

District I
P.O. Box 100
Donna E. Faust
DEPUTY OIL & GAS INSPECTOR
P.O. Drawer 50, Artesia, NM 88221

District III
1000 Rio Brazos P.O. Box 400
SEP 03 1999

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

OK Risk Back
SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 4 COPY TO
SANTA FE OFFICE

LF Labels
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JUL 30 1999
OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Approved
Operator: PNM Gas Services (Burlington) **Telephone:** 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Grenier #10

Location: Unit E Sec 18 T 31N R 11W County San Juan

Pit Type: Separator ☒ Dehydrator ☐ Other _____

Land Type: BLM ☒ State ☐ Fee ☐ Other _____

Pit Location: Pit dimensions: length 10' width 10' depth 1'

(Attach diagram) Reference: wellhead ☒ other _____

Footage from reference: 51'

Direction from reference: 45 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	(20 points)	
50 feet to 99 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Grenier #10

Date Remediation Started: 05/18/1999

Date Completed: 05/18/1999

Remediation Method:

Excavation ☒

Approx. Cubic Yard 84

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 44

Other 40 cu yds overburden.

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 a pit size of 18' X 18' X 7' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by disking/plowing until soil met regulatory levels.

*** Sandstone encountered at 7'. See attached risk analysis form and lab analysis.

Ground Water Encountered:

No ☒Yes ☐

Depth

Final Pit Closure Sampling:

Sample Location 5 pt. composite - bottom.

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

Sample depth 7'

Sample date 05/18/1999

Sample time 10:30:00 AM

Sample Results

Benzene (ppm) 1.500

Total BTEX (ppm) 126.000 ***

Field headspace (ppm)

TPH (ppm) 64.00

Method 8015B

Vertical Extent (ft)

Risk Analysis form attached Yes ☒ No ☐

Ground Water Sample:

Yes ☐No ☒

(If yes, see attached Groundwater Site Summary Report)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

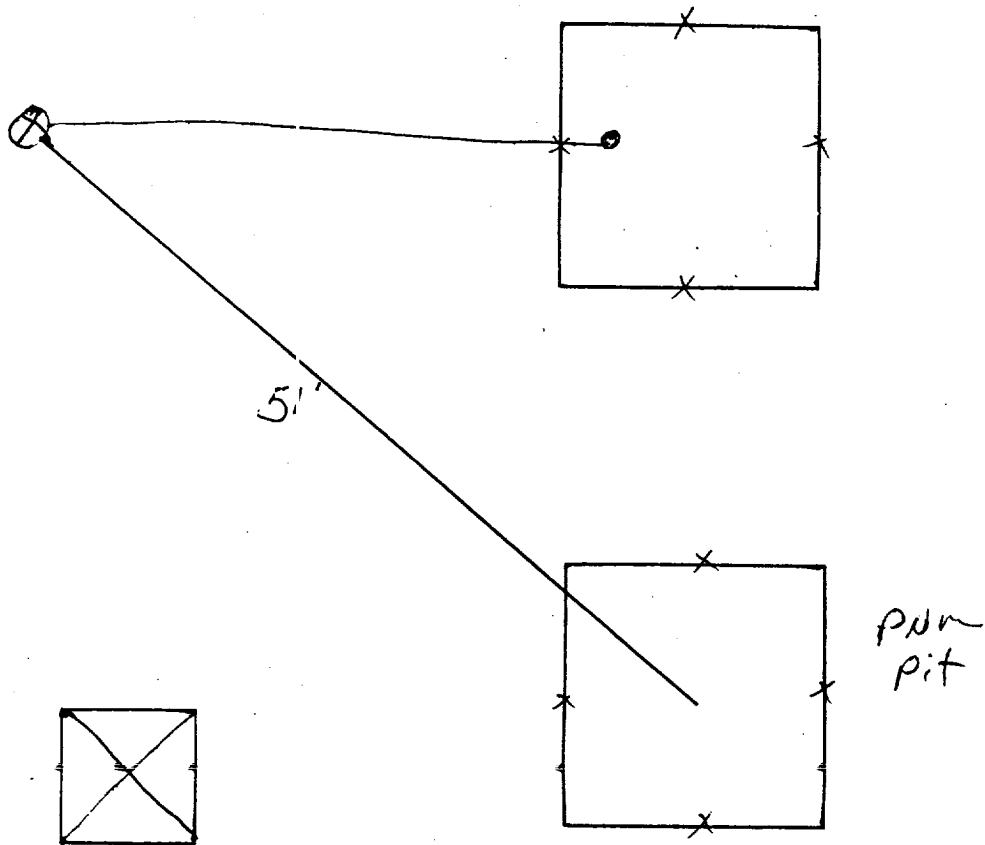
DATE July 27, 1999

SIGNATURE

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Section 10
Sec 18 T31N R11W Unit E
Burlington

Site Drawing



Grenier 10
Sec 18 T31N R11W Unit E
Burlington

Excavation Drawing

18' x 18' x 7'

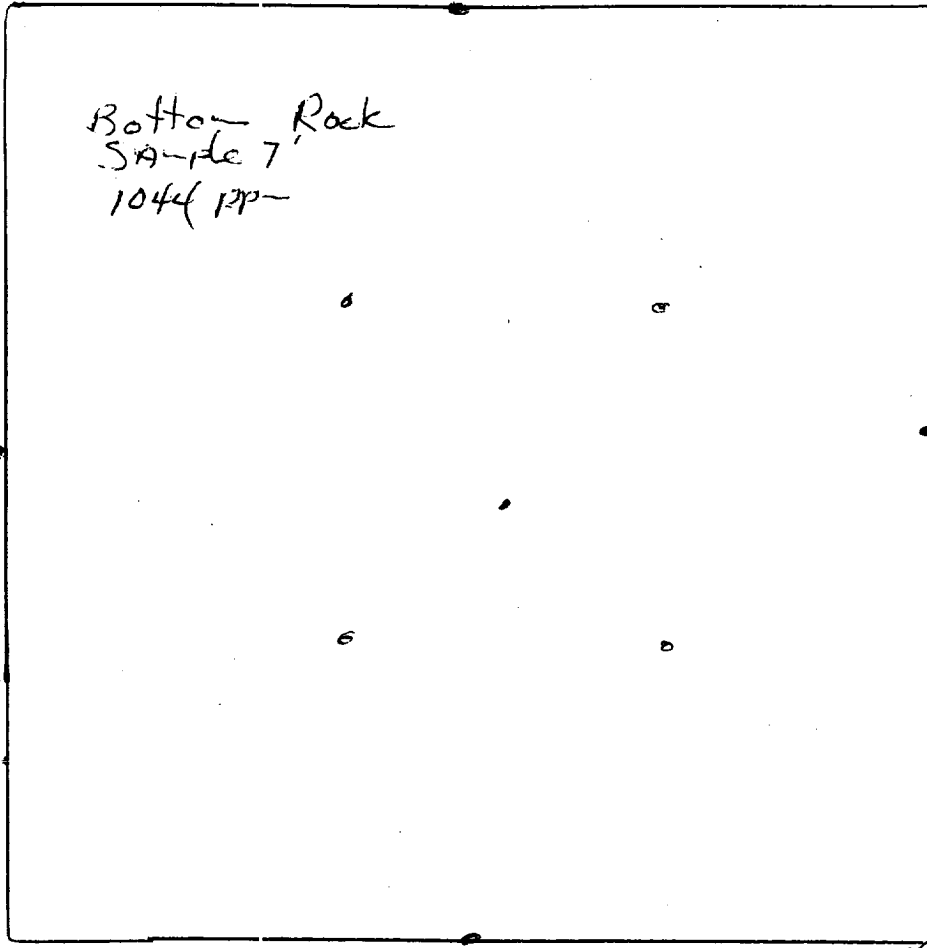
North Wall
Sample 4'
2.0 ppm

Bottom Rock
Sample 7'
1044 ppm

West Wall
Sample 6'
0.0 ppm

East Wall
Sample 6'
0.6 ppm

South Wall
Sample 6'
0.0 ppm



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 27-May-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9905065

