

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30-039-22573  
5. LEASE DESIGNATION AND SERIAL NO.  
SF 078997

## 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

805' FSL &amp; 820' FWL Section 10, T30N, R5W

At proposed prod. zone Same as above

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

25 Miles East of Navajo Dam

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

805'

## 16. NO. OF ACRES IN LEASE

N/A? 2560

## 17. NO. OF ACRES ASSIGNED

TO THIS WELL

320

## 18. DISTANCE FROM PROPOSED LOCATION\*

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

4000'

## 19. PROPOSED DEPTH

7905'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

6429' GR

## 22. APPROX. DATE WORK WILL START\*

December 1980

## 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"	32.3#	350'	185 sx
8-3/4"	7"	20#	3610'	140 sx
6-1/4"	4-1/2"	10.5# & 11.6#	7905'	360 sx

DRILLING AND CEMENTING ARE  
SUBJECT TO THE ATTACHED  
"PERMIT TO DRILL"This action is subject to administrative  
appeal pursuant to 30 CFR 290.Selectively perforate and stimulate the Dakota Formation. 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 South half of Section 10 is dedicated to this well. Gas is dedicated.

RECEIVED

SEP 23 1980

U.S. GEOLOGICAL SURVEY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on current 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  
prevention program, if any.

24.

SIGNED

Paul C. Thompson

TITLE

Drilling Engineer

DATE 9-16-80

(This space for Federal or State office use)

PERMIT NO.

