Risk
bedrock

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 (Energen) **Telephone:** 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: McCord #4

Location: Unit G Sec 22 T 30 N R 13 W County San Juan

Pit Type: Separator ☐ Dehydrator ☑ Other

Land Type: BLM ☐ State ☐ Fee ☑ Other

Pit Location: (Attach diagram)

Pit dimensions: length 15 ' width 15 ' depth 2 '

Reference: wellhead ☑ other

Footage from reference: 170'

Direction from reference: 74 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 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (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 No	(20 points) (0 points)	0
Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet	(20 points) (10 points) (0 points)	0
RANKING SCORE (TOTAL POINTS) :			0

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JAN 31 2000
OIL CON. DIV.
DIST. 3

McCord #4

Date Remediation Started: 06/16/1999 **Date Completed:** 06/16/1999

Remediation Method: (Check all appropriate sections)
Excavation X Approx. Cubic Yard 20
Landfarmed X Amount Landfarmed (cubic yds) 20
Other

Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)
Onsite X Offsite

Backfill Material Location:

General Description of Remedial Action:

Excavated contaminated soil to a pit size of 15' X 12' X 3' 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 3'. See attached risk analysis form.

Ground Water Encountered: No ☑ Yes ☐ Depth

Final Pit Closure Sampling: (if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample Location 5 pt composite-bottom
Sample depth 3'
Sample date 06/16/1999 Sample time 10:35:00 AM

Sample Results

Benzene (ppm) 4
Total BTEX (ppm) 151.4 ***
Field headspace (ppm)
TPH (ppm) 95.00 Method 8015B

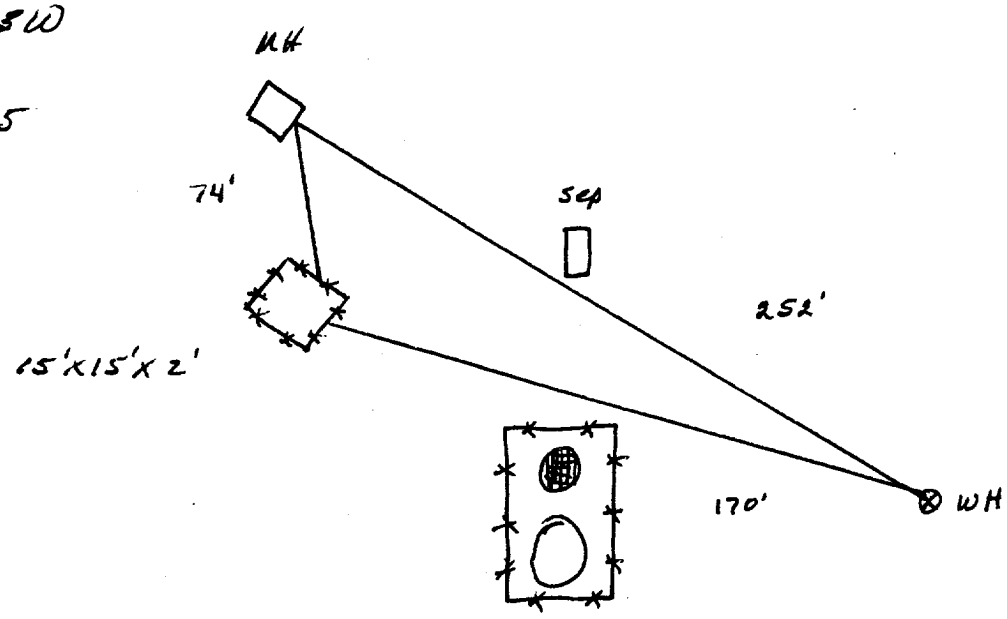
Vertical Extent (ft) Risk Analysis form attached Yes ☑ No ☐

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 **January 24, 2000**
SIGNATURE Maureen Gannon
PRINTED NAME AND TITLE **Maureen Gannon, Project Manager**

