## 1R-428-46

## REPORTS

DATE:

8-31-10

## R. T. HICKS CONSULTANTS, LTD.

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

August 31, 2010

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

RE: Hobbs SWD System F-24-3 Vent Site: NMOCD Case #: 1R428-46
Termination Request
T-18-S, R-37-E, Section 24, Unit F

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is submitting this Termination Request for the Hobbs F-24-3 Vent Site regulatory file. ROC has completed the recommended actions detailed in our February 8, 2010 Initial Characterization Report and Corrective Action Plan (ICR-CAP).

## Background

The Hobbs F-24-3 Vent site is located northwest of the city of Hobbs at T-18-S, R-37-E, Section 24, in Unit F. The pipeline and original equipment were abandoned prior to 2002. The Investigation Characterization Plan (ICP), dated February 19, 2009 and approved by the NMOCD on April 22, 2009, is provided as Attachment A to this letter. The ICP includes background information and a site vicinity map for this and five other nearby ROC sites. Our February 8, 2010 Initial Characterization Report and Corrective Action Plan presents the results of characterization activities and is also in Appendix A.

## **Completed Site Restoration**

ROC has completed the ICR-CAP recommended surface restoration at the site, including:

- Removal of cement box, plumbing, and large rocks,
- Scraping down the site to match surrounding contours,
- Backfilling the site with clean topsoil,
- Seeding the area with native seed mixes.

Sandy soil was imported and spread over the approximately 378 square foot disturbed area at the site and a seed mix containing 2 lbs. Elbon Rye and 0.5 Lea County Mix seeds was hand broadcast on November 24, 2009; 1 lb of fertilizer was also applied. Appendix B presents documentation of this work.

ROC uses several strategies to encourage native vegetation including importing clean soil, removing large rocks and site infrastructure, and seeding the area.

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August 31, 2010 Page 2

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 in the subsurface. With these site restoration activities completed and documented, we conclude that this site is in compliance with the requirements of 19.15.29 NMAC. This site does not and will not endanger public health or the environment; we respectfully request a 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

**Project Scientist** 

Copy: Hack Conder, ROC

## Appendix A Previous Submissions

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: Wednesday, April 22, 2009 4:01 PM

To: Hack Conder

Cc: Jones, Brad A., EMNRD; Lara Weinheimer; Dale Littlejohn; Katie Jones; Katie Lee

Subject: RE: ROC ICP- 6 sites for Hobbs SWD: F-24-3 vent #1R0428-46 F-25 EOL #1R0428-47 Jct. F-24-1

#1R0428-62G-9 vent #1R0428-73; Jct. A-6 #1R0428-74

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has reviewed the submitted Investigation Characterization Plans (ICPs) (combined in one document), dated February 19, 2009, for the above-referenced sites. The OCD hereby approves the following ICPs for the Rice Operating Company sites:

1. Hobbs SWD F-24-3 vent submitted by R. T. Hicks on 2/19/2009 #1R0428-46

- 2. <u>Hobbs SWD F-25 EOL</u> submitted by R. T. Hicks on 2/19/2009 #1R0428-47
- 3. Hobbs SWD Jct. A-25 submitted by R. T. Hicks on 2/19/2009 #1R0428-60
- 4. Hobbs SWD Jct. F-24-1 submitted by R. T. Hicks on 2/19/2009 #1R0428-62
- 5. Hobbs SWD G-9 vent submitted by R. T. Hicks on 2/19/2009 #1R0428-73
- 6. <u>Hobbs SWD Jct. A-6</u> submitted by R. T. Hicks on 2/19/2009 #1R0428-74

Also, please be advised that OCD approval of these plans 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

P.S.: Please use the respective OCD case #s on future correspondence regarding the sites listed above.

