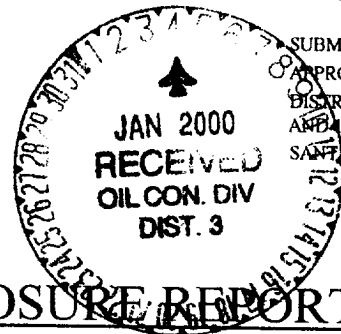


District I  
 P.O. Box 1980, Hobbs, NM  
 District II  
 P.O. Drawer DD, Artesia, NM 88211  
 District III  
 1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
 Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088



SUBMIT 1 COPY TO  
 APPROPRIATE  
 DISTRICT OFFICE  
 AND 1 COPY TO  
 SANTA FE OFFICE

## PIT REMEDIATION AND CLOSURE REPORT

Operator: Energen Resources (Taurus Exploration) Telephone: (505) 326-6131

Address: 2198 Bloomfield Highway Farmington, NM 87401

Facility Or: Florance Federal #9  
 Well Name

Location: Unit or Qtr/Qtr Sec P Sec 5 T 25N R 3W County Rio Arriba

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Production Tank

Land Type: BLM \_\_\_\_\_ State \_\_\_\_\_ Fee X Other \_\_\_\_\_

Pit Location: Pit dimensions: Length 20 ft, width 25 ft, depth 10 ft  
 (Attach diagram)

Reference: wellhead X other \_\_\_\_\_

Footage from reference: 175 ft

Direction from reference: 30 Degrees X East North \_\_\_\_\_  
 of  
 \_\_\_\_\_ West South X

Depth to Ground Water: (vertical distance from contaminants to seasonal highwater elevation of ground water)	<u>&gt;100 feet</u>	Less than 50 feet	(20 points)	
		50 ft to 99 feet	(10 points)	
		<u>X</u> Greater than 100 feet	(0 points)	<u>0</u>

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)	
		<u>X</u> No	(0 points)	<u>0</u>

Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)		Less than 200 feet	(20 points)	
		200 feet to 1000 feet	(10 points)	
		<u>X</u> Greater than 1000 feet	(0 points)	<u>0</u>

P:\pits\PrrC@.WK3

**RANKING SCORE (TOTAL POINTS):** 0

Date Remediation Started: 9/13/98 Date Completed: 12/7/99

Excavation  Approx. cubic yards 140

Landfarmed  Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Method: Onsite  Offsite \_\_\_\_\_

(Check all appropriate sections)

General Description of Remedial Action : On 9/14/98, the pit was excavated to a depth of 10 feet. A soil sample was obtained from the south wall of the pit at a depth of 8 feet utilizing U.S.E.P.A. protocol and sent to IML for GRO/DRO analysis. Excavated soils were landfarmed on site. On 12/7/99, the landfarm was tested and provided concentrations below NMOCD guidelines.

Ground Water Encountered: No  Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:

Closure Sampling:  
(if multiple samples,  
attach sample results

and diagram of sample  
locations and depths)

Sample location South Wall

Sample depth 8 feet

Sample date 9/14/98

Sample time 11:05

Sample Results

Benzene(ppm) \_\_\_\_\_

Total BTEX (PPM) \_\_\_\_\_

Field Headspace (ppm) 5.3

TPH <24

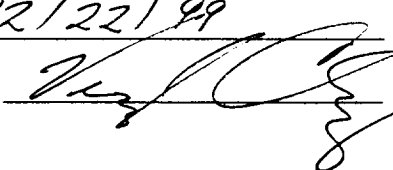
Ground Water Sample: Yes \_\_\_\_\_ No  (if yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETED TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 12/22/99

PRINTED NAME Virgil Chavez

SIGNATURE

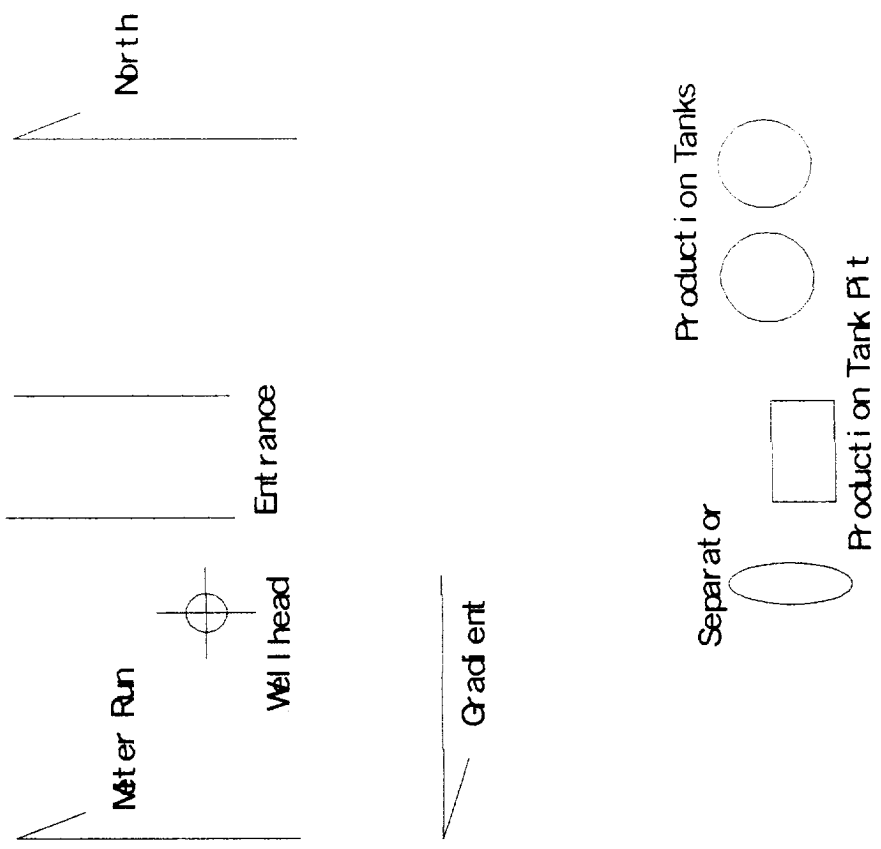


and TITLE

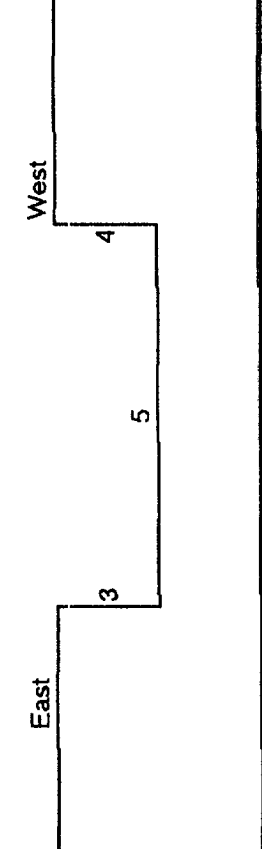
Environmental Specialist

Location: <u>Florance Federal # 9</u>																																								
Quad: <u>P</u> Section: <u>5</u>	Range: <u>3W</u> Township: <u>25 N</u>																																							
Pit: <u>Production Tank</u> Reference: <u>175' S 30 E</u> from wellhead																																								
Initial Size: <u>15' x 20' x 4' deep</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;">Sample #</th> <th style="width:40%;">Location</th> <th style="width:50%;">OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>N. Wall @ 8'</td><td>4.7</td></tr> <tr><td>2</td><td>S. Wall @ 8'</td><td>5.3</td></tr> <tr><td>3</td><td>E. Wall @ 8'</td><td>4.3</td></tr> <tr><td>4</td><td>W. Wall @ 8'</td><td>2.7</td></tr> <tr><td>5</td><td>C. Bottom @ 10'</td><td>2.3</td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> </tbody> </table>	Sample #	Location	OVM	1	N. Wall @ 8'	4.7	2	S. Wall @ 8'	5.3	3	E. Wall @ 8'	4.3	4	W. Wall @ 8'	2.7	5	C. Bottom @ 10'	2.3	6			7			8			9			10			11			12		
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Final Size: <u>20' x 25' x 10' deep</u>	Depth to Groundwater: <u>&gt;100'</u>																																							
Yds. Excavated: <u>140 cy</u>	Nearest Water Source: <u>&gt;1000'</u>																																							
Nearest Surface Water: <u>&gt;1000'</u>	Nearest Surface Water: <u>&gt;1000'</u>																																							
NMOCD Ranking Score: <u>0</u>	TPH Closure Standard: <u>5000</u>																																							
Comments: <u>Top soil - 10' Soil is moist, light brown, clay/loam with minor staining and a moderate hydrocarbon odor.</u> <u>10' Soil is moist, medium brown, hard shale with no staining and no detectable hydrocarbon odor.</u> <u>A sample from the south wall at 8' was sent to IML for GRO/DRO analysis.</u>																																								
Pit Profile: <u>North to South:</u>																																								
Pit Profile: <u>East to West:</u>	Pit Profile: <u>East to West:</u>																																							

