

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 ☐

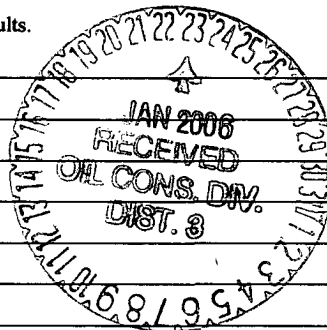
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <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>Candado No. 19</u> API #: <u>3003921439</u> U/L or Qtr/Qtr <u>L</u> Sec <u>3</u> T <u>26N</u> R <u>7W</u>		
County: <u>Rio Arriba</u> Latitude <u>36.511733</u> Longitude <u>-107.567983</u> NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> Type: Drilling <input type="checkbox"/> Production <input checked="" type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u>      </u> mil Clay <input type="checkbox"/> Pit Volume <u>      </u> bbl	<b>Below-grade tank</b> Volume: <u>      </u> bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes <input type="checkbox"/> 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 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) ( 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 No	(20 points) ( 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 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) ( 0 points)                      0
<b>Ranking Score (Total Points)</b>		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       . (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:
The Soil sample passed method 418.1 analysis; the sample failed the field OVM headspace test. The sample passed method 8021
Results of BTEX analysis by USEPA method 8021 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 <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	
Date: <u>1/20/06</u>	Signature: <u>[Signature]</u>
Printed Name/Title: <u>Ms. Amy Mackey, Production Technician</u>	
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. 3 Printed Name/Title: <u>[Signature]</u>	Date: <u>JAN 23 2006</u>

CLIENT: <u>Elm Ridge</u>	<b>ENVIROTECH INC.</b> <small>ENVIRONMENTAL SCIENTISTS &amp; ENGINEERS</small> 5796 U.S. HIGHWAY 64-3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615	LOCATION NO: _____  C.O.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>CANDADO</u> WELL #: <u>19</u> PIT: <u>SEP</u>		DATE STARTED: <u>1/9/06</u>
QUAD/UNIT: <u>L</u> SEC: <u>3</u> TWP: <u>26N</u> RNG: <u>07W</u> PM: <u>NMPM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: <u>1/12/06</u>
QTR/FOOTAGE: _____ CONTRACTOR: _____		ENVIRONMENTAL SPECIALIST: <u>GWC</u>

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

DISPOSAL FACILITY: \_\_\_\_\_ REMEDIATION METHOD: \_\_\_\_\_

LAND USE: Range LEASE: \_\_\_\_\_ FORMATION: \_\_\_\_\_

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 64 FT. 80° FROM WELLHEAD.

DEPTH TO GROUNDWATER: 0 NEAREST WATER SOURCE: 0 NEAREST SURFACE WATER: 20

NMOCB RANKING SCORE: 0 NMOCB TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:  
☐ PIT ABANDONED  
☒ STEEL TANK INSTALLED

Soil passed Method 418.1 for TPH, sample failed field headspace so it was analyzed for BTEX via USEPA Method 8021. Results are attached

SCALE

0 FT

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1130	Pit composite		5.0	20	4	293	1,172
1145	Excavated material	35684	5.0	20	4	298	1,192

PIT PERIMETER

OVN RESULTS

PIT PROFILE

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 Pit	21
2 Ex. Mat.	181
3	
4	
5	

SAMPLE ID	ANALYSIS	TIME

TRAVEL NOTES: CALLOUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_

**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Elm Ridge Resources	Project #:	03056-040-010
Sample No.:	1	Date Reported:	1/10/2006
Sample ID:	Composite sample of pit walls/bottom	Date Sampled:	1/9/2006
Sample Matrix:	Soil	Date Analyzed:	1/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		


Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	640.0	200.0

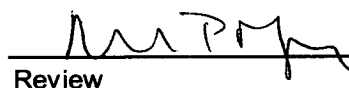
ND = Parameter not detected at the stated detection limit.

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

Comments: **Candado No. 19, bottom sample depth 12 feet**

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

  
Analyst

  
Review

EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Elm Ridge Resources	Project #:	03056-040-010
Sample No.:	2	Date Reported:	1/10/2006
Sample ID:	Composite sample excavated material	Date Sampled:	1/9/2006
Sample Matrix:	Soil	Date Analyzed:	1/9/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	4,200.0	200.0

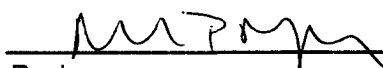
ND = Parameter not detected at the stated detection limit.

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

Comments: **Candado No. 19**

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
Sample ID:	Candado 19 Composite	Date Reported:	01-11-06
Laboratory Number:	35684	Date Sampled:	01-09-06
Chain of Custody:	15348	Date Received:	01-09-06
Sample Matrix:	Soil	Date Analyzed:	01-11-06
Preservative:	Cool	Date Extracted:	01-10-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	32.3	1.7
Ethylbenzene	647	1.5
p,m-Xylene	628	2.2
o-Xylene	175	1.0
Total BTEX	1,480	

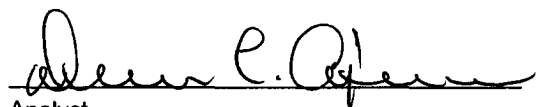
ND - Parameter not detected at the stated detection limit.

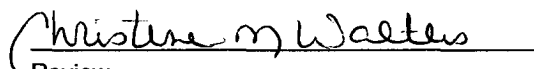
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Rio Arriba County.

  
Analyst

  
Review