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT**Date:** 27-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 10
Work Order:	9905065	Client Sample ID:	9905181030; Bottom 5pt. Comp.
Lab ID:	9905065-04A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	5/18/99 10:30:00 AM
		COC Record:	7684

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	64	25		mg/Kg	1	5/24/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	1500	1000		µg/Kg	1000	5/21/99
Toluene	44000	5000		µg/Kg	2500	5/19/99
Ethylbenzene	7500	2500		µg/Kg	2500	5/19/99
m,p-Xylene	61000	5000		µg/Kg	2500	5/19/99
o-Xylene	12000	2500		µg/Kg	2500	5/19/99

126000
126 ppm

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 10
Work Order:	9905065	Client Sample ID:	9905181025; Walls 4st. Comp.
Lab ID:	9905065-03A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	5/18/99 10:25:00 AM
		COC Record:	7684

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/21/99

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr: - Surrogate

1 of 1

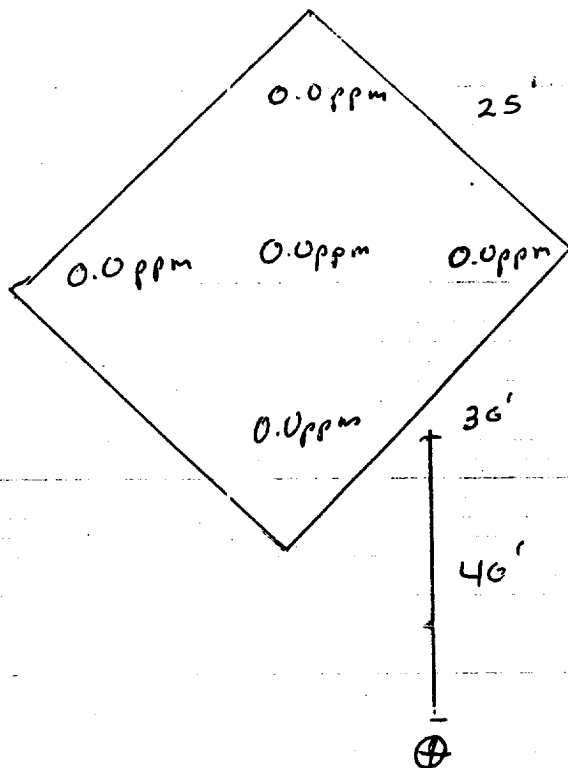
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Grenier #10
Sec-18 T-31N R11W U2-P
Burlington

LANDFARM DRAWING

App 84 cu. yds



2" to 12" Depth
Headspace 3.4 ppm
Sample # 9906211315

Not to Scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 07-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: Grenier 3A, 17E, 4 Sep, 10, & Horton 1 LF
Lab Order: 9906068

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Ron

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 07-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 10 LF
Work Order:	9906068	Client Sample ID:	9906211315; 5pt Comp
Lab ID:	9906068-04A	Matrix:	SOIL
Project:	Grenier 3A, 17E, 4 Sep, 10, & Horton 1 LF	Collection Date:	6/21/99 1:15:00 PM
		COC Record:	7487

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/2/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



Environmental Services

Well Name:	Grenier #10
Well Legals:	Unit E, Sec 18, T31N, R11W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

PNM requests closure of their former pit on the Grenier #10 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 123 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Adobe Downs Ranch, NM series 7.5 minute topographic map.)
2. PNM excavated 84 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached map and analytical results for the side wall profiles). Source removal minimizes the possibility of surface water contamination.
3. Hard sandstone was encountered at 7 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
4. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the Grenier #10 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.