

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

Risk
Vertical
Only

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

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: Grenier #14			
Location:	Unit <u>C</u>	Sec <u>7</u>	T <u>31 N</u> R <u>11 W</u> County <u>San Juan</u>
Pit Type:	Separator ☐	Dehydrator ☒	Other _____
Land Type:	BLM ☒	State ☐	Fee ☐ Other _____
Pit Location:	Pit dimensions: length <u>12</u> ' width <u>12</u> ' depth <u>2</u> '		
(Attach diagram)	Reference:	wellhead ☒	other _____
	Footage from reference: <u>132</u> '		
	Direction from reference:	<u>Due</u> Degrees ☐ East ☐ North ☐	of ☒ West ☐ South ☐
Depth to Ground Water:	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points) <u>0</u>		
(Vertical distance from contaminants to seasonal high water elevation of ground water)			
Wellhead Protection Area:	Yes (20 points) No (0 points) <u>0</u>		
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)			
Distance to Surface Water:	Less than 200 feet (20 points) 200 feet to 1,000 feet (10 points) Greater than 1,000 feet (0 points) <u>0</u>		
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)			
RANKING SCORE (TOTAL POINTS):			<u>0</u>

Grenier #14

Date Remediation Started: 05/18/1999

Date Completed: 05/18/1999

Remediation Method:

Excavation ☒

Approx. Cubic Yard 611

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 600

Other 11 cu yds overburden

Remediation Location:

Onsite

☒

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 33' X 25' 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.

*** Vertical extent drilling conducted to 50'. Bottom hole results below OCD guidelines as indicated on attached lab analysis.

Ground Water Encountered:

No

☒

Yes

☐

Depth

Final Pit Closure

Sampling:

Sample Location

5 pt. composite - bottom.

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

Sample depth

20'

Sample date

05/18/1999

Sample time

4:00:00 PM

Sample Results

Benzene (ppm)

3.1

Total BTEX (ppm)

166.5 ***

Field headspace (ppm)

TPH (ppm)

730.00

Method

8015B

Vertical Extent (ft) 50'

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 January 24, 2000

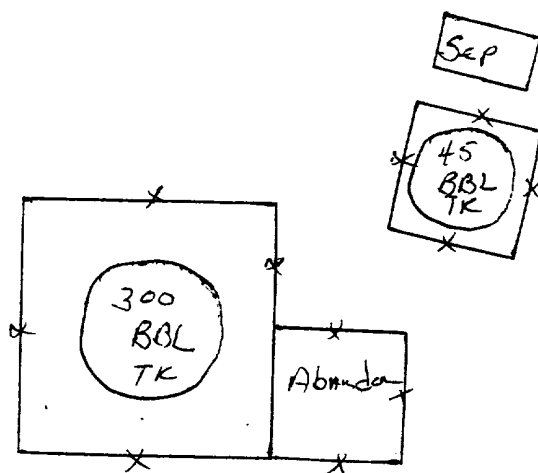
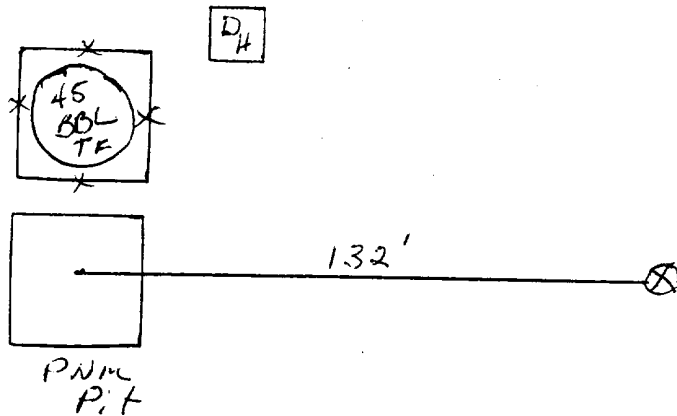
SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Section 7
Sec 7 T31N R11W Unit C
Burlington

Site Drawing



Orientation
Sec. 7 T31N R11W Unit C
Burlington

Excavation Drawing

33' x 25' x 20'

