

District I  
P.O. Box 1980, Hobbs, NM

District II  
P.O. Drawer DD, Artesia, NM 88221

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

**PIT REMEDIATION AND CLOSURE REPORT**

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Cain #14

Location: Unit: M Sec. 16 T. 28 N R. 10 W County San Juan

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: BLM ☒ State ☐ Fee ☐ Other ☐

Pit Location: Pit dimensions: length 15 width 15 depth 2

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: 85'

Direction from reference: 10 Degrees ☐ East ☐ North ☐  
of ☒ West ☒ South ☒

Depth to Ground Water: Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet (0 points) 0

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

Wellhead Protection Area: Yes (20 points)  
No (0 points) 0

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

Distance to Surface Water: Less than 200 feet (20 points)  
200 feet to 1,000 feet (10 points)  
Greater than 1,000 feet (0 points) 0

(Horizontal distance to perennial lakes,  
ponds, rivers, streams, creeks, irrigation  
canals and ditches)

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started:

9/4/96

Date Completed:

9/6/96

Remediation Method:

Excavation

☒

Approx. Cubic Yard

229

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

229

Other

Remediation Location:

Onsite

☒

Offsite

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

Backfill Material Location:

General Description of Remedial Action:

Excavated contaminated soil to pit size of 34'x26'x7' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by plowing/disking until soil met regulatory levels.

Ground Water Encountered:

No

☒

Yes

Depth

Final Pit Closure Sampling:

Sample Location

5 pt composite-4 side walls and center of pit bottom

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

Sample depth

7'

Sample date

9/4/96

Sample time

10:00:00 AM

Sample Results

Benzene (ppm)

0.0030

Total BTEX (ppm)

2.8843

Field headspace (ppm)

TPH

&lt;

5.0

Method

8015A

Vertical Extent (ft)

Risk Assessment form attached

Yes

☐

No

☒

Ground Water 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 MY BELIEF

DATE

January 22, 1997

SIGNATURE

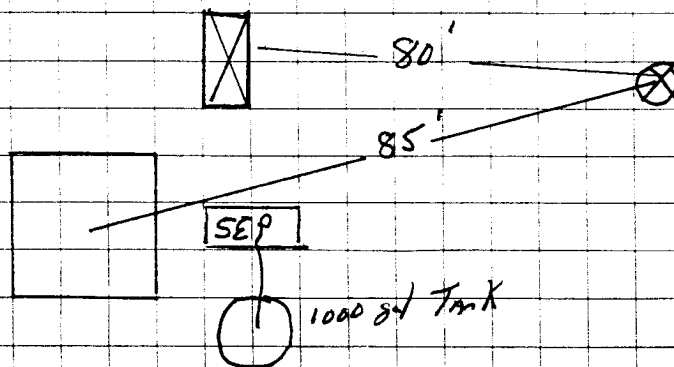
PRINTED NAME  
AND TITLEDenver Bearden  
Administrator III

Cain #14  
Meridian Oil  
Sec. 16, 28N, 10W, M

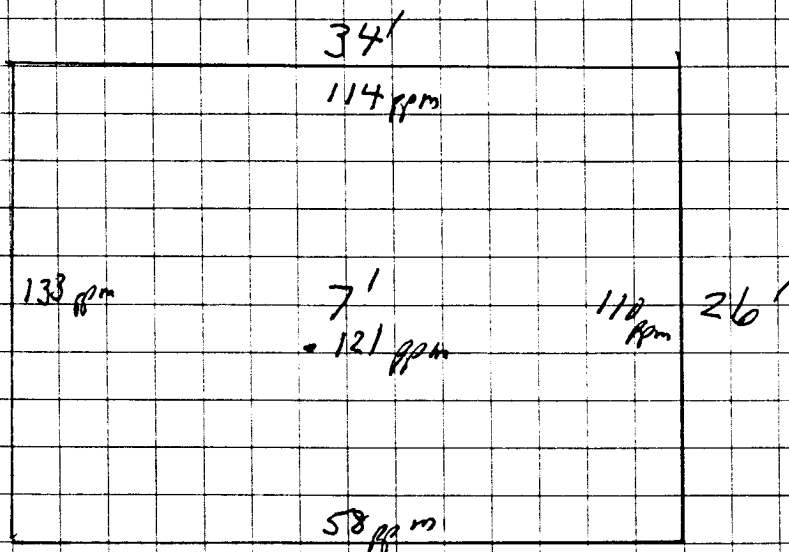
9-4-96

Dimensions at Start of Excavation:

10° W of S



Excavated Pit Dimensions: 34' X 26' X 7'



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: *5-Sep-96*  
COC No.: *4990*  
Sample No. *11981*  
Job No. *2-1000*

Project Name: *PNM Gas Services - Cain #14*  
Project Location: *9609041000; 5pt. Composite, 4 Walls @ 6' and Bottom @ 7'*  
Sampled by: *GC* Date: *4-Sep-96* Time: *10:00*  
Analyzed by: *DC* Date: *5-Sep-96*  
Sample Matrix: *Soil*

### *Laboratory Analysis*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<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*

<i>Parameter</i>	<i>Method Blank</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Diesel Range (C10 - C28)</i>	<i>&lt;5.0</i>	<i>ppm</i>	<i>100</i>	<i>104</i>	<i>4.3</i>	<i>15%</i>

#### *Matrix Spike*

<i>Parameter</i>	<i>1- Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Diesel Range (C10-C28)</i>	<i>98</i>	<i>114</i>	<i>(70-130)</i>	<i>11</i>	<i>20%</i>

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

Approved by: *[Signature]*  
Date: *9/6/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *5-Sep-96*  
COC No.: *4990*  
Sample No.: *11981*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Cain #14*  
Project Location: *9609041000; 5pt. Composite, 4 Walls @ 6' and Bottom @ 7'*  
Sampled by: *GC* Date: *4-Sep-96* Time: *10:00*  
Analyzed by: *DC* Date: *5-Sep-96*  
Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	3.0	ug/kg	0.2	ug/kg
Toluene	126.0	ug/kg	0.2	ug/kg
Ethylbenzene	201.9	ug/kg	0.2	ug/kg
m,p-Xylene	2091.3	ug/kg	0.2	ug/kg
o-Xylene	462.0	ug/kg	0.2	ug/kg
TOTAL		2884.3	ug/kg	

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

Approved by: *[Signature]*  
Date: *9/6/96*

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Cain # 14  
Meridian Oil  
Sec. 16-28N-10W

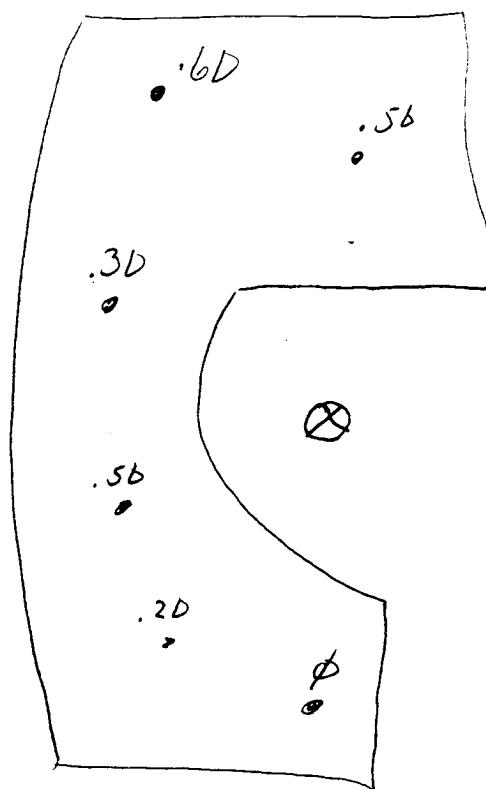
10-1-96

Land Farm: On location

Composite sample # 9610011300

6 pt. comp.

soil vapor head space PID reading = 6.9 ppm



2"-12" depth

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: *4-Oct-96*  
COC No.: *5074*  
Sample No. *12414*  
Job No. *2-1000*

Project Name: *PNM Gas Services - Cain #14 Landfarm*  
Project Location: *9610011300; 6pt. Composite, 2"-12" depth*  
Sampled by: *GC* Date: *1-Oct-96* Time: *13:00*  
Analyzed by: *DC/BV* Date: *4-Oct-96*  
Sample Matrix: *Soil*

### *Laboratory Analysis*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<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*

<i>Parameter</i>	<i>Method Blank</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Diesel Range (C10 - C28)</i>	<i>&lt; 5.0</i>	<i>ppm</i>	<i>100</i>	<i>110</i>	<i>10.3</i>	<i>15%</i>

### *Matrix Spike*

<i>Parameter</i>	<i>1- Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Diesel Range (C10-C28)</i>	<i>112</i>	<i>103</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: *10/4/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -