1R - 428-72

REPORTS

DATE:

9-22-10

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5604 ▲ Fax: 505.266.0745

September 22, 2010

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

RE: **Termination Request**
Hobbs Jct. O-13 Site: NMOCD CASE #: 1R428-72
Township 18S, Range 37E, Section 13, Unit O

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is submitting this Termination Request for the Hobbs Jct. O-13 regulatory file. The investigation demonstrated that neither chloride nor hydrocarbons are present in the vadose zone in quantities that represent a threat to ground water quality.

Background
The Hobbs Jct. O-13 site is located northwest of the city of Hobbs at Township 18S, Range 37E, Section 13, in Unit O. The original junction box and equipment was believed to have been removed during system abandonment prior to 2002 but not specifically documented. The Investigation Characterization Plan (ICP), dated February 18, 2010 and approved by the NMOCD on February 23, 2010, is provided as Attachment A to this letter. The ICP includes background information and a site vicinity map for this and four other nearby ROC sites.

Field Program
On April 12, 2010, ROC installed a single 10-foot deep sampling trench at the location of the original junction box. Soil samples were recovered at 1-foot intervals from four feet to ten feet below ground surface and field screened for chlorides by titration and hydrocarbons using a photoionic detector (PID).

The field screening results indicate that the greatest chloride concentration (153 mg/kg) and the greatest hydrocarbon concentration (0.1 ppm) were both present at seven feet below the surface. Based on the guidelines included with the ICP, no additional trenches or soil borings were required for delineation.

Confirmation laboratory analysis for chloride was performed on the 7- and 10-foot samples; both showed chloride concentrations of 32 mg/kg. The laboratory results and chain-of-custody as well as the field documentation of the backhoe excavation are provided in Attachment B. Plate 1 shows the site on a recent aerial photograph and presents all the field screening and laboratory verification results.

Site Restoration and Re-Vegetation
Attachment C presents documentation of filling in the excavation at the site, installation of imported soil, grading to match the surroundings and seeding the site with native plant seeds. On July 13, 2010, ROC prepared the surface and seeded the site with 3 lbs. of Pecos Mix, ½ lbs. Blue Grama and 3 lbs. Horserace Oats. The area surrounding the site is well vegetated, as shown in Attachment C.

Recommendations
Based on the trench sampling information, we conclude that this site is in compliance with the requirements of 19.15.29 NMAC such that soil at the site does not and will not endanger public health or the environment. Observed chloride concentrations in soil at the site are consistent with (or lower than) background levels for the area. We recommend termination of the 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.

