

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Northwest Pipeline Corporation

3. ADDRESS OF OPERATOR

P.O. Box 90 - Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)

At surface

945' FSL & 800' FEL

At proposed prod. zone

As above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

5. LEASE DESIGNATION AND SERIAL NO.

Contract 93

6. IF INDIAN, ALLIANCE OR TRIBE NAME

Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Jicarilla 93

9. WELL NO.

8

10. FIELD AND POOL, OR WILDCAT

Gavilan-Pictured Cliffs

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 32, T27N, R3W

12. COUNTY OR PARISH

Rio Arriba

N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

800'

16. NO. OF ACRES IN LEASE

NA

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

NA

19. PROPOSED DEPTH

4150

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATION (Show whether DF, RT, GR, etc.)

7174' GR

22. APPROX. DATE WORK WILL START*

Sept. 10, 1977

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	120	85sks
6 3/4"	2 7/8"	6.4#	4150	110 sks

Selectively perforate & stimulate the Pictured Cliffs formation.
A BOP will be installed after the surface casing is set & cemented.
All subsequent work will be done through BOP.

The SE/4 of Section 32 is dedicated to this well.

Gas dedicated to NPC.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

J.P. Slattery
J.P. Slattery

TITLE

Drilling Engineer

DATE

July 14, 1977

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

JPS/ch

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-55

All distances must be from the outer boundaries of the Section.

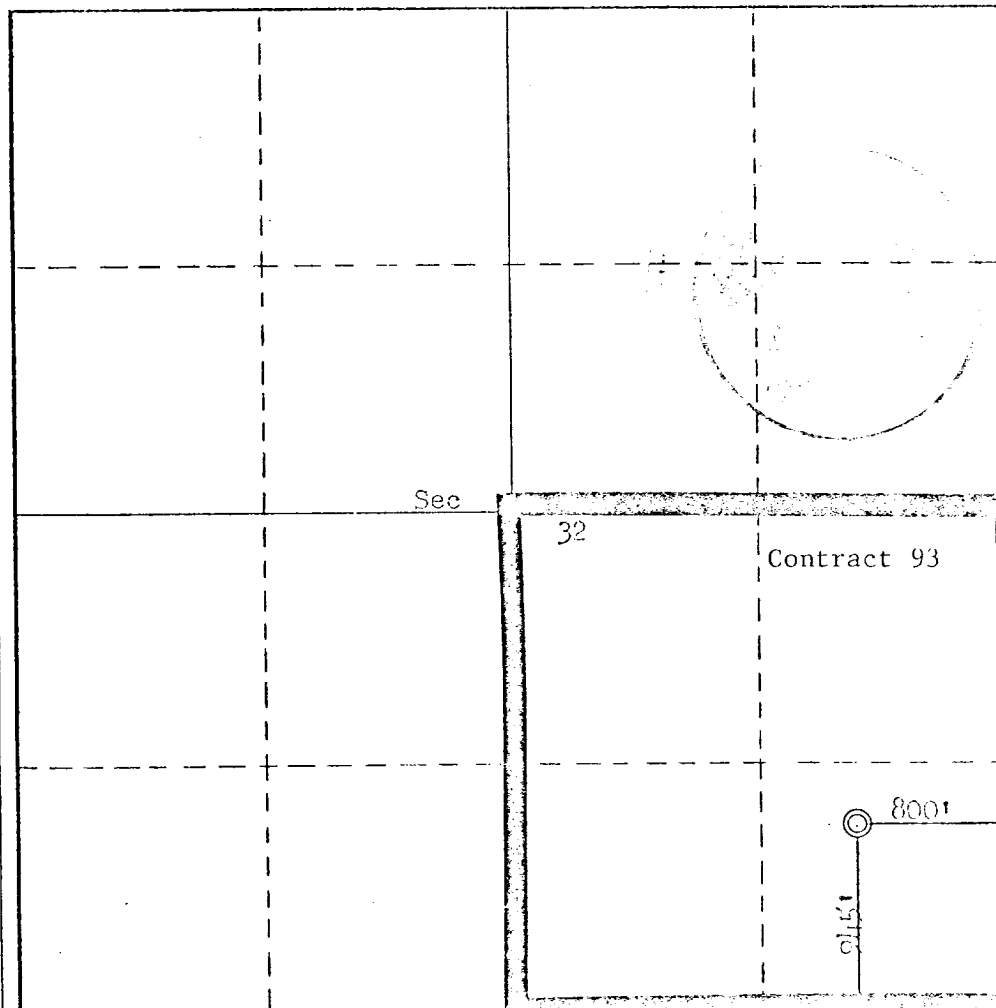
Operator Northwest Pipeline Corporation			Lease Hicarilla 93		Well No. 8
Unit Letter P	Section 32	Township 27N	Range 3W	County Rio Arriba	
Actual Footage Location of Well: 915 feet from the South line and 800 feet from the East line					
Ground Level Elev. 7176	Producing Formation Pictured Cliffs		Pool Gavilan		Dedicated Acreage: 160 — Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
J. P. Hotten
Position
Drilling Engineer
Company
Northwest Pipeline Corp.

Date
July 14, 1977

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
March 21, 1977

Registered Professional Engineer
under License No. _____

Fred B. Hotten Jr.
Certifier

3950

OPERATIONS PLAN

Jicarilla 93 #8

I. LOCATION: SE/4 Sec. 32, T27N, R3W

LEASE NUMBER: Contract 93

FIELD: Gavilan-Pictured Cliffs

ELEVATION: 7174' GR

II. GEOLOGY:

A. Formation Tops:

Ojo Alamo:	3418'	Pictured Cliffs:	3900'
Kirtland:	3625'	Total Depth:	4150'
Fruitland:	3753		

B. Logging Program: I-ES and Density at T.D.

C. Coring Program: None

D. Testing Program: None

III. DRILLING:

A. Anticipated starting date and duration of activities: Sept. 10, 1977

B. BOP: Blind rams and pipe rams, 10', 900 series, double gate, rated at 3000 PSI.

C. Mud Program:

a) Spud Mud: Water, lime and gel.

b) Surface to 3500

Starless: CMC mud

Viscosity: 25-30 sec/qt.

Weight: 8.9-9.5 #/gal.

Water Loss: 7-12 cc

Ph: 8.5-9.5

c) From 3500

Starless: CMC Hy-gel mud.

Viscosity: 38-80 sec/qt.

Weight: 9.0-9.5 #/gal.

Water Loss: 6-8 cc

Ph: 8.5-9.5

IV. MATERIALS:

A. Casing Program:

<u>Hole Size</u>	<u>Depth O.H.</u>	<u>Casing Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>
12 1/4"	102'	8 5/8"	24# K-55	120'
6 3/4"	4150'	2 7/8"	6.4# K-55	4150'

V. CEMENTING:

A. Surface Casing 8 5/8" - Use 85 sks. Cl. "B" cmt. with 1/4# flocele/sk. & 3% calcium chloride (100% excess to circ.). WOC 12 hrs. Test surface csg. to 600 PSI for 30 minutes.

B. Production Casing 2 7/8" - Use 60 sks. 65/35 poz with 10% gel & 1/4 cu. ft. fine gilsonite/cu. ft. slurry & tail in/50 sks. Cl. "B" cmt. w/2% calcium chloride. WOC 0 hours. Run temperature survey after 12 hours.