

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

LF 100-11  
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: Ruddock #7  
Well Name

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

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Abandoned Dehydrator Pit

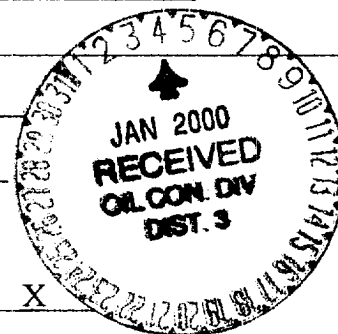
Land Type: BLM \_\_\_\_\_ State \_\_\_\_\_ Fee X Other \_\_\_\_\_

Pit Location: Pit dimensions: Length 25 ft width 20 ft depth 13 ft  
(Attach diagram)

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

Footage from reference: 150 ft

Direction from reference: 50 Degrees X East North X  
West South



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: 9/3/98

Date Completed: 2/10/99

Excavation X

Approx. cubic yards 205

Landfarmed X

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

Other \_\_\_\_\_

Remediation Method: Onsite X

Offsite \_\_\_\_\_

(Check all appropriate  
sections)

General Description of Remedial Action : On 9/4/98, the pit was excavated to a depth of 13 feet.

A soil sample was obtained from the center bottom of the pit at a depth of 13 feet utilizing  
U.S.E.P.A. protocol and sent to IML for GRO/DRO analysis. Excavated soils  
were landfarmed on site. On 2/10/99, the landfarm was tested and provided concentrations  
below NMOCD guidelines.

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

Final Pit:

Closure Sampling:  
(if multiple samples,  
attach sample results

and diagram of sample  
locations and depths)

Sample location Center bottom

Sample depth 13 feet

Sample date 9/4/98

Sample time 11:25

Sample Results

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

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

Field Headspace (ppm) 7.4

TPH <10

Ground Water Sample: Yes \_\_\_\_\_ No X (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

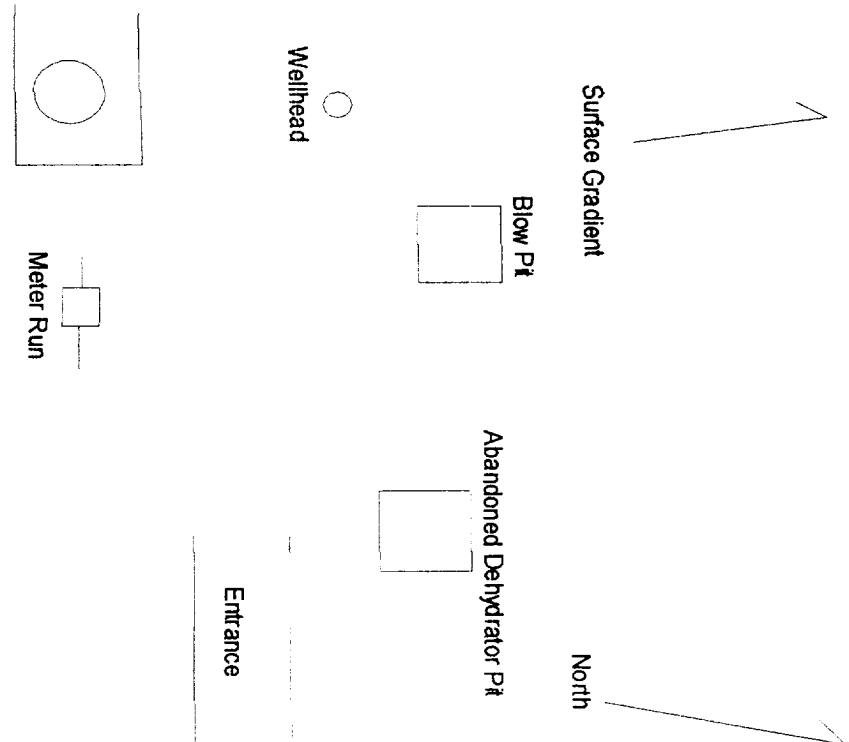
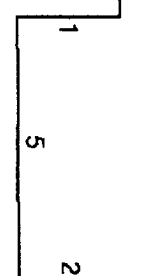
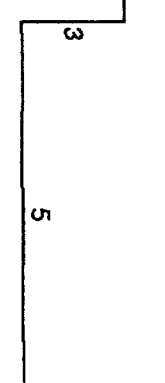
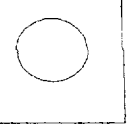
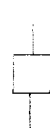
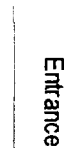
PRINTED NAME Virgil Chavez

SIGNATURE Virgil Chavez

and TITLE Environmental Specialist

Client : Taurus Exploration

Date Started : September 3, 1998 Date Completed : September 4, 1998

Location : <u>Ruddock # 7</u>		<b>Overview of Location and Sampling :</b>  																																								
Quad : <u>E</u> Section : <u>3</u>																																										
Range : <u>3 W</u> Township : <u>25 N</u>																																										
Pit : <u>Abandoned Dehydrator Pit</u> Reference : <u>150' N 50 E</u> from wellhead Initial Size : <u>20' x 15' x 3' deep</u> Final Size : <u>25' x 20' x 13' deep</u> Yds. Excavated : <u>205 cy</u> Depth to Groundwater : <u>&gt;100'</u> Nearest Water Source : <u>&gt;1000'</u> Nearest Surface Water : <u>&gt;1000'</u> NMOCD Ranking Score : <u>0</u> TPH Closure Standard : <u>5000</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 @ 11'</td><td>5.9</td></tr> <tr><td>2</td><td>S. Wall @ 11'</td><td>5.6</td></tr> <tr><td>3</td><td>E. Wall @ 11'</td><td>5.2</td></tr> <tr><td>4</td><td>W. Wall @ 11'</td><td>5.6</td></tr> <tr><td>5</td><td>C. Bottom @ 13'</td><td>7.4</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 @ 11'	5.9	2	S. Wall @ 11'	5.6	3	E. Wall @ 11'	5.2	4	W. Wall @ 11'	5.6	5	C. Bottom @ 13'	7.4	6			7			8			9			10			11			12			<b>Comments :</b> Top soil - 8' Soil is dry, dark brown, clay/loam with dark staining and a moderate hydrocarbon odor. 8' - 13' Soil is dry, light brown, sandy/loam with no staining and no detectable hydrocarbon odor.  A sample from the center bottom at 13' was sent to IML for GRO/DRO analysis.	
Sample #	Location	OVM																																								
1	N. Wall @ 11'	5.9																																								
2	S. Wall @ 11'	5.6																																								
3	E. Wall @ 11'	5.2																																								
4	W. Wall @ 11'	5.6																																								
5	C. Bottom @ 13'	7.4																																								
6																																										
7																																										
8																																										
9																																										
10																																										
11																																										
12																																										
Pit Profile : North to South :																																										
																																										
Pit Profile : East to West :																																										
		Production Tank  Meter Run  Entrance 																																								

## DIESEL RANGE ORGANICS - DRO

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


Project ID:	Ruddock #7 Aban. dehy Pit	Report Date:	09/21/98
Sample ID:	C. Bottom @ 13'	Date Sampled:	09/04/98
Lab ID:	0398G05192	Date Received:	09/09/98
Sample Matrix:	Soil	Date Analyzed:	09/17/98
Condition:	Cool/Intact		


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

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

  
Reported By:

  
Reviewed By:

## GASOLINE RANGE ORGANICS - GRO

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

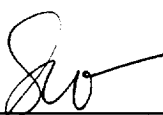
Project ID:	Ruddock #7 Aban. Dehy Pit	Report Date:	09/21/98
Sample ID:	C Bottom @ 13'	Date Sampled:	09/04/98
Lab ID:	0398G05192	Date Received:	09/09/98
Sample Matrix:	Soil	Date Analyzed:	09/17/98
Condition:	Cool/Intact		

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

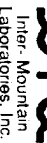
ND - Analyte not detected at the stated detection limit.

#### Reference:

#### Comments:

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

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

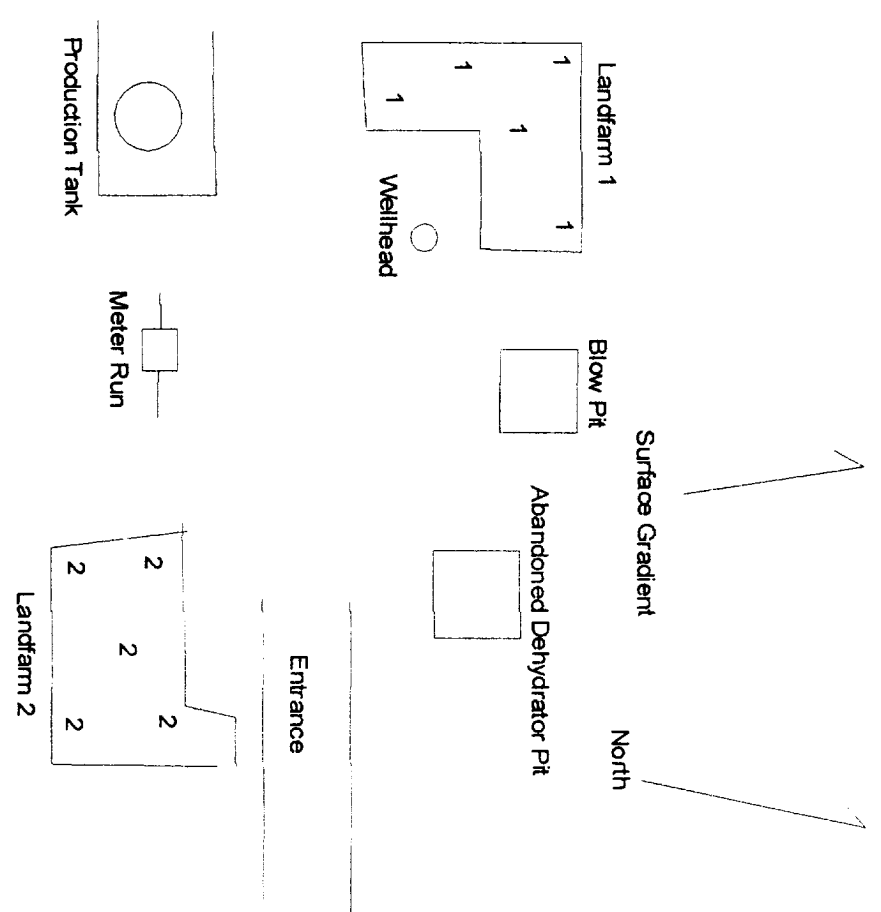


## CHAIN OF CUSTODY RECORD

[illegible]

Client : Taurus Exploration USA Inc.

Date Started : September 3, 1998 Date Completed : February 10, 1999

Location : Ruddock # 7			Overview of Landfarm and Sampling :																																									
Quad : E	Section : 3																																											
Township: 25 N Range: 3 W																																												
Pit : Blow/Dehy Pits	<table border="1"><thead><tr><th>Sample #</th><th>Location</th><th>OVIM</th></tr></thead><tbody><tr><td>1</td><td>Comp 1</td><td>0.2</td></tr><tr><td>2</td><td>Comp 2</td><td>1.8</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	OVIM	1	Comp 1	0.2	2	Comp 2	1.8	3			4			5			6			7			8			9			10			11			12					
Sample #	Location	OVIM																																										
1	Comp 1	0.2																																										
2	Comp 2	1.8																																										
3																																												
4																																												
5																																												
6																																												
7																																												
8																																												
9																																												
10																																												
11																																												
12																																												
Reference 50' N 85 W & 170' S 45 E from wellhead																																												
Size: 70' x 60' x 1' 80' x 65' x 1'																																												
Yds : 350																																												
2 5 - Point Composites																																												
Comments : Soil is moist, dark brown, sandy/clay/loam, with minor staining and a mild hydrocarbon odor.																																												
A sample from composite # 2 was sent to IML for GRO/DRO analysis.																																												
Environmental Specialist : JE																																												



# Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

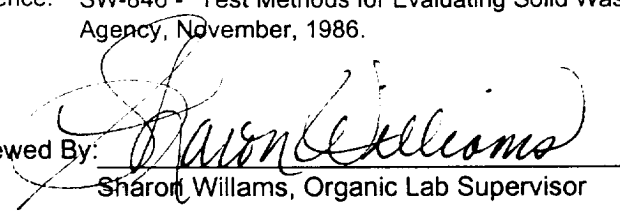
**Client:** Energen Resources  
**Project:** Ruddock #7  
**Sample ID:** Landfarm Comp 2  
**Lab ID:** 0399W00903  
**Matrix:** Soil  
**Condition:** Cool/Intact

**Date Reported:** 02/23/99  
**Date Sampled:** 02/10/99  
**Date Received:** 02/12/99  
**Date Analyzed:** 02/17/99

Parameter	Analytical Result	PQL	Units
DRO- METHOD 8015			
Diesel Range Organics	<5	5	mg/Kg
Diesel Range Organics as Diesel	<5	5	mg/Kg
Quality Control - Surrogate Recovery		%	QC Limits
o-Terphenyl(SUR-8015)		80	70 - 130
GRO - METHOD 8015			
Gasoline Range Organics	<5	5	mg/Kg
Gasoline Range Organics as Gasoline	<5	5	mg/Kg
Quality Control - Surrogate Recovery		%	QC Limits
a,a,a-Trifluorotoluene(SUR-602)		97	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

  
Sharon Williams, Organic Lab Supervisor





# CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location			ANALYSES / PARAMETERS		
Sampler: (Signature)			Chain of Custody Tape No.					
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Remarks		
1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945	2-10-94	13:15		S&P	1	8015 + GMD/PRO		
1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945	2-12-94	17:00				Received by: (Signature) Date Time		
2506 West Main Street Farmingington, NM 87401 Telephone (505) 326-4737						Received by: (Signature) Date Time		
1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450						Received by: (Signature) Date Time		
11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945						Received by: (Signature) Date Time		