

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-039-22534

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 1840' FNL & 970' EEL Sec 25 T29N R5W  
G At proposed prod. zone Same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
30 Miles East of Blanco, New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 970'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6795' GR

23. PROPOSED CASING AND CEMENTING PROGRAM

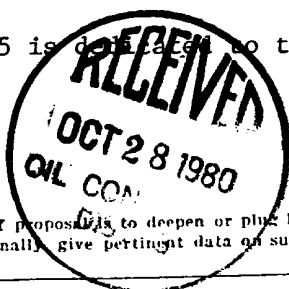
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	200'	115 sks
8-3/4"	7"	20#	4090'	205 sks
6-1/4"	4-1/2"	10.5#	3890' - 6160'	230 sks

Selectively perforate and stimulate the Pictured Cliff & Mesa Verde Formations.  
Completion plans will be determined at Total Depth.

A BOP will be installed after the surface casing is set and cemented. All subsequent work will be conducted through the BOP's.

The East half of Section 25 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.

21. SIGNED Paul C. Thompson TITLE Drilling Engineer DATE June 6, 1980  
Paul C. Thompson  
(This space for Federal or State office use)

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

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

NSC-1254 Hold C-104 PC for NSP MV-NWU-4A NM000  
\*See Instructions On Reverse Side

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1

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

Operator <b>NORTHWEST PIPELINE CORPORATION</b>			Lease <b>SAN JUAN 29-5 UNIT</b>		Well No. <b>100</b>
Unit Letter <b>G</b>	Section <b>25</b>	Township <b>29N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1885</b> feet from the <b>North</b> line and <b>1165</b> feet from the <b>East</b> line					
Ground Level Elev: <b>6786</b>	Producing Formation <b>Pictured Cliffs/Mesa Verde</b>		Pool <b>Gobernador PC/Blanco MV</b>	Dedicated Acreage <b>229.16</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

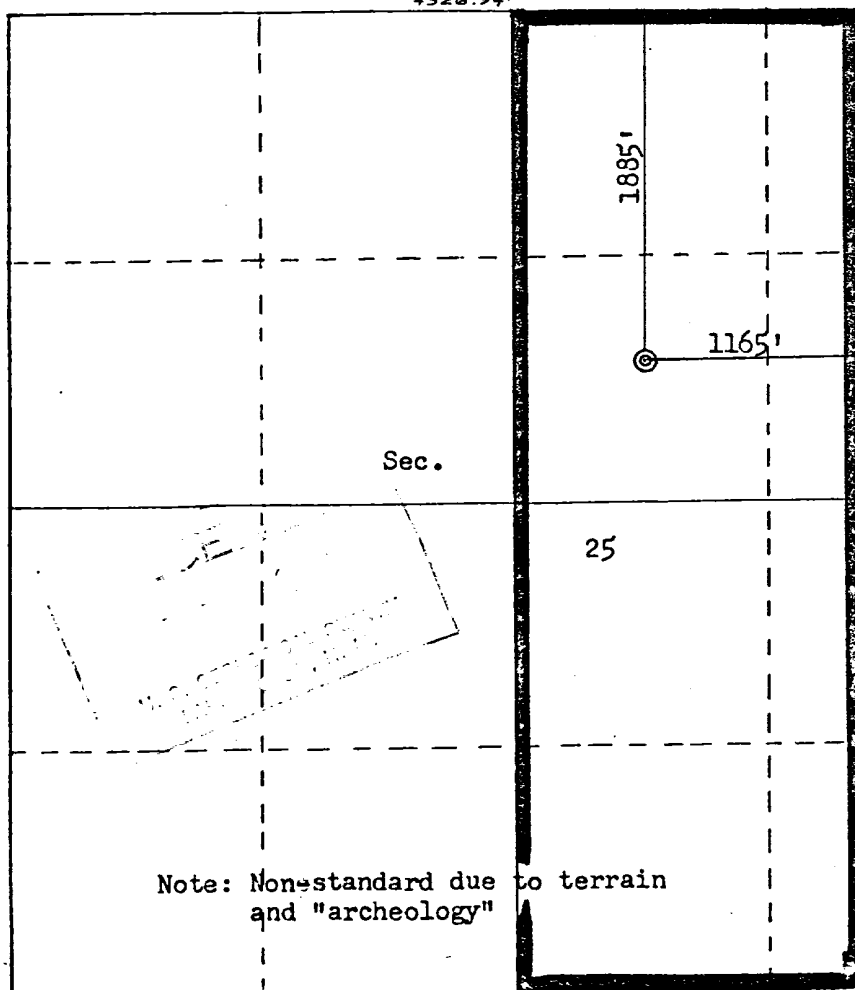
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Unitization

