

Risk

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

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

Approved
PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (<u>Conoco</u>)		Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>			
Facility or Well Name: <u>Axi Apache C-11</u>			
Location:	Unit: <u>L</u>	Sec. <u>3</u>	T. <u>25N</u> R. <u>4W</u> County <u>Rio Arriba</u>
Pit Type:	Separator <input checked="" type="checkbox"/>	Dehydrator <input type="checkbox"/>	Other <input type="checkbox"/>
Land Type:	<u>Jicarilla Apache</u>		

Pit Location:	Pit dimensions:	length <u>20'</u>	width <u>20'</u>	depth <u>2'</u>
(Attach diagram)	Reference:	wellhead <input checked="" type="checkbox"/>	other <input type="checkbox"/>	
	Footage from reference:	<u>95'</u>		
	Direction from reference:	<u>Straight</u> Degrees	East <input type="checkbox"/>	North <input type="checkbox"/>
		West <input type="checkbox"/>	of South <input checked="" type="checkbox"/>	

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)	<input checked="" type="checkbox"/>
	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)	<input checked="" type="checkbox"/>
	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)	<input checked="" type="checkbox"/>
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)	<input checked="" type="checkbox"/>
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)	<input checked="" type="checkbox"/>
RANKING SCORE (TOTAL POINTS):		<u>80</u>

Date Remediation Started: 11/3/98 Date Completed: 12/21/98

Remediation Method: Excavation X Approx. Cubic Yards 756 133 RAD

(Check all appropriate sections) Landfarmed X Amount Landfarmed (cubic yds): 756 133 RAD

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 100ppm headspace reading. Pit bottom is sandstone. 3 ft Composite of bottom. Final excavation: 21' X 19' X 9'.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling:

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

Sample Location North, East, South, West side walls and Pit bottom

Sample depth 9'

Sample date 11/3/98

Sample time 1513 / 1514

Sample Results

Soil: Benzene (ppm) ND

Water: Benzene (ppb) _____

Total BTEX (ppm) 121.0

Toluene (ppb) _____

Field headspace (ppm) 1068

Ethylbenzene (ppb) _____

TPH 150 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 11/21/98

PRINTED NAME Roy Burnham

SIGNATURE Roy Burnham

AND TITLE Environmental Technician II

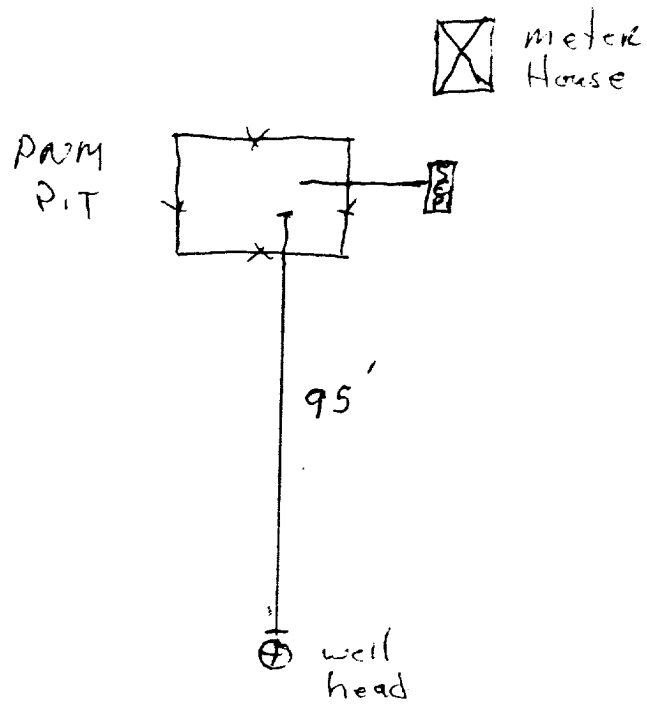
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON): R.A. Attached