From: Katie Lee [mailto:katie@rthicksconsult.com]
Sent: Thursday, February 19, 2009 10:58 AM
To: Hack Conder; Jones, Brad A., EMNRD

Cc: Hansen, Edward J., EMNRD; Lara Weinheimer; 'Dale Littlejohn'; Katie Jones

Subject: ROC ICP- 6 sites in Hobbs, NM

Mr. Jones,

R.T. Hicks Consultants is pleased to submit the attached Investigation and Characterization Plan on behalf of Rice Operating Company for six sites in the now abandoned Hobbs SWD system:

Jct. A-6 F-24-3 Vent F-25 EOL G-9 Vent Jct. A-25 Jct. F-24-1

These sites are located in T 18S, R37E, Sections 24 & 35 and in T 19S, R 38E, Sections 6 & 9. A hard copy of this submission follows via FedEx. If you have any questions or comments, please contact me at 505-266-5004 or Hack Conder of Rice Operating Company at 575-393-9174.

Regards,

Katie Lee Project Scientist R.T. Hicks Consultants, Ltd. ph. 505-266-5004 fax 505-266-0745 mobile 505-400-7925

This inbound email has been scanned by the MessageLabs Email Security System.

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## R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505,266,5004 ▲ Fax: 505,266,0745

February 8, 2010

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

RE: Hobbs SWD System F-24-3 Vent Site: T-18-S, R-37-E, Section 24, Unit F,

**Initial Characterization Report and Corrective Action Plan** 

**NMOCD CASE #: 1R428-46** 

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is submitting this Initial Characterization Report (ICR) and Corrective Action Plan (CAP) for the Hobbs F-24-3 Vent Site regulatory file. The investigation conducted demonstrates that neither chloride nor hydrocarbons are present in the vadose zone in quantities that represent a threat to ground water quality.

## **Background**

The Hobbs F-24-3 Vent site is located northwest of the city of Hobbs at T-18-S, R-37-E, Section 24, in Unit F. The pipeline and original equipment were abandoned prior to 2002. The Investigation Characterization Plan (ICP), dated February 19, 2009 and approved by the NMOCD on April 22, 2009, is provided as Attachment A to this letter. The ICP includes background information and a site vicinity map for this and five other nearby ROC sites.

## Field Program

Hicks Consultants supervised a deep soil sampling program to characterize possible hydrocarbon and chloride impact due to past activities. On September 23, 2009, soil boring No. 1 (SB-1) was drilled adjacent to the east side of the concrete junction box to evaluate the deep soil directly below the former ROC equipment. Figure 1 is a map that demonstrates the original junction box and SB-1 locations as determined using a Trimble model GEO-XH GPS that is accurate to within 0.5 ft.

Soil samples were collected and field screened by ROC for hydrocarbons and chloride concentrations. Figure 2 is a site map depicting the location of SB-1, the surrounding area, and all the soil sample field screening and laboratory verification results. The highest photo-ionic detector (PID) reading encountered in the soil boring was 4.5 ppm at 10 feet below the surface. The highest field titration chloride concentrations encountered in the soil boring was approximately 150 mg/kg at 5, 10, 15, and 25 feet below the surface, which corresponds to a laboratory concentration of <16 mg/kg. These field test results indicate that regulated hydrocarbons and chlorides are not present in the soil at concentrations that represent a threat to fresh water, human health, or the environment. Attachment B provides a soil lithology log including the field

February 8, 2010 Page 2

hydrocarbon and chloride screening data. Attachment C provides the laboratory report and chain of custody for verification of the September 23, 2009 field data.

## Recommendations

We recommend surface restoration at the site, with work including:

- Removal of cement box, plumbing, and large rocks,
- Scraping down the site to match surrounding contours,
- Backfilling the site with clean topsoil,
- Seeding the area with native seed mixes.

Once these activities are completed and documented, a termination of the regulatory file will be requested.

