

District I
P.O. Box
District II
P.O. Drawer
District III
4000 Rio Brazos Rd., Aztec, NM 87410

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR

OCT 11 9 1996

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

RECEIVED
JUL 30 1996

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

OIL CON. DIV.
DIST. 3

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: Crandell #3
Location: Unit: 0 Sec. 19 T. 31 N R. 10 W County San Juan
Pit Type: Separator Dehydrator ✓ Other No
Land Type: BLM ✓ State Fee Other No

Pit Location: Pit dimensions: length 20 width 20 depth 3
(Attach diagram) Reference: wellhead ✓ other
Footage from reference: 74'
Direction from reference: 15 Degrees ✓ East North ✓
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:

4/9/96

Date Completed:

4/9/96

Remediation Method:

Excavation

☒

Approx. Cubic Yard

267

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

267

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 20'x20'x18' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil will be aerated by plowing/disking until soil meets 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

18'

Sample date

4/9/96

Sample time

4:30:00 PM

Sample Results

Benzene (ppm)

0.0010

Total BTEX (ppm)

0.9461

Field headspace (ppm)

TPH

208.00

Method

418.1

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

7-26-96

SIGNATURE

Dennis Bearden

PRINTED NAME
AND TITLE

Crandell # 3

4-9-96

SRC

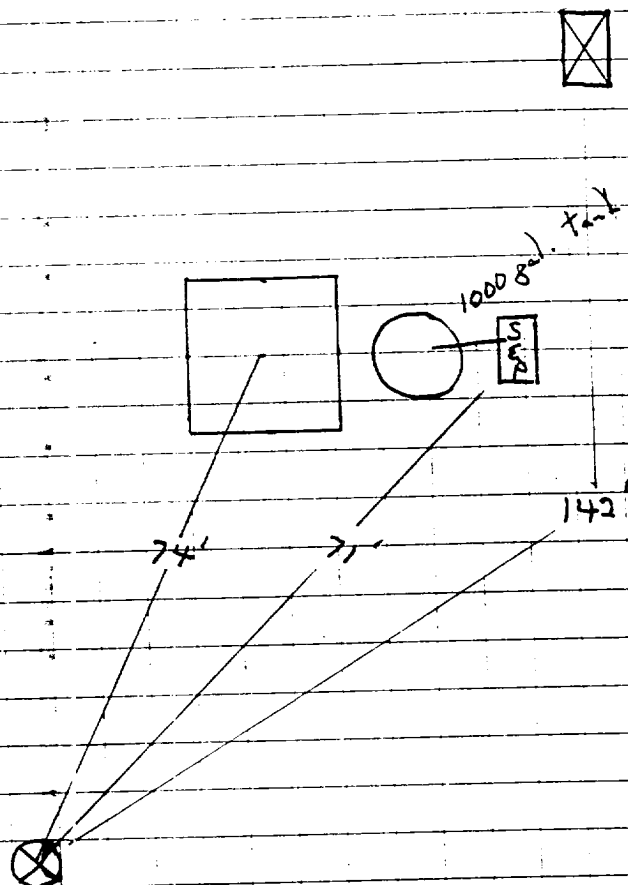
Sec. 19, T31N, R10W

990' FSL + 1350' FEL

San Juan County

Run # 10-41

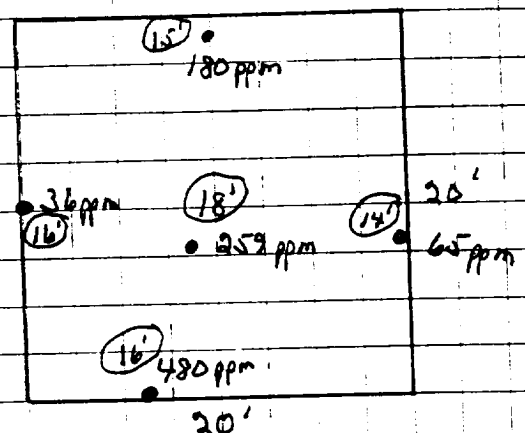
15° E of N



20' x 20' x 18' = 267 yds.

