

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

1A-5V
Bedrock
SUBMIT 1 COPY TO
NATURAL
RESOURCES DEPT
WILDLIFE
ADMINISTRATION
RECEIVED
APR 29 1999
OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Burlington) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicaville J-22
Location: Unit: M Sec. 25 T. 26 N R. 5 W County Rio Arriba
Pit Type: Separator Dehydrator Other Duct Drips
Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 20 width 20 depth 3
(Attach diagram) Reference: wellhead X other
Footage from reference: 80'
Direction from reference: 85° Degrees East North X
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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

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)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 10/20/98 Date Completed: 10/21/98

Remediation Method: Excavation ☒ Approx. Cubic Yards 696 697

(Check all appropriate sections) Landfarmed ☒ Amount Landfarmed (cubic yds): 696 697

Other _____

Remediation Location: Onsite ☒ Offsite _____

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

General Description of Remedial Action:

Removed contaminated soil from all 4 side walls
to get a below 100 ppm head space reading.
Bottom was Rock at 21' depth. Sz: 32' x 28' x 21'

Ground Water Encountered: No ☒ Yes _____ Depth _____

Final Pit Closure Sampling:

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

Sample Location North wall, South wall, East wall & West wall
Bottom 3 point composite

Sample depth 21'

Sample date 10/21/98 Sample time 0910

Sample Results

Soil: Benzene (ppm) 2.6 Water: Benzene (ppb) _____

Total BTEX (ppm) 210.6 Toluene (ppb) _____

Field headspace (ppm) 1245 Ethylbenzene (ppb) _____

TPH 800 ppm Method TPH-8015 Total Xylenes (ppb) _____

Ground Water Sample: Yes _____ No y (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 10/21/98 PRINTED NAME Gary Cook

SIGNATURE Gary Cook AND TITLE Environmental Technician

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

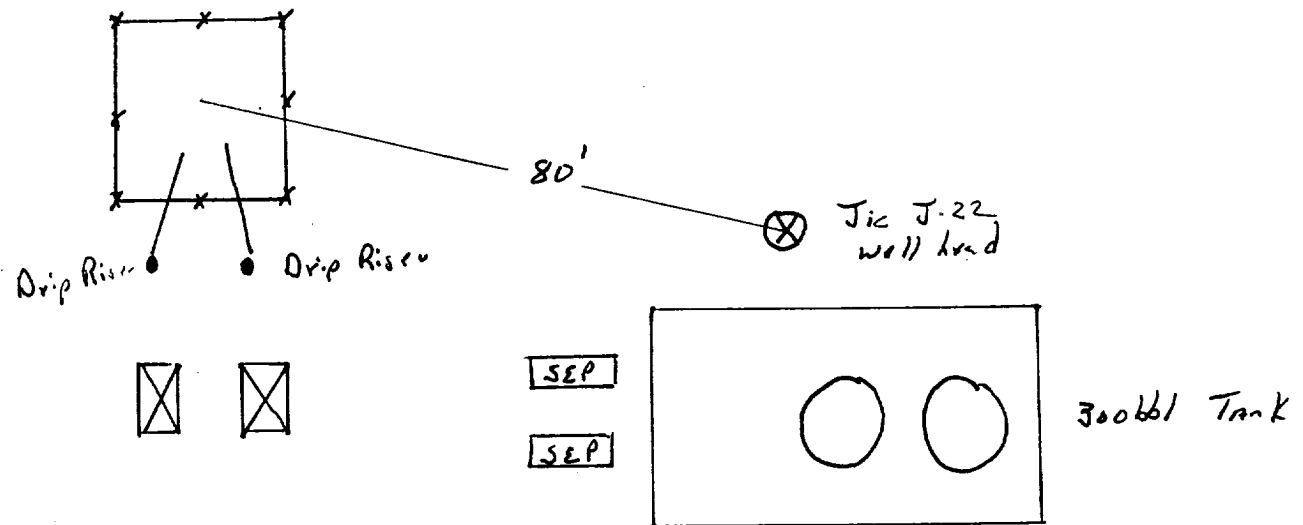
APPROVED: YES ☒ NO _____ (REASON): R.A. Attached

SIGNED: Kent M... .. DATE: 11-30-98

Jicarilla J-22
Burlington Resources
Sec. 25, 26N, 5W, m

10/20/98

Site Drawing:



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 04-Nov-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla J-22

Lab Order: 9810069

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: 04-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-22
Work Order:	9810069	Client Sample ID:	9810210910; Bottom @ 21ft.
Lab ID:	9810069-01A	Matrix:	SOIL
Project:	Jicarilla J-22	Collection Date:	10/21/98 9:10:00 AM
		COC Record:	7409