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. Littleyola

Dale T Littlejohn

Geologist

Copy: Hack Conder, ROC

# Soil Bore Location





122 W. Taylor Hobbs, NM 88240 Phone (575) 595-9174 Fax (575) 597-1471

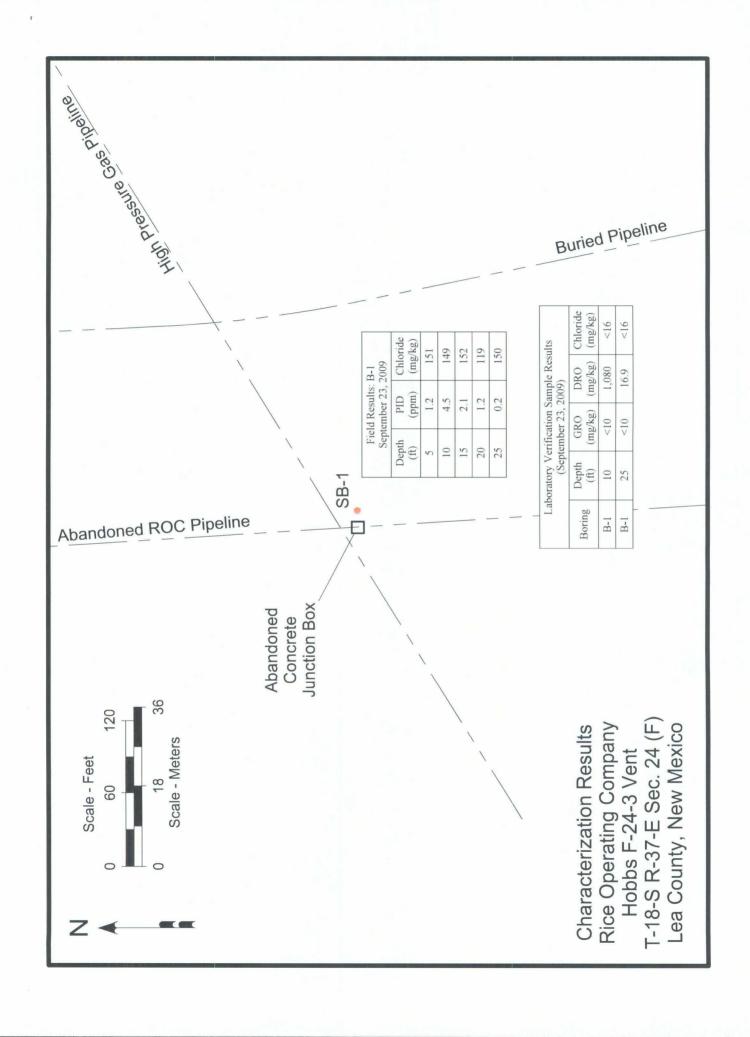
## Hobbs F-24-3 vent

Legals: UL/F sec. 24 T18S R37E NMOCD Case #: 1R428-46 Consultant: R.T. Hicks

SB-1 32°44'6.846"N 103°12'25.644"W Drawing date: 10-9-09 Revision date: Drafted by: Lara Weinheimer

Figure 1





GRO DRO Chloride (mg/kg) (mg/kg) 91> Laboratory Verification Sample Results (September 23, 2009) 1,080 16.9 <10 <10 119 149 152 Field Results: B-1 September 23, 2009 Depth (ft) 01 PID (ppm) 4.5 Boring B-1 Depth (ft) SB-1 10 20 **ROC** Pipeline Junction Box Abandoned Concrete Rice Operating Company Hobbs F-24-3 Vent T-18-S R-37-E Sec. 24 (F) Lea County, New Mexico Figure 2 Characterization Results

## **ATTACHMENT A**

Investigation Characterization Plan Submitted on February 19, 2009

## R. T. HICKS CONSULTANTS, LTD.

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

February 19, 2009

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

RE: Investigation & Characterization Plan Hobbs Salt Water Disposal System: Jct. A-6, F-24-3 Vent, F-25 EOL, G-9 Vent, Jct. A-25, Jct. F-24-1 T18S, R37E, Sections 24 & 25, and T19S, R38E Sections 6 & 9

Dear Mr. Jones:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is pleased to submit this Investigation & Characterization Plan (ICP) for the six (6) junction box and vent sites within the Hobbs Salt Water Disposal System referenced above. Plate 1 is a map showing the sites relative to major roads in the area. Plate 2 shows the sites, nearby USGS monitoring wells, and a regional potentiometric surface map.

