

Serrano
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 West #8 DP# 53087B-2

Location: Unit or Qtr/Qtr Sec H Sec 06 T 26 R 05 County Rio Arriba

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 12' width 11' depth 3'
(A diagram)

Reference: wellhead ☒ other ☐

Footage from reference: 48.5

Direction from reference: 65° 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) 10

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) 10

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) 0

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)
No (0 points) 0

Distance To Surface Water: (Horizontal distance to perennial lakes, 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) 10

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OIL & GAS DEPT
OFFICE 3

TOTAL POINTS: 30

Date Remediation Started: 8-27-96 Date Completed: _____
Remediation Method: Excavation ☒ Approx. cubic yards 66
Check all appropriate actions) Landfarmed ☒ Insitu Bioremediation _____
Other _____

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

General Description of Remedial Action: Excavated contaminated material to solid sandstone

Groundwater Encountered: No ☒ Yes _____ Depth _____

Final Pit: Sample location See pit closure verification
Closure Sampling: Sheet
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 7'
Sample date 8-27-96 Sample time 1230

Sample Results

Soil: Benzene (ppm)	<u>0.47</u>	Water: Benzene (ppb)	_____
Total BTEX (ppm)	<u>58</u>	Toluene (ppb)	<u>105.57</u>
Field Headspace (ppm)	<u>238</u>	Ethylbenzene (ppb)	_____
TPH (ppm)	<u>58</u>	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 8/27/96 PRINTED NAME CAROL A. Burt
SIGNATURE C. A. Burt AND TITLE Environmental Representative

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) Spray w/ nutrients / Conditional

