

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

ENVIRONMENTAL PROTECTION OFFICE

SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

JUN 23 1998

P.O. BOX 507
DULCE, NEW MEXICO 87528

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Tigerilla Contract 147-1

Location: Unit: 17 Sec. 8 T. 25 N R. 5 W County Rio Arriba

Pit Type: Separator Dehydrator ☒ Other

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 55' width 39' depth 16'

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: 165'

Direction from reference: 10 Degrees East North
 West ← of 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)

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)

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)

Distance to Ephemeral Stream (dry wash):

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet (10 points)
Greater than 100 feet (0 points)

Distance to Nearest Lake, Playa, or Watering Pond:

(Horizontal distance to all downgradient lakes, playas, and livestock or wildlife water ponds)

Less than or equal to 100 feet	(10 points)
Greater than 100 feet	(0 points)

RANKING SCORE (TOTAL POINTS) :

Date Remediation Started: 9/30/97 Date Completed: 10/30/97

Remediation Method: Excavation X Approx. Cubic Yards 1271

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 1271

Other _____

Remediation Location: Onsite X Offsite _____

(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action:

Removed contaminated soil from all four side walls
as to get a below 100 ppm head space reading.
Bottom is rock

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling:

Sample Location North, East, South, and West

side walls.

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

Sample depth 1.5'

Sample date 9/30/97 Sample time 1601

Sample Results

Soil: Benzene (ppm) ND Water: Benzene (ppb) _____

Total BTEX (ppm) 0.063 Toluene (ppb) _____

Field headspace (ppm) 69.4 Ethylbenzene (ppb) _____

TPH ND ppm Method 8015 Total Xylenes (ppb) _____

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

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

DATE 10/10/97 PRINTED NAME Ronald A. Dedrick

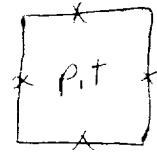
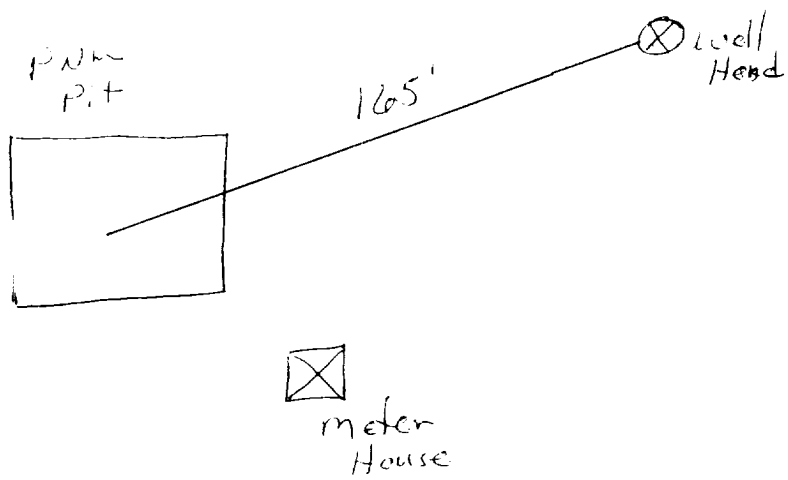
SIGNATURE Ronald A Dedrick AND TITLE Environmental Technician II

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

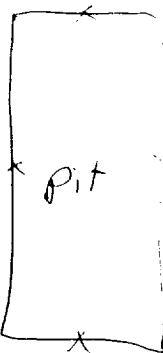
APPROVED: YES X NO _____ (REASON): spray & close

SIGNED: Kate C Mamm DATE: 10-14-97

Jicarilla Contract 147-1
Sec. 8 T25N R5W Unit A
Amoco



SEP



Jicarilla Contract 147-1
Sec. 8 T25N R5W Unit A
Amoco

← N

55' x 39' x 16'

East Wall
Sample 15'
5.4 ppm

North Wall
Sample 15'
63.4 ppm

South Wall
Sample 15'
69.4 ppm

West Wall
Sample 15'
8.9 ppm

Bottom 16'
Rock

5' Sample - 776 ppm
10' Sample - 710 ppm
15' Sample - 543 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *8-Oct-97*
COC No.: *5612*
Sample No.: *16495*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla Contract 147-1*
Project Location: *9709301601; 4pt. Composite*
Sampled by: *PA* Date: *30-Sep-97* Time: *16:01*
Analyzed by: *DC/HR* Date: *3-Oct-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD


Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	212	6.0	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	85	99	(70-130)	14	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: 

Date: *10/6/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *6-Oct-97*
COC No.: *5612*
Sample No.: *16495*
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla Contract 147-1***

Project Location: ***9709301601; 4pt. Composite***

Sampled by: *PA* Date: *30-Sep-97* Time: *16:01*

Analyzed by: *DC* Date: *3-Oct-97*

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	2	ug/kg
<i>Toluene</i>	6	ug/kg	2	ug/kg
<i>Ethylbenzene</i>	4	ug/kg	2	ug/kg
<i>m,p-Xylene</i>	38	ug/kg	2	ug/kg
<i>o-Xylene</i>	15	ug/kg	2	ug/kg
	<i>TOTAL</i>	63	ug/kg	

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/6/97*

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JICARILLA APACHE TRIBE
ENVIRONMENTAL
PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services (Amoco) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicarilla Contract 147-1
Location: Unit: A Sec. 8 T. 25 N R. 5 W County Rio Arriba
Land Type: Jicarilla Apache

