

**RANKING SCORE (TOTAL POINTS):** \_\_\_\_\_

Culpepper Martin #15A

Date Remediation Started: 05/05/1999

Date Completed: 05/05/1999

Remediation Method: Excavation ☒

Approx. Cubic Yard 311

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 271

Other 40 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 20' X 21' 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 55'. Bottom hole results below OCD guidelines as indicated on attached lab analysis.

Ground Water Encountered:

No

☒

Yes

☐

Depth

Final Pit Closure Sampling:

Sample Location

3 pt. composite - bottom.

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

Sample depth

20'

Sample date

05/05/1999

Sample time

8:00:00 AM

Sample Results

Benzene (ppm)

0.68

Total BTEX (ppm)

106.08 \*\*\*

Field headspace (ppm)

43.6

TPH (ppm)

620.00

Method

8015B

Vertical Extent (ft)

55'

Risk Analysis form attached Yes

☐

No

☒

Ground Water Sample:

Yes

☐

No

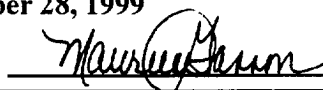
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(If yes, see attached Groundwater Site Summary Report)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE October 28, 1999

SIGNATURE



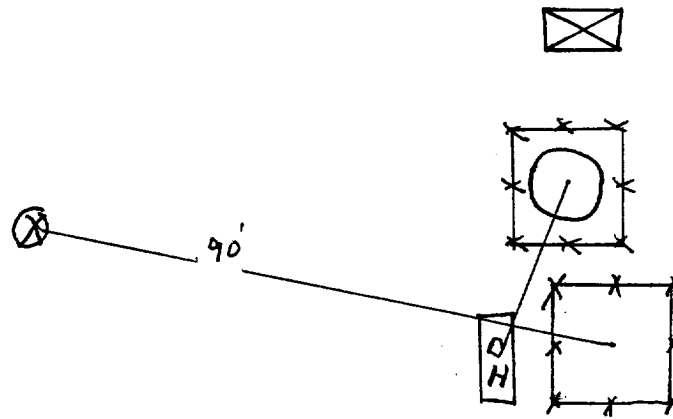
PRINTED NAME Maureen Gannon  
AND TITLE Project Manager

