

Henry E. Faust
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE

FEB 08 1999

ENVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL-GAS
ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: JICARILLA N-1 DRIP

Location: Unit: K Sec. 4 T. 24N R. 5W County Rio Arriba

Pit Type: Separator Dehydrator Other Line Drip

Land Type: Jicarilla Apache

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

(Attach diagram) Reference: wellhead other DRIP Riser

Footage from reference: 30'

Direction from reference: Due Degrees East North X
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)

10 RAO
~~10~~

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

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)

0

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)

0

RANKING SCORE (TOTAL POINTS):

10 RAO
~~10~~

Date Remediation Started: 4/30/98 Date Completed: 7/9/98

Remediation Method: Excavation X Approx. Cubic Yards 661

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 661

Other _____

Remediation Location: Onsite _____ Offsite JICARILLA A-1
(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 sandstone rock 3 ft composite of Pit bottom
Final excavation: 32' X 31' X 18'.

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 18'

Sample date 7/1/98 Sample time 1400

Sample Results

Soil: Benzene (ppm) 4.40 Water: Benzene (ppb) _____

Total BTEX (ppm) 135.000 Toluene (ppb) _____

Field headspace (ppm) 1648 Ethylbenzene (ppb) _____

TPH 860 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 7/1/98 PRINTED NAME Roy Burnham

SIGNATURE Roy Burnham AND TITLE Environmental Technician II

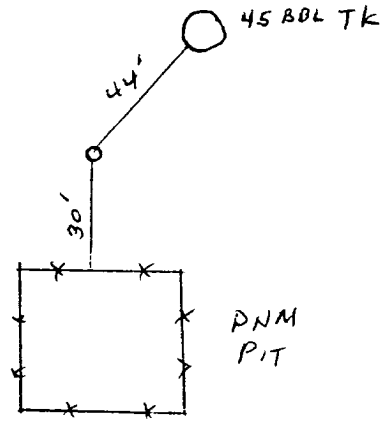
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

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

SIGNED: [Signature] DATE: 8-18-98

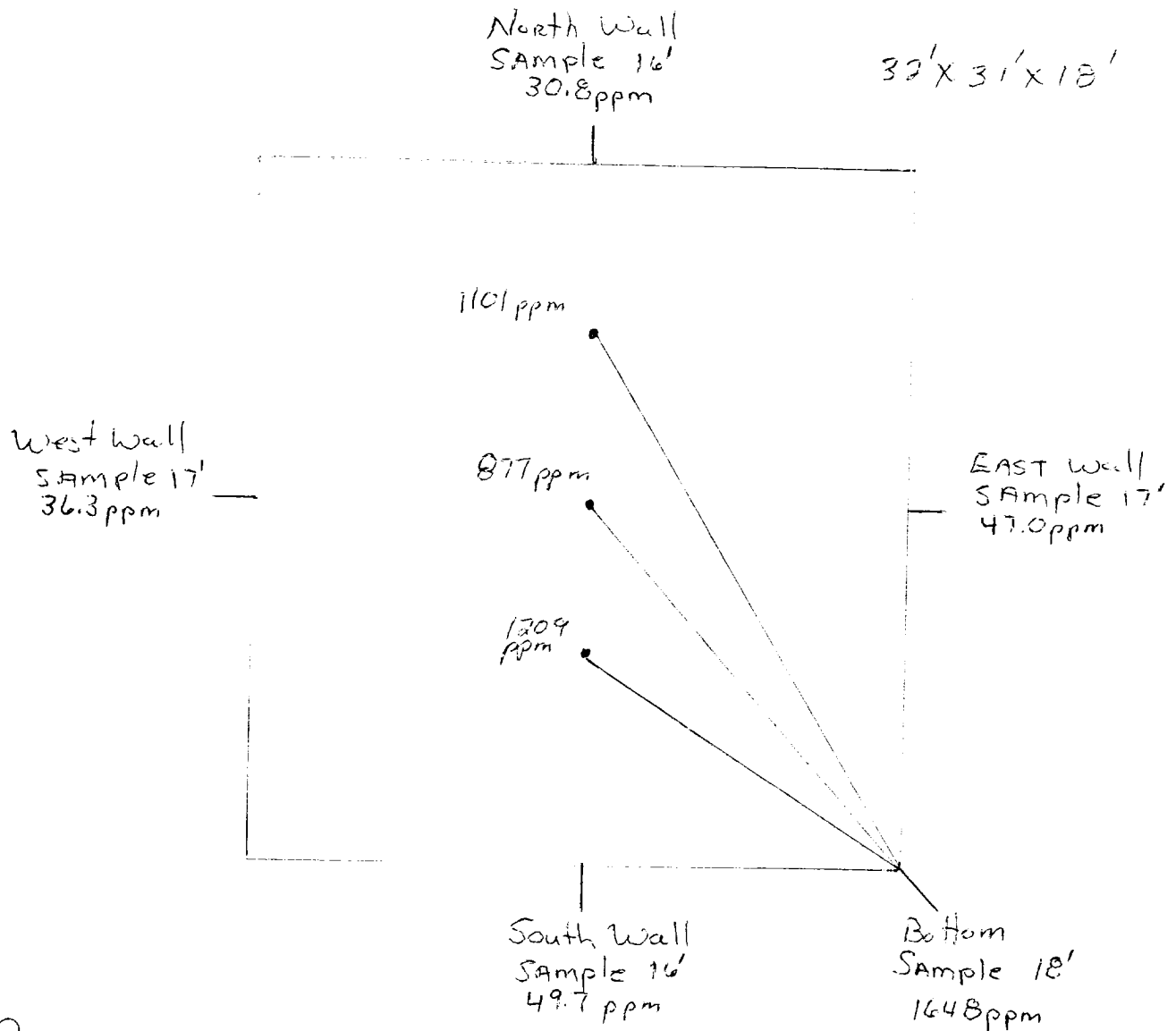
JICARILLA N-1 DRIP
SEC. 4 T24N R-5W
WFS

SITE DRAWING



Jicarilla N-1 DRIP
Sec-4 T-24N R-SW unit K

EXCAVATION Drawing



(28) P.I.D. Headspace Readings

5' Sample - 1361 ppm
10' Sample - 1221 ppm
15' Sample - 996 ppm
18' Sample - 1101 ppm
18' Sample - 877 ppm
18' Sample - 1209 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla

Lab Order: 9807012

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: 10-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla N-1 Drip
Work Order:	9807012	Client Sample ID:	9807011404; 3pt. Comp Bottom
Lab ID:	9807012-06A	Matrix:	SOIL
Project:	Jicarilla	Collection Date:	7/1/98 2:04:00 PM
		COC Record:	5643

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	860	25		mg/Kg	1	7/9/98
BTEX		SW8020A				Analyst: DC
Benzene	4400	1000		µg/Kg	1000	7/3/98
Toluene	49000	2000		µg/Kg	1000	7/3/98
Ethylbenzene	6600	1000		µg/Kg	1000	7/3/98
m,p-Xylene	61000	2000		µg/Kg	1000	7/3/98
o-Xylene	14000	1000		µg/Kg	1000	7/3/98

135000
135.000 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 BLENDED WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 10-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla N-1 Drip
Work Order:	9807012	Client Sample ID:	9807011403; 4pt. Comp Walls
Lab ID:	9807012-05A	Matrix:	SOIL
Project:	Jicarilla	Collection Date:	7/1/98 2:03:00 PM
		COC Record:	5643

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/8/98

Qualifiers:

PQL - Practical Quantitation Limit

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ND - Not Detected at Practical Quantitation Limit

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Environmental Services

Well Name:	Jicarilla N #1 Drip
Well Legals:	Unit K, Sec 4, T24N, R5W
Pit Type:	Line Drip
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	50 feet to 99 feet

RISK ANALYSIS

PNM requests closure of their former pit on the Jicarilla N #1 Drip well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 62 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash (Canada Larga Canyon). (Reference: Otero Store, 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 661 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached map and analytical results for the side wall profiles). Source removal minimizes the possibility of surface water contamination.
4. Sandstone was encountered at 18 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 Jicarilla N #1 Drip 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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ENVIRONMENTAL
PROTECTION OFFICE
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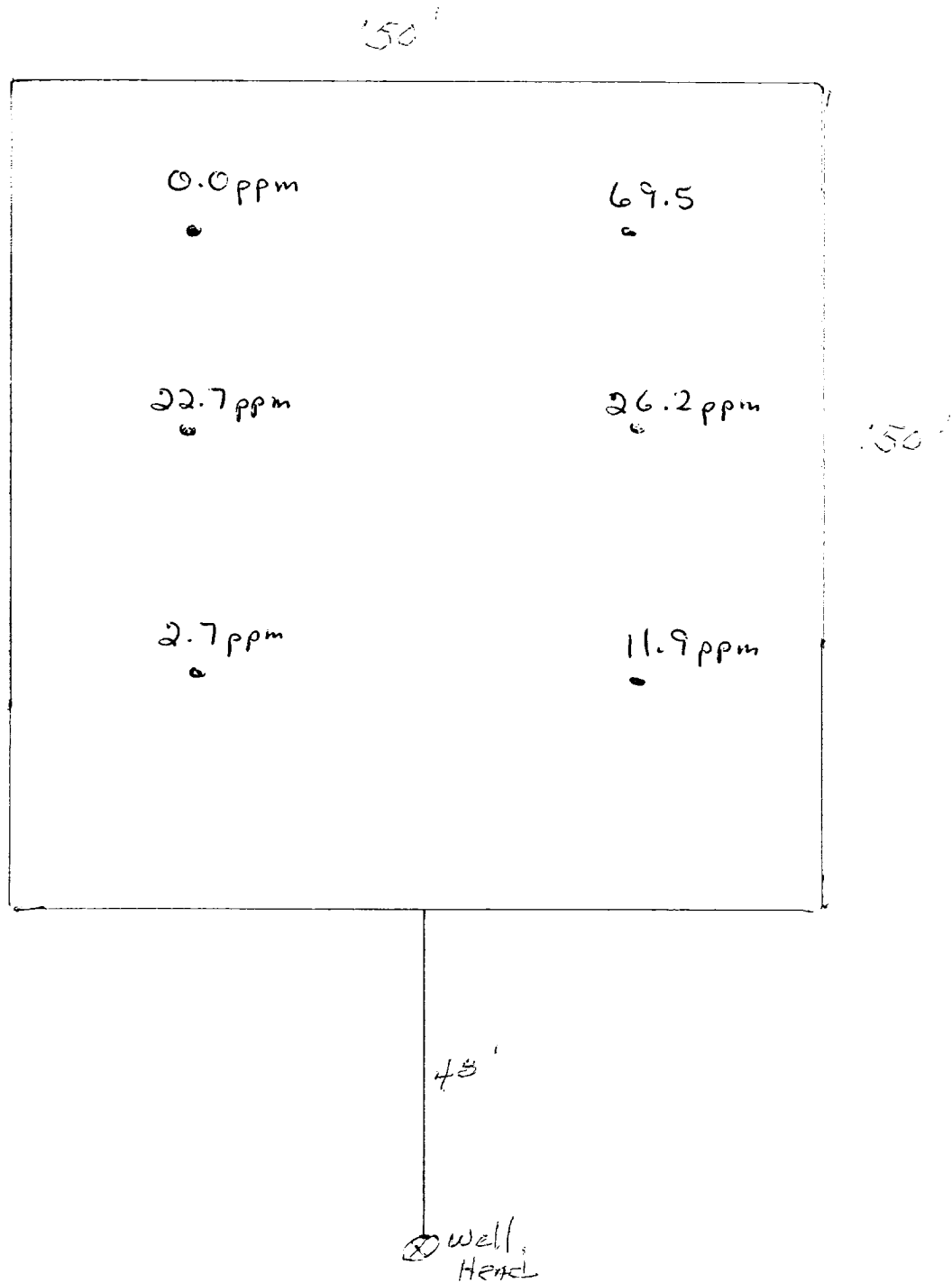
SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>PNM Gas Services (WFS)</u> Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>	
Facility or Well Name: <u>JICARILLA N-1 DRIP</u>	
Location: Unit: <u>K</u> Sec. <u>4</u> T. <u>24</u> N R. <u>5</u> W County <u>Rio Arriba</u>	
Land Type: <u>Jicarilla Apache</u>	
Date Remediation Started: <u>6/30/98</u> Date Completed: <u>8/18/98</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>661</u> Composted <u> </u> Other <u> </u>	
Depth to Ground Water: (pts.) <u>10</u> Distance to an Ephemeral Stream: (pts.) <u>0</u> Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>0</u> Wellhead Protection Area: (pts.) <u>0</u> Distance to Surface Water: (pts.) <u>0</u> Ranking Score (Total Points): <u>10</u>	Final Closure Sampling: Sampling Date: <u>8/13/98</u> Time <u>1236</u> Sampling Results: Field Headspace (ppm) <u>69.5</u> TPH (ppm) <u>84</u> Method <u>8015</u> Other <u> </u>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>8/29/98</u> PRINTED NAME <u>Roy Burnham</u>	
SIGNATURE <u>Roy Burnham</u> AND TITLE <u>Environmental Technician II</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES <u>X</u> NO <u> </u> (REASON) <u>use as Back fill</u>	
SIGNED: <u>Kent M...</u> DATE: <u>9-9-98</u>	

Jicarilla N-1 Drip
Sec. 4 T24N R5W Unit k
WFS

Land farm



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 20-Aug-98

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9808030

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: 20-Aug-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla N-1 Drip LF
Work Order:	9808030	Client Sample ID:	9808131236; 6pt. Comp.
Lab ID:	9808030-04A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	8/13/98 12:36:00 PM
		COC Record:	7332

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	84	25		mg/Kg	1	8/18/98

Qualifiers:

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