1R-428-55

REPORTS

DATE:

4-13-11

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

April 13, 2011

Mr. Edward J. Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Via E-mail

RE: Termination Request
Hobbs Jct. F-31-1, NMOCD Case #1R428-55
Township 18S, Range 38E, Section 31, Unit F

Mr. Hansen,

R.T. Hicks Consultants, Ltd. is submitting this Termination Request on behalf of Rice Operating Company (ROC) for the above-referenced site. The investigation demonstrated that neither chloride nor hydrocarbons are present in the vadose zone in quantities that represent a threat to fresh water or the environment and recommended re-vegetation. Surface restoration activities and re-vegetation efforts have been completed at the site.

Background
The Hobbs Jct. F-31-1 site is located west of the city of Hobbs at Township 18S, Range 38E, Section 31, Unit F. In 2002 a 5-foot deep excavation at this site identified hydrocarbon-impacted soil. The Investigation & Characterization Plan (ICP) was dated January 20, 2010 and approved by the NMOCD on January 21, 2010. The ICP includes background information and a site vicinity map for this and three other nearby ROC sites and is attached as a supporting document in the Corrective Action Plan.

As part of the approved ICP, ROC planned to install and sample at least five 12-foot deep backhoe trenches. When near surface rock proved too hard to penetrate with a backhoe, a deep soil sampling program to delineate the extent and magnitude of media impact was implemented in April 2010. Our November 18, 2010 Corrective Action Plan (CAP) described the results of that field program and presented recommended actions. The CAP was approved by the NMOCD on December 16, 2010. The CAP and NMOCD approval are included in Attachment A.

The CAP recommended corrective action for the site was re-vegetation to create a natural "infiltration barrier".

Re-vegetation
Re-vegetation efforts were conducted at the site between December 28, 2010 and February 17, 2011 and included:

- Scraping an area 34' x 28' by 2' at the site,
- Hauling 96 yards of soil to an NMOCD approved landfill
- Importing 108 yards of soil, hay and sand

- Contouring the site to the surrounding area,
- Installing silt net fencing around the scraped area,
- Adding soil amendments and seeding the area with native grasses

Attachment B includes notes and photos documenting the surface restoration and re-vegetation efforts at the site.

Recommendations
Previous investigations demonstrate that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate ground water or suface water in excess of the standards in Subsections B and C of 19.15.30.9 NMAC through leaching, percolation or other transport mechanisms, or as the water table fluctuates. Re-vegetation of the site meets the mandate of NMOCD Rules for protection of surface water and the environment. ROC's documented actions will foster re-vegetation at the site. Re-vegetation of the ground surface will limit infiltration of precipitation and the subsequent migration of constituents of concern to ground water. We recommend termination of the regulatory file.

ROC is the service provider (agent) for the Hobbs Saltwater Disposal System and has no ownership of any portion of pipeline, well, or facility. A consortium of oil producers that own the Hobbs System (System Parties) provides all operating capital on a percentage ownership/usage basis. The Hobbs SWD system is in abandonment.

Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T. Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Hack Conder, Rice Operating Company

Attachment A

Corrective Action Plan

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Katie Lee

From: Katie Jones [kjones@riceswd.com]
Sent: Monday, February 14, 2011 1:32 PM
To: Katie Lee
Subject: FW: Corrective Action Plan (1R428-55) Approval

From: Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]
Sent: Thursday, December 16, 2010 2:51 PM
To: Hack Conder
Cc: Leking, Geoffrey R, EMNRD; Katie Jones; Dale Littlejohn
Subject: Corrective Action Plan (1R428-55) Approval

RE: "Corrective Action Plan"
for the Rice Operating Company's
Hobbs SWD Jct F-31-1 Site
Unit Letter F, Section 31, T18S, R38E, NMPM, Lea County, New Mexico
Corrective Action Plan (1R428-55) Approval

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received the Corrective Action Plan for the Hobbs SWD Jct F-31-1 Site, dated November 18, 2010, and has conducted a review of the Plan. The Plan indicates that Rice Operating Company (ROC) has met the requirements of 19.15.29 NMAC (Part 29; formerly, Rule 116) for a remediation plan. Therefore, the OCD hereby conditionally approves the Corrective Action Plan as proposed for above-referenced site in accordance with 19.15.29 NMAC:

ROC must submit to the OCD a final report of the corrective actions within 120 days.

Please be advised that OCD approval of this Plan does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

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

Edward J. Hansen
Hydrologist
Environmental Bureau

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266.0745

November 18, 2010

Mr. Edward J. Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: **Rice Operating Company, Hobbs SWD System Junction F-31-1 Site:**
T-18-S, R-38-E, Section 31, Unit F, Lea County, New Mexico
NMOCD CASE # 1R428-55
Corrective Action Plan

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is submitting this Corrective Active Plan for the Hobbs Junction F-31-1 site. The investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate ground water or surface water in excess of the standards in Subsections B and C of 19.15.30.9 NMAC through leaching, percolation or other transport mechanisms, or as the water table elevation fluctuates. Revegetation of the site, our recommended corrective action, meets the mandate of NMOCD Rules for protection of surface water and the environment.

