

Risk
BTEX

Dennis E. Faust
DEPUTY OIL & GAS INSPECTOR

State of New Mexico
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

District III
1000 Rio Brazos Rd., Aztec, NM 87410
FEB 08 1999

Approved

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Taurus)		Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 87401			
Facility or Well Name: City of Farmington #2E			
Location:	Unit D	Sec 35	T 30N R 13W County
Pit Type:	Separator <input type="checkbox"/>	Dehydrator <input checked="" type="checkbox"/>	Other
Land Type:	BLM <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Fee <input type="checkbox"/> Other
Pit Location:	Pit dimensions: length 20 ' width 20 ' depth 3 '		
(Attach diagram)	Reference: wellhead <input checked="" type="checkbox"/>	other	
	Footage from reference: 75'		
	Direction from reference: 30 Degrees	<input type="checkbox"/> East	North <input type="checkbox"/>
		<input checked="" type="checkbox"/> West	South <input checked="" type="checkbox"/>
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)	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 (20 points)	
		No (0 points)	0
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)	0
RANKING SCORE (TOTAL POINTS):			0

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OIL CONSERVATION DIVISION

City of Farmington #2E

Date Remediation Started: 6/22/98

Date Completed: 6/22/98

Remediation Method: Excavation ☒ Approx. Cubic Yard 80

(Check all appropriate sections)

Landfarmed ☒ Amount Landfarmed (cubic yds) 80

Other

Remediation Location: Onsite

Offsite Tierra Environmental

(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 20' X 18' X 6' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by plowing until soil met regulatory levels.

***Sandstone encountered at 6'. See attached risk analysis and lab analysis form.

Ground Water Encountered: No ☒ Yes ☐ Depth

Final Pit Closure Sampling:

Sample Location Bottom of excavation.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth 6'

Sample date 6/22/98

Sample time 7:40:00 AM

Sample Results

Benzene (ppm) 47.0000

Total BTEX (ppm) 347.0000 ***

Field headspace (ppm)

