

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

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 Contract 147-7  
Location: Unit: L Sec. E T. 25 N R. 5 W County Rio Arriba  
Pit Type: Separator Dehydrator X Other  
Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 28' width 25' depth 19'  
(Attach diagram) Reference: wellhead X other  
Footage from reference: 135'  
Direction from reference: 60 Degrees East of 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: 9/16/97 Date Completed: 11/18/97

Remediation Method: Excavation X Approx. Cubic Yards 552

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 552

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  
as to get a 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 18'

Sample date 9/17/97 Sample time 1031

Sample Results

Soil: Benzene (ppm) ND Water: Benzene (ppb) \_\_\_\_\_

Total BTEX (ppm) 0.012 Toluene (ppb) \_\_\_\_\_

Field headspace (ppm) 13.3 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 9/25/97 PRINTED NAME Ronald A. Dedrick

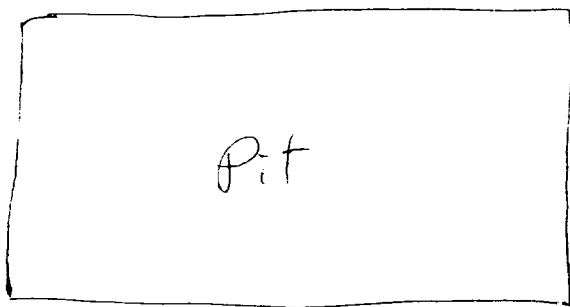
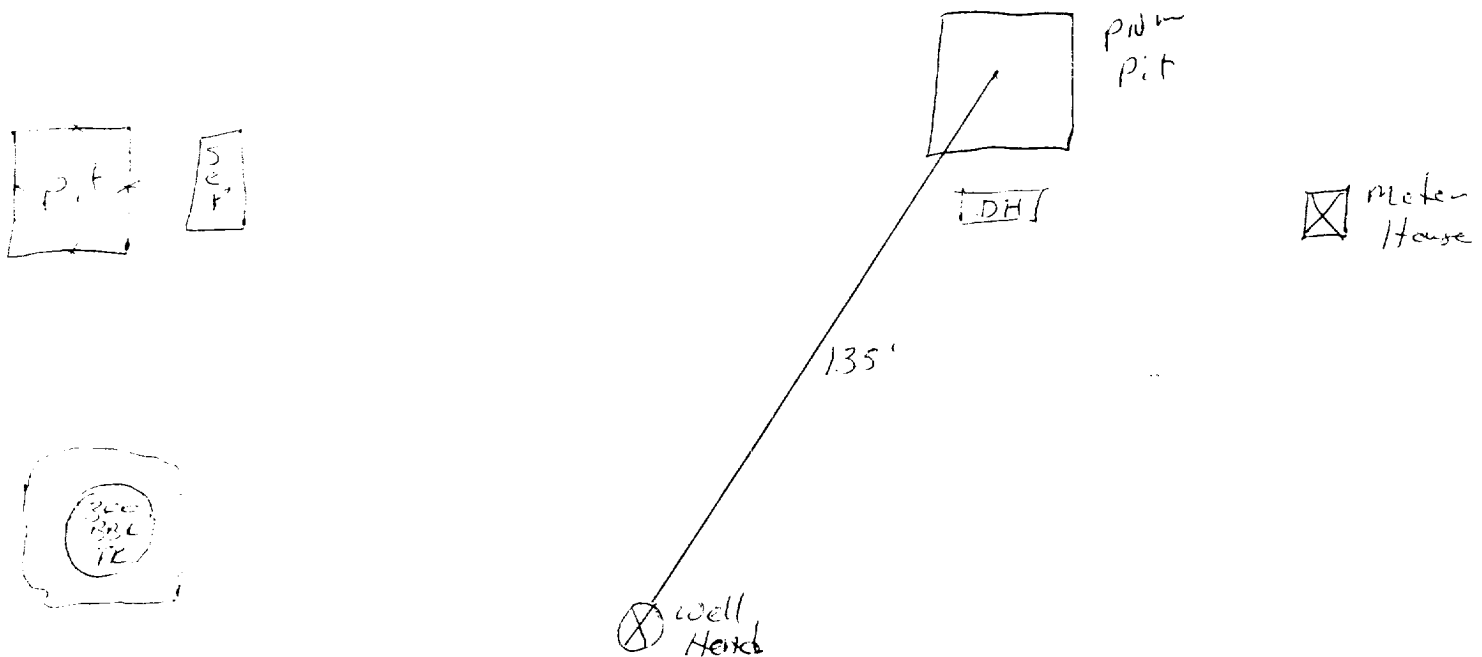
SIGNATURE Ronald A. Dedrick AND TITLE Environmental Technician II

