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District I P.O. Box 1980, Hobbs, NM State of New Mexico
Energy, Minerals and Natural Resources Department

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

District II P.O. Drawer DD, Artesia, NM 88221

District III 1000 Rio Brazos Rd, Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 South Pacheco Street Santa Fe, New Mexico 87505

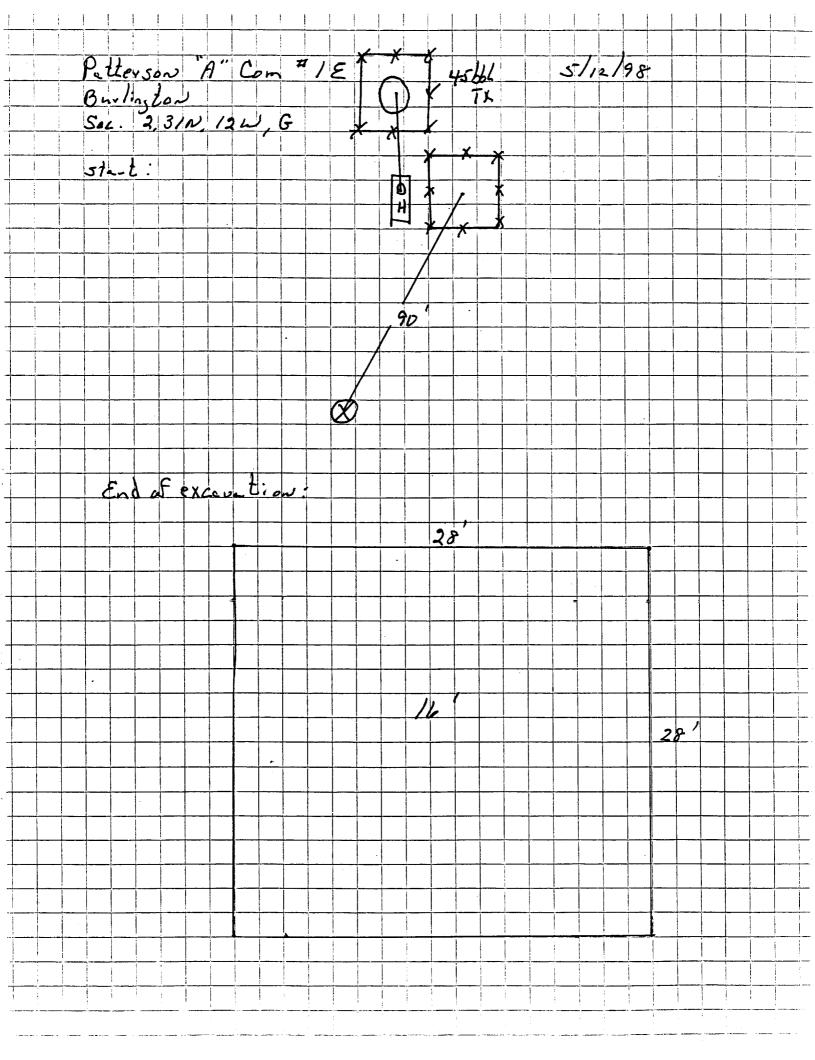
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PIT REMEDIATION AND CLOSURE REPORT

OIL COM. DIV. DIST. 3

Operator:	PNM Gas Services (Burlington) Telephone: 324-3764	
Address:	603 W. Elm Street Farmington, NM 87401	
Facility or W	/ell Name: _ Patterson A Com #1E	
Location:	Unit G Sec 2 T 31N R 12W County San Juan	_
Pit Type:	Separator Dehydrator Other	
Land Type:	BLM State Fee V Other	
Pit Location:	Pit dimensions: length 20 width 20 depth 3	
(Attach diagrai	m) Reference: wellhead other	
	Footage from reference: 90'	_
	Direction from reference: 30 Degrees East North	•
	of West South	
Depth to Grou	und Water: Less than 50 feet (20 points) 50 feet to 99 feet (10 points)	
(Vertical distance from c seasonal high water elevi	Contaminants to Greater than 100 feet (0 points)	10
Wellhead Pro	Yes (20 points)	
(Less than 200 feet from domestic water source, of feet from all other water	or, less than 1,000	0
Distance to St	200 feet to 1,000 feet (10 points)	0
(Horizontal distance to ponds, rivers, streams, cocanals and ditches	provided Maco,	10
	MINIMO OCORD (TOTALIONIE).	

Patterson A Com #1E							
Date Remediation Started:	5/12/98		Date Completed:	5/	5/13/98		
Remediation Method:	Excavation x		Approx. Cubic Ya	464			
(Check all appropriate	Landfarmed x		Amount Landfarm	ned (cubic yds)	464		
sections)	Other						
Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)	Onsite X	· · · · · · · · · · · · · · · · · · ·	Offsite				
Backfill Material Location:							
General Description of Rem	edial Action:			100			
Excavated contaminated soil	to a pit size of 28' X 28'	X 16' and landfam	ned onsite within a be	ermed area at a	depth of 6" to		
12". Soil was aerated by disk	ing/plowing until soil met	t regulatory levels.					
***Vertical extent drilling con-	ducted to 45'. Sandstone	encountered. Se	e attached risk analy	sis form.			
							
