

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-039-22232

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
 El Paso Natural Gas Company

3. ADDRESS OF OPERATOR
 PO Box 289, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 945'N, 1820'W
 At proposed prod. zone same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 6 miles south of Governador, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 945'

16. NO. OF ACRES IN LEASE unit

17. NO. OF ACRES ASSIGNED TO THIS WELL N/ 320.00

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1600'

19. PROPOSED DEPTH 5960'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 6527'GL

22. APPROX. DATE WORK WILL START*

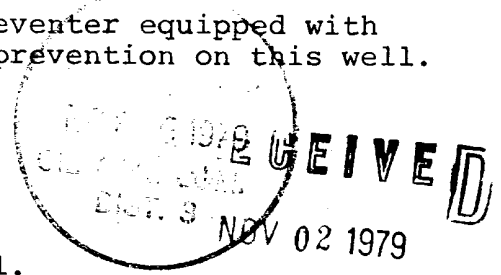
23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|------------------------------|
| 13 3/4" | 9 5/8" | 36.0# | 200' | 224 cu.ft. to circulate |
| 8 3/4" | 7" | 20.0# | 3685' | 173 cu.ft. to cover Ojo Alam |
| 6 1/4" | 4 1/2" liner | 10.5# | 3535-5960' | 304 cu.ft. to circ. liner |

Selectively perforate and sandwater fracture the Mesa Verde formation.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well.

This gas is dedicated.



The N/2 of Section 31 is dedicated to this well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and production; if new productive zone, give location, depth, and production; if directional, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Drilling Clerk DATE 10-29-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

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

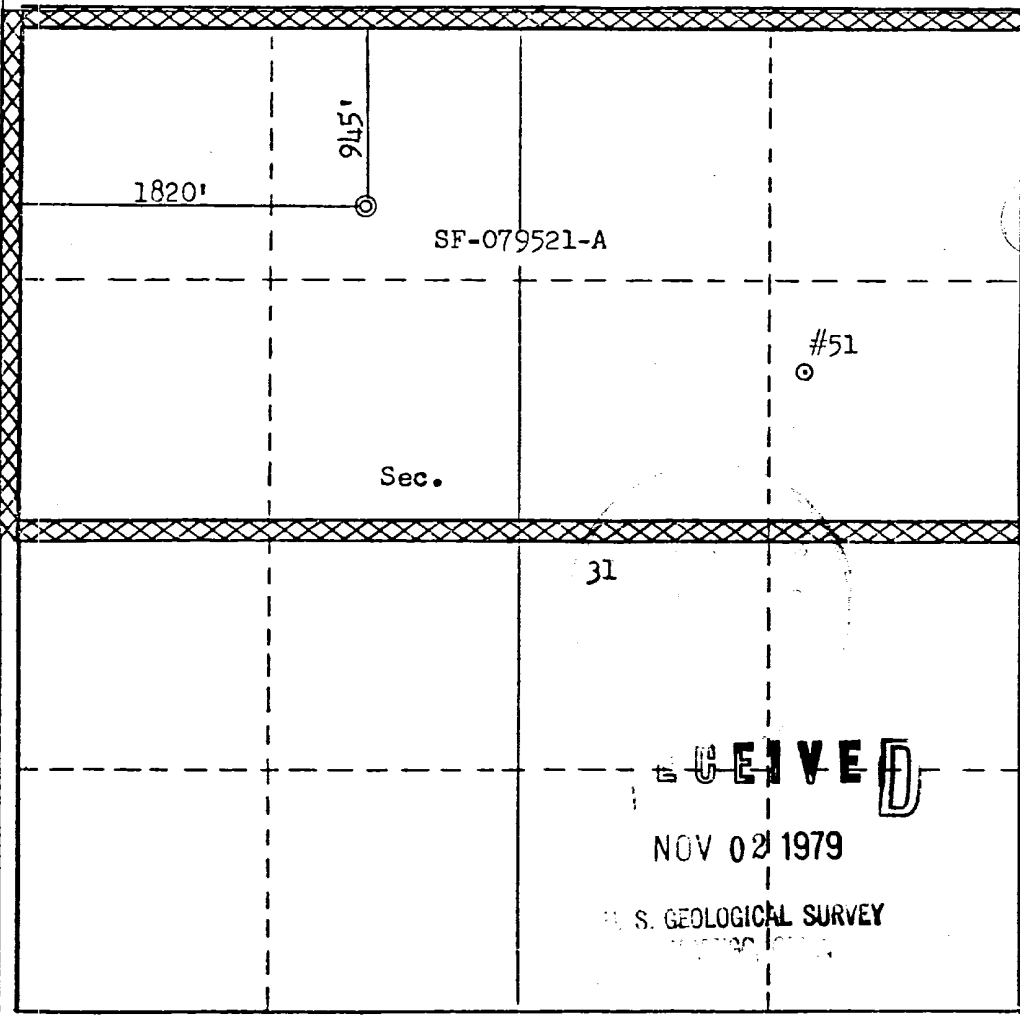
| | | | | | |
|---|--|--|----------------------------------|---|------------------------|
| Operator EL PASO NATURAL GAS COMPANY | | Lease SAN JUAN 28-5 UNIT (SF-079521-A) | | | Well No. 51A |
| Unit Letter C | Section 31 | Township 28N | Range 5W | County RIO ARRIBA | |
| Actual Footage Location of Well: 945 feet from the North line and 1820 feet from the West line | | | | | |
| Ground Level Elev. 6527 | Producing Formation Mesa Verde | | Pool Blanco Mesa Verde | Dedicated Acreage: 320.00 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.

