TDS ppm	EC µMHOs/cm
96142	863	438	2180	67.3	230	412	6180			14000	

Sample #	Calcium in meq/L	Magnesium in meq/L	Sodium in meq/L	Potassium in meq/L	Alkalinity in meq/L	Sulfate in meq/L	Chloride in meq/L	Nitrate in meq/L	Fluoride in meq/L	**Total Cations in meq/L**	**Total Anions in meq/L**	**Percentage Error**
96142	43.06	36.04	94.83	1.72	4.60	8.58	174.34	0.00	0.00	175.68	187.52	6.5

	EC/Cation	EC/Anion
96142		

range 0 to 0

TDS/EC	TDS/Cat	TDS/Anion	
	0.80	0.75	needs to be 0.55-0.77

APPENDIX D

QUALITY PROCEDURES

Rice Operating Company

QUALITY PROCEDURE

Sampling and Testing Protocol Chloride Titration Using .282 Normal Silver Nitrate Solution

1.0 Purpose

This procedure is to be used to determine the concentration of chloride in soil.

2.0 Scope

This procedure is to be used as the standard field measurement for soil chloride concentrations.

3.0 Sample Collection and Preparation

3.1 Collect at least 80 grams of soil from the sample collection point. Take care to insure that the sample is representative of the general background to include visible concentrations of hydrocarbons and soil types. If necessary, prepare a composite sample for soils obtained at several points in the sample area. Take care to insure that no loose vegetation, rocks or liquids are included in the sample(s).

3.2 The soil sample(s) shall be immediately inserted into a one-quart or larger polyethylene freezer bag. Care should be taken to insure that no cross-contamination occurs between the soil sample and the collection tools or sample processing equipment.

3.3 The sealed sample bag should be massaged to break up any clods.

4.0 Sample Preparation

4.1 Tare a clean glass vial having a minimum 40 ml capacity. Add at least 10 grams of the soil sample and record the weight.

4.2 Add at least 10 grams of reverse osmosis water to the soil sample and shake for 20 seconds.

4.3 Allow the sample to set for a period of 5 minutes or until the separation of soil and water.

4.4 Carefully pour the free liquid extract from the sample through a paper filter into a clean plastic cup if necessary.

5.0 Titration Procedure

5.1 Using a graduated pipette, remove 10 ml extract and dispense into a clean plastic cup.

5.2 Add 2-3 drops potassium chromate (K_2CrO_4) to mixture.

5.3 If the sample contains any sulfides (hydrogen or iron sulfides are common to oilfield soil samples) add 2-3 drops of hydrogen peroxide (H_2O_2) to mixture.

5.4 Using a 1 ml pipette, carefully add .282 normal silver nitrate (one drop at a time) to the sample while constantly agitating it. Stop adding silver nitrate when the solution begins to change from yellow to red. Be consistent with endpoint recognition.

5.5 Record the ml of silver nitrate used.

6.0 Calculation

To obtain the chloride concentration, insert measured data into the following formula:

$$\frac{.282 \times 35.450 \times \text{ml } AgNO_3}{\text{ml water extract}} \times \frac{\text{grams of water in mixture}}{\text{grams of soil in mixture}}$$

Using Step 5.0, determine the chloride concentration of the RO water used to mix with the soil sample. Record this concentration and subtract it from the formula results to find the net chloride in the soil sample.

Record all results on the delineation form.

Rice Operating Company

Quality Procedure
Development of Cased Water-Monitoring Wells

1.0 Purpose

This procedure outlines the methods to be employed to develop cased monitoring wells.

2.0 Scope

This procedure shall be used for developed, cased water monitoring wells. It is not to be used for standing water samples such as ponds or streams.

3.0 Sample Collection and Preparation

3.1 Prior to development, the static water level and height of the water column within the well casing will be measured with the use of an electric D.C. probe or a steel engineer's tape and water sensitive paste.

3.2 All measurements will be recorded within a field log notebook.

3.3 All equipment used to measure the static water level will be decontaminated after each use by means of Liquinox, a phosphate free laboratory detergent, and water to reduce the possibility of cross-contamination. The volume of water in each well casing will be calculated.

4.0 Purging

4.1 Wells will be purged by using a 2" decontaminated submersible pump or dedicated one liter Teflon bailer. Wells should be purged until the pH and conductivity are stabilized and the turbidity has been reduced to the greatest extent possible.

