

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

*Risk bedrock*

RECEIVED  
NOV - 1 1993  
OIL CON. DIV.  
DIST. 3

<b>Operator:</b> PNM Gas Services ( Burlington )		<b>Telephone:</b> 324-3764	
<b>Address:</b> 603 W. Elm Street Farmington, NM 87401			
<b>Facility or Well Name:</b> East #12			
<b>Location:</b>	Unit <u>I</u>	Sec <u>25</u>	T <u>31 N</u> R <u>12 W</u> County <u>San Juan</u>
<b>Pit Type:</b>	Separator <input checked="" type="checkbox"/>	Dehydrator <input type="checkbox"/>	Other <input type="checkbox"/>
<b>Land Type:</b>	BLM <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Fee <input type="checkbox"/> Other <input type="checkbox"/>
<b>Pit Location:</b>	Pit dimensions: length <u>20</u> ' width <u>20</u> ' depth <u>3</u> '		
(Attach diagram)	Reference:	wellhead <input checked="" type="checkbox"/>	other <input type="checkbox"/>
	Footage from reference:	<u>35'</u>	
	Direction from reference:	<u>90</u> Degrees <input checked="" type="checkbox"/> East <input type="checkbox"/> North <input type="checkbox"/>	of <input type="checkbox"/> West <input type="checkbox"/> South <input type="checkbox"/>
<b>Depth to Ground Water:</b>			
(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>10</u>
<b>Wellhead Protection Area:</b>			
(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>
<b>Distance to Surface Water:</b>			
(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>
<b>RANKING SCORE (TOTAL POINTS) :</b>			<u>10</u>

East #12

Date Remediation Started: 05/27/1999

Date Completed: 05/27/1999

Remediation Method:

Excavation ☒

Approx. Cubic Yard 356

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 306

Other 50 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 37' X 26' X 10' 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 10'. 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 10'

Sample date 05/27/1999

Sample time 1:35:00 PM

Sample Results

Benzene (ppm) < 0.25

Total BTEX (ppm) 62.4 \*\*\*

Field headspace (ppm)

TPH (ppm) 640.00

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*

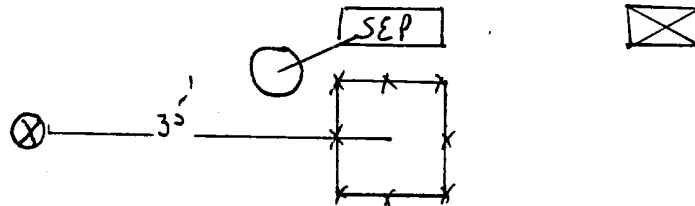
PRINTED NAME Maureen Gannon  
AND TITLE Project Manager