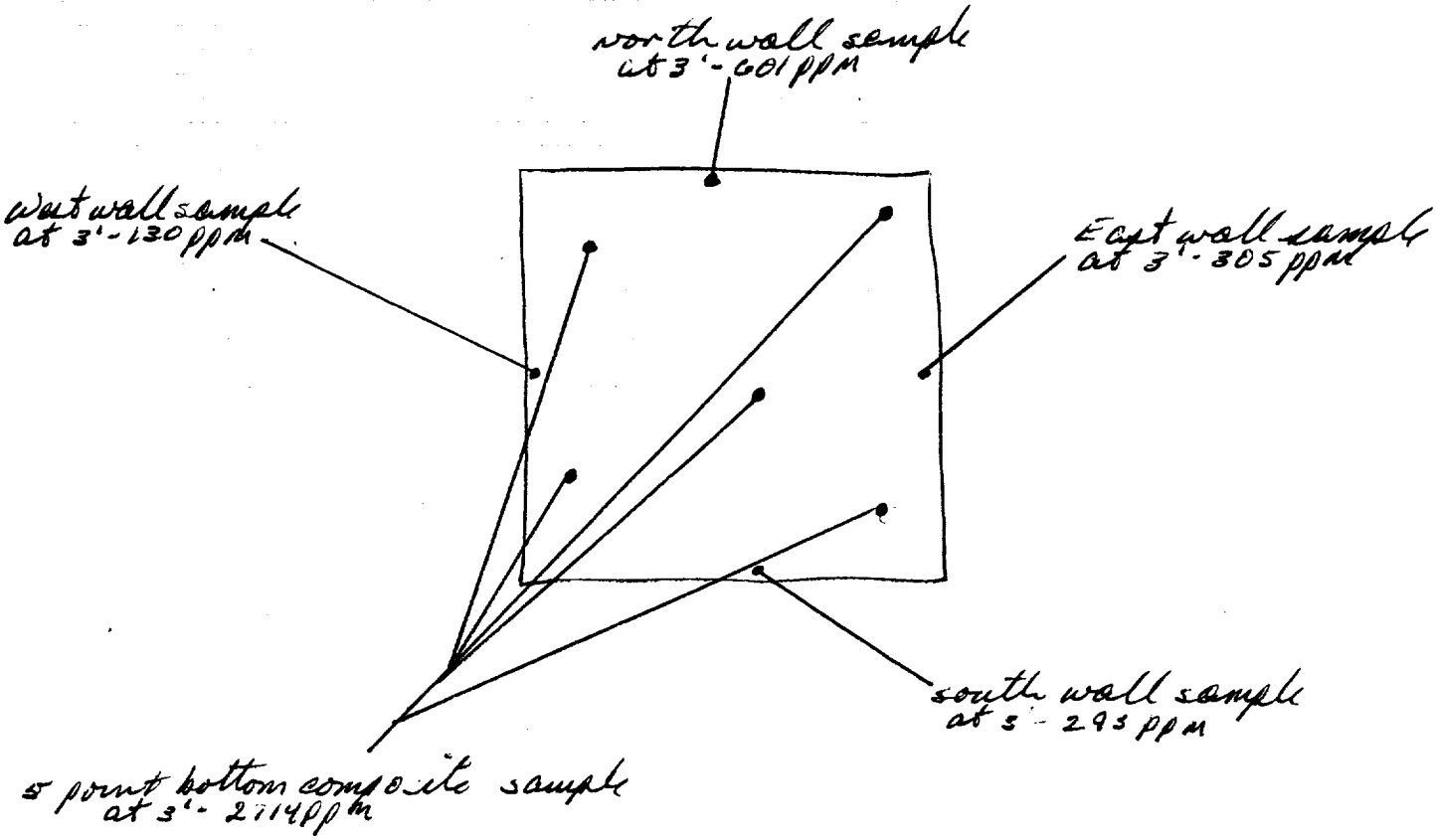
McCord #4
(C) 22-30N-15W
Energen
6-16-99 @ 0915



Excavation Sampling

15'(N+S) x 12'(E+W) x 3'(D)

PI Dreading at 3' - 2943ppm



OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: *30-Jun-99*

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9906059

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.

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RH

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *30-Jun-99*

Client:	PNM - Public Service Company of NM	**Client Sample Info:**	McCord #4
Work Order:	9906059	**Client Sample ID:**	9906161035; 5pt. Bottom Comp
Lab ID:	9906059-03A **Matrix:** SOIL	**Collection Date:**	6/16/99 10:35:00 AM
Project:	PNM Pit Remediation	**COC Record:**	7640

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **DC**
T/R Hydrocarbons: C10-C28	95	25		mg/Kg	1	6/29/99
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	4000	500		µg/Kg	500	6/24/99
Toluene	56000	1000		µg/Kg	500	6/24/99
Ethylbenzene	8400	500		µg/Kg	500	6/24/99
m,p-Xylene	67000	1000		µg/Kg	500	6/24/99
o-Xylene	16000	500		µg/Kg	500	6/24/99

151400
151.40ppm

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

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *30-Jun-99*

Client:	PNM - Public Service Company of NM	**Client Sample Info:**	McCord #4
Work Order:	9906059	**Client Sample ID:**	9906161040; 4pt. Wall Comp
Lab ID:	9906059-04A **Matrix:** SOIL	**Collection Date:**	6/16/99 10:40:00 AM
Project:	PNM Pit Remediation	**COC Record:**	7640

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **DC**
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	6/29/99
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	1		µg/Kg	1	6/23/99
Toluene	ND	2		µg/Kg	1	6/23/99
Ethylbenzene	2.3	1		µg/Kg	1	6/23/99
m,p-Xylene	19	2		µg/Kg	1	6/23/99
o-Xylene	77	1		µg/Kg	1	6/23/99

