

Donna L. Frost
DEPUTY OIL & GAS INSPECTOR

MAR 28 1997

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

SUBMIT COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

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: Jicarilla 94 # 4A AP # 29199A

Location: Unit or Qtr/Qtr Sec P Sec 23 T 27 R 03 County Rio Arriba

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: Jicarilla Apache

P. Location: Pit dimensions: length 20', width 15', depth 2'
(Attach diagram)

Reference: wellhead ☒ other ☐

Footage from reference: 109'

Direction from reference: 185° Degrees ☐ East ☒ North
of ☐ West ☐ South

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)
Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)
Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)
Less than 100 feet (10 points)
Greater than 100 feet (0 points) 10

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1' feet from all other water sources)
Yes (20 points)
No (0 points) 0

Distance To Surface Water: (Horizontal distance to perennial ponds, rivers, streams, creeks, irrigation canals and ditches)
Less than 100 feet (20 points)
100 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 20

RANKING SCORE (TOTAL POINTS): 30

Date Remediation Started: 8-20-96 Date Completed: 11-1-96
Remediation Method: Excavation ☒ Approx. cubic yards 853 ^{Initial} Excavation
Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
Other Additional Cu Yd. 1716

Remediation Location: Onsite ☒ Offsite _____
(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Excavated contaminated material

Groundwater Encountered: No ☒ Yes _____ Depth _____ No Groundwater encountered on 2nd Excavation

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 20 Ft
Sample date 8-21-96 Sample time 0930

Sample Results .038 Bottom .001 WALLS 2nd Excavation
Soil: Benzene (ppm) _____ Water: Benzene (ppb) _____ Head space
Total BTEX (ppm) .248 Bottom .011 WALLS Toluene (ppb) _____ 106 ppm Bottom
Field Headspace (ppm) 2/2 Ethylbenzene (ppb) _____ 06 ppm 4-wall
TPH (ppm) ND Bottom ND WALLS Total Xylenes (ppb) _____

Groundwater Sample: Yes _____ No ☒ (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 8/20/96 PRINTED NAME Guy L Garretson
SIGNATURE Guy L Garretson AND TITLE Lease Operator - A

