1R - 428-58

GENERAL CORRESPONDENCE

YEAR(S):
2008

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, September 16, 2008 4:28 PM
To: 'Hack Conder'
Cc: 'Marvin Burrows'; Johnson, Larry, EMNRD; Price, Wayne, EMNRD; 'Katie Lee'
Subject: RE: Hobbs SWD F-33 Vent (#1R428-58) Closure Report - Additional Information Required

Dear Mr. Conder:

The New Mexico Oil Conservation Division (NMOCD) has reviewed the Response to NMOCD Regarding Additional Information Required, dated July 17, 2008, Hobbs SWD F-33 vent (#1R428-58) submitted by R. T. Hicks Consultants, Ltd. The corrected results for the BTEXN analyses indicate that additional soil samples are not required. Therefore, the NMOCD rescinds the request for additional information as specified below. However, please provide a final Closure Report Addendum to the NMOCD by Monday, November 17, 2008 to include the re-seeding and fencing of the site. The NMOCD will consider termination of the remediation plan (#1R428-58) at that time.

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 NMOCD case # on future correspondence regarding the site listed above.

From: Hansen, Edward J., EMNRD
Sent: Monday, June 30, 2008 6:32 PM
To: 'Hack Conder'
Cc: 'Marvin Burrows'; Johnson, Larry, EMNRD; Price, Wayne, EMNRD; 'Katie Lee'
Subject: Hobbs SWD F-33 Vent (#1R428-58) Closure Report - Additional Information Required

Dear Mr. Conder:

The New Mexico Oil Conservation Division (NMOCD) has reviewed the submitted Closure Report, dated January 17, 2008, Hobbs SWD F-33 vent submitted by R. T. Hicks on 1/22/2008 (#1R428-58). The NMOCD cannot approve the Closure Report at this time. The NMOCD is requiring additional information regarding this site. Since the NMOCD did not have all site information available at the time of the verbal approval of the Corrective Action Plan, additional BTEXN analysis is required prior to approval of the Closure Report. Please provide the BTEXN analytical results at the former vent site at a depth where a PID reading is at 100 ppm or less. (An acceptable soil sample may be obtained using a low profile direct-push soil sampler.) In addition, please provide a plan to re-seed and fence the site.

Please provide a schedule to the NMOCD by Thursday, July 24, 2008 for the collection of the soil samples and submittal of the analytical data. Also by 7/24/08, please submit the plan for reseeding and fencing the site.

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 NMOCD case # on future correspondence regarding the site listed above.

Hansen, Edward J., EMNRD

From: Katie Lee [katie@rthicksconsult.com]
Sent: Friday, August 15, 2008 5:51 PM
To: Hansen, Edward J., EMNRD
Cc: Hack Conder; Randall Hicks (Randall Hicks)
Subject: Meeting notes, 8-14-08

Ed,

Thanks so much for taking the time to discuss Hobbs F-29-1a (NMOCD # 1R0428-44) and Hobbs F-33 Vent (NMOCD # 1R0428) with me today. Just to summarize, here are the main points we talked about.

Hobbs F-29-1a

- ROC completed all of the work elements identified in the NMOCD approved CAP:
  1. The site is re-vegetated
  2. Ground water in the shallow well has met WQCC standards for 8+ quarters

- COCs in the deep well are due to up gradient, possibly regional sources
- Results of annual sampling of the well will be reported in the annual report of a nearby open Section 29 site

NMOCD action: Close site

Hobbs F-33 Vent

- Previous submission mistakenly showed regulated hydrocarbons, corrected data submitted to NMOCD

- Soil at site meets generally accepted NMOCD closure criteria for chloride and regulated hydrocarbons
- ROC proposes to document re-vegetation at site then request final site closure

NMOCD action: rescind request for additional borings at site, agree to closure after re-vegetation

Thanks again for your time on Thursday. If you have any questions or concerns, please let me know; I'm available to run up to Santa Fe anytime it would be helpful to meet. As always, we respectfully request formal closure of each site in writing.

Best regards,

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

Hansen, Edward J., EMNRD

From: Katie Lee [katie@rthicksconsult.com]
Sent: Wednesday, July 30, 2008 5:50 PM
To: Hansen, Edward J., EMNRD
Cc: Hack Conder; Randall Hicks (Randall Hicks)
Subject: meeting on Thursday, August 7th

Ed,

Glad we were able to catch up today. To confirm, I plan to meet with you briefly at your office in Santa Fe regarding two Rice Operating Company sites and submissions associated with them on Thursday, August 7th at 2pm.

The two sites I'm interested in discussing are:

Hobbs F-33 Vent, NMOCD Case #1R0428-58
Hobbs F-29-1a Vent, NMOCD Case #1R0428-44

I'll look forward to seeing you then.

Best regards,

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

R. T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

July 17, 2008

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

RE: NMOCD Case # 1R0428-58, F-33 Vent
Hobbs SWD System Abandonment
Response to NMOCD Regarding Additional Information Required

Dear Mr. Hansen:

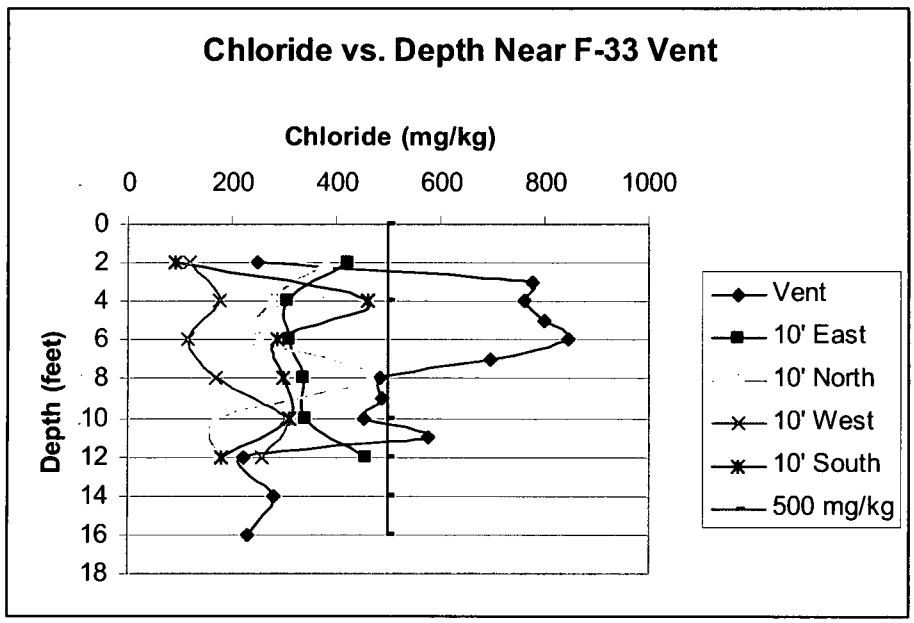
This letter is in response to your June 30th request for additional information at the above referenced site. In reviewing the Corrective Action Plan submitted on January 15th, 2007 and our January 17th, 2008 Closure Report, we conclude that sufficient data already exists to address NMOCD concerns regarding hydrocarbons beneath the former vent and that the site presents no threat to human health or the environment. We regret not presenting the collected data in a more cogent manner in the Corrective Action Plan and seek to better illustrate the results of ROC work at this site in this submission.

Work Done
In 2006 and 2007, characterization and work at F-33 Vent included:

1. Sampling through the vent area to a total depth of 16 feet at 1 foot intervals to 12 feet below ground surface (bgs) and at 2 foot intervals from 12-16 feet bgs.
2. Sampling to a total depth of 12 feet at points 10 feet to the north, south, east, and west of the vent, 2 foot intervals.
3. Samples were field tested for chloride content and screened with a photoionization detector (PID) for hydrocarbons. Soil samples were also submitted to a laboratory for more detailed hydrocarbon analysis.
4. An excavation 10 x 10 x 12 feet at the vent site was completed and ROC removed 18 cubic yards of soil from the site and backfilled the site with a soil mixture with less than 100 ppm total organic vapors and less than 1,000 ppm chloride.
5. A 10-12" clay barrier was installed about 4-feet below ground surface and sloped to the southeast to deflect any potential infiltrating water through the site.
6. Soil borings on either side of the vent were advanced with a hollow stem auger to a total depth of 50 feet. These borings confirmed no chloride or hydrocarbon impact at their locations 22 feet east and 30 feet west of the vent.

Figure 1 shows chloride vs. depth data (before implementation of the remedy) for soils at the vent and in four directions 10' from the vent. As Figure 1 shows, observed chloride

levels were below 500 mg/kg at the four borings near the vent. At the vent itself, chloride levels are below 300 mg/kg from 12 feet below ground surface downward. Rice excavated the material between ground surface and 12 feet, transported 18 cubic yards of soil to disposal, placed a clay layer at 4-feet below grade and covered the clay with soil.



Results of PID field screening for the boring through the vent (before the remedy) and the four borings near the vent are presented in Figure 2.

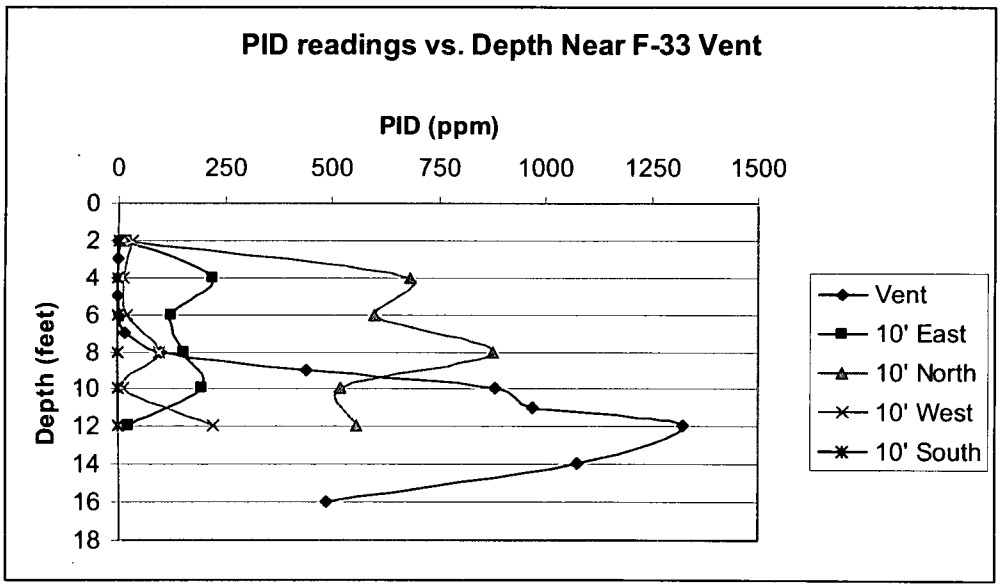


Table 1. PID at Vent Prior to Remedy

Depth (feet)	PID (ppm)
2	0
3	0
4	0.4
5	0
6	3.2
7	18.8
8	101
9	442
10	883
11	970
12	1322
14	1076
16	488

At the vent, PID readings were above 1,000 ppm at 12 and 14 feet below ground surface, shown in Table 1. The soil samples collected from 12 and 16 feet below ground surface at the vent as well as soil

samples from the 4 four borings nearby were submitted for laboratory analysis of hydrocarbons. In our 2007 CAP, we reported the following results for these analyses presented in Table 2 below. Unfortunately, this table contains a few errors in unit conversion, noted with yellow highlight.

Table 2. Laboratory Results Reported in 2007 CAP, F-33 Vent

Location	Depth (Ft bgs)	Regulated Hydrocarbons			
		B	T	E	X
Vent Source	12'	<0.025	<0.025	37.7	65.3
	16'	<0.025	<0.025	27.7	0.3
10 ft east of Vent	4'	<0.025	<0.025	0.513	0.429
	12'	<0.025	<0.025	0.516	<0.025
10 ft west of Vent	12'	<0.025	<0.025	0.117	0.058
10 ft north of vent	8'	<0.025	<0.025	0.094	0.59
	12'	<0.025	<0.025	0.073	0.293

Comparison of Table 2 with the laboratory analysis reveals errors in the reported results. Laboratory analysis for some of the ethylbenzene and total xylenes were significantly lower than those presented. Table 3 presents correct values as reported by the lab, corrected values are highlighted in blue. Appendix A presents the chain of custody and laboratory results for these analyses, pages 9 and 10 of this report show the noted results with blue highlights.