Background

Hobbs Junction F-31-1 is located west of the city of Hobbs, New Mexico at T-18-S, R-38-E, Section 31, in Unit F. An initial 5-foot deep excavation was installed on November 13, 2002, which identified hydrocarbon-impacted soil. The NMOCD-approved Investigation Characterization Plan (ICP), dated January 20, 2010 (Attachment A) was prepared to address the further delineation of the site. It includes background information, a site vicinity map, and a regional ground water gradient map.

Field Programs

As a part of the approved ICP, ROC planned to install and sample at least five 12-foot deep backhoe trenches. However, attempts to excavate a trench at an adjacent site verified that the near surface rock was too hard to penetrate with a backhoe.

Hicks Consultants supervised a deep soil sampling program to delineate the extent and magnitude of media impact. On April 22, 2010, a single 55-foot deep soil boring (SB-1) was drilled 2 feet west of the original junction box location. ROC conducted field analysis of soil samples for chloride and volatile hydrocarbon vapors for the trench and boring program. Plate 1 is a summary map that includes results of the field chloride analyses and hydrocarbon

screening data as well as a laboratory results for the soil samples used to verify the ROC field data. Attachment B provides the soil lithology log for SB-1, which includes the field chloride and hydrocarbon screening data and laboratory results. Attachment C provides the laboratory reports and chain of custody documents for all of the soil verification samples.

Results: Chlorides and Hydrocarbons

The initial source area excavation, conducted in 2002, encountered no chloride concentrations above 171 mg/kg as well as visible indications of hydrocarbon-impacted soil with "slight" odors. The area around the excavation was fenced.

SB-1 was installed in April 2010 to delineate the chloride- and/or hydrocarbon-impacted soil. The maximum chloride concentration encountered in SB-1, by field methods, was 151 mg/kg at 5 feet below ground surface. Observed chloride concentrations remained below this value to the total depth of 55 feet below ground surface. Field screening of hydrocarbon vapors were measured from drill cutting samples because the soil was too hard to recover material with a split spoon sampler. The highest vapor reading was encountered at 10 feet below the surface (315 ppm) and the readings generally decrease with depth. A summary of the laboratory results from SB-1 relative to the regulatory screening guidelines is presented on Table 1 below.

Table 1
Rice Operating Hobbs Jct. F-31-1 Site
Laboratory Data - Soil Samples

Sample Location	Depth (feet)	Sample Date	PID (ppm)	Chloride (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
SB-1	10	4/22/10	315	<16	<0.05	0.796	1.10	1.92	<3.87	163	2,050
	55	4/22/10	5.8	<16	--	--	--	--	--	<10	46.0
NMOCD Guideline Remediation Levels				**250**	**10**	--	--	--	**50**	**No regulatory standards have been established**	
2006 NMED Soil Screening Guidelines	**Com./Indus. Vapor Exposure Risk**				**25.8**	**252**	**128**	**82**	--		
	Soil to GW (DAF_{20})				0.0201	21.7	20.2	2.06	--		
Site Specific GW Protective Levels (DAF_{954})					**0.959**	**1035**	**964**	**98.3**	--		

Conclusions

The site data documents a small residual mass of chloride and hydrocarbons in the vadose zone and permits a conclusion that these constituents in the vadose zone will not with reasonable probability contaminate ground water or surface water in excess of the standards in Subsection B and C of the 19.15.30.9 NMAC through leaching, percolation or other transport mechanisms, or as the water table elevation fluctuates. Based on regional data and conservative assumptions, the estimated depth to water at this site is 60-63 feet below ground surface. The laboratory analysis for chloride at the deepest point of the soil boring, 55 feet below ground surface, was below detection limits. Observed hydrocarbons decline with depth. Field measurements showed a PID reading below 10 at 55 feet bgs.

Recommendations

Our recommended corrective action for the site is re-vegetation to create a natural "infiltration barrier". Establishing vegetation at the site may include:

- Removal of rocks and asphaltene
- Preparation of the surface for top soil
- Importing top soil and adding amendments
- Seeding as needed

Re-vegetation of the ground surface will limit infiltration of precipitation and the subsequent migration of constituents of concern to ground water. Plants capture water through their roots, thereby reducing the volume of water infiltrating below the root zone. This natural "infiltration barrier" helps protect ground water as the decreased flux of water through the subsurface slows the transportation rate of residual chloride and soluble hydrocarbons in the subsurface. Upon documentation of re-seeding with an appropriate mix of native grasses we will submit a Termination Request for this site's regulatory file.

