

District I
P.O. Box 1990, Hobbs, NM 88240
District II
P.O. Box 1990, Hobbs, NM 88240
District III
1000 Rio Brazos Rd., Aztec, NM 87410

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

PIT REMEDIATION AND CLOSURE REPORT

RECEIVED
JUL 31 1998
OIL CON. DIV.
DIST. 2

Operator: PNM Gas Services (Burlington) **Telephone:** 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Patterson B Com #1E
Location: Unit M Sec 2 T 31 N R 12 W County San Juan
Pit Type: Separator ☐ Dehydrator ☒ Other _____
Land Type: BLM ☒ State ☐ Fee ☐ Other No

Pit Location: Pit dimensions: length 20 width 20 depth 3
(Attach diagram) Reference: wellhead ☒ other _____
Footage from reference: 60'
Direction from reference: 5 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) 20

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) 10

RANKING SCORE (TOTAL POINTS): 30

Patterson B Com #1E

Date Remediation Started: 5/6/98

Date Completed: 5/7/98

Remediation Method: Excavation X Approx. Cubic Yard 426

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 426

Other _____

Remediation Location:

Onsite

X

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 25' X 23' X 20' 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 20'. 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

20'

Sample date

5/7/98

Sample time

11:15:00 AM

Sample Results

Benzene (ppm) < 0.2000

Total BTEX (ppm) *** 133.2000

Field headspace (ppm) _____

TPH (ppm)

340.00

Method

8015

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 July 27, 1998

SIGNATURE

Mary Cook

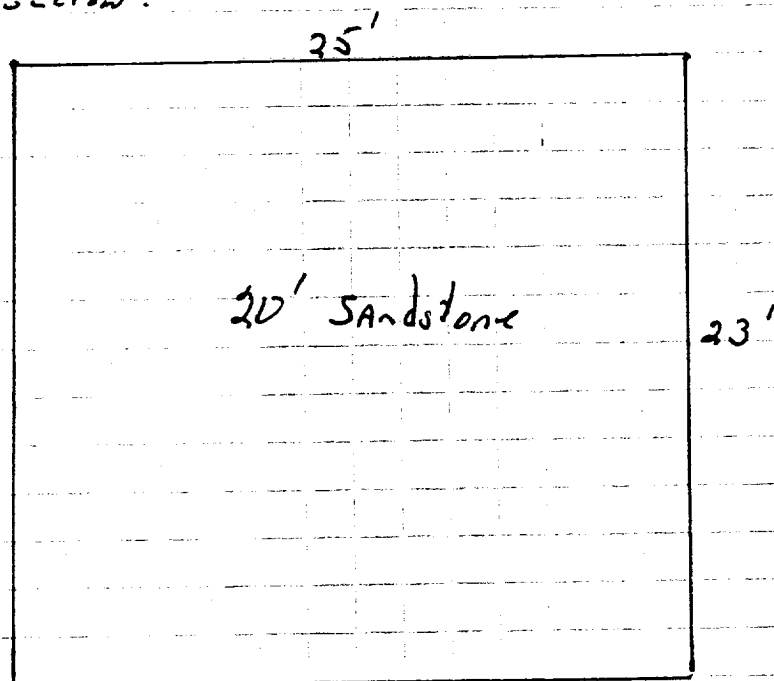
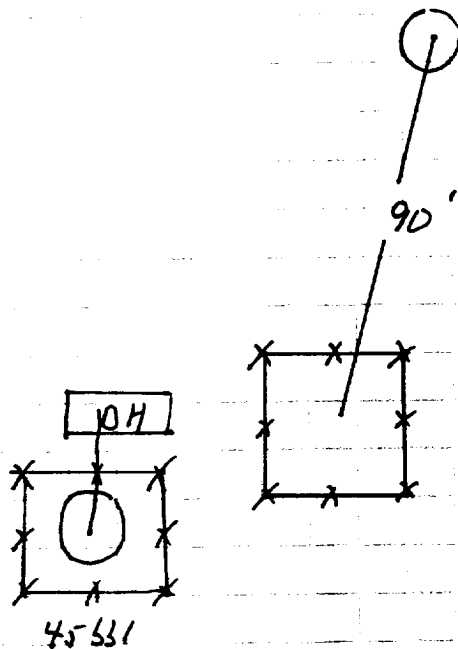
PRINTED NAME Gary Cook

AND TITLE Environmental Technician III

Patterson B Com #1E
Burlington Resources
Sec. 2, 31N, 12W, 1M

5/6/98

start of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 15-May-98

CLIENT: PNM - Public Service Company of NM

Project: Patterson B Com #1E

Lab Order: 9805021

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-May-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Patterson B Com #1E
Work Order:	9805021	Client Sample ID:	9805071115; Bottom @ 20ft.
Lab ID:	9805021-01A	Matrix:	SOIL
Project:	Patterson B Com #1E	Collection Date:	5/7/98 11:15:00 AM
		COC Record:	7210

