

District I
1625 N. French Dr., Hobbs, NM 88240
District I
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

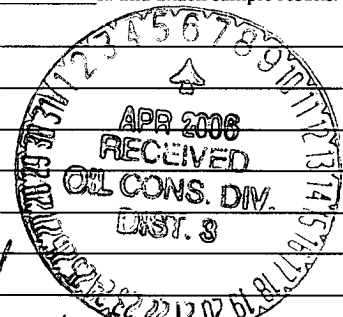
Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

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

Operator: <u>Elm Ridge Resources</u> Telephone: <u>(505) 632-3476</u> e-mail address: <u>amackey1@elmridge.net</u>		
Address: <u>#20 CR 5060, Bloomfield, New Mexico, 87413</u>		
Facility or well name: <u>Jicarilla Apache "C" No. 2</u> API #: <u>3003921461</u> U/L or Qtr/Qtr <u>B</u> Sec <u>27</u> T <u>24N</u> R <u>5W</u>		
County: <u>Rio Arriba</u> Latitude <u>36.288317</u> Longitude <u>-107.345400</u> NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input checked="" type="checkbox"/>		
Pit Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume _____ bbl	Below-grade tank Volume: <u>20</u> bbl Type of fluid: Produced water and incidental oil Construction material: Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. Tank in place prior to Rule 50	
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) 0
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
Ranking Score (Total Points)		0

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 Envirotech's Landfarm #2. (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:
Approximately 80 cubic yards of contaminated soil was excavated and hauled to Envirotech's NMOCD permitted landfarm
BTEX results for bottom sample are attached



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: 4-4-06
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 BY OIL & GAS INSPECTOR, DIST. 8
Approval: <u>[Signature]</u> Date: <u>APR 06 2006</u>
Printed Name/Title _____ Signature _____

CLIENT: <u>Elm Ridge</u>	ENVIROTECH INC. <small>ENVIRONMENTAL SCIENTISTS & 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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<h2 style="margin:0">FIELD REPORT: CLOSURE VERIFICATION</h2>	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>Jicarilla Apache C</u> WELL #: <u>2</u> PIT: <u>Sep</u> QUAD/UNIT: <u>B</u> SEC: <u>27</u> TWP: <u>24N</u> RNG: <u>5W</u> PM: <u>NMPM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: _____ CONTRACTOR: _____	DATE STARTED: <u>3/9/06</u> DATE FINISHED: <u>3/9/06</u> ENVIRONMENTAL SPECIALIST: <u>GWC</u>
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EXCAVATION APPROX. <u>16</u> FT. x <u>20</u> FT. x <u>8</u> FT. DEEP.	CUBIC YARDAGE: <u>80</u>
DISPOSAL FACILITY: <u>Envirotech LF #2</u>	REMEDIAATION METHOD: <u>Landfarm</u>
LAND USE: <u>Grazing</u>	LEASE: _____ FORMATION: _____

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>95</u> FT. <u>320</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>0</u> NEAREST WATER SOURCE: <u>0</u> NEAREST SURFACE WATER: <u>0</u> NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5,000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	CHECK ONE : <input type="checkbox"/> PIT ABANDONED <input checked="" type="checkbox"/> STEEL TANK INSTALLED

Approximately 80 cubic YARDS of contaminated soil was excavated and hauled to Envirotech's NMOCB permitted landfarm

SCALE

0 FT

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1300	Wall composite		5.0	20	4	7	28
1315	bottom composite		5.0	20	4	38	152

PIT PERIMETER

OVN RESULTS

PIT PROFILE

	<table border="1" style="width:100%"> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE PID (ppm)</th> </tr> <tr><td>1 Wall</td><td>6</td></tr> <tr><td>2 bottom</td><td>501</td></tr> <tr><td>3</td><td></td></tr> <tr><td>4 Standard</td><td>101</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> </table>	SAMPLE ID	FIELD HEADSPACE PID (ppm)	1 Wall	6	2 bottom	501	3		4 Standard	101	5										<p style="margin-top: 10px;">Shale</p> <p style="margin-top: 10px;">x - bottom sample * - wall sample</p>
SAMPLE ID	FIELD HEADSPACE PID (ppm)																					
1 Wall	6																					
2 bottom	501																					
3																						
4 Standard	101																					
5																						
<table border="1" style="width:100%"> <caption>LAB SAMPLES</caption> <thead> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>bottom</td> <td>8021</td> <td></td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			SAMPLE ID	ANALYSIS	TIME	bottom	8021															
SAMPLE ID	ANALYSIS	TIME																				
bottom	8021																					

TRAVEL NOTES:	CALLOUT: _____	ONSITE: _____
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ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Method 418.1 Analysis Log Total Petroleum Hydrocarbons

Date 3/9/06

Analyst G. Crabtree

Location Jicarilla Apache "C" No. 2

Instrument Infracal

Job No. 03056-040-027

Sample No.	Sample Description	Sample Wt. (g)	Volume Freon (mL)	Dilution Factor	Abs. Reading	TPH (mg/kg)	OVM (mg/kg)
1	composite sample of walls	5.0	20	4	7	28	6
2	composite sample of shale layer	5.0	20	4	38	152	501

Infrared Spectrophotometer Calibration

New Freon _____

Date Standards Prepared _____

Standard Concentration (mg/L)	Absorbance
100	_____
200	<u>221</u>
500	_____
1000	_____

I-CAL RF: _____

RSD: _____ %

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

C-CAL RF: _____

% Difference: _____ %

C-Cal Difference +/- 10%

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-027
Sample No.:	1	Date Reported:	3/9/2006
Sample ID:	Composite sample of walls	Date Sampled:	3/9/2006
Sample Matrix:	Soil	Date Analyzed:	3/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		


Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	28.0	5.0

ND = Parameter not detected at the stated detection limit.

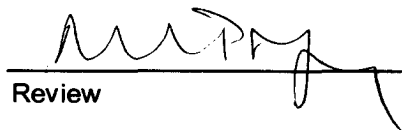
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Jicarilla Apache "C" No. 2

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 #:	03056-040-027
Sample No.:	2	Date Reported:	3/9/2006
Sample ID:	Composite sample of bottom at 8'	Date Sampled:	3/9/2006
Sample Matrix:	Soil	Date Analyzed:	3/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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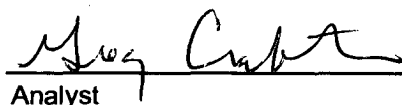
Total Petroleum Hydrocarbons	152.0	5.0
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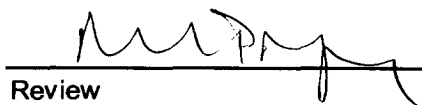
ND = Parameter not detected at the stated detection limit.

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

Comments: Jicarilla Apache "C" No. 2

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


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Elm Ridge Resources	Project #:	03056-040-027
Sample ID:	Bottom Composite at 8' BGS	Date Reported:	03-10-06
Laboratory Number:	36425	Date Sampled:	03-09-06
Chain of Custody:	15663	Date Received:	03-09-06
Sample Matrix:	Soil	Date Analyzed:	03-10-06
Preservative:	Cool	Date Extracted:	03-10-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1.8	1.8
Toluene	9.9	1.7
Ethylbenzene	5.1	1.5
p,m-Xylene	52.7	2.2
o-Xylene	14.7	1.0
Total BTEX	84.2	

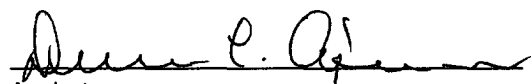
ND - Parameter not detected at the stated detection limit.

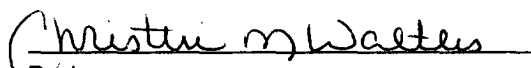
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Jicarilla Apache "C" #2.


Analyst


Review