

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

1190' FNL & 1190' 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 drlg. unit line, if any)

1190'

16. NO. OF ACRES IN LEASE

NA

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160.22

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

NA

19. PROPOSED DEPTH

3660'

20. ROTARY OR CABLE TOOLS

Rotary

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

6530' GR

22. APPROX. DATE WORK WILL START*

July 20, 1978

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'	85 sks
6-3/4"	2-7/8"	6.4#	3660'	250 sks

Selectively perforate and stimulate the Pictured Cliffs 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 NW/4 of Sec. 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. E. Richardson

TITLE Drilling Engineer

DATE 5/10/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE MAY 12 1978

CONDITIONS OF APPROVAL, IF ANY:

ok Brak

*See Instructions On Reverse Side

U.S. GEOLOGICAL SURVEY
FARMINGTON, N.M.

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

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

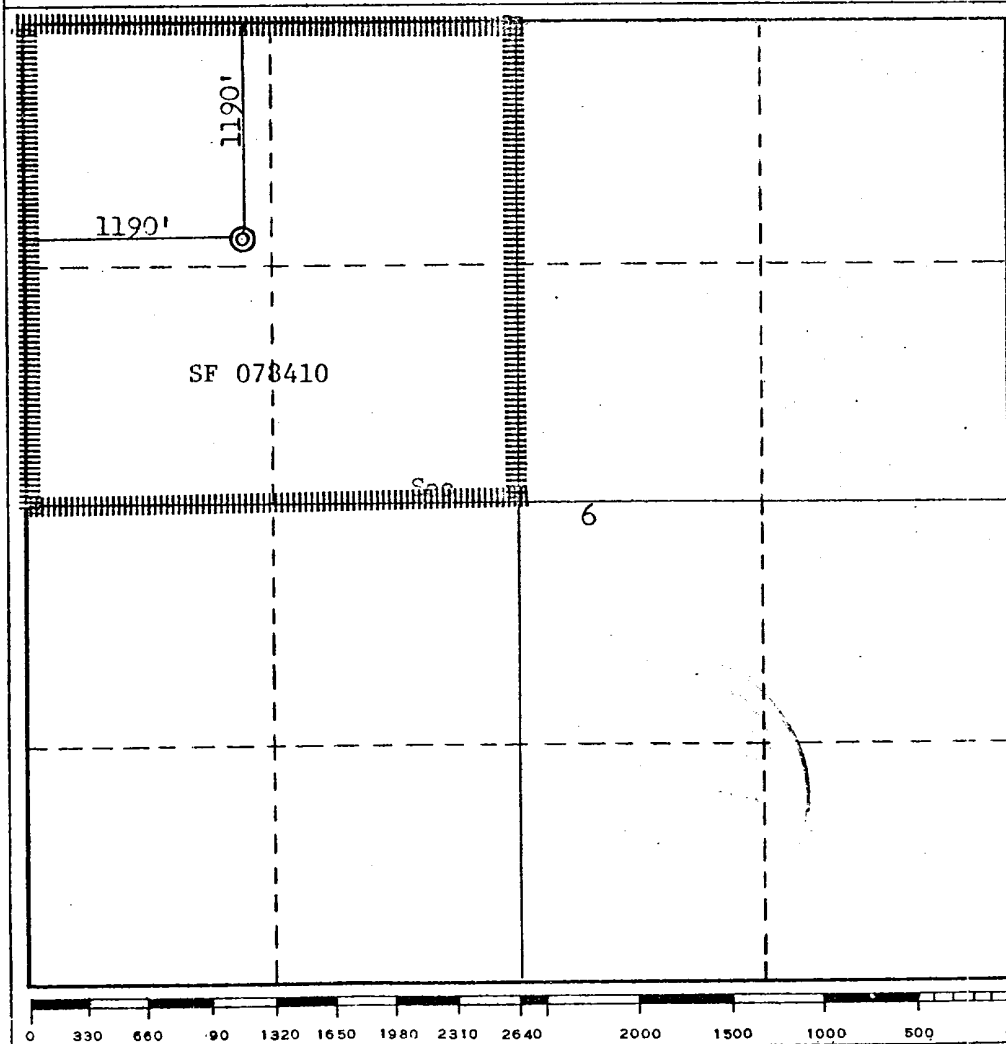
Operator NORTHWEST PIPELINE CORPORATION			Lease SAN JUAN 29-5 UNIT		Well No. 81
Unit Letter D	Section 6	Township 29N	Range 5W	County Rio Arriba	
Actual Footage Location of Well:					
1190 feet from the North line and		1190 feet from the West line			
Ground Level Elev. 6530	Producing Formation Pictured Cliffs	Pool W. 1/4 Sec. 6	Dedicated Acreage: 160.22 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.



CERTIFICATION

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

D.E. Richardson
Name

D.E. Richardson

Position

Drilling Engineer

Company

Northwest Pipeline Corp.

Date

5/10/78

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

May 7, 1978

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.

3950

OPERATIONS PLAN

San Juan 29-5 Unit #81

May 10, 1978

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

LEASE NUMBER: SF 078410

FIELD: Blanco Pictured Cliffs

ELEVATION: 6530' GL

II. GEOLOGY:

A. Formation Tops:

Ojo Alamo: 2754' Total Depth: 3660'
Kirtland: 2855'
Fruitland: 2975'
Pictured Cliffs: 3658'

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:

July 20, 1978 2 weeks

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 2600'.

Starloss: CMC mud

Viscosity: 25-30 sec/qt.

Weight: 8.9-9.0 #/gal.

Water Loss: 7-12 cc

Ph: 8.5-9.5

c) From 2600' to 3660'

Starloss: 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"	150	8 5/8"	24# K-55	150'
6 3/4"	150' -3660'	2 7/8"	6.4# K-55	3660'

Operations Plan

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V. CEMENTING:

- A. Surface Casing 8 5/8" - Use 85 sks. Class "B" cement with 1/4# flocele per sack and 3% calcium chloride (100% excess to circulate). WOC 12 hours. Test surface casing to 600 PSI for 30 minutes.
- B. Production Casing 2 7/8" - Use 250 sacks 65/35 poz with 10% gel and 1/4 cu. ft. fine gilsonite per cu. ft. slurry and tail in with 50 sacks Class "B" cement with 2% calcium chloride. WOC hours. Run temperature survey after 12 hours.

DER/aa

/ch

NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

for the San Juan 29-5 Unit

Well Number 81 .

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 run off 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. Ancillary 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 grasses.

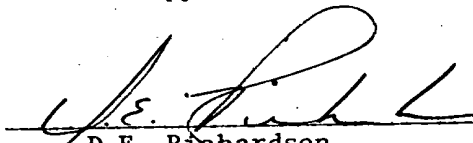
12. Operator's Representative: D.E. Richardson, P.O. Box 90 - Farmington, New Mexico 87401. Phone: 327-5351 Extension #62.

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.

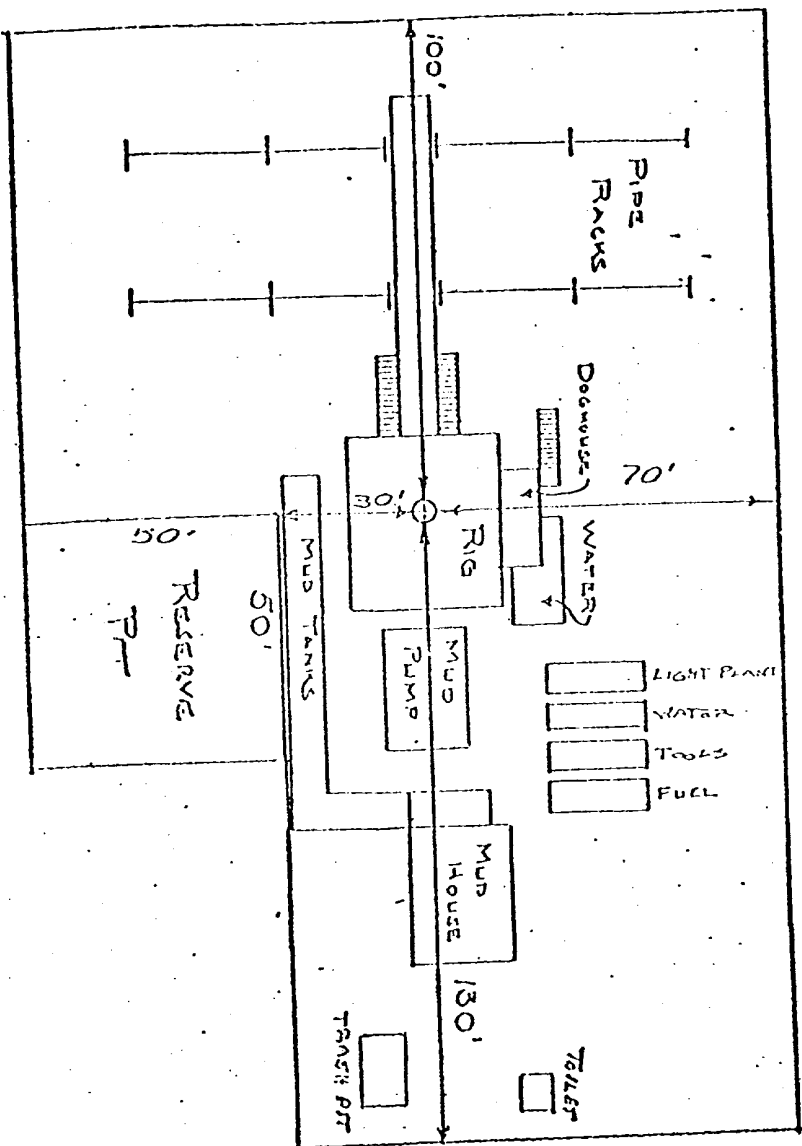
5/10/78

Date


D.E. Richardson
Drilling Engineer

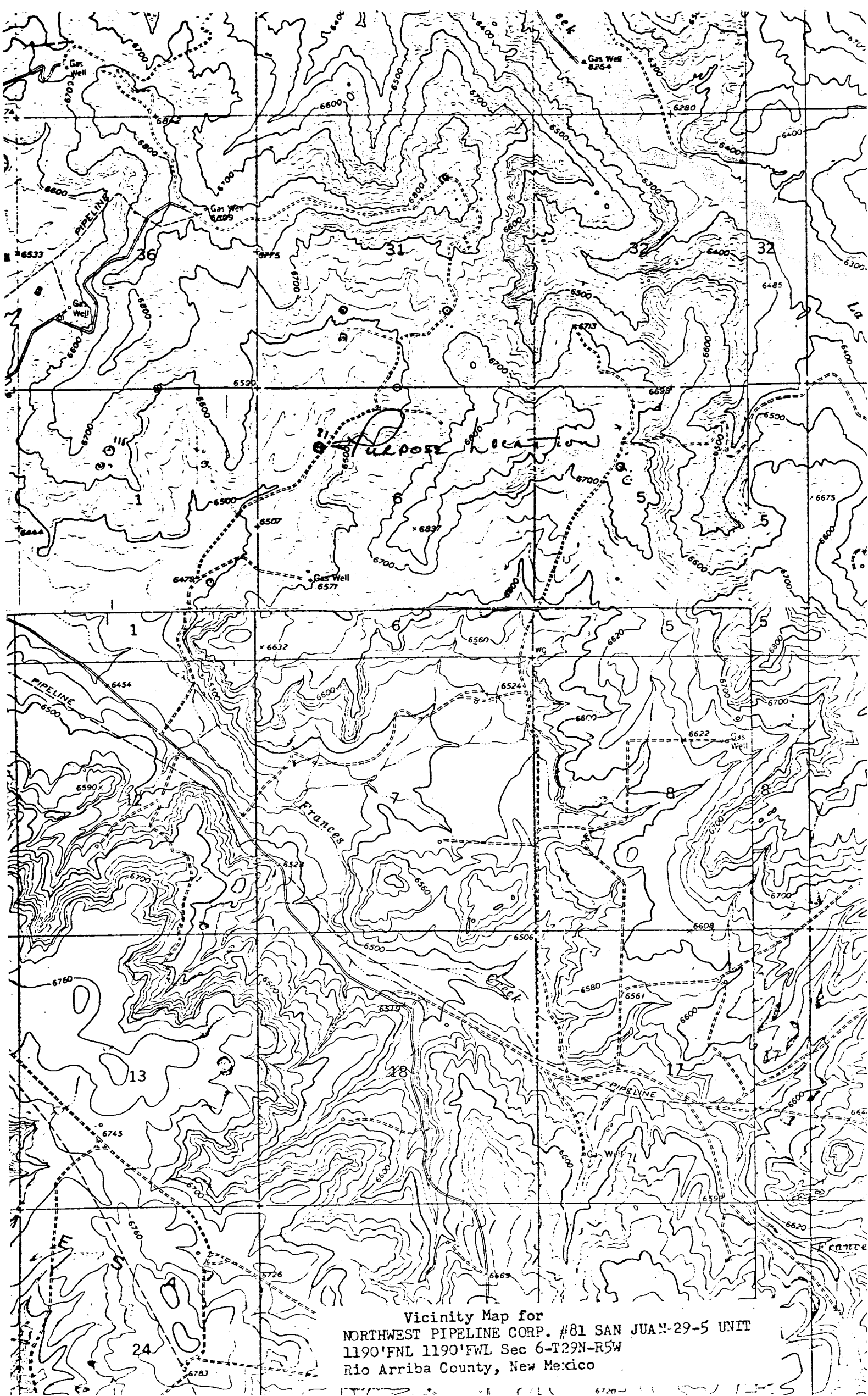
DER/ch

NORTH WEST PIPELINE CORPORATION San Juan 29-5 Unit # 81
 LOCATION LAYOUT



DATE: 05-10-78

SCALE: 1cm = 20'



Vicinity Map for
NORTHWEST PIPELINE CORP. #81 SAN JUAN-29-5 UNIT
1190'FNL 1190'FWL Sec 6-T29N-R5W
Rio Arriba County, New Mexico