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.



Scale: 1"=1000'

## CERTIFICATION

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

*Paul C. Thompson*

Name

Paul C. Thompson

Position

Drilling Engineer

Company

Northwest Pipeline Corp

Date

July 23, 1980

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

July 1, 1980

Registered Professional Engineer

and Land Surveyor

Fred S. Kerstner

Certificate No.

3959

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other ☐  
2. NAME OF OPERATOR  
Northwest Pipeline Corporation  
3. ADDRESS OF OPERATOR  
P.O. Box 90, Farmington, N.M. 87401  
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1885' FNL & 1165' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:  
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:  
TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) Change Locations ☐  
SUBSEQUENT REPORT OF: ☐

5. LEASE  
SF 078917  
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.  
#100  
10. FIELD OR WILDCAT NAME  
Gobernador PC/Blanco Mesa Verde  
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec 25 T29N R5W  
12. COUNTY OR PARISH  
Rio Arriba  
13. STATE  
New Mexico  
14. API NO.  
15. ELEVATIONS (SHOW DF, KDB, AND WD)

DRILLING OPERATIONS ARE NOTED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

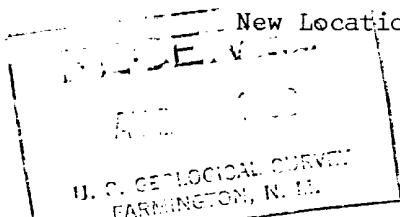
(NOTE: Report results of multiple completion or zone change on Form 9-330.)  
This action is subject to administrative appeal pursuant to 30 CFR 298.

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

This well location has been changed due to archaeological findings on location.

Old Location: 1840' FNL & 970' FEL

New Location: 1885' FNL & 1165' FEL



Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

18. I hereby certify that the foregoing is true and correct

SIGNED Donna Brace TITLE Production Clerk DATE August 7, 1980

(This space for Federal or State office use)

APPROVED BY Donna Brace 1980  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NMCCG

NORTHWEST PIPELINE CORPORATION  
DRILLING PROGNOSIS

San Juan 29-5 Unit #100

DATE: June 16, 1980

I. LOCATION: 970' FEL & 1840' FNL  
Sec 25 T29N R5W  
Rio Arriba Co., New Mexico

ELEVATION: 6795' GR

SURFACE: BLM  
MINERALS: FED SF 078917

FIELD: Gobernador Pictured Cliff / Blanco Mesa Verde

II. GEOLOGY: Surface Formation - San Jose

<u>A. Formation Tops:</u>	<u>Depth</u>	<u>Formation Tops</u>	<u>Depth</u>
Ojo Alamo	3015'	Lewis	3885'
Kirtland	3230'	Cliff House	5615'
Fruitland	3585'	Menefee	5660'
Pictured Cliffs	3790'	Point Lookout	5945'
		Total Depth	6160'

B. Logging Program: Production Casing Point - Gamma Ray-Induction and Density.

C. Natural Gauges: Gauge at last connection above 5660', 5945', and at Total Depth. Gauge any noticeable increases in gas flow @ depth other than those noted above. Record all gauges on daily drilling and morning reports.

III. Drilling:

A. Contractor:

B. Mud Program: Mud, water and gas will be furnished by Northwest Pipeline Corporation from Surface to Total Depth.

- a) From Surface to Intermediate casing depth to be drilled with mud.
- b) From Intermediate casing to Total Depth to be drilled with gas.