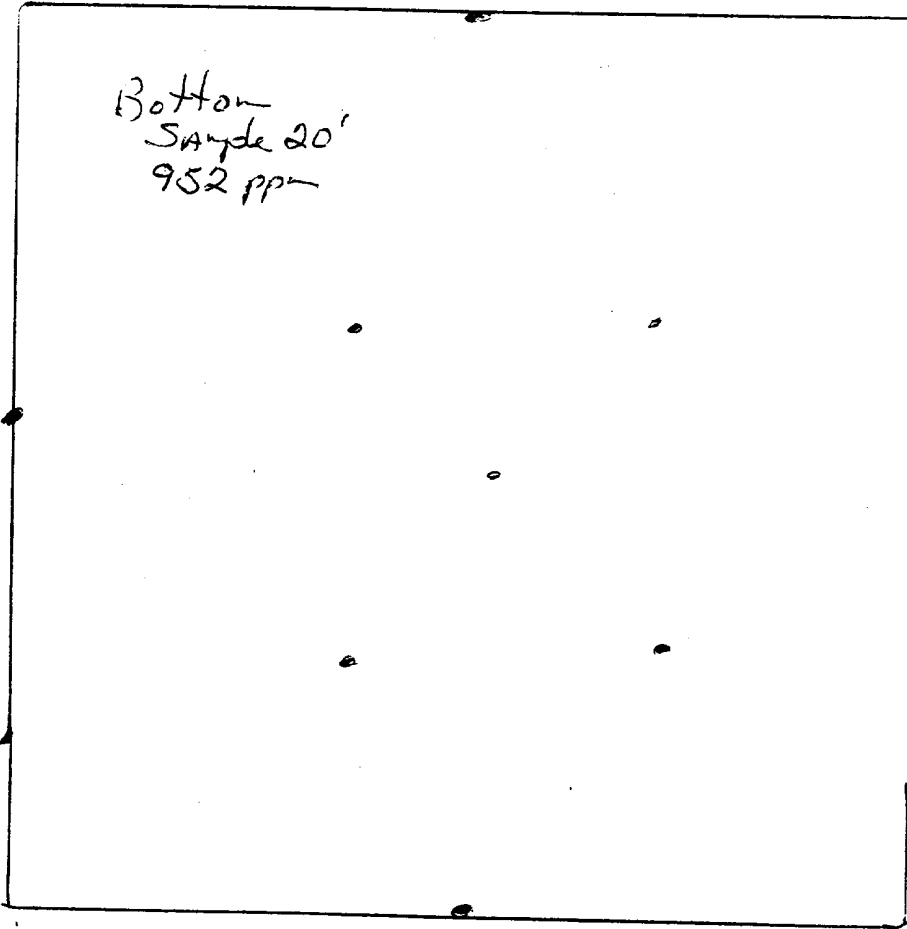
North Wall
Sample 18'
72.6 ppm

Bottom
Sample 20'
952 ppm

West Wall
Sample 18'
2.0 ppm

East Wall
Sample 18'
6.6 ppm

South Wall
Sample 18'
15.7 ppm



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 27-May-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9905065

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: 27-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 14
Work Order:	9905065	Client Sample ID:	9905181600; Bottom 5pt. Comp.
Lab ID:	9905065-09A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	5/18/99 4:00:00 PM
		COC Record:	7684

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	730	25		mg/Kg	1	5/25/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	3100	1000		µg/Kg	1000	5/21/99
Toluene	40000	2000		µg/Kg	1000	5/21/99
Ethylbenzene	8400	1000		µg/Kg	1000	5/21/99
m,p-Xylene	100000	2000		µg/Kg	1000	5/21/99
o-Xylene	15000	1000		µg/Kg	1000	5/21/99

166500
166.5 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

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-May-99

Client: PNM - Public Service Company of NM
Work Order: 9905065
Lab ID: 9905065-07A **Matrix:** SOIL
Project: PNM Pit Remediation

Client Sample Info: Grenier 14
Client Sample ID: 9905181553; North Wall Grab
Collection Date: 5/18/99 3:53:00 PM
COC Record: 7684

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/24/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	4.6	2		µg/Kg	2	5/21/99
Toluene	20	4		µg/Kg	2	5/21/99
Ethylbenzene	12	2		µg/Kg	2	5/21/99
m,p-Xylene	120	4		µg/Kg	2	5/21/99
o-Xylene	17	2		µg/Kg	2	5/21/99

173.6
1736 ppm

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

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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: 27-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 14
Work Order:	9905065	Client Sample ID:	9905181555; Walls 3pt. Comp.
Lab ID:	9905065-08A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	5/18/99 3:55:00 PM
		COC Record:	7684