[Signature]
Name
Drilling Clerk

Position
El Paso Natural Gas Co.

Company
October 29, 1979

Date

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
August 31, 1979

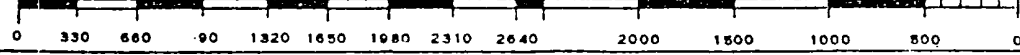
Registered Professional Engineer and/or Land Surveyor
[Signature]
Fred J. Karp, Jr.

Certificate No.
3950

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Multi-Point Surface Use Plan
San Juan 28-5 Unit #51A

1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing gas gathering lines. Map No. 1 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from 27-5 Water Well.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1,

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7. cont'd. will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.
8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
11. Other Information - The terrain is rolling hills with pinon, sage and juniper growing. Cattle and deer are occasionally seen on the proposed project site.
12. Operator's Representative - W.D. Dawson, PO Box 990, Farmington, NM
13. Certification - I hereby certify that I, or persons under my direct supervision, 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 El Paso Natural Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

L. A. Aimes

L. A. Aimes
Project Drilling Engineer

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October 29, 1979

Operations Plan
San Juan 28-5 Unit #51A

I. Location: 945'N, 1820'W, Section 31, T-28-N, R-5-W, Rio Arriba County, NM

Field: Blanco Mesa Verde

Elevation: 6537'GL

II. Geology:

| | | | | |
|--------------------|------------|----------|---------------|-------|
| A. Formation Tops: | Surface | San Jose | Lewis | 3484' |
| | Ojo Alamo | 2640' | Mesa Verde | 5114' |
| | Kirtland | 2764' | Menefee | 5182' |
| | Fruitland | 3028' | Point Lookout | 5512' |
| | Pic.Cliffs | 3340' | Total Depth | 5960' |

B. Logging Program: GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 5105', 5170', 5500' and at Total Depth.
Also gauge any noticeable increase in gas. Record all gauges in daily drilling report and on morning report.

III. Drilling:

A. Mud Program: mud from surface to 3685'. Gas from intermediate casing to Total Depth.

IV. Materials:

| | | | | |
|--------------------|------------------|--------------|--------------------|----------------------|
| A. Casing Program: | <u>Hole Size</u> | <u>Depth</u> | <u>Casing Size</u> | <u>Wt.&Grade</u> |
| | 13 3/4" | 200' | 9 5/8" | 36.0# H-40 |
| | 8 3/4" | 3685' | 7" | 20.0# K-55 |
| | 6 1/4" | 3535-5960' | 4 1/2" | 10.5# K-55 |

B. Float Equipment: 9 5/8" surface casing - cement guide shoe.

7" intermediate casing - cement guide shoe and self-fill insert float valve, 5 stabilizers every other joint above shoe. Run float two joints above shoe.