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO _____ (REASON) _____

SIGNED: Ken C Marshall DATE: 10-27-96

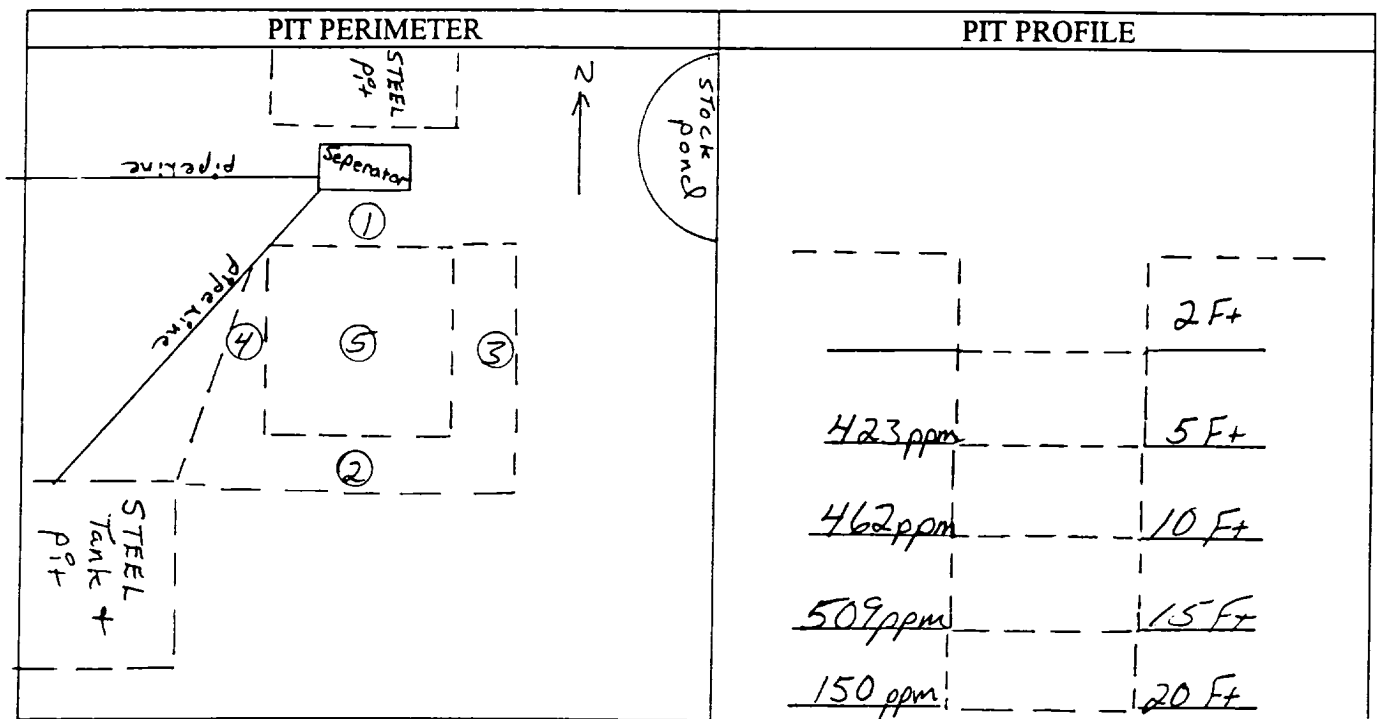
BURLINGTON RESOURCES

PIT CLOSURE VERIFICATION SHEET

Location: Picarilla 94 #4A DP# 29199A Lease No. NM. Cont. 09-000094
 Contractor: Philips Env Consultant Initials: ATP
 Date Started: 8-20-96 Date Finished: _____

Excavation & Soil Information

Dimensions (approx.): 36' FT. x 32' FT. x 20' FT. Deep Cubic Yards: (bcy) 853
 Soil Remediated ☒ On Site ☐ Off Site If off site name location (s) _____



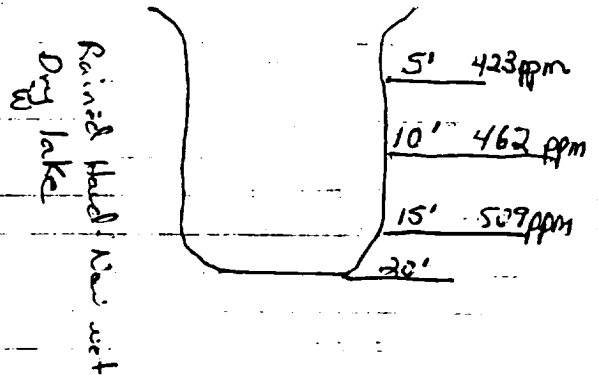
OVM Results:								
Sample ID	1	2	3	4	5	6	7	8
Headspace PID (ppm)	222	219	260	187	150			
Sample ID	9	10	11	12	13	Comp 1	Comp 2	Comp 3
Headspace PID (ppm)						212		

Laboratory Results:			
Sample ID	M6-29199A-2-V		
BTEX RM8020 (ppm)	271.4		
TPH RM8015 (ppm)	999.0		

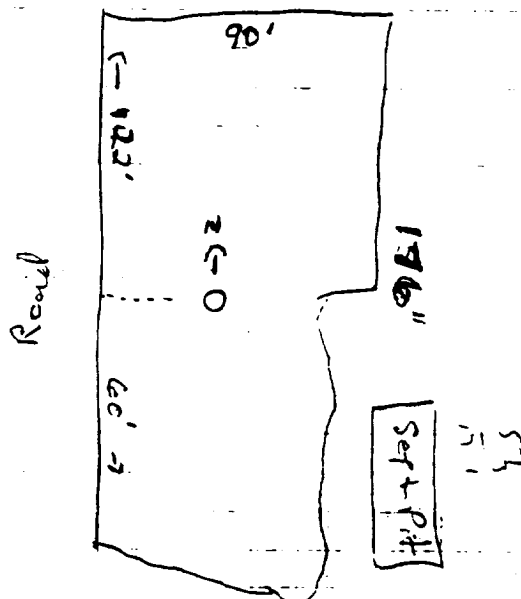
Started Digging @ 2:15 PM
Line from Sap to Tank - Had meeting Don't hit the Line

