

District I
P.O. Box 1980, Hobbs, NM

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

District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

361 RISK
BTEX
SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

RECEIVED
APR 29 1999
OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Burlington) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Richardson #9

Location: Unit C Sec 15 T 31 N R 12 W County San Juan

Pit Type: Separator ☐ Dehydrator ☒ Other

Land Type: BLM ☒ State ☐ Fee ☐ Other

Pit Location: Pit dimensions: length 20 ' width 20 ' depth 3 '

(Attach diagram) Reference: wellhead ☒ other

Footage from reference: 180'

Direction from reference: 40 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)	<u>10</u>
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	

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)	<u>0</u>
	No	(0 points)	

Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	<u>0</u>
	200 feet to 1,000 feet	(10 points)	
	Greater than 1,000 feet	(0 points)	

RANKING SCORE (TOTAL POINTS) : 10

Richardson #9

Date Remediation Started: 5/20/98

Date Completed: 5/20/98

Remediation Method: Excavation X

Approx. Cubic Yard 274

(Check all appropriate sections)

Landfarmed X

Amount Landfarmed (cubic yds) 274

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 22' X 21' X 16' 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.

Vertical extent drilling conducted to 36'. Bottom hole results below OCD guidelines as indicated on attached lab analysis.

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 16'

Sample date 5/20/98

Sample time 2:30:00 PM

Sample Results

Benzene (ppm) < 0.5000

Total BTEX (ppm) 146.4000

Field headspace (ppm) _____

TPH (ppm) 780.00

Method

8015A

Vertical Extent (ft) 36'