C. While drill pipe is in use the pipe rams will be tested not less than once each day. The blind rams will be tested once each trip. All tests will be reported in the Northwest Pipeline tour reports as to time and date.

IV. Materials:

A. Casing Program:

<u>Hole Size</u>	<u>Depth O.H.</u>	<u>Casing Size</u>	<u>WT &amp; Grade</u>
12-1/4"	200'	9-5/8"	32.3# H-40
8-3/4"	4090'	7"	20# K-55
6-1/4"	6160'	4-1/2"	10.5# K-55 (3890' - 6160')

B. Float Equipment:

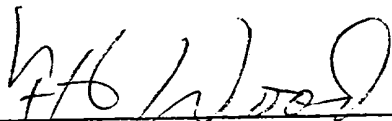
- a) Surface Casing: 9-5/8" - B&W Regular Pattern Shoe.
- b) Intermediate Casing: 7" - Dowell guide shoe (Code #50101-070) and self fill insert float collar (Code #53003-070). Seven centralizers (Code #56011-070) spaced every other joint above the shoe. Place float one joint above shoe.
- c) Liner: 4-1/2" - Larkin geyser shoe (Fig 222) and Larkin Flapper type float collar (Fig 404). Burns liner hanger with neoprene pack off.


C. Tubing Program: 6110' of 2-3/8", 4.7#, EUE, J-55 tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.  
3800' of 1-1/4", 2.33#, J-55 IJ tubing w/ expendable check valve on bottom (PC).

D. Well Head Equipment: WKM well head. WKM representative to set slips and make cut off.

V. CEMENTING:

- A. Surface Casing: 9-5/8" - Use 115 sks of Class "B" with 1/4# gel flake per sk and 3%  $\text{CaCl}_2$  (100% excess to circulate). WOC 12 hrs. Test surface casing to 600 psi for 30 min.
- B. Intermediate Casing: 7" - Use 130 sks of 65/35 poz with 6% gel. (Yield-1.63). Tail with 75 sks of Class "G" with 2%  $\text{CaCl}_2$  (65 excess to cover Ojo Alamo). WOC 12 hrs. Run temp survey @ 8 hrs. Test casing to 600 psi.
- C. Production Liner: 4-1/2" - Use 230 sks Class "B" with 4% gel and 1/4 cu.ft of fine Gilsonite/sk. Precede cement with 20 bbls water mixed with 3 sks of gel. (70% excess to circulate liner). Clean out with 6-1/4" bit to top of liner and pressure test with rig pump (test 12 hrs after plug is down). Lay down drill pipe and run 3-7/8" bit on an 2-3/8" EUE tubing to clean out liner. Perforate 18 hrs after plug is down.