APPROVED  
AS AMENDED

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY

TITLE

DATE

DEC 22 1980

James F. Sims  
DISTRICT ENGINEER

See Instructions On Reverse Side

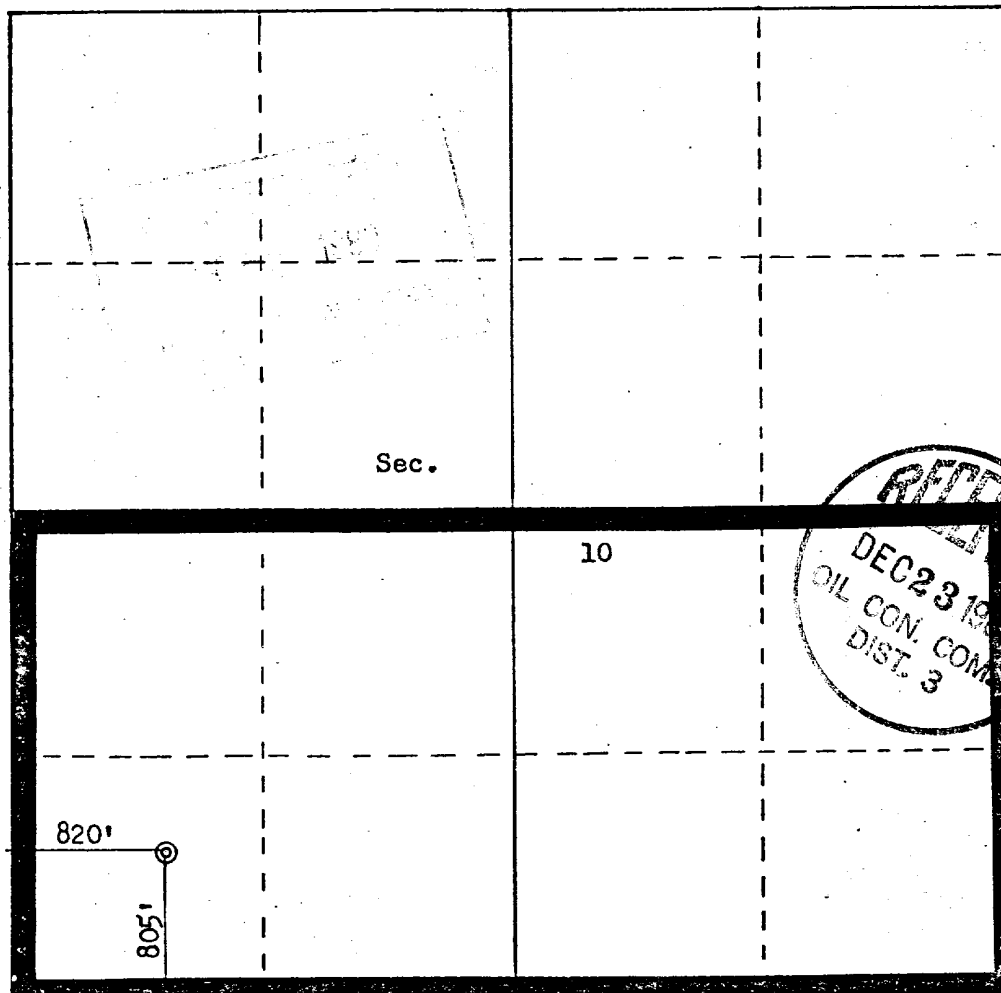
PCT/djb

al 3m

1000

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

Operator <b>NORTHWEST PIPELINE CORPORATION</b>			Lease <b>SAN JUAN 30-5 UNIT</b>		Well No. <b>72</b>
Unit Letter <b>M</b>	Section <b>10</b>	Township <b>30N</b>	Range <b>5W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>805</b> feet from the <b>South</b> line and <b>820</b> feet from the <b>West</b> line					
Ground Level Elev: <b>6429</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>		Dedicated Acreage: <b>320</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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   If answer is "yes," type of consolidation <u>Unitization AND DRILLING</u> 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.	
Name	<b>Paul C. Thompson</b>
Position	<b>Drilling Engineer</b>
Company	<b>Northwest Pipeline Corp.</b>
Date	<b>August 28, 1980</b>
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	<b>August 26, 1980</b>
Registered Professional Engineer and Land Surveyor <b>Fred B. Kerr Jr.</b>	
Certificate No.	<b>3950 &amp; KERR, JR.</b>

# NORTHWEST PIPELINE CORPORATION

## DRILLING PROGNOSIS

Well Name: San Juan 30-5 Unit #72

Date: September 16, 1980

I. LOCATION: 805' FSL & 820' FWL  
Section 10, T30N, R5W  
Rio Arriba Co., N.M.

ELEVATION: 6429' GR

SURFACE: BLM  
MINERALS: Fed SF 078997

FIELD: Basin Dakota

### II. GEOLOGY: Surface - San Jose

<u>A. Formation:</u>	<u>Depth:</u>	<u>Formation:</u>	<u>Depth:</u>
Ojo Alamo	2643'	Mancos	5910'
Kirtland	2731'	Gallup	6735'
Fruitland	3041'	Greenhorn	7625'
Pictured Cliffs	3201'	Graneros	7675'
Lewis	3410'	Dakota	7805'
Cliff House	5430'	Total Depth	7905'
Point Lookout	5625'		

B. Logging Program: Gamma Ray Induction & Density at Total depth.

C. Natural Gauges: Gauge @ 5430', 6735', 7805', and @ Total Depth. Record all gauges on daily drilling report and morning report. Gauge all noticeable increases in gas while drilling & report.

### III. DRILLING:

A. Contractor:

B. Mud Program: Mud, water & gas will be furnished by Northwest Pipeline Corp from surface to total depth.

- a) From Surface to Intermediate casing depth to be drilled with mud.
- b) From Intermediate casing depth to T.D. will be drilled with gas.

C. While drill pipe is in use, pipe rams shall be actuated to test proper functioning not less than once each day. The blind rams shall be actuated to test proper functioning 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</u>	<u>Casing Size</u>	<u>Wt &amp; Grade</u>
12-1/4"	350'	9-5/8"	36# K-55
8-3/4"	3610'	7"	20# K-55
6-1/4"	7905'	4-1/2"	10.5# K-55 (To 6800')
		4-1/2"	11.6# K-55 (6800' to TD)

B. Float Equipment:

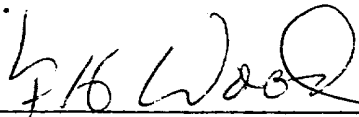
- a) Surface Casing: 9-5/8" - Larkin Guide Shoe and Self-fill insert float valve.
- b) Intermediate Casing: 7" - Dowell guide shoe, Dowell self fill insert float valve. Dowell centralizers five (5).
- c) Production Casing: 4-1/2" - Larkin Geyser Shoe. Larkin Flapper type float collar.

C. Tubing: 7855' of 2-3/8", 4.7#, J-55, 10 RD EUE tubing with common seating nipple above bottom joint.

- D. Well Head Equipment: Gray Tool Company drawing No. E-5533, or equivalent.  
Well head representative to set slips on intermediate and production strings.

V. CEMENTING:

- A. Surface Casing: 9-5/8" - Use 185 sks of C1 "B" cement with 1/4# gel flake per sack and 3%  $\text{CaCl}_2$  (100% excess to circulate 9-5/8" casing). WOC 12 hrs. Test to 600<sup>2</sup>psi for 30 min.
- B. Intermediate Casing: 7" - Use 65 sks of 65/35 Class "B" poz with 12% gel and 15.2 gal of water per sk. Tail in with 75 sacks of Class "B" with 2%  $\text{CaCl}_2$  (240 cu.ft of slurry, 65% excess to cover Ojo Alamo). Use top rubber plug only. Run tempreature survey after 8 hrs. WOC 12 hrs. Test casing to 1200 psi for 30 min.
- C. Production Casing: 4-1/2" - Precede cement with 40 bbls of water mixed with 4 sks gel. Cement with 260 sks of C1 "B" cement with 8% gel, 12-1/2# fine gilsonite per sk and 0.4% HR-4. Tail in with 100 sks of C1 "B" cement with 1/4# fine tuf-plug per sack. ( 660 cu.ft of slurry), (50% excess to fill to intermediate csg). Run temperature survey after 8 hrs. Perforate after 18 hrs.

  
F. H. Wood

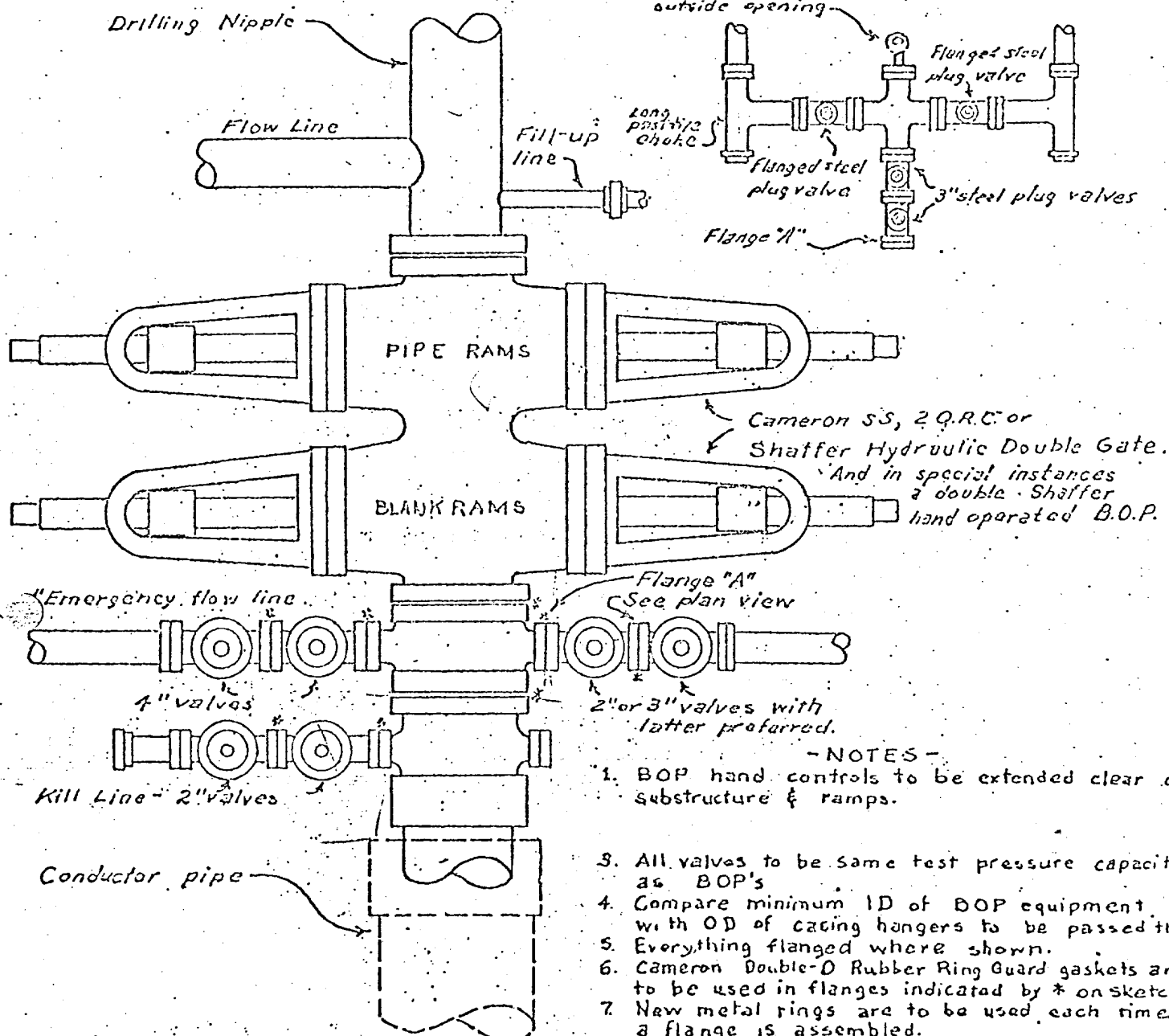
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Original: Well File  
sc: Regular Distribution

## 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.
2. All valves to be same test pressure capacity as BOP's.
3. Compare minimum ID of BOP equipment with OD of casing hangers to be passed thru.
4. Everything flanged where shown.
5. Cameron Double-D Rubber Ring Guard gaskets are to be used in flanges indicated by \* on sketch.
6. New metal rings are to be used each time a flange is assembled.
7. 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 Pine River.
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.
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 the seed mixture recommended by BLM.

All equipment above ground will be painted a non-glare, non-reflective, non-chalking color that simulates the natural color of the site.

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.

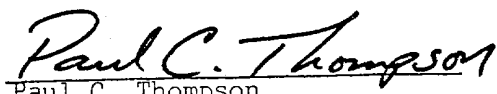
All liquids from the line will be contained at the site unless otherwise specified by the surface agency's representative.

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.

12. Operator's Representative: Paul C. Thompson - P.O. Box 90, Farmington, New Mexico 87401. Phone: 327-5351.

13. Certification:

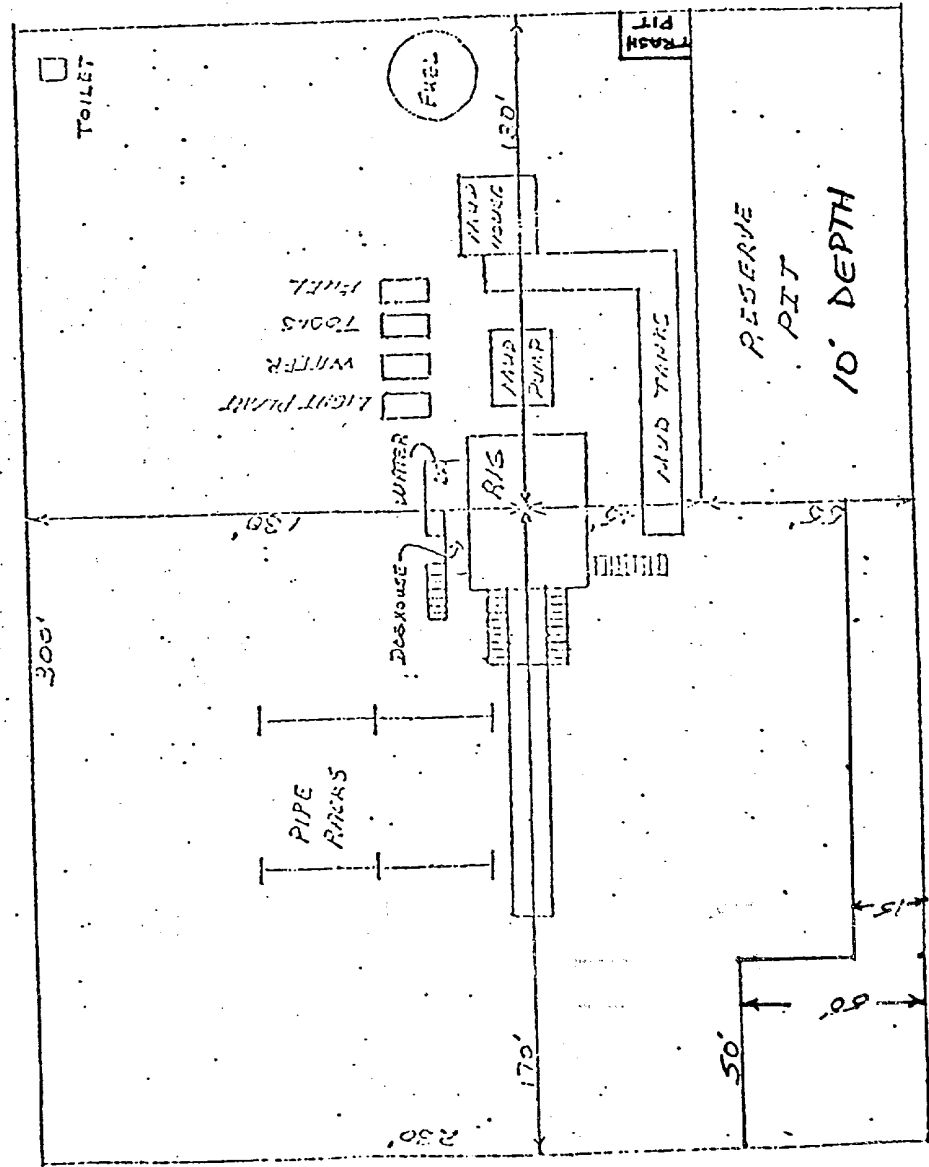
I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will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

NORTHWEST PIPELINE CORP.

