

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-039-21339

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. 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: C 870' FNL & 1450' FWL  
 At proposed prod. zone: As above

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

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drg. unit line, if any) 870'

16. NO. OF ACRES IN LEASE NA

17. NO. OF ACRES ASSIGNED TO THIS WELL 320.22

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA

19. PROPOSED DEPTH 5888'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.) 6540' GR

22. APPROX. DATE WORK WILL START\*

5. LEASE DESIGNATION AND SERIAL NO.  
 SF 078410

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 San Juan 29-5 Unit

8. FARM OR LEASE NAME  
 San Juan 29-5 Unit

9. WELL NO.  
 4A

10. FIELD AND POOL, OR WILDCAT  
 Blanco Mesa Verde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 6, T29N, R5W

12. COUNTY OR PARISH 13. STATE  
 Rio Arriba N.M.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36	200'	125 sks.
8 3/4"	7"	20	3838'	150 sks.
6 1/4"	4 1/2" Liner	10.5	3688'-T.D.	210 sks.

Selectively perforate and stimulate the Mesa Verde formation.

A BOP will be installed after the surface casing has been run and cemented. All subsequent operations will be conducted through the BOP.

The W/2 of Section 6, is dedicated to this well.

Gas is dedicated.

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 D. J. M. Marcello TITLE Production Engineer DATE 2/14/77  
 D. J. M. Marcello

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

*Obaf*

*SW*

\*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-107  
Supersedes C-12B  
Effective 1-1-65

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

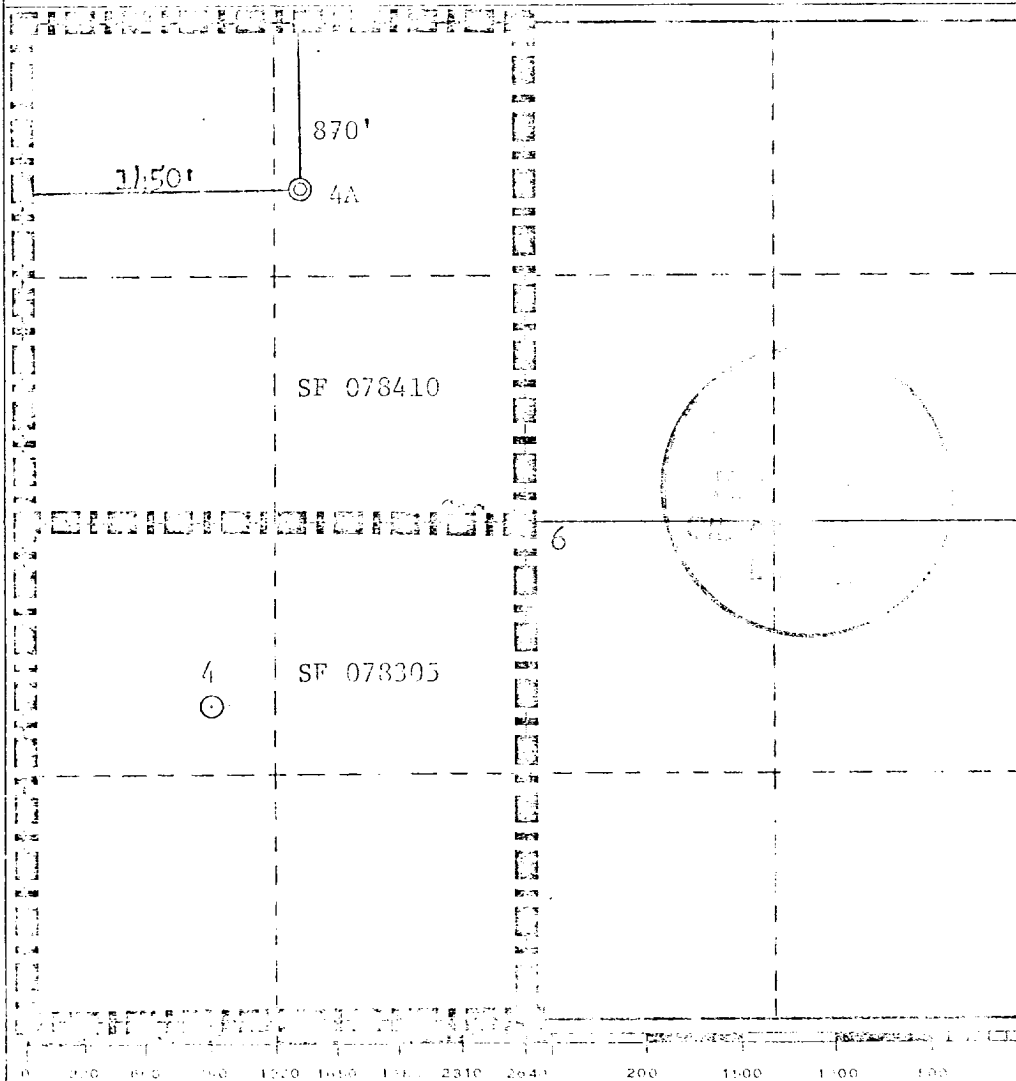
Operator Northwest Pipeline Corporation			Lease San Juan 29-5 Unit		Well No. 116
Section 6	Township 6	Range 29E	Block 5W	County Rio Arriba	
Actual Location of Well					
870'	feet from the North	line and	2150'	feet from the West	line
65'	feet from the	Property Boundary	Blanco	feet from the	Boundary Line
				320.22	Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.	
<i>D. H. Maroncelli</i>	
Name	D.H. Maroncelli
Position	Production Engineer
Company	Northwest Pipeline Corp.
Date	January 27, 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	January 26, 1977
Registered Professional Engineer and/or Land Surveyor	<i>Frederic S. Horn</i>
Certificate No.	3950

NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

for the San Juan 29-5 Unit

Well Number 4A

1. Existing Roads: See attached topographic map. All existing roads used, shall be maintained in a serviceable condition at all times during the drilling operation.
2. Planned Access Roads: See attached topographic map. Maximum grade is approximately 12%. The road surface will not exceed twenty feet in width. Upon completion of drilling operations, the access road will be adequately drained to control runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts or any other deemed necessary. All activities will be confined to the access road and drill pad.
3. Location of Existing Wells: See attached topographic map.
4. Location of Tank Batteries; Production Facilities; and Production, Gathering, and Service Lines: See attached topographic map for locations of existing and proposed gas gathering lines. The pipeline will be constructed adjacent to the access road.
5. Location and Type of Water Supply: Water needed for the drilling operation will be hauled from the San Juan 29-6 Unit Water Well in the SW/4 28, T29N, R6W.
6. Source of Construction Materials: No additional materials will be needed.
7. Methods for Handling Waste Disposal: All garbage, debris, and trash will be buried at least three feet deep. A portable toilet will be supplied for human waste. After drilling operations have been completed the reserve pit will be fenced and the liquid portion will be allowed to evaporate before the location is cleaned up and leveled. The earthen pits will not be located on natural drainages and will be constructed in such a manner so that they will not leak. Any evaporator pit containing toxic liquids will be fenced.
8. Auxiliary Facilities: There will be no camps or airstrips associated with the drilling of this well.
9. Well Site Layout: See attached layout sheet.
10. Plans for Restoration of the Surface: Upon completion of drilling, the location will be cleaned, and leveled so that no cut or fill banks will be steeper than 3:1.

All of the area disturbed in connection with the drill site will be seeded as close as possible for any above ground equipment while still allowing for access to the equipment. Seeding will be done within one year after drilling is completed and during the period from July 1 through September 15. Seeding will be done with seed Mixture #1.

All equipment above ground will be painted a non-glare, non-reflective, non-chalking color that simulates the natural color the site. For this well code number 959-34127, Green.

11. Other Information: If, during operations, any historic or prehistoric ruin, monument or site, or any object of antiquity is discovered, then work will be suspended and the discovery will be reported to the District Manager of the BLM.

When drilling with gas, the line used to discharge and burn off the gas will be located so as not to damage vegetation in the area, and if necessary an earthen screen will be constructed to protect the vegetation. All liquids from the line will be contained at the site unless otherwise specified by the surface agency's representative.

The area covered by the location and proposed access road is gently sloped with scattered brush and some grames.

