

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

Jicarilla Apache Tribe  
Environmental Protection Office  
P.O. Box 507  
Dulce, New Mexico 87528

*OK*  
**RECEIVED**  
JUN 24 1999

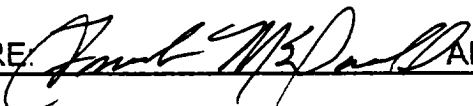
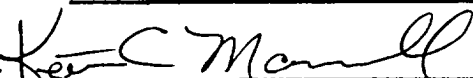
**OIL CON. DIV.**  
**DIST. 3**

Pit Remediation and Closure Report

Operator:	Taurus Exploration U.S.A., Inc		Telephone:	(505) 325-6800	
Address:	2198 Bloomfield Hwy, Farmington, NM 87401				
Facility or Well Name:	Jicarilla 95-4				
Location:	Unit or Qtr/QTR Sec "M" Sec 26, T 27 N, R 3 W County		Rio Arriba		
Pit Type:	Separator:	Dehydrator:	Other: X - Abandoned Separator Pit		
Land Type:	Range				
Pit Location:	Pit dimensions: length: 30 ft width: 20 ft depth: 30 ft				
(Attach Diagram)					
	Reference:	wellhead: X other:			
	Footage from reference:	93 feet			
	Direction from reference:	80	Degrees	X East	North
					of
				West	South X
Depth To Groundwater:	Less than 50 feet	(20 points)			
(Vertical distance from	50 feet to 99 feet	(10 points)			
contaminants to seasonal	Greater than 100 feet	(0 points) 0			
high water elevations of					
groundwater)					
Distance to an Ephemeral Stream:	Less than 100 feet	(10 points)			
(Downgradient dry wash greater than	Greater than 100 feet	(0 points) 0			
ten feet in width)					
Distance to Nearest Lake, Playa, or Watering	Less than 100 feet	(10 points)			
Pond: (Downgradient lakes, playas, and	Greater Than 100 feet	(0 points) 0			
livestock or wildlife watering ponds)					
Wellhead Protection Area:	Yes	(20 points)			
(Less than 200 feet from a private	No	(0 points) 0			
domestic water source, or less than					
1000 feet from all other water sources)					
Distance To Surface Water:	Less than 100 feet	(20 points)			
(Horizontal distance to perennial	100 feet to 1000 feet	(10 points)			
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	(0 points) 0			
irrigation canals and ditches.)					
RANKING SCORE (TOTAL SCORE):					0

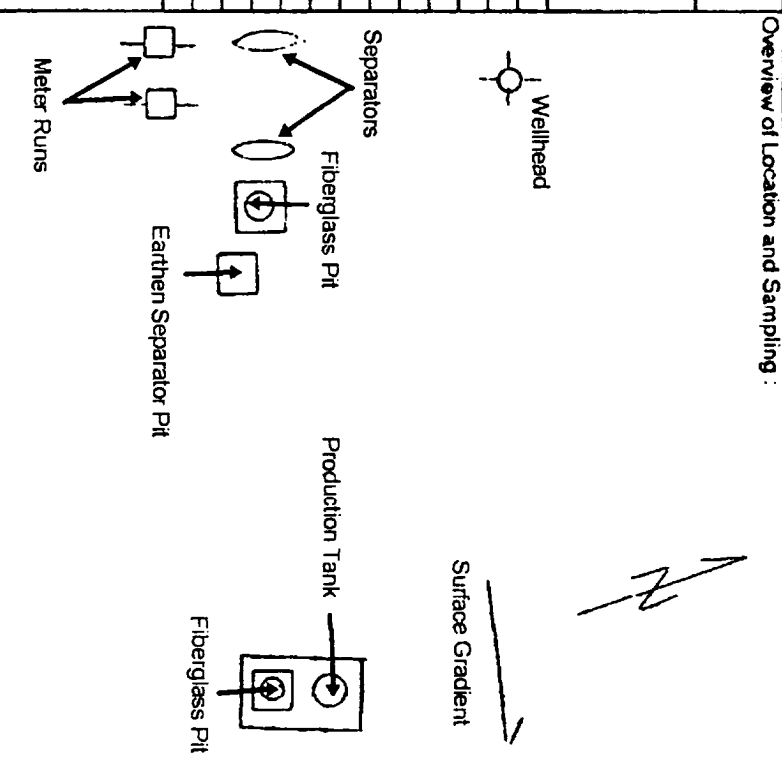
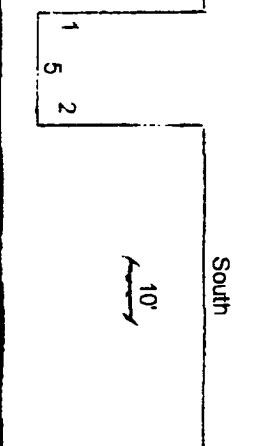
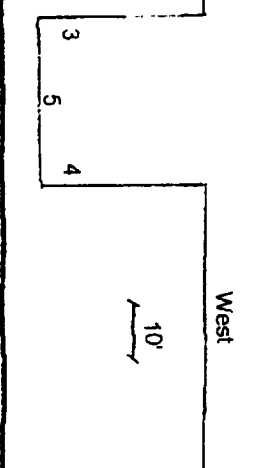
Jicarilla Apache Tribe  
Environmental Protection Office  
P.O. Box 507  
Dulce, New Mexico 87528