Table 3. Correct Laboratory Results and PID Values, F-33 Vent

Location	Depth (Ft bgs)	Regulated Hydrocarbons				Total BTEX	PID
		B	T	E	X		
Vent Source	12'	<0.025	<0.025	3.77	0.17	3.94	1322
	16'	<0.025	<0.025	0.28	0.03	0.31	488
10 ft east of Vent	4'	<0.025	<0.025	0.05	0.429	0.48	221
	12'	<0.025	<0.025	0.05	<0.025	0.05	26.9
10 ft west of Vent	12'	<0.025	<0.025	0.117	0.058	0.18	223
10 ft north of vent	8'	<0.025	<0.025	0.094	0.59	0.68	877
	12'	<0.025	<0.025	0.073	0.293	0.37	560

As Table 3 shows, Benzene is below 0.2 mg/kg and total BTEX is below 50 mg/kg at both 12 and 16 feet below ground surface at the vent and hydrocarbon levels decrease with depth. PID levels for these same soil samples show that the PID consistently over predicted hydrocarbons in soil at the time of analysis. It is possible the PID was incorrectly calibrated, or soil was too moist at the time of field screening, but it remains clear that the PID is effective at evaluating when hydrocarbons in soil are very low.

The remedy at this site called for excavation of a 10 x 10 x 12 foot area at the vent location and removal of the most impacted soil. ROC removed 18 cubic yards of

hydrocarbon impacted soil (40% of the total excavated volume) and backfilled with a mixture of clean dirt and remaining soil. This soil exhibited a PID reading of 28.1 and 49.7 as reported in ROC's VOC Field Test Report dated 8/17/07 (See Appendix B for waste manifests and this report). The chloride level for a composite sample from the backfill was confirmed by a laboratory to be 128 mg/kg (Appendix B).

We conclude that any significant hydrocarbon impacted soil was removed at the site and that existing data confirms that soil beneath the clay barrier that was installed as part of the remedy meets NMOCD standards for buried soil in areas where the depth to water is 50-100 feet below ground surface. The depth to water at this site is about 65 feet and laboratory analyses of hydrocarbons in soil at 16 feet below ground surface show that soil meets standards.

Upon review of this data, we hope the NMOCD will reconsider its request for deep sampling at the vent location. Upon confirmation of NMOCD acceptance of this data, we propose to fence and re-seed the site to effectively achieve the previously proposed vegetative barrier and provide evidence of re-vegetation to NMOCD prior to re-requesting closure.

We respectfully request NMOCD respond to this report in writing. Thank you for your attention to this matter.

Sincerely,
R.T. Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Rice Operating Company
Hobbs NMOCD Office

Appendix A

Laboratory Analysis

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

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: F-33 Vent (UN0080)

Project Number: Hobbs Abandonment

Location: T18S, R38E, Sec. 33, Unit Letter F

Lab Order Number: 6E25001

Report Date: 06/06/06

Race Operating Co	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Source 12'	6E25001-01	Soil	05/22/06 10:30	05/25/06 08:00
Source 16'	6E25001-02	Soil	05/22/06 11:10	05/25/06 08:00
10' east 4'	6E25001-03	Soil	05/22/06 11:55	05/25/06 08:00
10' east 12'	6E25001-04	Soil	05/22/06 14:04	05/25/06 08:00
10' north 8'	6E25001-05	Soil	05/22/06 14:10	05/25/06 08:00
10' north 12'	6E25001-06	Soil	05/22/06 14:25	05/25/06 08:00
10' west 12'	6E25001-07	Soil	05/22/06 14:50	05/25/06 08:00

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Rice Operating Co.	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W. Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Source 12' (6E25001-01) Soil									
Carbon Ranges C6-C12	2250	20.0	mg/kg dry	2	EF60219	06/02/06	06/05/06	EPA 8015M	
Carbon Ranges C12-C28	9470	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	1000	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	12700	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*67.4 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*59.6 %*	*70-130*		"	"	"	"	*S-06*
Source 16' (6E25001-02) Soil									
Carbon Ranges C6-C12	1120	20.0	mg/kg dry	2	EF60219	06/02/06	06/05/06	EPA 8015M	
Carbon Ranges C12-C28	9970	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	1330	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	12400	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*58.4 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*58.2 %*	*70-130*		"	"	"	"	*S-06*
10' east 4' (6E25001-03) Soil									
Carbon Ranges C6-C12	596	20.0	mg/kg dry	2	EF60219	06/02/06	06/05/06	EPA 8015M	
Carbon Ranges C12-C28	8900	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	1580	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	11100	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*52.8 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*54.2 %*	*70-130*		"	"	"	"	*S-06*
10' east 12' (6E25001-04) Soil									
Carbon Ranges C6-C12	24.8	20.0	mg/kg dry	2	EE62507	05/25/06	05/26/06	EPA 8015M	
Carbon Ranges C12-C28	978	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	202	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	1200	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*52.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*55.2 %*	*70-130*		"	"	"	"	*S-06*

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Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10' north 8' (6E25001-05) Soil									
Carbon Ranges C6-C12	1540	20.0	mg/kg dry	2	EF60219	06/02/06	06/05/06	EPA 8015M	
Carbon Ranges C12-C28	6860	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	602	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	9000	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*69.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*68.2 %*	*70-130*		"	"	"	"	*S-06*
10' north 12' (6E25001-06) Soil									
Carbon Ranges C6-C12	1450	20.0	mg/kg dry	2	EF60219	06/02/06	06/05/06	EPA 8015M	
Carbon Ranges C12-C28	6910	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	625	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	8980	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*66.8 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*69.8 %*	*70-130*		"	"	"	"	*S-06*
10' west 12' (6E25001-07) Soil									
Carbon Ranges C6-C12	877	20.0	mg/kg dry	2	EE62507	05/25/06	05/28/06	EPA 8015M	
Carbon Ranges C12-C28	6750	20.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	603	20.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	8230	20.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*57.4 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*59.4 %*	*70-130*		"	"	"	"	*S-06*

Fractionation of Aliphatics by TNRCC Method 1006

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source 12' (6E25001-01) Soil									
C6-C8	50.8	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	
>C8-C10	421	10.0	"	"	"	"	"	"	
>C10-C12	892	10.0	"	"	"	"	"	"	
>C12-C16	2460	10.0	"	"	"	"	"	"	
>C16-C21	2300	10.0	"	"	"	"	"	"	
>C21-C35	1690	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	7810	10.0	"	"	"	"	"	"	
Source 16' (6E25001-02) Soil									
C6-C8	ND	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	
>C8-C10	110	10.0	"	"	"	"	"	"	
>C10-C12	345	10.0	"	"	"	"	"	"	
>C12-C16	1540	10.0	"	"	"	"	"	"	
>C16-C21	1830	10.0	"	"	"	"	"	"	
>C21-C35	1440	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	5260	10.0	"	"	"	"	"	"	
10' east 4' (6E25001-03) Soil									
C6-C8	ND	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	
>C8-C10	45.4	10.0	"	"	"	"	"	"	
>C10-C12	383	10.0	"	"	"	"	"	"	
>C12-C16	1800	10.0	"	"	"	"	"	"	
>C16-C21	2300	10.0	"	"	"	"	"	"	
>C21-C35	2660	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	7190	10.0	"	"	"	"	"	"	
10' north 8' (6E25001-05) Soil									
C6-C8	ND	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	
>C8-C10	268	10.0	"	"	"	"	"	"	
>C10-C12	941	10.0	"	"	"	"	"	"	
>C12-C16	2650	10.0	"	"	"	"	"	"	
>C16-C21	2470	10.0	"	"	"	"	"	"	
>C21-C35	1840	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	8170	10.0	"	"	"	"	"	"	

Rice Operating Co.	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W. Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

Fractionation of Aliphatics by TNRCC Method 1006
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10' north 12' (6E25001-06) Soil									
C6-C8	ND	10.0	mg/kg dry	1	FF60608	06/02/06	06/06/06	TX 1006	
>C8-C10	126	10.0	"	"	"	"	"	"	
>C10-C12	611	10.0	"	"	"	"	"	"	
>C12-C16	1840	10.0	"	"	"	"	"	"	
>C16-C21	1710	10.0	"	"	"	"	"	"	
>C21-C35	1210	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	5500	10.0	"	"	"	"	"	"	

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Fractionation of Aromatics by TNRCC Method 1006
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source 12' (6E25001-01) Soil									
C7-C8	J [6.44]	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	J
>C8-C10	69.5	10.0	"	"	"	"	"	"	
>C10-C12	290	10.0	"	"	"	"	"	"	
>C12-C16	1340	10.0	"	"	"	"	"	"	
>C16-C21	1760	10.0	"	"	"	"	"	"	
>C21-C35	1670	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	5130	10.0	"	"	"	"	"	"	
Source 16' (6E25001-02) Soil									
C7-C8	J [5.77]	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	J
>C8-C10	46.7	10.0	"	"	"	"	"	"	
>C10-C12	146	10.0	"	"	"	"	"	"	
>C12-C16	769	10.0	"	"	"	"	"	"	
>C16-C21	1340	10.0	"	"	"	"	"	"	
>C21-C35	1390	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	3690	10.0	"	"	"	"	"	"	
10' east 4' (6E25001-03) Soil									
C7-C8	J [5.79]	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	J
>C8-C10	45.8	10.0	"	"	"	"	"	"	
>C10-C12	55.7	10.0	"	"	"	"	"	"	
>C12-C16	669	10.0	"	"	"	"	"	"	
>C16-C21	1850	10.0	"	"	"	"	"	"	
>C21-C35	2880	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	5500	10.0	"	"	"	"	"	"	
10' north 8' (6E25001-05) Soil									
C7-C8	J [5.13]	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	J
>C8-C10	62.1	10.0	"	"	"	"	"	"	
>C10-C12	302	10.0	"	"	"	"	"	"	
>C12-C16	1070	10.0	"	"	"	"	"	"	
>C16-C21	1520	10.0	"	"	"	"	"	"	
>C21-C35	1230	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	4180	10.0	"	"	"	"	"	"	

Rice Operating Co.	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W. Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

Fractionation of Aromatics by TNRCC Method 1006

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10' north 12' (6E25001-06) Soil									
C7-C8	J [4.16]	10.0	mg/kg dry	1	EF60608	06/02/06	06/06/06	TX 1006	J
>C8-C10	49.2	10.0	"	"	"	"	"	"	
>C10-C12	229	10.0	"	"	"	"	"	"	
>C12-C16	882	10.0	"	"	"	"	"	"	
>C16-C21	1120	10.0	"	"	"	"	"	"	
>C21-C35	984	10.0	"	"	"	"	"	"	
Total Hydrocarbon nC6-nC35	3260	10.0	"	"	"	"	"	"	

Rice Operating Co.	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W. Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source 12' (6E25001-01) Soil									
% Moisture	11.1	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
Source 16' (6E25001-02) Soil									
Chloride	143	10.0	mg/kg	20	EE63005	05/29/06	05/29/06	EPA 300.0	
% Moisture	14.0	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
10' east 4' (6E25001-03) Soil									
Chloride	341	10.0	mg/kg	20	EE63005	05/29/06	05/29/06	EPA 300.0	
% Moisture	9.8	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
10' east 12' (6E25001-04) Soil									
% Moisture	8.7	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
10' north 8' (6E25001-05) Soil									
% Moisture	4.3	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
10' north 12' (6E25001-06) Soil									
% Moisture	3.7	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	
10' west 12' (6E25001-07) Soil									
% Moisture	4.6	0.1	%	1	EE62607	05/25/06	05/26/06	% calculation	

12600 West I-20 East - Odessa, Texas 79765 - (432) 563-1800 - Fax (432) 563-1713

[illegible]	Project: [illegible]	Fax: (505) 397-1471
[illegible]	Project Number: Fields Abandonment	Reported:
Hobbs, NM 88240	Project Manager: Kristina Hurtado	[illegible]

Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	RPD	Prepared	Analyzed	Method	Notes
Source ID: 16E25001-01 Soil									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ethylbenzene	3770	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Xylene (para)	171	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Xylene (m)	1,148	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Naphthalene	4500	500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Source ID: 16E25001-02 Soil									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ethylbenzene	2*9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Xylene (p) [illegible]	28.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Naphthalene	178	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BH-[illegible]-16E25001-03 Soil									
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ethylbenzene	513	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Xylene (p) [illegible]	1,124	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Xylene (m)	1,158	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Naphthalene	200	250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] of Texas

[illegible]

[illegible] Texas 79705 [illegible]

Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10' east 12' (6L25001-04) Soil									
Benzene	ND	25.0	ug/kg dry	25	[illegible]	[illegible]	[illegible]	[illegible]	
Toluene	ND	25.0							
Ethylbenzene	**51.6**	25.0							
Xylene (p/m)	**ND**	25.0							
Xylene (o)	ND	25.0							
Naphthalene	**91.5**	25.0							
10' north 8' (6L25001-05) Soil									
[illegible]	ND	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	
Toluene	ND								
Ethylbenzene	93.8	[illegible]							
Xylene (p/m)	284	[illegible]							
Xylene (o)	336	[illegible]							
Naphthalene	103	[illegible]							
10' north 12' (6L25001-06) Soil									
Benzene	ND	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Toluene	ND	[illegible]							
Ethylbenzene	72.8	[illegible]							
Xylene (p/m)	401	[illegible]							
Xylene (o)	392	[illegible]							
Naphthalene	202	[illegible]							

Rice Operating Co.	Project: F-33 Vent (UN0080)	Fax: (505) 397-1471
122 W. Taylor	Project Number: Hobbs Abandonment	Reported:
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	06/06/06 15:00

Volatile Organic Compounds by EPA Method 8260B

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10' west 12' (6E25001-07) Soil									
Benzene	ND	25.0	ug/kg dry	25	EE62606	05/26/06	05/31/06	EPA 8260B	
Toluene	ND	25.0	"	"	"	"	"	"	
Ethylbenzene	117	25.0	"	"	"	"	"	"	
Xylene (p/m)	25.1	25.0	"	"	"	"	"	"	
Xylene (o)	33.0	25.0	"	"	"	"	"	"	
Naphthalene	91.4	25.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*99.8 %*		*70-139*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.4 %*		*52-149*		"	"	"	
Surrogate: Toluene-d8		*86.2 %*		*76-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*66-145*		"	"	"	

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 EE62507 - Solvent Extraction (GC)										
Blank (EE62507-BLK1)				Prepared: 05/25/06 Analyzed: 05/26/06						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*43.6*		*mg/kg*	*50.0*		*87.2*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.3*		"	*50.0*		*90.6*	*70-130*			
LCS (EE62507-BS1)				Prepared: 05/25/06 Analyzed: 05/26/06						
Carbon Ranges C6-C12	546	10.0	mg/kg wet	500		109	75-125			
Carbon Ranges C12-C28	561	10.0	"	500		112	75-125			
Total Hydrocarbon nC6-nC35	1110	10.0	"	1000		111	75-125			
Surrogate: 1-Chlorooctane	*57.6*		*mg/kg*	*50.0*		*115*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.2*		"	*50.0*		*98.4*	*70-130*			
Calibration Check (EE62507-CCV1)				Prepared: 05/25/06 Analyzed: 05/30/06						
Carbon Ranges C6-C12	268		mg/kg	250		107	80-120			
Carbon Ranges C12-C28	286		"	250		114	80-120			
Total Hydrocarbon nC6-nC35	554		"	500		111	80-120			
Surrogate: 1-Chlorooctane	*64.4*		"	*50.0*		*129*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.4*		"	*50.0*		*125*	*70-130*			
Matrix Spike (EE62507-MS1)	**Source: 6E24006-01**			Prepared: 05/25/06 Analyzed: 05/26/06						
Carbon Ranges C6-C12	573	10.0	mg/kg dry	520	ND	110	75-125			
Carbon Ranges C12-C28	576	10.0	"	520	ND	111	75-125			
Total Hydrocarbon nC6-nC35	1150	10.0	"	1040	ND	111	75-125			
Surrogate: 1-Chlorooctane	*55.5*		*mg/kg*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*50.2*		"	*50.0*		*100*	*70-130*			

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 EE62507 - Solvent Extraction (GC)										
Matrix Spike Dup (EE62507-MSD1)	Source: 6E24006-01			Prepared: 05/25/06	Analyzed: 05/31/06					
Carbon Ranges C6-C12	575	10.0	mg/kg dry	520	ND	111	75-125	0.348	20	
Carbon Ranges C12-C28	579	10.0	"	520	ND	111	75-125	0.519	20	
Total Hydrocarbon nC6-nC35	1150	10.0	"	1040	ND	111	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*56.1*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*49.8*		"	*50.0*		*99.6*	*70-130*			
Batch EF60219 - Solvent Extraction (GC)										
Blank (EF60219-BLK1)				Prepared: 06/02/06	Analyzed: 06/05/06					
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
Surrogate: 1-Chlorooctane	*45.4*		*mg/kg*	*50.0*		*90.8*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.5*		"	*50.0*		*93.0*	*70-130*			
LCS (EF60219-BS1)				Prepared: 06/02/06	Analyzed: 06/05/06					
Carbon Ranges C6-C12	567	10.0	mg/kg wet	500		113	75-125			
Carbon Ranges C12-C28	554	10.0	"	500		111	75-125			
Total Hydrocarbon nC6-nC35	1120	10.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	*58.3*		*mg/kg*	*50.0*		*117*	*70-130*			
Surrogate: 1-Chlorooctadecane	*52.7*		"	*50.0*		*105*	*70-130*			
Calibration Check (EF60219-CCV1)				Prepared: 06/02/06	Analyzed: 06/05/06					
Carbon Ranges C6-C12	290		mg/kg	250		116	80-120			
Carbon Ranges C12-C28	294		"	250		118	80-120			
Total Hydrocarbon nC6-nC35	584		"	500		117	80-120			
Surrogate: 1-Chlorooctane	*57.9*		"	*50.0*		*116*	*70-130*			
Surrogate: 1-Chlorooctadecane	*58.2*		"	*50.0*		*116*	*70-130*			

