

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

JICARILLA APACHE TRIBE

ENVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507
DULCE, NEW MEXICO 87528

Risk
COSTLY
SUBMIT ONE COPY
TO NATURAL
RESOURCE DEPT
AND OIL-GAS
ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (CONOCO) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicarilla K15
Location: Unit G Sec 1 T 25 N R 5 W County Rio Arriba
Pit Type: Separator ☐ Dehydrator ☐ Other Manual drip blowdown.
Land Type: Jicarilla Apache

Pit Location: Pit dimensions: Length 20 ' Width 20 ' Depth 3 '
(Attach diagram) Reference: Wellhead ☒ Other _____
Footage from reference: 57'
Direction from reference: 21 degrees ☐ East or ☒ North
☒ West ☐ 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) 0

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)

RECEIVED
FEB - 1 1999
OIL CON. DIV.
DIST. 3

Less than 200 feet (20 points)
200 feet to 1,000 feet (10 points)
Greater than 100 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) 10

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

Date Remediation Started: 10/27/98

Date Completed: 12/28/98

Remediation Method: Excavation ☒

Approx. Cubic Yards 861

(Check all appropriate sections) Landfarmed ☒

Amount Landfarmed (cubic yds) 861

Other

Remediation Location: Onsite ☒

Offsite

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

General Description of Remedial Action:

Removal of contaminated soil from all four sidewalls, as to get a below 100 ppm head space reading.

Final excavation dimensions: 25'(N&S)X30'(E&W)X31'(D)

Ground Water Encountered: No ☒

Yes ☐

Depth

Final Pit Closure Sampling:

Sample Location Composite of North, East, South, and West sidewalls and a three point composite of bottom.

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

Sample depth 31'

Sample date 10/29/98

Sample time 1010 1005 AM

Sample Results

Soil: Benzene (ppm) ND

Water: Benzene (ppb)

Total BTEX (ppm) 73.4

Toluene (ppb)

Field headspace (ppm) 575

Ethylbenzene (ppb)

TPH (ppm) 400

Method 8015

Total Xylenes (ppb)

Vertical Extent (ft) 31' RAD

Risk Analysis form attached: Yes ☒ No ☐

Ground Water Sample: Yes ☐ No ☒

(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: 11-20-98

PRINTED NAME Ray Haston

SIGNATURE Ray Haston

TITLE Environmental Tech. III

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

SIGNATURE: Ken C M

DATE: 12-15-98

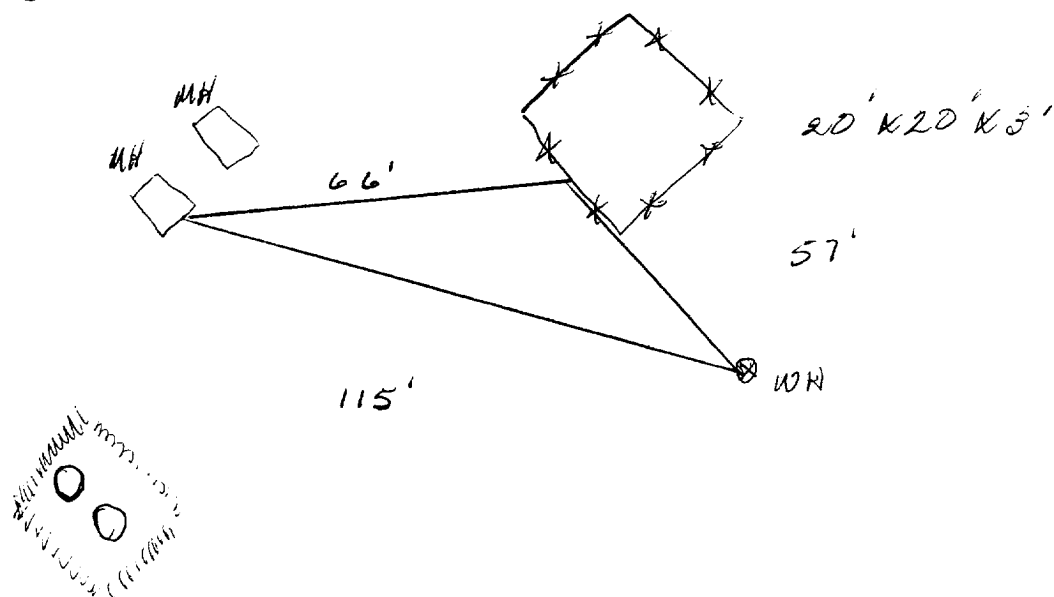
Jicarilla K15

(G) 1-25N-5W

COWOCD

10-27-98

N



Excavation Sampling

25'(N+S) x 30'(E+W) x 31'(D)

