PERMIT NO. _

SUBMIT IN TRIPLICATE*

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES

Other instructions on	g
reverse side)	30-039-2191

GEOLOGICAL SURVEY APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 1a. TIPE OF WORK DRILL DEEPEN DEEPEN PLUG BACK 5. TYPE OF WELL OIL WELL OTHER OTHER 20NE SINGLE NOW MULTIPLE SONE E1 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 SUITICE At proposed prod. zone Same 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 20 miles East of Blanco, NM 10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 20 miles East of Blanco, NM 11. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FROM THIS LEASE, TO THIS OR APPLIED FOR, ON THIS LEASE, COMPLETED, OR APPLIED FOR, ON THIS LEASE, ST. 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6689 'GL 23. PROPOSED CASING AND CEMENTING PROGRAM SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH 13 3/4" 9 5/8" 32.3# 200' 224 CU 8 3/4" 7" 20.0# 3860' 296 CU	R CABLE TOOLS
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DRILL DEEPEN PLUG BACK	San Juan 29-7 Unit FARM OR LEASE NAME San Juan 29-7 Unit WELL NO. 83A FIELD AND POOL, OR WILDCAT Blanco Mesa Verde SEC., T., B., M., OB BLK. AND SURVEY OR AREA Sec. 3, T-29-N, R-7-W NMPM COUNTY OR PARISH 13. STATE RIO Arriba NM CRES ASSIGNED WELL 318.05
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PROPOSED CASING AND CEMENTING PROGRAM	22. APPROX. DATE WORK WILL START*
SIZE OF HOLE SIZE OF CASING WEIGHT PER FOOT SETTING DEPTH	
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6 1/4" 4 1/2"liner 10.5# 3710-6170' 431 cu	.ft. to circulate
Selectively perforate and sandwater fracture the Mesa V	.ft.to cover Ojo Al .ft.to fill to 3710
A 3000 nei WD and 6000 nei teet double date myeronter o	erde formation.
blind and pipe rams will be used for blow out prevention	
This gas is dedicated. SEP 20 1910	SEP 1 8 1978
The E/2 of Section 3 is dedicated to this well. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present product zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured at preventer program, if any.	GEOLOGICAL SURVEY DIRECTOR TO THE PRODUCTIVE OF
SIGNED A LOCATO TITLE Drilling Clerk	
(This space for Federal or State office use)	DATE 9-14-78

TITLE _

APPROVAL DATE ____

DATE ___

All distances must be from the outer boundaries of the Section Well (lo. gerater 834 EL PASO NATURAL GAS COMPANY Unit Letter RIO ARRIB Actual Location of Well: South Dedicated Acreases Ground Level Erev. Preducing Fernation Blanco Mesa Verde 318.05 6689 Mesa Verde 1. Outline the acrenge 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 If answer is "yes," type of consolidation _ No 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 contoined herein is true and complete to the best of my knowledge and belief. Drilling Cler September 14, 1978 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. SEP 1 8,1978 U. S. GEOLOGICAL SURVEY DURANGO, COLO.



P. O. BOX 990 FARMINGTON, NEW MEXICO 87401

PHONE: 505-325-2841

Multi-Point Surface Use Plan San Juan 29-7 Unit #83A

- Please refer to Map No. 1 which shows 1. Existing Road 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 San Juan 29-6 Water Well.
- Source of Construction Materials No additional materials will be 6. 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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U. S. GEOLOGICAL SURVEY DURANGO, COLO.

7. cont'd.

will be provided for human waste. If large amounts of liquids are left in a state 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 sandstone ledges and rolling hills with pinon and cedar growing. 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.

REGEIVED

Project Drilling Engineer

SEP 1 8 1978

U. S. GEOLOGICAL SURVEY DURANGO, COLO.

Operations Plan San Juan 29-7 Unit #83A

I. Location: 1685'S, 1460'E, Section 3, T-29-N, R-7-W, Rio Arriba County, NM

Field: Blanco Mesa Verde <u>Elevation:</u> 6689'GR

II. Geology:

A. Formation Tops:	Surface	San Jose	Lewis	3660 '
	Ojo Alamo	2573 '	Mesa Verde	5230 '
	Kirtland	2751 '	Menefee	5391 '
	Fruitland	3256 '	Point Lookout	5720 '
	Pic.Cliffs	3541 '	Total Depth	6170 '

- B. Logging Program: GR-Ind. and GR-Density at Total Depth.
- C. Coring Program: none
- D. Natural Gauges: 5220!, 5381', 5710' 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 3860'. Gas from intermediate casing to Total Depth.

IV. Materials:

Α.	Casing Program:	Hole Size	Depth	Casing Size	Wt.&Grade
		13 3/4"	200	9 5/8"	32.3# H-40
		8 3/4"	3860 '	7"	20.0# K-55
		6 1/4"	3710-6170 '	4 1/2"	10.5# K-55

7" intermediate casing - Pathfinder guide shoe (Part #1003-1-007) and Pathfinder self-fill insert float valve (Part #2010-6-007), 5 Pathfinder stabilizers (Part #107-10) every other joint above shoe. Run float two joints above shoe.

- 4 1/2" liner 4 1/2" liner hanger with neoprene packoff. Pathfinder geyser shoe (Part #2017-1-050) and Larkin flapper type float collar (fig. 404 M&F).
- C. Tubing: 6170' 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: $10"900 \times 95/8"$ casing head. $10"900 \times 6"900 \times 10"$



SEP 1 8 1978

U. S. GEOLOGICAL SURVEY DURANGO, COLO.

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.

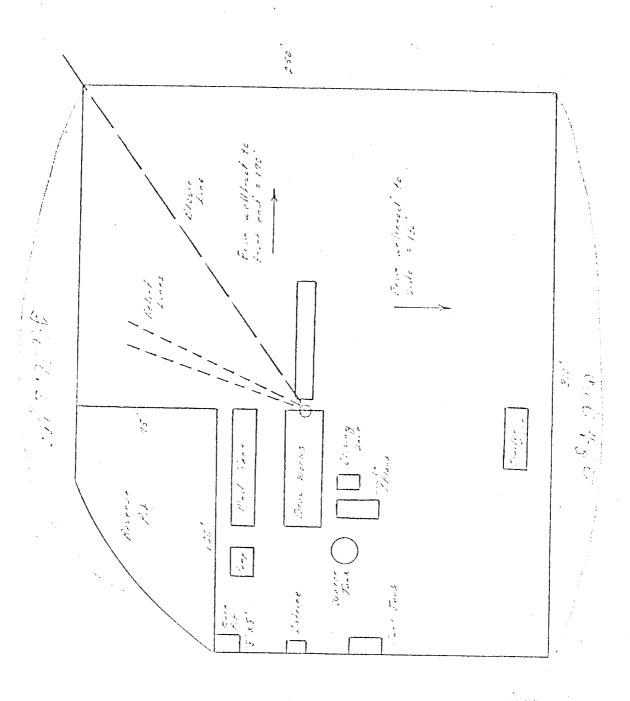
7" intermediate casing - use 110 sks. of 65/35 Class "B" Poz with 6% gel and 2% calcium chloride (8.3 gallons of water per sack) followed by 100 sks. of Class "B" with 2% calcium chloride (296 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 310 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (431 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.



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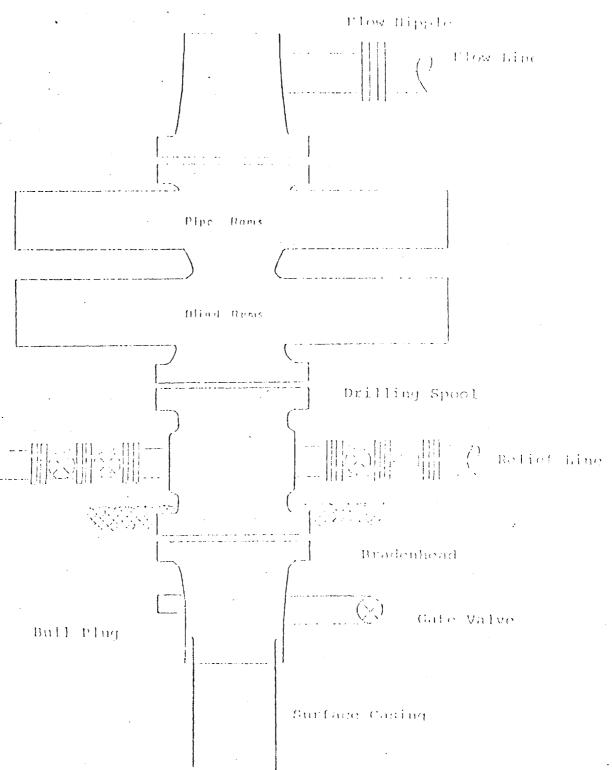


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Typical W.O.L. Englatlation for Mega Verde Well

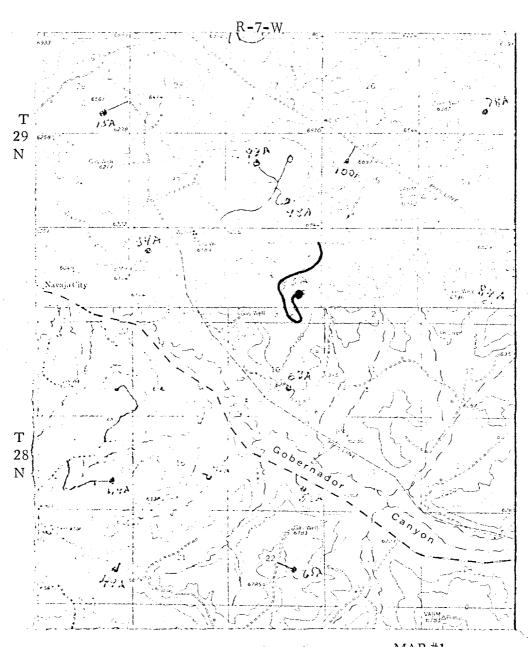


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Series 900 Double Gate BOP, rated at 3000 psi Working Pressure When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line



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MAP #1

LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS

EXISTING PIPELINES + + +

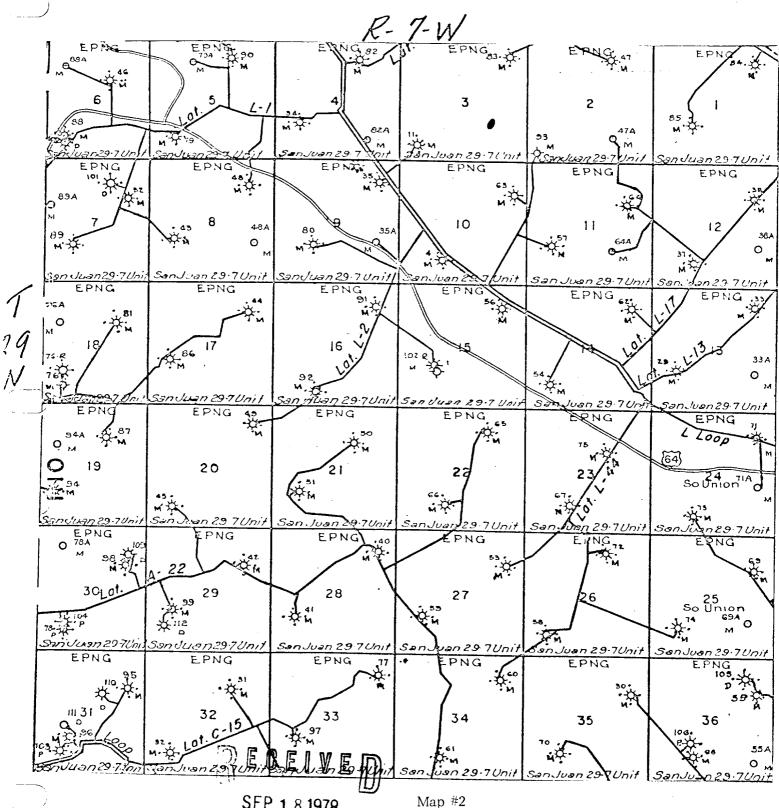
EXISTING ROAD & PIPELINE + +

PROPOSED ROADS

FROPOSED PIPELINES + + +

PROPOSED ROAD & PIPELINE + +

EL PASO NATURAL GAS COMPANY San Juan 29-7 #83 A SE 3-29-7



SEP 1 8 1978

Proposed Location

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