TPH (ppm) 260.00 Method 8015A

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 26, 1999

SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

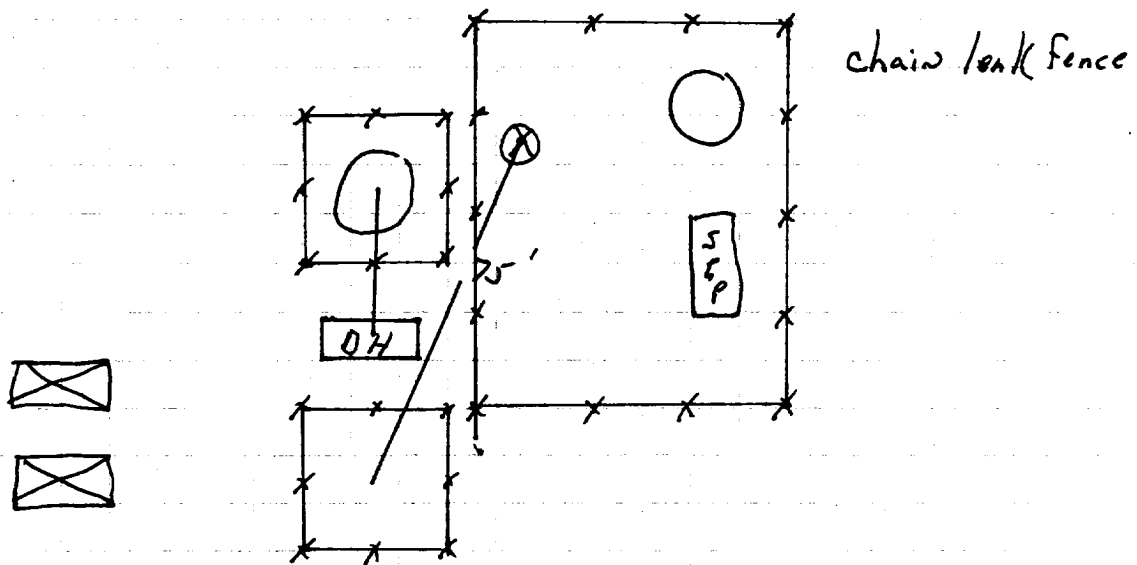
City of Farmington #2E

Taurus

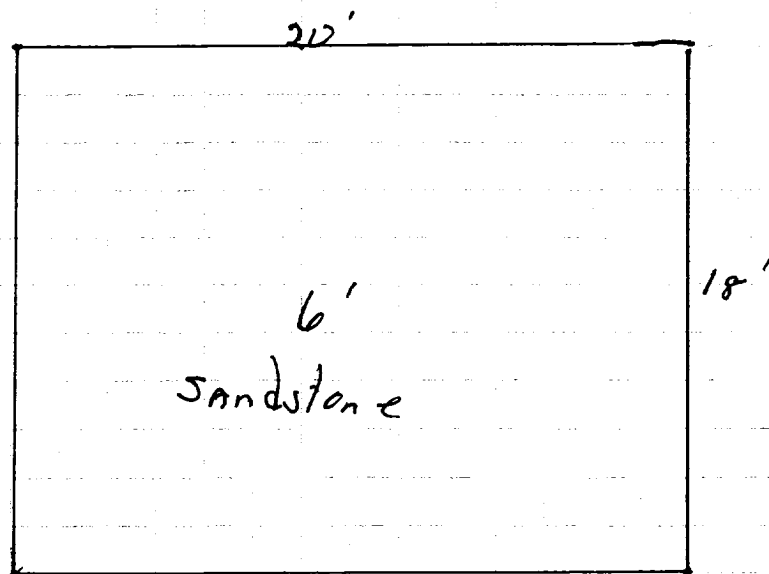
Sec. 35, 30N, 13W, 10

6/22/98

start of excavation:



End of excavation:



ON SITE

OFF: (505) 325-5667

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

On Site Technologies, LTD.

Date: 24-Jun-98

CLIENT: PNM - Public Service Company of NM

Project: City of Farmington #2E

Lab Order: 9806086

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: 24-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	City of Farmington #2E
Work Order:	9806086	Client Sample ID:	9806220740; Bottom @ 6ft.
Lab ID:	9806086-01A	Matrix:	SOIL
Project:	City of Farmington #2E	Collection Date:	6/22/98 7:40:00 AM
		COC Record:	7237

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	260	25		mg/Kg	1	6/24/98
BTEX		SW8020A				Analyst: DC
Benzene	47000	1000		µg/Kg	1000	6/22/98
Toluene	100000	2000		µg/Kg	1000	6/22/98
Ethylbenzene	22000	1000		µg/Kg	1000	6/22/98
m,p-Xylene	150000	2000		µg/Kg	1000	6/22/98
o-Xylene	28000	1000		µg/Kg	1000	6/22/98

347000
347. 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: 24-Jun-98

Client: PNM - Public Service Company of NM
Work Order: 9806086
Lab ID: 9806086-02A **Matrix:** SOIL
Project: City of Farmington #2E

Client Sample Info: City of Farmington #2E
Client Sample ID: 9806220745; Walls @ 3ft.
Collection Date: 6/22/98 7:45:00 AM
COC Record: 7237

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	6/24/98
BTEX		SW8020A				Analyst: DC
Benzene	2.7	1		µg/Kg	1	6/22/98
Toluene	ND	2		µg/Kg	1	6/22/98
Ethylbenzene	1.1	1		µg/Kg	1	6/22/98
m,p-Xylene	7.4	2		µg/Kg	1	6/22/98
o-Xylene	5.5	1		µg/Kg	1	6/22/98

Qualifiers:
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Environmental Services

Well Name:	City of Farmington #2E
Well Legals:	Unit D, Sec 35, T30N, R13W
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 City of Farmington #2E well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 327 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. The site is located outside of the "vulnerable area" as defined under OCC Order No. R-7940-C.
3. PNM excavated 80 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached analytical results). Source removal minimizes the possibility of surface water contamination.
4. Sandstone was encountered at 6 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
5. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the City of Farmington #2E well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.