

*Denny S. Faust*  
DEPUTY OIL & GAS INSPECTOR

FEB 26 1998

JICARILLA APACHE TRIBE

ENVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507  
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL GAS  
ADMINISTRATION

*Approved*

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: PNM Gas Services (Amoco) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Jicarilla Apache 102-21

Location: Unit: D Sec. 4 T. 26 N R. 4 W County Rio Arriba

Pit Type: Separator X Dehydrator      Other     

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 32' width 29' depth 7'

(Attach diagram) Reference: wellhead X other     

Footage from reference: 78'

Direction from reference: 60 Degrees      East      North       
     West      South     

**Depth to Ground Water:**

(Vertical distance from contaminants to seasonal high water elevation of ground water)

Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 points)

**Wellhead Protection Area:**

(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)

Yes (20 points)  
No (0 points)

**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 1,000 feet (10 points)  
Greater than 1,000 feet (0 points)

**Distance to Ephemeral Stream (dry wash):**

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet (10 points)  
Greater than 100 feet (0 points)

**Distance to Nearest Lake, Playa, or Watering Pond:**

(Horizontal distance to all downgradient lakes, playas, and livestock or wildlife water ponds)

Less than or equal to 100 feet (10 points)  
Greater than 100 feet (0 points)

**RANKING SCORE (TOTAL POINTS):**

Date Remediation Started:

7/1/97

Date Completed:

7/30/97

Remediation Method:

Excavation

X

Approx. Cubic Yards

241

(Check all appropriate sections)

Landfarmed

X

Amount Landfarmed (cubic yds):

241

Other \_\_\_\_\_

Remediation Location:

Onsite

X

Offsite \_\_\_\_\_

(i.e., landfarmed onsite, name and location of offsite facility)

## General Description of Remedial Action:

Removed contaminated soil from all four side walls  
HS to get it below 100 ppm head space reading  
Bottom is rock.

Ground Water Encountered:

No

X

Yes \_\_\_\_\_

Depth \_\_\_\_\_

Final Pit Closure  
Sampling:

Sample Location

North, East, South, and West  
Side walls.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth

6'

Sample date

7/1/97

Sample time

0926

## Sample Results

Soil: Benzene (ppm)

ND

Water: Benzene (ppb)

Total BTEX (ppm)

0.005

Toluene (ppb)

Field headspace (ppm)

90.8

Ethylbenzene (ppb)

TPH ND ppm

Method

8015

Total Xylenes (ppb)

Ground Water Sample:

Yes \_\_\_\_\_

No

X

(If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE

7/9/97

PRINTED NAME

Ronald A. Dedrick

SIGNATURE

Ronald A. Dedrick

AND TITLE

Environmental Technician II

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

APPROVED: YES

X

NO \_\_\_\_\_

(REASON):

spray & close

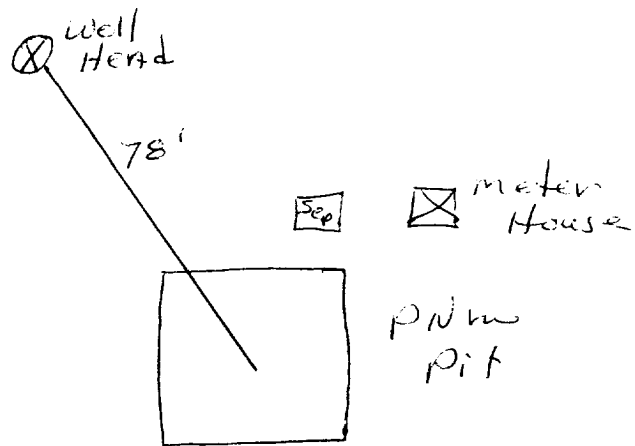
SIGNED:

Kenn C Mammill

DATE:

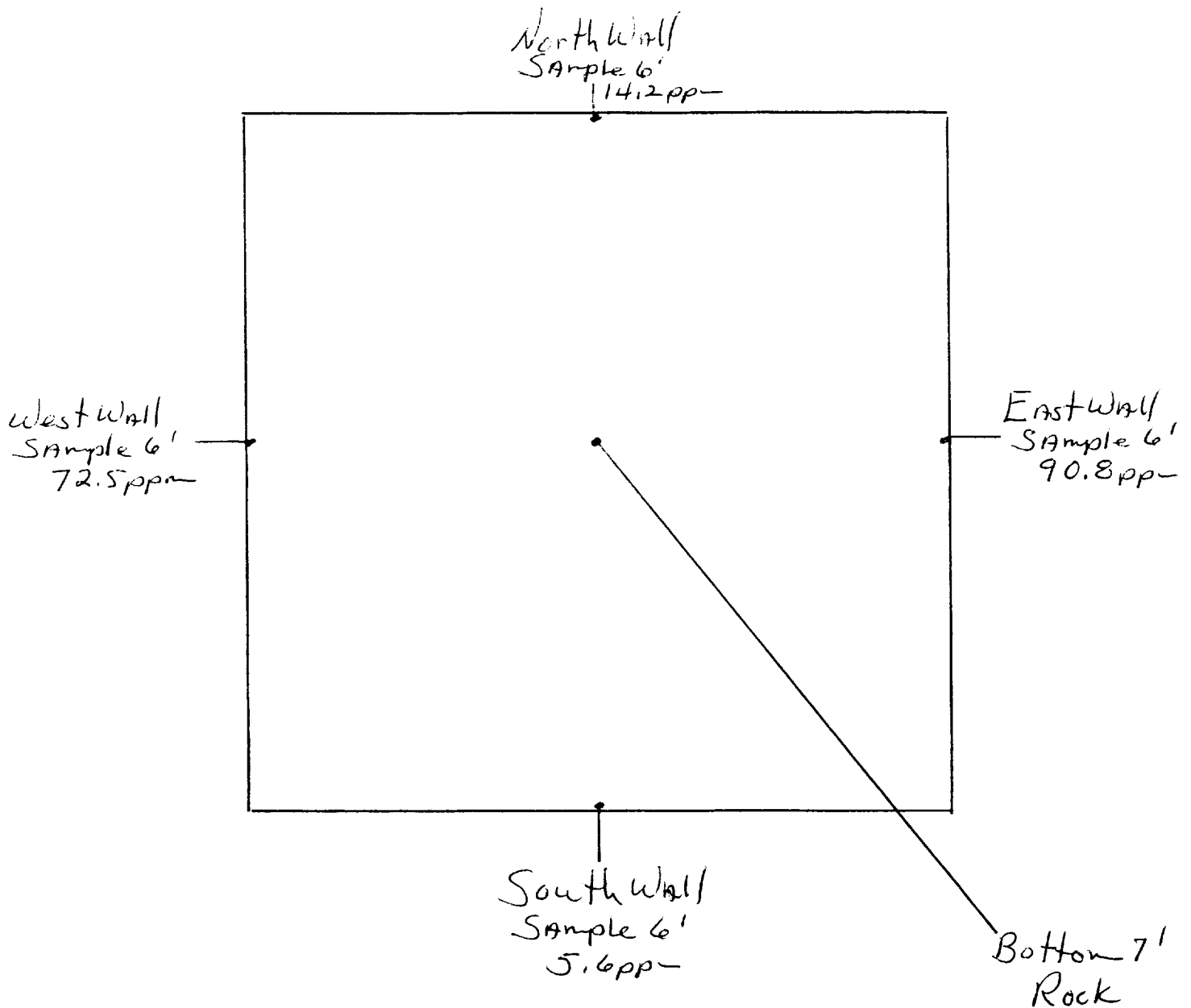
7-9-97

JICAN 1114 17pache 10x-21  
Sec. 4 T26N R4W Unit D  
Hmoco



JICAN 1119 Hpa ch 2 102-21  
Sec. 4 T26N R4W Unit D  
Amoco

32' x 29' x 7'



5' Sample - 680 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *8-Jul-97*  
COC No.: *5500*  
Sample No.: *15183*  
Job No.: *2-1000*

Project Name: *PNM Gas Services -Jicarilla Apache 102-21*

Project Location: *9707010926; 4pt. Composite*

Sampled by: *PA* Date: *1-Jul-97* Time: *9:26*

Analyzed by: *DC/HR* Date: *8-Jul-97*

Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0548-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	185	7.8	15%

#### Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	84	89	(70-130)	5	20%

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

Approved by: *Heidi Rensi*  
Date: *7/9/97*

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OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *9-Jul-97*  
COC No.: *5500*  
Sample No.: *15183*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Apache 102-21*

Project Location: *9707010926; 4pt. Composite*

Sampled by: *PA* Date: *1-Jul-97* Time: *9:26*

Analyzed by: *DC* Date: *8-Jul-97*

Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1	ug/kg
<i>Toluene</i>	ND	ug/kg	1	ug/kg
<i>Ethylbenzene</i>	2	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	2	ug/kg	1	ug/kg
<i>o-Xylene</i>	1	ug/kg	1	ug/kg
	<i>TOTAL</i>	5		ug/kg

ND - Not Detected at Limit of Quantitation

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

Approved by: *Heidi Reese*

Date: *7/9/97*

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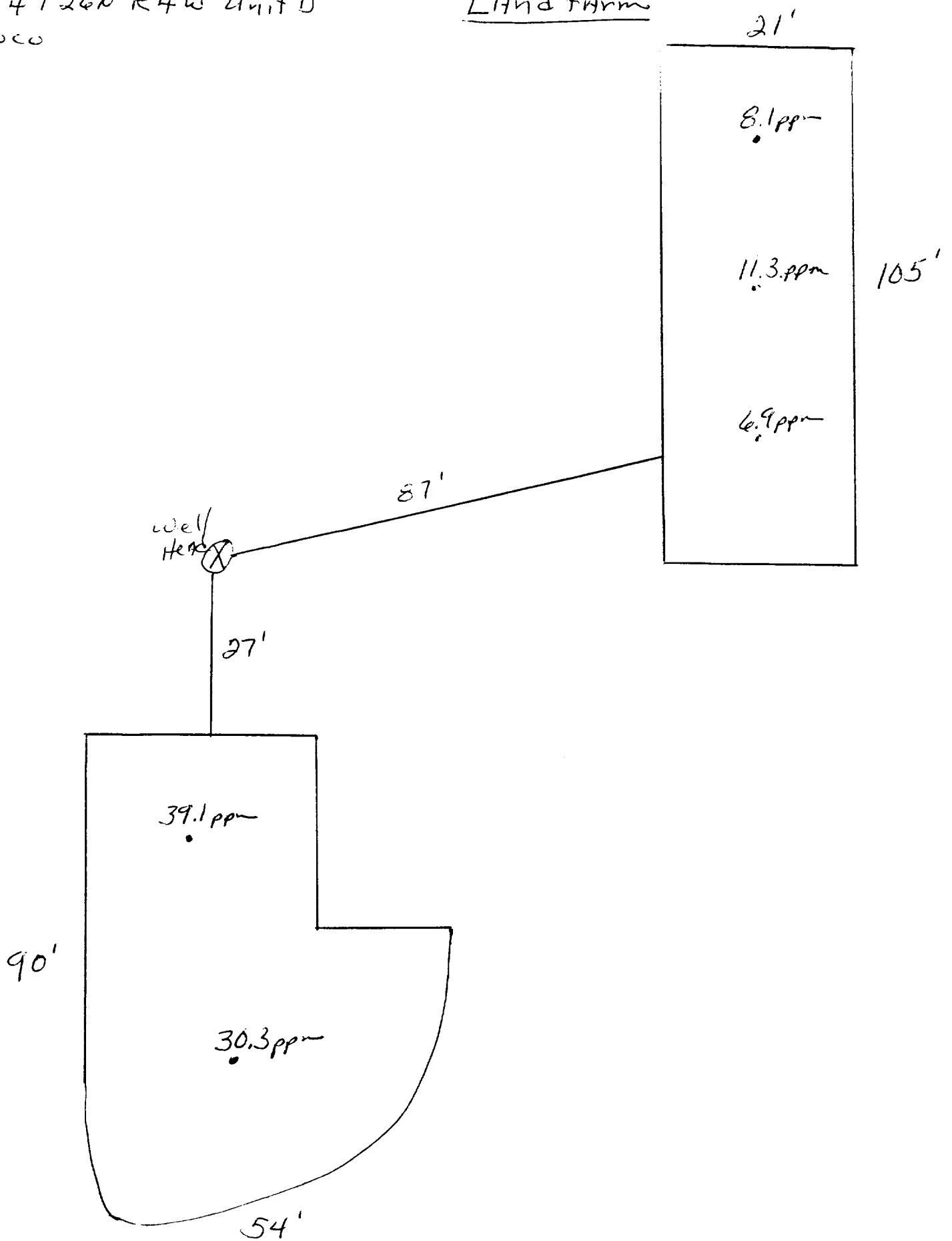
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AND OIL GAS  
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