SIGNED: Robert J. [Signature] DATE: 9/9/96

BURLINGTON RESOURCES

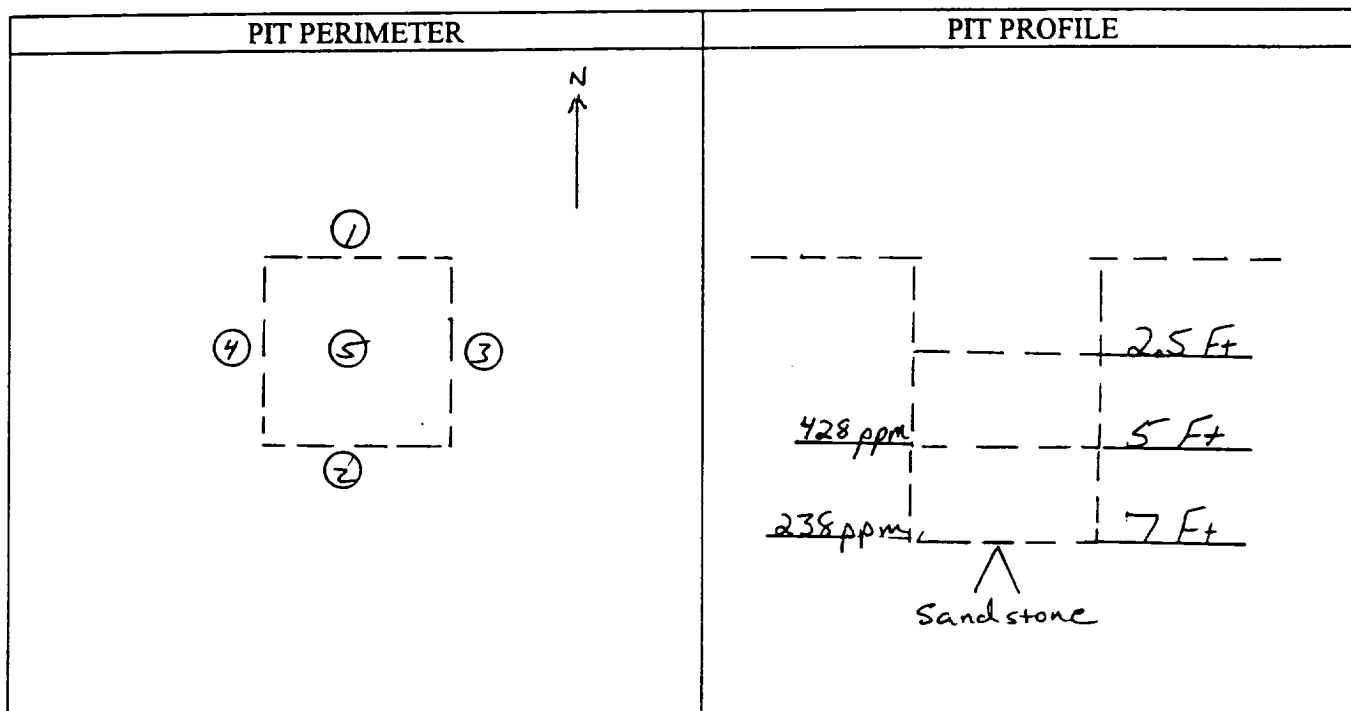
PIT CLOSURE VERIFICATION SHEET

p.t # 2

Location: Licanilla West #8 DP# 53087B-2 Lease No. No Lease #
 Contractor: Philips Env Consultant Initials: JP
 Date Started: 8-27-96 Date Finished:

Excavation & Soil Information

Dimensions (approx.): 17' FT. x 15' FT. x 7' FT. Deep Cubic Yards: (bcy) 66
 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)	179	238	237	237	238			
Sample ID	9	10	11	12	13	Comp 1	Comp 2	Comp 3
Headspace PID (ppm)						238		

Laboratory Results:			
Sample ID	<u>m6-53087B-2-2-V</u>		
BTEX RM8020 (ppm)	<u>105 57</u>		
TPH RM8015 (ppm)	<u>58</u>		

9/4/96

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Zenon Environmental Laboratories - Certificate of Analysis

✓ 3 ✓ 2 ✓ 1 ✓ 0

Client ID: 53084A-2-V ✓ M6 2.1 ✓ M6 2.1 ✓ M6 2.1 ✓
Zenon ID: 53087B-2-2-V ✓ 53087B-1-2-V ✓
Date Sampled: 033790 96 033791 96 033792 96
 96/08/26 96/08/27 96/08/27

Component
 BTEX via SW846 Method 8260

Benzene	0.005	0.18	0.47	5.6
Toluene	0.005	0.84	8.7	87
Ethylbenzene	0.005	0.95	5.4	16
m&p-Xylene	0.005	3.8	72	220
o-Xylene	0.005	1.3	19	45

Surrogate Recoveries
 d4-1,2-Dichloroethane
 d8-Toluene
 Bromofluorobenzene

TPH via SW846 Method 8015b
 Surrogate Recoveries
 5-α-Androstane

19	<	73	58	61
	mg/kg		mg/kg	
	%		%	

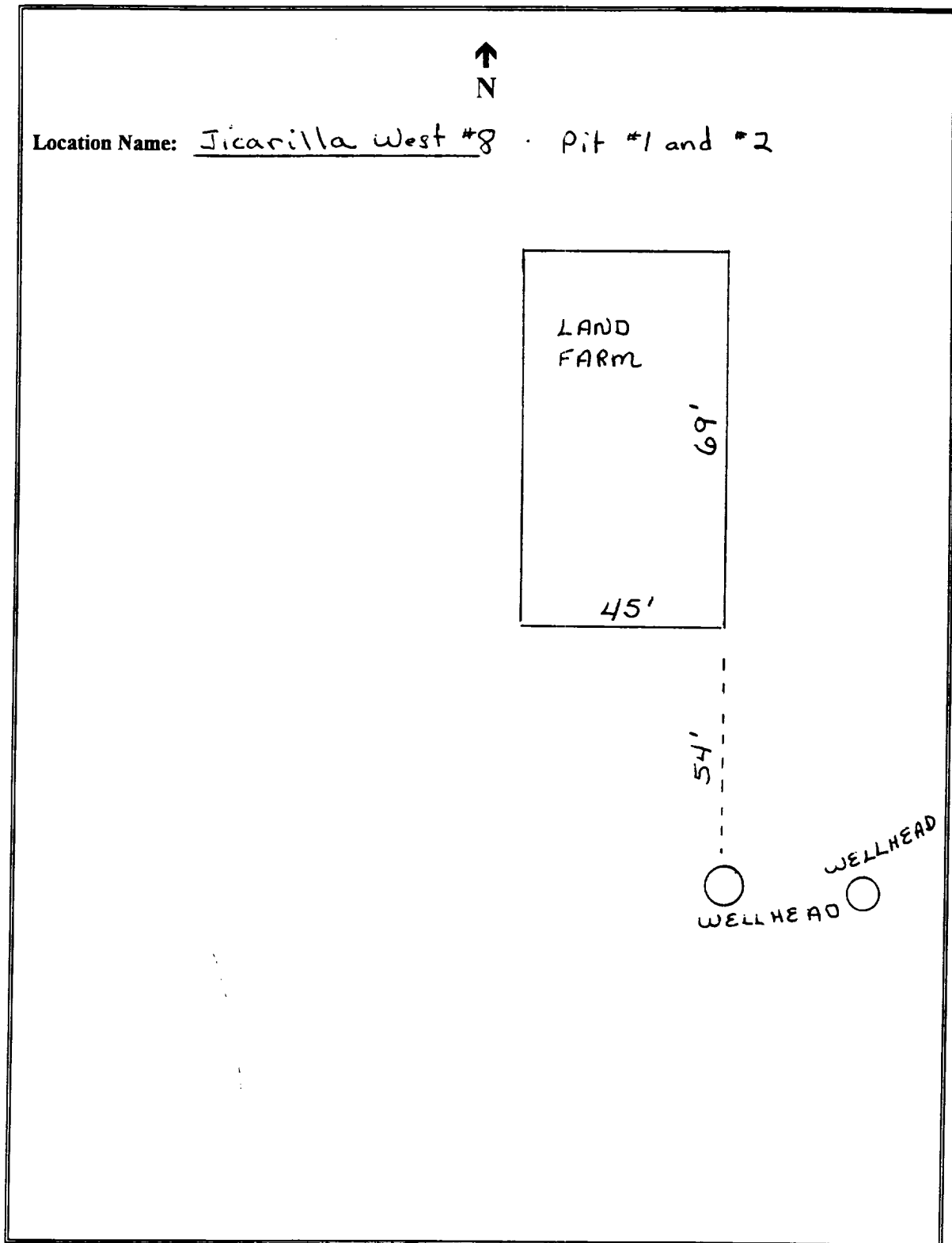
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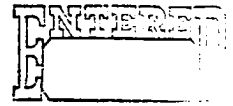
ON-SITE SOIL REMEDIATION REPORT

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 West #8</u>			
Location: Unit: <u>H</u> Sec. <u>06</u> T. <u>26</u> N R. <u>05</u> W County <u>Rio Arriba</u>			
Land Type: <u>Jicarilla Apache</u>			
Date Remediation Started: <u>8-27-96</u>		Date Completed: _____	
Remediation Method: Landfarmed ☒		Approx. cubic yards: <u>124</u>	
Composted ☐		_____	
Other ☐		_____	
Depth to Ground Water: (pts.) <u>10</u>		Final Closure Sampling:	
Distance to an Ephemeral Stream: (pts.) <u>10</u>		Sampling Date: <u>10-7-96</u> Time: <u>10:30</u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>0</u>		Sampling Results:	
Wellhead Protection Area: (pts.) <u>0</u>		Field Headspace (ppm): <u>13.4</u>	
Distance to Surface Water: (pts.) <u>10</u>		TPH (ppm): <u>51</u> Method: <u>8015</u>	
Ranking Score (Total Points): <u>30</u>		Other: _____	
Sample No. <u>m6-530878-2-LF</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 Garrettson</u>	
SIGNATURE: <u>Guy L Garrettson</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>Habert</u>		DATE: <u>10/17/96</u>	

ON-SITE SOIL REMEDIATION DIAGRAM



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. **12467**
Job No. **2-1000**

Project Name: **Burlington Resources - Jicarilla Pit Closures; Landfarms**
Project Location: **M6-53087B-2-LF**

Sampled by: **GG** Date: **7-Oct-96** Time: **10:30**
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)	51.0	mg/kg	5.0	mg/kg
	TOTAL	51.0		mg/kg

Quality Assurance Report

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

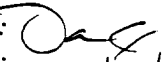
Calibration Check

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	109	8.8	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**