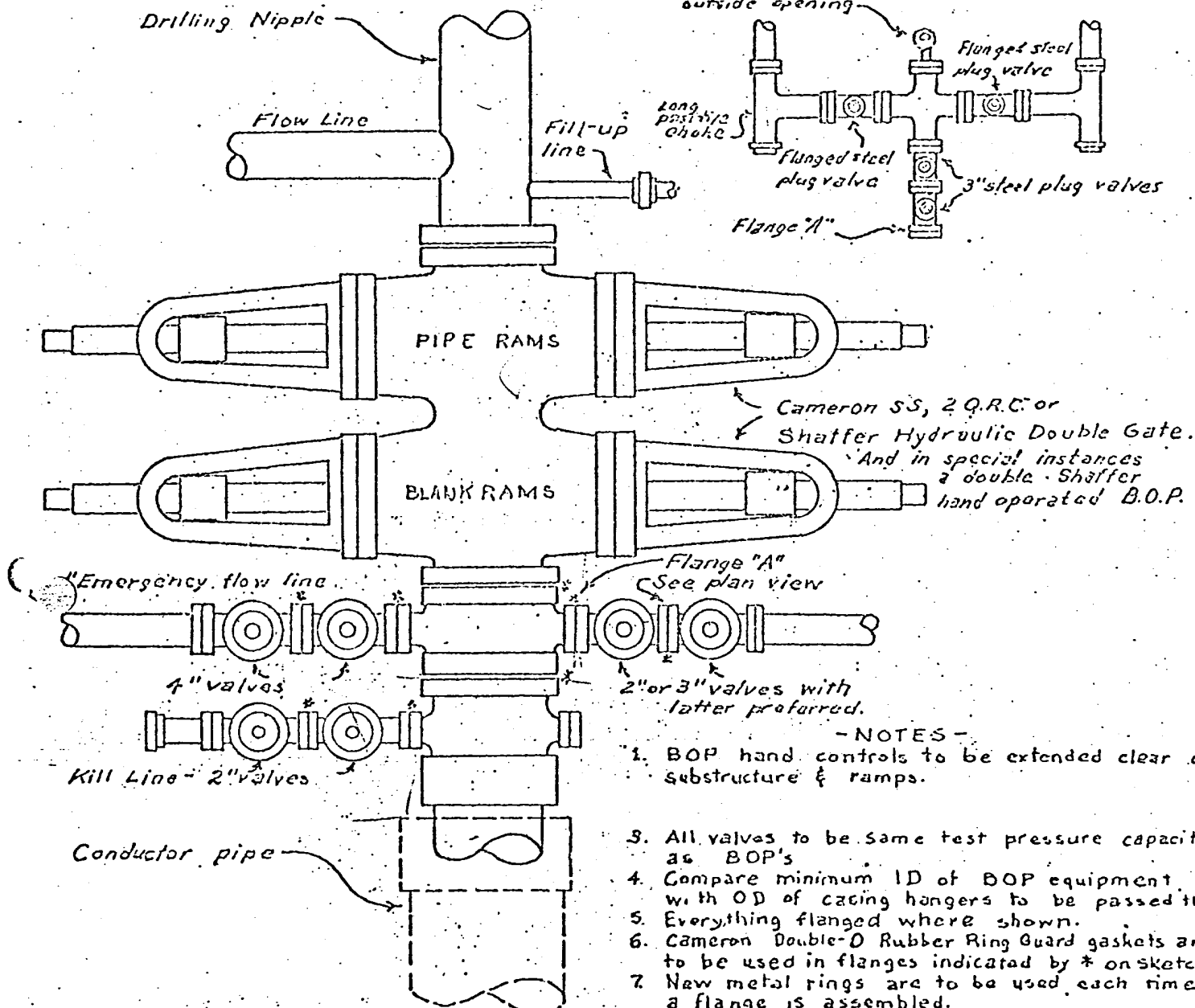
  
\_\_\_\_\_  
F. H. Wood

  
MJT/djb

Original: Well File  
sc: Regular Distribution

## PLAN VIEW - CHOKE MANIFOLD

Flanged cross with pressure gauge in outside opening. Screw connections are permissible but discouraged.



## - NOTES -

1. BOP hand controls to be extended clear of substructure & ramps.
3. All valves to be same test pressure capacity as BOP's
4. Compare minimum ID of BOP equipment with OD of casing hangers to be passed thru.
5. Everything flanged where shown.
6. Cameron Double-D Rubber Ring Guard gaskets are to be used in flanges indicated by \* on sketch.
7. New metal rings are to be used each time a flange is assembled.
8. BOP's to be well braced at all times.

If possible install head so kill line valves will be under BOP's for protection. These valves to be kept closed after BOP's tested & kill line removed (by use of quick union) to fill-up line. When used this way kill line must be high-pressure.

## SINGLE PIPE RAM BLOWOUT PREVENTOR HOOKUP

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 1%. 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 measure 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.
5. Location and Type of Water Supply: Water needed for the drilling operation will be hauled from the Conoco waterhole.
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. Ancillary Facilities: There will be no camps or airstrips associated with the drilling of this well.
9. Well Site Layout: See attached location layout sheet. <sup>Blank</sup> There will be a drainage ditch above the cut slope.
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 of the site. For this well code number 595-34127, 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.

All liquids from the line will be contained at the site unless otherwise specified by the surface agency's representative.