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: Ken C. Mamm DATE: 9-30-97

Jicarilla Contract 147-7  
Sec. 8 T25N R5W Unit L  
Amoco



Jicarilla Contract 147-7  
Sec. 8 T.25N R.5W Unit L  
Amoco

28'x28'x19'

North Wall  
Sample 18'  
11.6 ppm

West Wall  
Sample 18'  
13.1 ppm

East Wall  
Sample 16'  
4.6 ppm

South Wall  
Sample 18'  
13.3 ppm

Bottom 19'  
Rock

5' Sample - 587 ppm  
10' Sample - 288 ppm  
15' Sample - 163 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: *24-Sep-97*  
COC No.: *5590*  
Sample No.: *16249*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Contract 147-7*

Project Location: *9709171031; 4pt. Composite*

Sampled by: *MT* Date: *17-Sep-97* Time: *10:31*

Analyzed by: *DC/HR* Date: *22-Sep-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.: 0555-STD

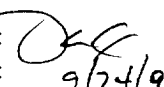
#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	184	8.5	15%

#### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	88	87	(70-130)	1	20%

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

Approved by: 

Date: *9/24/97*

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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: *25-Sep-97*  
COC No.: *5590*  
Sample No.: *16249*  
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla Contract 147-7***

Project Location: ***9709171031; 4pt. Composite***

Sampled by: MT Date: 17-Sep-97 Time: 10:31

Analyzed by: HR Date: 19-Sep-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>	1	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	9	ug/kg	1	ug/kg
<i>o-Xylene</i>	2	ug/kg	1	ug/kg
	<i>TOTAL</i>	12		ug/kg

ND - Not Detected at Limit of Quantitation

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

Approved by: *[Signature]*  
Date: *9/25/97*

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ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services (Amoco) Telephone: 324-3764  
Address: 603 W. Elm Street Farmington, NM 87401  
Facility or Well Name: Jicarilla Contract 147-7  
Location: Unit: L Sec. 8 T. 25 N R. 5 W County Rio Arriba  
Land Type: Jicarilla Apache

Date Remediation Started: 9/16/97 Date Completed: 10/30/97  
Remediation Method: Landfarmed X Approx. cubic yards 552  
Composted  
Other

Depth to Ground Water: (pts.) 0  
Distance to an Ephemeral Stream: (pts.) 0  
Distance to Nearest Lake, Playa,  
or Watering Pond: (pts.) 0  
Wellhead Protection Area: (pts.) 0  
Distance to Surface Water: (pts.) 0  
Ranking Score (Total Points): 0

Final Closure Sampling:

Sampling Date: 10/29/97 Time 1006  
Sampling Results:  
Field Headspace (ppm) 29.3  
TPH (ppm) 13 Method 8015  
Other

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

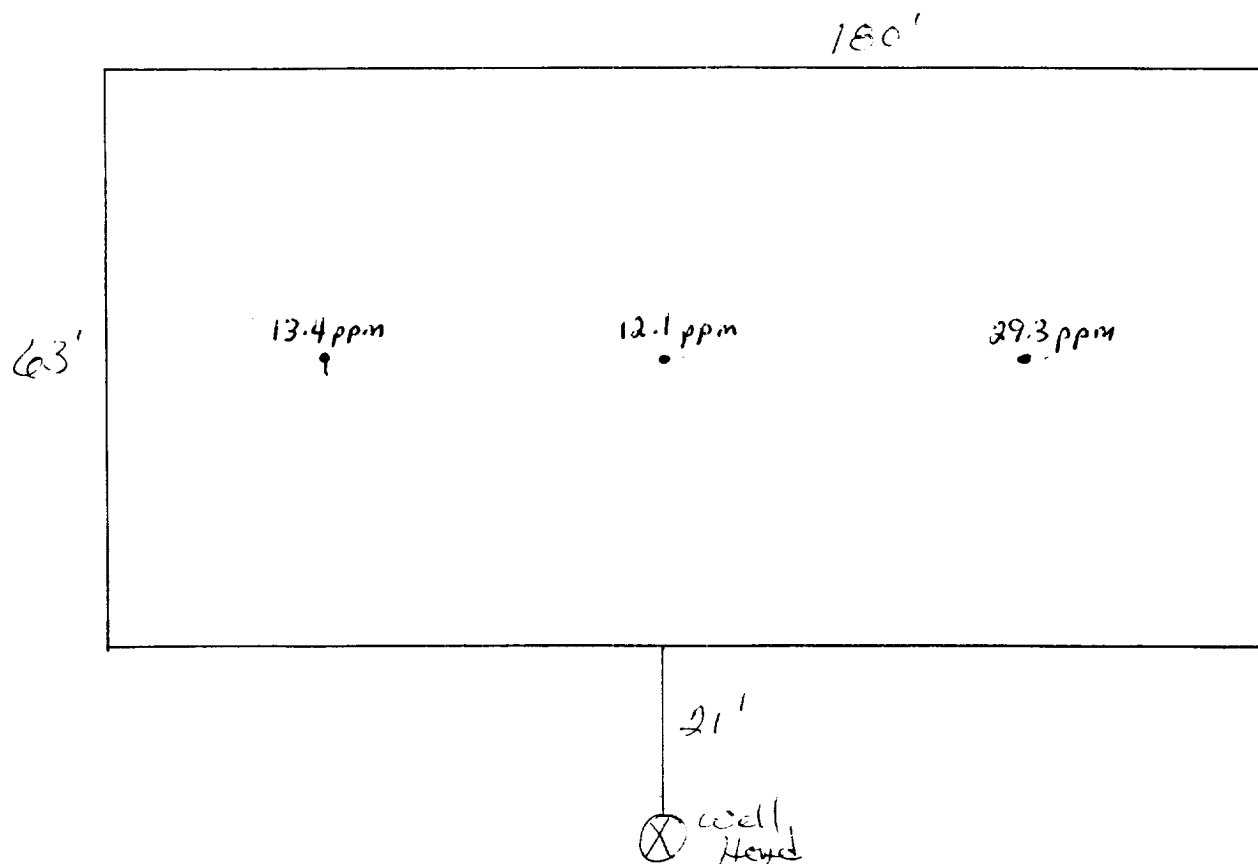
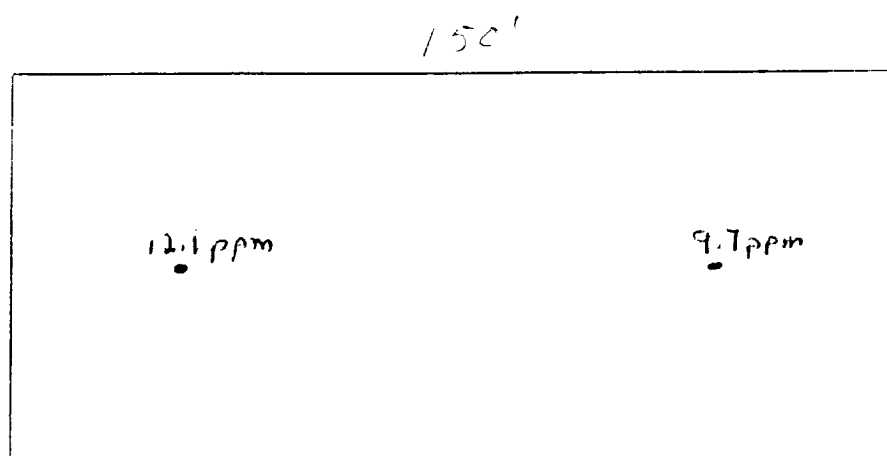
DATE 11/3/97 PRINTED NAME Roy Burnham  
SIGNATURE Roy Burnham AND TITLE Environmental Technician II

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE  
JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE

APPROVED: YES X NO (REASON) use as Backfill  
SIGNED: Lee C. Mammillo DATE: 11-04-97

Jicarilla Contract 147-7  
Sec. 8 T25N R5W Unit L  
Hmoco

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: *31-Oct-97*  
COC No.: *5627*  
Sample No.: *16717*  
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla Contract 147-7 Landfarm***

Project Location: ***9710291006; 5pt. Composite***

Sampled by: *RB* Date: *29-Oct-97* Time: *10:06*

Analyzed by: *DC/HR* Date: *30-Oct-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>	<i>13</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0555-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>201</i>	<i>0.4</i>	<i>15%</i>

#### Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>80</i>	<i>93</i>	<i>(70-130)</i>	<i>12</i>	<i>20%</i>

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

Approved by: *JAG*  
Date: *10/31/97*

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