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 EF60219 - Solvent Extraction (GC)										
Matrix Spike (EF60219-MS1)	**Source: 6F02008-01**			Prepared: 06/02/06		Analyzed: 06/05/06				
Carbon Ranges C6-C12	734	10.0	mg/kg dry	696	ND	105	75-125			
Carbon Ranges C12-C28	728	10.0	"	696	42.5	98.5	75-125			
Total Hydrocarbon nC6-nC35	1460	10.0	"	1390	42.5	102	75-125			
Surrogate: 1-Chlorooctane	*53.6*		*mg/kg*	*50.0*		*111*	*70-130*			
Surrogate: 1-Chlorooctadecane	*47.3*		"	*50.0*		*94.6*	*70-130*			
Matrix Spike Dup (EF60219-MSD1)	**Source: 6F02008-01**			Prepared: 06/02/06		Analyzed: 06/05/06				
Carbon Ranges C6-C12	724	10.0	mg/kg dry	696	ND	104	75-125	1.37	20	
Carbon Ranges C12-C28	734	10.0	"	696	42.5	98.4	75-125	0.821	20	
Total Hydrocarbon nC6-nC35	1460	10.0	"	1390	42.5	102	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*55.0*		*mg/kg*	*50.0*		*110*	*70-130*			
Surrogate: 1-Chlorooctadecane	*46.4*		"	*50.0*		*92.8*	*70-130*			

Fractionation of Aliphatics by TNRCC Method 1006 - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60608 - Solvent Extraction (GC)										
Blank (EF60608-BLK1)				Prepared: 06/02/06 Analyzed: 06/06/06						
C6-C8	ND	10.0	mg/kg wet							
>C8-C10	ND	10.0	"							
>C10-C12	ND	10.0	"							
>C12-C16	ND	10.0	"							
>C16-C21	ND	10.0	"							
>C21-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
LCS (EF60608-BS1)				Prepared: 06/02/06 Analyzed: 06/06/06						
Total Hydrocarbon nC6-nC35	1730	10.0	mg/kg wet	2000		86.5	60-140			
Calibration Check (EF60608-CCV1)				Prepared & Analyzed: 06/06/06						
Total Hydrocarbon nC6-nC35	568		mg/kg	500		114	80-120			
Duplicate (EF60608-DUP1)		Source: 6E25001-01		Prepared & Analyzed: 06/06/06						
C6-C8	48.7	10.0	mg/kg dry		50.8			4.22	20	
>C8-C10	415	10.0	"		421			1.44	20	
>C10-C12	891	10.0	"		892			0.112	20	
>C12-C16	2500	10.0	"		2460			1.61	20	
>C16-C21	2340	10.0	"		2300			1.72	20	
>C21-C35	1730	10.0	"		1690			2.34	20	
Total Hydrocarbon nC6-nC35	7920	10.0	"		7810			1.40	20	

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

Fractionation of Aromatics by TNRCC Method 1006 - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF60608 - Solvent Extraction (GC)										
Blank (EF60608-BLK1)				Prepared: 06/02/06 Analyzed: 06/06/06						
C7-C8	ND	10.0	mg/kg wet							
>C8-C10	ND	10.0	"							
>C10-C12	ND	10.0	"							
>C12-C16	ND	10.0	"							
>C16-C21	ND	10.0	"							
>C21-C35	ND	10.0	"							
Total Hydrocarbon nC6-nC35	ND	10.0	"							
LCS (EF60608-BS1)				Prepared: 06/02/06 Analyzed: 06/06/06						
Total Hydrocarbon nC6-nC35	1730	10.0	mg/kg wet	2000		86.5	60-140			
Calibration Check (EF60608-CCV1)				Prepared & Analyzed: 06/06/06						
Total Hydrocarbon nC6-nC35	568		mg/kg	500		114	80-120			
Duplicate (EF60608-DUP1)		Source: 6E25001-01		Prepared & Analyzed: 06/06/06						
C7-C8	6.25	10.0	mg/kg dry		6.44			2.99	20	J
>C8-C10	73.4	10.0	"		69.5			5.46	20	
>C10-C12	283	10.0	"		290			2.44	20	
>C12-C16	1360	10.0	"		1340			1.48	20	
>C16-C21	1790	10.0	"		1760			1.69	20	
>C21-C35	1680	10.0	"		1670			0.597	20	
Total Hydrocarbon nC6-nC35	5200	10.0	"		5130			1.36	20	

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 EE62607 - General Preparation (Prep)										
Blank (EE62607-BLK1)				Prepared: 05/25/06 Analyzed: 05/26/06						
% Solids	100		%							
Duplicate (EE62607-DUP1)		Source: 6E24016-01		Prepared: 05/25/06 Analyzed: 05/26/06						
% Solids	96.6		%		96.8			0.207	20	
Duplicate (EE62607-DUP2)		Source: 6E24016-21		Prepared: 05/25/06 Analyzed: 05/26/06						
% Solids	99.6		%		99.9			0.301	20	
Duplicate (EE62607-DUP3)		Source: 6E24016-41		Prepared: 05/25/06 Analyzed: 05/26/06						
% Solids	99.7		%		99.5			0.201	20	
Duplicate (EE62607-DUP4)		Source: 6E25007-02		Prepared: 05/25/06 Analyzed: 05/26/06						
% Solids	90.8		%		89.7			1.22	20	
Batch EE63005 - Water Extraction										
Blank (EE63005-BLK1)				Prepared & Analyzed: 05/29/06						
Chloride	ND	0.500	mg/kg							
LCS (EE63005-BS1)				Prepared & Analyzed: 05/29/06						
Chloride	10.2	0.500	mg/kg	10.0		102	80-120			
Calibration Check (EE63005-CCV1)				Prepared & Analyzed: 05/29/06						
Chloride	10.3		mg/L	10.0		103	80-120			
Duplicate (EE63005-DUP1)		Source: 6E24016-41		Prepared & Analyzed: 05/29/06						
Chloride	12.2	5.00	mg/kg		12.8			4.80	20	

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 EE63005 - Water Extraction										
Duplicate (EE63005-DUP2)		**Source: 6E25008-02**		Prepared & Analyzed: 05/29/06						
Chloride	181	20.0	mg/kg		179			1.11	20	
Matrix Spike (EE63005-MS1)		**Source: 6E24016-41**		Prepared & Analyzed: 05/29/06						
Chloride	102	5.00	mg/kg	100	12.8	89.2	80-120			
Matrix Spike (EE63005-MS2)		**Source: 6E25008-02**		Prepared & Analyzed: 05/29/06						
Chloride	371	20.0	mg/kg	400	179	98.0	80-120			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE62606 - EPA 5030C (GCMS)										
Blank (EE62606-BLK1)				Prepared & Analyzed: 05/26/06						
Benzene	ND	25.0	ug/kg wet							
Toluene	ND	25.0	"							
Ethylbenzene	ND	25.0	"							
Xylene (p/m)	ND	25.0	"							
Xylene (o)	ND	25.0	"							
Naphthalene	ND	25.0	"							
Surrogate: Dibromofluoromethane	*53.0*		*ug/l*	*50.0*		*106*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*45.7*		"	*50.0*		*82.4*	*52-149*			
Surrogate: Toluene-d8	*41.3*		"	*50.0*		*82.6*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*37.5*		"	*50.0*		*75.0*	*66-145*			
LCS (EE62606-BS1)				Prepared & Analyzed: 05/26/06						
Benzene	568	25.0	ug/kg wet	625		90.9	70-130			
Toluene	589	25.0	"	625		94.2	70-130			
Ethylbenzene	627	25.0	"	625		100	70-130			
Xylene (p/m)	1200	25.0	"	1250		96.0	70-130			
Xylene (o)	640	25.0	"	625		102	70-130			
Naphthalene	534	25.0	"	625		85.4	70-130			
Surrogate: Dibromofluoromethane	*47.5*		*ug/l*	*50.0*		*95.0*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*41.7*		"	*50.0*		*83.4*	*52-149*			
Surrogate: Toluene-d8	*42.8*		"	*50.0*		*85.6*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*40.7*		"	*50.0*		*81.4*	*66-145*			
Calibration Check (EE62606-CCV1)				Prepared & Analyzed: 05/26/06						
Toluene	42.9		ug/l	50.0		85.8	70-130			
Ethylbenzene	40.5		"	50.0		81.0	70-130			
Surrogate: Dibromofluoromethane	*50.6*		"	*50.0*		*101*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*43.9*		"	*50.0*		*87.8*	*52-149*			
Surrogate: Toluene-d8	*45.7*		"	*50.0*		*91.4*	*76-125*			
Surrogate: 4-Bromofluorobenzene	*43.9*		"	*50.0*		*87.8*	*66-145*			

12600 West I-20 East - Odessa, Texas 79765 - (432) 563-1800 - Fax (432) 563-1713

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE62606 - EPA 5030C (GCMS)										
Matrix Spike (EE62606-MS1)	Source: 6E25028-02			Prepared & Analyzed: 05/26/06						
Benzene	642	25.0	ug/kg dry	666	ND	96.4	70-130			
Toluene	670	25.0	"	666	ND	101	70-130			
Ethylbenzene	699	25.0	"	666	ND	105	70-130			
Xylene (p/m)	1330	25.0	"	1330	ND	100	70-130			
Xylene (o)	713	25.0	"	666	ND	107	70-130			
Naphthalene	547	25.0	"	666	32.7	77.2	70-130			
Surrogate: Dibromofluoromethane	*40.8*		*ug/l*	*50.0*		*93.6*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*41.6*		"	*50.0*		*83.2*	*52-149*			
Surrogate: Toluene-d8	*41.1*		"	*50.0*		*82.2*	*70-125*			
Surrogate: 4-Bromofluorobenzene	*39.4*		"	*50.0*		*78.8*	*66-145*			
Matrix Spike Dup (EE62606-MSD1)	Source: 6E25028-02			Prepared & Analyzed: 05/26/06						
Benzene	631	25.0	ug/kg dry	666	ND	94.7	70-130	1.78	20	
Toluene	655	25.0	"	666	ND	98.3	70-130	2.71	20	
Ethylbenzene	613	25.0	"	666	ND	92.0	70-130	13.2	20	
Xylene (p/m)	1220	25.0	"	1330	ND	91.7	70-130	8.66	20	
Xylene (o)	654	25.0	"	666	ND	98.2	70-130	8.58	20	
Naphthalene	628	25.0	"	666	32.7	89.4	70-130	14.6	20	
Surrogate: Dibromofluoromethane	*49.8*		*ug/l*	*50.0*		*99.6*	*70-139*			
Surrogate: 1,2-Dichloroethane-d4	*48.8*		"	*50.0*		*97.6*	*52-149*			
Surrogate: Toluene-d8	*42.7*		"	*50.0*		*85.4*	*70-125*			
Surrogate: 4-Bromofluorobenzene	*39.8*		"	*50.0*		*79.6*	*66-145*			

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Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's
J	Detected but below the Reporting Limit, therefore, result is an estimated concentration (CLP J-Flag).
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: Roland K Tuttle Date: 6-07-06

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: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Pope
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
Email results to: gil@rthicksconsult.com, mfranks@riceswd.com, kpope@riceswd.com, & andrew@rthicksconsult.com
Sampler Signature:

Project Name: F-33 Vent (UN0080)
Project #: Hobbs Abandonment
Project Location: T18S, R38E, Sec 33, Unit Letter F
ROC Billing Code

LAB # (lab use only)	GIS CODE	FIELD CODE	Sample Depth (soils only) Begin (ft)	End (ft)	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/ 8260	RCI	N.O.R.M.	Total Dissolved Solids	TPH: 8015M	TPH: 1006	Chloride	RUSH TAT (Pre-Scheduled)	Standard TAT
LE75001																																	
01	414	Source (12')	12	12	5/22/06	10:30	1	X									X								X				X			X
02	414	Source (16')	16	16	"	11:10	1	X									X								X				X	X		X
03	415	10' east (4')	4	4	"	11:55	1	X									X								X				X	X		X
04	415	10' east (12')	12	12	"	2:04	1	X									X								X			X				X
05	416	10' north (8')	8	8	"	2:10	1	X									X								X				X			X
06	416	10' north (12')	12	12	"	2:25	1	X									X								X				X			X
07	417	10' west (12')	12	12	"	2:50	1	X									X								X			X				X

Special Instruction

Sample Containers Intact? Y N
Temperature Upon Receipt: 2.0
Laboratory Comments: 4oz glass

Relinquished by:	Date	Time	Received by	Date	Time
	5/24/06	7:51		5/24	17:30
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	5/25	8:00		5/25/06	8:00

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

Client: Rice DP.