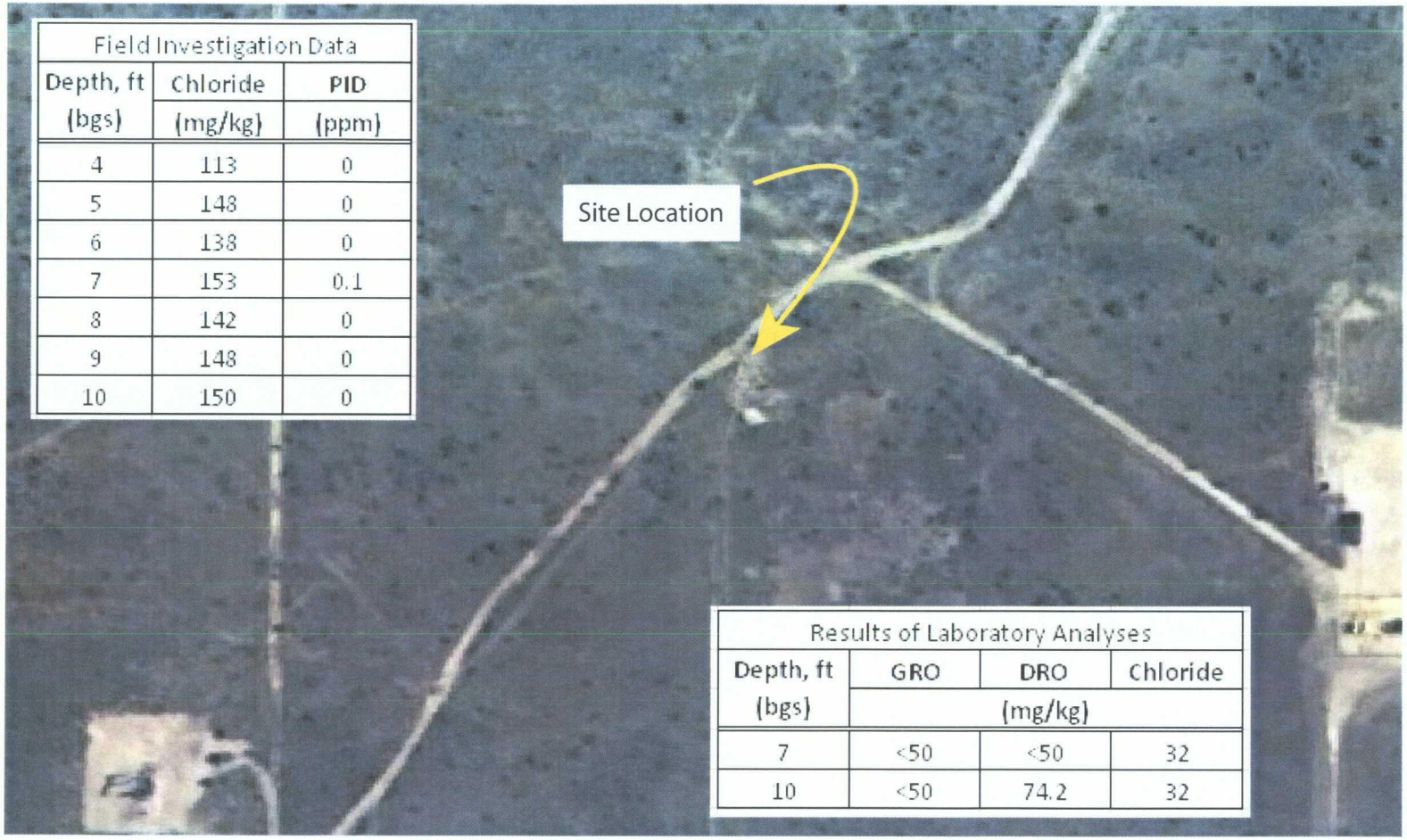
Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Hack Conder, Rice Operating Company



Field Investigation Data		
Depth, ft (bgs)	Chloride (mg/kg)	PID (ppm)
4	113	0
5	148	0
6	138	0
7	153	0.1
8	142	0
9	148	0
10	150	0

Results of Laboratory Analyses			
Depth, ft (bgs)	GRO	DRO	Chloride
	(mg/kg)		
7	<50	<50	32
10	<50	74.2	32

Aerial Photo: 2005/06 Source: RGIS

Scale Not Known

N

R.T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd. NW Suite F-142 Albuquerque, NM 87104
505.266.5004 Fax: 505.266.0745

ICP Field Program Results, Hobbs O-13

Rice Operating Company

Plate 1

August 2010

Attachment A

Submitted ICP and Approval from NMOCD

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

Katie Lee

From: Hansen, Edward J., EMNRD [edwardj.hansen@state.nm.us]
Sent: Tuesday, February 23, 2010 4:03 PM
To: Hack Conder
Cc: Leking, Geoffrey R, EMNRD; Katie Lee
Subject: ICP Approval for Rice Hobbs SWD Jct O-13 (1R428-72)

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has reviewed the submitted Investigation Characterization Plans (ICP), dated February 18, 2010, for the above-referenced site. The OCD hereby approves the following ICP for the Rice Operating Company (ROC) site:

Rice Hobbs SWD Jct O-13 submitted by R. T. Hicks on 2/19/2010 #1R428-72

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 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

February 18, 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. O-13, NMOCD Case # 1R428-72
Township 18S, Range 37E, Section 13, Unit O

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. O-13 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 completed with a 2 or 4" diameter casing down gradient from confirmed impact for use during possible corrective actions. Ground water will be analyzed for chloride, sulfate, TDS and BTEX if warranted. 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.