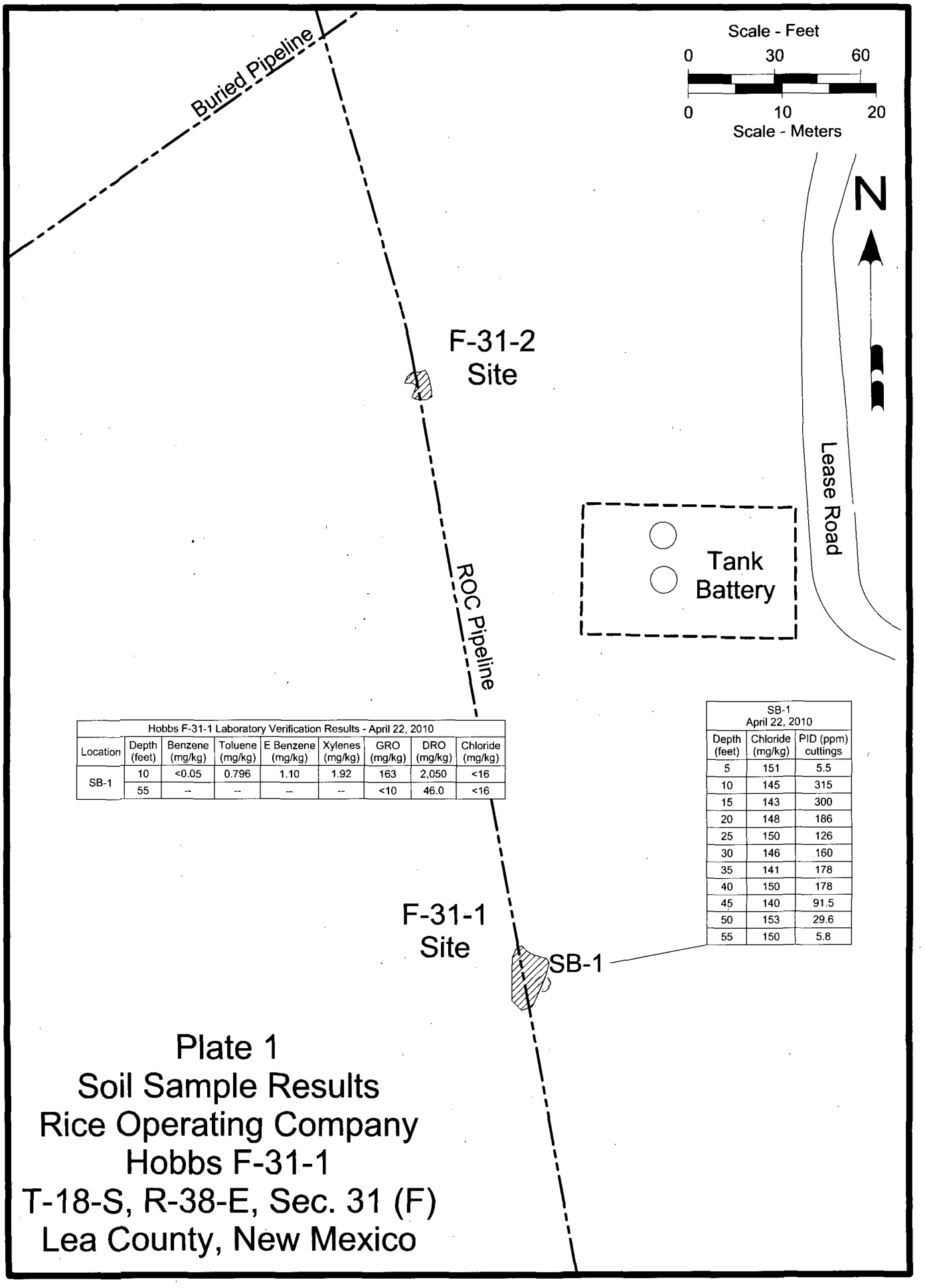
ROC is the service provider (agent) for the Hobbs Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. The Hobbs SWD System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Dale T Littlejohn
Geologist

Copy: Hack Conder, ROC



Hobbs F-31-1 Laboratory Verification Results - April 22, 2010								
Location	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	E Benzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Chloride (mg/kg)
SB-1	10	<0.05	0.796	1.10	1.92	163	2,050	<16
	55	--	--	--	--	<10	46.0	<16

SB-1 April 22, 2010		
Depth (feet)	Chloride (mg/kg)	PID (ppm) cuttings
5	151	5.5
10	145	315
15	143	300
20	148	186
25	150	126
30	146	160
35	141	178
40	150	178
45	140	91.5
50	153	29.6
55	150	5.8

Plate 1
Soil Sample Results
Rice Operating Company
Hobbs F-31-1
T-18-S, R-38-E, Sec. 31 (F)
Lea County, New Mexico

Attachment A

Previous Submissions

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266.0745

January 20, 2010

Mr. Edward J. Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: **Investigation & Characterization Plan**
Hobbs Jct. F-31-1, NMOCD Case # 1R428-55
Township 18S, Range 38E, Section 31, Unit F

Dear Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is pleased to submit this Investigation & Characterization Plan (ICP) for the Hobbs Jct. F-31-1 site. Plate 1 is a map showing the site relative to major roads in the area. Plate 2 shows the site, nearby USGS monitoring wells, and a regional potentiometric surface map.

The work elements proposed below will allow us to characterize this site and develop an appropriate corrective action plan.