Date Remediation Started: 9/30/97 Date Completed: 10/24/97
Remediation Method: Landfilled X Approx. cubic yards 1271
Composted
Other

Depth to Ground Water: (pts.) 2
Distance to an Ephemeral Stream: (pts.) 2
Distance to Nearest Lake, Playa,
or Watering Pond: (pts.) 2
Wellhead Protection Area: (pts.) 2
Distance to Surface Water: (pts.) 2
Ranking Score (Total Points): 8

Final Closure Sampling:

Sampling Date: 10/23/97 Time 1012
Sampling Results:
Field Headspace (ppm) 38.8
TPH (ppm) 41 Method 8015
Other

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

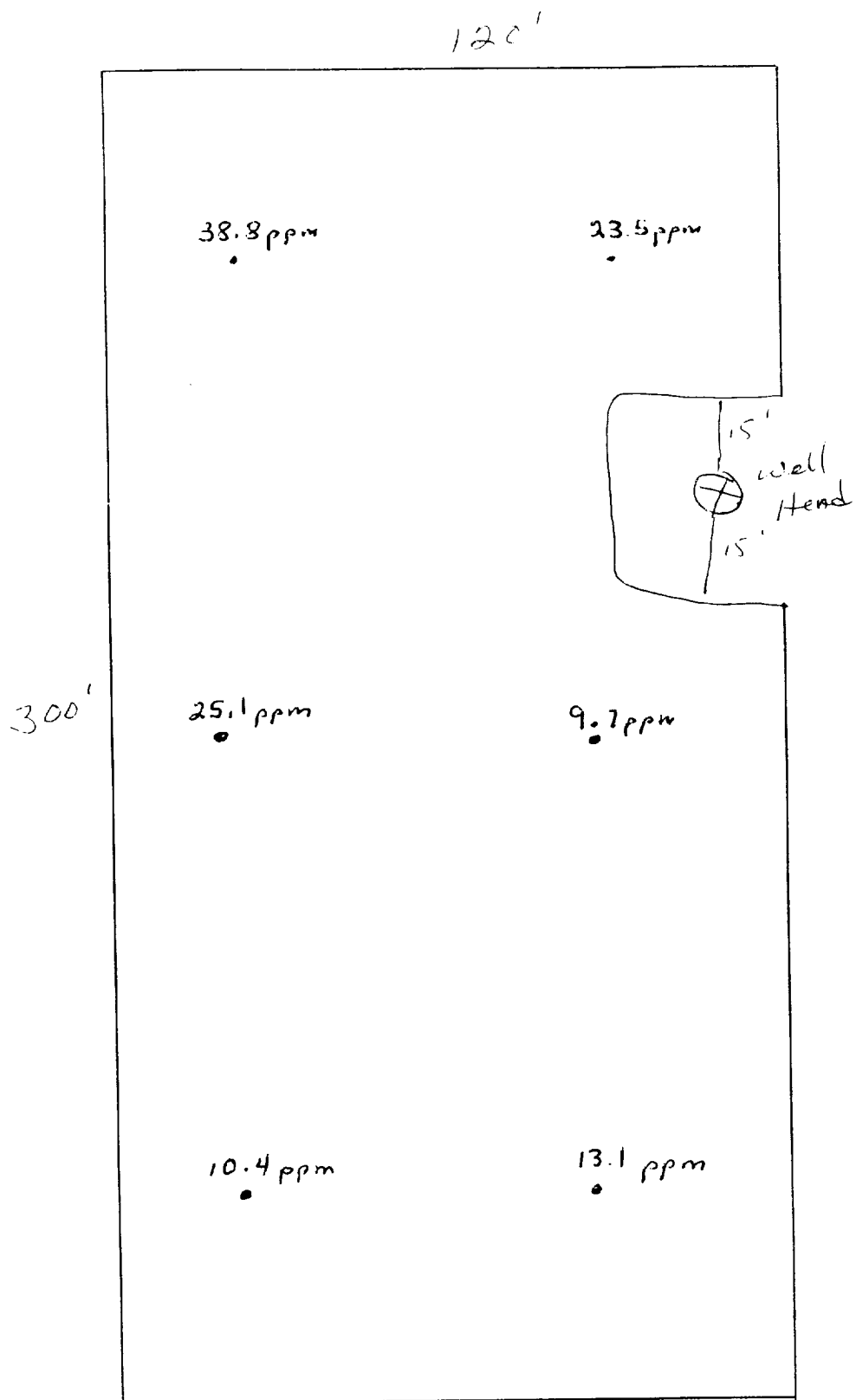
DATE 10/27/97 PRINTED NAME Roy Burnham
SIGNATURE Roy Burnham AND TITLE Environmental Technician II

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE
JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE

APPROVED: YES X NO (REASON) use as Backfill
SIGNED: [Signature] DATE: 10-28-97

Jicarilla Contract 147-1
Sec E.T. 25N R. 5W Unit A
Amoco

Land farm



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *26-Oct-97*
COC No.: *5624*
Sample No.: *16665*
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla Contract 147-1 Landfarm***

Project Location: ***9710231012; 6pt. Composite***

Sampled by: *RB* Date: *23-Oct-97* Time: *10:12*

Analyzed by: *DC* Date: *24-Oct-97*

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>41</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>216</i>	<i>7.7</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>79</i>	<i>101</i>	<i>(70-130)</i>	<i>16</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:

Date:

[Signature]
10/26/97

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