

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 OK
Vent

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

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Culpepper Martin #5 RH

Location: Unit F Sec 31 T 32 N R 12 W County San Juan

Pit Type: Separator ☐ Dehydrator ☒ Other

Land Type: BLM ☐ State ☐ Fee ☒ Other

Pit Location: Pit dimensions: length 18 ' width 18 ' depth 3 '

(Attach diagram) Reference: wellhead ☒ other

Footage from reference: 115'

Direction from reference: 45 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)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

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) 0

RANKING SCORE (TOTAL POINTS): 0

Culpepper Martin #5 RH

Date Remediation Started: 05/13/1999

Date Completed: 05/17/1999

Remediation Method: Excavation ☒

Approx. Cubic Yard 1068

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 988

Other 80 cu yds clean 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 46.5' X 31' 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 25'. 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 05/17/1999

Sample time 8:25:00 AM

Sample Results

Benzene (ppm) < 1

Total BTEX (ppm) 152.7 ***

Field headspace (ppm)

TPH (ppm) 2100.00 Method 8015B

Vertical Extent (ft) 25'

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

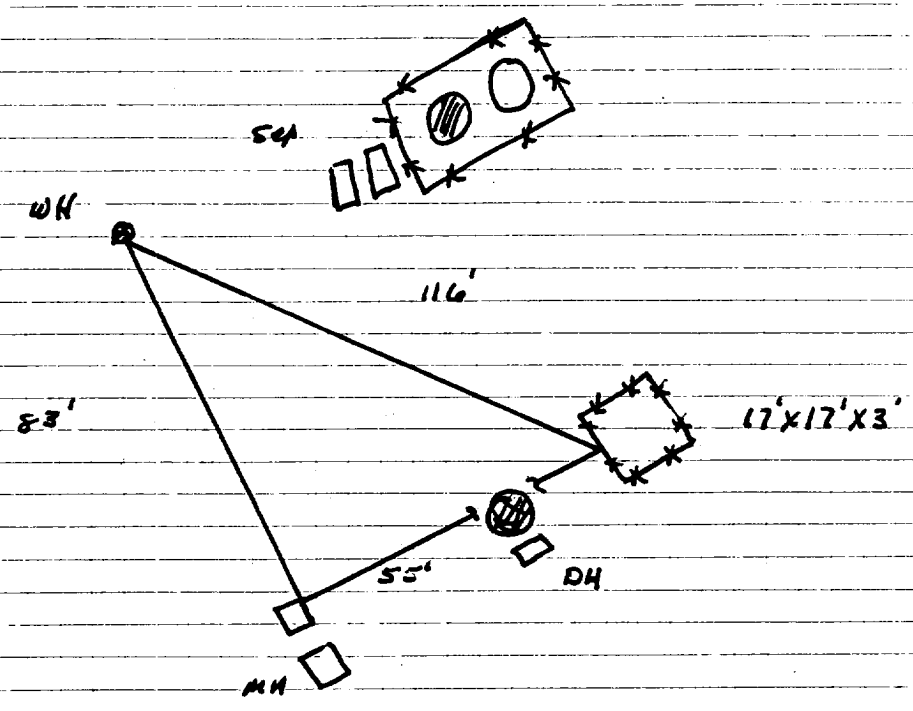
PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Culpepper Martin #5

(P) 31-32N-12

Evergen

5-13-94 @ 0830



Excavation Sampling

46.5' (N+S) X 21' (E+W) X 20' (D)

PID reading

5' - 1873 ppm

10' - 1720 ppm

15' - 1413 ppm

20' - 1296 ppm

west wall sample
at 18' - 312 ppm

north wall sample
at 18' - 0 ppm

east wall sample
at 18' - 136 ppm

5 point bottom composite sample
at 20' - 2167 ppm

south wall sample
at 18' - 0 ppm

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 26-May-99

CLIENT: PNM - Public Service Company of NM
Project: Culpepper Martin #5
Lab Order: 9905062

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.