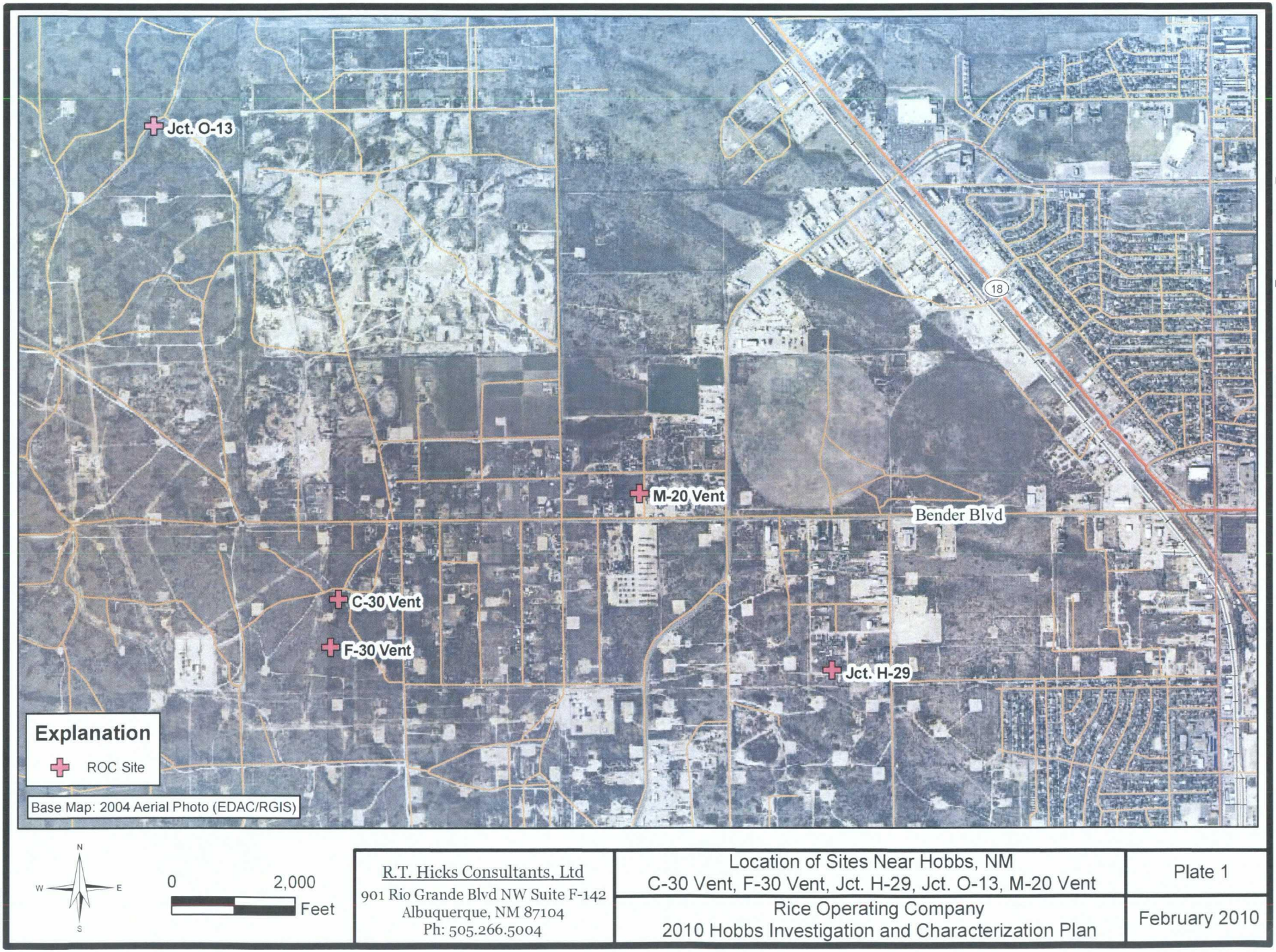
Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

