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DEPUTY OIL & GAS INSPECTOR
District II
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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. 3

Operator: PNM Gas Services (Burlington) **Telephone:** 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Mangum #1
Location: Unit I Sec 29 T 29 N R 11 W County San Juan
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: BLM ☐ State ☐ Fee ☒ Other ☐ No

Pit Location: Pit dimensions: length 15 width 15 depth 3
(Attach diagram) Reference: wellhead ☒ other ☐
Footage from reference: 35'
Direction from reference: 45 Degrees ☐ East ☒ North ☐ South
of ☒ West

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

Mangum #1

Date Remediation Started: 3/16/97

Date Completed: 3/18/97

Remediation Method: Excavation ☒

Approx. Cubic Yard 313

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds)

Other

Remediation Location:

Onsite

Offsite

Hauled 273 cu yds to 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 44' X 32' X 6' and transported soil to Tierra Environmental.

Ground Water Encountered:

No

Yes



Depth

4'

Final Pit Closure Sampling:

Sample Location

Closure soil sample was not taken. See attached excavation work sheet and groundwater report.

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

Sample depth

Sample date

Sample time

Sample Results

Benzene (ppm)

Total BTEX (ppm)

Field headspace (ppm)

TPH (ppm)

Method

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

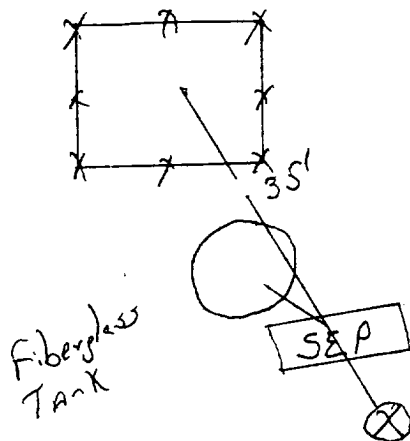
Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

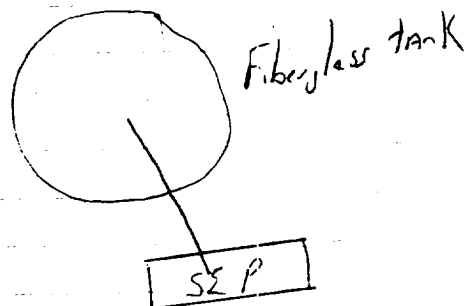
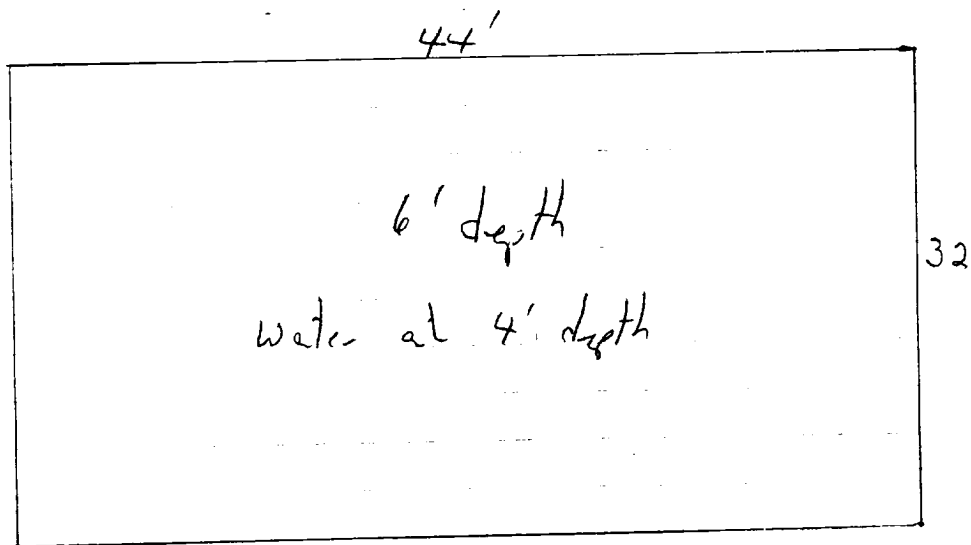
Mangum #1
Burlington Resources
Sec 29, 29A, 11W, I

3-16-97

start of Excavation:



End of excavation:



Excavation Work Sheet

1728

Date 3/16/97		Vertical Extent 5'			
Well Name Mangum #1	Operator Burlington Resources	S 29	T 29 N	R 11W	UI I
Pit Dimensions at Start 15 X 15 X 3		Excavation Dimensions at End 44 X 32 X 6			
Excavated Cu. Yds. 313 yds	Overburden Cu. Yds. 40		Spoil Cu. Yds. 273		

PIT PID READINGS						
Feet	Center	Soil Type	N. Wall	S. Wall	E. Wall	W. Wall
3'	216	sand/clay	φ	51.3	φ	φ
5'		sand/cobbles	3.4 H ₂ O	6.1	φ	φ
9'						
12'						
15'						
18'						
21'						

Composite Sample #: 9803170730 (H ₂ O)		
Location	Depth	PID Reading
North Wall		
South Wall		
East Wall		
West Wall		
Pit Bottom		

Land Farm Location: Tierce Environmental (trucking)
 total truck loads = 35 loads - Tierce advised 260 yds spoil

Back Fill Location: Approved BLM pit

Comments: water at 4' depth. Notified Manurem in Albg.
 Have a 3 1/2' to 4' overburden there have 2' band of
 colored spoil which is at water level. Highest PID reading
 was 216 ppm. All walls clean. Installed monitoring wells. PVC pipe
 Dave Cox (On Site) advised water was clean
 B T E X
 5 4 9 78

OFF: (505) 325-5667



LAB: (505) 325-1556

Date: 25-Mar-98

CLIENT: PNM - Public Service Company of NM
Project: Mangum #1
Lab Order: 9803037

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.

Date: 25-Mar-98

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Work Order: 9803037
Project: Mangum #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980318	Test Code: SW8020A	Units: µg/L	Analysis Date: 3/18/98	Prep Date:						
Client ID:	9803037	Run ID: GC-1_980318A		SeqNo: 67							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0822	0.5									J
Ethylbenzene	.1129	0.5									J
m,p-Xylene	.3057	1									J
o-Xylene	.1097	0.5									J
Toluene	.1684	0.5									J

Qualifiers: NID - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

1 of 1

PNMGS Well Site: Mangum #1

Groundwater Site Summary Report

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Month/Year: July 1998

Operator: Burlington Resources
Sec: 27 **Twn:** 29N **Rng:** 11W **Unit:** I
Canyon: Kutz

Vulnerable Class: Original
OCD Ranking: 30
Lead Agency: NMOCD

Activities:

On March 16, 1997, PNM commenced excavation of their former pit location at the Mangum #1. At 4 feet below ground surface, groundwater was encountered. A groundwater sample was collected from the excavation and the sample was delivered to OnSite Technologies, Farmington, New Mexico for analysis of BTEX using EPA Method 8020. After the excavation was completed, the pit was backfilled with clean soil. Contaminated soil was hauled to Tierra Environmental. No final closure soil sample was collected from the excavation due to the presence of groundwater; however, during excavation, PNM conducted PID measurements at successive depths along the sidewalls as documented in the attached Excavation Work Sheet.

The laboratory analytical report indicates that BTEX concentrations in groundwater at the Mangum #1 are below WQCC standards (see attached results from OnSite Technologies dated March 17, 1997).

Further Action:

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM requests closure of our former pit at the Mangum #1 well site. A sample from the center of the pit area indicates that groundwater is clean at the site.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client: PNM - Public Service Company of NM
Work Order: 9803037
Lab ID: 9803037-01A **Matrix:** AQUEOUS
Project: Mangum #1

Client Sample Info: Mangum #1
Client Sample ID: 9803170730
Collection Date: 3/17/98 7:30:00 AM
COC#: 7112

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	0.5		µg/L	1	3/18/98
Toluene	1.6	0.5		µg/L	1	3/18/98
Ethylbenzene	4.8	0.5		µg/L	1	3/18/98
m,p-Xylene	51	1		µg/L	1	3/18/98
o-Xylene	16	0.5		µg/L	1	3/18/98
Surr: Fluorobenzene	92.3	70-130		%REC	1	3/18/98
Surr: 1,4-Difluorobenzene	93.0	70-130		%REC	1	3/18/98
Surr: 4-Bromochlorobenzene	90.7	70-130		%REC	1	3/18/98

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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