SUBMIT IN TRIPLICATE*

Form approved. Budget Bureau No. 42-R1425.

(Other instructions on reverse side) UNITED STATES DEPARTMENT OF THE INTERIOR

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5.	LEAS	E DESI	GNA?	TION	AND	SERIAL	No.	

	GEOLO	SF 078497			
APPLICATION	Y FOR PERMIT T	6. IF INDIAN, ALLOTTEE OR TRIBE NAME			
b. TYPE OF WELL OIL C. WELL WELL 2. NAME OF OPERATOR	AS OTHER tural Gas Com	20	PLUG BAC		7. UNIT AGREEMENT NAME San Juan 28-7 Unit 8. FARM OR LEASE NAME San Juan 28-7 Unit 9. WELL NO.
3. Address of operator PO Box 289	, Farmington,	NM 87401	State requirements.*)		20A (PM) 10. FIELD AND POOL, OR WILDCAT Blanco PC Ext. Blanco Mesa Verde
At proposed prod. zon	1680'S, 16	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA Sec. 8, T-28-N, R-7-W 12. TODATY OR PARISH 13. STATE			
10.5 miles 10. DISTANCE FROM PROPOLOCATION TO NEAREST PROPERTY OR LEASE I (Also to nearest drig	r .INE, FT. z. unit line, if any)	Rio Arriba NM F ACBES ASSIGNAD US WELL 49 Allsec 804.04			
TO NEAREST WELL, D OR APPLIED FOR, ON TH 21. ELEVATIONS (Show who	RILLING, COMPLETED, IS LEASE, FT.	2500	5950 1	Rotar	
23.	P	ROPOSED CASING ANI	CEMENTING PROGRA	м	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CEMENT
13 3/4"	9 5/8"	36.0#	200'	4	u.ft. to circulate
6 1/4"	4 1/2"line	20.0# r 10.5#	3635! 3485-5950'		cu.ft.to cover Ojo Alam cu.ft.to circ.liner
Mesa Verde A 3000 psi blind and	formation. WP and 6000	psi test dou	ble gate prev	venter	equipped with the control on this well.
IN ABOVE SPACE DESCRIBE	drill or deepen directiona	proposal is to deepen or p lly, give pertinent data o	olug back, give data on	d measured	DANGE SORVEY
(This space for Fede	ral or State office use)		APPROVAL DATE		
APPROVED BY	AL, IF ANY:	TITLE			DATE

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*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator ET DASO 1	NATURAL GAS C	OM DA NV	SAN JUAN 28-7	inite (a	m 0701.07\	Well No.
Unit Letter	Section	Township	Ronge	County (5)	F-078497)	20-A
J	8	28N	7W		irriba	_
Actual Footage Loc		South line and	1620	t from the	East	line
Ground Level Elev:		reation MESA VERDE	104	ÆSA VERD		ated Acreage:
6622	1	JRED CLIFFS	BLANCO PICTUREI			.49 & 304.04 Acres
1. Outline th	e acreage dedic	ated to the subject v	vell by colored pencil	or hachure	marks on the pl	at below.
	nan one lease is nd royalty).	dedicated to the we	ll, outline each and id	entify the o	wnership there	of (both as to working
		different ownership is unitization, force-pool	dedicated to the well, ling. etc?	have the in	nterests of all	owners been consoli-
Yes	□ No If	answer is "yes;" type	of consolidation	Uniti	zation	
this form i	f necessary.)		criptions which have a			
	-		ll interests have been rd unit, eliminating su			,
					CE	RTIFICATION
					I hambu castife	r that the information con-
						s true and complete to the
						wledge and belief.
					M. B.	Buses
				K	Drilling	Clerk
	•	Sec. 8	· · ·		Position El Paso Na	atural Gas Co.
	SF-07	3497	φ <u>1620'</u>		October 1	8, 1979
**************************************	' !		_ _	- 🕅	Date	
#20 C	,	×				
			1680		I hereby certi	fy that the well location
i s	F-078417		7		shown on this	plat was plotted from field
	i			XX		I surveys made by me or
			*****	∞ \sqrt{N}	· · · · · · · · · · · · · · · · · · ·	vision, and that the same orrect to the best of my
					knowledge and	i
		•	EIVI	Ell		
			7 7 7 7 1 V		Date Surveyed	75050
			6 1979		August 1	na tond! Englower
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			्रक्टि हॉटLOGICAL SUR () 1320, COLO.	721	Fred	Kern Jz.
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P. O. BOX 990 FARMINGTON, NEW MEXICO 87401 PHONE: 505-325-2841

Multi-Point Surface Use Plan San Juan 28-7 Unit #20A

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.