<b>Operator:</b> PNM Gas Services (Amoco) <b>Telephone:</b> 324-3764	
<b>Address:</b> 603 W. Elm Street Farmington, NM 87401	
<b>Facility or Well Name:</b> Jicarilla Apache 102-21	
<b>Location:</b>	<b>Unit:</b> D <b>Sec.</b> 4 <b>T.</b> 24 <b>N</b> <b>R.</b> 4 <b>W</b> <b>County</b> Rio Arriba
<b>Land Type:</b> Jicarilla Apache	
<b>Date Remediation Started:</b> 7/1/97	<b>Date Completed:</b> 7/16/97
<b>Remediation Method:</b> Landfarmed <input checked="" type="checkbox"/> Composted <input type="checkbox"/> Other <input type="checkbox"/>	<b>Approx. cubic yards</b> 241
<b>Depth to Ground Water:</b> (pts.) 0	<b>Final Closure Sampling:</b> <b>Sampling Date:</b> 7/16/97 <b>Time</b> 0904 <b>Sampling Results:</b> <b>Field Headspace (ppm)</b> 39.1 <b>TPH (ppm)</b> ND <b>Method</b> 8015 <b>Other</b>
<b>Distance to an Ephemeral Stream:</b> (pts.) 0	
<b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (pts.) 0	
<b>Wellhead Protection Area:</b> (pts.) 0	
<b>Distance to Surface Water:</b> (pts.) 0	
<b>Ranking Score (Total Points):</b> 0	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
<b>DATE</b> 7/24/97	<b>PRINTED NAME</b> Ronald A. Dedrick
<b>SIGNATURE</b> Ronald A. Dedrick	<b>AND TITLE</b> Environmental Technician II
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
<b>APPROVED: YES</b> <input checked="" type="checkbox"/> <b>NO</b> <input type="checkbox"/> <b>(REASON)</b> use as Backfill	
<b>SIGNED:</b> K. C. McNeill	<b>DATE:</b> 7-29-97

Diagram of property lines  
Sec. 4 T26N R4W Unit D  
Amoco

Land farm





OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *24-Jul-97*  
COC No.: *5526*  
Sample No.: *15375*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Apache 102-21 Landfarm*  
Project Location: *9707160904; 5pt. Composite*  
Sampled by: *RB* Date: *16-Jul-97* Time: *9:04*  
Analyzed by: *DC* Date: *22-Jul-97*  
Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0548-STD


#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	194	2.9	15%

#### Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	88	93	(70-130)	5	20%

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

Approved by:   
Date: *7/24/97*

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