Ground Water Encountered	l: No 💆	Yes		Depth			
Final Pit Closure Sampling:	Sample Location	Bottom of excavat	ion.				
(if multiple samples, attach sample result and diagram of sample locations and depths.)	Sample depth 1	19'					
sample locations and depths.)	Sample date	5/13/98	Sample time	8:4	0:00 AM		
	Sample Results						
	Benzene (ppm	n) <u>50.000</u>)				
	Total BTEX ((ppm) 1480	0000 ***				
	Field headspace	(ppm)					
	TPH (ppm)	1200.00 ***	Method	8015A			
Vertical Extent (ft) 40		Risk Ana	alysis form attached	Yes 🔽	_ No _		
Ground Water Sample:	Yes	No 🔽	(If yes, see atta — Summary Repo		ter Site		
I HEREBY CERTIFY THAT KNOWLEDGE AND MY B	THE INFORMATION ELIEF	ABOVE IS TRUI	E AND COMPLETE	TO THE BEST	C OF MY		
DATE April 27, 1999 SIGNATURE	theo Ki Ya a un i		PRINTED NAME AND TITLE	Maureen Gan Project Mana			



LAB: (505) 325-1556

TECHNOLOGIES, LTD.

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Patterson "A" Com #1E

Lab Order:

9805041

CASE NARRATIVE

Date: 26-May-98

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

Date: 26-May-98

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9805041

9805041-01A

Matrix: SOIL

Lab ID: Project:

Patterson "A" Com #1E

Client Sample Info: Patterson "A" Com #1E

Client Sample ID: 980513840; Bottom @ 19ft.

Collection Date: 5/13/98 8:40:00 AM

COC Record: 7215

Parameter	Result	PQL	Quai	Units	DF	Date Analyzed	
DIESEL RANGE ORGANICS	SW8015					Analyst: DC	
T/R Hydrocarbons: C10-C28	1200	25		mg/Kg	1	5/21/98	
BTEX	SI	V8020A				Analyst: HR	
Benzene	50000	5000		μ g /Kg	5000	5/19/98	
Toluene	580000	10000		μg/Kg	5000	5/19/98	
Ethylbenzene	70000	5000		μ g /Kg	5000	5/19/98	
m,p-Xylene	660000	10000		μ g /Kg	5000	5/19/98	
o-Xylene	120000	5000		μg/Kg	5000	5/19/98	
	148000 148000	0 Ppm				0.000	

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

and Elemponia of Allenda

OFF: (505) 325-5667



LAB: (505) 325-1556

Date: 26-May-98

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9805041

Lab ID:

9805041-02A

Matrix: SOIL

Project:

Patterson "A" Com #1E

Client Sample Info: Patterson "A" Com #1E

*Client Sample ID: 9805131045; Walls @ 14ft.

Collection Date: 5/13/98 10:45:00 AM

COC Record: 7215

Parameter	Result	PQL	Qual Uni	ts	DF	Date Analyzed
DIESEL RANGE ORGANICS	sv	V8015				Analyst: DC
T/R Hydrocarbons: C10-C28	. ND	25	mg.	/Kg	1	5/21/98
BTEX	SV	V8020A				Analyst: HR
Benzene	ND	. 1	μg/	Kg	1	5/18/98
Toluene	ND	2	μg/	Kg	1	5/18/98
Ethylbenzene	ND	1	μg/	Kg	1	5/18/98
m,p-Xylene	2.3	2	μg/	Kg	1	5/18/98
o-Xylene	ND	1	μg/	Kg	1	5/18/98
·	2.3					
	.0023	00m				