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- 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 Manzaneras 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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- 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 chained sagebrush flat with sage brush growing. Deer and cattle 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.

I. A. Aimes

Project Drilling Engineer

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* S. CECLOGICAL SURVEY

Operations Plan San Juan 28-7 Unit #20A

I. Location: 1680'S, 1620'E, Section 8, T-28-N, R-7-W, Rio Arriba County, NM Field: Blanco Mesa Verde &Blanco PC Ext.Elevation: 6622'

II. Geology:

A. Formation Tops:	Surface	San Jose	Lewis	3435'
	Ojo Alamo	2380'	Mesa Verde	4940'
	Kirtland	2495'	Menefee	5082 '
	Fruitland	2990'	Point Lookout	5500 '
	Pic.Cliffs	3312'	Total Depth	5950 '

B. Logging Program: I-ES and GR-Density at 3635'

GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 4930', 5070', 5490' 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 3635'. Gas from intermediate casing to Total Depth.

IV. Materials:

Α.	Casing Program:	Hole Size		Casing Size	Wt.&Grade
		13 3/4"	200'	9 5/8"	36.0# K-55
		8 3/4"	3635'	7"	20.0# K-55
		6 1/4"	3485-5950'	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: 5950' 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.

 3635' of 1 1/4", 2.33#, J-55, IJ tubing with a common pump seating nipple above a perforated joint plugged on bottom. Isolate producing formations with a packer.
- D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" x 7" casing hanger, 10" 2000 x 6" 2000 dual tubing head.

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EL S. CECLOGICAL SURVEY

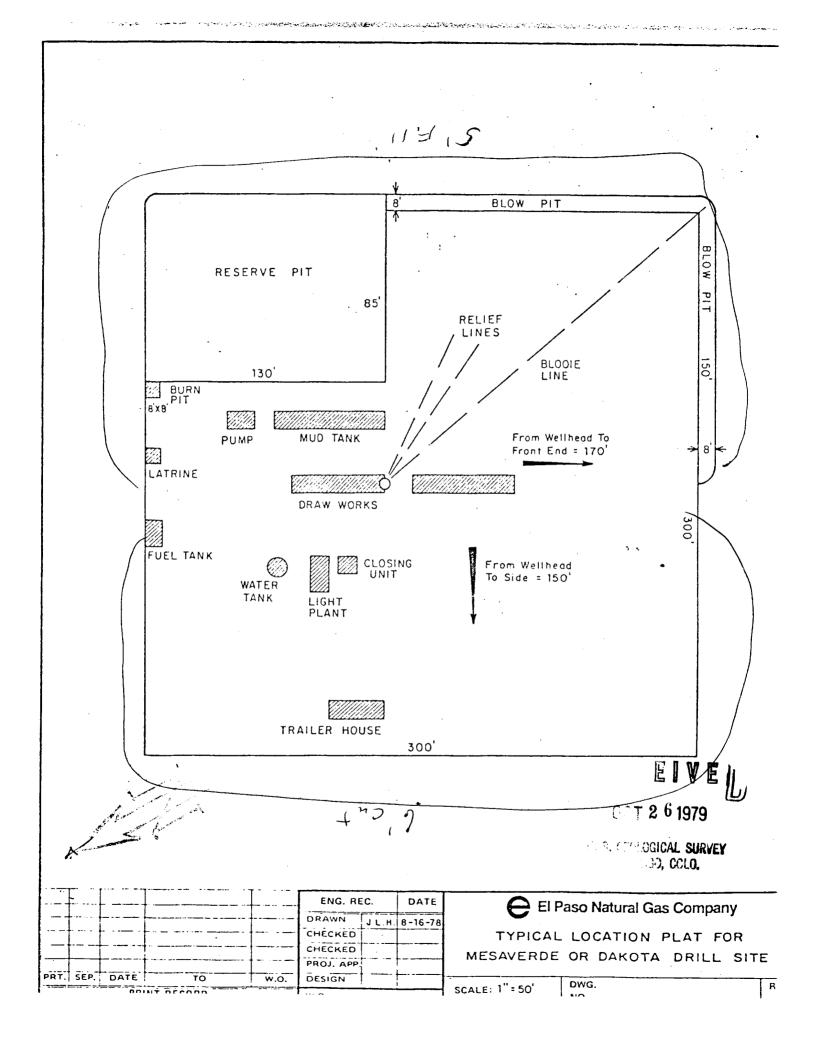
V. Cementing:

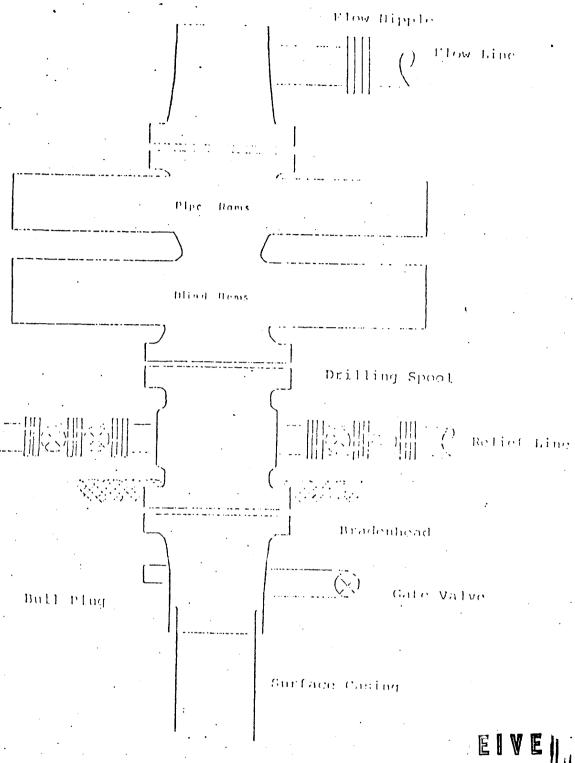
9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

7" intermediate casing - use 102 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 (283 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.

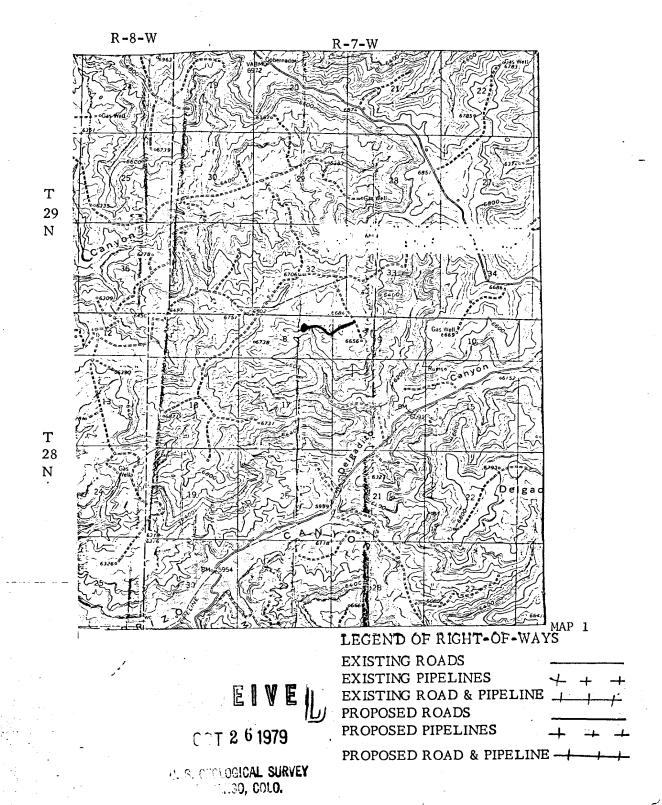
4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 310 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (430 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.







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 S. C. COGICAL SURVEY flow nipple and the flow line is converted into a blowie line 30, CCLO.



El Paso Natural Gas Company San Juan 28-7 Unit #20A SE 8-28-7

R -7-W EPNG EPNG 13 76(PM 199 20 23 EPNG 251

MAP 2

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Proposed Location

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U. S. CEOLOGICAL SURVEY