SIGNED: K. C. Mante DATE: 12-15-98

AYI Apache C-11
Sec 3 T-25N R-24W 11L-~~R~~^{RP}
Cenoco

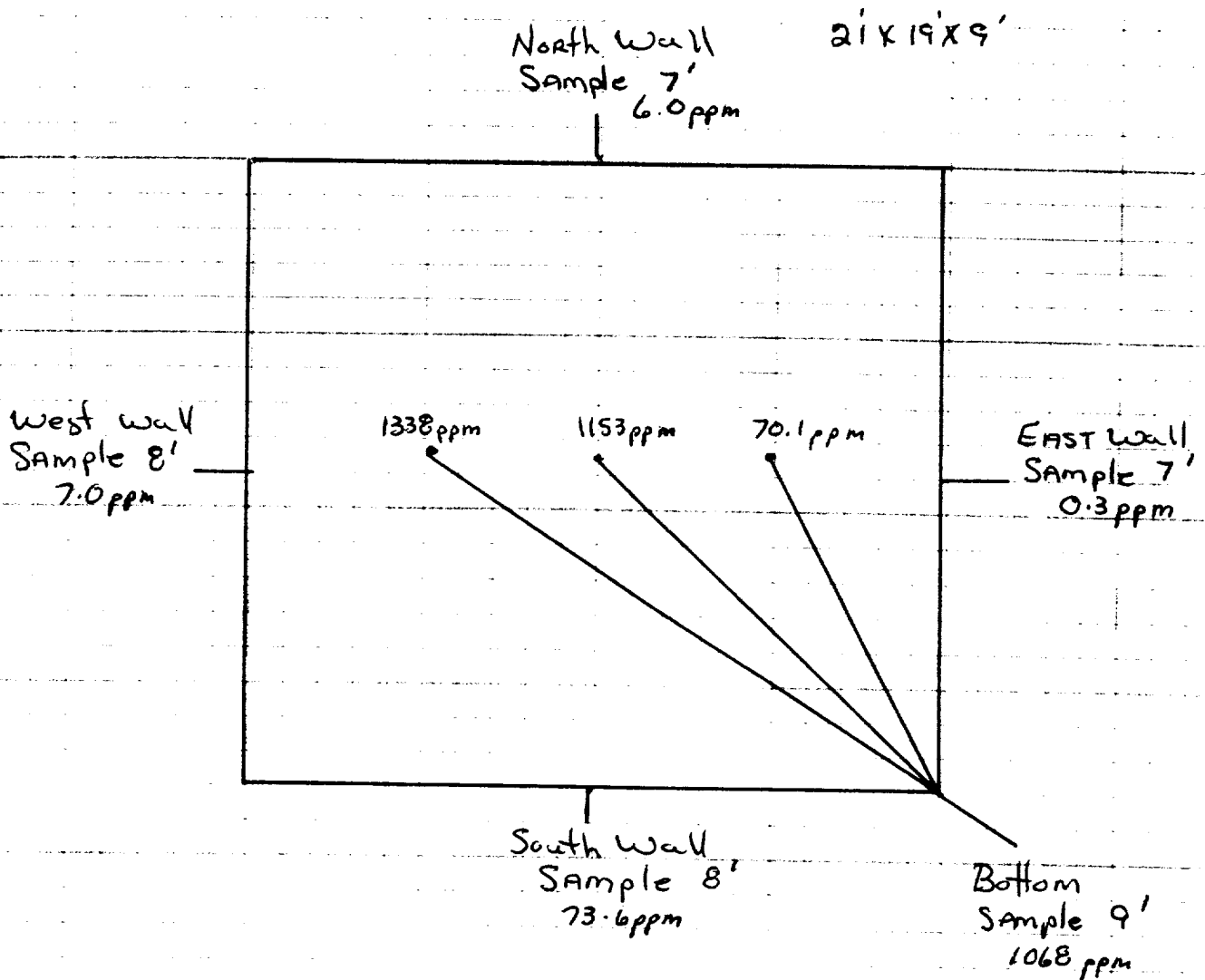
Site Drawing



Not to Scale

At: Apache 0-11
Sec-3 T-25N R-4W ul 0
Conoco

EXCAVATION DRAWING



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 16-Nov-98

CLIENT: PNM - Public Service Company of NM
Project: Jicarilla Pit Remediation
Lab Order: 9811028

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: 16-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Axi Apache O-11
Work Order:	9811028	Client Sample ID:	9811021514 3pt Comp Bottom
Lab ID:	9811028-06A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	11/2/98 3:14:00 PM
		COC Record:	7360

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS						
		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	150	25		mg/Kg	1	11/14/98
BTEX						
		SW8020A				Analyst: HR
Benzene	ND	1000		µg/Kg	1000	11/9/98
Toluene	11000	2000		µg/Kg	1000	11/9/98
Ethylbenzene	11000	1000		µg/Kg	1000	11/9/98
m,p-Xylene	81000	2000		µg/Kg	1000	11/9/98
o-Xylene	18000	1000		µg/Kg	1000	11/9/98

121000
121.000 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 -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 16-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Axi Apache O-11
Work Order:	9811028	Client Sample ID:	9811021513 4pt Comp Walls
Lab ID:	9811028-05A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	11/2/98 3:13:00 PM
		COC Record:	7360

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	11/14/98

Qualifiers:

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- 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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Environmental Services

Well Name:	Axi Apache O #11
Well Legals:	Unit L, Sec 3, T25N, R4W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

PNM requests closure of their former pit on the Jicarilla O #11 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 247 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Schmitz Ranch, NM series 7.5 minute topographic map.)
2. The site is located outside of the "vulnerable area" as defined under OCC Order No. R-7940-C.
3. PNM excavated 156 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached analytical results). Source removal minimizes the possibility of surface water contamination.
4. Sandstone was encountered at 9 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
5. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the Axi Apache O #11 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.

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AND OIL GAS
ADMINISTRATION

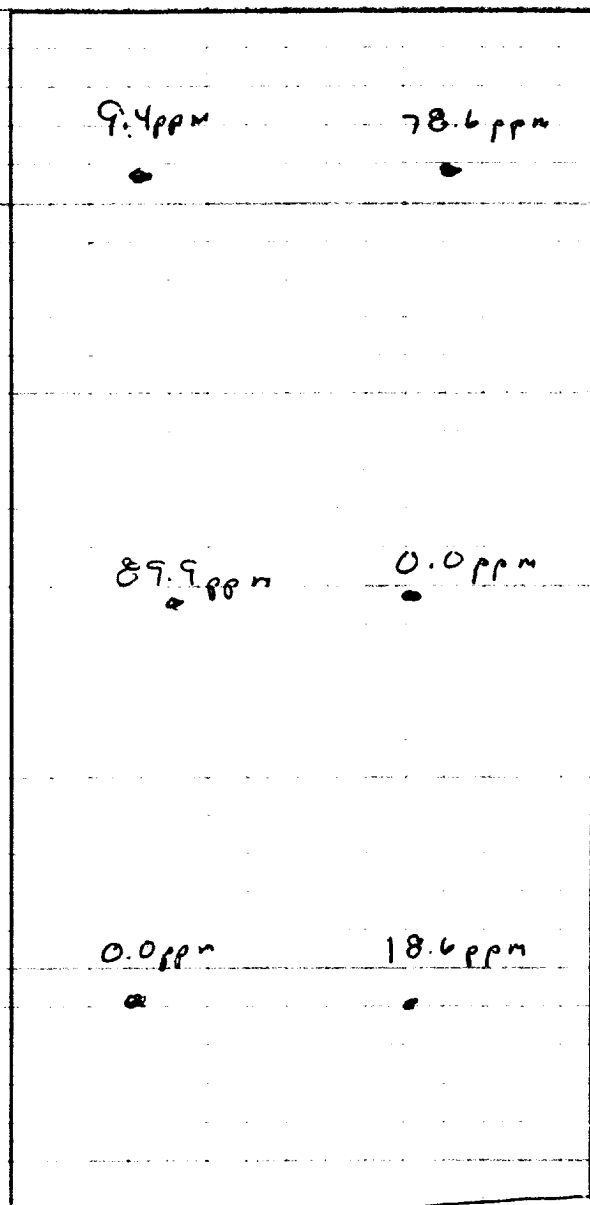
ON-SITE SOIL REMEDIATION REPORT

Operator: <u>PNM Gas Services (Conoco)</u> Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>	
Facility or Well Name: <u>Axi Apache O-11</u>	
Location: Unit: <u>L</u> Sec. <u>3</u> T. <u>25 N</u> R. <u>4 W</u> County <u>Rio Arriba</u>	
Land Type: <u>Jicarilla Apache</u>	
Date Remediation Started: <u>11/2/98</u> Date Completed: <u>12/11/98</u>	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>156 133 RAD</u> Composted <input type="checkbox"/> Other <input type="checkbox"/>	
Depth to Ground Water: (pts.) <u>Ø</u> Distance to an Ephemeral Stream: (pts.) <u>Ø</u> Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>Ø</u> Wellhead Protection Area: (pts.) <u>Ø</u> Distance to Surface Water: (pts.) <u>Ø</u> Ranking Score (Total Points): <u>Ø</u>	Final Closure Sampling: Sampling Date: <u>12/9/98</u> Time <u>0909</u> Sampling Results: Field Headspace (ppm) <u>89.9</u> TPH (ppm) <u>ND</u> Method <u>0815</u> Other _____
<p>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF</p> <p>DATE <u>12-17/98</u> PRINTED NAME <u>Roy Burnham</u></p> <p>SIGNATURE <u>Roy Burnham</u> AND TITLE <u>Environmental Technician II</u></p>	
<p>AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE</p> <p>APPROVED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) <u>use as Backfill</u></p> <p>SIGNED: <u>KoC M...ll</u> DATE: <u>12-21-98</u></p>	

Avi Apache 0-11
Sec -3 T-25N R-4W 4C L
Conoco

LAND SALEM DRAWING

43'



153'

53'

⊕ well head

Not to Scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla Pit Remediation

Lab Order: 9812017

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-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Axi Apache O-11 LF
Work Order:	9812017	Client Sample ID:	9812090909 6pt Composite
Lab ID:	9812017-01A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	12/9/98 9:09:00 AM
		COC Record:	7449

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	12/11/98

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
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1 of 1

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