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 grasses.

12. Operator's Representative: Paul Thompson - P.O. Box 90 - Farmington, New Mexico 87401. Phone: 327-5351 Extension # 115
13. Certification:

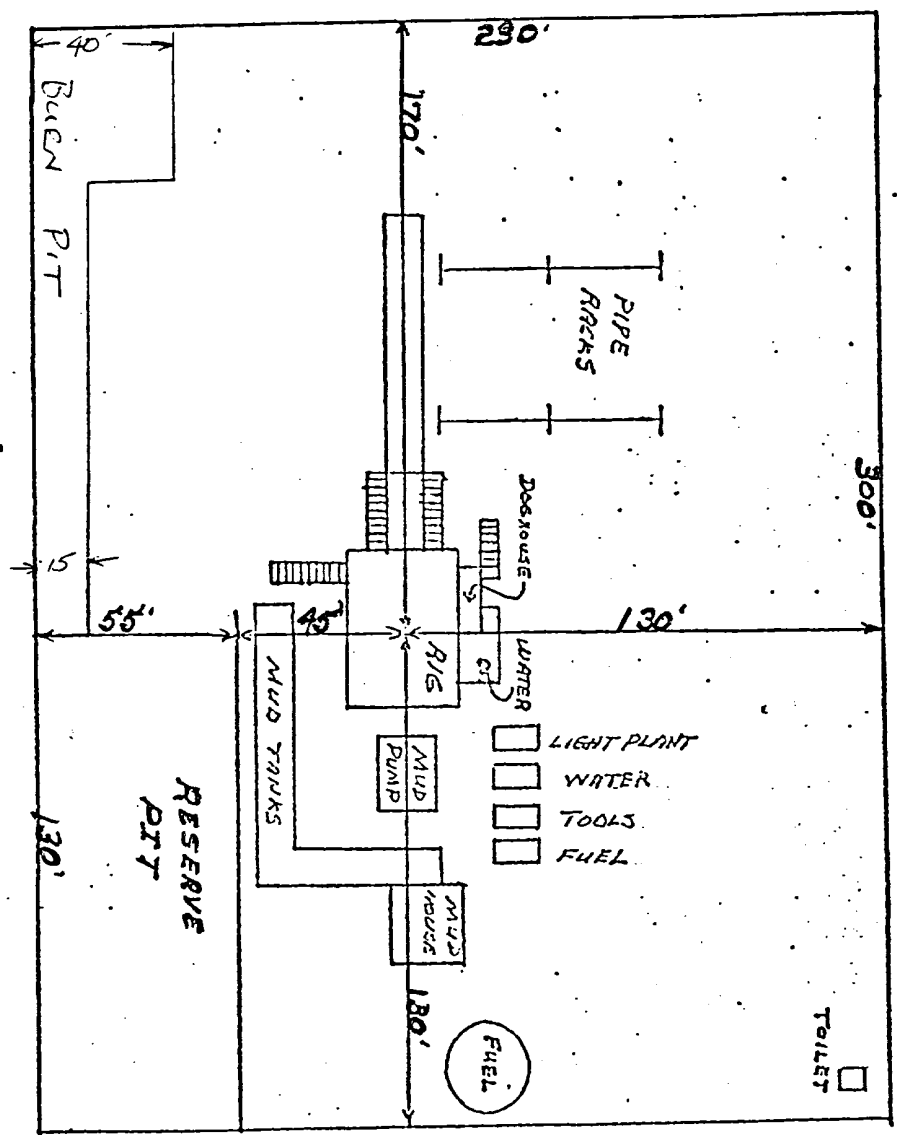
I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will 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.