1. ROC will identify and document the location of all current and historic equipment and pipelines associated with the site.
2. ROC will use a backhoe with a 12-foot vertical reach to install a series of sampling trenches in order to recover soil samples and delineate the lateral extent (and potentially the vertical extent) of impacted soil.
3. If characterization by the backhoe is insufficient to define the extent and magnitude of past releases, ROC and Hicks Consultants will use a drilling rig to drill one soil boring at the center of the source area to delineate the vertical extent of chloride in the soil.
4. Soil samples obtained by the backhoe or drilling rig will be obtained from regular intervals below ground surface.
5. Representative soil samples will be sent to a laboratory to allow for verification of the field chloride and PID results.
6. General soil texture descriptions will be provided for each sample trench or boring.
7. The criteria to delineate the extent of impact during trenching as well as in a soil boring is 5 point chloride decline vs. depth, or:
    a. After three consecutive samples demonstrate <250 ppm chloride using field analyses and <100ppm total hydrocarbon vapors using the headspace method, or
    b. After five consecutive samples show a decreasing trend of chloride and hydrocarbons and the last sample shows chloride < 250 ppm and total hydrocarbon vapors <100ppm.
    c. Soil boring to capillary fringe should neither (a) or (b) apply.
8. If the boring penetrates the capillary fringe, a monitoring well will be considered for completion with a 2 or 4" diameter casing down gradient from confirmed impact for use during possible corrective actions. Plate 2 presents a potentiometric surface map for the site area.

9. If field analysis of hydrocarbon vapors and observations of staining show that hydrocarbon impact is unlikely at the site or below 20-feet, collection of samples from cuttings may be substituted for split spoon sampling (chloride only).

The ROC trench characterization will be employed to identify the lateral extent of chloride at the site, if possible. If trenching does not fully characterize the lateral extent of chloride at the site, boreholes will be advanced 20 feet beyond the furthest trenches where the soil data has an average chloride concentration greater than 1,000 mg/kg. The total depth of borings drilled to characterize lateral extent shall be 20 feet below ground surface with soil samples for delineation taken at 5 foot intervals.

Rice Operating Company (ROC) is the service provider (agent) for the Hobbs Saltwater Disposal System and has no ownership of any portion of pipeline, well, or facility. A consortium of oil producers who own the Hobbs System (System Parties) provide all operating capital on a percentage ownership/usage basis. Major projects require System Parties' authorization for expenditures (AFE) approval and work begins as funds are received. We will implement the work outlined herein after NMOCD approval and subsequent authorization from the System Parties. The Hobbs SWD system is in abandonment.

For all environmental projects, ROC will choose a path forward that:

1. Protects public health,
2. Provides the greatest net environmental benefit,
3. Complies with NMOCD Rules,
4. Is supported by good science.

Following the site characterization described above, a Corrective Action Plan with the data and analysis supportive of a procedure for site file termination, or a termination request will be submitted, depending on characterization findings.

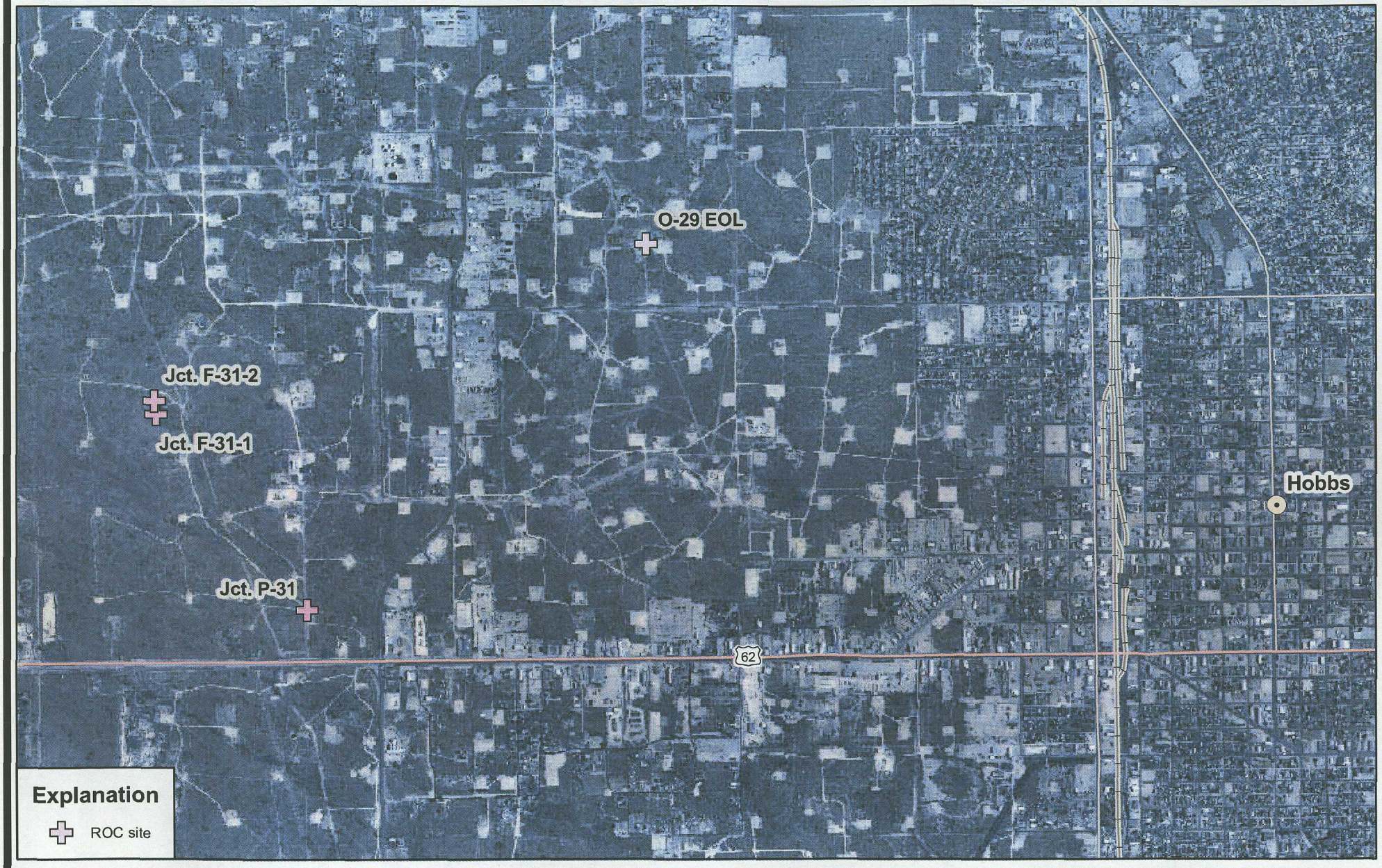
Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Hack Conder, ROC