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/24/99

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

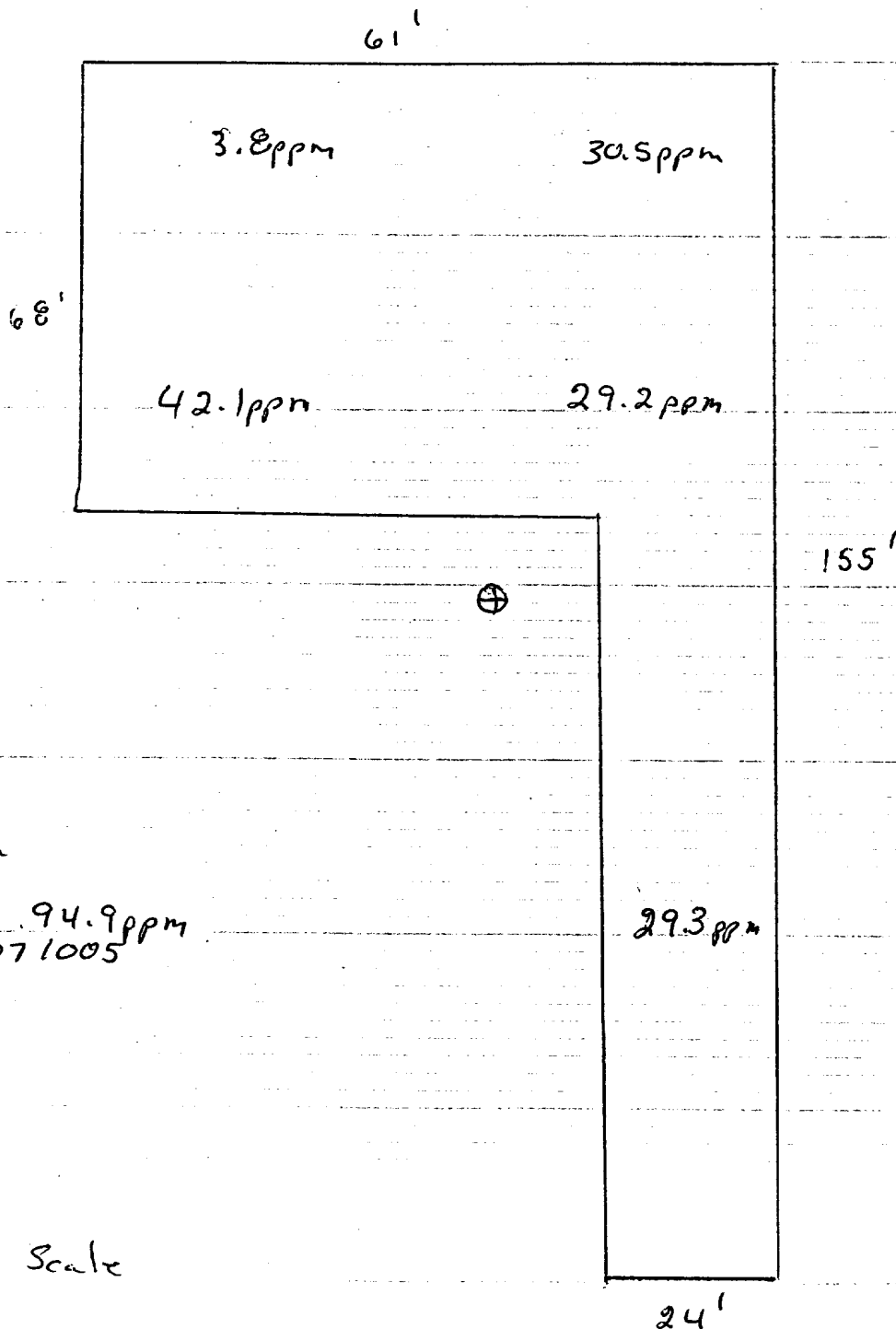
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

Grenier #14
Sec-7 T-31N R-11W uc C
Burlington

LANDFARM DRAWING App 611 cu. yds



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: Dusenbery, Grenier & Horton LF
Lab Order: 9907013

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



Kon

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier 14 LF
Work Order:	9907013	Client Sample ID:	9907071005; 5pt Comp
Lab ID:	9907013-05A	Matrix:	SOIL
Project:	Dusenbery, Grenier & Horton LF	Collection Date:	7/7/99 10:05:00 AM
		COC Record:	7032

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	60	25		mg/Kg	1	7/19/99

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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 13-Oct-99

CLIENT: PNM - Public Service Company of NM
Project: Vertical Extent Drilling
Lab Order: 9909084

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: 13-Oct-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier #14
Work Order:	9909084	Client Sample ID:	9909291015 @ 50ft.
Lab ID:	9909084-01A	Matrix:	SOIL
Project:	Vertical Extent Drilling	Collection Date:	09/29/1999 10:15:00 AM
		COC Record:	7765

