

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

Risk
bedrock

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 4 COPIES TO
SANTA FE OFFICE

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OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Operator:		PNM Gas Services (Burlington)		Telephone:		324-3764	
Address:		603 W. Elm Street Farmington, NM 87401					
Facility or Well Name:		Grenier A #5					
Location:		Unit	F	Sec	35	T	30 N R 10 W County San Juan
Pit Type:		Separator	<input checked="" type="checkbox"/>	Dehydrator	<input type="checkbox"/>	Other	
Land Type:		BLM	<input checked="" type="checkbox"/>	State	<input type="checkbox"/>	Fee	<input type="checkbox"/>
				Other			
Pit Location:		Pit dimensions: length 12 ' width 12 ' depth 2 '					
(Attach diagram)		Reference: wellhead <input checked="" type="checkbox"/> other					
		Footage from reference: 51'					
		Direction from reference: 45 Degrees <input checked="" type="checkbox"/> East North <input checked="" type="checkbox"/>					
		of <input type="checkbox"/> West South <input type="checkbox"/>					
Depth to Ground Water:		Less than 50 feet (20 points)					
		50 feet to 99 feet (10 points)					
(Vertical distance from contaminants to seasonal high water elevation of ground water)		Greater than 100 feet (0 points) 0					
Wellhead Protection Area:		Yes (20 points)					
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)		No (0 points) 0					
Distance to Surface Water:		Less than 200 feet (20 points)					
		200 feet to 1,000 feet (10 points)					
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		Greater than 1,000 feet (0 points) 0					
		RANKING SCORE (TOTAL POINTS) : 0					

Grenier A #5

Date Remediation Started: 07/07/1999 **Date Completed:** 07/07/1999

Remediation Method: Excavation X Approx. Cubic Yard 127

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 87

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 18.5' X 15.5' X 12' 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 was encountered at 12'. See attached risk analysis form.

Ground Water Encountered: No ☒ Yes ☐ Depth _____

Sample Location 5 pt. composite - bottom.

Sample depth 12'

Sample date 07/07/799 Sample time 9:05:00 AM

Sample Results

Benzene (ppm) < 1

Total BTEX (ppm) 161.7***

Field headspace (ppm)