4.2 If a submersible is used the pump will be decontaminated prior to use by scrubbing the outside surface of tubing and wiring with a Liquinox water mixture, pumping a Liquinox-water mixture through the pump, and a final flush with fresh water.

5.0 Water Disposal

5.1 All purge and decontamination water will be temporarily stored within a portable tank to be later disposed of in an appropriate manner.

6.0 Records

6.1 Rice Operating Company will record the amount of water removed from the well during development procedures. The purge volume will be reported to the appropriate regulatory authority when filing the closure report.

Rice Operating Company

Quality Procedure

Procedure for Obtaining Water Samples (Cased Wells) Using One Liter Bailer

1.0 Purpose

This procedure outlines the methods to be employed in obtaining water samples from cased monitoring wells.

2.0 Scope

This procedure shall be used for developed, cased water monitoring wells. It is not to be used for standing water samples such as ponds or streams.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the water. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 The following table shall be used to select the appropriate sampling container, preservative method and holding times for the various elements and compounds to be analyzed.

Compound to be Analyzed	Sample Container Size	Sample Container Description	Cap Requirements	Preservative	Maximum Hold Time
BTEX	40 ml	VOA Container	Teflon Lined	HCl	7 days
TPH	1 liter	clear glass	Teflon Lined	HCl	28 days
PAH	1 liter	amber glass	Teflon Lined	Ice	7 days
Cation/Anion	1 liter	clear glass	Teflon Lined	None	48 Hrs
Metals	1 liter	HD polyethylene	Any Plastic	Ice/HNO_3	28 Days
TDS	300 ml	clear glass	Any Plastic	Ice	7 Days

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the well identification and the individual tests to be performed at that location. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label). Affix the labels to the jars.

5.0 Bailing Procedure

5.1 Identify the well from the sites schematics. Place pre-labeled jar(s) next to the well. Remove the plastic cap from the well bore by first lifting the metal lever and then unscrewing the entire assembly.

5.2 Using a dedicated one liter Teflon bailer, purge a minimum of three well volumes. Place the water in storage container for transport to a ROC disposal facility.

5.3 Take care to insure that the bailing device and string do not become cross-contaminated. A clean pair of rubber gloves should be used when handling either the retrieval string or bailer. The retrieval string should not be allowed to come into contact with the ground.

6.0 Sampling Procedure

6.1 Once the well has been bailed in accordance with 5.2 of this procedure, a sample may be decanted into the appropriate sample collection jar directly from the bailer. The collection jar should be filled to the brim. Once the jar is sealed, turn the jar over to detect any bubbles that may be present. Add additional water to remove all bubbles from the sample container.

6.2 Note the time of collection on the sample jar with a fine Sharpie.

6.3 Place the sample directly on ice for transport to the laboratory. The preceding table shows the maximum hold times between collection and testing for the various analyses.

6.4 Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

7.0 Documentation

7.1 The testing laboratory shall provide the following minimum information:

A. Project and sample name.
B. Signed copy of the original Chain of Custody Form including the time the sample was received by the lab.
C. Results of the requested analyses
D. Test Methods employed
E. Quality Control methods and results

Calculation for Determining the Minimum Bailing Volume for Monitor Wells
Formula V= ($\pi r^2 h$)
2" well [V/231=gal] X 3 = Purge Volume

V=Volume
π=pi
r=inside radius of the well bore
h=maximum height of well bore in water table

Example:

π	r^2	h(in)	V(cu.in)	V(gal)	X 3 Volumes	Actual
3.1416	1	180	565.488	2.448	7.34 gal	>10 gal

APPENDIX E

C-141 FORM

District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505
OPERATOR'S MONTHLY REPORT

Form C-141
Originated 2/13/97

Submit 2 copies to Appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name	Contact
Rice Operating Company	Joe Gatts
Address 122 West Taylor Hobbs, NM 88240	**Telephone No.** 505-393-9174
Facility Name B-D	**Facility Type** SWD Disposal Line

Surface Owner	Mineral Owner	Lease No.
Irvin Boyd		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South line	Feet from the	East/West Line	County
A	27	22s	37E					LEA

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Produced Water	55 bbls	40 bbls
Source of Release	**Date and Hour of Occurrence**	**Date and Hour of Discovery**
Pipeline	Unknown	11/22/03 11:22 am.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Buddy Hill and Donna ext. 115 voicemail	
By Whom? John Rampone	**Date and Hour** 11/22/03 2:00 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.**	

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
2" PVC compression coupling came apart. Replaced coupling and 10 ft. joint of PVC.

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary).
The release consisted of 55 bbls, which affected 11,211 square feet. 40 bbls were recovered. ROC will remediate according to the Generic spill and leak plan or submit RBCA plan to NMOCD for approval.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and /or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and /or regulations.

Signature: Joe Gatts	OIL CONSERVATION DIVISION	
Printed Name: Joe Gatts	Approved by District Supervisor:	
Title: Environmental Technician	Approval Date:	Expiration Date:
Date: 12/1/03 Phone: 505-393-9174	Conditions of Approval:	Attached ☐

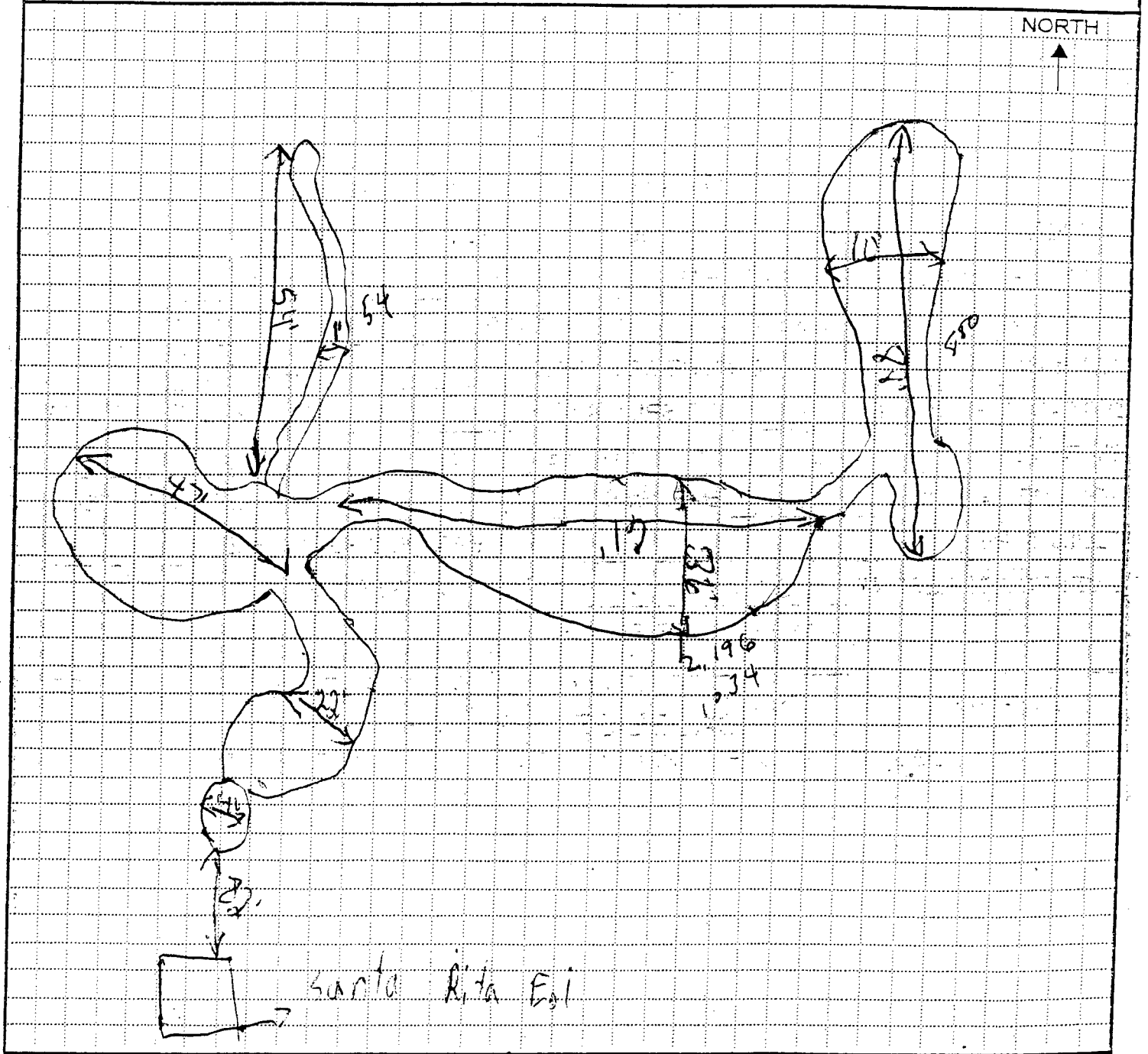
RICE INITIAL SPILL REPORT

IS THIS THE FIRST SPILL AT THIS LOCATION? yes

DESCRIBE AREA AFFECTED AND ON-SITE ACTION TAKEN

PASTURE ✓ ROADWAY _____ OTHER _____

DRAW SKETCH OF AFFECTED AREA



REPORT PREPARED BY Luis Tedeiro DATE 11-22-03

FIELD TESTS FOR INITIAL DELINEATION

TEST POINT NO. *Background*				
DEPTH	TPH	Cl	Soil	H_2O

TEST POINT NO. *Origin of Leak*				
DEPTH	TPH	Cl	Soil	H_2O
5'bgs		2343		
6'bgs		2761		
8'				

TEST POINT NO. 1				
DEPTH	TPH	Cl	Soil	H_2O
Surface		4570		
1'bgs		3495		
2'bgs		7157		

TEST POINT NO. 2				
DEPTH	TPH	Cl	Soil	H_2O
Surface		2746		
1'bgs		1834		
2'bgs		1128		

TEST POINT NO. 3				
DEPTH	TPH	Cl	Soil	H_2O
Surface		3136		
1'bgs		2657		
2'bgs		1778		

TEST POINT NO.				
DEPTH	TPH	Cl	Soil	H_2O

Vertical delineation with Hoe

TEST POINT NO. Westerly Source				
DEPTH	TPH	Cl	Soil	H_2O
6'bgs		3130		
7'bgs		2793		
10'bgs		2684		
12'bgs		2764		

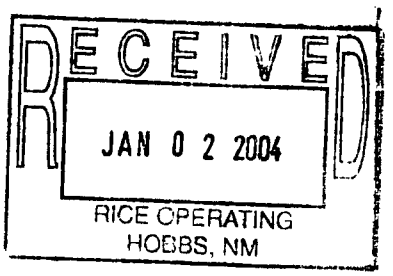
TEST POINT NO. 5' East of Source				
DEPTH	TPH	Cl	Soil	H_2O
5'bgs		7284		
6'bgs		2561		
8'bgs		2902		
10'bgs		2908		
12'bgs		2816		

TEST POINT NO.				
DEPTH	TPH	Cl	Soil	H_2O

Shirley Boyd arrived at 8:30, and we split samples
every two feet of bore hole.

ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240



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

Receiving Date: 12/23/03
Reporting Date: 12/23/03
Project Number: NOT GIVEN
Project Name: SANTA RITA EOL LEAK SITE
Project Location: BD

Analysis Date: 12/23/03
Sampling Date: 12/19/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/Kg)
H8288-1	12' BGS @ SOURCE	2495
H8288-2	12' BGS @ 5' E OF SOURCE	2623
Quality Control		940
True Value QC		1000
% Recovery		94.0
Relative Percent Difference		7.4

METHOD: Standard Methods	4500-Cl^-B

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

Harvey Hill
Chemist

12/23/03
Date

h8288

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page____ of ____

Company Name:	RICE Operating
Project Manager:	Joe Gatts
Address:	122 W. Taylor
City:	Hobbs
State:	NM
Zip:	88240
Phone #:	(505) 393-9174
Fax #:	(505) 397-1471
Project #:	
Project Owner:	
Project Name:	SANTA RITA Eol leak site
Project Location:	ED
Sampler Name:	

BILL TO

P.O. #:	
Company:	
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	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chloride
H8288-1	12' bgs at Source	G	1			X					X		12/19/03	1000	X
-2	12' bgs at 5' East of Source	G	1			X					X		12/19/03	1030	X

ASE 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 yses. 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 ce. 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, dies 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.

mpler Relinquished:	Date: 122303	Received By:	
Joe Gatts	Time: 1.10		
linquished By:	Date: 12-23-03	Received By: (Lab Staff)	
	Time: 1:19	Hope S. Monroe	

elivered By: (Circle One)

mpler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	

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

Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.