

*Henry A. Frost*  
DEPUTY OIL & GAS INSPECTOR

MAR 28 1997

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 ( <u>UFS</u> )                                                                                                                                                                                                                                                                                |                        | Telephone:             | 324-3764      |                          |                                |             |           |                        |             |          |                         |            |          |
| Address:                                           | 603 W. Elm Street Farmington, NM 87401                                                                                                                                                                                                                                                                         |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Facility or Well Name:                             | <u>Axi Apache C-10 Drip</u>                                                                                                                                                                                                                                                                                    |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Location:                                          | Unit: <u>E</u>                                                                                                                                                                                                                                                                                                 | Sec. <u>4</u>          | T. <u>23</u> N         | R. <u>5</u> W | County <u>Rio Arriba</u> |                                |             |           |                        |             |          |                         |            |          |
| Pit Type:                                          | Separator <u>    </u>                                                                                                                                                                                                                                                                                          | Dehydrator <u>    </u> | Other <u>Line Drip</u> |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Land Type:                                         | <u>Jicarilla Apache</u>                                                                                                                                                                                                                                                                                        |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Pit Location:                                      | Pit dimensions: length <u>17'</u> width <u>1.5'</u> depth <u>5'</u>                                                                                                                                                                                                                                            |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| (Attach diagram)                                   | Reference: wellhead <u>    </u> other <u>Drip riser</u>                                                                                                                                                                                                                                                        |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
|                                                    | Footage from reference: <u>10'</u>                                                                                                                                                                                                                                                                             |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
|                                                    | Direction from reference: <u>Straight</u> Degrees <u>    </u> East <u>    </u> North <u>    </u>                                                                                                                                                                                                               |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
|                                                    | <u>X</u> West of South <u>    </u>                                                                                                                                                                                                                                                                             |                        |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Depth to Ground Water:                             | <div>RECEIVED<br/>JAN 24 1997<br/>OIL CON. DEPT.<br/>DIST. 3</div> <table><tr><td>Less than 50 feet</td><td>(20 points)</td><td><u>0</u></td></tr><tr><td>50 feet to 99 feet</td><td>(10 points)</td><td><u>0</u></td></tr><tr><td>Greater than 100 feet</td><td>(0 points)</td><td><u>0</u></td></tr></table> |                        |                        |               |                          | Less than 50 feet              | (20 points) | <u>0</u>  | 50 feet to 99 feet     | (10 points) | <u>0</u> | Greater than 100 feet   | (0 points) | <u>0</u> |
| Less than 50 feet                                  | (20 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| 50 feet to 99 feet                                 | (10 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Greater than 100 feet                              | (0 points)                                                                                                                                                                                                                                                                                                     | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Wellhead Protection Area:                          | <table><tr><td>Yes</td><td>(20 points)</td><td><u>0</u></td></tr><tr><td>No</td><td>(0 points)</td><td><u>0</u></td></tr></table>                                                                                                                                                                              |                        |                        |               |                          | Yes                            | (20 points) | <u>0</u>  | No                     | (0 points)  | <u>0</u> |                         |            |          |
| Yes                                                | (20 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| No                                                 | (0 points)                                                                                                                                                                                                                                                                                                     | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Distance to Surface Water:                         | <table><tr><td>Less than 200 feet</td><td>(20 points)</td><td><u>0</u></td></tr><tr><td>200 feet to 1,000 feet</td><td>(10 points)</td><td><u>0</u></td></tr><tr><td>Greater than 1,000 feet</td><td>(0 points)</td><td><u>0</u></td></tr></table>                                                             |                        |                        |               |                          | Less than 200 feet             | (20 points) | <u>0</u>  | 200 feet to 1,000 feet | (10 points) | <u>0</u> | Greater than 1,000 feet | (0 points) | <u>0</u> |
| Less than 200 feet                                 | (20 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| 200 feet to 1,000 feet                             | (10 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Greater than 1,000 feet                            | (0 points)                                                                                                                                                                                                                                                                                                     | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Distance to Ephemeral Stream (dry wash):           | <table><tr><td>Less than or equal to 100 feet</td><td>(10 points)</td><td><u>10</u></td></tr><tr><td>Greater than 100 feet</td><td>(0 points)</td><td><u>0</u></td></tr></table>                                                                                                                               |                        |                        |               |                          | Less than or equal to 100 feet | (10 points) | <u>10</u> | Greater than 100 feet  | (0 points)  | <u>0</u> |                         |            |          |
| Less than or equal to 100 feet                     | (10 points)                                                                                                                                                                                                                                                                                                    | <u>10</u>              |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Greater than 100 feet                              | (0 points)                                                                                                                                                                                                                                                                                                     | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Distance to Nearest Lake, Playa, or Watering Pond: | <table><tr><td>Less than or equal to 100 feet</td><td>(10 points)</td><td><u>0</u></td></tr><tr><td>Greater than 100 feet</td><td>(0 points)</td><td><u>0</u></td></tr></table>                                                                                                                                |                        |                        |               |                          | Less than or equal to 100 feet | (10 points) | <u>0</u>  | Greater than 100 feet  | (0 points)  | <u>0</u> |                         |            |          |
| Less than or equal to 100 feet                     | (10 points)                                                                                                                                                                                                                                                                                                    | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| Greater than 100 feet                              | (0 points)                                                                                                                                                                                                                                                                                                     | <u>0</u>               |                        |               |                          |                                |             |           |                        |             |          |                         |            |          |
| RANKING SCORE (TOTAL POINTS):                      |                                                                                                                                                                                                                                                                                                                |                        |                        |               | <u>10</u>                |                                |             |           |                        |             |          |                         |            |          |