12. Operator's Representative: J.P. Slattery, P.O. Box 90, Farmington, N.M., 87401  
Phone: 327-5351 Extension 62.

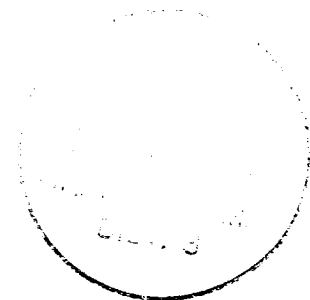
13. Certification:

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Northwest Pipeline Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

8-10-77  
Date

J.P. Slattery  
J.P. Slattery  
Drilling Engineer

JPS/ka



OPERATIONS PLAN

San Juan 29-5 Unit #4A

Rio Arriba County, New Mexico

I. LOCATION: NW/4 Sec. 6, T29N, R5W

LEASE NUMBER: SF 078410

FIELD: Blanco Mesa Verde

ELEVATION: 6540' GR

II. GEOLOGY:

A. Formation Tops:

San Jose:	Surface	Cliff House:	5329'
Ojo Alamo:	2706'	Menefee:	5407'
Kirtland:	2856'	Point Lookout:	5688'
Fruitland:	3173'	Total Depth:	5888'
Pictured Cliffs:	3518'		
Lewis:	3638'		

B. Logging Program: Gamma Ray-Induction and Density at T.D.

C. Coring Program: None

D. Testing Program: None

III. DRILLING:

A. Anticipated starting date and duration of activities: March 10, 1977  
Operations will last approximately 14 days.

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 3638'  
Viscosity: 32-38 sec/qt.  
Weight: 8.8-9.2 #/gal.  
Water Loss: 8-20 cc.  
Ph: 8.5-9.5

(c) From 3638' to 3838'  
Viscosity: 36-45 sec/qt.  
Weight: 8.5-9.5 #/gal.  
Water Loss: 6-12 cc  
Ph: 8.5-9.5

(d) From 3838' to total depth with gas.

IV. MATERIALS:

A. Casing Program:

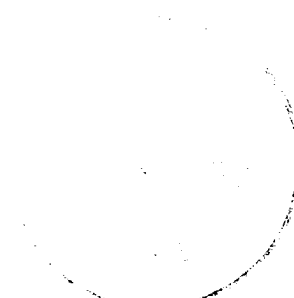
<u>Hole Size</u>	<u>Depth O.H.</u>	<u>Casing Size</u>	<u>Wt. &amp; Grade</u>	<u>Depth Set</u>
12 1/4"	200'	9 5/8"	36# K-55	200'
8 3/4"	3838'	7"	20# K-55	3838'
6 1/4"	3838'-T.D.	4 1/2"	10.5# K-55	3688'-T.D.

B. Tubing Program: 5830', 2 3/8", 4.7#, J-55, tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.

V. CEMENTING:

- A. Surface Casing 9 5/8" - Use 125 sks. Cl. "B" w/1/4# gel flake/sk. & 3% calcium chloride (100% excess to circ.). WOC 12 hrs. Test surface csg. to 600 PSI for 30 min.
- B. Intermediate Casing - Use 100 sks. Cl. "B" 65/35 poz w/12% gel & 15.52 gal water/sk. Tail in w/50 sks. Cl. "B" w/2% calcium chloride (80% excess to cover Ojo Alamo). WOC 12 hrs. Run temp. survey after 8 hrs. Test csg. to 600 PSI.
- C. Production Liner 4 1/2" - Use 210 sks. Cl. "B" w/4% gel & 1/4 cu. ft. of fine Gilsonite/sk. Precede cmt. w/20 bbls. water mixed w/3 sks. gel (70% excess to circ. liner). Set liner packoff & reverse out excess cmt. Run 6 1/4" bit to top of liner & pressure test. (Test 12 hrs. after plug is down) Lay down DP & run 3 7/8" bit on 2 3/8" EUE tubing to clean out liner. Perforate 18 hrs. after plug is down.

*DHM*  
DHM/ks



REHABILITATION AGREEMENT

Lease No.: SF 08410 ; Well Name and No.: San Juan 29-5 Unit #4A ;  
Location: NE 1/4 Sec. 6 , T. 29 N., R. 5 W.

Northwest Pipeline Corporation Oil Company intends to drill a well on surface owned by Porter Smith. The Lessee/operator agrees to complete the following rehabilitation work if the well is a producer:

Yes  No Maintain access road and provide adequate drainage to road.

Yes  No Reshape and reseed any area in excess of the pump and support facilities.

Other requirements: \_\_\_\_\_

The following work will be completed when the well is abandoned:

Yes  No Site will require reshaping to conform to existing topography.

Yes  No Pit will be fenced until dry, then filled to conform to topography.

Yes  No Entire disturbed area will be reseeded. If yes, the following seed mixture will be used:

Mixture #1 \_\_\_\_\_

Yes  No Access road will be rehabilitated and reseeded using the same seed mixture as above.

Yes  No Access road will remain for landowner's use.

Other requirements: \_\_\_\_\_

Landowner

Name: Porter Smith  
Address: 616 E. Blanco  
City: Aztec  
State: New Mexico  
Telephone: 334-6773  
Date: 3-4-77

Operator/Lessee

Name: Northwest Pipeline Corporation  
Address: P.O. Box 90  
City: Farmington  
State: New Mexico  
Telephone: 327-5351  
Date: 3-4-77

Yes  No I certify rehabilitation has been discussed with the surface owner.

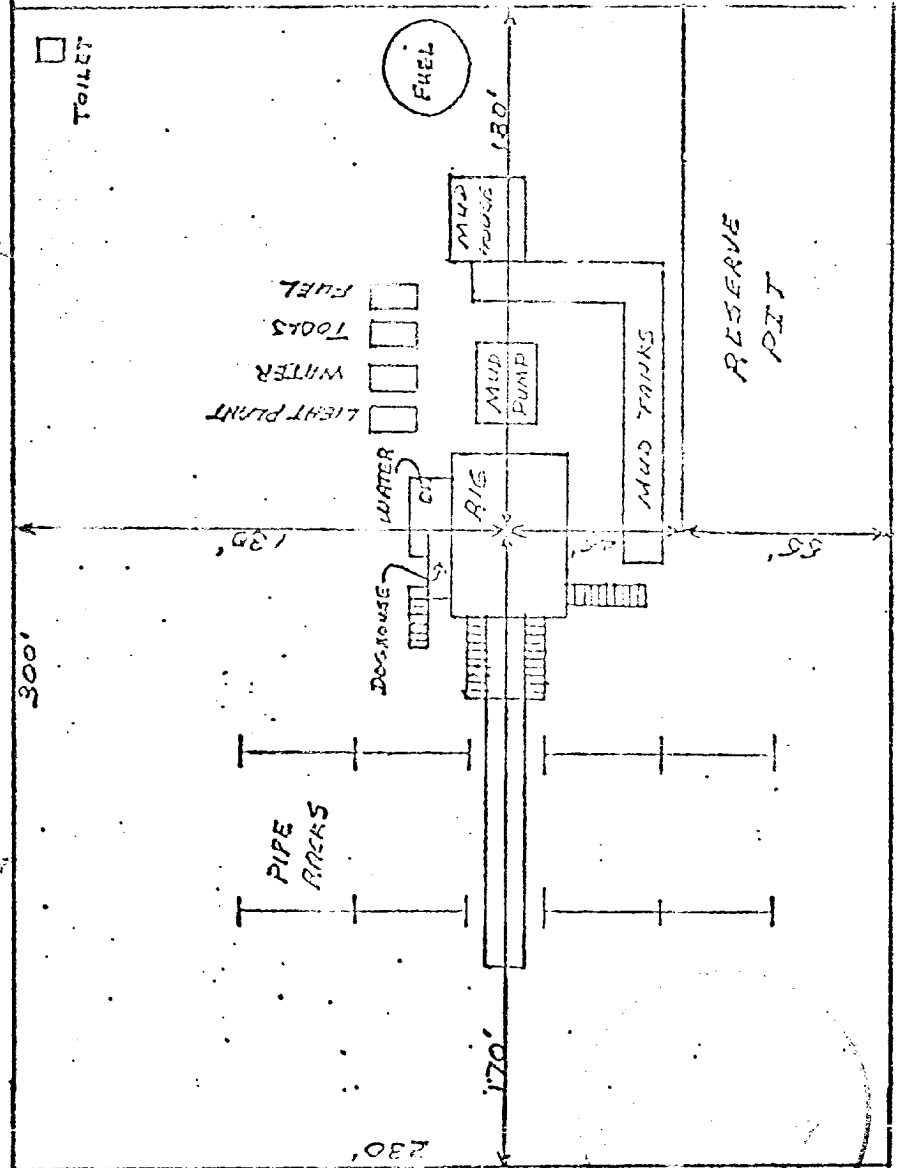
This agreement covers rehabilitation requirements only and does not affect any \_\_\_\_\_



NORTHWEST PIPELINE CORPORATION

LOCATION LAYOUT

500' FROM UNIT #49A



DATE: 3-9  
SCALE: 2 CM:

