

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
AUG 09 1999

OIL CON. DIV.
DIST. 3

Approved
Pit Remediation and Closure Report

Operator:	Burlington Resources	Telephone:	(505) 326-9700
Address:	P.O. Box 4289, Farmington, NM 87499-4289		
Facility or Well Name:	Johnston Shear # 1	DP #	53105 A
Location:	Unit or Qtr/QTR	Sec "H" Sec 3, T 26 N, R 3 W	County Rio Arriba
Pit Type:	Separator:	Dehydrator:	Other: Blow Pit <input checked="" type="checkbox"/>
Land Type:			
Pit Location:	Pit dimensions: length: 19 ft width: 19 ft depth: 3 ft		
(Attach Diagram)	Reference: wellhead: X other:		
	Footage from reference: 20 feet		
	Direction from reference: 250 Degrees East North X		
	West South		
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)	10
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)	10
irrigation canals and ditches.)			
RANKING SCORE (TOTAL SCORE):			20

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Pit Remediation and Closure Report

Date Remediation Started:	10/28/96	Date Completed	11/7/96
Remediation Method:	Excavation:	<u>X</u>	Approx. cubic yards: 672
(Check all appropriate sections)	Landfarmed:	<u>X</u>	Insitu Bioremediation:
	Other:		
Remediation Location:	On-site:	<u>X</u>	Off-site:
(I.e. landfarmed on site, name and location of off site location)			
General Description of Remedial Action: Excavated contaminated material.			
Groundwater Encountered:	No: <u>X</u>	Yes:	Depth:
Final Pit	Sample location: See Pit Closure Verification sheet		
Closure Sampling:			
(If multiple samples, attach sample results and diagram of sample locations and depths.)	Sample depth:	16 ft	
	Sample date:	10/28/96	Sample time: 11:00 & 11:30
Sample Results:			
<u>Soil:</u>		<u>Water:</u>	
Benzene (ppm)	3.061 Bottom / 0.001 Walls	Benzene (ppb)	
Total BTEX (ppm)	231.613 Bottom / 0.0145 Walls	Toluene (ppb)	
Field Headspace (ppm)	526 Bottom / 1.5 Four-Wall	Ethylbenzene (ppb)	
TPH (ppm)	4011.1 Bottom / ND Walls	Total Xylenes (ppb)	
Groundwater Sample:	Yes:	No: <u>X</u>	
(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	10/28/96	PRINTED NAME	Guy L. Gaudetson
SIGNATURE	<i>Guy L. Gaudetson</i>	AND TITLE	Leak Operator
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) Spray / Close
SIGNED:	<i>Habit J. L.</i>	DATE:	10/31/96

BURLINGTON RESOURCES

PIT CLOSURE VERIFICATION SHEET

Location: Johnson Street #1 AP# 5310.5 A Lease No. Lease 16 Leache
 Contractor: Philip Env. Consultant Initials: PH LS. # 89-000115
 Date Started: 10-28-96 Date Finished: 11-7-96

Excavation & Soil Information

Dimensions (approx.): 27' FT. x 42' FT. x 16' FT. Deep Cubic Yards: (bcy) 672
 Soil Remediated ☒ On Site ☐ Off Site If off site name location (s) _____

PIT PERIMETER	PIT PROFILE

OVM Results:									
Sample ID	1	2	3	4	5	6	7	8	
Headspace PID (ppm)	10	7.5	33	12	326				
Sample ID	9	10	11	12	13	Comp 1	Comp 2	Comp 3	
Headspace PID (ppm)						326	7.5		

Laboratory Results:			
Sample ID	116-531054-2-V	116-531054-3-V	
BTEX RM8020 (ppm)	231.613	0.0145	
TPH RM8015 (ppm)	4011.1	ND	

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Craig A. Bock**
Company: **Burlington Resources**
Address: **3535 E. 30th Street**
City, State: **Farmington, NM 87401**