Date Remediation Started:

10/1/96

Date Completed:

11-11-96

Remediation Method:

Excavation

X

Approx. Cubic Yards

47(Check all  
appropriate  
sections)

Landfarmed

X

Amount Landfarmed (cubic yds):

47

Other \_\_\_\_\_

Remediation Location:

Onsite \_\_\_\_\_

Offsite

Ax. Apache C-10 Location(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 was solid sand stone 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

5'

Sample date

10/1/96

Sample time

1409

Sample Results

Soil: Benzene (ppm)

0.0005

Water: Benzene (ppb)

\_\_\_\_\_

Total BTEX (ppm)

0.0035

Toluene (ppb)

\_\_\_\_\_

Field headspace (ppm)

38.7

Ethylbenzene (ppb)

\_\_\_\_\_

TPH <5.0 ppm

Method

GC/MS

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

10/4/96

PRINTED NAME

Ronald A. Dedrick

SIGNATURE

Ronald A. Dedrick

AND TITLE

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

APPROVED: YES

✓

NO \_\_\_\_\_

(REASON):

Spray

SIGNED:

Gabriel J. Luna

DATE:

10/7/96

OFF: (505) 325-5667



LAB: (505) 325-1556

***Diesel Range Organics***

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

Date: *2-Oct-96*  
COC No.: *5288*  
Sample No. *12425*  
Job No. *2-1000*

Project Name: ***PNM Gas Services - Axi Apache C-10 Drip Run 116***  
Project Location: ***9610011409; 4pt. Composite***  
Sampled by: *EP* Date: *1-Oct-96* Time: *14:09*  
Analyzed by: *BV* Date: *2-Oct-96*  
Sample Matrix: *Soil*

***Laboratory Analysis***

| <b><i>Parameter</i></b>                         | <b><i>Result</i></b> | <b><i>Unit of Measure</i></b> | <b><i>Detection Limit</i></b> | <b><i>Unit of Measure</i></b> |
|-------------------------------------------------|----------------------|-------------------------------|-------------------------------|-------------------------------|
| <b><i>Diesel Range Organics (C10 - C28)</i></b> | <i>&lt;5.0</i>       | <i>mg/kg</i>                  | <i>5.0</i>                    | <i>mg/kg</i>                  |

***Quality Assurance Report***

***DRO QC No.: 0489-QC***

***Calibration Check***

| <b><i>Parameter</i></b>                | <b><i>Method Blank</i></b> | <b><i>Unit of Measure</i></b> | <b><i>True Value</i></b> | <b><i>Analyzed Value</i></b> | <b><i>% Diff</i></b> | <b><i>Limit</i></b> |
|----------------------------------------|----------------------------|-------------------------------|--------------------------|------------------------------|----------------------|---------------------|
| <b><i>Diesel Range (C10 - C28)</i></b> | <i>&lt;5.0</i>             | <i>ppm</i>                    | <i>100</i>               | <i>100</i>                   | <i>0.2</i>           | <i>15%</i>          |

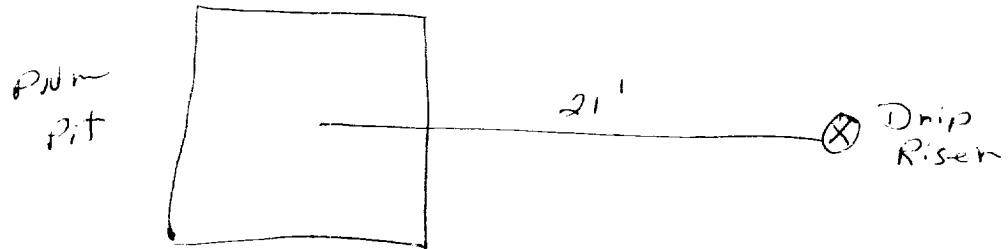
***Matrix Spike***

| <b><i>Parameter</i></b>              | <b><i>1 - Percent Recovered</i></b> | <b><i>2 - Percent Recovered</i></b> | <b><i>Limit</i></b> | <b><i>%RSD</i></b> | <b><i>Limit</i></b> |
|--------------------------------------|-------------------------------------|-------------------------------------|---------------------|--------------------|---------------------|
| <b><i>Diesel Range (C10-C28)</i></b> | <i>91</i>                           | <i>79</i>                           | <i>(70-130)</i>     | <i>10</i>          | <i>20%</i>          |

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

Approved by: *[Signature]*  
Date: *10/3/96*

Ax1 Hpatche C-10 Drip  
Sec. 4 T2.3N R5W  
WFS



OFF: (505) 325-5667



LAB: (505) 325-1556

### AROMATIC VOLATILE ORGANICS

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

Date: *2-Oct-96*  
COC No.: *5288*  
Sample No.: *12425*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Axi Apache C-10 Drip Run 116*

Project Location: *9610011409; 4pt. Composite*

Sampled by: *EP* Date: *1-Oct-96* Time: *14:09*

Analyzed by: *DC* Date: *2-Oct-96*

Sample Matrix: *Soil*

#### Laboratory Analysis

| Parameter    | Result | Unit of Measure | Detection Limit | Unit of Measure |
|--------------|--------|-----------------|-----------------|-----------------|
| Benzene      | 0.5    | ug/kg           | 0.2             | ug/kg           |
| Toluene      | <0.2   | ug/kg           | 0.2             | ug/kg           |
| Ethylbenzene | <0.2   | ug/kg           | 0.2             | ug/kg           |
| m,p-Xylene   | 1.2    | ug/kg           | 0.2             | ug/kg           |
| o-Xylene     | 1.7    | ug/kg           | 0.2             | ug/kg           |
| TOTAL        |        | 3.5             |                 | ug/kg           |

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

Approved by: *[Signature]*  
Date: *10/2/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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