The work elements proposed below will allow us to characterize these sites 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 each 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 install 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 <100 ppm total hydrocarbon vapors using the headspace method (see attached ROC Quality Procedure in Appendix A), 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 <100 ppm (Appendix A).
  - 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 25 feet 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 each site, if possible. If trenching does not fully characterize the lateral extent of chloride at each 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 installed 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 Partners) provide all operating capital on a percentage ownership/usage basis. Major projects require System Partner 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 Partners. 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. Quality Procedures for characterization work are provided in Appendix A.

If you have any questions or comments regarding this ICP, please contact me at our Albuquerque office or Hack Conder of Rice Operating Company.

Sincerely,

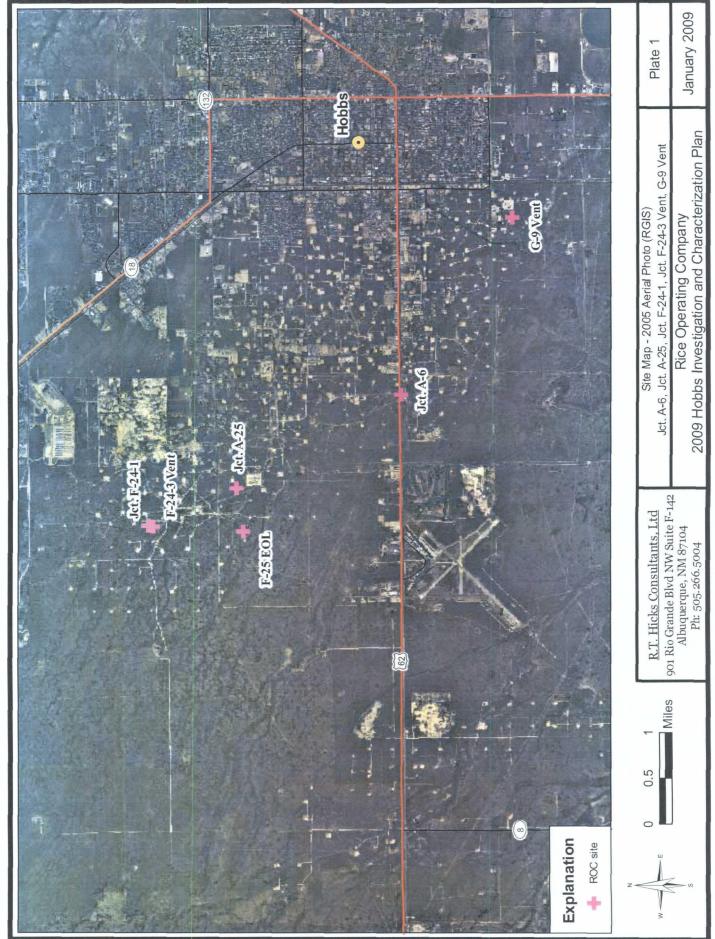
R.T. Hicks Consultants, Ltd.