Culpepper Martin #15A  
Burlington  
Sec. 21, 32N, 12W, I

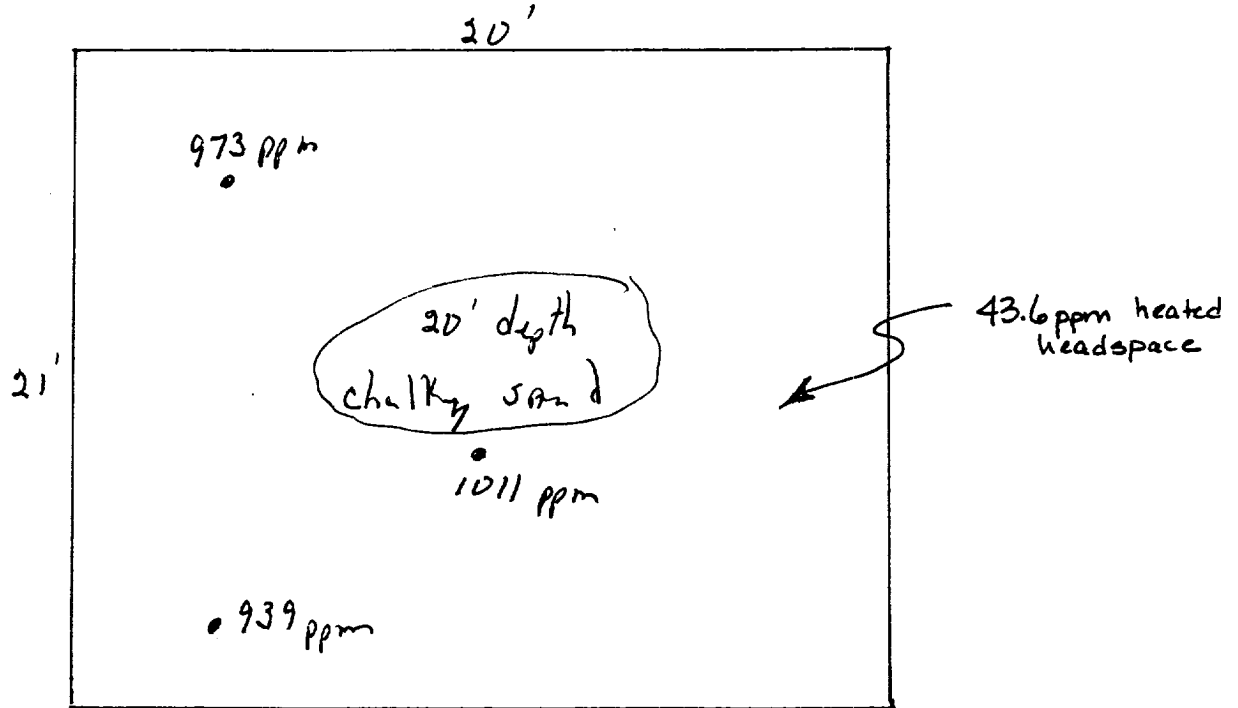
5/5/99

↑  
N

Site diagram:



End of excavation:



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 18-May-99

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Culpepper Martin #15A  
**Lab Order:** 9905029

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**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



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## ANALYTICAL REPORT

Date: 18-May-99

**Client:** PNM - Public Service Company of NM  
**Work Order:** 9905029  
**Lab ID:** 9905029-01A **Matrix:** SOIL  
**Project:** Culpepper Martin #15A

**Client Sample Info:** Culpepper Martin #15A  
**Client Sample ID:** 9905050800; Bottom @ 20ft.  
**Collection Date:** 5/5/99 8:00:00 AM  
**COC Record:** 7590

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	620	25		mg/Kg	1	5/17/99
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DM
Benzene	680	500		µg/Kg	500	5/13/99
Toluene	26000	1000		µg/Kg	500	5/13/99
Ethylbenzene	6400	500		µg/Kg	500	5/13/99
m,p-Xylene	58000	1000		µg/Kg	500	5/13/99
o-Xylene	15000	500		µg/Kg	500	5/13/99

106.080  
106.08 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

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNICAL SUPPORTING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 18-May-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Culpepper Martin #15A
<b>Work Order:</b>	9905029	<b>Client Sample ID:</b>	9905050805; Walls @ 15ft.
<b>Lab ID:</b>	9905029-02A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Culpepper Martin #15A	<b>Collection Date:</b>	5/5/99 8:05:00 AM
		<b>COC Record:</b>	7590