4 1/2" liner - 4 1/2" liner hanger with neoprene packoff.
Geyser shoe and flapper type float collar

C. Tubing: 5960' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple one joint above bottom. Tubing will be open ended.

D. Wellhead Equipment: 10" 2000 x 9 5/8" casing head. 10" 2000 x 6" 2000 xmas tree.

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Operations Plan - San Juan 28-5 Unit #51A

V. Cementing:

9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

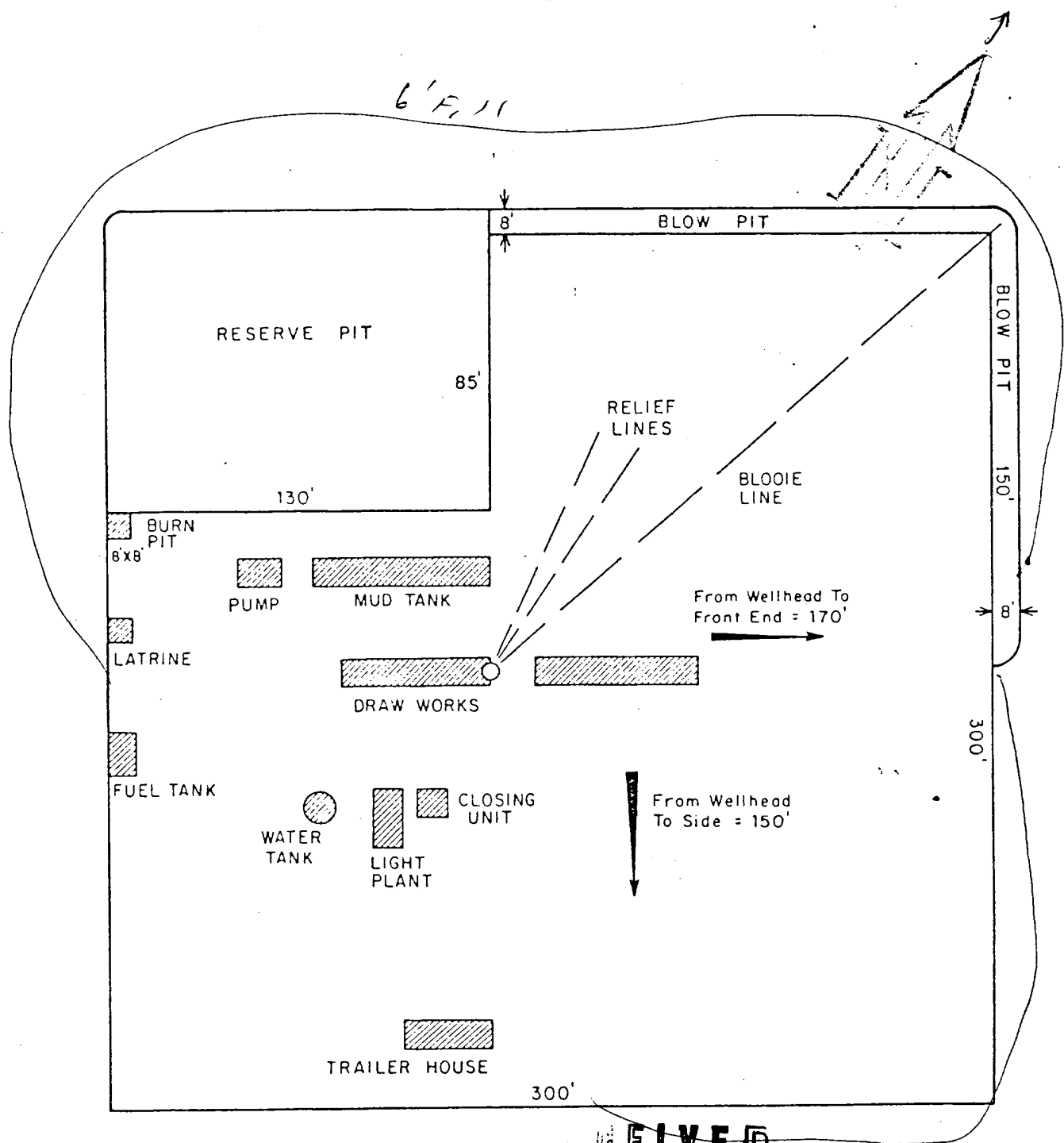
7" intermediate casing - use 73 sks. of 65/35 Class "B" Poz with 6% gel and 2% calcium chloride (8.3 gallons of water per sack) followed by 100 sks. of Class "B" with 2% calcium chloride (236 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 304 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (423 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.