98.3
.0983 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

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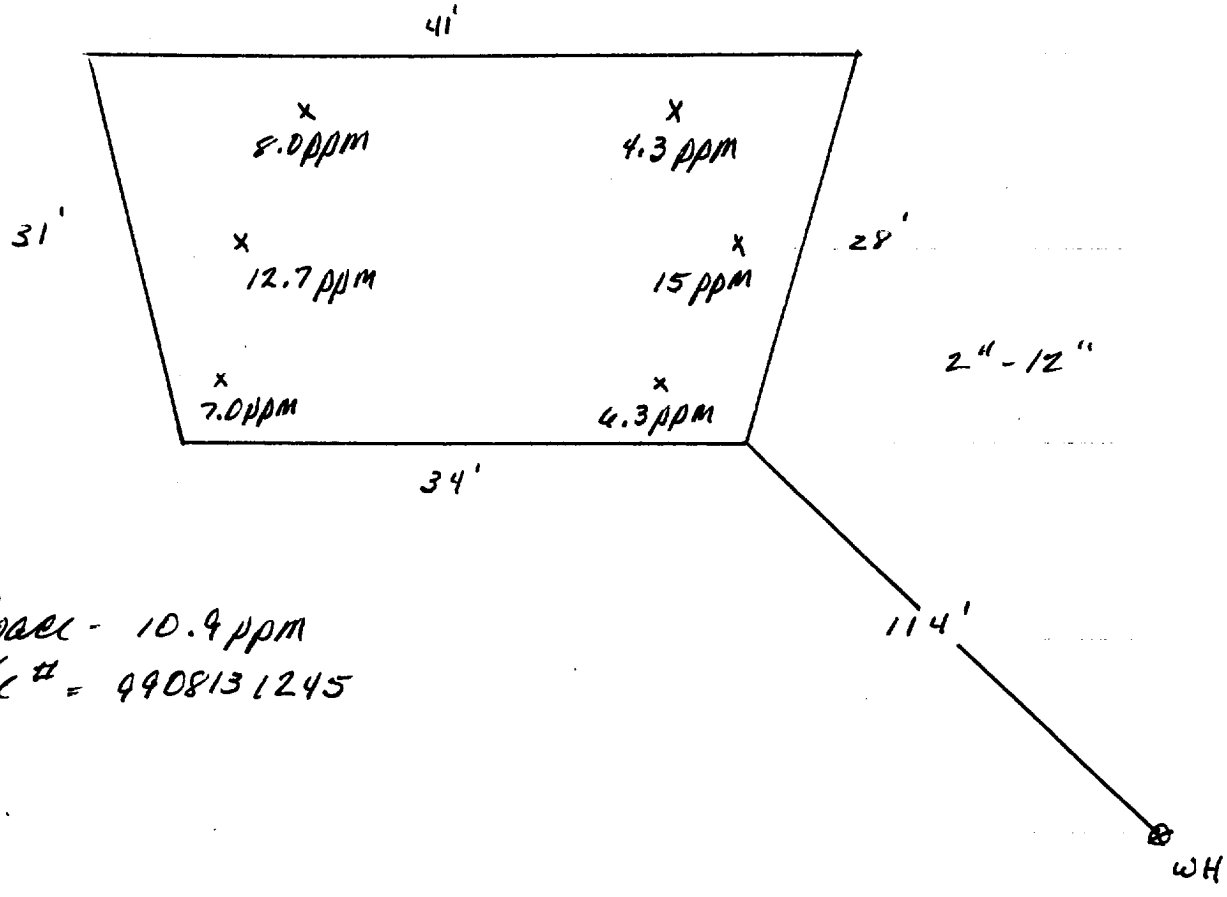
McCord #4 LF

N

Land Farm Drawing



Head Space - 10.4 ppm
Sample # = 990813 1245

not to scale

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TECHNOLOGIES, LTD.

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: *20-Aug-99*

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation Landfarms
Lab Order: 9908037

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.

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *20-Aug-99*

Client:	PNM - Public Service Company of NM	**Client Sample Info:**	McCord #4 LF
Work Order:	9908037	**Client Sample ID:**	9908131245; 6pt. Composite
Lab ID:	9908037-03A **Matrix:** SOIL	**Collection Date:**	08/13/1999 12:45:00 PM
Project:	PNM Pit Remediation Landfarms	**COC Record:**	7654

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **DC**
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	08/17/1999

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

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Environmental Services

Well Name:	McCord #4
Well Legals:	Sec 22, T30N, R13W, Unit G
Pit Type:	Dehydrator
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 McCord #4 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 317 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Farmington North, NM series 7.5 minute topographic map.)

2. PNM excavated 20 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 3 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 McCord #4 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.