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/10/99

**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

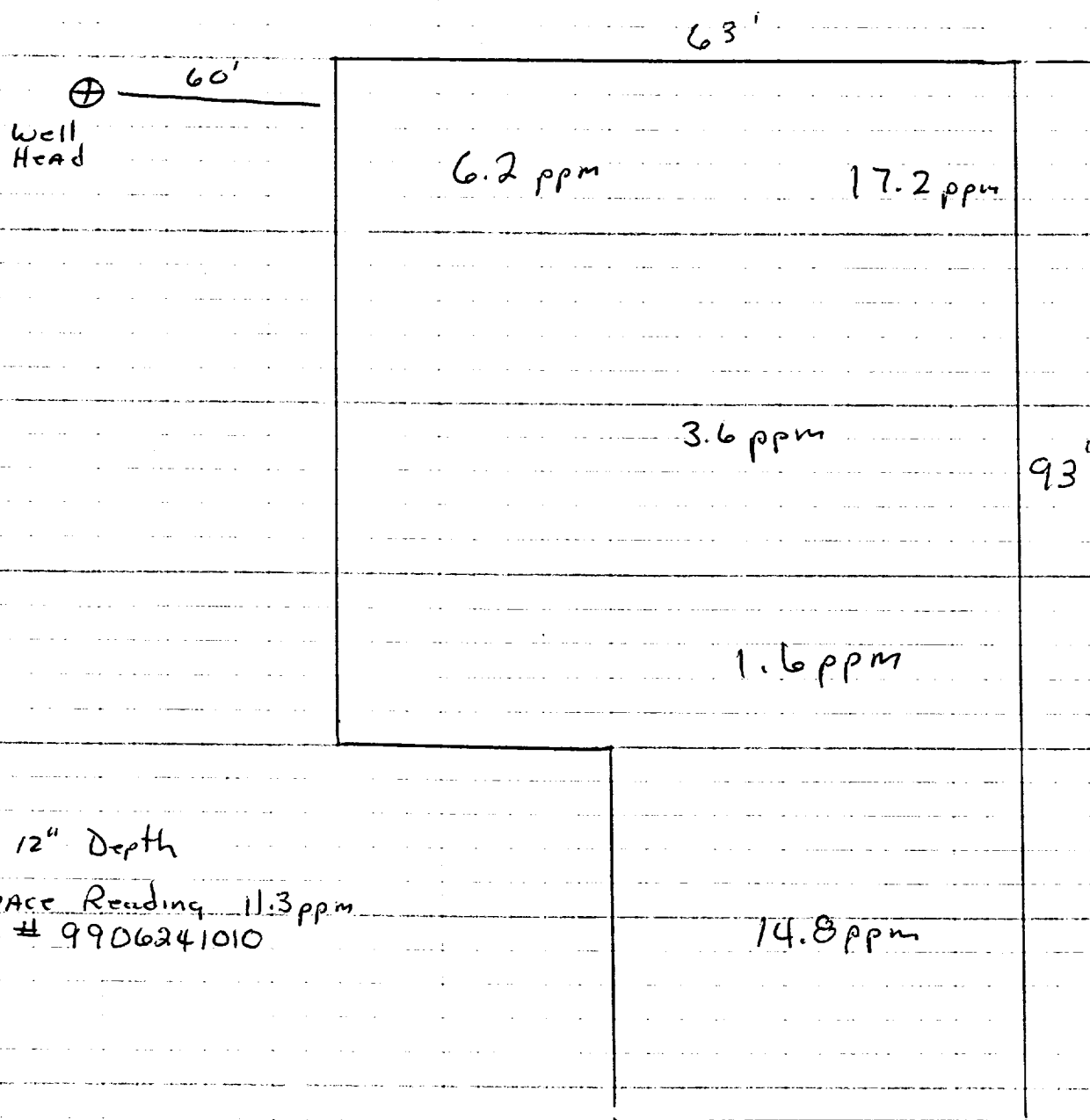
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Culpepper Martin 15H  
Sec-21 T-32N R-12W  
Burlington

# LAND FARM DRAWING

App 271 cu yds



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 07-Jul-99

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Culpepper Martin 5, 1A, 15A & 4A LF  
**Lab Order:** 9906073

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**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: 07-Jul-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Culpepper Martin 15A
<b>Work Order:</b>	9906073	<b>Client Sample ID:</b>	9906241010; 5pt Comp
<b>Lab ID:</b>	9906073-03A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Culpepper Martin 5, 1A, 15A & 4A LF	<b>Collection Date:</b>	6/24/99 10:10:00 AM
		<b>COC Record:</b>	7723

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				<b>Analyst: DC</b>
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/6/99

**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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1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 29-Sep-99

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Vertical Extent Drilling

**Lab Order:** 9909034

**CASE NARRATIVE**

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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: 29-Sep-99

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Culpepper Martin #15A @ 55ft.
<b>Work Order:</b>	9909034	<b>Client Sample ID:</b>	9909091340; Vertical Extent
<b>Lab ID:</b>	9909034-03A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Vertical Extent Drilling	<b>Collection Date:</b>	09/09/1999 1:40:00 PM
		<b>COC Record:</b>	7759

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015B</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	09/24/1999
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: DM
Benzene	ND	1		µg/Kg	1	09/15/1999
Toluene	ND	2		µg/Kg	1	09/15/1999
Ethylbenzene	ND	1		µg/Kg	1	09/15/1999
m,p-Xylene	ND	2		µg/Kg	1	09/15/1999
o-Xylene	ND	1		µg/Kg	1	09/15/1999