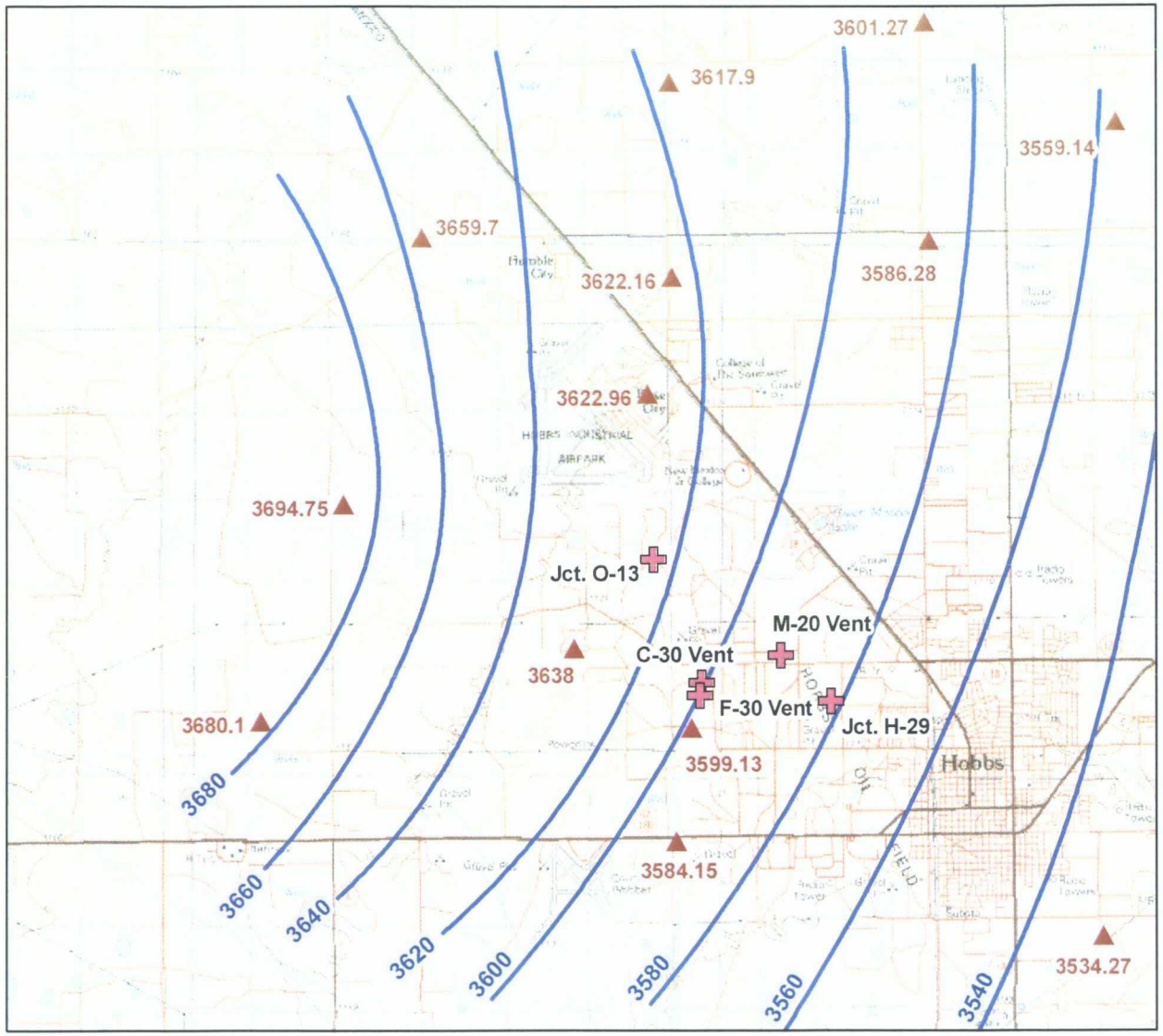
Copy: Hack Conder, ROC



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Location of Sites Near Hobbs, NM C-30 Vent, F-30 Vent, Jct. H-29, Jct. O-13, M-20 Vent	Plate 1
	Rice Operating Company 2010 Hobbs Investigation and Characterization Plan	February 2010

