

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR

JUN 23 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 (*Amaco*) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: *Jicarilla Contract 147-6E*

Location: Unit: *N* Sec. *6* T. *25* N R. *5* W County *Rio Arriba*

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: *Jicarilla Apache*

Pit Location: Pit dimensions: length *24'* width *21'* depth *5'*

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: *129'*

Direction from reference: *70* 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:

9/18/97

Date Completed:

11/18/97

Remediation Method:

Excavation

X

Approx. Cubic Yards

93

(Check all appropriate sections)

Landfarmed

X

Amount Landfarmed (cubic yds):

93

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
17.5 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

4'

Sample date

9/18/97

Sample time

1135

Sample Results

Soil: Benzene (ppm)

ND

Water: Benzene (ppb)

Total BTEX (ppm)

ND

Toluene (ppb)

Field headspace (ppm)

8.4

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 adose

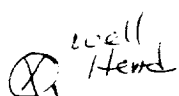
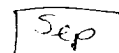
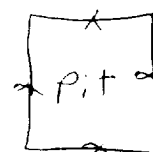
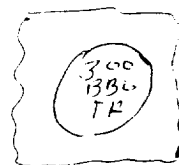
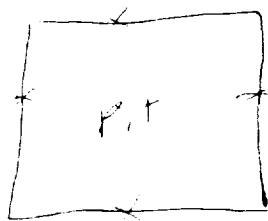
SIGNED:

Karen C. M...

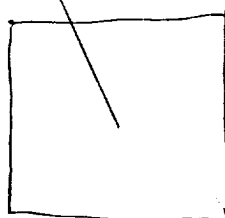
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9-30-97

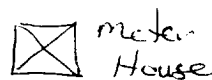
JICA/11A Contract 141-66
Sec. 6 T25N R5W Unit N
Amoco



129'



Pit



Jicarilla Contract 141-65
Sec. 6 T25N R5W Unit N
Amoco

24' x 21' x 5'

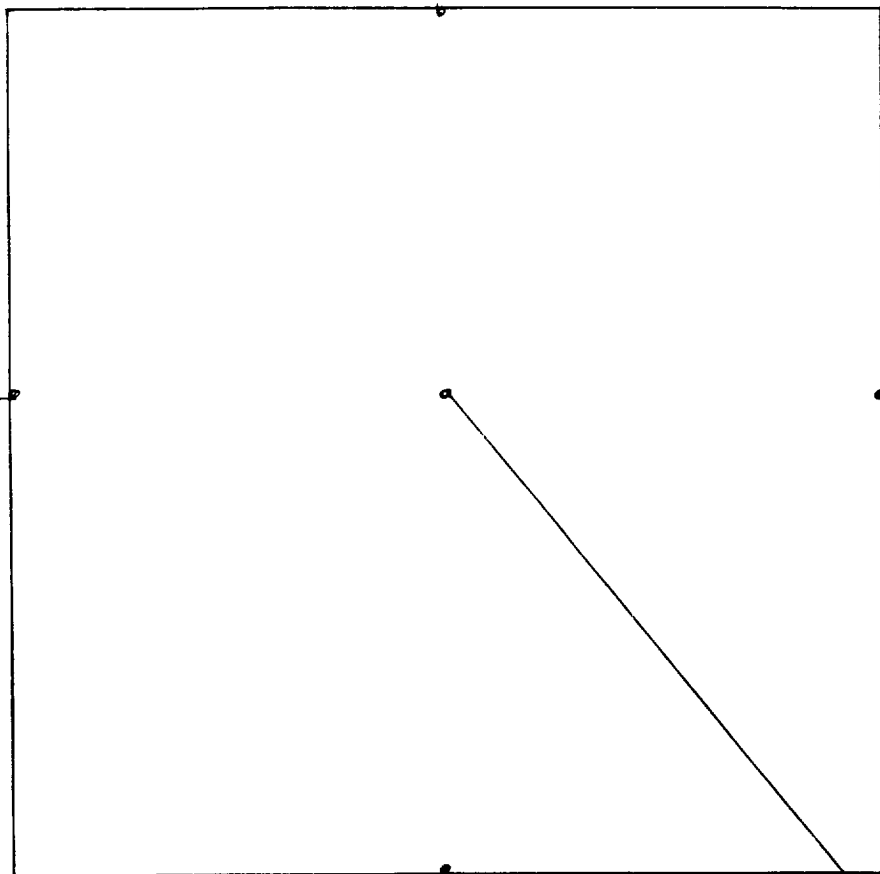
North Wall
Sample 4'
8.4 ppm

West Wall
Sample 4'
2.9 ppm

East Wall
Sample 4'
6.5 ppm

South Wall
Sample 4'
3.3 ppm

Bottom 5'
Rock



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.: *5591*
Sample No.: *16253*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Contract 147-6E*
Project Location: *9709181135; 4pt. Composite*
Sampled by: *MT* Date: *18-Sep-97* Time: *11:35*
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: *[Signature]*
Date: *9/24/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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.: *5591*
Sample No.: *16253*
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla Contract 147-6E***

Project Location: ***9709181135; 4pt. Composite***

Sampled by: *MT* Date: *18-Sep-97* Time: *11:35*

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> | ND | ug/kg | 1 | ug/kg |
| <i>m,p-Xylene</i> | ND | ug/kg | 1 | ug/kg |
| <i>o-Xylene</i> | ND | ug/kg | 1 | ug/kg |
| <i>TOTAL</i> | ND | ug/kg | | |

ND - Not Detected at Limit of Quantitation

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

Approved by: *JAC*
Date: *9/25/97*

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

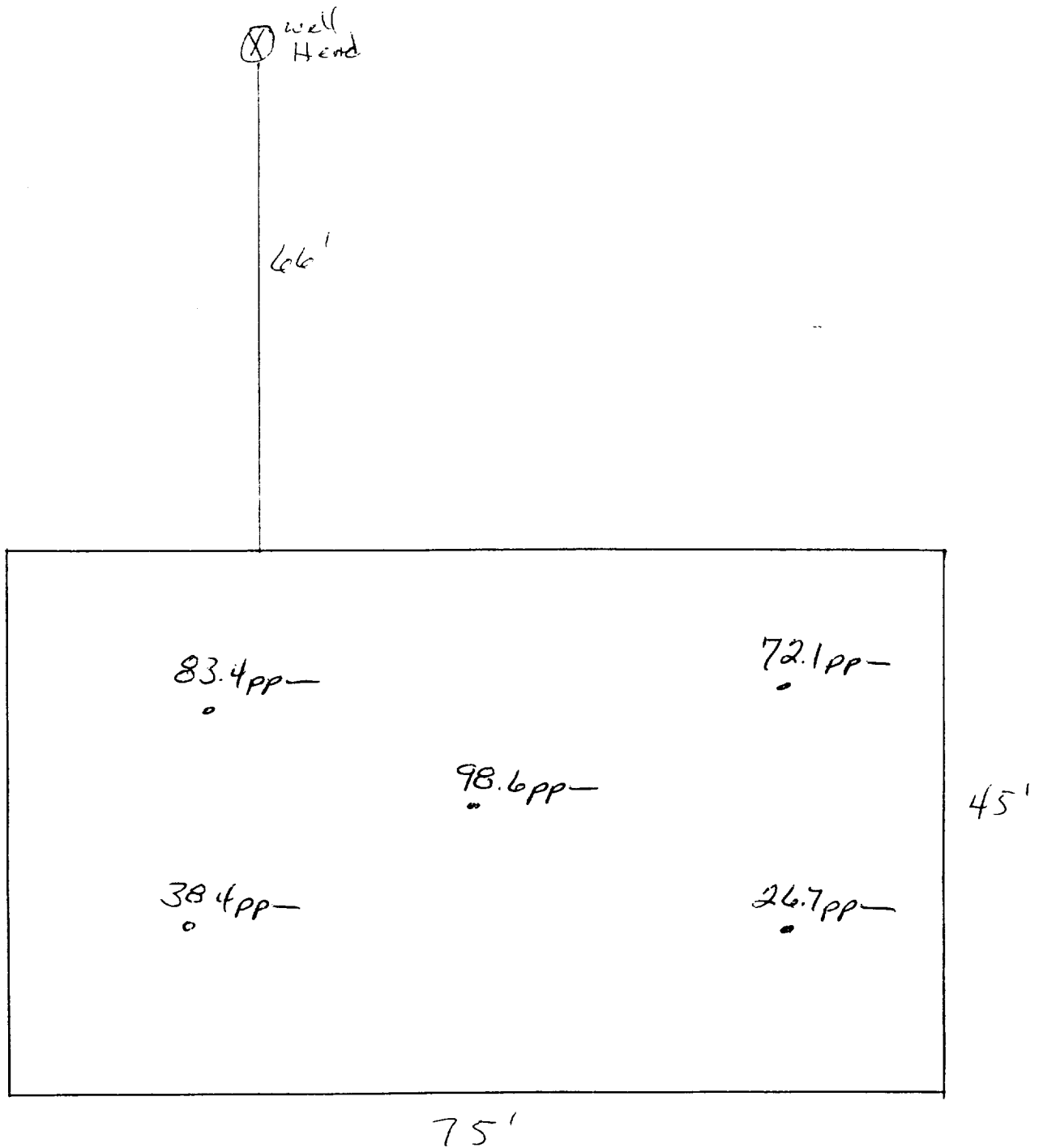
SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

| | |
|--|--|
| Operator: <u>PNM Gas Services (Amoco)</u> Telephone: <u>324-3764</u> | |
| Address: <u>603 W. Elm Street Farmington, NM 87401</u> | |
| Facility or Well Name: <u>Jicarilla Contract 147-6E</u> | |
| Location: Unit: <u>N</u> Sec. <u>6</u> T. <u>25</u> N R. <u>5</u> W County <u>Rio Arriba</u> | |
| Land Type: <u>Jicarilla Apache</u> | |
| Date Remediation Started: <u>9/18/97</u> Date Completed: <u>10/30/97</u> | |
| Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>93</u> | |
| Composted <u>—</u> | |
| Other <u>—</u> | |
| Depth to Ground Water: (pts.) <u>0</u> | Final Closure Sampling: Sampling Date: <u>10/29/97</u> Time <u>1001</u> Sampling Results: Field Headspace (ppm) <u>98.6</u> TPH (ppm) <u>1447</u> Method <u>8015</u> Other <u>—</u> |
| Distance to an Ephemeral Stream: (pts.) <u>0</u> | |
| Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>0</u> | |
| Wellhead Protection Area: (pts.) <u>0</u> | |
| Distance to Surface Water: (pts.) <u>0</u> | |
| Ranking Score (Total Points): <u>0</u> | |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF | |
| DATE <u>11/11/97</u> PRINTED NAME <u>Ronald A. Dedrick</u> | |
| SIGNATURE <u>Ronald A. Dedrick</u> AND TITLE <u>Environmental Technician II</u> | |
| AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE | |
| APPROVED: YES <u>X</u> NO <u>—</u> (REASON) <u>—</u> | |
| SIGNED: <u>Kenn C. M... ..</u> DATE: <u>11-12-97</u> | |

Jicarilla Contract 147-6E
Sec 6 T25N R5W Unit N
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: *31-Oct-97*
COC No.: *5627*
Sample No.: *16716*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Contract 147-6E Landfarm*

Project Location: *9710291001; 5pt. Composite*

Sampled by: *RB* Date: *29-Oct-97* Time: *10:01*

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>1447</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: *[Signature]*
Date: *10/31/97*