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12' cut

| | | | | | | | |
|------|------|------|----|------|--|-----------|----------------|
| | | | | | | ENG. REC. | DATE |
| | | | | | | DRAWN | J.L.H. 8-16-78 |
| | | | | | | CHECKED | |
| | | | | | | CHECKED | |
| | | | | | | PROJ. APP | |
| | | | | | | DESIGN | |
| PRT. | SEP. | DATE | TO | W.O. | | W.O. | |

PRINT RECORD

EI Paso Natural Gas Company

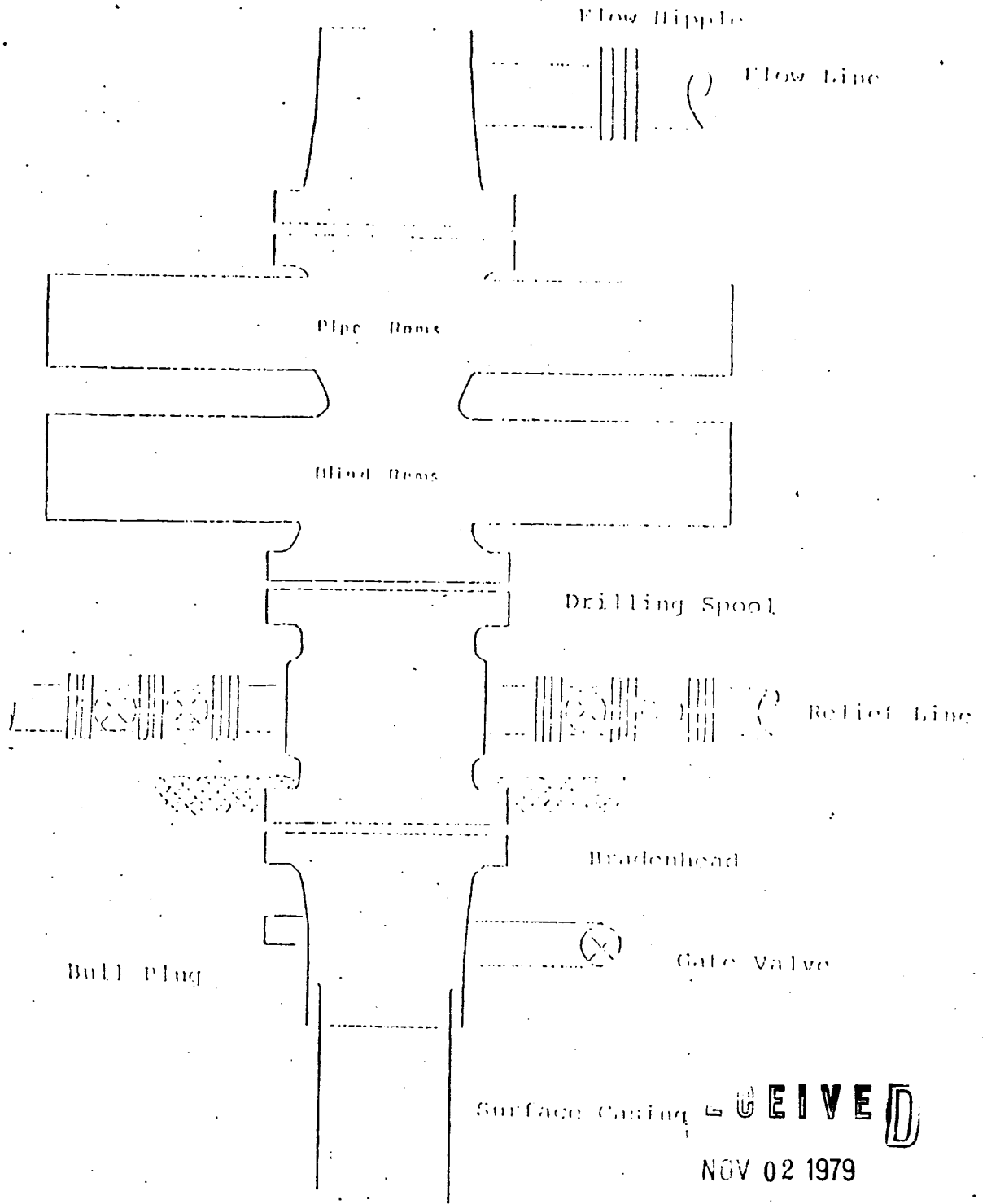
TYPICAL LOCATION PLAT FOR