**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 EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

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

Borehole #

Well #

Page

1 of 2

Project Name

Project Number

Project Location

PNM VERTICAL EXTENT

62800044

Phase

6001

CULPEPPER MARTIN #15A

Well Logged By

Personnel On-Site

Contractors On-Site

Client Personnel On-Site

C. COLLICOTT

R. PADILLA & D. PADILLA

GARY COOK & RAY

Drilling Method

Air Monitoring Method

AUGER

PIN

Elevation

Borehole Location

GWL Depth

Logged By

Drilled By

Date/Time Started

Date/Time Completed

NOT ENCOUNTERED

C. COLLICOTT

R. PADILLA & D. PADILLA

9/9/99 11:30 am

9/9/99

Depth (Feet)	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
						BZ	BH	S	
0			C-20' CLEAN FILL						
5									
10									
15									
20	① 20'-21½'		① GOOD RECOVERY. UPPER 4" DAMP BROWN SILTY CLAY w/ SOME SAND BELOW SILTY FINE SAND BOTH w/ ODOR, NO STAIN						① 9 BLOWS SS 627 ppm HS 557 ppm
25	② 25'-27'		② DAMP BROWN CLAYEY SILT w/ SOME SAND. ODOR, NO STAIN						② 5 BLOWS SS 427 ppm HS 515 ppm
30	③ 30'-31½'		③ ~6" RECOVERY LOOSE, DRY, BROWN SANDY SILT. ODOR, NO STAIN						③ 22 BLOWS SS 535 ppm HS 474 ppm
35	④ 35'-		④ ~8" RECOVERY DRY BROWN SANDY SILT, MORE CONSOLIDATED THAN #3. ODOR, NO STAIN						④ 22 BLOWS SS 529 ppm HS 457 ppm
40									

Comments:

Partly cloudy, BREEZY. THEN SUNNY  
SITE IS LOCATED ADJACENT TO A WASH

Geologist Signature

Cathy Collcott

# RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

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

Borehole # 1

Well # 2 of 2

Page 2 of 2

Project Name PNM VERTICAL EXTENT

Project Number 02800044 Phase COOL

Project Location CULPEPPER MARTIN #15A

Elevation

Borehole Location T32N R12W S21 1740' ASL

GWL Depth NOT ENCOUNTERED - 940' REL

Logged By C. CULLICOTT

Drilled By R. PADILLA & D. PADILLA

Date/Time Started 9/9/99 11:30am

Date/Time Completed 9/9/99 2:05

Well Logged By C. CULLICOTT

Personnel On-Site R. PADILLA & D. PADILLA

Contractors On-Site

Client Personnel On-Site GARY COOK - RGY

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			Drilling Conditions & Blow Counts
						BZ	BH	S	
40	⑤ 40-41 1/2		⑤ ~4" RECOVERY. DARK BROWN SANDY SILT, ODOR, NO STAIN. EXTREME BOTTOM OF SPLIT SPOON - CONSOLIDATED SILTY SAND.			8.1			⑤ 31 BLOWS SS 472 ppm HS 446 ppm
45	⑥ 45-46 1/2		⑥ ~8" RECOVERY DARK BROWN SANDY SILT, STIFF, DAMP <del>SANDY SILT</del>				~200		⑥ 31 BLOWS SS 543 ppm HS 410 ppm
50	⑦ 50-51 1/2		⑦ ~17" RECOVERY PART UPPER 4" STIFF BROWN CLAYEY SAND SLIGHTLY DAMP, STRONG ODOR BELOW, LOOSER POORLY SORTED SAND WITH FEW FINES + STRONG ODOR						⑦ 31 BLOWS SS 461 ppm HS 311 ppm
55	⑧ 55-56 1/2		⑧ 8" RECOVERY <del>REFUSAL</del> SPLIT SPOON REFUSAL AT 55 1/2' IN BROWN SILTSTONE WITH SCATTERED SAND SLIGHT ODOR. TD 55' AT REFUSAL ON SILTSTONE						⑧ 50+ BLOWS SS 66.6 ppm HS

Comments:

HOLE BACK FILLED WITH CUTTINGS & CLEAN FILL

Geologist Signature

Cathy Cullcott