District I P.O. Box 198C, Hobbs, NM

State of New Mexico
Energy, Minerals and Natural Resources Department

OK KISK

31-BIET TPH

SUBMITI COPY TO

APPROPRIATE
DISTRICT OFFICE

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

District III 1000 Rio Brazos Rd, Aztec, NM 87410

OIL CONSERVATION DIVISION

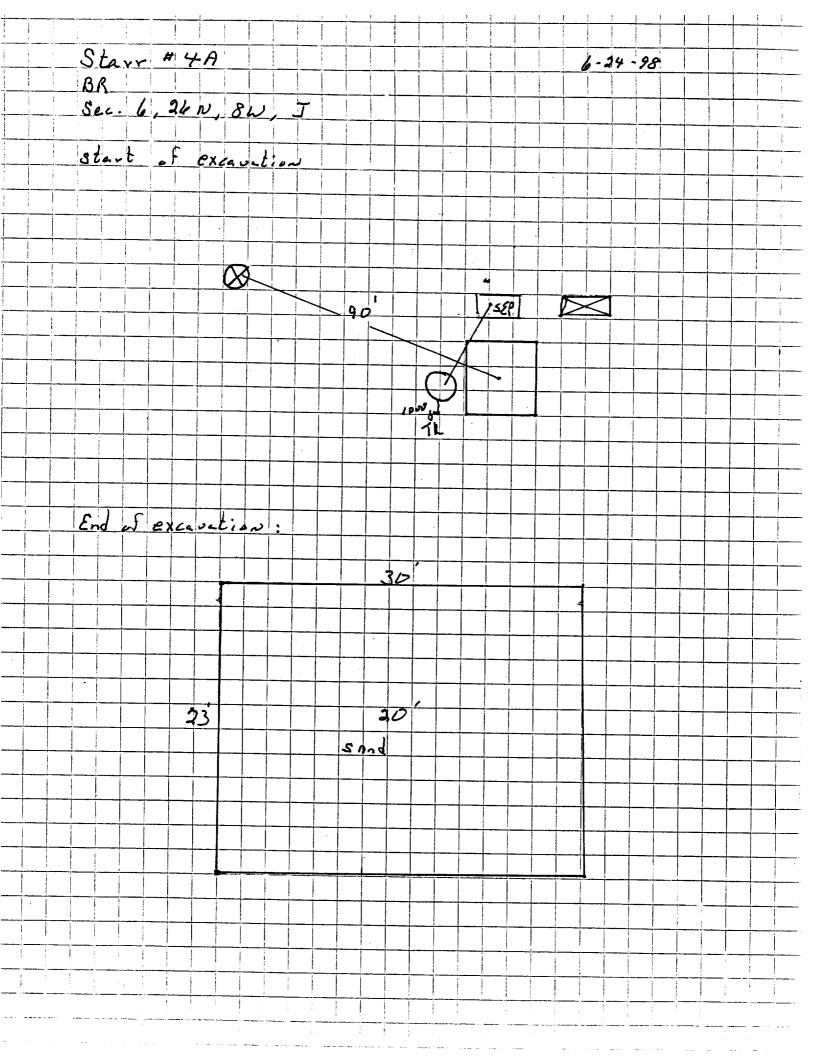
2040 South Pacheco Street Santa Fe, New Mexico 87505



PIT REMEDIATION AND CLOSURE REPORT

			<i>_</i>	IDII 3
Operator:	PNM Gas Services (Burlington) Telephone:	324-3764	the area continues any philosophic and the continues of t
Address:	603 W. Elm Street Farmington, NM 874	401		
Facility or W	ell Name: Starr #4A			
Location:	Unit J Sec	6 T 26N R	8 W County	San Juan
Pit Type:	Separator Dehydrat	or Other		·
Land Type:	BLM	Fee Other	Navajo land.	
Pit Location:	Pit dimensions: length	25 ' width	25 depth	3 '
(Attach diagran	m) Reference: wellhead	other		
	Footage from reference:	90'		
	Direction from reference: 80	Degrees 🔽 I	East North	
***************************************			of West South	<u> </u>
Depth to Grou (Vertical distance from co seasonal high water eleva- water	ontaminants to	Less than 50 feet 50 feet to 99 feet Greater than 100 feet		(20 points) (10 points) (0 points) 0
Wellhead Prot	tection Area:	Yes		(20 points)
(Less than 200 feet from a domestic water source, or feet from all other water s	r; less than 1,000	No		(0 points) 0
Distance to Su		Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet		(20 points) (10 points) (0 points) 0
ponds, rivers, streams, cre canals and ditches		RANKING SCORE	(TOTAL POINTS) :	0

Starr #4A				
Date Remediation Started:	6/24/	98	Date Completed:	6/24/98
Remediation Method:	Excavation	<u> </u>	Approx. Cubic Yard	511
(Check all appropriate sections)	Landfarmed	(Amount Landfarmed (cub	ic yds) <u>511</u>
sections)	Other	·		
Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)	Onsite X		Offsite	
Backfill Material Location:		· ,		
General Description of Ren	nedial Action:			
Excavated contaminated soil	to a pit size of 30' X	23' X 20' and landfa	armed soil onsite within a berme	ed area at a depth of 6" to
		diatory levels.		
Volucial extern dining condu	cted to 31'. Bottom he	ole results below OC	D guidelines as indicated on at	tached lab analysis.
Ground Water Encountered	l: No	✓ Yes	Depth Depth	1
Final Pit Closure Sampling:	Sample Location	Bottom of excav	ation.	
(if multiple samples, attach sample result and diagram of sample locations and depths.)	Sample depth	23'		
sample locations and depins.)	Sample date	6/24/98	Sample time	2:15:00 PM
	Sample Results			2.10.00 F (4)
	Benzene (p	opm)1.50	00	
	Total BTEX	(ppm) 8	9.4000	
	Field headspa	ace (ppm)		
	TPH (ppm)	1400.00	Method 8015A	
Vertical Extent (ft) 31'		Risk A	nalysis form attached Yes	□ No 🔽
Ground Water Sample:	Yes	No 🔽	(If yes, see attached Grown Summary Report)	undwater Site
I HEREBY CERTIFY THAT KNOWLEDGE AND MY BE	THE INFORMATIC	ON ABOVE IS TRU	E AND COMPLETE TO THE	BEST OF MY
DATE April 27, 1999 SIGNATURE Mau	rea Garage		PRINTED NAME Maureen AND TITLE Project M	



LAB: (505) 325-1556

Date: 06-Jul-98

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Starr #4A

Lab Order:

9806102

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.



LAB: (505) 335 15%

ANALYTICAL REPORT

Date: 06-Jul un

Client:

PNM - Public Service Company of NM

Work Order:

9806102

Lab ID:

9806102-01A

Matrix: SOIL

Project:

Starr #4A

Client Sample Info: Starr #4A

Client Sample ID: 9806241415; Bottom @ 2311,

Collection Date: 6/24/98 2:15:00 PM

COC Record: 7242

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed	
DIESEL RANGE ORGANICS	SW8015					Analyst: HR	
T/R Hydrocarbons: C10-C28	1400	25		mg/Kg	1	7/3/98	
BTEX	SW8020A			• •		Analyst: HR	
Benzene	1500°	1000		μ g /Kg	1000	7/1/98	
Toluene	3200	2000		μg/Kg	1000	7/1/98	
Ethylbenzene	3700	1000		μg/Kg	1000	7/1/98	
m,p-Xylene	64000	2000		μg/Kg	1000	7/1/98	
o-Xylene	_17000	1000		μg/Kg	1000	7/1/98	
	89400						
	89.4						

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

I of I



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 06-Jul-98

Client:

PNM - Public Service Company of NM

Work Order:

9806102

Lab ID:

9806102-02A

Matrix: SOIL

Project:

Starr #4A

Client Sample Info: Starr #4A

Client Sample ID: 9806241500; Walls @ 14ft.