Paul C. Thompson  
Paul Thompson  
Drilling Engineer

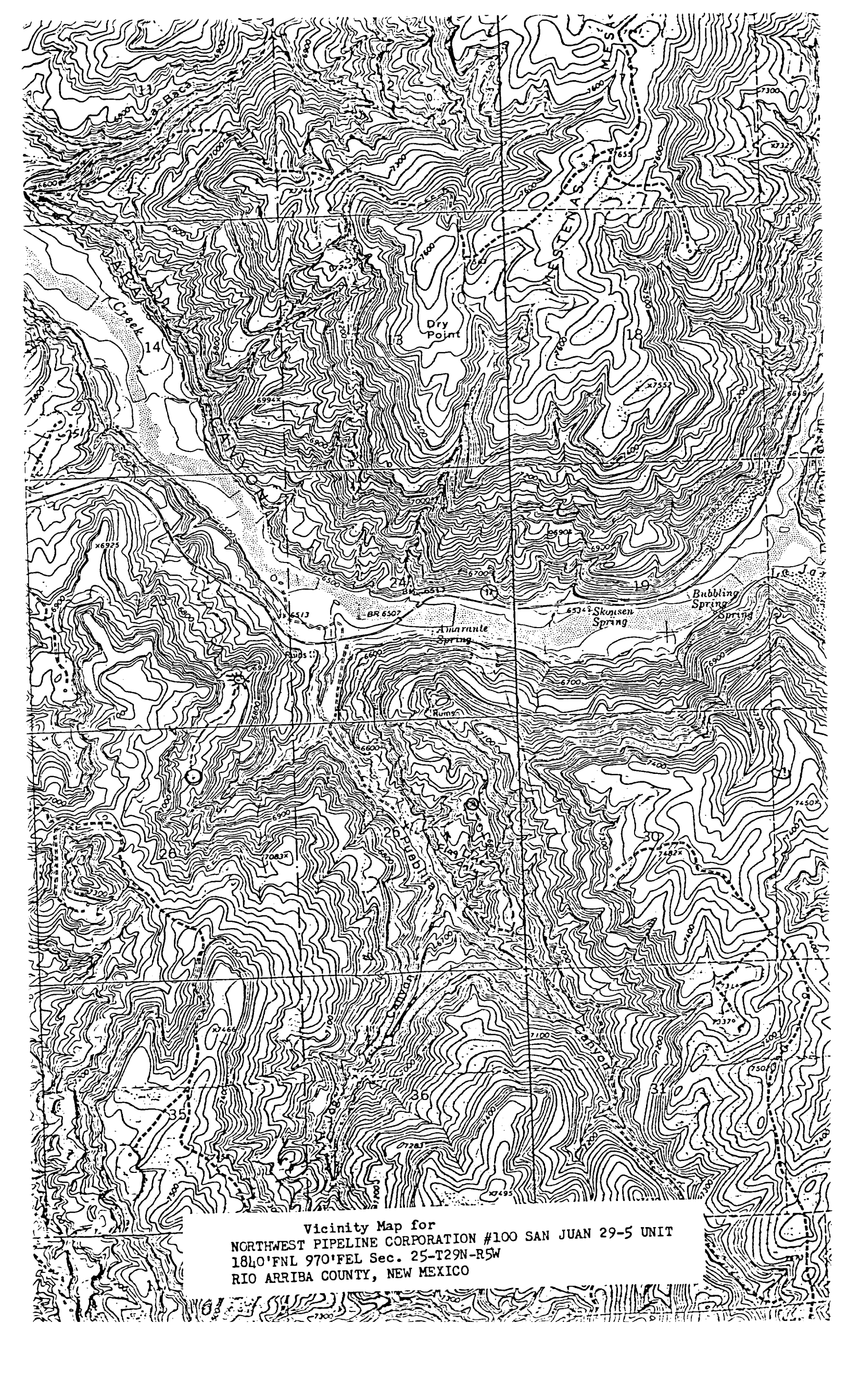


# NORTHWEST PIPELINE CORPORATION

LOCATION LAYOUT SAN JUAN 29.5 UNIT # 100



DATE: 6/11/80  
SCALE: 1 CM = 20'



Vicinity Map for  
NORTHWEST PIPELINE CORPORATION #100 SAN JUAN 29-5 UNIT  
1840'FNL 970'FEL Sec. 25-T29N-R5W  
RIO ARriba COUNTY, NEW MEXICO