

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

El Paso Natural Gas Company

## 3. ADDRESS OF OPERATOR

PO Box 990, Farmington, NM 87401

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

950'N, 1780'W

At proposed prod. zone

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

4 miles SE of Cedar Hill, NM

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

950'

## 16. NO. OF ACRES IN LEASE

2157.65

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

319.07

## 18. DISTANCE FROM PROPOSED LOCATION\*

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

400

## 19. PROPOSED DEPTH

5515'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

6014'GR

## 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"	32.3#	200'	224 cu.ft. to circulate
8 3/4"	7"	20.0#	3220'	468 cu.ft. to cover Ojo Alan
6 1/4"	4 1/2" liner	10.5#	3070-5515'	426 cu.ft. to fill to 3070'

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 W/2 of Section 9 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 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

*A. G. Busco*

TITLE

Drilling Clerk

DATE

June 27, 1978

(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

30-045-23137

5. LEASE DESIGNATION AND SERIAL NO.

SF 078604

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Lucerne A

9. WELL NO.

1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesa Verde

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

Sec. 9, T-31-N, R-10-W

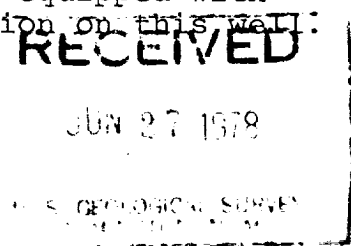
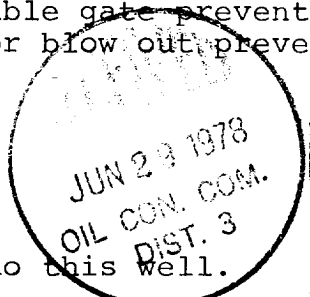
NMPM

12. COUNTY OR PARISH

13. STATE

San Juan

NM



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.

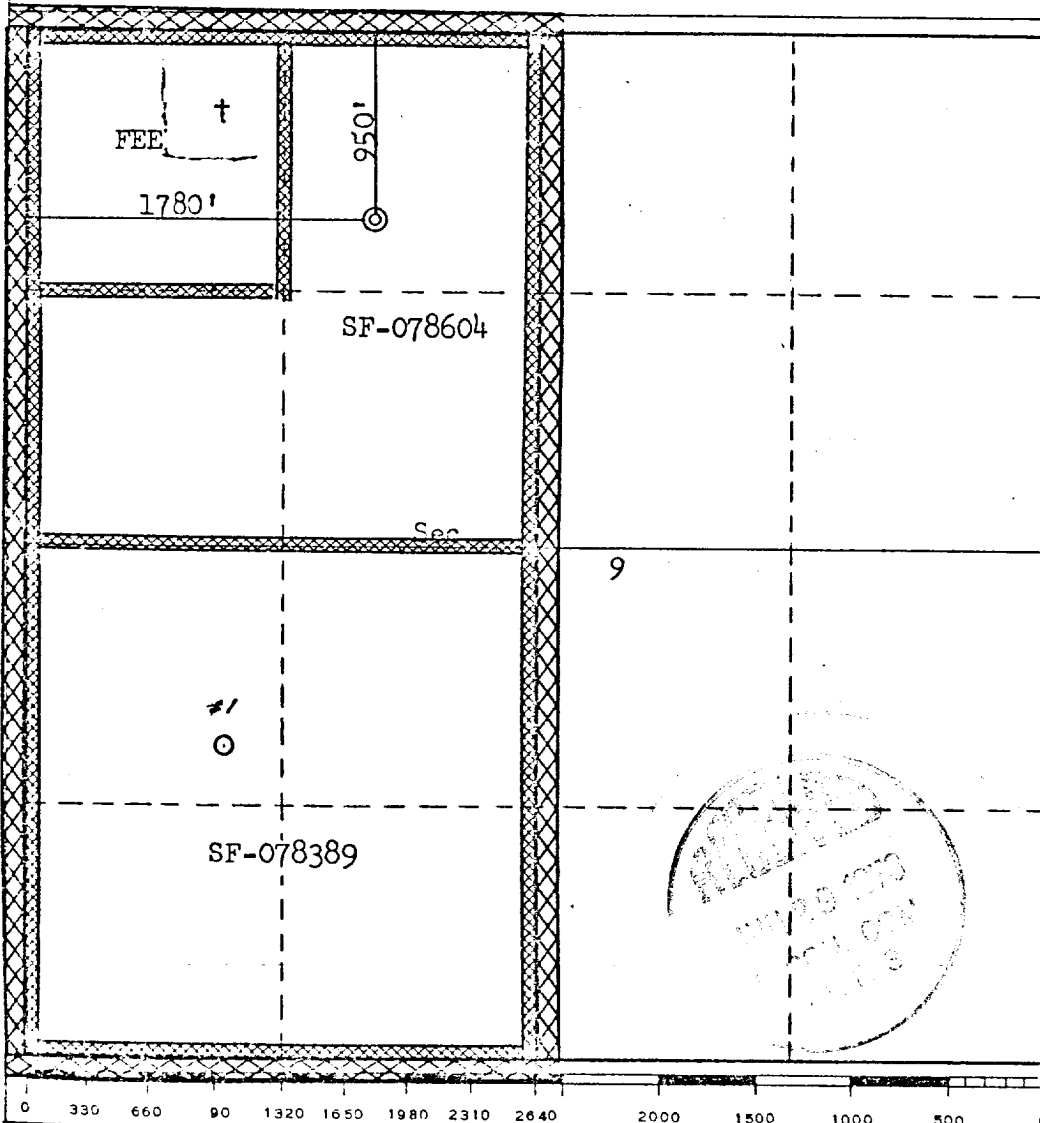
Operator <b>EL PASO NATURAL GAS COMPANY</b>			Lease <b>LUCERNE A (SF-078604)</b>		Well No. <b>1A</b>
Unit Letter <b>C</b>	Section <b>9</b>	Township <b>31N</b>	Range <b>10W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>950</b> feet from the <b>North</b> line and <b>1780</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6014</b>	Producing Formation <b>Mesa Verde</b>		Pool <b>Blanco Mesa Verde</b>	Dedicated Acreage: <b>319.07</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?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization

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.

*N. G. Suarez*  
Name  
**El Paso Natural Gas Co.**  
Position  
**Drilling Clerk**  
Company  
**June 27, 1978**  
Date

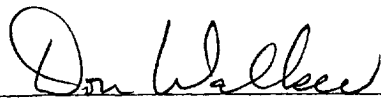
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
**April 28, 1978**  
Registered Professional Engineer and/or Land Surveyor  
*Fred B. Kerr Jr.*  
**Fred B. Kerr Jr.**  
Certificate No. **3950**

Multi-Point Surface Use Plan  
Lucerne A #1A

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 ditch at Cedar Hill.
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,

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 and sagebrush flats with sagebrush growing. Cattle graze 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.



D. C. Walker  
Project Drilling Engineer

REHABILITATION AGREEMENT

Lease No.: SF078604 ; Well Name & No.: Lucerne A #1 A  
Location: NE 1/4 NW 1/4 Sec. 9, T. 31 N., R. 10 W.

El Paso Natural Gas Company intends to drill a well on surface owned by  
Garrett Van Diest, Inc., Winnemucca, Nevada. The lessee/operator  
agrees to complete the following rehabilitation work if the well is a producer:

- ☒ Yes ☐ No Maintain access roads and provide adequate drainage  
to road
- ☒ Yes ☐ No Reshape and reseed any area in excess of the pump and  
support facilities.

Other requirements: \_\_\_\_\_

The following work will be completed when the well is abandoned:

- ☐ Yes ☒ No Site will require reshaping to conform to existing  
topography.
- ☒ Yes ☐ No Pit will be fenced until dry, then filled to conform  
to topography.
- ☒ Yes ☐ No Entire disturbed area will be reseeded. If yes,  
the following seed mixture will be used:

RECOMMENDED PROCEDURE AT TIME OF ABANDONMENT

- ☒ Yes ☐ No Access road will be rehabilitated and reseeded using  
the same seed mixture as above.
- ☐ Yes ☒ No Access road will remain for landowner's use.

Other requirements: \_\_\_\_\_

Landowner  
Name: Garret Van Diest, Inc.  
Address: P.O. Box 867  
City: Winnemucca  
State: Nevada 89445  
Telephone: c/o Mike Daley, SJ Eng.-Farm.  
Date: 6-26-78

Operator/Lessee  
Name: EL PASO NATURAL GAS COMPANY  
Address: P. O. Box 990  
City: Farmington  
State: New Mexico 87401  
Telephone: (505) 325-2841  
Date: \_\_\_\_\_

- ☒ Yes ☐ No I certify rehabilitation has been discussed with the  
surface owner John A. Chley - Regional Land Manager

This agreement covers rehabilitation requirements only and does not affect any  
other agreements between the lessee/operator and surface owner.

June 27, 1978

Operations Plan  
Lucerne A #1A

I. Location: 950'N, 1780'W, Section 9, T-31-N, R-10-W, San Juan County, NM

Field: Blanco Mesa Verde

Elevation: 6014'GR

II. Geology:

A. Formation Tops:	Surface	Nacimiento	Lewis	3020'
	Ojo Alamo	1145'	Mesa Verde	4435'
	Kirtland	1280'	Menefee	4700'
	Fruitland	2410'	Point Lookout	5065'
	Pic.Cliffs	2825'	Total Depth	5515'

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

C. Coring Program: none

D. Natural Gauges: 4425', 4690', 5055', 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 3220'. 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.&amp;Grade</u>
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	3220'	7"	20.0# K-55
	6 1/4"	3070-5515'	4 1/2"	10.5# K-55

B. Float Equipment: 9 5/8" surface casing - Larkin guide shoe (fig. 102)  
7" intermediate casing - Dowell guide shoe (fig. 50101) and Dowell self-fill insert float valve (fig. 53003), 5 B&W stabilizers (Prod. No. 637085) every other joint above shoe. Run float two joints above shoe.

4 1/2" liner - 4 1/2" liner hanger with neoprene packoff. Larkin geyser shoe (fig. 222) and Larkin flapper type float collar (fig. 404 M&F).

C. Tubing: 5515' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple above perforated pup joint with bull plugged full joint for mud anchor on bottom.

D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" 900 x 6" 900 xmas tree.

Operations Plan - Lucerne A #1A, cont'd.

V. Cementing:

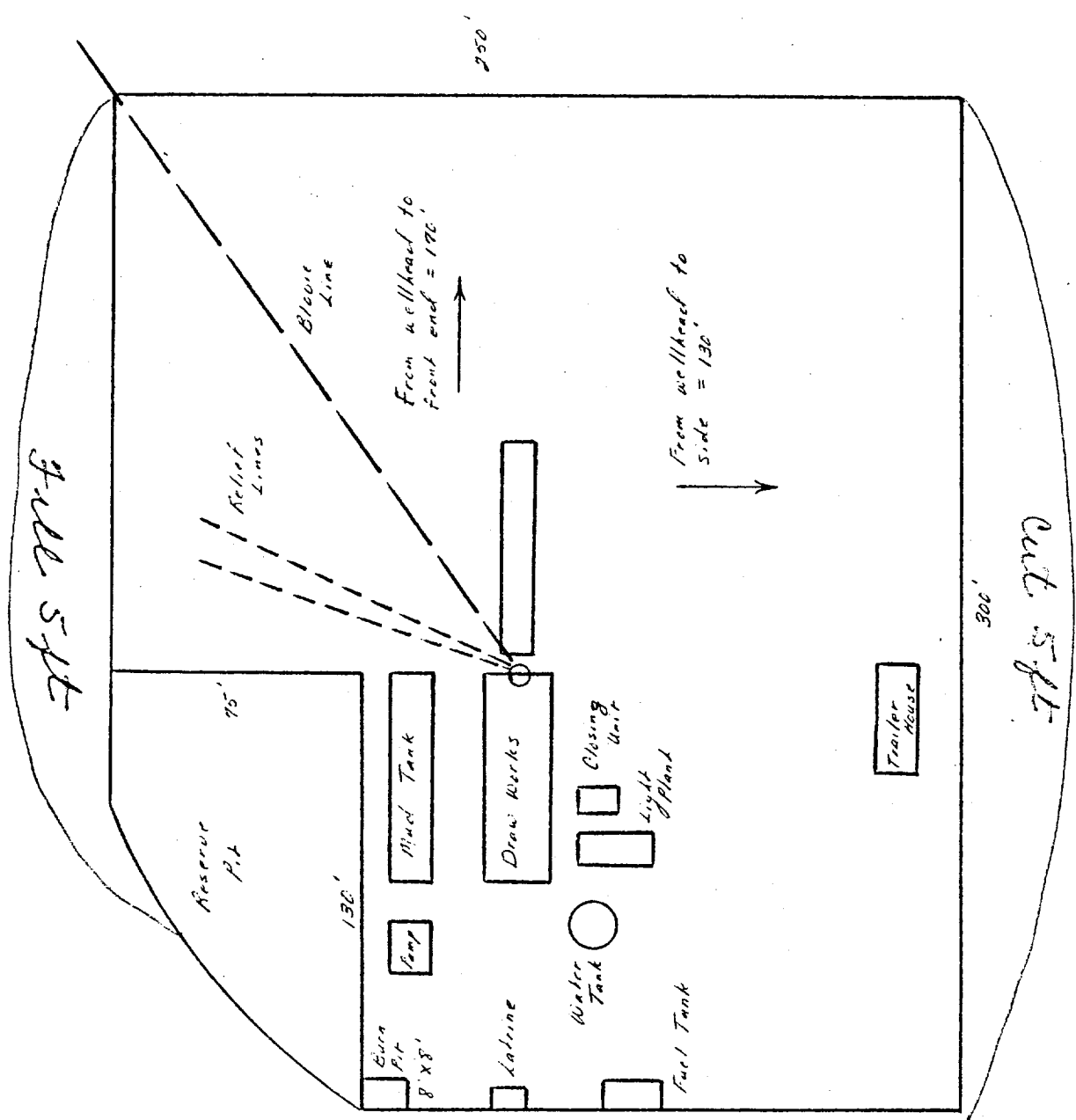
9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

7" intermediate casing - use 215 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 (468 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 307 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (426 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.

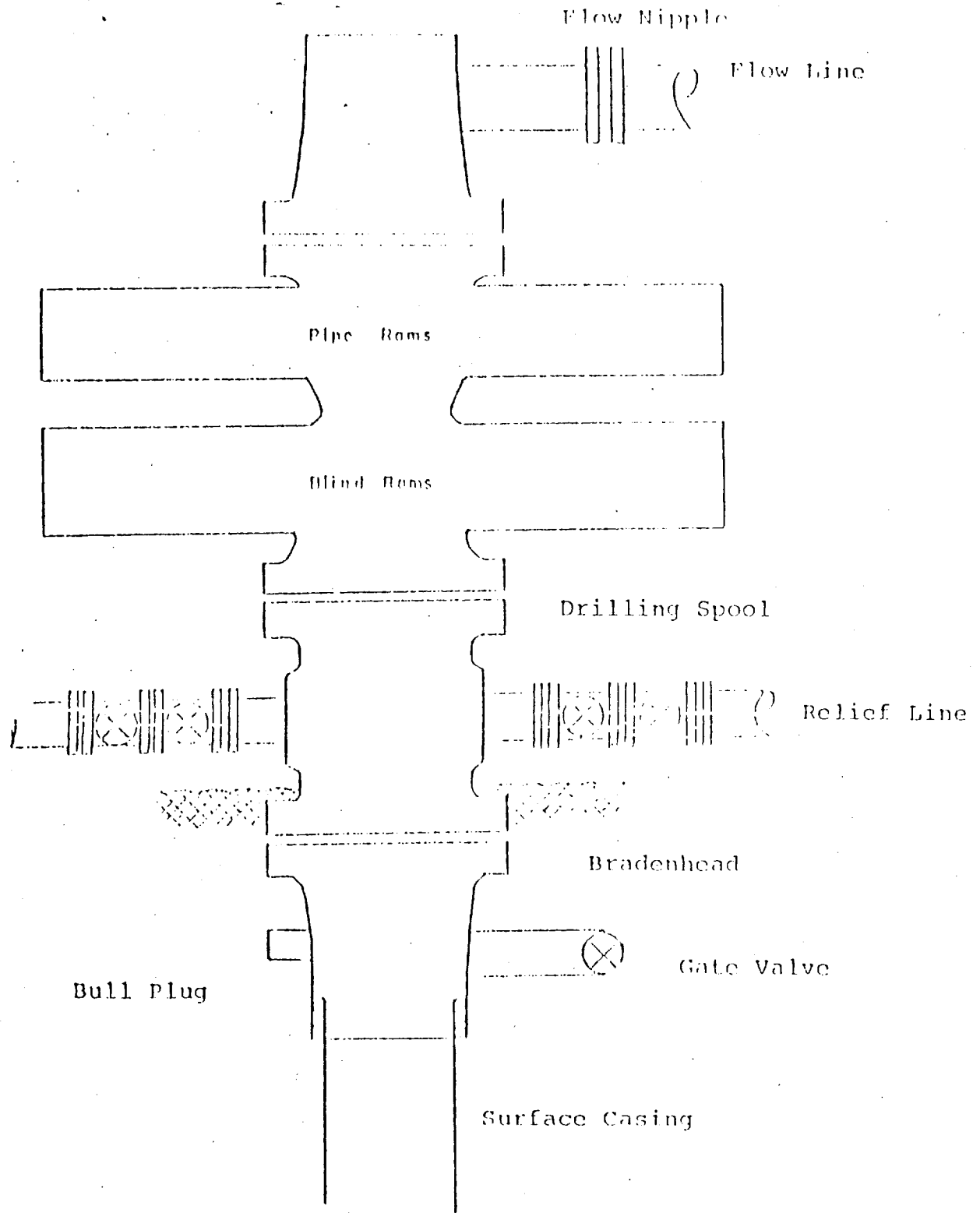
El Paso Natural Gas Company  
 Typical location plot for Nissa Verde and Dakota wells

20  
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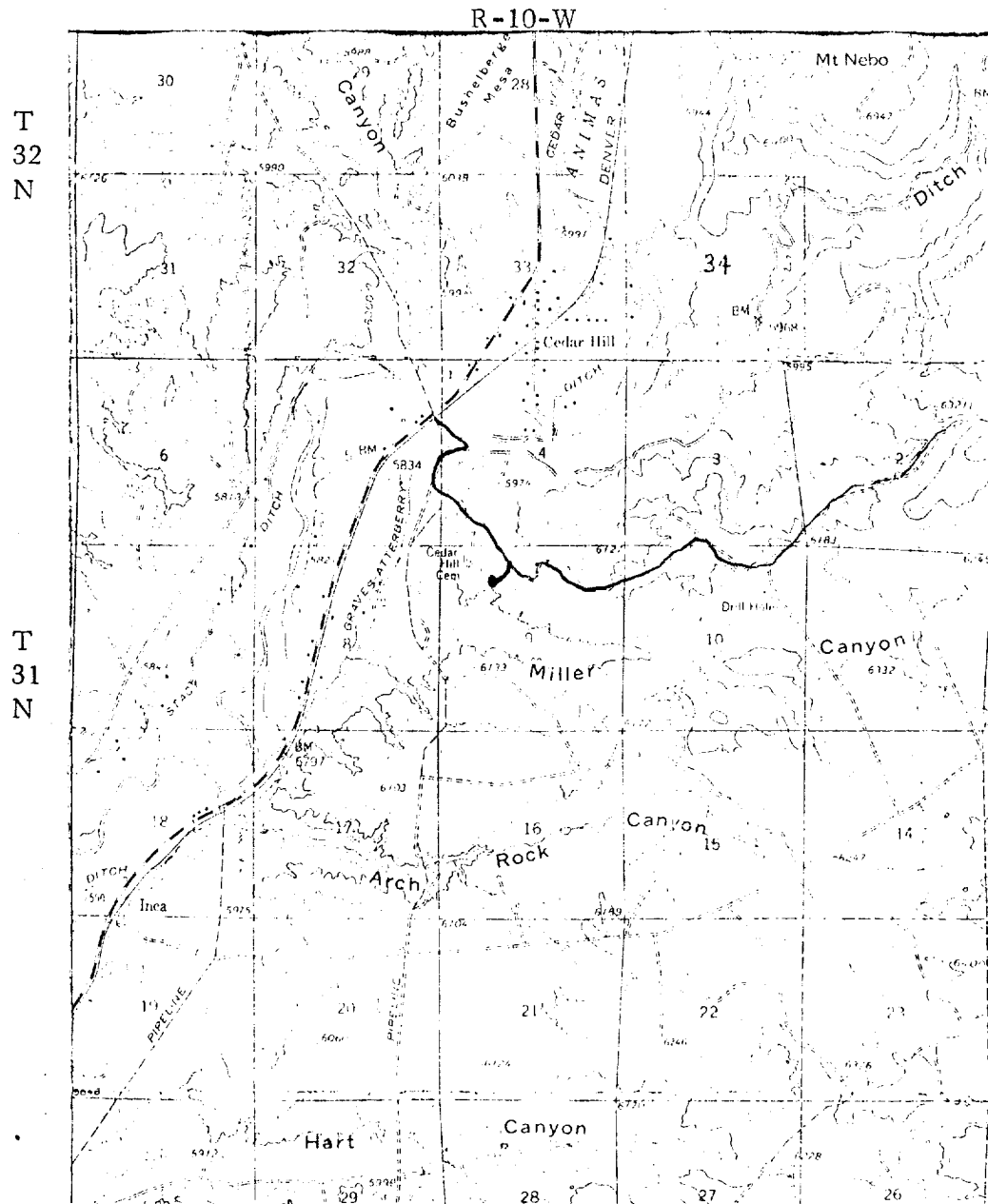


# Typical B.O.P. Installation for Mesa Verde Well



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  
Lucerne A #1A  
NW 9-31-10



MAP #1

LEGEND OF RIGHT-OF-WAYS

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

RIOW



Proposed Location

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Form Approved.  
Budget Bureau No. 42-R1424

**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 CO.

3. ADDRESS OF OPERATOR

BOX 289, FARMINGTON, NEW MEXICO

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE: 950'N, 1780'W  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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

REQUEST FOR APPROVAL TO:  
TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
CHANGE ZONES ☐  
ABANDON\* ☐  
(other) ☐

SUBSEQUENT REPORT OF:

☒  
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☐  
☐

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.)\*

12/2/78: Spudded well. Drilled surface hole.

12/3/78: Ran 5 joints 9 5/8", 36# KS surface casing, 209' set at 223'.  
Cemented with 224 cu. ft. cement. Circulated to surface WOC 12 hours;  
held 600#/30 minutes.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_

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

SIGNED A. D. Bliss TITLE Drilling Clerk DATE 12/6/78

(This space for Federal or State office use)

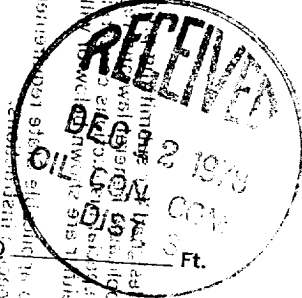
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

5. LEASE SF 078604	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
8. FARM OR LEASE NAME Lucerne A	
9. WELL NO. 1A	
10. FIELD OR WILDCAT NAME Blanco Mesa Verde	
11. SEC., T., R., M. OR BLK. AND SURVEY OR AREA Sec. 9 T-31-N, R-10-W NMPM	
12. COUNTY OR PARISH San Juan	13. STATE New Mexico
14. API NO.	
15. ELEVATIONS (SHOW DE, KDB AND WD) 6014' GL	

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



NMOCC