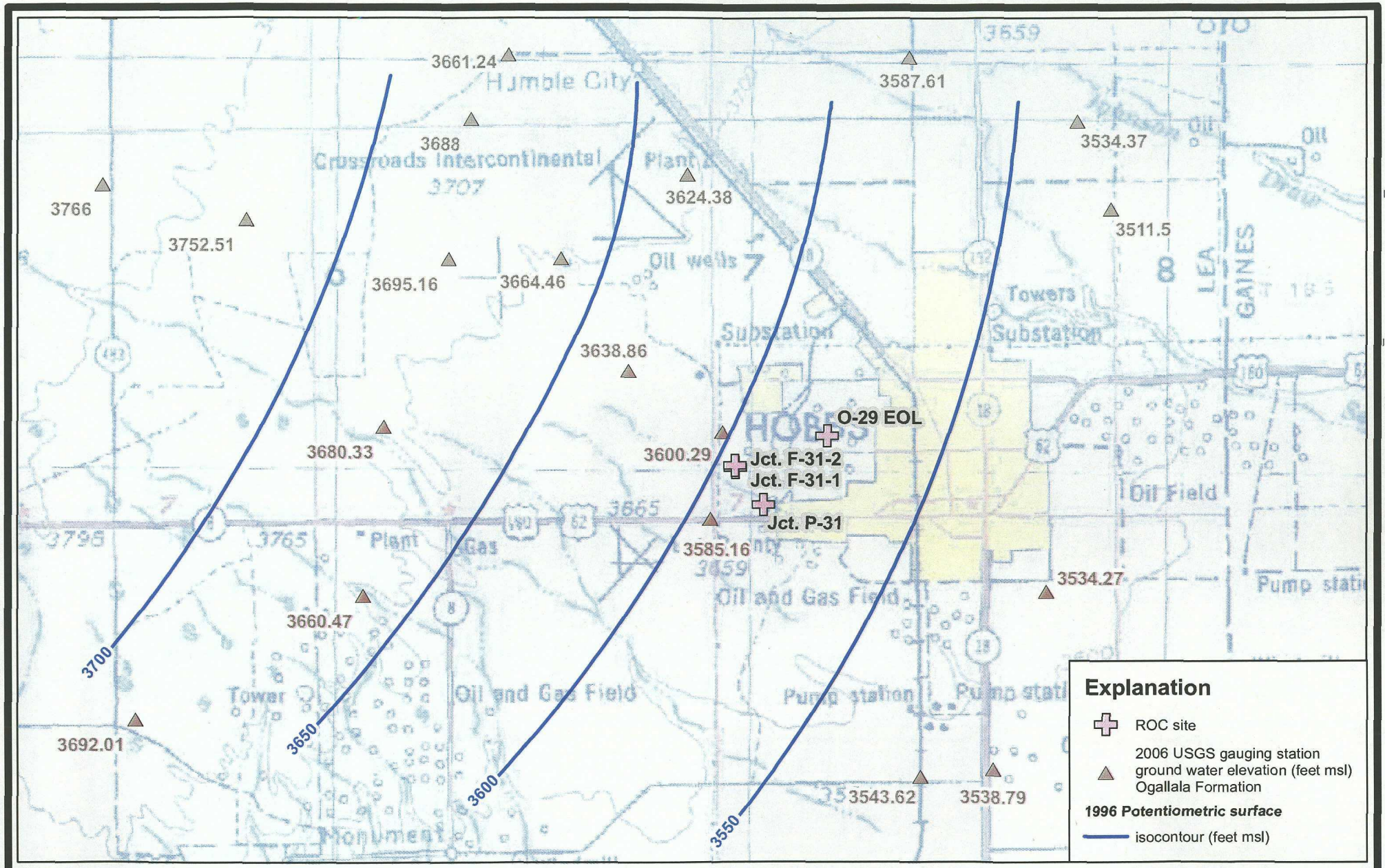
N
W E
S

0 1,000 2,000
Feet

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Site Map - 2005 Aerial Photo (RGIS) O-29 EOL, Jct. F-31-1, Jct. F-31-2, and Jct. P-31	Plate 1
	Rice Operating Company 2010 Hobbs Investigation and Characterization Plan	January 2010

S:/PROJECTS/ROC/NOV2009_ICPS/PLATES/AERIAL_2005.MXD

11/19/2009



N
W E
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0 1 2 Miles

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

2006 Potentiometric Surface Map
O-29 EOL, Jct. F-31-1, Jct. F-31-2, and Jct. P-31

Plate 2

Rice Operating Company