ON-SITE SOIL REMEDIATION REPORT

|                                                                                                                                                         |                       |                                                               |                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Operator:</b> <u>PNM Gas Services (WFS)</u>                                                                                                          |                       | <b>Telephone:</b> <u>324-3764</u>                             |                                                                                          |
| <b>Address:</b> <u>603 W. Elm Street Farmington, NM 87401</u>                                                                                           |                       |                                                               |                                                                                          |
| <b>Facility or Well Name:</b> <u>Axi Apache C-10 Drip</u>                                                                                               |                       |                                                               |                                                                                          |
| <b>Location:</b>                                                                                                                                        | <b>Unit:</b> <u>E</u> | <b>Sec.</b> <u>4</u>                                          | <b>T.</b> <u>23</u> <b>N</b> <b>R.</b> <u>5</u> <b>W</b> <b>County</b> <u>Rio Arriba</u> |
| <b>Land Type:</b> <u>Jicarilla Apache</u>                                                                                                               |                       |                                                               |                                                                                          |
| <b>Date Remediation Started:</b> <u>10/1/96</u>                                                                                                         |                       | <b>Date Completed:</b> <u>10/22/96</u>                        |                                                                                          |
| <b>Remediation Method:</b> Landfarmed <input checked="" type="checkbox"/>                                                                               |                       | <b>Approx. cubic yards</b> <u>47</u>                          |                                                                                          |
| Composted <input type="checkbox"/>                                                                                                                      |                       |                                                               |                                                                                          |
| Other <input type="checkbox"/>                                                                                                                          |                       |                                                               |                                                                                          |
| <b>Depth to Ground Water:</b> (pts.) <u>0</u>                                                                                                           |                       | <b>Final Closure Sampling:</b>                                |                                                                                          |
| <b>Distance to an Ephemeral Stream:</b> (pts.) <u>10</u>                                                                                                |                       | <b>Sampling Date:</b> <u>10/22/96</u> <b>Time</b> <u>1807</u> |                                                                                          |
| <b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (pts.) <u>0</u>                                                                               |                       | <b>Sampling Results:</b>                                      |                                                                                          |
| <b>Wellhead Protection Area:</b> (pts.) <u>0</u>                                                                                                        |                       | <b>Field Headspace (ppm)</b> <u>59.8</u>                      |                                                                                          |
| <b>Distance to Surface Water:</b> (pts.) <u>0</u>                                                                                                       |                       | <b>TPH (ppm)</b> <u>&lt;5.0</u> <b>Method</b> <u>SC15</u>     |                                                                                          |
| <b>Ranking Score (Total Points):</b> <u>10</u>                                                                                                          |                       | <b>Other</b> _____                                            |                                                                                          |
| <b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF</b>                                          |                       |                                                               |                                                                                          |
| <b>DATE</b> <u>10/22/96</u>                                                                                                                             |                       | <b>PRINTED NAME</b> <u>Roy Burnham</u>                        |                                                                                          |
| <b>SIGNATURE</b> <u>Roy Burnham</u>                                                                                                                     |                       | <b>AND TITLE</b> <u>Environmental Technician II</u>           |                                                                                          |
| <b>AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE</b> |                       |                                                               |                                                                                          |
| <b>APPROVED:</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> <b>(REASON)</b> _____                                              |                       |                                                               |                                                                                          |
| <b>SIGNED:</b> <u>[Signature]</u>                                                                                                                       |                       | <b>DATE:</b> <u>10-28-96</u>                                  |                                                                                          |

OFF: (505) 325-5667



LAB: (505) 325-1556

***Diesel Range Organics***

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

Date: *25-Oct-96*  
 COC No.: *5384*  
 Sample No. *12675*  
 Job No. *2-1000*

Project Name: ***PNM Gas Services - Axi Apache C-10 Drip Landfarm Run 116***  
 Project Location: ***9610221807; 5pt. Composite***  
 Sampled by: *RB* Date: *22-Oct-96* Time: *18:07*  
 Analyzed by: *DC/HR* Date: *25-Oct-96*  
 Sample Matrix: *Soil*

***Laboratory Analysis***

| <b><i>Parameter</i></b>                  | <b><i>Result</i></b> | <b><i>Unit of Measure</i></b> | <b><i>Detection Limit</i></b> | <b><i>Unit of Measure</i></b> |
|------------------------------------------|----------------------|-------------------------------|-------------------------------|-------------------------------|
| <i>Diesel Range Organics (C10 - C28)</i> | <i>&lt;5.0</i>       | <i>mg/kg</i>                  | <i>5.0</i>                    | <i>mg/kg</i>                  |

***Quality Assurance Report***DRO QC No.: *0489-QC****Calibration Check***

| <b><i>Parameter</i></b>         | <b><i>Method Blank</i></b> | <b><i>Unit of Measure</i></b> | <b><i>True Value</i></b> | <b><i>Analyzed Value</i></b> | <b><i>% Diff</i></b> | <b><i>Limit</i></b> |
|---------------------------------|----------------------------|-------------------------------|--------------------------|------------------------------|----------------------|---------------------|
| <i>Diesel Range (C10 - C28)</i> | <i>&lt;5.0</i>             | <i>ppm</i>                    | <i>100</i>               | <i>92</i>                    | <i>7.6</i>           | <i>15%</i>          |

***Matrix Spike***

| <b><i>Parameter</i></b>       | <b><i>1 - Percent Recovered</i></b> | <b><i>2 - Percent Recovered</i></b> | <b><i>Limit</i></b> | <b><i>%RSD</i></b> | <b><i>Limit</i></b> |
|-------------------------------|-------------------------------------|-------------------------------------|---------------------|--------------------|---------------------|
| <i>Diesel Range (C10-C28)</i> | <i>114</i>                          | <i>104</i>                          | <i>(70-130)</i>     | <i>6</i>           | <i>20%</i>          |

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

Approved by:   
 Date: *10/25/96*

Axi Apache C-10 Drip  
Sec 4 T23N R5W  
UFS

Land farm