MESAVERDE OR DAKOTA DRILL SITE

SCALE: 1" = 50'

DWG. NO.

REV

Typical B.O.P. Installation
for Mega Verde Well



Surface Casing **GEIVE**

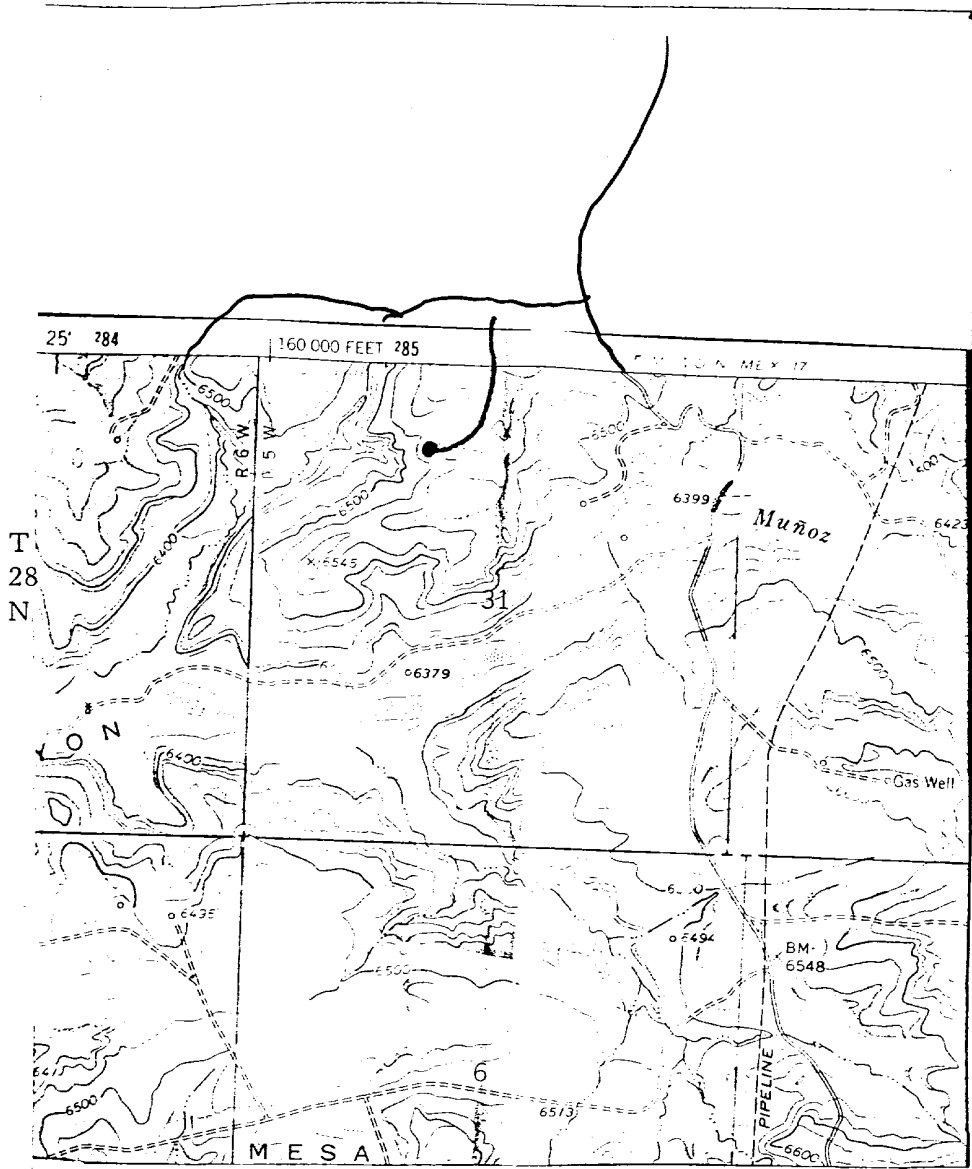
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Series 900 Double Gate BOP, rated
at 3000 psi Working Pressure
When gas drilling operations begin a Shaffer type 50
or equivalent rotating head is installed on top of the
flow nipple and the flow line is converted into a blowie line