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS						
		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	800	25		mg/Kg	1	10/30/98
BTEX						
		SW8020A				Analyst: DC
Benzene	2600	500		µg/Kg	500	10/28/98
Toluene	52000	1000		µg/Kg	500	10/28/98
Ethylbenzene	12000	500		µg/Kg	500	10/28/98
m,p-Xylene	120000	1000		µg/Kg	500	10/28/98
o-Xylene	24000	500		µg/Kg	500	10/28/98

210600

210.600 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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OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 04-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-22
Work Order:	9810069	Client Sample ID:	9810210915; Walls @ 15ft.
Lab ID:	9810069-02A	Matrix:	SOIL
Project:	Jicarilla J-22	Collection Date:	10/21/98 9:15:00 AM
		COC Record:	7409

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	10/30/98

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
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Environmental Services

Well Name:	Jicarilla J #22
Well Legals:	Unit M, Sec 25, T26N, R5W
Pit Type:	Dual Drips
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 J #22 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 160 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Lapis Point, 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 696 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. Rock was encountered at 21 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 J #22 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
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 (Burlington) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicarilla J-22
Location: Unit: M Sec. 25 T. 26 N R. 5 W County Rio Arriba
Land Type: Jicarilla Apache

Date Remediation Started: 10/20/98 Date Completed: 10/21/98
Remediation Method: Landfarmed X Approx. cubic yards 696
Composted
Other

Depth to Ground Water: (pts.) 6
Distance to an Ephemeral Stream: (pts.) 6
Distance to Nearest Lake, Playa,
or Watering Pond: (pts.) 6
Wellhead Protection Area: (pts.) 0
Distance to Surface Water: (pts.) 0
Ranking Score (Total Points): 6

Final Closure Sampling:

Sampling Date: 11/16/98 Time 1125
Sampling Results:
Field Headspace (ppm) 32.9 ppm
TPH (ppm) 97 Method TPH-8615
Other

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

DATE 12/2/98 PRINTED NAME Roy Burnham Gary Cook
SIGNATURE Mary Cook 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: Ken C. M... DATE: 2-3-99

Jicarilla J-22

10/20/98

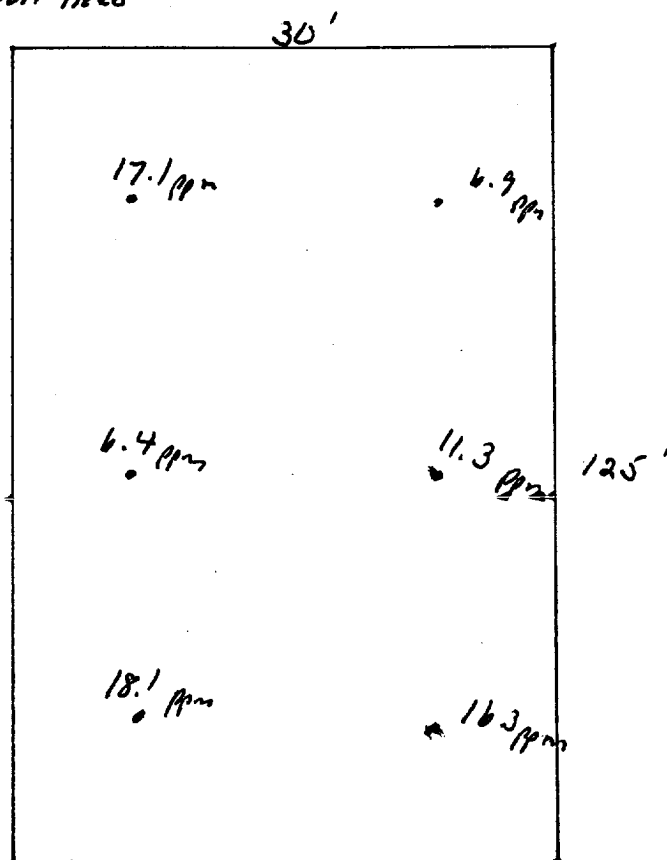
OR

Sec 25, 26 N, 5 W, m

↑
N

Landfarm: On location (696 yards)

⊗ Jic. J-22
well head



2"-12" depth

Soil vapor head space = 32.9 ppm

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Nov-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla Pit Remediation

Lab Order: 9811056

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: 24-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-22 LF
Work Order:	9811056	Client Sample ID:	9811161125 6pt Composite
Lab ID:	9811056-04A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	11/16/98 11:25:00 AM
		COC Record:	7402

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	97	25		mg/Kg	1	11/23/98

Qualifiers:

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- 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
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- E - Value above quantitation range
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