west wall sample
at 30' - 2.1 ppm

north wall sample
at 30' - 8.7 ppm

3 point bottom sample
at 31' - 5.75 ppm

East wall sample
at 17' - 1.4 ppm

south wall sample
at 30' - 6.8 ppm

5' sample 198 ppm
10' sample 497 ppm
15' sample 722 ppm
20' sample 704 ppm
25' sample 472 ppm
30' sample 713 ppm

not to scale

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 K-15

Lab Order: 9810093

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:	Jicarilla K-15
Work Order:	9810093	Client Sample ID:	9810291005; 3pt. Bottom Comp.
Lab ID:	9810093-01A	Matrix:	SOIL
Project:	Jicarilla K-15	Collection Date:	10/29/98 10:05:00 AM
		COC Record:	7201

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	400	25		mg/Kg	1	11/11/98
BTEX		SW8020A				Analyst: HR
Benzene	ND	200		µg/Kg	200	11/2/98
Toluene	14000	400		µg/Kg	200	11/2/98
Ethylbenzene	4400	200		µg/Kg	200	11/2/98
m,p-Xylene	45000	400		µg/Kg	200	11/2/98
o-Xylene	10000	200		µg/Kg	200	11/2/98

73400
73.400 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

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 16-Nov-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla K-15
Work Order:	9810093	Client Sample ID:	9810291010; 4 Wall Comp.
Lab ID:	9810093-02A	Matrix:	SOIL
Project:	Jicarilla K-15	Collection Date:	10/29/98 10:10:00 AM
		COC Record:	7201

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	44	25		mg/Kg	1	11/11/98

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

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



Environmental Services

Well Name:	Jicarilla K #15
Well Legals:	Unit G, Sec 1, T25N, R5W
Pit Type:	Manual drip blowdown
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 K #15 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 104 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 861 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. The excavation was terminated at a depth of 31 feet. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the Jicarilla K #15 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.

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 (CONOCO) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicarilla K15
Location: Unit: G Sec. 1 T. 25 N R. 5 W County Rio Arriba
Land Type: Jicarilla Apache

Date Remediation Started: 10-27-98 Date Completed: 12-1-98
Remediation Method: Landfarmed X Approx. cubic yards 861
Composted
Other Excavation was backfilled with clean material from borrow pit. Fill pushed into on-site location

Depth to Ground Water: (pts.) 0
Distance to an Ephemeral Stream: (pts.) 10
Distance to Nearest Lake, Playa,
or Watering Pond: (pts.) 0
Wellhead Protection Area: (pts.) 0
Distance to Surface Water: (pts.) 0
Ranking Score (Total Points): 10

Final Closure Sampling:
Sampling Date: 11-18-98 Time 1241
Sampling Results:
Field Headspace (ppm) 40.2
TPH (ppm) 100 Method 8015
Other _____

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

DATE 12-20-98 PRINTED NAME Ray Burnham Ray Haston
SIGNATURE Ray Haston AND TITLE Environmental Technician III

