

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

District III
1000 Rio Brazos Rd, Aztec, NM 87410

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

*Risk
belock*

RECEIVED
NOV - 1 1999
OIL CON. DIV.
DIST. 3

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Eaton Federal #1

Location: Unit A Sec 15 T 28 N R 11 W County San Juan

Pit Type: Separator ☐ Dehydrator ☐ Other Unknown

Land Type: BLM ☒ State ☐ Fee ☐ Other

Pit Location: Pit dimensions: length 10 ' width 10 ' depth 2 '

(Attach diagram) Reference: wellhead ☒ other

Footage from reference: 90 '

Direction from reference: Due 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>20</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) : 20

Eaton Federal #1

Date Remediation Started: 06/28/1999

Date Completed: 06/28/1999

Remediation Method: Excavation ☒

Approx. Cubic Yard 644

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 600

Other 44 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 51' X 31' X 11' 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.

*** Rock encountered at 11'. See attached risk analysis form.

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 11'

Sample date 06/28/1999

Sample time 1:32:00 PM

Sample Results

Benzene (ppm) 1.2

Total BTEX (ppm) 64.2 ***

Field headspace (ppm)

TPH (ppm) 280.00

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 October 28, 1999

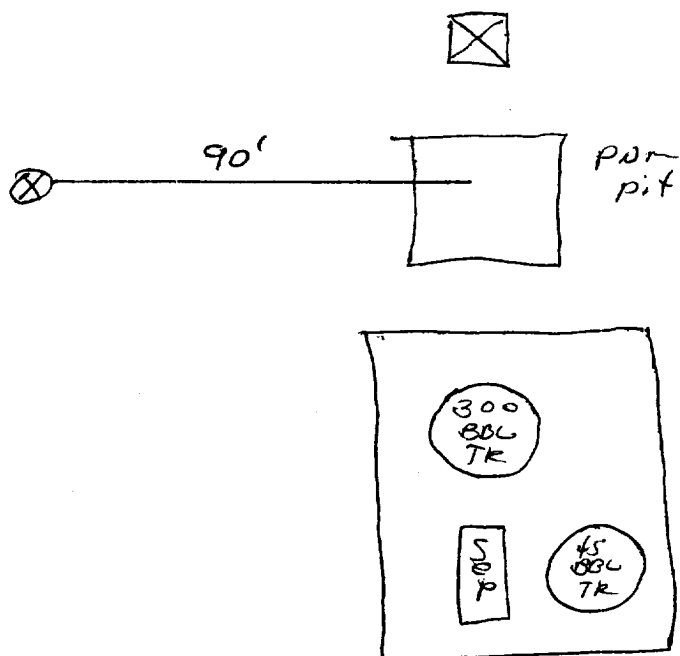
SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Union Federal
Sec. 15 T28N R11W Unit A
Energen

Site Drawing:

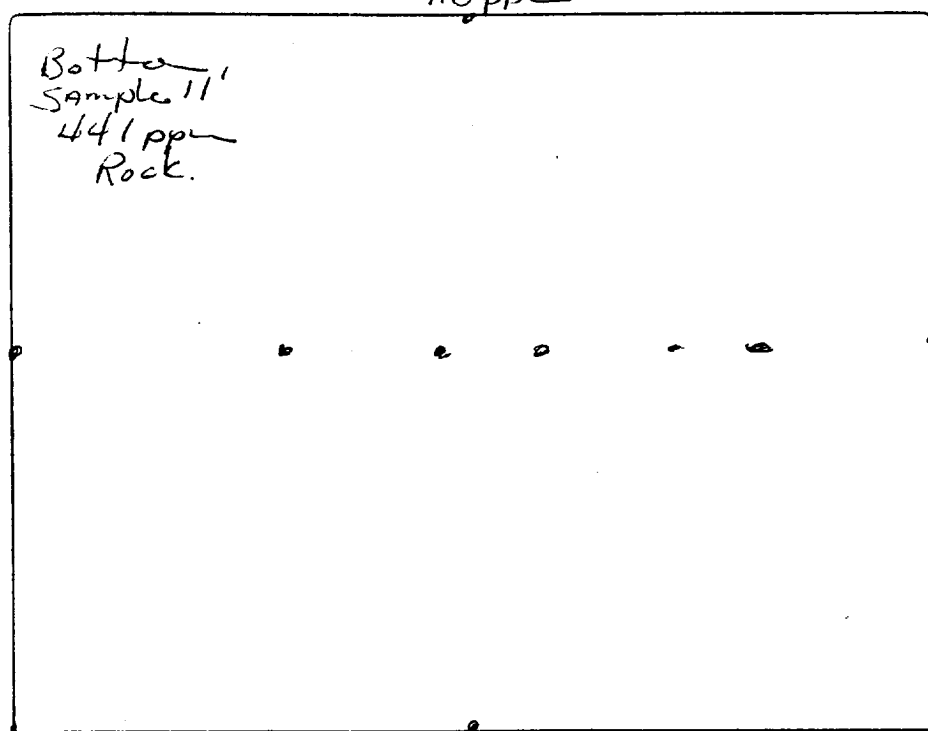


Excavation Drawing

North Wall
Sample 10'
7.3 ppm

5' x 3' x 11'

West Wall
Sample 10'
8.6 ppm



East Wall
Sample 10'
6.2 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 15-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9906077

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: 15-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Eaton Federal 1
Work Order:	9906077	Client Sample ID:	9906281332; Spt. Bottom Comp
Lab ID:	9906077-07A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	6/28/99 1:32:00 PM
		COC Record:	7482

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	280	25		mg/Kg	1	7/8/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
Benzene	1200	500		µg/Kg	500	6/30/99
Toluene	12000	1000		µg/Kg	500	6/30/99
Ethylbenzene	2200	500		µg/Kg	500	6/30/99
m,p-Xylene	40000	1000		µg/Kg	500	6/30/99
o-Xylene	8800	500		µg/Kg	500	6/30/99

64200
64.20 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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Eaton Federal 1
Work Order:	9906077	Client Sample ID:	9906281330; 3pt. Wall Comp
Lab ID:	9906077-06A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	6/28/99 1:30:00 PM
		COC Record:	7482

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/8/99

Qualifiers:

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- 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: 15-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Eaton Federal 1
Work Order:	9906077	Client Sample ID:	9906281140; South Wall
Lab ID:	9906077-05A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	6/28/99 11:40:00 AM
		COC Record:	7482

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	67	25		mg/Kg	1	7/8/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	1600	100		µg/Kg	100	7/1/99
Toluene	6800	200		µg/Kg	100	7/1/99
Ethylbenzene	990	100		µg/Kg	100	7/1/99
m,p-Xylene	11000	200		µg/Kg	100	7/1/99
o-Xylene	2400	100		µg/Kg	100	7/1/99

22790
22.79 ppm

Qualifiers:

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R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