Date/Time: 5/25/06 8:00

Order #: UE25001

Initials: CK

Sample Receipt Checklist

	Yes	No	2.0 C
Temperature of container/cooler?	Yes	No	
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 accumented 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:

Appendix B

Waste Manifest and Backfill Analysis

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

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(505) 394-2511

Ticket # 5861

Lease Operator/Shipper/Company: _____

Lease Name: _____

Transporter Company: _____ Time _____ AM/PM

Date: _____ Vehicle No. _____ Driver No. _____

Charge To: _____

TYPE OF MATERIAL

☐ Produced Water ☐ Drilling Fluids ☐ Completion Fluids

☐ Tank Bottoms ☐ Contaminated Soil ☐ C-117 No.:

☐ Other Materials ☐ BS&W Content:

Description: ☐ JETOUT ☐ CALLOUT

VOLUME OF MATERIAL BBLS. YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.007 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was rendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: _____

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(505) 394-2511

Ticket # 55578

Lease Operator/Shipper/Company:

Lease Name:

Transporter Company: Time AM/PM

Date: Vehicle No. Driver No.

Charge To:

TYPE OF MATERIAL

- ☐ Produced Water
- ☐ Drilling Fluids
- ☐ Completion Fluids
- ☐ Tank Bottoms
- ☐ Contaminated Soil
- ☐ C-117 No.:
- ☐ Other Materials
- ☐ BS&W Content:

Description:

- ☐ JETOUT
- ☐ CALLOUT

VOLUME OF MATERIAL BBLS YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

AS SO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

FACILITY REPRESENTATIVE:

CARDINAL 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
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 08/30/07
Reporting Date: 08/30/07
Project Owner: NOT GIVEN
Project Name: HOBBS F-33 VENT
Project Location: HOBBS F-33 VENT

Analysis Date: 08/30/07
Sampling Date: 08/29/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl^- (mg/Kg)
H13198-1	2:1 MIXED BACKFILL COMPOSITE	128
Quality Control		480
True Value QC		500
% Recovery		96
Relative Percent Difference		2.1

METHOD: Standard Methods	4500-Cl⁻B

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

Chemist

08-31-07
Date

H13198 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
Project Manager: Kristy Pope
Address: 122 W. Taylor
City: Hobbs State: NM Zip: 88240
Phone #: 505-393-9175 Fax #: 505-397-1471
Project #: Project Owner:
Project Name: Hobbs F-33 vent
Project Location: Hobbs F-33 vent
Sampler Name: Lara Weinheimer

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	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Chlorides
#13198-1	2:1 Mixed backfill composite	C	1			X					X		8-29-07	11:19 a.m.	X

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: Date: 8-30-07 Time: 7:57 a.m. Received By:
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

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

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☒ Yes ☐ No Add'l Fax #:
REMARKS: email results
Kpope@rice-swd.com
lweinheimer@riceswd.com

RICE OPERATING COMPANY

122 West Taylor, Hobbs, NM 88240
Phone: (505) 393-9174 Fax: (505) 397-1471

VOC FIELD TEST REPORT FORM

PID METER READING AND CALIBRATION

CHECK MODEL NUMBER			
		MODEL: PGM 761S	SERIAL NO.: 104412
	×	MODEL: PGM 7600	SERIAL NO.: 110-013744
		MODEL: PGM 7600	SERIAL NO.: 110-12383
		MODEL: PGM 7600	SERIAL NO.: 110-012920

LOT NO.: 07-3264
GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE
FILL DATE: 8/17/2007
EXPIRATION DATE: 2/17/2009
ACCURACY +/- 2%
METER READING ACCURACY: 102 ppm

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
Hobbs	F-33 vent	F	33	18S	38E

SITE:

SAMPLE	PID READING	SAMPLE	PID READING
2:1 mixed backfill comp.			
pile #1	28.1		
2:1 mixed backfill comp.			
pile #2	49.7		

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

SIGNATURE: Lara Weinheimer DATE: 8/29/2007

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, June 30, 2008 6:32 PM
To: 'Hack Conder'
Cc: 'Marvin Burrows'; Johnson, Larry, EMNRD; Price, Wayne, EMNRD; 'Katie Lee'
Subject: Hobbs SWD F-33 Vent (#1R428-58) Closure Report - Additional Information Required

Dear Mr. Conder:

The New Mexico Oil Conservation Division (NMOCD) has reviewed the submitted Closure Report, dated January 17, 2008, Hobbs SWD F-33 vent submitted by R. T. Hicks on 1/22/2008 (#1R428-58). The NMOCD cannot approve the Closure Report at this time. The NMOCD is requiring additional information regarding this site. Since the NMOCD did not have all site information available at the time of the verbal approval of the Corrective Action Plan, additional BTEXN analysis is required prior to approval of the Closure Report. Please provide the BTEXN analytical results at the former vent site at a depth where a PID reading is at 100 ppm or less. (An acceptable soil sample may be obtained using a low profile direct-push soil sampler.) In addition, please provide a plan to re-seed and fence the site.

Please provide a schedule to the NMOCD by Thursday, July 24, 2008 for the collection of the soil samples and submittal of the analytical data. Also by 7/24/08, please submit the plan for reseeding and fencing the site.

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 NMOCD case # on future correspondence regarding the site listed above.