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

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

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

# 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 #9

**Location:** Unit: K 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 20 ' width 20 ' depth 3 '

(Attach diagram) Reference: wellhead ☑ other

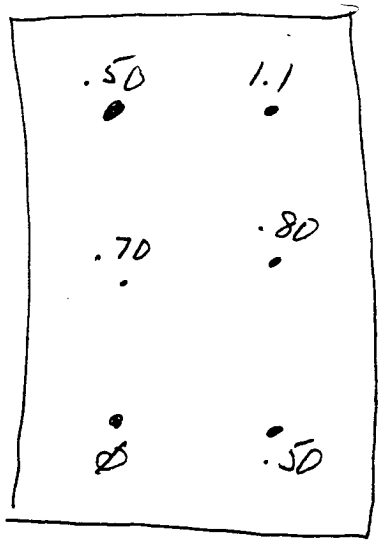
Footage from reference: 100'

Direction from reference: 15 Degrees ☑ East North ☐ of ☐ West South ☑

| | | | |
|---|---|---|---|
| **Depth to Ground Water:** (Vertical distance from contaminants to seasonal high water elevation of ground water | Less than 50 feet<br>50 feet to 99 feet<br>Greater than 100 feet | (20 points)<br>(10 points)<br>( 0 points) | 0 |
| **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<br>No | (20 points)<br>( 0 points) | 0 |
| **Distance to Surface Water:** (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches | Less than 200 feet<br>200 feet to 1,000 feet<br>Greater than 1,000 feet | (20 points)<br>(10 points)<br>( 0 points) | 0 |
| **RANKING SCORE (TOTAL POINTS) :** | | | 0 |

Cain # 9 10-1-96
Meridian Oil
Sec. 16, 28N, 10W

Land Farm: On location
composite sample # 961001 1330
soil vapor head space PID reading = 11.2 ppm




⊗ 2"-12" depth

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

# *Diesel Range Organics*

| | | | |
|---|---|---|---|
| Attn: | *Denver Bearden* | Date: | 4-Oct-96 |
| Company: | *PNM Gas Services* | *COC No.:* | *5075* |
| Address: | *603 W. Elm* | *Sample No.* | *12413* |
| City, State: | *Farmington, NM 87401* | *Job No.* | *2-1000* |

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | ***PNM Gas Services - Cain #9 Landfarm*** | | | | |
| Project Location: | ***9610011330; 6pt. Composite, 2"-12" depth*** | | | | |
| Sampled by: | GC | Date: | 1-Oct-96 | Time: | 13:30 |
| Analyzed by: | DC/BV | Date: | 4-Oct-96 | | |
| Sample Matrix: | *Soil* | | | | |

## *Laboratory Analysis*

| *Parameter* | *Result* | *Unit of Measure* | *Detection Limit* | *Unit of Measure* |
|---|---|---|---|---|
| *Diesel Range Organics (C10 - C28)* | <5.0 | mg/kg | 5.0 | mg/kg |

## *Quality Assurance Report*

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

***Calibration Check***

| *Parameter* | *Method Blank* | *Unit of Measure* | *True Value* | *Analyzed Value* | *% Diff* | *Limit* |
|---|---|---|---|---|---|---|
| *Diesel Range (C10 - C28)* | <5.0 | ppm | 100 | 110 | 10.3 | 15% |

***Matrix Spike***

| *Parameter* | *1- Percent Recovered* | *2 - Percent Recovered* | *Limit* | *%RSD* | *Limit* |
|---|---|---|---|---|---|
| *Diesel Range (C10-C28)* | 112 | 103 | (70-130) | 6 | 20% |

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

Approved by:

Date: 10/4/96

| | |
|---|---|
| Well Name: | Cain #9 |
| Well Legals: | Unit K, Sec 16, T28N, R10W |
| Pit Type | Dehydrator |
| Horizontal Distance to Surface Water: | 200ft to 1000ft |
| Groundwater Depth: | Greater than 100 ft |

**RISK ANALYSIS**

PNM requests closure of the Cain #9 using a limited risk analysis of the site conditions.

1. PNM determined groundwater to be at a depth of 268ft. to San Juan River. (Reference: topographic map).

2. This site is not located within 200 ft. of a domestic water well and is not within 1000 ft. of any other water source.

3. Distance from the site to surface water is greater than 1,000 ft.

4. PNM excavated 245 cu. yds. from the former pit. Bedrock was encountered in the bottom of the pit at 9 ft.

Based upon the information provided above, PNM believes the Cain #9 poses minimal risk to the environment. Subsurface lateral migration is limited based upon PNM's past experience in excavating 400 pits. Source removal minimizes the possibility of surface water contamination. Bedrock provides an impermeable layer between remaining contamination and groundwater. With groundwater at 268ft. in depth, vertical migration through bedrock to groundwater is highly unlikely.