East # 12  
Burlington  
Sec. 25, 31N, 12W, I

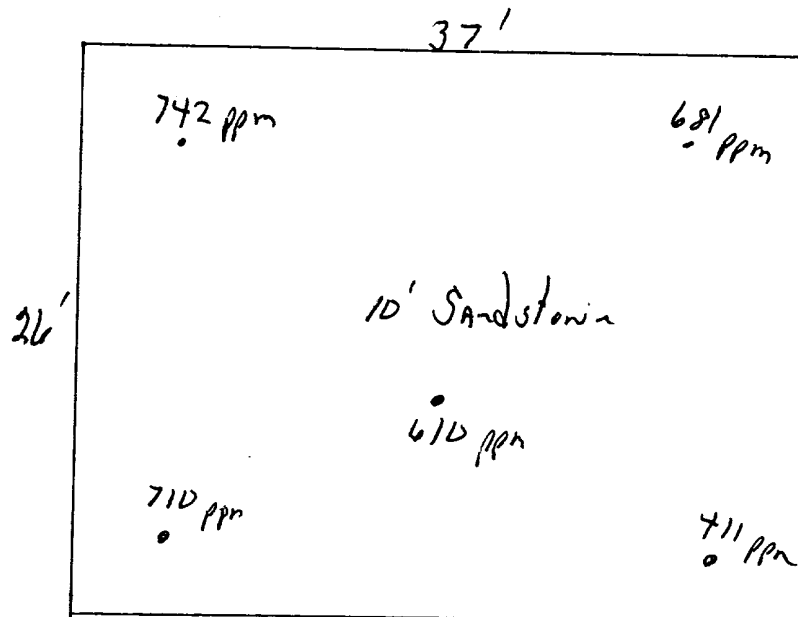
5/27/99

Site diagram:

↑  
N



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 14-Jun-99

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**CLIENT:** PNM - Public Service Company of NM

**Project:** PNM Pit Remediation

**Lab Order:** 9905100

## **CASE NARRATIVE**

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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



LC

LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 14-Jun-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	East #12
<b>Work Order:</b>	9905100	<b>Client Sample ID:</b>	9905271335; Bottom @ 10ft. - 5 ft. Composite
<b>Lab ID:</b>	9905100-04A	<b>Matrix:</b>	SOIL
<b>Project:</b>	PNM Pit Remediation	<b>Collection Date:</b>	5/27/99 1:35:00 PM
		<b>COC Record:</b>	7601

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				
T/R Hydrocarbons: C10-C28	640	25		mg/Kg	1	Analyst: DC 6/10/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DC
Benzene	ND	250		µg/Kg	250	6/9/99
Toluene	7600	500		µg/Kg	250	6/9/99
Ethylbenzene	6300	250		µg/Kg	250	6/9/99
m,p-Xylene	39000	500		µg/Kg	250	6/9/99
o-Xylene	9500	250		µg/Kg	250	6/9/99

62400  
62.4 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

OFF: (505) 325-5667



LC

LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 14-Jun-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	East #12
<b>Work Order:</b>	9905100	<b>Client Sample ID:</b>	9905271340; Walls @ 6ft.
<b>Lab ID:</b>	9905100-05A	<b>Matrix:</b>	SOIL
<b>Project:</b>	PNM Pit Remediation	<b>Collection Date:</b>	5/27/99 1:40:00 PM
		<b>COC Record:</b>	7601

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				<b>Analyst: DC</b>
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	6/10/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				<b>Analyst: DC</b>
Benzene	ND	1		µg/Kg	1	6/9/99
Toluene	ND	2		µg/Kg	1	6/9/99
Ethylbenzene	ND	1		µg/Kg	1	6/9/99
m,p-Xylene	ND	2		µg/Kg	1	6/9/99
o-Xylene	ND	1		µg/Kg	1	6/9/99

**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

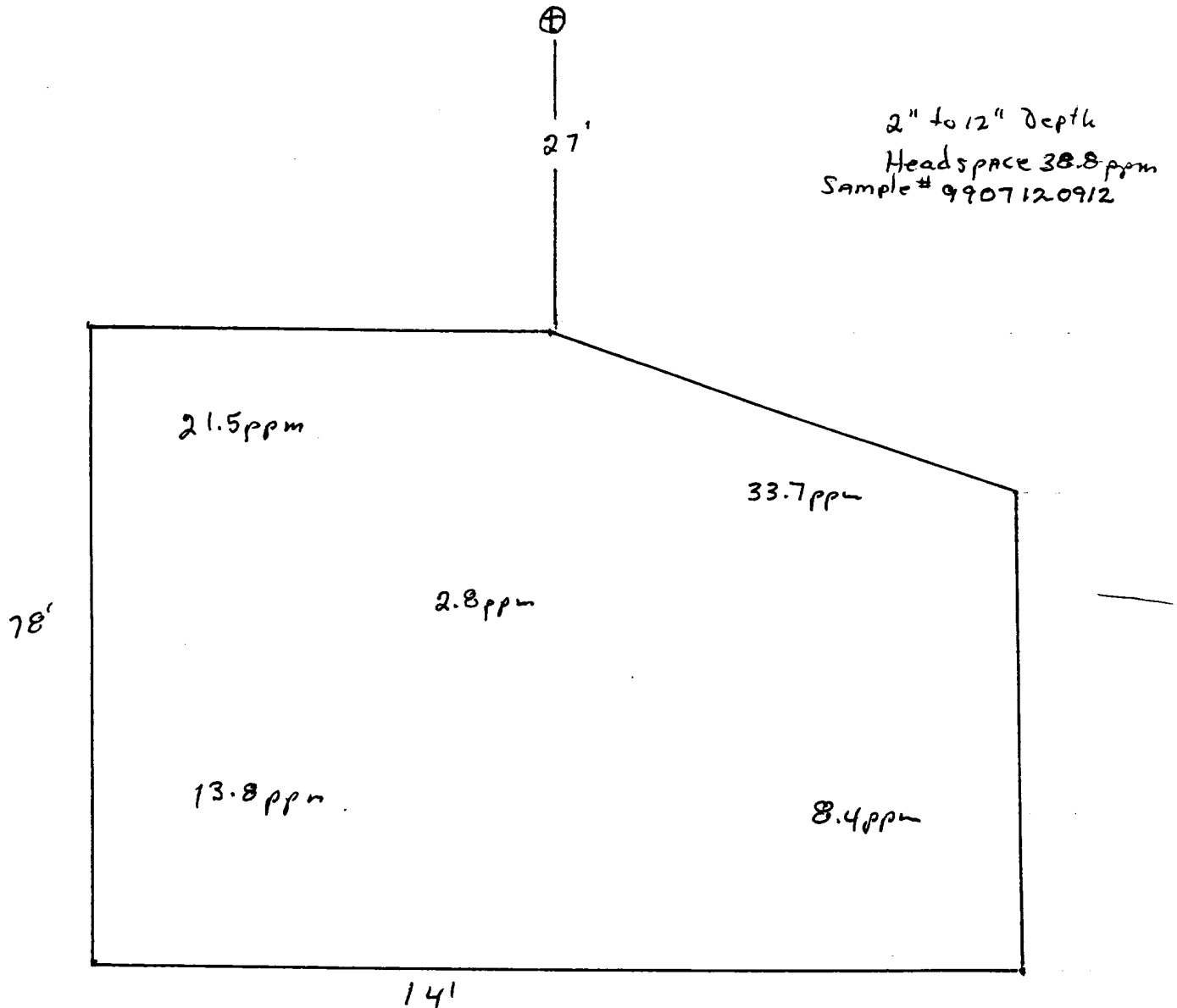
E - Value above quantitation range

Surr: - Surrogate

EAST #12  
SEC-25 T-31N R-12W UL-1  
Burlington

# Landfarm Drawing

App 306 cu.yds



Not to Scale

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date: 23-Jul-99**

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**CLIENT:** PNM - Public Service Company of NM

**Project:** PNM Pit Remediation Landfarms

**Lab Order:** 9907027

## **CASE NARRATIVE**

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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: 23-Jul-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	East 12 LF
<b>Work Order:</b>	9907027	<b>Client Sample ID:</b>	9907120912; 5pt. Comp
<b>Lab ID:</b>	9907027-06A	<b>Matrix:</b>	SOIL
<b>Project:</b>	PNM Pit Remediation Landfarms	<b>Collection Date:</b>	7/12/99 9:12:00 AM
		<b>COC Record:</b>	7484

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	310	25		mg/Kg	1	7/22/99

**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

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Well Name:	East #12
Well Legals:	Unit I, Sec 25, T31N, R12W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	50 feet to 99 feet

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### RISK ANALYSIS

PNM requests closure of their former pit on the East #12 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 81 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Flora Vista, NM series 7.5 minute topographic map.)
2. PNM excavated 356 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 10 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 East #12 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.