El Paso Natural Gas Company
 San Juan 28-5 Unit #51 A
 NW 31-28-5

R-5-W



MAP 1

LEGEND OF RIGHT-OF-WAYS

| | |
|--------------------------|-------------|
| EXISTING ROADS | ————— |
| EXISTING PIPELINES | —+—+—+— |
| EXISTING ROAD & PIPELINE | —————+————— |
| PROPOSED ROADS | ————— |
| PROPOSED PIPELINES | —+—+—+— |
| PROPOSED ROAD & PIPELINE | —————+————— |

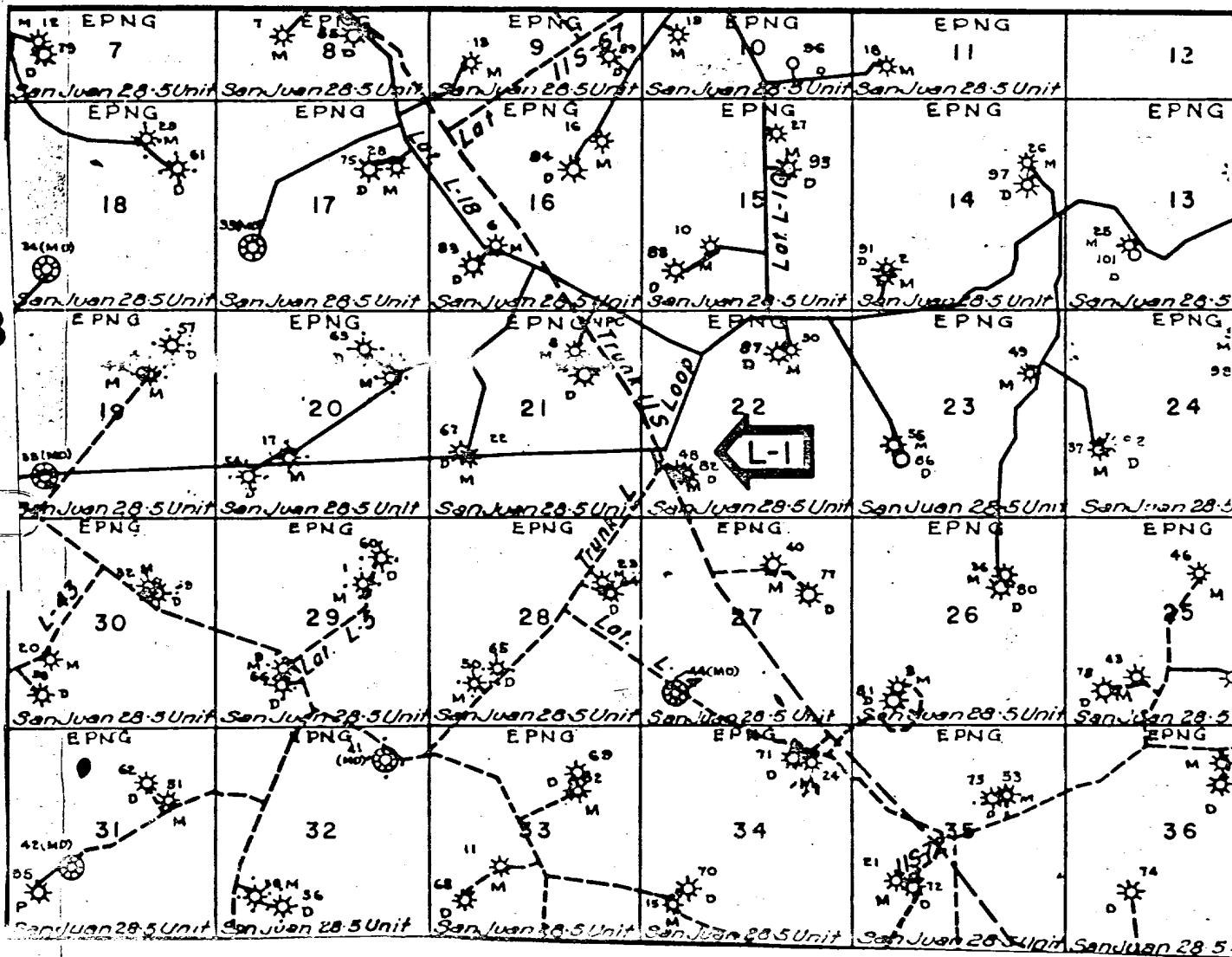
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El Paso Natural Gas Company
San Juan 28-5 Unit #51A
NW 31-28-5

R-5-W



MAP 2

Proposed Location

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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
El Paso Natural Gas Company

3. ADDRESS OF OPERATOR
PO Box 289, Farmington, NM 87401

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 945'N, 1820'W
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
SF 079521A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
San Juan 28-5 Unit

8. FARM OR LEASE NAME
San Juan 28-5 Unit

9. WELL NO.
51A (PM)

10. FIELD OR WILDCAT NAME
Tapacito PC Ext. & Blanco MV

11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA
Sec 31, T-28-N, R-5-W
NMPM

12. COUNTY OR PARISH
Rio Arriba

13. STATE
NM

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6527'GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| | | | |
|-----------------------------|--------------------------|-----------------------|-------------------------------------|
| REQUEST FOR APPROVAL TO: | | SUBSEQUENT REPORT OF: | |
| TEST WATER SHUT-OFF | <input type="checkbox"/> | | <input type="checkbox"/> |
| FRACTURE TREAT | <input type="checkbox"/> | | <input type="checkbox"/> |
| SHOOT OR ACIDIZE | <input type="checkbox"/> | | <input type="checkbox"/> |
| REPAIR WELL | <input type="checkbox"/> | | <input type="checkbox"/> |
| PULL OR ALTER CASING | <input type="checkbox"/> | | <input type="checkbox"/> |
| MULTIPLE COMPLETE | <input type="checkbox"/> | | <input type="checkbox"/> |
| CHANGE ZONES | <input type="checkbox"/> | | <input type="checkbox"/> |
| ABANDON* | <input type="checkbox"/> | | <input type="checkbox"/> |
| (other) <u>change plans</u> | | | <input checked="" type="checkbox"/> |

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

We have submitted an Application for Permit to Drill this well as a single Mesa Verde . It is now intended to complete as a Pictured Cliffs - Mesa Verde dual.



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Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED D. G. Buser TITLE Drilling Clerk DATE November 9, 1979

(This space for Federal or State office use)

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

James J. [Signature]

ak [Signature]