Pit full of Trees etc
Really cleaning up good on East.
Shutting Down @ 4:15 PM

222 ppm



Picture # ⁽²⁷⁾ 544 - ⁽²⁸⁾ 10:00 am
Leave for headed to TAE 11:00

$$\frac{44}{12} = 3\frac{1}{3}$$


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: **28-Oct-96**
 COC No.: **C3003**
 Sample No. **12699**
 Job No. **2-1000**

Project Name: **Meridian Oil, Inc. - Jicarilla 94 #4A**
 Project Location: **M6-29199A-3-V; Bottom @ 26'**
 Sampled by: **JP**
 Analyzed by: **DC/HR**
 Sample Matrix: **Soil**

Date: **24-Oct-96** Time: **10:30**
 Date: **28-Oct-96**

Laboratory Analysis

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

Quality Assurance ReportGRO QC No.: **0493-STD**DRO QC No.: **0493-STD****Calibration Check**

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,209	10.5	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	88	12.5	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)	114	104	(70-130)	6	20%

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

Approved by:

Date: **10/20/96**

P.O. BOX 2606 • FARMINGTON, NM 87499

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: **28-Oct-96**
COC No.: **C3003**
Sample No. **12699**
Job No. **2-1000**

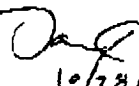
Project Name: **Meridian Oil, Inc. - Jicarilla 94 #4A**
Project Location: **M6-29199A-3-V; Bottom @ 26'**
Sampled by: **JP**
Analyzed by: **DC**
Sample Matrix: **Soil**

Date: **24-Oct-96** Time: **10:30**
Date: **25-Oct-96**

Laboratory Analysis

Parameter	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	37.8	ug/kg	0.2	ug/kg
Toluene	11.4	ug/kg	0.2	ug/kg
Ethylbenzene	12.7	ug/kg	0.2	ug/kg
m,p-Xylene	147.0	ug/kg	0.2	ug/kg
o-Xylene	38.7	ug/kg	0.2	ug/kg
TOTAL		247.5		ug/kg

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

Approved by: 
Date: **10/28/96**

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: **28-Oct-96**
 COC No.: **C3003**
 Sample No.: **12700**
 Job No.: **2-1000**

Project Name: **Meridian Oil, Inc. - Jicarilla 94 #4A**
 Project Location: **M6-29199A-4-V; 4-Wall Composite**
 Sampled by: **JP**
 Analyzed by: **DC/HR**
 Sample Matrix: **Soil**

Date: **24-Oct-96** Time: **11:45**
 Date: **28-Oct-96**

Laboratory Analysis

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

Quality Assurance Report

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

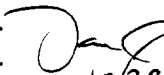
Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,350	1,209	10.5	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	88	12.5	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)	114	104	(70-130)	6	20%

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

Approved by: 
 Date: **10/28/96**

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: *28-Oct-96*
COC No.: *C3003*
Sample No. *12700*
Job No. *2-1000*

Project Name: *Meridian Oil, Inc. - Jicarilla 94 #4A*
Project Location: *M6-29199A-4-V; 4-Wall Composite*
Sampled by: *JP*
Analyzed by: *DC*
Sample Matrix: *Soil*

Date: *24-Oct-96* Time: *11:45*
Date: *25-Oct-96*

Laboratory Analysis

Parameter	Result	Units of Measure	Detection Limit	Units of Measure
<i>Benzene</i>	<i>0.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>0.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>7.6</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>1.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>TOTAL</i>		<i>11.0</i>		<i>ug/kg</i>