2010 Hobbs Investigation and Characterization Plan

January 2010

11/19/2009

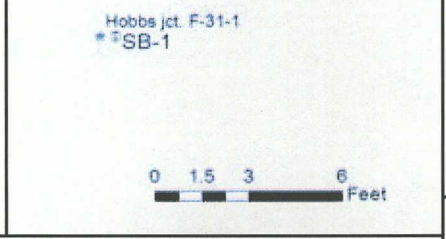
S:/PROJECTS/ROC/NOV2009_ICPS/PLATES/GWELEV_USGS.MXD

Attachment B

Soil Lithology

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Logger:	Dale Littlejohn
Driller:	Harrison & Cooper, Inc. Drilling
Consultant:	R.T. Hicks
Drilling Method:	Air rotary
Start Date:	4/22/2010
End Date:	4/22/2010



Comments: All samples from cuttings. Located at the source of the former junction box site.

Drafted by: Lara Weinheimer

TD = 55 ft GW = 63 ft

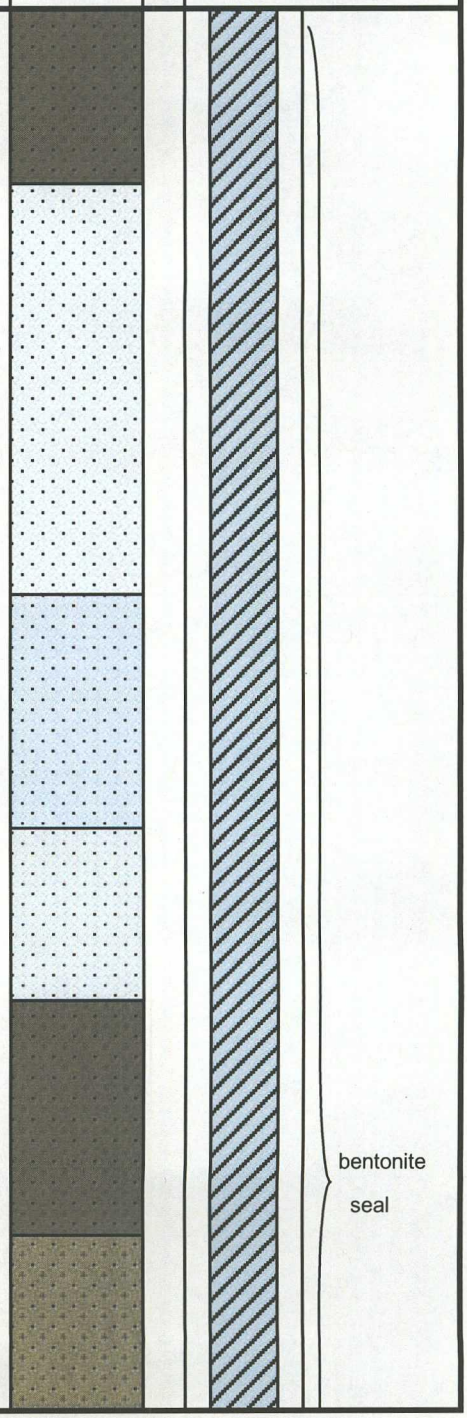
Project Name: Hobbs jct. F-31-1 **Well ID:** SB-1

