

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

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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: Angel Peak #23E

Location: Unit O Sec 10 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 12 ' width 12 ' depth 2 '

(Attach diagram) Reference: wellhead ☒ other

Footage from reference: 111 '

Direction from reference: 70 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)	<u>0</u>
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	

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)	<u>0</u>
	No	(0 points)	

Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches	Less than 200 feet	(20 points)	<u>0</u>
	200 feet to 1,000 feet	(10 points)	
	Greater than 1,000 feet	(0 points)	

RANKING SCORE (TOTAL POINTS) : 0

Angel Peak #23E

Date Remediation Started: 06/28/1999

Date Completed: 06/28/1999

Remediation Method: Excavation ☒

Approx. Cubic Yard 42

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 42

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 15' X 15' X 5' 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 rock encountered at 5'. 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

5'

Sample date

06/28/1999

Sample time

4:33:00 PM

Sample Results

Benzene (ppm)

30

Total BTEX (ppm)

441 ***

Field headspace (ppm)

79.0

TPH (ppm)

1660.00

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

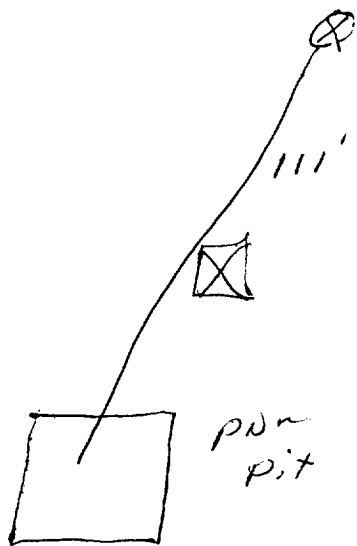
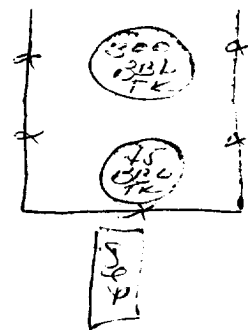
SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Highgate 236
 Sec 10 T28N R11W L110
 Burlington

Site Drawing



Excavation Drawing

North Wall
 Sample #1
 6.8 ppm

15' x 15' x 5'

Bottom
 Sample 5
 646 ppm
 Rock

West Wall
 Sample 4
 11.9 ppm

East Wall
 Sample #1
 8.4 ppm

South Wall
 Sample 4
 51.7 ppm

Field Headspace: 79.0 (walls)

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.

2 Kon

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info: Angel Peak 23E
Work Order:	9906077	Client Sample ID: 9906281633; 5pt. Bottom Comp
Lab ID:	9906077-11A Matrix: SOIL	Collection Date: 6/28/99 4:33:00 PM
Project:	PNM Pit Remediation	COC Record: 7482

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	1660	25		mg/Kg	1	7/9/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
Benzene	30000	2500		µg/Kg	2500	6/30/99
Toluene	100000	5000		µg/Kg	2500	6/30/99
Ethylbenzene	20000	2500		µg/Kg	2500	6/30/99
m,p-Xylene	240000	5000		µg/Kg	2500	6/30/99
o-Xylene	51000	2500		µg/Kg	2500	6/30/99

441000
441.00 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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info: Angle Peak 23E
Work Order:	9906077	Client Sample ID: 9906281630; 4pt. Wall Comp
Lab ID:	9906077-10A	Matrix: SOIL
Project:	PNM Pit Remediation	Collection Date: 6/28/99 4:30:00 PM
		COC Record: 7482

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	91	25		mg/Kg	1	7/9/99

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

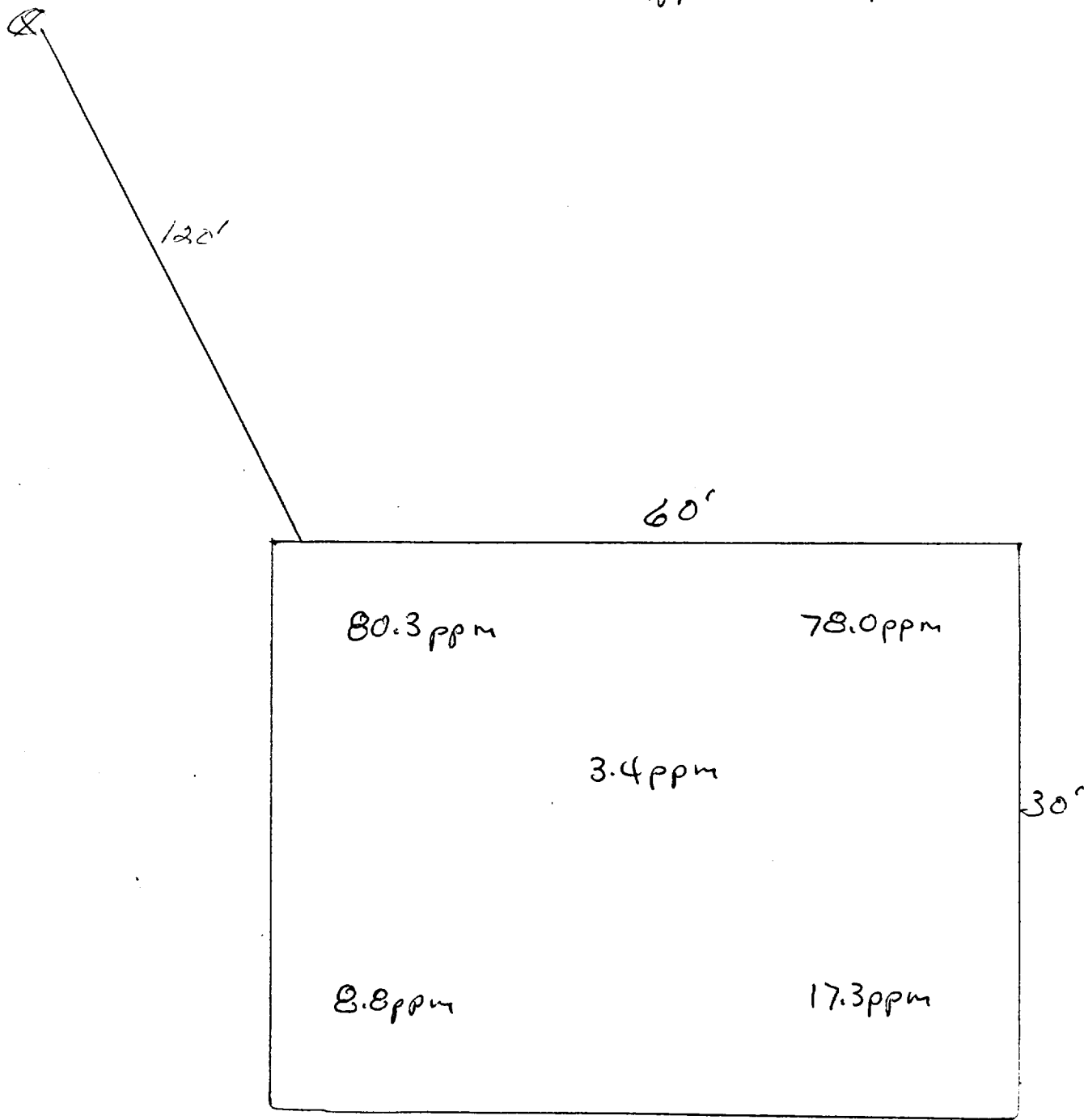
P.O. BOX 2606 • FARMINGTON, NM 87499

~ To ensure you receive the most accurate results, please use the exact amount ~

Higley LEAK 25E
Sec. 10 T28N R11W Unit 10
Burlington

Landfarm Drawing

App cu yds



2" to 12" Depth
Headspace 22.2 ppm
Sample # 9907281035

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: 9907063

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:	Angel Peak #23E LF
Work Order:	9907063	Client Sample ID:	9907281035; 5pt. Composite
Lab ID:	9907063-02A	Matrix:	SOIL
Project:	PNM Pit Remediation Landfarms	Collection Date:	7/28/99 10:35:00 AM
		COC Record:	7738

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	8/3/99

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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- TRAINING AND EQUIPMENT PROVIDED WITH THE ENVIRONMENT -



Environmental Services

Well Name:	Angel Peak #23E
Well Legals:	Sec 10, T28N, R11W, Unit O
Pit Type:	Unknown
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 Angel Peak #23E well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 249 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 42 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 5 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 Angel Peak #23E well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.