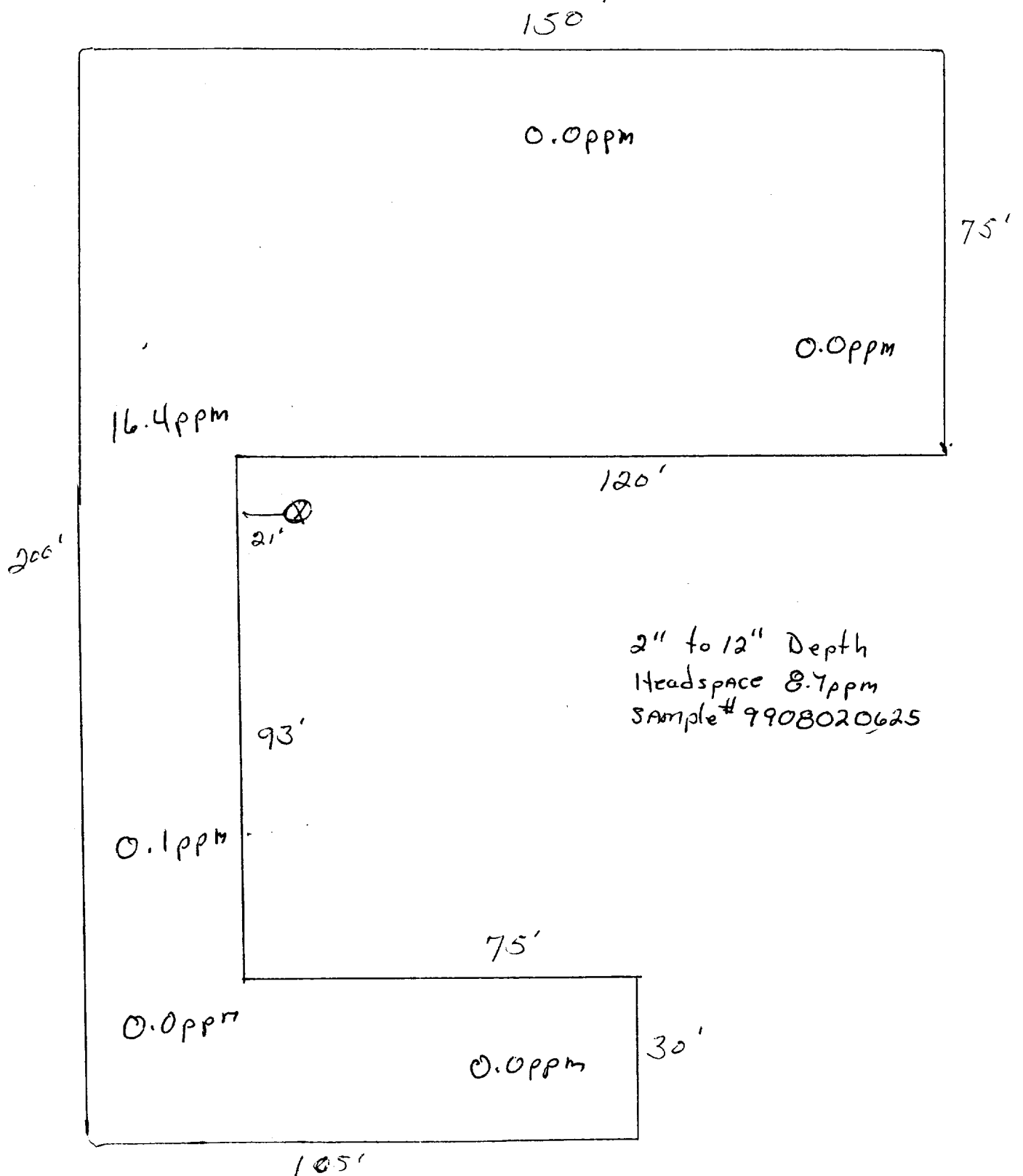
P.O. BOX 2606 • FARMINGTON, NM 87499

To protect and improve the quality of the environment -

Unit
Sec. 15 T28N R11W Unit A
Energen

Land Farm Drawing

App 600 cu. yds



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 11-Aug-99

CLIENT: PNM - Public Service Company of NM
Project: Eaton Federal #1 & Summit #6 LF
Lab Order: 9908004

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: 11-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Eaton Federal #1 LF
Work Order:	9908004	Client Sample ID:	9908020625; 6pt. Composite
Lab ID:	9908004-01A	Matrix:	SOIL
Project:	Eaton Federal #1 & Summit #6 LF	Collection Date:	08/02/1999 6:25:00 AM
		COC Record:	7778

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	33	25		mg/Kg	1	08/06/1999

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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Environmental Services

Well Name:	Eaton Federal #1
Well Legals:	Sec 15, T28N, R11W, Unit A
Pit Type:	Unknown
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Less than 50 feet

RISK ANALYSIS

PNM requests closure of their former pit on the Eaton Federal #1 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 19 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Bloomfield, NM series 7.5 minute topographic map.)
2. PNM excavated 644 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 11 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 Eaton Federal #1 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.