*See Instructions on Reverse Side

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

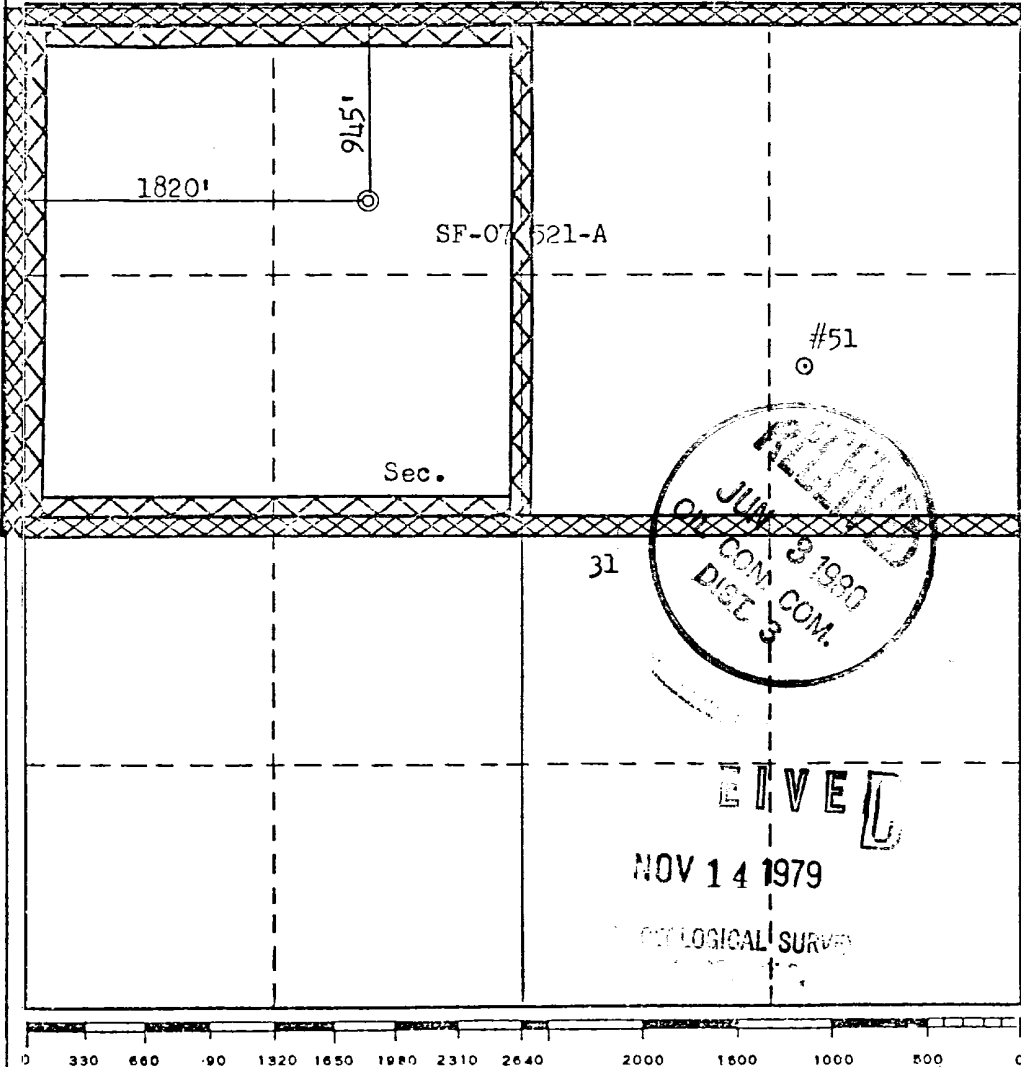
| | | | | | |
|---|--|---------------------------|--|--------------------------------|--|
| Operator EL PASO NATURAL GAS COMPANY | | | Lease SAN JUAN 28-5 UNIT (SF-079521-A) | | Well No. 51A |
| Unit Letter C | Section 31 | Township 28N | Range 5W | County RIO ARRIBA | |
| Actual Footage Location of Well: 945 feet from the North line and 1820 feet from the West line | | | | | |
| Ground Level Elev. 6527 | Producing Formation Mesa Verde - | Pictured Cliffs | Pool Tapacito | Pictured Cliffs Ext. | Dedicated Acreage: 160.00 & 320.00 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?

Unitization
 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.
 NOTE: THIS PLAT IS REISSUED TO SHOW DUAL COMPLETION. 11-2-79



| | |
|---|--------------------------------|
| CERTIFICATION | |
| I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. | |
| <i>A. G. Busco</i> | |
| Name | Drilling Clerk |
| Position | El Paso Natural Gas Co. |
| Company | November 9, 1979 |
| Date | |
| 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 | August 31, 1979 |
| Registered Professional Engineer and/or Land Surveyor | <i>Fred B. Kerr Jr.</i> |
| Certificate No. | 3950 |