Ray

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 26-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Culpepper Martin #5
Work Order:	9905062	Client Sample ID:	9905170825; 5pt. Bottom Comp
Lab ID:	9905062-01A	Matrix:	SOIL
Project:	Culpepper Martin #5	Collection Date:	5/17/99 8:25:00 AM
		COC Record:	7193

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	2100	25		mg/Kg	1	5/21/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	ND	1000		µg/Kg	1000	5/21/99
Toluene	32000	2000		µg/Kg	1000	5/21/99
Ethylbenzene	7700	1000		µg/Kg	1000	5/21/99
m,p-Xylene	93000	2000		µg/Kg	1000	5/21/99
o-Xylene	20000	1000		µg/Kg	1000	5/21/99

152700
152.7 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: 26-May-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Culpepper Martin #5
Work Order:	9905062	Client Sample ID:	9905170830; 4pt. Wall Comp
Lab ID:	9905062-02A	Matrix:	SOIL
Project:	Culpepper Martin #5	Collection Date:	5/17/99 8:30:00 AM
		COC Record:	7193

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	69	25		mg/Kg	1	5/21/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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1 of 1

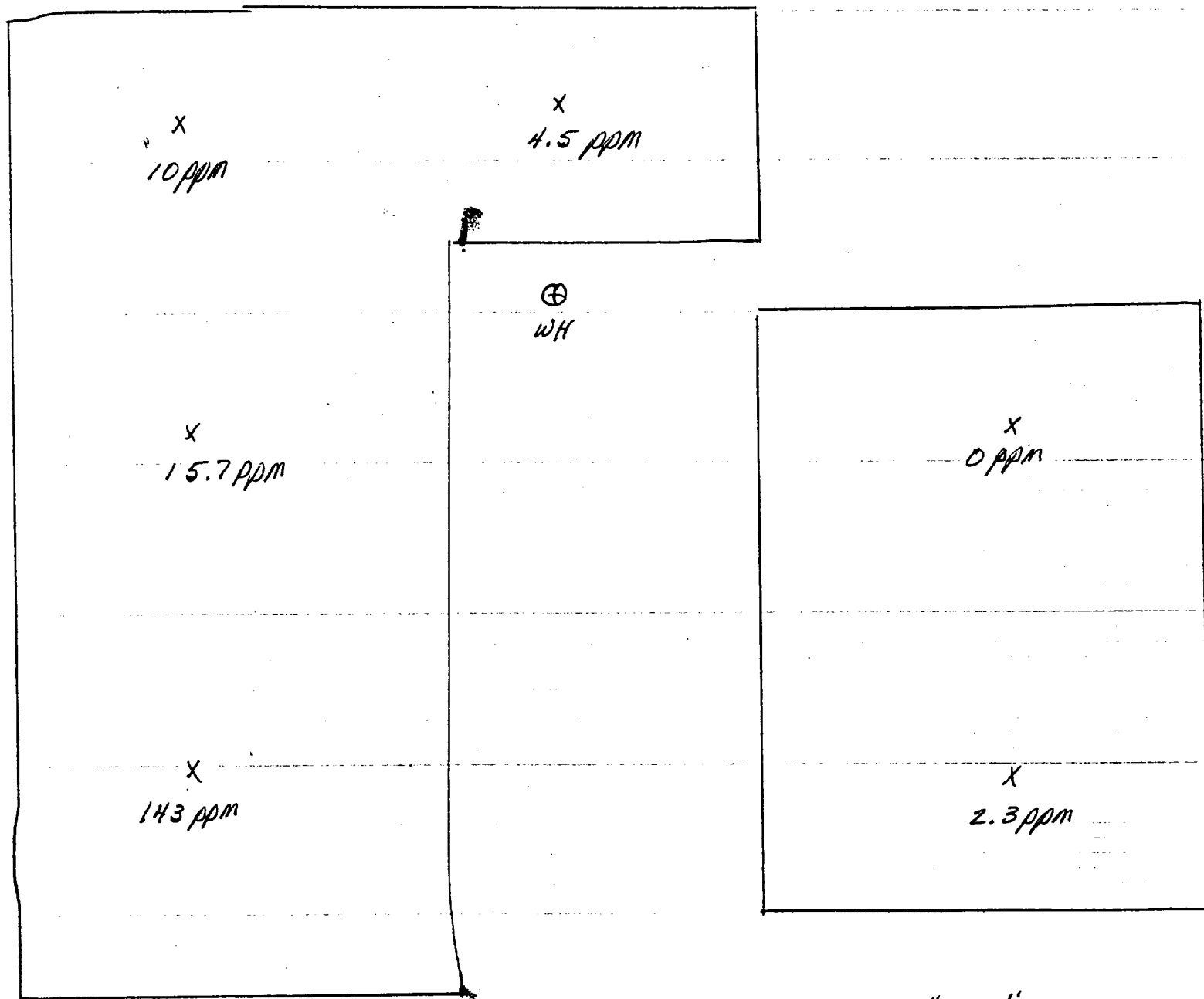
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Culpepper Martin #5 (Energen)
Sec-31 T-32N R-12W
Energen