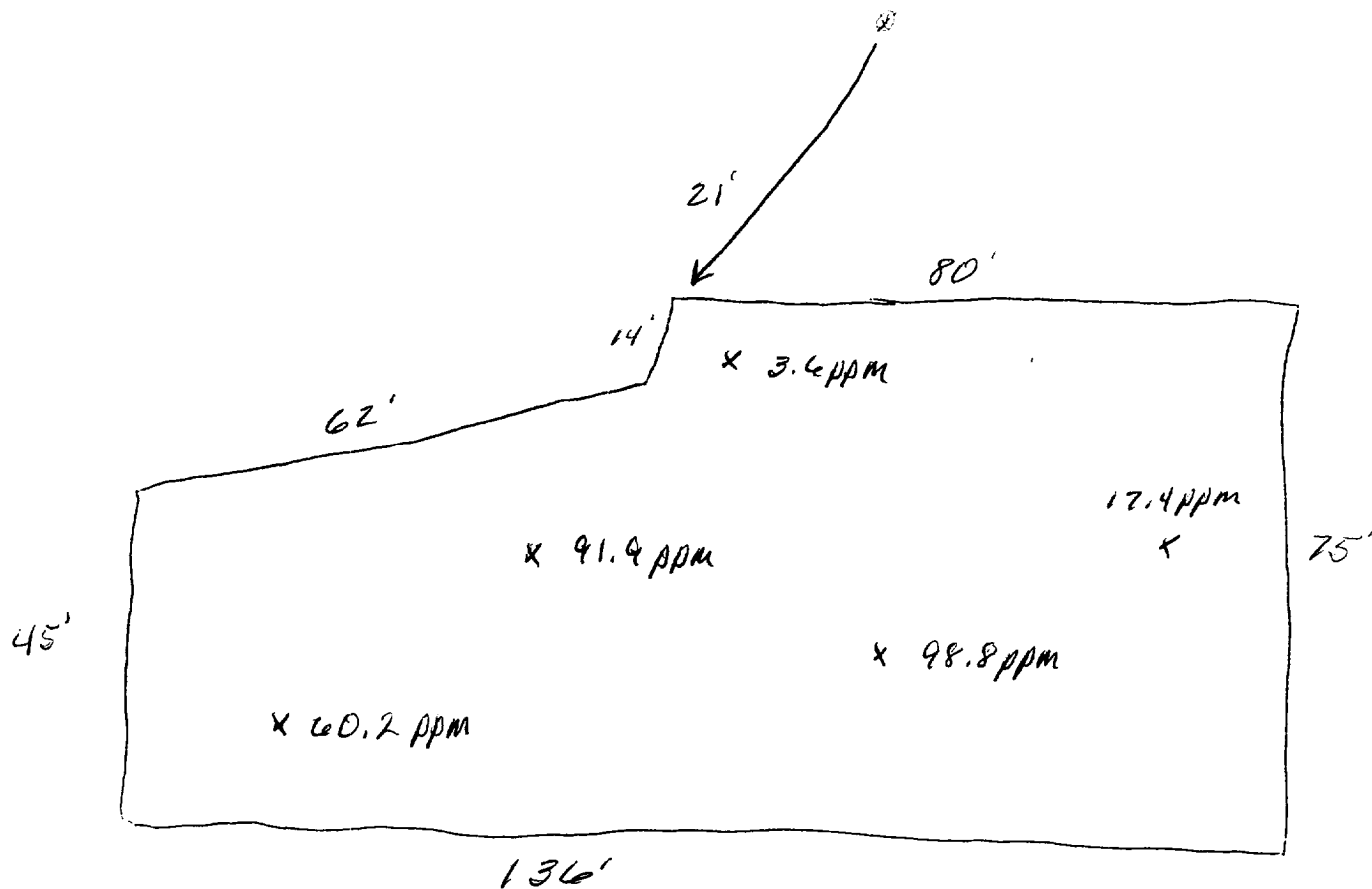
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE
JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE

APPROVED: YES X NO _____ (REASON) NO Backfill
SIGNED: K. C. Mendenhall DATE: 12-28-98

Jicarilla K15
(G) 1-25N-5W
CONOCO

↑
N

2'-12"
Head space: 40.2 ppm



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 03-Dec-98

CLIENT: PNM - Public Service Company of NM
Project: Jicarilla Pit Remediation Landfarms
Lab Order: 9811062

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: 03-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla K-15 LF
Work Order:	9811062	Client Sample ID:	9811181241; 6pt. Comp.
Lab ID:	9811062-03A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation Landfarms	Collection Date:	11/18/98 12:41:00 PM
		COC Record:	7404

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	100	25		mg/Kg	1	12/1/98

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
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -