

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 820' FSL & 820' FEL
At proposed prod. zone as above

5. LEASE DESIGNATION AND SERIAL NO.
SF-078999

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
San Juan 31-6 Unit

8. FARM OR LEASE NAME
San Juan 31-6 Unit

9. WELL NO.
31

10. FIELD AND POOL, OR WILDCAT
Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 35, T31N, R6W

12. COUNTY OR PARISH
Rio Arriba

13. STATE
NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
62 miles east of Aztec, N.M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 820

16. NO. OF ACRES IN LEASE
NA

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. 1580

19. PROPOSED DEPTH
8200

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6406' GR

22. APPROX. DATE WORK WILL START*
July 15, 1979

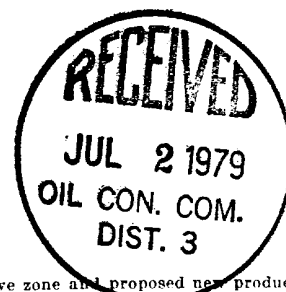
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	32.3#	350	185 sks
8 3/4"	7"	20#	3900	165 sks
6 1/4"	4 1/2"	10.5# & 11.6#	8200	355 sks

Selectively perforate and stimulate the Dakota formation.

A BOP will be installed after the surface casing is set & cemented.
All subsequent work will be conducted through the BOPs.

The South half of Section 35 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 William Billman TITLE Drilling Engineer DATE 6/26/79
W. J. Billman
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

ak Frank

*See Instructions On Reverse Side

JUN 29 1979

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-78

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

Operator NORTHWEST PIPELINE CORPORATION			Lease SAN JUAN 31-6 UNIT		Well No. 31
Unit Letter P	Section 35	Township 31N	Range 6W	County Rio Arriba	
Actual Footage Location of Well: 820 feet from the South line and 820 feet from the East line					
Ground Level Elev. 6406	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320 Acres


1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

Sec.		35	
SF-078999		820'	
820'		820'	



CERTIFICATION

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

William J. Billman
Name

William J. Billman

Position

Drilling Engineer

Company

Northwest Pipeline

Date

6/26/79

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

June 23, 1979

Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerro Jr.
Fred B. Kerro Jr.

Certificate No.

3950

OPERATIONS PLAN

I. WELL NAME: San Juan 31-6 #31

June 27, 1979

LOCATION: 820' FSL & 820' FEL
Sec. 35, T31N, R6W

LEASE NUMBER: SF-078999

FIELD: Basin Dakota

ELEVATION: 6406' GR

II. GEOLOGY:

A. Formation Tops:	Cliff House	5396'
Ojo Alamo	2645'	Point Lookout 5596'
Kirtland	2697'	Greenhorn 7601'
Fruitland	3007'	Graneros 7651'
Pictured Cliffs	3167'	Dakota 7826'
Lewis	3426'	Total Depth 8200'

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

C. Coring Program: None

D. Natural Gauges: Gauges at 5596', 7601', 7651', and at total depth. Gauge any noticeable increases in gas flow at depths other than those noted above. Record all gauges on daily drilling reports and tower reports.

III. DRILLING:

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

B. Mud Program:

a) Spud Mud: Water, lime and gel.

b) Surface to 350'.

Viscosity: 32-38 sec/qt.

Weight: 8.8-9.2 #/gal.

Water Loss: 8-20 cc

Ph: 8.5-9.5

c) From 350' to 3900'.

Viscosity: 36-45 sec/qt.

Weight: 8.5-9.5 #/gal.

Water Loss: 8-20 cc

Ph: 8.5-9.5

d) From 3900' to total depth with gas.

IV. MATERIALS:

A. Casing Program:

<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt. & Grade</u>
12 1/4"	350'	9 5/8"	32.3# H-40
8 3/4"	3900'	7"	20# K-55
6 1/4"	8200'	4 1/2"	10.5# & 11.6# K-55

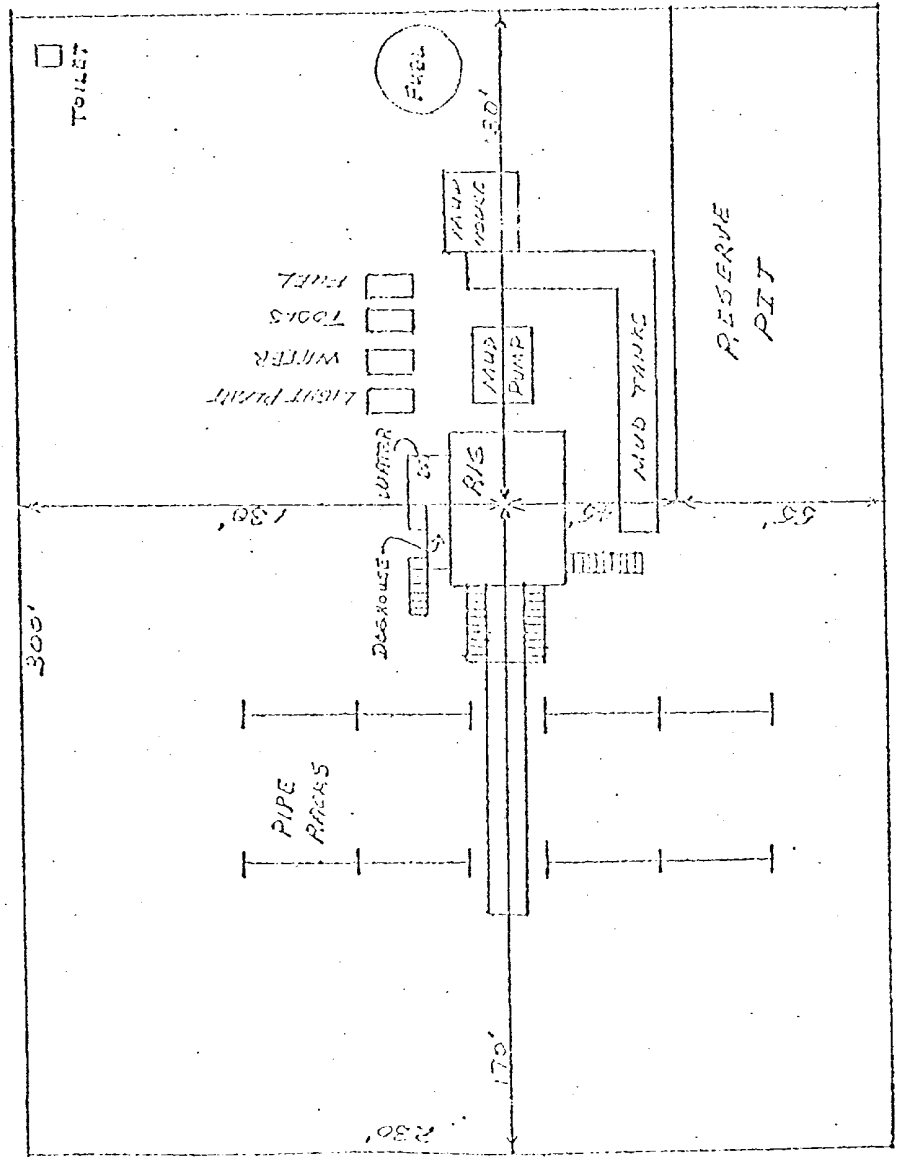
- B. Float Equipment:
Surface - 9 5/8" Larkin guide shoe.
Intermediate - 7" Guide shoe, self-filling insert float valve.
Production - 4 1/2" geyser shoe, flapper type float collar.
- C. Tubing: 8150' of 2 3/8" 4.7#, J-55, 8RD EUE tubing with a common seating nipple above bottom joint.
- D. Well Head 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 sacks of class "B" cement with 1/4# gel flake per sack and 3% calcium chloride, (100% excess to circulate 9 5/8" casing). WOC 12 hours. Test to 600 psi for 30 minutes.
- B. Intermediate Casing: 7" - Use 165 sacks of 65/35 Class "B" poz with 12% gel and 15.52 gallons of water per sack. Tail in with 50 sacks of Class "B" with 2% calcium chloride (360 cu. ft. of slurry 50% excess to cover Ojo Alamo). Use top rubber plug only. Run temperature survey after 8 hours. WOC 12 hours. Test casing to 1200 psi for 30 minutes.
- C. Production Casing: 4 1/2" - Precede cement with 40 barrels of water mixed with 4 sacks gel. Cement with 225 sacks of Class 1 "B" cement with 8% gel, 12 1/2# fine gilsonite per sack and 0.4% HR-4. Tail in with 100 sacks of Class "B" cement with 1/4% fine tuf-plug per sack and 0.4% HR-4 per sack.

WJB/ch

NORTHWEST PIPELINE CORP. Jan 21-6 #31



DATE:

SCALE: 1cm = 20'

NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

for the San Juan 31-6 Unit

Well Number 31

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 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.

Multi-Point Surface Use Plan

Page 2

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: W.J. Billman - P.O. Box 90 - Farmington, New Mexico 87401. Phone: 327-5351 Extension #103.
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.

6/28/79
Date

William J. Billman
W.J. Billman
Drilling Engineer

WJB/ch

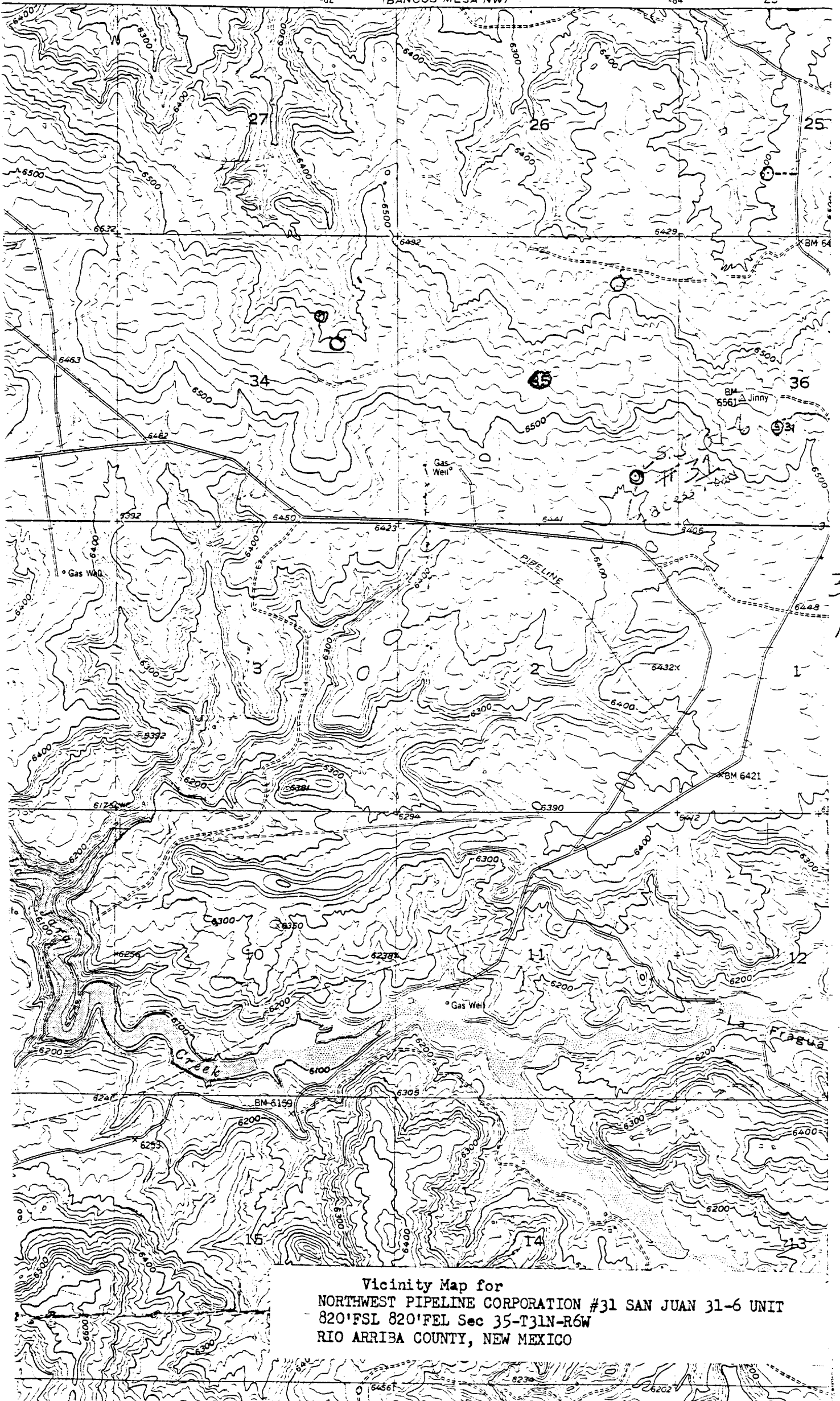
27°30' 281

282

4557 IV NW
(BANCOS MESA NW)

284

25'



Vicinity Map for
 NORTHWEST PIPELINE CORPORATION #31 SAN JUAN 31-6 UNIT
 820'FSL 820'FEL Sec 35-T31N-R6W
 RIO ARriba COUNTY, NEW MEXICO

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