Pit Remediation and Closure Report

Date Remediation Started:		11/23/98	Date Completed		12/3/98
Remediation Method:		Excavation:	<input checked="" type="checkbox"/>	Approx. cubic yards: 650	
(Check all appropriate sections)		Landfarmed:	<input checked="" type="checkbox"/>	Insitu Bioremediation:	
		Other:			
Remediation Location:		On-site:	<input checked="" type="checkbox"/>	Off-site:	
(I.e. landfarmed on site, name and location of off site location)					
General Description of Remedial Action: Soil was excavated and landfarmed on location.					
Groundwater Encountered:		No: <input checked="" type="checkbox"/>	Yes:	Depth:	
Final Pit		Sample location: Pit bottom @ 30 feet below surface. Pit			
Closure Sampling:		walls were analyzed for Headspace (see attachment).			
(If multiple samples, attach sample results and diagram of sample locations and depths.)					
		Sample depth:	30 feet		
		Sample date:	12/2/98	Sample time:	12:30
Sample Results:					
<b>Soil:</b>			<b>Water:</b>		
Benzene (ppm)		ND	Benzene (ppb)		
Total BTEX (ppm)		0.07	Toluene (ppb)		
Field Headspace (ppm)		343	Ethylbenzene (ppb)		
TPH (ppm)		<68	Total Xylenes (ppb)		
Groundwater Sample:		Yes:	No: <input checked="" type="checkbox"/>		
(If yes, attach sample results.)					
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF					
DATE:		12/8/98	Frank McDonald		
SIGNATURE: 		AND TITLE: Env. Division Manager			
AFTER REVIEW OF THE PIT CLOSURE INFORMATION PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE					
APPROVED: Yes: <input checked="" type="checkbox"/> No: (Reason)					
SIGNED: 		DATE: 12-9-98			

Client : Taurus Exploration U.S.A Inc.

Date Started : November 23, 1998 Date Completed : December 3, 1998

<b>Location:</b> Jicarilla 95-4		<b>Overview of Location and Sampling :</b>																																							
<b>Quad :</b> M	<b>Section :</b> 26																																								
<b>Range :</b> 3W	<b>Township:</b> 27N																																								
<b>Pit Separator</b>																																									
<b>Reference :</b> 93' S80E <b>Of wellhead</b>																																									
<b>Initial Size :</b> 12x12x3' deep	<table border="1"><thead><tr><th>Sample #</th><th>Location</th><th>QVM</th></tr></thead><tbody><tr><td>1</td><td>N.Wall@27'</td><td>170</td></tr><tr><td>2</td><td>S.Wall@27'</td><td>313</td></tr><tr><td>3</td><td>E.Wall@27'</td><td>239</td></tr><tr><td>4</td><td>W.Wall@27'</td><td>144</td></tr><tr><td>5</td><td>C.Btm@30'</td><td>343</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	QVM	1	N.Wall@27'	170	2	S.Wall@27'	313	3	E.Wall@27'	239	4	W.Wall@27'	144	5	C.Btm@30'	343	6			7			8			9			10			11			12			
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11																																									
12																																									
<b>Final Size :</b> 30' x 20' x 30' deep																																									
<b>Yds. Excavated :</b> 650 cy																																									
<b>Depth to Groundwater:</b>	>100'																																								
<b>Nearest Water Source:</b>	>1000'																																								
<b>Nearest Surface Water:</b>	>1000'																																								
<b>NMOCOD Ranking Score:</b>	0																																								
<b>TPH Closure Standard:</b>	5000																																								
<b>Comments :</b> Top Soil - 5' Soil is moist, brown, sandy loam with gray staining and a strong hydrocarbon odor. 5' - 30' Soil is moist, gray, sandy loam with gray/green soil and a strong hydrocarbon odor. A sample from the center bottom at 30' was sent to IML for GRO/PRO and BTEX analysis.																																									
<b>Pit Profile : North to South :</b>		<b>Pit Profile : East to West :</b>																																							
																																									

Environmental Specialist : BS

Cimarron Oilfield Services

Page 1 of 1



Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

# GASOLINE RANGE ORGANICS - GRO

## Energen Resources

Project ID: Jicarilla 95-4 Sep. Pit  
Sample ID: C. Bottom @ 30'  
Lab ID: 0398G06951  
Sample Matrix: Soil  
Condition: Cool/Intact


Report Date: 12/07/98  
Date Sampled: 12/02/98  
Date Received: 12/02/98  
Date Analyzed: 12/03/98

TPH GAS RANGE (MOB EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	<10.0	10.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

  
Reported By:

  
Reviewed By:



Inter-Mountain Laboratories, Inc.

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

2506 West Main Street, Farmington, NM 87401

**DIESEL RANGE ORGANICS - DRO****Energen Resources**

Project ID: Jicarilla 95-4 Sep. Pit  
Sample ID: C. Bottom @ 30'  
Lab ID: 0398G06951  
Sample Matrix: Soil  
Condition: Cool/Intact

Report Date: 12/07/98  
Date Sampled: 12/02/98  
Date Received: 12/02/98  
Date Analyzed: 12/03/98

TPH DIESEL RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	58	10.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

  
Reported By:

  
Reviewed By:



Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4162

2506 West Main Street, Farmington, NM 87401

## VOLATILE AROMATIC HYDROCARBONS

## Energen Resources

Project ID: Jicarilla 95-4 Sep. Pit  
 Sample ID: C. Bottom @ 30'  
 Lab ID: 0398G06951  
 Sample Matrix: Soil  
 Condition: Cool/Intact

Report Date: 12/07/98  
 Date Sampled: 12/2/98  
 Time Sampled: 12:30  
 Date Received: 12/02/98  
 Date Extracted: NA  
 Date Analyzed: 12/03/98

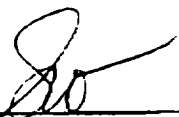
Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	1.0
Toluene	1.7	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	3.8	1.0
o-Xylene	1.3	1.0

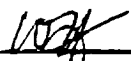
ND - Analyte not detected at the stated detection limit.

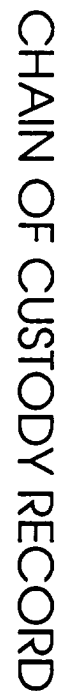
<b>Quality Control:</b>	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	91%	70%-130%

**Reference:** Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846; United States Environmental Protection Agency, Revision 2, December, 1996.

