Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-23687

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SF-078640

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME: San Jusn 32-7 Unit

8. FARM OR LEASE NAME: San Juan 32-7 Unit

2. NAME OF OPERATOR: Northwest Pipeline Corporation

9. WELL NO.: 57

3. ADDRESS OF OPERATOR: P.O. Box 90 - Farmington, New Mexico 87401

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1630' FSL & 800' FEL
At proposed prod. zone: as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 17, T32N, R7W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 23 miles east of Aztec, New Mexico

12. COUNTY OR PARISH: San Juan

13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
800'	NA	E 346.13
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
NA	8200'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6576' GR

22. APPROX. DATE WORK WILL START*: Sept. 1, 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#	8200'	225 sks.

Selectively perforate and stimulate the Dakota formation.

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

Gas is dedicated.

The East half of Section 17 is dedicated to this well.

RECEIVED AUG 2 1979 OIL CON. COM. DIST. 3

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 M. Turnbaugh M. Turnbaugh TITLE Assoc. Drilling Engineer DATE 7/25/79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

ch write NSL

*See Instructions On Reverse Side

AUG 1 1979
U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

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	Lease	Well No.
NORTHWEST PIPELINE CORPORATION	SAN JUAN 32-7 UNIT	57

Unit Letter	Section	Township	Range	County
I	17	32N	7W	San Juan

Actual Footage Location of Well:
1630 feet from the South line and 800 feet from the East line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
6576	Dakota	Basin	320 Acres

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

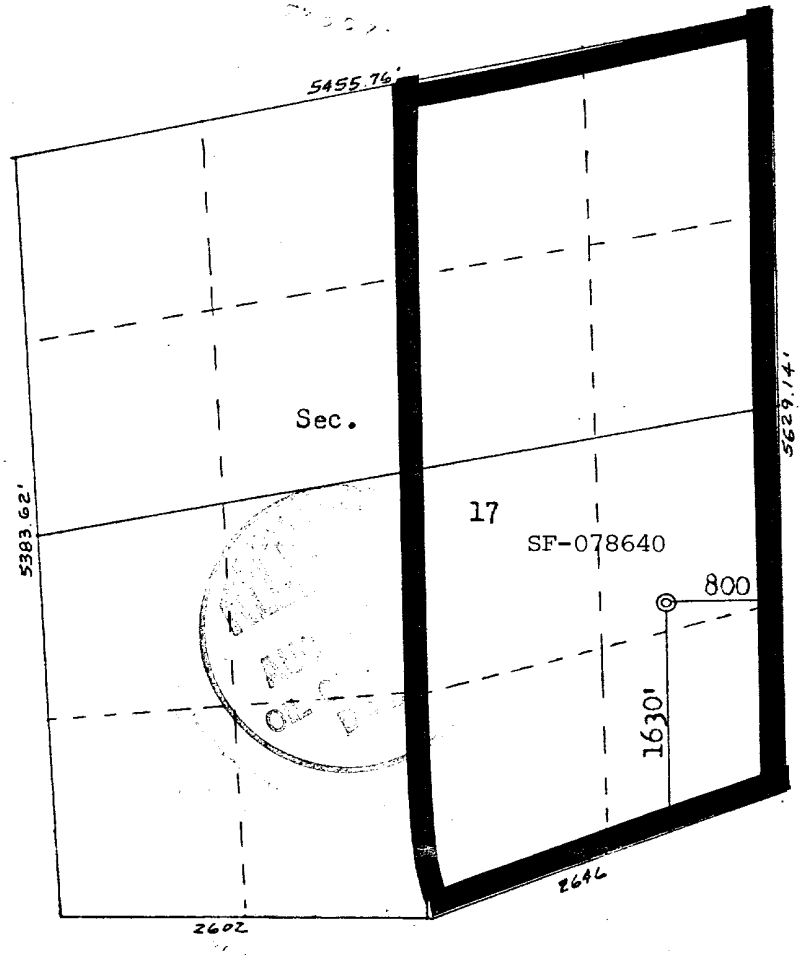
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 _____

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"=1320'

CERTIFICATION

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

Mike Turnbaugh

Name: Mike Turnbaugh

Position: Assoc. Drilling Engineer

Company: Northwest Pipeline Corp.

Date: 7/31/79

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: July 20, 1979

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

for the

San Juan 32-7 Unit

Well Number 57

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 approximatley 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 private sources.

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. 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 specified by land use authorities.

    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.

MJT/skw

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: M. J. Turnbaugh, 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.

7/31/79
Date

M. Turnbaugh
M. Turnbaugh
Assoc. Drilling Engineer

MJT/skw

OPERATIONS PLAN

I. WELL NAME: San Juan 32-7 Unit #57 — July 31, 1979

LOCATION: 1630' FSL & 800' FEL
Sec. 17, T32N, R7W — LEASE NUMBER: SF-078640

FIELD: Basin Dakota — ELEVATION: 6576' GR

II. GEOLOGY:

A. Formation Tops:

Ojo Alamo	2635'	Cliff House	5422'
Kirtland	2723'	Point Lookout	5622'
Fruitland	3033'	Greenhorn	7627'
Pictured Cliffs	3193'	Graneros	7677'
Lewis	3452'	Dakota	7852'
		Total Depth	8200'

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

C. Coring Program: None

D. Natural Gauges: Gauge at 5622', 7627', 7677', and at total depth. Gauge any noticable increases in gas flow at depths other than those noted above. Record all gauges on daily drilling report 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:

Hole Size	Depth	Casing Size	Wt. & Grade
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:

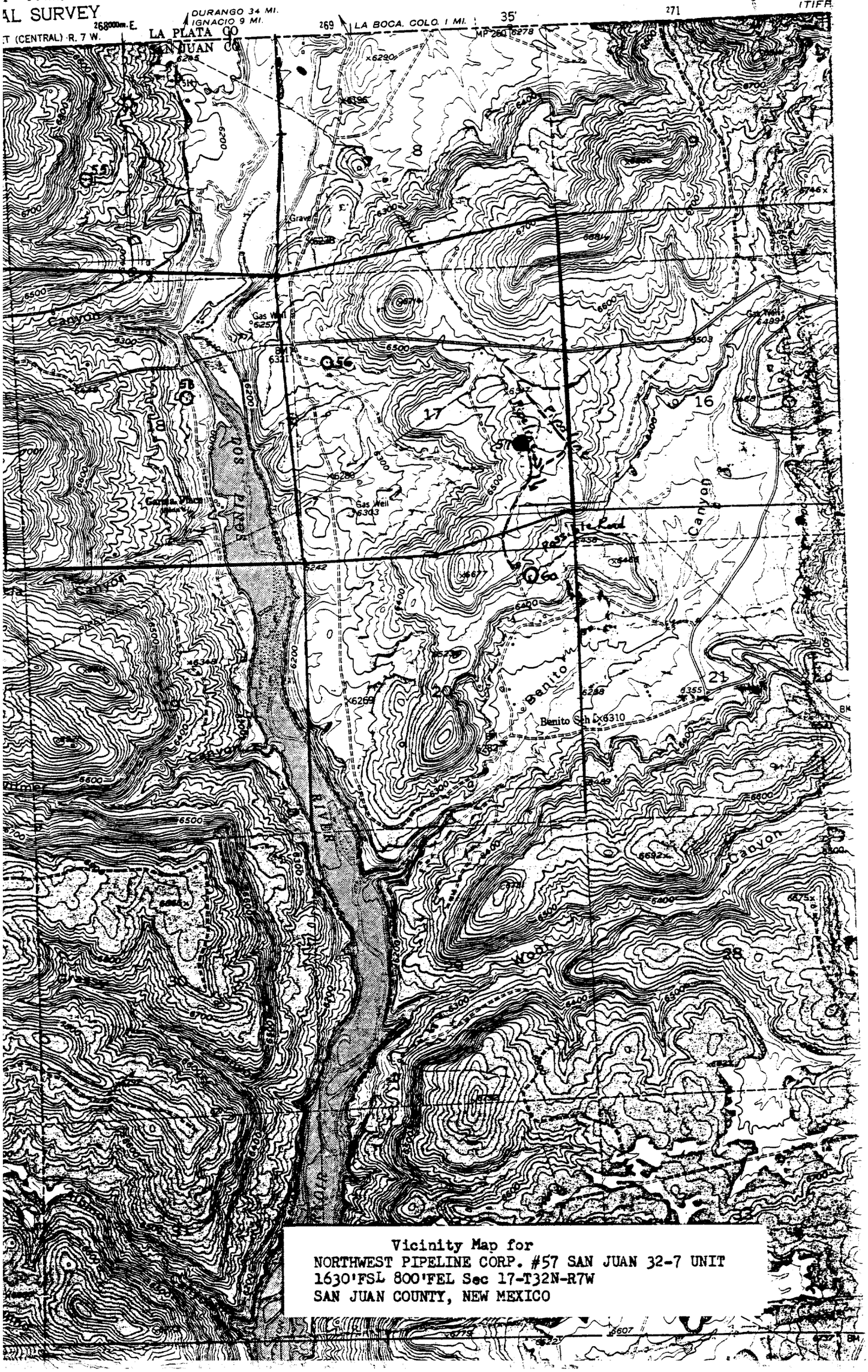
A. Surface Casing: 9 5/8" - Use 185 sacks of Class "B" cement with 1/4# gel flake per sack and 3% Calcium Chloride, (100% excess to circulate 9 5/8" casing). WOC 12 hours. Test to 600 psi for 30 minutes.

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 "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.

MJT/ch

STATES
F THE INTERIOR
AL SURVEY



Vicinity Map for
NORTHWEST PIPELINE CORP. #57 SAN JUAN 32-7 UNIT
1630'FSL 800'FEL Sec 17-T32N-R7W
SAN JUAN COUNTY, NEW MEXICO