Location: UL/F sec. 31 T18S R38E

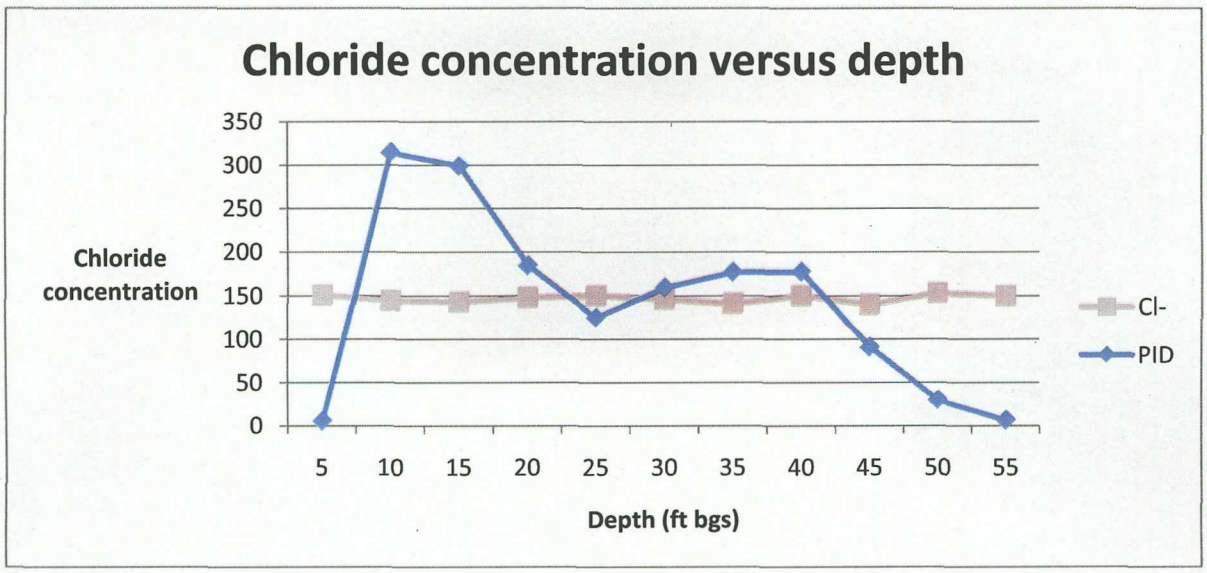
Lat: 32°42'24.82" W **County:** Lea

Long: 103°16'31.933" W **State:** NM

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 0.5 ft SILTY CLAY dark brown (top soil)
5	151		5.5	0.5 - 12 CALICHE; SILT white to gray (hard drilling), with interbedded light brown silt and increasing with depth and becoming discolored (gray) at 10 ft, hydrocarbon odor
10	145		314.8	
15	143		299.5	12 - 19 ft SAND gray (discolored), fine grained, poorly sorted, rounded, hydrocarbon odor
20	148		185.5	19 - 22 ft SAND light grayish brown (possibly discolored), very fine grained, well sorted, angular
25	150		125.8	22 - 30 ft SAND; SANDSTONE brown, fine grained, poorly sorted, angular, with interbedded (thin) sandstone
30	146		160.2	
35	141		177.6	



Depth (feet)	chloride field tests (ppm)	LAB	PID	Description	Lithology	Bore Construction
				30 - 42 ft SAND; SANDSTONE light brown, very fine grained, moderately sorted, angular, with interbedded this sandstone		
40	150		178.0			
45	140		91.5	42 - 55 ft SAND brown, fine grained, well sorted, sub-rounded		
50	153		29.6			
55	150		5.8			



Attachment C

Laboratory Reports

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

CARDINAL LABORATORIES

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

May 3, 2010

Hack Conder
Rice Operating Company
112 West Taylor
Hobbs, NM 88240

Re: Hobbs Jct. F-31-1

Enclosed are the results of analyses for sample number H19751, received by the laboratory on 04/26/10 at 8:25 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 4 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

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

Receiving Date: 04/26/10
Reporting Date: 04/29/10
Project Number: NOT GIVEN
Project Name: HOBBS JCT. F-31-1
Project Location: HOBBS JCT. F-31-1

Sampling Date: 04/22/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE		04/28/10	04/28/10	04//28/10
H19751-1	SB-1 @ 10'	163	2,050	< 16
H19751-2	SB-1 @ 55'	<10.0	46.0	< 16
Quality Control		595	598	500
True Value QC		500	500	500
% Recovery		119	120	100
Relative Percent Difference		0.2	1.6	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClˉB
*Analyses performed on 1:4 w:v aqueous extracts.
Reported on wet weight. Not accredited for GRO/DRO and Chloride.

Chemist

05/03/10
Date

H19751 TCL 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: 04/26/10
Reporting Date: 04/29/10
Project Number: NOT GIVEN
Project Name: HOBBS JCT. F-31-1
Project Location: HOBBS JCT. F-31-1

Sampling Date: 04/22/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: ZL

LAB NUMBE SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE	04/29/10	04/29/10	04/29/10	04/29/10
H19751-1 SB-1 @ 10'	<0.050	0.796	1.10	1.92
Quality Control	0.051	0.045	0.047	0.145
True Value QC	0.050	0.050	0.050	0.150
% Recovery	102	90.0	94.0	96.7
Relative Percent Difference	6.0	5.9	12.4	11.3

METHOD: EPA SW-846 8021B

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

Chemist

05/03/10
Date

H19751 RICE

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES

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

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	Rice Operating Company	**BILL TO**	
Project Manager:	Hack Conder	P.O. #:	
Address:	122 West Taylor	Company:	
City:	Hobbs	State: NM Zip: 88240	Attn:
Phone #:	393-9174	Fax #: 397-1471	Address:
Project #:		Project Owner:	City:
Project Name:	Hobbs jct. F-31-1		State: Zip:
Project Location:	Hobbs jct. F-31-1		Phone #:
Sampler Name:	L. Weinheimer		Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions							
H9751-1	SB-1 @ 10'		1			✓					✓		4/22/10	12:43	✓	✓	✓								
2	SB-1 @ 55'		1			✓					✓		4/22/10	01:06	✓	✓									

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.