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

Approved by: 
Date: *10/29/96*

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SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

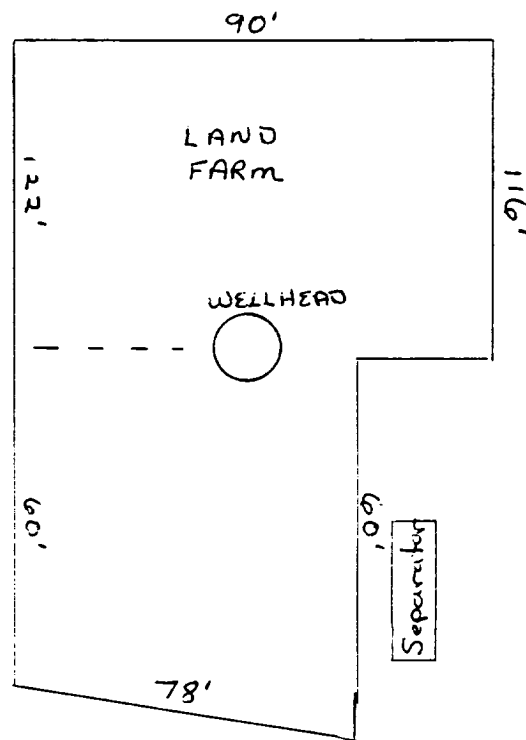
ON-SITE SOIL REMEDIATION REPORT

Operator: <u>BURLINGTON RESOURCES</u>		Telephone: <u>(505) 326-9700</u>
Address: <u>P.O. BOX 4289, Farmington, NM 87499-4289</u>		
Facility or Well Name: <u>Jicarilla 94#4A</u>		
Location:	Unit: <u>P</u>	Sec. <u>23</u> T. <u>27</u> N. R. <u>03</u> W. County <u>Rio Arriba</u>
Land Type:	<u>Jicarilla Apache</u>	
Date Remediation Started: <u>8-20-96</u>		Date Completed: _____
Remediation Method:	Landfarmed ☒	Approx. cubic yards <u>853</u>
	Composted ☐	
	Other ☐	
Depth to Ground Water:	(pts.) <u>0</u>	Final Closure Sampling: Sampling Date: <u>10/7/96</u> Time <u>14:30</u> Sampling Results: Field Headspace (ppm) <u>10.4</u> TPH (ppm) <u><5.0</u> Method <u>8015</u> Other _____ Sample No. <u>M6-29199A-2-LF</u>
Distance to an Ephemeral Stream:	(pts.) <u>0</u>	
Distance to Nearest Lake, Playa, or Watering Pond:	(pts.) <u>10</u>	
Wellhead Protection Area:	(pts.) <u>0</u>	
Distance to Surface Water:	(pts.) <u>20</u>	
Ranking Score (Total Points):	<u>30</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF		
DATE	<u>10/16/96</u>	PRINTED NAME <u>Guy L. Garretson</u>
SIGNATURE	<u>Guy L. Garretson</u>	AND TITLE <u>Lease Operator</u>
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE		
APPROVED: YES ☒	NO ☐	(REASON) _____
SIGNED: <u>[Signature]</u>	DATE: <u>10/17/96</u>	

ON-SITE SOIL REMEDIATION DIAGRAM



Location Name: Jicarilla 94 # 4A



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: 10-Oct-96
COC No.: C1989
Sample No. 12472
Job No. 2-1000

Project Name: ***Burlington Resources - Jicarilla Pit Closures; Landfarm***

Project Location: ***M6-29199A-2-LF***

Sampled by: GG Date: 7-Oct-96 Time: 14:30

Analyzed by: DC/HR Date: 9-Oct-96

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
	TOTAL	<5.0		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	1,430	5.9	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	104	3.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	98	85	(70-130)	10	20%
Diesel Range (C10-C28)	89	98	(70-130)	7	20%

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

Approved by: 
Date: 10/10/96