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

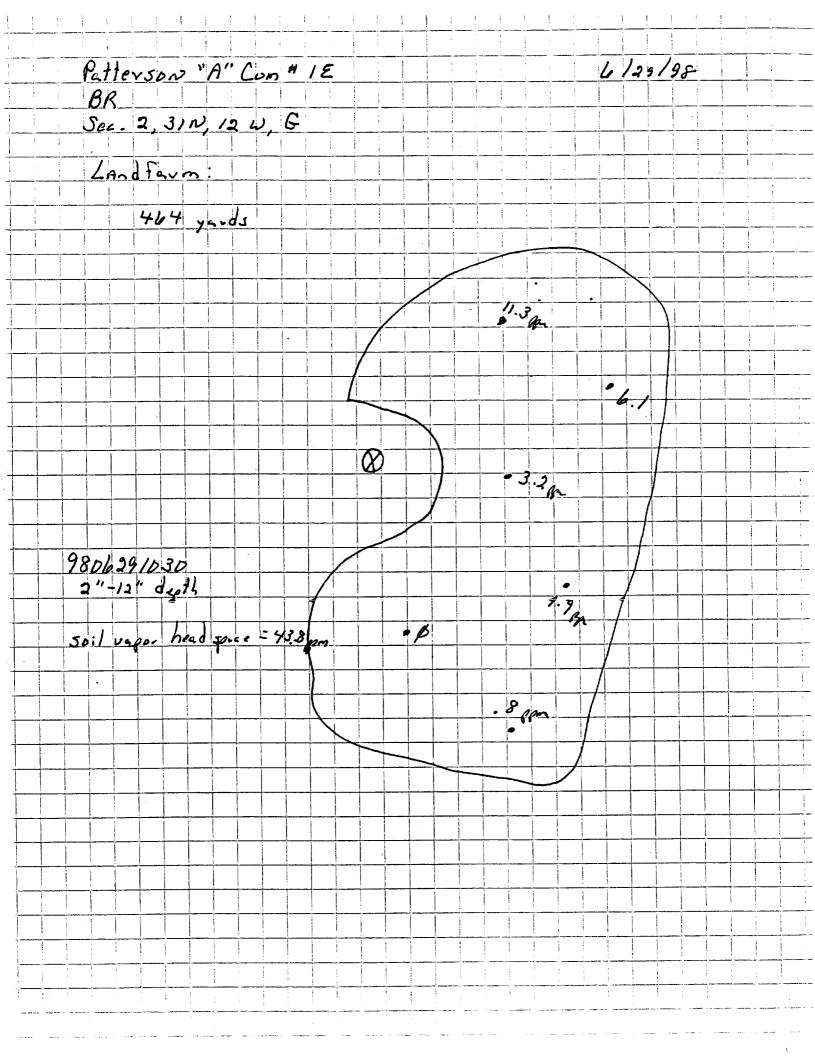
S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1



LAB: (505) 325-1556

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Landfarms

Lab Order:

9806114

CASE NARRATIVE

Date: 01-Jul-98

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

Work Order:

9806114

Lab ID: Project: 9806114-06A

Matrix: SOIL

Landfarms

Client Sample Info: Patterson "A" Com #1E

Client Sample ID: 9806291030; 6pt. Comp 2-12in.

Collection Date: 6/29/98 10:30:00 AM

COC Record: 7306

Parameter	Result	PQL (Qual Units	DF	Date Analyzed
DIESEL RANGE ORGANICS T/R Hydrocarbons: C10-C28	. SV	V8015 25	mg/Kg	1	Analyst: HR 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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15) 326-2262	FAX (50	5) 326-238	18			roject N			FRI	
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levation				•			•			
orehole Lo	cation	LTR:	S: Z	T:3/N R:/2W						••
WL Depth										••••••••••••••••••••••••••••••••••••••
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Depth	Sample	Sample	Sample Type &	Sample Description			Depth			Duilling Constitutions
(Feet)	Number	Interval	Recovery	Classification System: USCS		USCS Symbol	Lithology Change		Monitoring nits: PPM	Drilling Conditions & Blow Counts
			(inches)			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(feet)	8Z	вн ѕл-	1
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Comment	ts:									·····
										

Geologist Signature

8/18/98\Drillog

Cect If

(505) 326-2262			88		·	F	roject	Number Name Location	DNI	MI	Pha ELTA ON	se <u>6001</u> CH_ EXTENT A COM #12
Elevation Borehole Lo GWL Depti Drilled By Well Logge Date Starte Date Comp	h d By	K. PAD で、ユ	S:2 ILLA PBY : - 18 - 9	3 5 8 30 Am	, , , , , , , , , , , , , , , , , , ,	1	Drilling	Method nitoring M	4 1/4	ID HS.	ı	1. 10
htqeD (tee4)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Samp Classificatio	le Description on System: USCS		USCS Symbol	Depth Lithology Change (feet)	•	Monitor nits: PP BH	•	Drilling Conditions & Blow Counts
48	Lg.		0"	Sent SS NO Re Sandst	covery.	ck	55			511		BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace BZ = 0 60 B/au 5=0
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Comments	: _ - -				Geologist Sig	Inature		Cec		£		

Screnole # Well#

XLUOKU OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP. 4000 Monroe Road

Farmington, New Mexico 87401



Well Name:

Well Legals:

Pit Type:

Horizontal Distance to Surface Water:

Groundwater Depth:

Patterson A Com #1E Unit G, Sec 2, T31N, R12W Dehydrator Greater than 1,000 feet 50 to 99 feet

RISK ANALYSIS

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

- 1. Groundwater is estimated to be at a depth of 75 feet based upon the elevation of the site, the elevation of the nearest "listed" or "named" wash, and depth to groundwater at the Patterson A Com #1A. (Reference: Adobe Downs Ranch, NM series 7.5 minute topographic map.)
- 2. Distance from the site to surface water is greater than 1,000 ft.
- 3. PNM excavated 464 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Sandstone was encountered at 45' 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 A Com #1E well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.