NOI over burden

Composite sample # 9604091630



OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

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

Date: *14-Apr-96*
COC No.: *4602*
Sample No. *10607*
Job No. *2-1000*

Project Name: *PNM Gas Services - Crandell #3*
Project Location: *9604091630; 5pt. Composite, 4 Walls & Bottom, 18'*
Sampled by: *GC* Date: *9-Apr-96* Time: *16:30*
Analyzed by: *DC* Date: *14-Apr-96*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>10607-4602</i>	<i>PNM Gas Services - Crandell #3</i> <i>9604091630; 5pt. Composite, 4 Walls & Bottom, 18'</i>	<i>208 mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
<i>Laboratory Fortified Blank Soil - QCBS2</i>	<i>< 25</i>	<i>< 25</i>	<i>mg/kg</i>
<i>Laboratory Fortified Spike Soil - QCSS1</i>	<i>913</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *DAF*
Date: *4/14/96*

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OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

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

Date: 11-Apr-96
COC No.: 4602
Sample No.: 10607
Job No.: 2-1000

Project Name: *PNM Gas Services - Crandell #3*
Project Location: *9604091630; 5pt. Composite, 4 Walls & Bottom, 18'*
Sampled by: GC Date: 9-Apr-96 Time: 16:30
Analyzed by: DC Date: 11-Apr-96
Type of Sample: *Soil*

Aromatic Volatile Organics

Component	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	1.0	ug/kg	0.2	ug/kg
Toluene	10.2	ug/kg	0.2	ug/kg
Ethylbenzene	80.8	ug/kg	0.2	ug/kg
m,p-Xylene	767.2	ug/kg	0.2	ug/kg
o-Xylene	87.0	ug/kg	0.2	ug/kg
	TOTAL	946.1		ug/kg

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

Approved by: *[Signature]*
Date: 4/11/96

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Crandell #3

5-14-96

Meridian 0:1

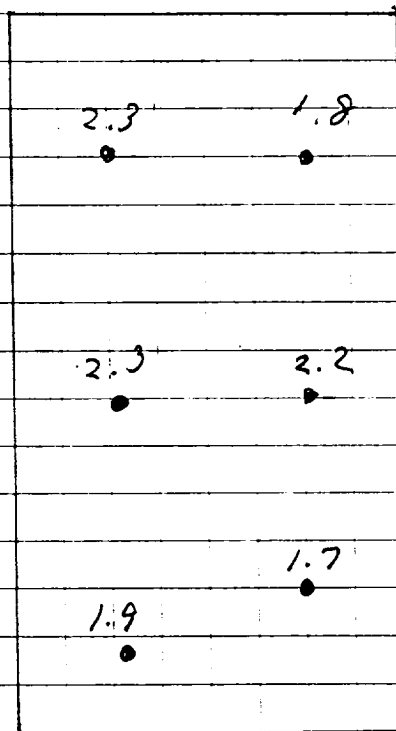
Sec. 19, T31N, R10W

Run # 10-41

Land Farmed On-Location = 267 yards

Composite sample # 960514 0800

Soil Vapor Head-Space Reading = 53.3 ppm



sample depths 2"-12"

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

Diesel Range Organics

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

Date: *16-May-96*
COC No.: *4641*
Sample No. *10883*
Job No. *2-1000*

Project Name: *PNM Gas Services - Crandell #3 Land Farm*
Project Location: *9605140800; 6pt. Composite, 2"-12" deep*
Sampled by: GC Date: *14-May-96* Time: *8:00*
Analyzed by: HR Date: *15-May-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>194.5</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

Quality Assurance Report

DRO QC No.: *0475-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><5.0</i>	<i>ppm</i>	<i>2,000</i>	<i>1,816</i>	<i>9.2</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>88</i>	<i>96</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: *[Signature]*
Date: *5/16/96*

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