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 April 27, 1999

SIGNATURE

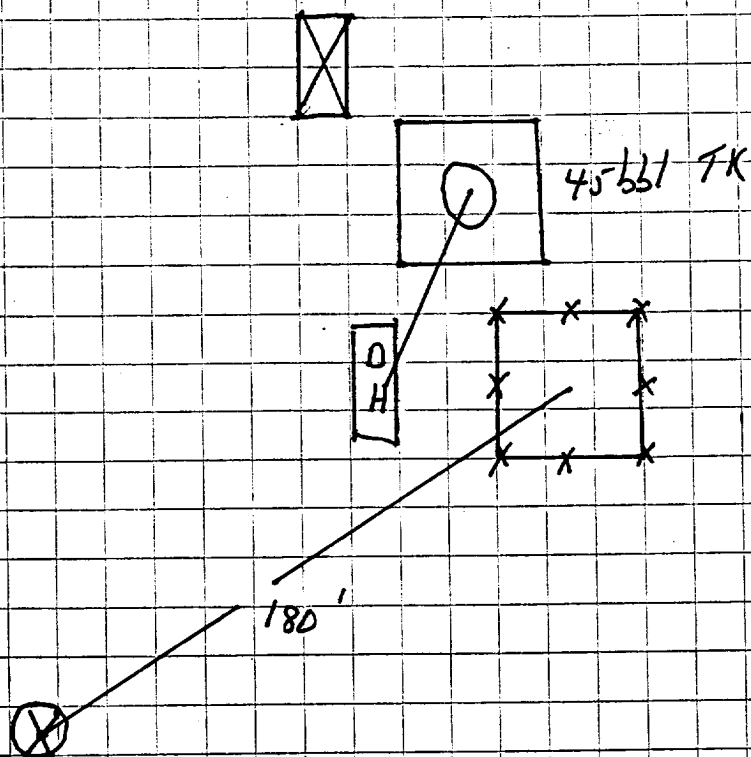
Maureen Gannon

PRINTED NAME **Maureen Gannon**
AND TITLE **Project Manager**

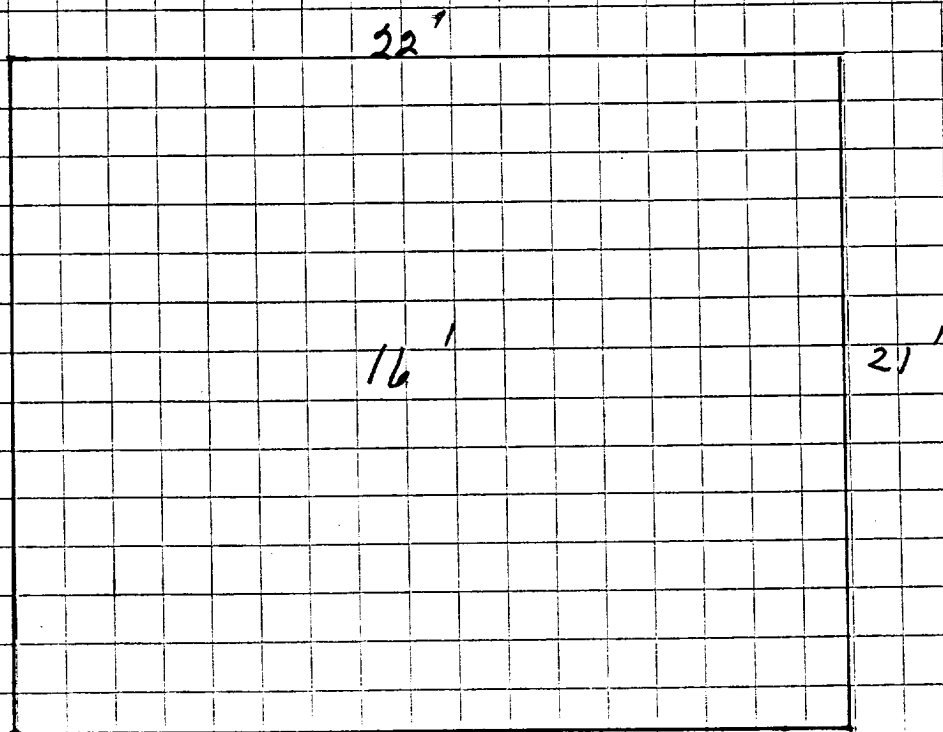
Richardson #9
Burlington
Sec. 15, 31N, 12W, C

5/20/98

Start:



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 01-Jun-98

CLIENT: PNM - Public Service Company of NM
Project: Richardson #9
Lab Order: 9805069

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-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info: Richardson #9
Work Order:	9805069	Client Sample ID: 9805201430; Bottom @ 18ft. 10ft. OK
Lab ID:	9805069-01A	Matrix: SOIL
Project:	Richardson #9	Collection Date: 5/20/98 2:30:00 PM
		COC Record: 7229

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	780	25		mg/Kg	1	Analyst: HR 5/29/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	500		µg/Kg	500	5/24/98
Toluene	16000	1000		µg/Kg	500	5/24/98
Ethylbenzene	7400	500		µg/Kg	500	5/24/98
m,p-Xylene	100000	1000		µg/Kg	500	5/24/98
o-Xylene	23000	500		µg/Kg	500	5/24/98

146,400
146.40 ppm

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 01-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #9
Work Order:	9805069	Client Sample ID:	9805201435; Walls @ 13ft.
Lab ID:	9805069-02A	Matrix:	SOIL
Project:	Richardson #9	Collection Date:	5/20/98 2:35:00 PM
		COC Record:	7229

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	160	25		mg/Kg	1	5/29/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/Kg	1	5/23/98
Toluene	ND	2		µg/Kg	1	5/23/98
Ethylbenzene	ND	1		µg/Kg	1	5/23/98
m,p-Xylene	ND	2		µg/Kg	1	5/23/98
o-Xylene	1.2	1		µg/Kg	1	5/23/98
	<u>1.2</u>					

Qualifiers:

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E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

Richardson #9

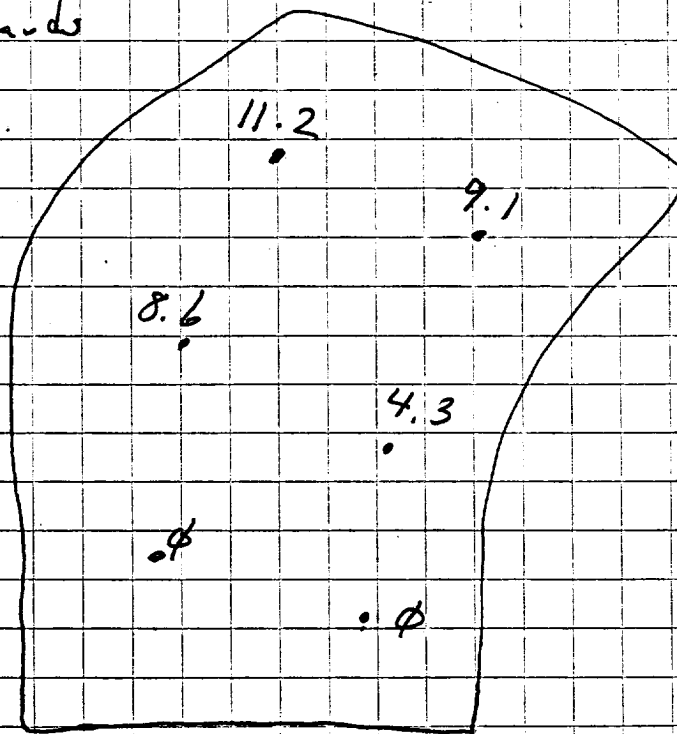
6/30/98

BR

Sec. 15, 31N, 12W, C

Land Farm

274 yards



9806301200

2"-12" depth

soil vapor headspace = 16.2 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 07-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #9 LF
Work Order:	9806116	Client Sample ID:	9806301200; 6pt. Comp. 2-12in.
Lab ID:	9806116-09A	Matrix:	SOIL
Project:	Landfarms	Collection Date:	6/30/98 12:00:00 PM
		COC Record:	7307

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	250	25		mg/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

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 25-Feb-99

CLIENT: PNM - Public Service Company of NM
Project: Vertical Extent Drilling
Lab Order: 9902038

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: 25-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #9
Work Order:	9902038	Client Sample ID:	9902080925; Vert. Extent @ 36ft.
Lab ID:	9902038-01A	Matrix:	SOIL
Project:	Vertical Extent Drilling	Collection Date:	2/8/99 9:25:00 AM
		COC Record:	7468

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	2/24/99
BTEX		SW8021B				Analyst: HR
Benzene	ND	1		µg/Kg	1	2/11/99
Toluene	ND	2		µg/Kg	1	2/11/99
Ethylbenzene	ND	1		µg/Kg	1	2/11/99
m,p-Xylene	ND	2		µg/Kg	1	2/11/99
o-Xylene	ND	1		µg/Kg	1	2/11/99

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

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

RECORD OF SUBSURFACE EXPL ATION

PHILIP SERVICES CORP.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 325-2262 FAX (505) 326-2388

Borehole # BH- 01
Well # _____
Page 1 of 1

Project Number 20731 Phase 6001
Project Name PNM VERTICAL EXTENT
Project Location Richardson #9

Elevation _____
Borehole Location LTR: C S: 15 T: 31N R: 12W
3WL Depth _____
Drilled By K. PADILLA
Well Logged By D. Fernandez
Date Started 2/8/99
Date Completed 2/8/99

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)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	PM	S/HS	
0				Instructed by Gary Cook - PNM to drill to 30' prior to sampling. Pit was previously excavated to a depth of 28'						BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5										
10										
15										
20										
25										
30										
35				Med Fine Sand, dark grey w/ some silt. Slight smell of H ₂ S. Med-Fine sand light brown ↳ split sample for PID/LAB			196	87		
40				Terminate boring at 37'			25	27		

Comments: Well - PNM. PID calibrated by Gary Cook
on 2/8/99.

Geologist Signature *[Signature]*

OFF: (505) 325-5667

ON SITE

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

Date: 07-Jul-98

On Site Technologies, LTD.

CLIENT: PNM - Public Service Company of NM
Project: Landfarms
Lab Order: 9806116

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.