Collection Date: 6/24/98 3:00:00 PM

COC Record: 7242

Parameter	Result	PQL Qu	al Units	DF	Date Analyzed		
DIESEL RANGE ORGANICS	SW8015				Analyst: HR		
T/R Hydrocarbons: C10-C28	. 36	25	mg/Kg	1	7/2/98		
BTEX	SV	SW8020A			Analyst: HR		
Benzene	ND	1	μ g /Kg	1	7/2/98		
Toluene	ND.	. 2	μ g /Kg	1	7/2/98		
Ethylbenzene	ND	1	μ g /Kg	1	7/2/98		
m,p-Xylene	ND	2	μ g /Kg	1	7/2/98		
o-Xylene	ND	1	μ g /Kg	1	7/2/98		

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

1 of 1

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

On Site Technologies, LTD.

PNM - Public Service Company of NM

CLIENT: Project:

PNM Pit Remediation

Lab Order:

9807058

CASE NARRATIVE

Date: 28-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.



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Jul-98

Client:

PNM - Public Service Company of NM

Work Order:

9807058

9807058-08A

Matrix: SOIL

Lab ID: Project:

PNM Pit Remediation

Client Sample Info: Starr #4A LF

Client Sample ID: 9807201230; 6pt. Comp.

Collection Date: 7/20/98 12:30:00 PM

COC Record: 7389

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
DIESEL RANGE ORGANICS	. SV	V8015			Analyst: HR
T/R Hydrocarbons: C10-C28	100	25	mg/Kg	1	7/24/98



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

rogate



LAB: (505) 325-1556

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Vertical Extent Drilling

Lab Order:

9902016

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.



LAB: (505) 325-1556

Date: 24-Feb-99

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9902016

Lab ID:

9902016-03A

Matrix: SOIL

Project:

Vertical Extent Drilling

Client Sample Info: Starr #4A 30-31ft

- Client Sample ID: 9902021345

Collection Date: 2/2/99 1:45:00 PM

COC Record: 7465

Parameter	Result	PQL	Qual Units	DF	Date Analyzed	
DIESEL RANGE ORGANICS	SW8015				Analyst: DC	
T/R Hydrocarbons: C10-C28	. ND	25	mg/Kg	1	2/23/99	
BTEX	SW8021B			Analyst: HR		
Benzene	ND	1	μ g /Kg	1	2/9/99	
Toluene	ND	2	μ g /Kg	1	2/9/99	
Ethylbenzene	ND	1	μg/Kg	1	2/9/99	
m,p-Xylene	ND	2	μg/Kg	1	2/9/99	
o-Xylene	ND	1	μ g /Kg	1	2/9/99	

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 1 of 1

RECORD OF SUBSURFACE FTPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Date Completed

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- Well # Page 1 of

Project Number 20731 Phase 6001.77

Project Name PNM Vertical Extent

Project Location STARR # 4!

Elevation

Borehole Location LTR: A S: C T: 26 R: 8

GWL Depth

Drilled By

Well Logged By

Date Started

K. PADILLA

H. BRADBURY

Date Started

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

				·						
Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)		Monitor nits: PP BH	-	Drilling Conditions & Blow Counts
5										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
10	7									
15										
20	4	_		EXCAVATION SAMPLE COLLECTED AT 23'	}	-	-			4
25 25	1	25-21	18	LT BR SAND CLAY, V. FINE SAND, HARDCEMENTATION, DRY			0	0	9 31	1335 hRS. 48BC
30	2	3031	12	LT BR SILTSTONE, HARD CEMENTATION, dry TOB 31'			0	0	.10 11,7	1345 hRs 5&
35										

Comments:

SAMPLE SENT to lab for TPH, BTEX BH bACKFILLED WITH CUTTINGS. GW NOT ENCOUNTERED

Geologist Signature

BTEX BH BACKFILED
HOLLY BLACKFILED