Date: **30-Oct-96**
COC No.: **C3009**
Sample No. **12707**
Job No. **2-1000**

Project Name: **Meridian Oil, Inc. - Johnston Shear #1**

Project Location: **M6-53105A-2-V; Bottom @ 16'**

Sampled by: **JP** Date: **28-Oct-96** Time: **11:00**

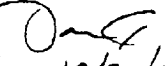
Analyzed by: **DC** Date: **29-Oct-96**

Sample Matrix: **Soil**

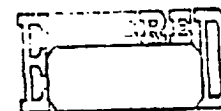
Laboratory Analysis

Component	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	3061.1	ug/kg	0.2	ug/kg
Toluene	3308.7	ug/kg	0.2	ug/kg
Ethylbenzene	20150.9	ug/kg	0.2	ug/kg
m,p-Xylene	182891.8	ug/kg	0.2	ug/kg
o-Xylene	22200.2	ug/kg	0.2	ug/kg
TOTAL		231612.7	ug/kg	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/30/96**

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Craig A. Bock*
 Company: *Burlington Resources*
 Address: *3535 E. 30th Street*
 City, State: *Farmington, NM 87401*

Date: *30-Oct-96*
 COC No.: *C3009*
 Sample No. *12707*
 Job No. *2-1000*

Project Name: *Meridian Oil, Inc. - Johnston Shear #1*
 Project Location: *M6-53105A-2-V; Bottom @ 16'*
 Sampled by: *JP* Date: *28-Oct-96* Time: *11:00*
 Analyzed by: *DC/HR* Date: *29-Oct-96*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	1417.9	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	2593.2	mg/kg	5.0	mg/kg
	TOTAL	4011.1		mg/kg

Quality Assurance Report

GRO QC No.: *0493-STD*
 DRO QC No.: *0489-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,326	1.8	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	102	1.8	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	107	103	(70-130)	3	20%
Diesel Range (C10-C28)	110	97	(70-130)	9	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:

OFF: (505) 325 5667



LAB: (505) 325-1536

TPH - Gasoline / Diesel Range Organics

Attn: *Craig A. Bock*
 Company: *Burlington Resources*
 Address: *3535 E. 30th Street*
 City, State: *Farmington, NM 87401*

Date: *30-Oct-96*
 COC No.: *C3009*
 Sample No. *12708*
 Job No. *2-1000*

Project Name: *Meridian Oil, Inc. - Johnston Shear #1*

Project Location: *M6-53105A-3-V; 4 Well Composite*

Sampled by: *JP*

Date: *28-Oct-96* Time: *11:30*

Analyzed by: *DC/HR*

Date: *30-Oct-96*

Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Gasoline Range Organics (C5 - C9)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0493-STD*

DRO QC No.: *0188 STD*

Calibration Check

<i>Parameter</i>	<i>Method Blank</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Gasoline Range (C5 - C9)</i>	<i><60</i>	<i>ppb</i>	<i>1,350</i>	<i>1,326</i>	<i>1.8</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>101</i>	<i>1.4</i>	<i>15%</i>

Matrix Spike

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Gasoline Range (C5-C9)</i>	<i>107</i>	<i>103</i>	<i>(70-130)</i>	<i>3</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>110</i>	<i>97</i>	<i>(70-130)</i>	<i>9</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*

Date: *10/30/96*

OFF: (505) 325 8667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Craig A. Bock*
Company: *Burlington Resources*
Address: *3535 E. 30th Street*
City, State: *Farmington, NM 87401*

Date: *30-Oct-96*
COC No.: *C3009*
Sample No. *12708*
Job No. *2-1000*

Project Name: *Meridian Oil, Inc. - Johnston Shear #1*

Project Location: *M6-53105A-3-V: 4 Well Composite*

Sampled by: *JP*

Date: *28 Oct 96* Time: *11:30*

Analyzed by: *DC*

Date: *29-Oct-96*

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	0.9	ug/kg	0.2	ug/kg
Toluene	<0.2	ug/kg	0.2	ug/kg
Ethylbenzene	0.8	ug/kg	0.2	ug/kg
m,p-Xylene	9.9	ug/kg	0.2	ug/kg
o-Xylene	2.9	ug/kg	0.2	ug/kg
TOTAL	14.5	ug/kg		

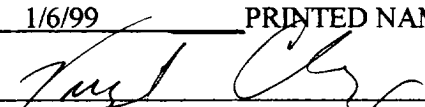
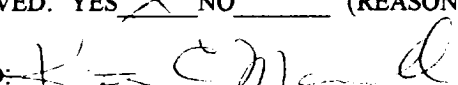
Method - SW-846 EPA Method 8202 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *10/30/96*

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 Johnston Shear # 1</u>	
Location: Unit or Qtr/Qtr Sec <u>H</u> Sec <u>3</u> T <u>26 N</u> R <u>3 W</u> County <u>Rio Arriba</u>	
Land Type: <u>Range</u>	
Date Remediation Started: <u>10/28/96</u> Date Completed: <u>12/9/98</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>672</u>	
Composted <u> </u>	
Other <u> </u>	
<div>Depth to Groundwater: (pts) <u>0</u></div> <div>Distance to an Ephemeral Stream (pts) <u>0</u></div> <div>Distance to Nearest Lake, Playa, or Watering Pond (pts) <u>0</u></div> <div>Wellhead Protection Area (pts) <u>0</u></div> <div>Distance to Surface Water (pts) <u>0</u></div> <div>RANKING SCORE (TOTAL POINTS): <u>0</u></div>	<div>Final Closure Sampling:</div> <div>Sampling Date: <u>12/9/98</u> Time: <u>11:30</u></div> <div>Sample Results:</div> <div>Field Headspace (ppm) <u>48.3</u></div> <div>TPH (ppm) <u><63</u> Method <u>8015</u></div> <div>Other: <u> </u></div>
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 <u>X</u> NO <u> </u> (REASON) <u> </u>	
SIGNED: <u></u> DATE: <u>1-7-98</u>	

Client : Taurus Exploration USA Inc.

Date Started : October 28, 1996 Date Completed : December 9, 1998

Location : Johnston Shear # 1		Overview of Landfarm and Sampling :	
Qued :	H Section : 3		
Township :	26 N Range : 3 W		
Pit :	Blow Pit		
Reference :	See Below		
Size :	LF # 1 = 60'x70'x1' LF # 2 = 25'x210'x1' LF # 3 = 60'x40'x1.5' LF # 4 = 65'x135'x1'		
Yds :	672		
4	5 - Point Composites		
Comments : Soil is moist, brown, clay/loam with moderate gray/black staining and a slight hydrocarbon odor.			
A sample from composite # 2 was sent to IML for GRO/DRO analysis.			
Reference for LF # 1 = 120' N of wellhead			
Reference for LF # 2 = 50' N 25 E of wellhead			
Reference for LF # 3 = 50' S 40 E of wellhead			
Reference for LF # 4 = 150' N 50 E of wellhead			
Environmental Specialist : JE			



GASOLINE RANGE ORGANICS - GRO

ENERGEN RESOURCES

Project ID:	Jicarilla Johnston Shear	Report Date:	12/31/98
Sample ID:	Landfarm Comp #2	Date Sampled:	12/09/98
Lab ID:	0398G07289	Date Received:	12/11/98
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: *Sample was analyzed within the holding times, however, due to instrument problems and QC failure, the sample had to be re-analyzed to verify results.

Reported By:

Reviewed By:



DIESEL RANGE ORGANICS - DRO

ENERGEN RESOURCES

Project ID:	Jicarilla Johnston Shear	Report Date:	12/30/98
Sample ID:	Landfarm Comp #2	Date Sampled:	12/09/98
Lab ID:	0398G07289	Date Received:	12/11/98
Sample Matrix:	Soil	Date Analyzed:	12/23/98
Condition:	Cool/Intact		

TPH DIESEL RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	58	5.0 mg/Kg

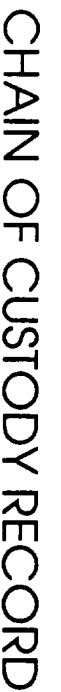
ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:

Reviewed By:



CHAIN OF CUSTODY RECORD

[illegible]