Relinquished By: L. Weinheimer	Date: 4-26-10 Time: 6:25	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By: Jodi Henson	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: email results Hconder@riceswd.com; jpurvis@riceswd.com; Lweinheimer@riceswd.com

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

#26

Attachment B

Surface Restoration &

Re-vegetation Efforts

R.T. Hicks Consultants, Ltd.

901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Hobbs Jct. F-31-1
T-18-S, R-38-E, Section 31, Unit F
Surface Restoration Summary

12-28-10	Began scraping a 34x28x2-ft bgs area.
12-29-10	Finished scraping the site and hauled two (2) loads of soil to Sundance Disposal.
12-30-10	Six (6) loads of soil were hauled to Sundance Disposal.
1-3-11	Imported four (4) loads of soil from Wallach Concrete and began to backfill the excavation.
1-10-11	Imported four (4) loads of hay-sand mixture from the TCT yard and contoured the site to the surrounding area.
1-11-11	Imported one (1) load of hay-sand mixture from the TCT yard and contoured the site to the surrounding area.
1-12-11	Built a silt net fencing around the perimeter of the scraped area.
2-17-11	Added amendments (150 lbs BioNhance and 100 lbs InfiltrationNhance). Seeded the site with 4 lbs black gramma, 5 lbs winter wheat, and 2.54 lbs blue gramma.

Total Hauled – 8 loads (96 yds)
Total Imported – 9 loads (108 yds)

112 West Taylor
Hobbs, NM 88240
Phone: (575) 393-9174
Fax: (575) 393-0293

REVEGETATION FORM

1. General Information

Site Name: Hobbs Jct. F-31-1						
U/L F	Section 31	Township 18S	Range 38E	County Lea	Latitude N. 32.70661	Longitude W. 103.18965
Contact Name: Bruce Baker						
Email: bbaker@riceswd.com						
Site size: (105x60-ft) 6,300 square feet			Map detail of site attached ☐			
Additional information:						

2. Soils

Salvaged from site ☒	Bioremediated ☒	Imported ☒	Blended ☐	Depth (in.):
Texture: sandy	Describe soil and subsoil: caliche			
Soil prep methods:	Rip ☐ Depth (in.):	Disc ☒ Depth (in.): 4 in.		Rollerpack ☐
Date complete: 2/17/2011				

3. Bioremediation

Fertilizer ☐ Type: Lbs/acre:	Hay ☒	Other ☒ Describe: 150 lbs BioNhance 100 lbs InfiltratioNhance

4. Seeding

Custom seed mix ☒	Prescribed mix ☐	Seed mix name:	Seeding date: 2/17/2011
Broadcast ☒ Method: portable seeder			
Soil conditions during seeding:	Dry ☒	Damp ☐	Wet ☐
Photos attached ☒	Observations: 5 lbs winter wheat, 2.54 lbs blue gramma, 4 lbs black gramma		

5. Certification

Name: Robert Harrison	Title: Environmental Tech	Date: 2/17/2011
Signature: *not available*		

Hobbs Jct. F-31-1 (1R428-55)
T-18-S, R-38-E, Section 31, Unit F

site prior to excavation, facing north

scraping, facing southeast

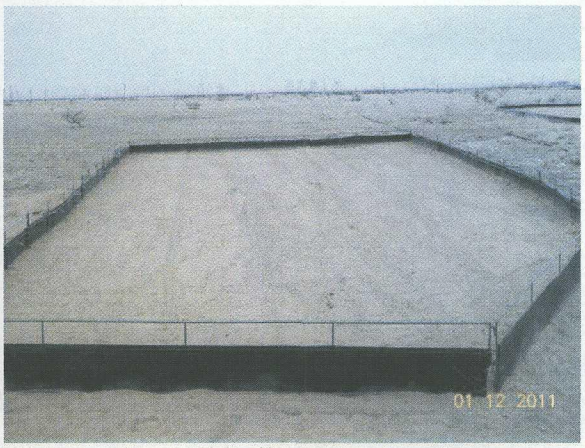
final scraped area, facing north

hauling off soil, facing southeast

importing clean soil, facing northeast


backfilling the scraped area, facing east

importing clean soil blended with hay, facing west



site completed with silt net fencing, facing west

discing the site 2/17/2011

seeding the backfilled site 2/17/2011