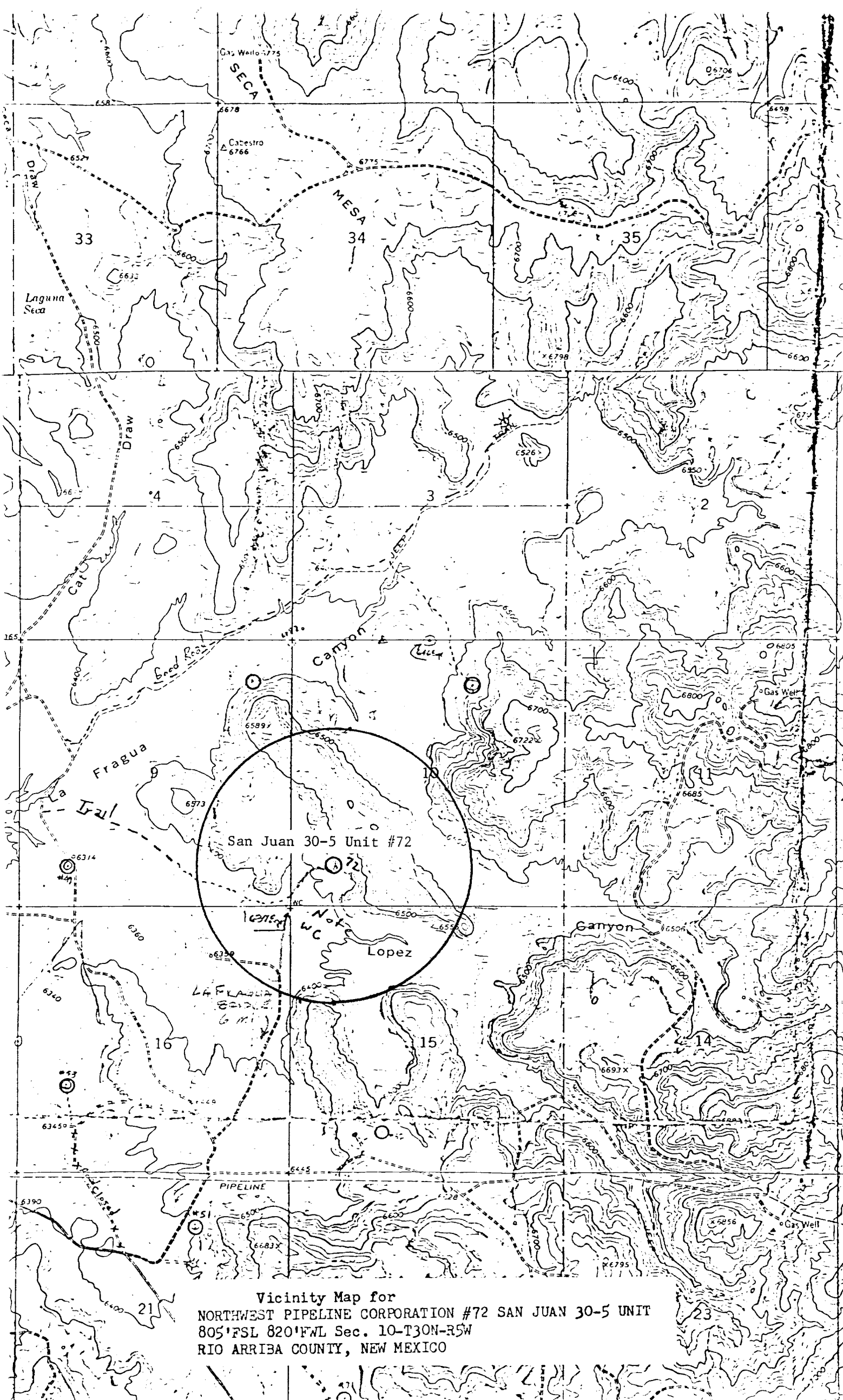
DAKOTAS & MESA VEEDEE

SAN JUAN 30-5 UNIT #72



DATE: 9/17/80  
SCALE: 1cm = 20'





Vicinity Map for  
NORTHWEST PIPELINE CORPORATION #72 SAN JUAN 30-5 UNIT  
805' FSL 820' FWL Sec. 10-T30N-R5W  
RIO ARriba COUNTY, NEW MEXICO