S:/PROJECTS/ROC/FEB2010_ICPS/PLATES/P1_SITESONAERIAL.MXD

2/10/2010



Explanation

- ROC Site
- USGS gauging station (2007) [ground water elevation (ft)]
- Potentiometric surface (ft amsl) (derived from USGS 2007)

N W E S

0 1 2 Miles

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

2007 Poteniometric Surface Map
C-30 Vent, F-30 Vent, Jct. H-29, Jct. O-13, M-20 Vent

Rice Operating Company
2010 Hobbs Investigation and Characterization Plan

Plate 2

February 2010

2/10/2010

S:/PROJECTS/ROC/FEB2010_ICPS/PLATES/P2_2007POTENTIOMETRIC.MXD

Attachment B

Laboratory Reports
Backhoe Delineation

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

April 19, 2010

Bruce Baker
Rice Operating Company
112 West Taylor
Hobbs, NM 88240

Re: Hobbs Jct O-13 (18/37)

Enclosed are the results of analyses for sample number H19656, received by the laboratory on 04/12/10 at 4:35 pm.

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: 3 (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: BRUCE BAKER
112 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 04/12/10
Reporting Date: 04/19/10
Project Number: NOT GIVEN
Project Name: HOBBS JCT O-13 (18/37)
Project Location: HOBBS JCT O-13 (18/37)

Sampling Date: 04/12/10
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		04/15/10	04/15/10	04/13/10
H19656-1	SOURCE GRAB @ 7FT	<50.0	<50.0	32
H19656-2	SOURCE BTM GRAB @ 10FT	<50.0	74.2	32
Quality Control		481	544	500
True Value QC		500	500	500
% Recovery		96.2	109	100
Relative Percent Difference		0.2	11.9	< 0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.
Reported on wet weight.
Note: Diluted samples for GRO/DRO due to color of extraction.
**One or more TPH surrogates outside historical limits due to matrix interference.

Chemist

04/19/10
Date

H19656 TCL RICE

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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: Bruce Baker	P.O. #:
Address: 122 West Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: 575-393-9174 Fax #: 575-397-1471	Address:
Project #: Project Owner:	City:
Project Name: Hobbs Jct O-18 18/37	State: Zip:
Project Location: Hobbs Jct O-18 18/37	Phone #:
Sampler Name: Jordan Woodfin	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								
H19650-1	Source grab@ 7Pt	G	1			✓					✓		4-12-10	300 p	✓	✓										
-2	Source 6pt grab@10f	G	1			✓					✓		4-12-10	330p	✓	✓										

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 claims is based upon any of the above stated reasons or otherwise.

Relinquished By: Jordan Woodfin	Date: Time:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
			Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 4/12/10 Time: 4:35	Received By: Jodi Henson	REMARKS: email results jwoodfin@riceswd.com; jpurvis@riceswd.com bbaker@riceswd.com KJONES@RICESWD.COM
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

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

#26

NEED SAMPLES BACK, PLEASE

JCT BOX DELINEATION SUMMARY REPORT

Site: Hobbs Jct O-13 Legal: UL/O SEC 13 T18S R37E Landowner: Charles Seed Trust GW: <50

GPS N. 32°44'35.784" W. 103°12'2.612"

	Source	
	CL	PID
4	113	0
5	148	0
6	138	0
7	153	0.1
8	142	0
9	148	0
10	150	0
11		
12		

North Wall	
Cl-	
PID	

South Wall	
Cl-	
PID	

East Wall	
Cl-	
PID	

West Wall	
Cl-	
PID	

4 Wall Comp	
Cl-	
PID	

	Pt.1	Pt.2	Pt.3	Pt. 4	Pt.5	5 Pt Comp.
Cl-						
PID						

Background at 6"			
Cl-	143	PID	0.1

Excavation Deminsions: 5'x3'x10'

Soil hauled off and where: None

Soil imported and from where: None

field results	cl-	pid
Source Grab @ 7ft	153	0.1
Source Btm Grab @ 10ft	150	0

lab results	gro	dro	cl-
	<50	<50	32
	<50	74.2	32

Summary: Upon arrival at this location we made an assessment of all the potential safety hazards of site. Next, we conducted an investigation of the former junction box location using a backhoe, and collecting soil samples at regular intervals. These samples were field tested for evidence of chloride and organic vapors. We dug a source vertical to a depth of 10 feet. The samples from the 7ft and 10ft depths were sent to the lab for further testing. The vertical was backfilled the same day using the soil removed from the excavation.

Signature: Jordan Woolf **Date:** 4-12-10

Hobbs Jct. O-13 (1R428-72)
UL/O, Sec. 13, T18S, R37E

excavating the source trench 4/12/2010

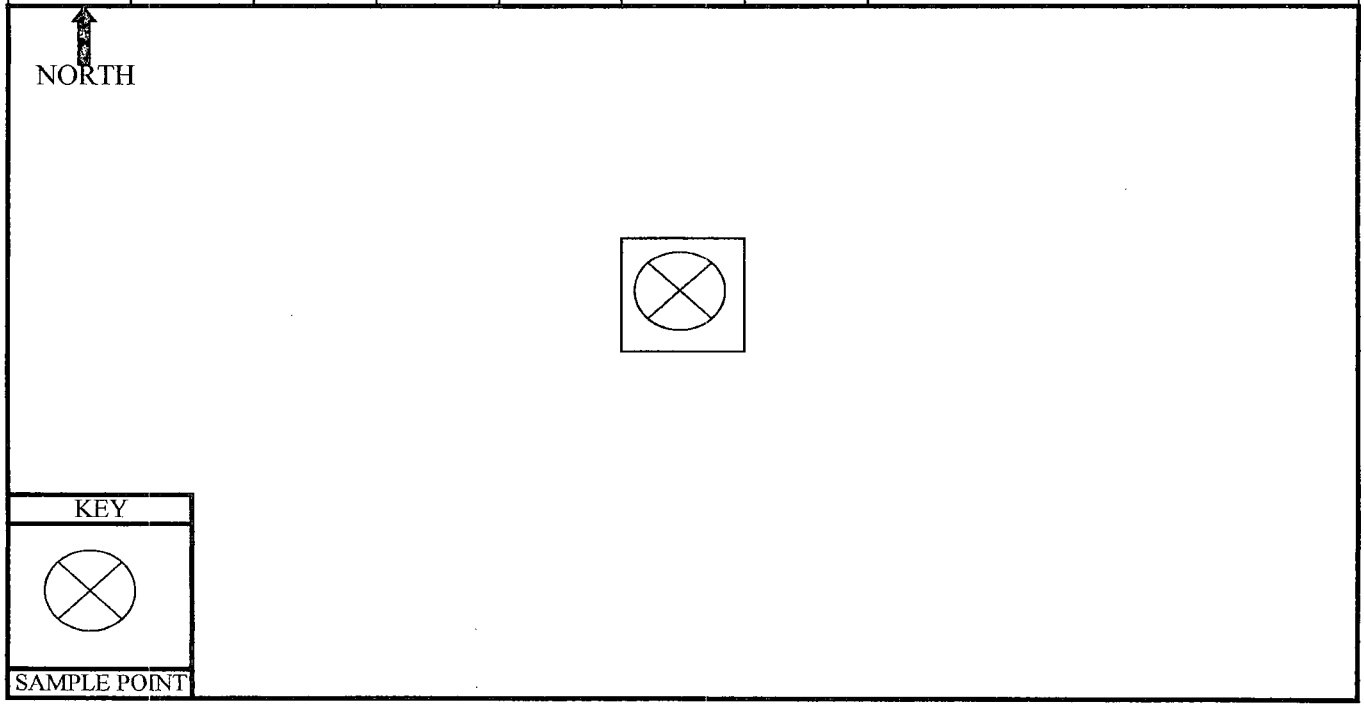
backfilling the source trench 4/12/2010

site complete 4/12/2010

JCT DELINEATION REPORT

LOCATION: Hobbs Jct O-13	
DEPTH TO GW: <50'	LANDOWNER: Charlie Seed Trust
@ SOURCE	