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	10/06/1999
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	1.2	1		µg/Kg	1	10/04/1999
Toluene	12	2		µg/Kg	1	10/04/1999
Ethylbenzene	1.4	1		µg/Kg	1	10/04/1999
m,p-Xylene	16	2		µg/Kg	1	10/04/1999
o-Xylene	2.8	1		µg/Kg	1	10/04/1999

33.4
0.0334 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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

RECORD OF SUBSURFACE EXPLORAT

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 328-2282 FAX (505) 328-2388

Borehole # 1
Well #
Page 1 of 2

Project Name PNM VERTICAL EXTENT
Project Number 02800044 Phase 35
Project Location GREATER #14

Elevation
Borehole Location T31N R11W S7C
GWL Depth NOT ENCOUNTERED
Logged By C. CULLICOTT
Drilled By R. PADILLA & D. PADILLA
Date/Time Started 9/29/99 8:15am
Date/Time Completed 9/29/99 11am

Well Logged By C. CULLICOTT
Personnel On-Site R. PADILLA & D. PADILLA
Contractors On-Site
Client Personnel On-Site GARY COOK
Drilling Method AUGER
Air Monitoring Method PID

Depth (Feet)	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ BH S			Drilling Conditions & Blow Counts
0			0-20' CLEAN FILL						
20	20'-22'	① 20" RECOVERY	① FULL RECOVERY YELLOWISH TAN SILTY SAND / HIGH CLAY TOWARDS TOP OF SPIT SPON STRONG COOR.						① 4 BLOWS SS 443 ppm HS 488 ppm
25	25'-27'	② 20" RECOVERY	② 12" RECOVERY YELLOWISH TAN SILTY SAND (COARSE-FINE). COOR.						② 20 BLOWS SS 202 ppm HS 48.4 ppm
30	30'-32'	③ 18" RECOVERY	③ 18" RECOVERY LOOSE, POORLY SORTED SAND. 4" @ TOP CLEAN YELLOWISH TAN. REST IS GREY TO BLACK PERVIOUSLY STAINED W/ H2O COOR.						③ 16 BLOWS SS 150 ppm HS 19 ppm
35	35'-37'	④ 18" RECOVERY	④ 18" RECOVERY LOOSE POORLY SORTED TAN SAND. SLIGHT COOR						④ 23 BLOWS SS 164 ppm HS 5 ppm
40									

Comments: SUNNY, COOL

Geologist Signature

Cathy Cullicott

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 328-2282 FAX (505) 328-2388

Borehole # 1

Well # 2 of 2

Page 2 of 2

Project Name PNM VERTICAL EXTENT

Project Number 62800044 Phase 35

Project Location GREENIER #14

Well Logged By C. CULLICOTT

Personnel On-Site K. PADILLA & D. PADILLA

Contractors On-Site Ø

Client Personnel On-Site GARY COOK

Drilling Method AUTER

Air Monitoring Method PID

Elevation

Borehole Location T31N R11W S7C

GWL Depth NOT ENCOUNTERED

Logged By C. CULLICOTT

Drilled By K. PADILLA & D. PADILLA

Date/Time Started 9/29/99 8:15am

Date/Time Completed 9/29/99 11am

Depth (Feet)	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ SH S			Drilling Conditions & blow Counts
40	⑤ 40' 42"		⑤ 18" RECOVERY POORLY SORTED SILT/SAND, SLIGHTLY CONSOLIDATED, UPPER 6" TAN, UNSTAINED, LOWER 12" GREY TO BLACK PERVASIVELY STAINED WITH OIL						⑤ 40 BLOWS SS 230 ppm HS ppm
45	⑥ 45' 47"		⑥ 78" RECOVERY MOTTLED YELLOWISH TAN SILT, SLIGHTLY STIFF, W/ DARKER BROWN POCKETS/CLUMPS OF CLAY w/ 1/8" diameter						⑥ 50+ BLOWS SS 508 ppm HS 204 ppm
50	⑦ 50' 52"		⑦ SPLIT SPOON REFUSAL AT ~40 BLOWS 6" RECOVERY BLUEISH GREY SILT, STIFF, FRESH-LOOKING, W/ "SHALY" PARTINGS, IN BOTTOM OF SPLIT SPOON IT'S SILTSTONE, HARD.						⑦ 50+ BLOWS SS 140 ppm HS ppm
55	⑧ 55' 57"		TD 50' REFUSAL ON SILTSTONE						
20									
25									
30									
35									
40									

Comments:

HOLE BACK FILLED WITH CUTTINGS

Geologist Signature

Cathy Cullicott