**Comments:**

  
 Analyst

  
 Review

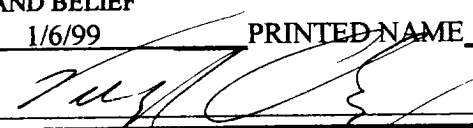
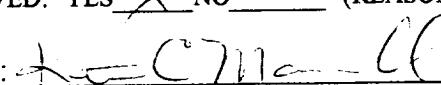


## CHAIN OF CUSTODY RECORD

[illegible]

**JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528**

**ON-SITE SOIL REMEDIATION REPORT**

Operator: <u>Taurus Exploration USA Inc.</u> Telephone: <u>(505) 325 - 6800</u>	
Address: <u>2198 Bloomfield Hwy, Farmington N.M. 87401</u>	
Facility or Well Name: <u>Jicarilla 95-4</u>	
Location: Unit or Qtr/Qtr Sec <u>M</u> Sec <u>26</u> T <u>27 N</u> R <u>3 W</u> County <u>Rio Arriba</u>	
Land Type: <u>Range</u>	
Date Remediation Started: <u>11/23/98</u> Date Completed: <u>12/15/98</u>	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>650</u>	
Composted <input type="checkbox"/>	
Other <input type="checkbox"/>	
<p>Depth to Groundwater: (pts) <u>0</u></p> <p>Distance to an Ephemeral Stream (pts) <u>0</u></p> <p>Distance to Nearest Lake, Playa, or Watering Pond (pts) <u>0</u></p> <p>Wellhead Protection Area (pts) <u>0</u></p> <p>Distance to Surface Water (pts) <u>0</u></p> <p><b>RANKING SCORE (TOTAL POINTS):</b> <u>0</u></p>	<p style="text-align: center;"><b>Final Closure Sampling:</b></p> <p>Sampling Date: <u>12/15/98</u> Time: <u>09:30</u></p> <p>Sample Results:</p> <p>Field Headspace (ppm) <u>39</u></p> <p>TPH (ppm) <u>&lt;27</u> Method <u>8015</u></p> <p>Other: <u>Total BTEX was ND</u></p>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE: <u>1/6/99</u> PRINTED NAME <u>VIRGIL CHAVEZ</u>	
SIGNATURE <u></u> AND TITLE <u>ENV. SPECIALIST</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.	
APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) <u>was on Backfill</u>	
SIGNED: <u></u> DATE: <u>1-7-99</u>	







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

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

## GASOLINE RANGE ORGANICS - GRO

### ENERGEN RESOURCES

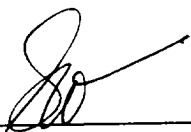
Project ID:	Jicarilla 95-4	Report Date:	12/31/98
Sample ID:	Landfarm Comp #5	Date Sampled:	12/15/98
Lab ID:	0398G07581	Date Received:	12/18/98
Sample Matrix:	Soil	Date Analyzed:	12/30/98
Condition:	Cool/Intact		

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:



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

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

## DIESEL RANGE ORGANICS - DRO

### ENERGEN RESOURCES

Project ID: Jicarilla 95-4  
Sample ID: Landfarm Comp #5  
Lab ID: 0398G07581  
Sample Matrix: Soil  
Condition: Cool/Intact

Report Date: 12/31/98  
Date Sampled: 12/15/98  
Date Received: 12/18/98  
Date Analyzed: 12/30/98

TPH DIESEL RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	22	5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:

Reviewed By:



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

## VOLATILE AROMATIC HYDROCARBONS

### Energen Resources

Project ID: Jicarilla 95-4  
Sample ID: Landfarm Comp. #5  
Lab ID: 0398G07581  
Sample Matrix: Soil  
Condition: Cool/Intact

Report Date: 01/04/99  
Date Sampled: 12/15/98  
Time Sampled: 9:30  
Date Received: 12/18/98  
Date Extracted: NA  
Date Analyzed: 12/24/98


Target Analyte	Concentration (ppm)	Detection Limit (ppm)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	1.0
o-Xylene	ND	0.5

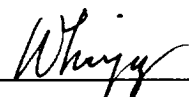
ND - Analyte not detected at the stated detection limit.

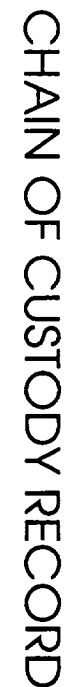
<b>Quality Control:</b>	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	a,a,a-TFT	93%	70%-130%

**Reference:** Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Revision 2, December, 1996.

**Comments:**

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Review



# CHAIN OF CUSTODY RECORD

0256