DEPTH	SOIL	WATER	CF	AGNO3	CL-	PID	SOIL LITHOLOGY
BACKGROUND @6'	10.5	30	2.86	0.05	143	0.1	Dark Brown Silty Sand (top soil)
4'	10.9	30.7	2.82	0.04	113	0	Light Brown Caliche
5'	10.1	30	2.97	0.05	148	0	Light Brown Caliche
6'	10.9	30.2	2.77	0.05	138	0	Light Brown Caliche
7'	10.1	30.9	3.06	0.05	153	0.1	Light Brown Caliche
8'	10.7	30.3	2.83	0.05	142	0	Light Brown Caliche
9'	10.5	31.1	2.96	0.05	148	0	Light Brown Caliche
10'	10.2	30.7	3.01	0.05	150	0	Light Brown Caliche



SIGNATURE: Jordan Woolf

DATE: 4-12-10

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240
PHONE: (575) 393-9174 FAX: (575) 397-1471
PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number:

	Model: PGM 7300	Serial No: 590-000183			Model: PGM 7600	Serial No: 110-023920
✓	Model: PGM 7300	Serial No: 590-000508			Model: PGM 7600	Serial No: 110-013744
	Model: PGM 7300	Serial No: 590-000504			Model: PGM 7600	Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 924503	EXPIRATION DATE: 7-5-12
FILL DATE: 7-1-09	METER READING ACCURACY: 100

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
Hobbs	0-13	0	13	18S	37E

SAMPLE ID	PID	SAMPLE ID	PID
Source		Background	
4'	0	6"	0.1
5'	0		
6'	0		
7'	0.1		
8'	0		
9'	0		
10'	0		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE: Jordan Woody DATE: 4-12-10

Attachment C

Documentation of work at site -

Photos, Vegetation

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

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

REVEGETATION FORM

1. General Information

Site name:	Hobbs Jct. O-13 (IR 428-72)					
U/L	Section	Township	Range	County	Latitude	Longitude
O	13	18S	37E	LEA	N 32*44.588'	W103*12.025'
Contact Name:	Bruce Baker					
Email:	bbaker@riceswd.com					
Site size: 440 square feet			Map detail of site attached ☐			
Additional information:						

2. Soils **Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site ☐	Bioremediated ☐	Imported ☒	Blended ☐	Depth (in):
Texture: Sandy	Describe soil & subsoil: Sand over Caliche			
Soil prep methods:	Rip ☐ Depth(in):	Disc ☐ Depth (in):	Rollerpack ☐	
Date completed: 7/13/2010				

3. Bioremediation

Fertilizer ☐	Hay ☒	Other ☒
Type:		Describe: Organic compost and Peat moss
Lbs/acre:		

4. Seeding **Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix ☒	Prescribed mix ☐	Seed mix name: Pecos Mix	Seeding date: 7/13/2010
Broadcast ☒			
Method: Broadcast by hand			
Soil conditions during seeding:	Dry ☒	Damp ☐	Wet ☐
Photos attached ☒ Number of photos: 4	Observations: 3 lbs. Pecos Mix, 3 lbs. Horserace Oats, ½ lb. Blue Grama		

5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name:	Joe Gatts	Title: Environmental Tech.	Date:
Signature:	Joe Gatts		7/22/10

Hobbs Jct. O-13 (1R428-72)

Removing rock from area 7/12/2010

Blending hay with imported soil 7/13/2010

Adding amendments (Peat Moss) 7/13/2010

Seeding site 7/13/2010