N

Land Farm #1 Drawing



2" - 12"

Head Space - 58.1 ppm
Sample # - 9908120920

Not to Scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 17-Aug-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation Landfarms
Lab Order: 9908034

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: 17-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Culpepper Martin 5 LF #1
Work Order:	9908034	Client Sample ID:	9908120920; 6pt Comp
Lab ID:	9908034-02A	Matrix:	SOIL
Project:	PNM Pit Remediation Landfarms	Collection Date:	08/12/1999 9:20:00 AM
		COC Record:	7653

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	45	25		mg/Kg	1	08/13/1999

Qualifiers:

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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 -

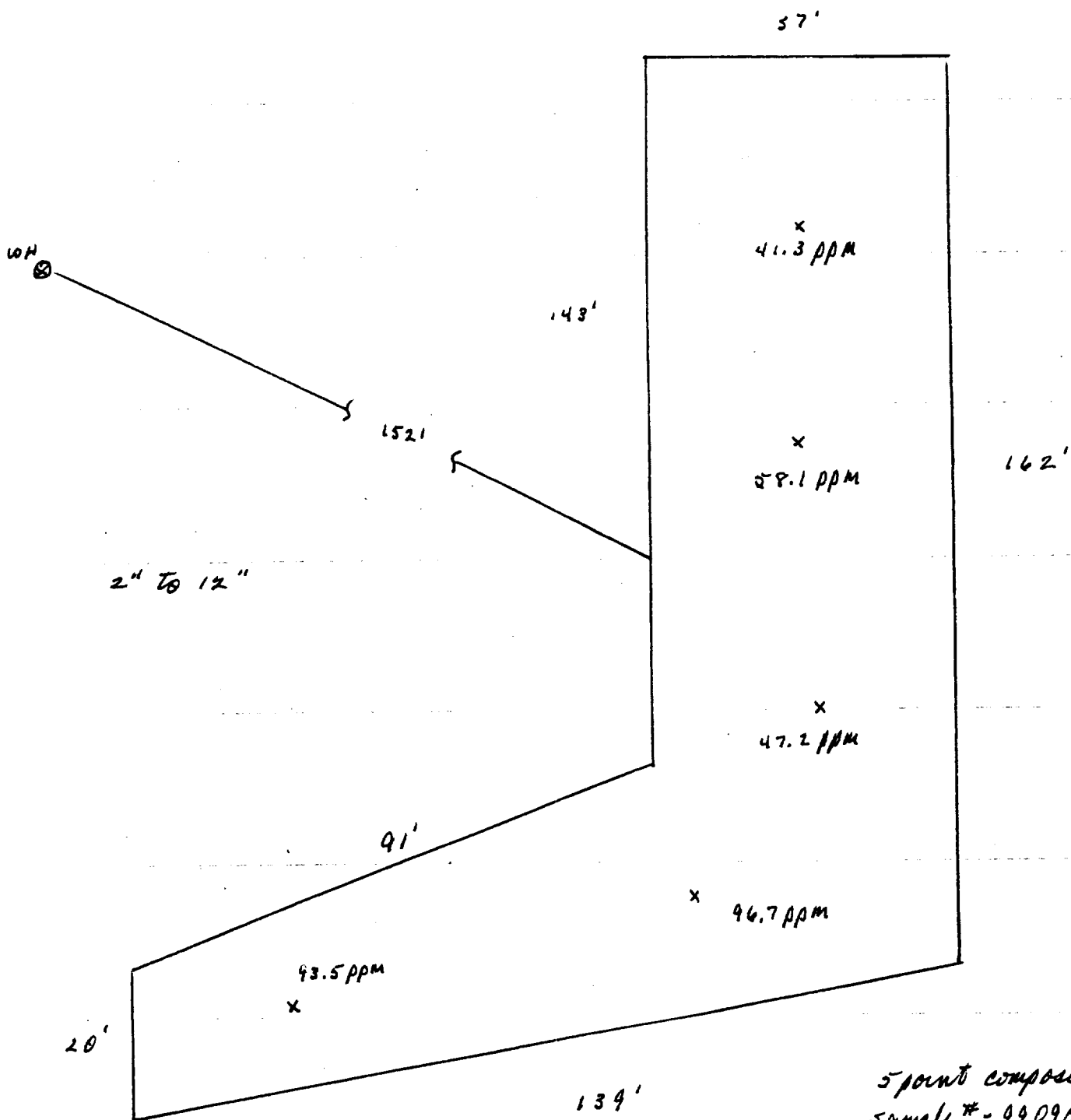
Culpepper Martin #5 LF #2

(F) 31-32N-12W

Envergen

9-7-44 @ 0838

N ↑



5 point composite #5: 238 ppm
sample # - 440907038

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 15-Sep-99

CLIENT: PNM - Public Service Company of NM
Project: Culpepper Martin #5 LF #2
Lab Order: 9909012

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: 15-Sep-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Culpepper Martin #5 LF #2
Work Order:	9909012	Client Sample ID:	9909070838; 5pt. Composite
Lab ID:	9909012-01A	Matrix:	SOIL
Project:	Culpepper Martin #5 LF #2	Collection Date:	09/07/1999 8:38:00 AM
		COC Record:	7808

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DM
T/R Hydrocarbons: C10-C28	250	25		mg/Kg	1	09/13/1999
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: HR
Benzene	ND	5		µg/Kg	5	09/07/1999
Toluene	49	10		µg/Kg	5	09/07/1999
Ethylbenzene	51	5		µg/Kg	5	09/07/1999
m,p-Xylene	1100	10		µg/Kg	5	09/07/1999
o-Xylene	340	5		µg/Kg	5	09/07/1999

1540