TPH (ppm) 740.00 Method 8015B

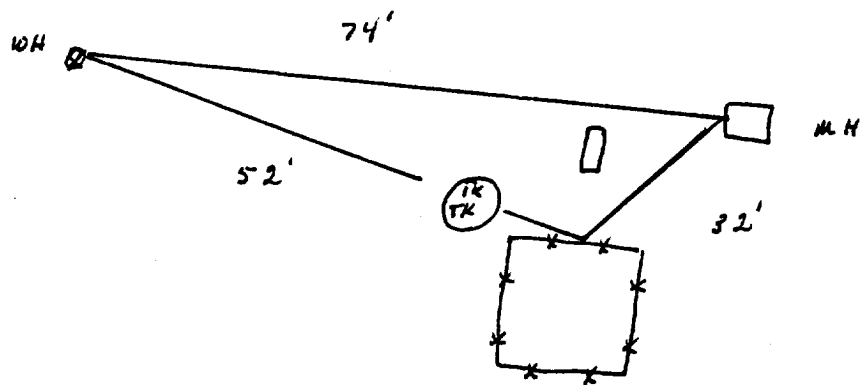
Risk Analysis form attached Yes ☒ No ☐

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

PRINTED NAME **Maureen Gannon**
AND TITLE **Project Manager**

Grenier A5
 (F) 3.5-30N-10W
 Burlington
 7-7-99 at 0652

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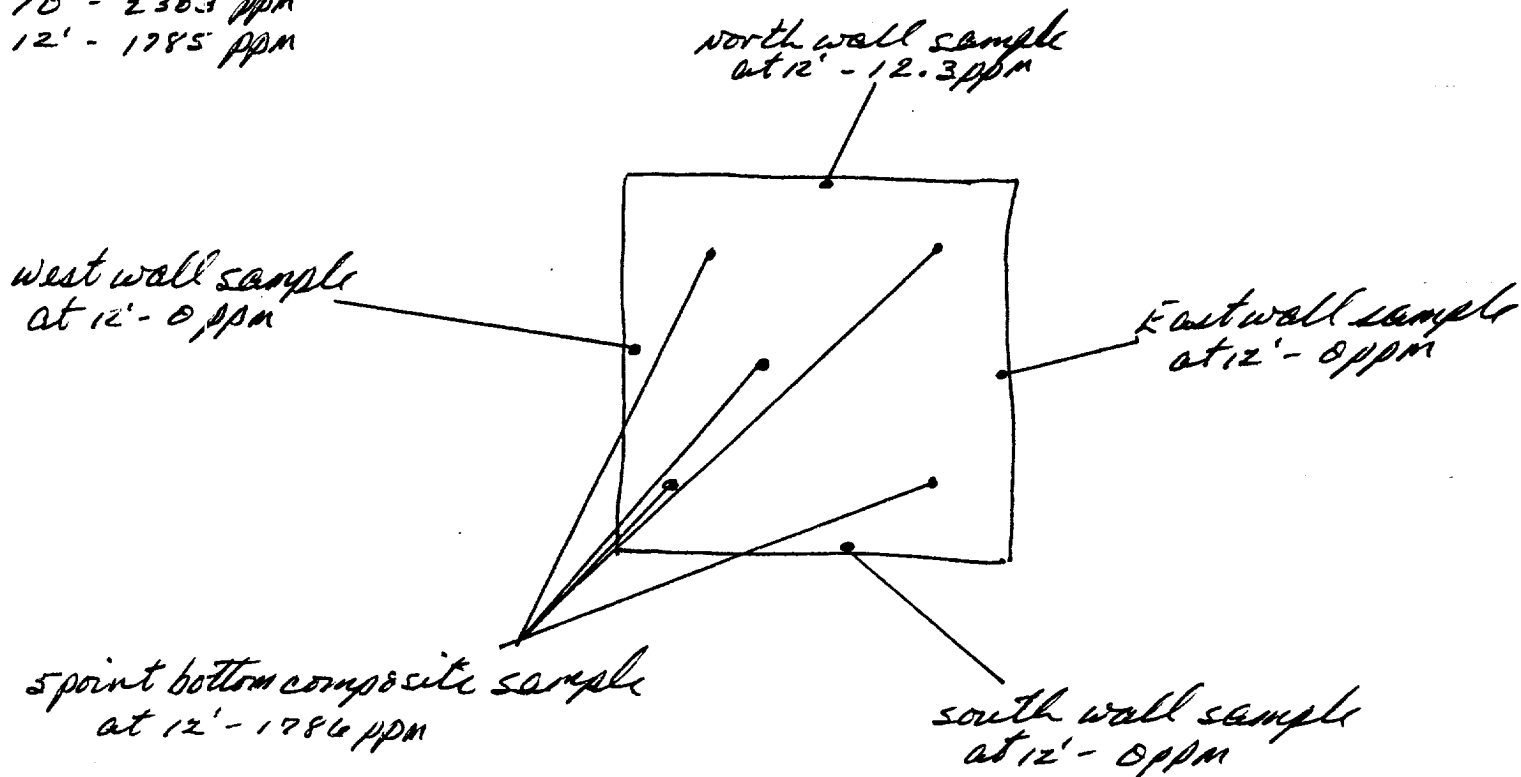


Excavation Sampling

PID Readings

5' - 2999 ppm
 10' - 2303 ppm
 12' - 1785 ppm

18.5' (N+S) x 15.5' (E+W) x 12' (D)
 Field Headspace: 0 ppm (walls)



++ - not

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jul-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9907014

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

1 Kay

ANALYTICAL REPORT**Date:** 22-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A5
Work Order:	9907014	Client Sample ID:	9907070905; 5pt Bottom Comp
Lab ID:	9907014-01A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/7/99 9:05:00 AM
		COC Record:	7645

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS						
T/R Hydrocarbons: C10-C28	740	25		mg/Kg	1	7/20/99
AROMATIC VOLATILES BY GC/PID						
Benzene	ND	1000		µg/Kg	1000	7/12/99
Toluene	8700	2000		µg/Kg	1000	7/12/99
Ethylbenzene	15000	1000		µg/Kg	1000	7/12/99
m,p-Xylene	110000	2000		µg/Kg	1000	7/12/99
o-Xylene	28000	1000		µg/Kg	1000	7/12/99

161700
161.70 ppm

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A5
Work Order:	9907014	Client Sample ID:	9907070910; 4 Wall Comp
Lab ID:	9907014-02A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/7/99 9:10:00 AM
		COC Record:	7645

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/20/99

Qualifiers:

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- S - Spike Recovery outside accepted recovery limits
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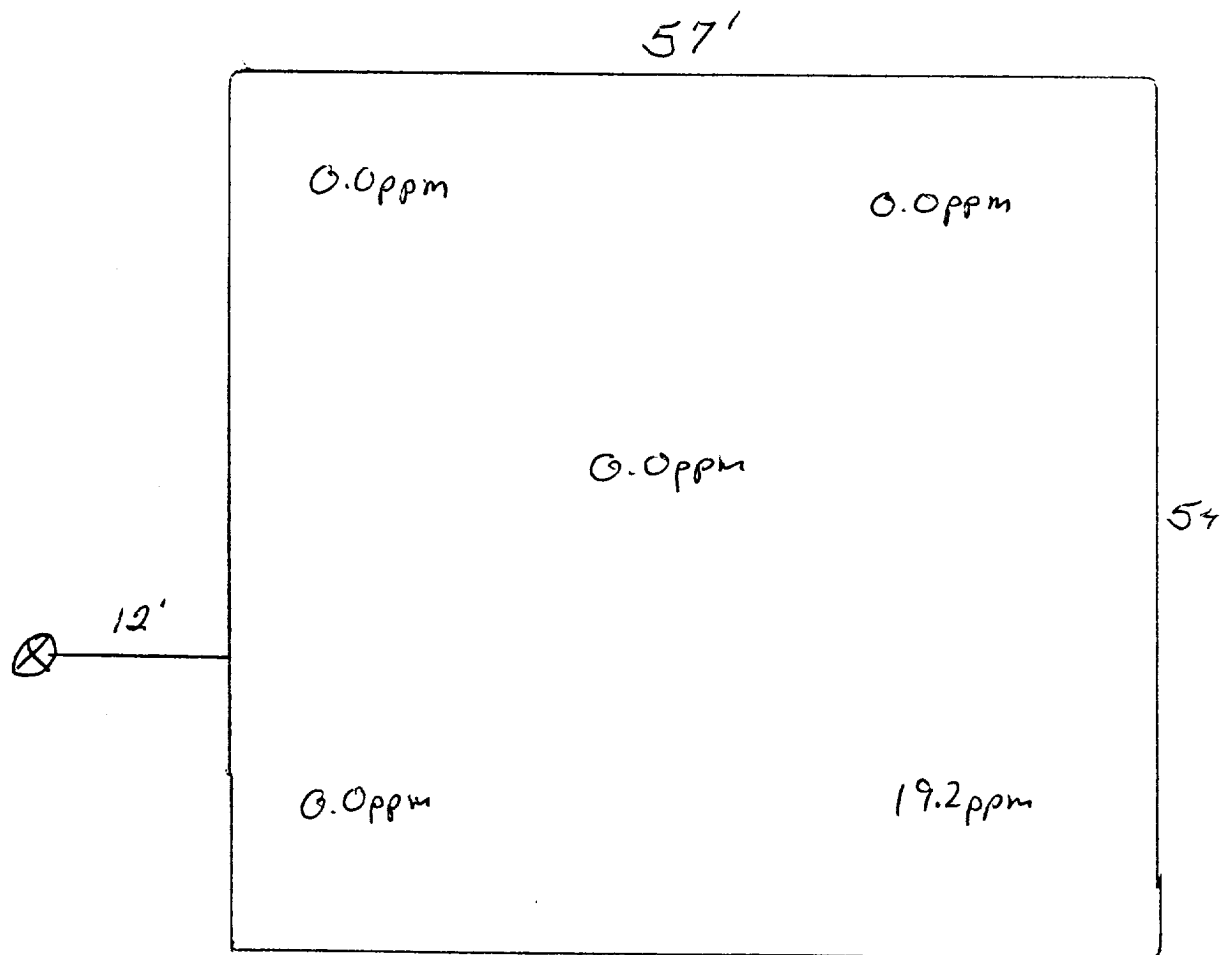
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P.O. BOX 2606 • FARMINGTON, NM 87499

Sec. 35 T.30N R.10W Unit F
Burlington

Landfarm Drawing

App 87 cu yds



2" to 12" Depth
Sample # 9907191841
Headspace 6.6ppm

Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 04-Aug-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation Landfarms

Lab Order: 9907047

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: 04-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A-5 LF
Work Order:	9907047	Client Sample ID:	9907191841; 5pt Composite
Lab ID:	9907047-05A	Matrix:	SOIL
Project:	PNM Pit Remediation Landfarms	Collection Date:	7/19/99 6:41:00 PM
		COC Record:	7493

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	Analyst: DC 7/30/99

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



Environmental Services

Well Name:	Grenier A #5
Well Legals:	Sec 35, T30N, R10W, Unit F
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 A #5 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 225 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Turley, NM series 7.5 minute topographic map.)
2. PNM excavated 127 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. Sandstone was encountered at 12 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 that their former pit on the Grenier A #5 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.