Overview of Location and Sampling:



Pit Profile: East to West:



# GASOLINE RANGE ORGANICS - GRO

## Taurus Exploration U.S.A., Inc.

Project ID:	Florance Federal 9 Prod. Tank Pit	Report Date:	10/01/98
Sample ID:	S. Wall @ 8'	Date Sampled:	09/14/98
Lab ID:	0398G05380	Date Received:	09/15/98
Sample Matrix:	Soil	Date Analyzed:	09/30/98
Condition:	Cool/Intact		


TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	19	5.0 mg/kg
Total Purgeable Hydrocarbons	20	5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

  
Reported By:

  
Reviewed By

## DIESEL RANGE ORGANICS - DRO

### Taurus Exploration U.S.A., Inc.


Project ID:	Florance Federal 9 Prod. Tank Pit	Report Date:	10/01/98
Sample ID:	S. Wall @ 8'	Date Sampled:	09/14/98
Lab ID:	0398G05380	Date Received:	09/15/98
Sample Matrix:	Soil	Date Analyzed:	09/30/98
Condition:	Cool/Intact		


TPH DIESEL-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	<5.0	5.0 mg/kg
Total Purgeable Hydrocarbons	<5.0	5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

  
\_\_\_\_\_  
Reported By:

  
\_\_\_\_\_  
Reviewed By



Overview of Landfarm and Sampling :																																										
Location : <b>Florance Federal # 9</b>  Quad :        P    Section :    5  Township:    25 N    Range:    3 W	Pit :            Production Tank  Reference 105' N 60 E from wellhead.  Size:           60' x 60' x 1'  Yds :            140  1    5 - Point Composites	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sample #</th> <th style="width: 10%;">Location</th> <th style="width: 10%;">OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>Comp 1</td><td>88</td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> </tbody> </table>	Sample #	Location	OVM	1	Comp 1	88	2			3			4			5			6			7			8			9			10			11			12			<p>The diagram illustrates the site layout. At the top, 'Mt. Rn' is indicated with a north arrow. Below it is the 'Landfarm' area, a rectangular field with several '1' markers. To the right is the 'Entrance'. In the center is the 'Wellhead' with a crosshair symbol. Below the wellhead is the 'Gradient' area. To the right of the gradient are the 'Separator' (a vertical oval) and 'Production Tanks' (two circles). At the bottom right is the 'Production Tank Pit' (a rectangle).</p>
Sample #	Location	OVM																																								
1	Comp 1	88																																								
2																																										
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11																																										
12																																										
Comments : Soil is moist, pale brown, clay/loam, with no staining and no hydrocarbon odor. A sample from composite # 1 was sent to IML for GRO/DRO analysis.																																										
Environmental Specialist : VEC																																										



Client: Energen Resources
Project: Florance Federal #9 Landfarm
Sample ID: Landfarm Comp
Lab ID: 0399W05921
Matrix: Soil
Condition: Cool/Intact

Date Reported: 12/14/99
Date Sampled: 12/07/99
Date Received: 12/08/99
Date Analyzed: 12/14/99

Table with 4 columns: Parameter, Analytical Result, PQL, Units. Rows include GRO - Method 8015 AZ, Gasoline Range Organics, Gasoline Range Organics as Gasoline, and Quality Control - Surrogate Recovery.

Reference: Method 8015AZ, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/98.

Reviewed By: [Signature]
William Lipps





# Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

**Client:** Energen Resources  
**Project:** Florance Federal #9 Landfarm  
**Sample ID:** Landfarm Comp  
**Lab ID:** 0399W05921  
**Matrix:** Soil  
**Condition:** Cool/Intact

**Date Reported:** 12/14/99  
**Date Sampled:** 12/07/99  
**Date Received:** 12/08/99  
**Date Analyzed:** 12/13/99

Parameter	Analytical Result	PQL	Units
<b>DRO - Method 8015AZ</b>			
Diesel Range Organics (C10 - C22)	301	5	mg/Kg
<b>Quality Control - Surrogate Recovery</b>			
o-Terphenyl(SUR-8015)	98	QC Limits 70 - 130	

Reference: Method 8015AZ, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/98.

Reviewed By:   
William Lipps

