

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Elm Ridge Resources Telephone: (505) 632-3476 e-mail address: amackey1@elmridge.net  
Address: #20 CR 5060, Bloomfield, New Mexico, 87413  
Facility or well name: Federal 8 No. 1 API #: 3003924554 U/L or Qtr/Qtr I Sec 8 T 23N R 6W  
County: Rio Arriba Latitude 36.237733 Longitude -107.485600 NAD: 1927 ☒ 1983 ☐  
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☐ Production ☒ Disposal ☐  
Workover ☐ Emergency ☐  
Lined ☐ Unlined ☒  
Liner type: Synthetic ☐ Thickness        mil Clay ☐  
Pit Volume        bbl

**Below-grade tank**

Volume:        bbl Type of fluid:  
Construction material:  
Double-walled, with leak detection? Yes ☐ If not, explain why not       



Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)	
	50 feet or more, but less than 100 feet	(10 points)	
	100 feet or more	( 0 points)	10
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)	
	No	( 0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)	
	200 feet or more, but less than 1000 feet	(10 points)	
	1000 feet or more	( 0 points)	0
<b>Ranking Score (Total Points)</b>			10

**If this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

Soil tested clean, no soil remediation required

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 3/9/06

Printed Name/Title Ms. Amy Mackey, Production Technician

Signature Amy Mackey

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:  
DEPUTY OIL & GAS INSPECTOR, DIST. 8  
Printed Name/Title        Signature       

Date: MAR 16 2006

CLIENT: <u>Elm Ridge</u>	<b>ENVIROTECH INC.</b> <small>ENVIRONMENTAL SCIENTISTS &amp; ENGINEERS          5796 U.S. HIGHWAY 64-3014          FARMINGTON, NEW MEXICO 87401          PHONE: (505) 632-0615</small>	LOCATION NO: _____  C.O.C. NO: _____
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<b>FIELD REPORT: CLOSURE VERIFICATION</b>	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>Federal 8</u>	WELL #: <u>No. 1</u>	PIT: <u>T3</u>	DATE STARTED: <u>2/14/06</u>
QUAD/UNIT: _____	SEC: <u>8</u>	TWP: <u>23</u>	DATE FINISHED: <u>2/14/06</u>
RNG: <u>6</u> PM: <u>NMPM</u> CNTY: <u>RA</u> ST: <u>NM</u>			ENVIRONMENTAL SPECIALIST: <u>GWC</u>
QTR/FOOTAGE: _____ CONTRACTOR: <u>Frank's</u>			

EXCAVATION APPROX. \_\_\_\_\_ FT. x \_\_\_\_\_ FT. x \_\_\_\_\_ FT. DEEP. CUBIC YARDAGE: 0

DISPOSAL FACILITY: N/A REMEDIATION METHOD: N/A

LAND USE: \_\_\_\_\_ LEASE: SF-078359 FORMATION: Gallup Dakota

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 140 FT. 230' FROM WELLHEAD.

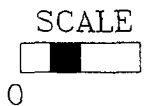
DEPTH TO GROUNDWATER: 50-100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000

NMOC D RANKING SCORE: 10 NMOC D TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION:

Soil tested clean, no soil remediation required

CHECK ONE :  
☐ PIT ABANDONED  
☒ STEEL TANK INSTALLED



FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1415	Bottom		5.0	20	4	1	4
1420	Excavation		5.0	20	4	138	552

PIT PERIMETER

OVM RESULTS

PIT PROFILE

	<table border="1" style="width:100%"> <thead> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> </thead> <tbody> <tr><td>1 Bottom</td><td>0</td></tr> <tr><td>2 Excavation</td><td>9</td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> <tr><td> </td><td></td></tr> </tbody> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 Bottom	0	2 Excavation	9	3		4		5																						
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TRAVEL NOTES: CALLOUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_

# ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## Method 418.1 Analysis Log Total Petroleum Hydrocarbons

Date 2/14/06

Analyst G. Crabtree

Location Federal & No 1

Instrument \_\_\_\_\_

Job No. 03056-040-025

Sample No.	Sample Description	Sample Wt. (g)	Volume Freon (mL)	Dilution Factor	Abs. Reading	TPH (mg/kg)	OVM (mg/kg)
1	5 point composite of bottom @ 4'	5.0	20	4	1	4	0
2	Composite of excavated material	5.0	20	4	138	552	9

### Infrared Spectrophotometer Calibration

New Freon \_\_\_\_\_

Date Standards Prepared \_\_\_\_\_

Standard Concentration (mg/L)	Absorbance
100	_____
200	<u>100</u>
500	_____
1000	_____

I-CAL RF: \_\_\_\_\_

C-CAL RF: \_\_\_\_\_

RSD: \_\_\_\_\_ %

% Difference: \_\_\_\_\_ %

QA/QC Acceptance Criteria: I-CAL RSD +/- 20%

C-Cal Difference +/- 10%

**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-025
Sample No.:	1	Date Reported:	2/14/2006
Sample ID:	Composite sample of bottom at 4'	Date Sampled:	2/15/2006
Sample Matrix:	Soil	Date Analyzed:	2/15/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	ND	5.0


ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Federal 8 No. 1**

Instrument calibration checked against 200 ppm standard. Zeroed before each sample

  
Analyst

  
Review

EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Elm Ridge Resources	Project #:	03056-040-025
Sample No.:	2	Date Reported:	2/14/2006
Sample ID:	Composite sample of Excavated Material	Date Sampled:	2/15/2006
Sample Matrix:	Soil	Date Analyzed:	2/15/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

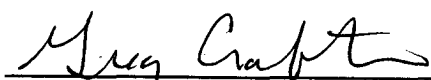
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	552.0	5.0


ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Federal 8 No. 1**

Instrument callibration checked against 200 ppm standard. Zeroed before each sample

  
Analyst

  
Review