1.540 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 SERVING 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.



ANALYTICAL REPORT

Date: 13-Oct-99

Client: PNM - Public Service Company of NM
Work Order: 9909084
Lab ID: 9909084-02A **Matrix:** SOIL
Project: Vertical Extent Drilling

Client Sample Info: Culpepper Martin #5 Dehy
Client Sample ID: 9909291235 @ 25ft.
Collection Date: 09/29/1999 12:35:00 PM
COC Record: 7765

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	38	25		mg/Kg	1	10/06/1999
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	ND	2		µg/Kg	2	10/04/1999
Toluene	10	4		µg/Kg	2	10/04/1999
Ethylbenzene	3	2		µg/Kg	2	10/04/1999
m,p-Xylene	64	4		µg/Kg	2	10/04/1999
o-Xylene	21	2		µg/Kg	2	10/04/1999

98
 .098 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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- Thank you for allowing us to assist you with the Environment -

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2282 FAX (505) 326-2388

Borehole #

Well #

Page

of

Project Name

Project Number

Phase

Project Location

Well Logged By

Personnel On-Site

Contractors On-Site

Client Personnel On-Site

Drilling Method

Air Monitoring Method

Elevation

Borehole Location

GWL Depth

Logged By

Drilled By

Date/Time Started

Date/Time Completed

PNM VERTICAL EXTENT

0280004

35

CULPEPER MARTIN #5 DEHY

C. CULLICOTT

K. PADILLA D. PADILLA

0

GARY LOOK

AUGER

PI

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	① 20-22'		① 2" RECOVERY STIFF BROWN SANDY SILT - COAR						① 41 BLOWS SS 397 PPM HS 219 PPM
25	② 25-27'		② 1" RECOVERY STIFF BROWN SANDY SILT, SILTSTONE IN VERY BOTTOM OF SPLIT SPON.						② 31 BLOWS SS 368 PPM HS PPM
35			TD 25' REFUSAL ON SILTSTONE						
40									

Comments:

SUNNY, LIGHT BREEZE, COOL
HOLES BACKFILLED W/ CUTTINGS

Geologist Signature

Cathy Cullcott