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	340	25		mg/Kg	1	5/13/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	200		µg/Kg	200	5/12/98
Toluene	20000	400		µg/Kg	200	5/12/98
Ethylbenzene	6200	200		µg/Kg	200	5/12/98
m,p-Xylene	92000	2000		µg/Kg	1000	5/12/98
o-Xylene	15000	200		µg/Kg	200	5/12/98
	133200					
	133.200 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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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-May-98

Client: PNM - Public Service Company of NM
Work Order: 9805021
Lab ID: 9805021-02A **Matrix:** SOIL
Project: Patterson B Com #1E

Client Sample Info: Patterson B Com #1E
Client Sample ID: 9805071120; Walls @ 16ft.
Collection Date: 5/7/98 11:20:00 AM
COC Record: 7210

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/13/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/Kg	1	5/12/98
Toluene	ND	2		µg/Kg	1	5/12/98
Ethylbenzene	ND	1		µg/Kg	1	5/12/98
m,p-Xylene	ND	2		µg/Kg	1	5/12/98
o-Xylene	ND	1		µg/Kg	1	5/12/98

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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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Patterson "8" Com #1E

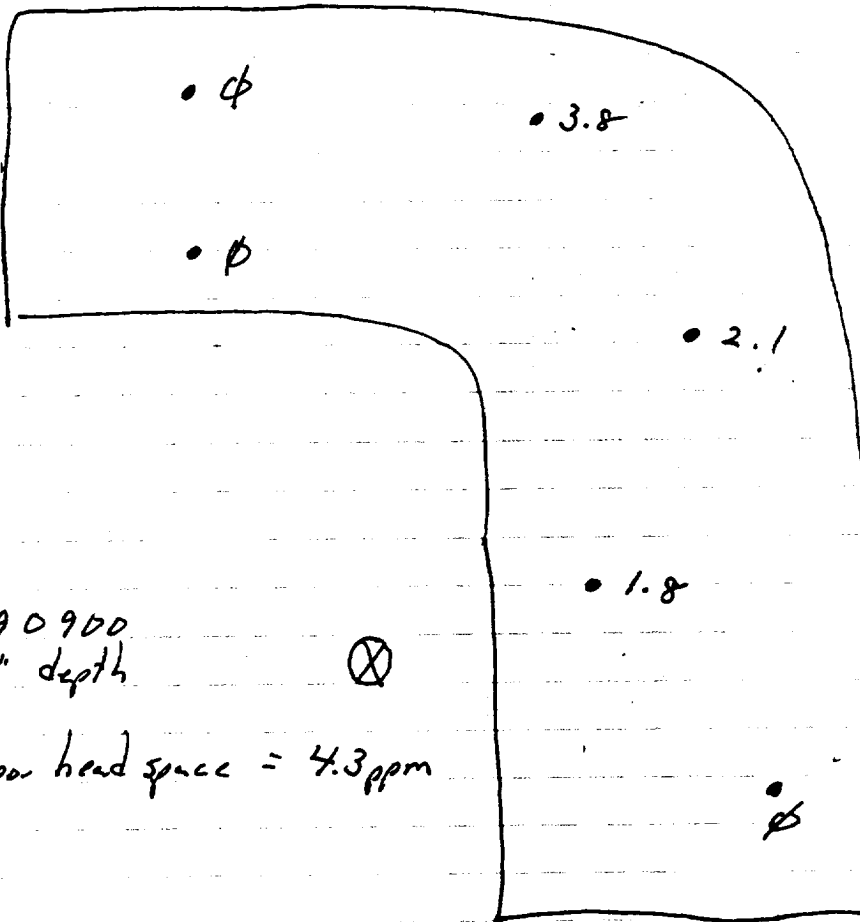
6/29/98

BR

Sec - 2, 31N, 12W, m

Land Farm:

426 yards



9806290900

2"-12" depth

soil vapor head space = 4.3ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM

Project: Landfarms

Lab Order: 9806114

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: 01-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Patterson "B" Com #1E
Work Order:	9806114	Client Sample ID:	9806290900; 6pt. Comp @ 2-12in
Lab ID:	9806114-03A	Matrix:	SOIL
Project:	Landfarms	Collection Date:	6/29/98 9:00:00 AM
		COC Record:	7306

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	97	25		mg/Kg	1	6/30/98

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:	Patterson B Com #1E
Well Legals:	Unit M, Sec 2, T31N, R12W
Pit Type:	Dehydrator
Horizontal Distance to Surface Water:	Less than 200 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

PNM requests closure of their former pit on the Patterson B Com #1E well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of >100 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash (Farmington Glade Canyon). (Reference: topographic map.)
2. PNM excavated 426 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.
3. Sandstone was encountered at 20 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 Patterson B Com #1E well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.