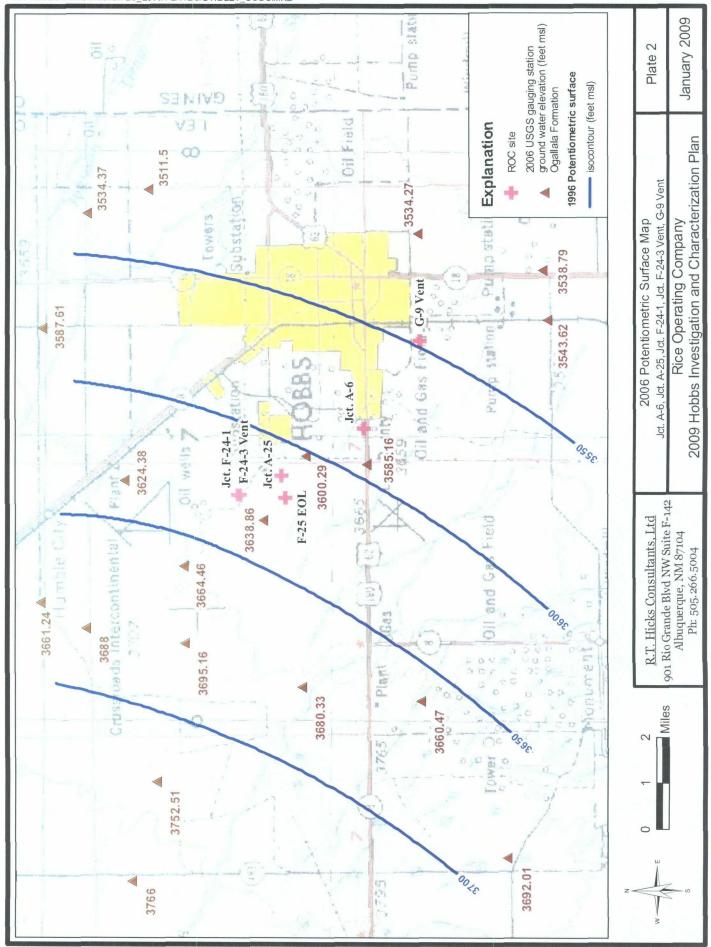
Katie Lee

**Project Scientist** 

Copy: Rice Operating Company

Edward J. Hansen, NMOCD





## ATTACHMENT B

Lithology Log from Soil Boring (Vertical Delineation) Conducted by ROC and RTH in September 2009

Logger: Driller: Consultant: **Drilling Method:** Start Date:

Dale Littlejohn Harrison & Cooper, Inc. Drilling R.T. Hicks, Consultants Air rotary 9/23/2009 9/23/2009



Project Name:

Well ID:

Hobbs F-24-3 vent

SB #1

split spoon. Drafted by: Lara Weinheimer

Comments: All samples from cuttings; the soil was too rocky to

**End Date:** 

TD = 25 ft GW = 45 ft

UL/F sec. 24 T18S R37E Location: **Lat:** N32°44'6.866" County: Lea Long: W103°12'25.644" State: NM

	10 - 20	7 11		GVV = 43 IL	Long. W 100 12	20.044 State. Mivi
Depth (feet)	chloride field tests	LAB	LAB PID Description		Lithology	Well Construction
				0 - 5 ft		
				SILT AND CALICHE		
5	151		1.2	dark brown to light gray, hydrocarbon odor		
	<u>-</u>					
				5 - 15 ft		
10	149	CI- <16	4.5	SILT AND CALICHE		
		GRO <10.0		dark grayish brown, hydrocarbon odor		
		DRO 1080				
15	152		2.1			benton
				15 - 20 ft		seal
				SILT AND CALICHE		
20	119		1.2	dark brown, pinkish brown caliche		
				20 - 25 ft	20	
				SAND, SILT AND CALICHE		
25	150	CI- <16	0.2	pinkish brown sand, brown silt, no odor	00	
		GRO <10.0			0	
		DRO 16.9			0	

## **ATTACHMENT C**Laboratory Reports and Chain-of-Custody Documentation



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR HOBBS, NM 88240

HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 09/24/09 Reporting Date: 09/25/09

Project Owner: NOT GIVEN

Project Name: HOBBS F-24-3 VENT

Project Location: NOT GIVEN

Sampling Date: 09/23/09

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB Analyzed By: AB/HM

	GRO	DRO	
	(C <sub>6</sub> -C <sub>10</sub> )	(>C <sub>10</sub> -C <sub>28</sub> )	CI*
LAB NUMBER SAMPLE ID	(mg/kg)	(mg/kg)	(mg/kg)

ANALYSIS DATE	09/25/09	09/25/09	09/24/09
H18311-1 SB 1 10'	<10.0	1,080	<16
H18311-2 SB 1 25'	<10.0	16.9	<16
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Quality Control	438	443	490
True Value QC	500	500	500
% Recovery	87.6	88.6	98.0
Relative Percent Difference	0.6	1.6	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB \*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

Chemist

Date

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BORATORIES
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<b>U</b> ,

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

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

2 wshil

## Appendix B Vegetation Documentation

R.T. Hicks Consultants, Ltd.

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

## **New Mexico State Land Office**

Field Operations Division (505) 827-5723 P.O. Box 1148 Santa Fe, NM 87504 (575) 392-8736 2702-D N. Grimes Hobbs, NM 88240 (575) 885-1323 N. Canal, Suite B Carlsbad, NM 88220 Roswell, NM 88210 (575) 623-4979 1001 S. Atkinson (575) 763-0796 105 E. 6<sup>th</sup> St. Clovis, NM 88101



## DEVECETATION FORM

		N.C.	A EQE I	AHON	OKIVI			
1. General II	<u>nformation</u>							
Site name:	HOBBS F-	24-3 VENT		Lease No.				
U/L or Qtr/Qtr	Section	Township	Range	County	Lat	itude	Lor	ngitude
F	24	18S	37E	LEA	32°44'	6.843"N	103°12'	25.718"W
Company Name	: RICE O	PERATING		Contact N	ame: HAC	K CONDE	₹	
Phone no.:	(575) 393-9	174	Email:	hconder@	riceswd.com	l		
Address:	122 W. TA	YLOR HOBBS	S, NM 88240					
Spill / Rele	ase 🗆	P&A We	-II [	Pit Closure	7 Facility	Closure 🛛		Other 🗍
OCD Spill No.	asc [_]	API No.		Tit Closure	Type:		ION BOX/	
Site size:		acres	378	square feet		ail of site att		VENI
Additional infor		acres	3/8	square reer	Iviap deta	ili oi site att	actieu	
Additional infor	mation:				<del> </del>			<del> </del>
3. Soils	*Do not	rip caliche subsoils	s: caliche rocks	brought to the st	urface by rinnin	a shall he rer	noved	
Salvaged from s		oremediated	Importe		ended		oth (in):	
Texture: SAN		scribe soil & sub		SANDY SOIL			(III).	
Soil prep method		Depth(ii			th (in):	Rollerpa	ck 🗍	
Date completed:	<u></u>		otos attached		Number of pl		2	
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4. Seeding	*Attach s	eed bag tags to thi	s form. Seed ba	g tags shall conte	ain the site nam	e and S-T-R.		
Custom seed mix	x 🛛 Pres	cribed mix	Seed mix nar	me: 2 LB E	LBON RYE	Seed	ling date:	11/24/00
	_			0.5 LB	LEA CO. MI		C	11/24/09
Is seed mix divid	ded into subn	nixes based on se	ed size?	Yes 🗌 No 🛛			<u></u>	
Drill Seeder				Broadcast 🛛		Hyd	roseeding	]
Drill Type:				Method: HAN	D BROADC	AST		
Soil conditions of	luring seedin	g: Dry 🛛	Damp 🔲	Wet 🗌				
Photos attached		Observations:						
Number of photo	os:2	_						
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Mulching [		Crimping 🗌		ertilizer 🛚		Other		
Mulch type:					3/13/13	Descr	ibe:	
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Name:	TONY GRIE	CO	1	itle: ENV	IRONMENT	AL TECH	Date:	12/2/09
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## Hobbs F-24-3 vent (1R428-46) (UL/F, Sec. 24, T18S, R37E)



removing the former junction box 11/23/2009



scraping 11/23/2009



seeding the backfilled site





raking in seed

11/24/2009



seeding site

5/5/2010



vegetation

8/26/2010