#### SUBMIT IN TRIPLICATE\*

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

UNITE	ED	STATI	ES	
DEPARTMENT	OF	THE	INTE	RIOR

_	30	-03	9-	21	862	<del>-</del>
		E DESIG				
c	T2 /	7702	E 0			

	GEOLO:	GICAL SURVEY			SF 079250	1		
APPLICATION	FOR PERMIT T	O DRILL, DE	PEN, OR PLUG	ВАСК	6. IF INDIAN, ALLO	TTEE OR TRIBE NAME		
1a. TYPE OF WORK  DRI  b. TYPE OF WELL	LL 🖺	DEEPEN []	PLUG BA	CK 🗌	7. UNIT AGREEMEN San Juan 8. FARM OR LEASE	28-5 Unit		
2. NAME OF OPERATOR	CLL OTHER		ZONE ZONE		San Juan	28-5 Unit		
	ural Gas Com	pany			9. WELL NO.			
3. ADDRESS OF OPERATOR	77	NEM OFAOI			102			
	Farmington,				1	10. FIELD AND FOOL, OR WILDCAT		
4. LOCATION OF WELL (Re At surface	eport location clearly and 1180'S, 47		sy State requirements.*)		Basin Dak			
At proposed prod. zon	·	0 1			Sec. II, TON	284N, R-5-W		
	and direction from Near		FICE*		12. COUNTY OR PAR Rio Arrib			
15. DISTANCE FROM PROPO LUCATION TO NEAREST PROPERTY OR LEASE I. (Also to nearest drig	SED* : INE, FT.		NO. OF ACRES IN LEASE Unit		) OF ACRES ASSIGNED HIS WELL	310.19		
18. DISTANCE FROM PROP TO NEAREST WELL, DO OR APPLIED FOR, ON TH	OSED LOCATION* RILLING, COMPLETED,	3500'	8870	20. ROTA Rotar	RY OR CABLE TOOLS			
21. ELEVATIONS (Show who	ether DF, RT, GR, etc.)	ı			22. APPROX. DATE	WORK WILL START*		
23.	P	ROPOSED CASING	AND CEMENTING PROGI	RAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CE	MENT		
13 3/4"	9 5/8"	32.3#	200	224 c	u.ft. to c	irculate		
8 3/4"	7"	20.0#	4750'			ver Ojo Al		
6 1/4"	4 1/2"	10.5#	8870'	634 c	u.ft.to fi	11 to 4750		
Selectively	perforate a	nd sandwate	er fracture th	ie Dako	otaformatic	on.		
A 3000 psi blind and p	WP and 6000 pipe rams wil	psi test do l be used f	ouble gate pre for blow out p	eventer erevent	equipped ion on thi	with s well.		
This gas is	dedicated.				AUGRE	April 1		
dedicated t	o this well.	proposal is to deepen o	& Lots 3&4 Syor plug back, give data on ta on subsurface locations	present prod	iuctive zone and pro	bed new productive		

Drilling Clerk August 17,1978 (This space for Federal or State office use) PERMIT NO. .\_\_\_ TITLE

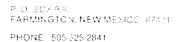
oh 3 mak NWU K-2948

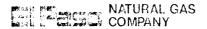
24.

\*See Instructions On Reverse Side

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

Conrator		All distances in the control of	Lease				Well No.
Operator EL PASO N	MATURAL GAS C	OMPANY		JUAN 28-5	UNIT (SE	F <b>-</b> 079250	. I i
Unit Letter	Section	Township	Range		County		
P	11	28N	5v	<b>Y</b>	Rio A	rriba	
Actual Foctage Lo		0 11	1 70			n4	
1180		South line on	d <u>170</u>	fee	t from the	East	line Dedicated Acreage:
Ground Level Elev	Dakota		Poer	Basin 1	Dakota		310.19 Acres
		cated to the subject				narka on t	
I. Uutline	ine acreage dedi	cated to the subject	well by co.	iorea peneri i	nachuic :	narks on t	ne plat below.
	than one lease and royalty).	is dedicated to the w	vell, outline	each and ide	entify the o	wnership 1	hereof (both as to working
		different ownership i , unitization, force-po		l to the well,			f all owners been consoli-
X	CON. I	answer is "yes," type	a of annual;	dation	Unit	izatio	1
Yes	No If	answer is yes, type	e of consoft	dation			
this form	if necessary.)						lated. (Use reverse side of
							nmunitization, unitization, n approved by the Commis-
							CERTIFICATION
	•	8-2948				tained h	certify that the information con- erein is true and complete to the my knowledge and belief.
						1	19 2 W
7		13 (1)			1.2	Domá 3.3	U. Dreeze
4	3 2 sp.	079250	3	2	,	INT'ELL.	ing Clerk
<del>                                 </del>		470 -	美	X X X		Eobitiona:	so Natural Gas Co.
					2236.		
		99	SF-079\$]	[9-A   N		Augus	t 18, 1978
, 1		- Company of the Comp		<u> </u>	/2	5-4-	
	5297.16					Date	<u>.</u>
	SCALE: 1"=	2000 <b>1</b>				shown o notes of under m is true	r certify that the well location in this plat was plotted from field f actual surveys made by me or y supervision, and that the same and correct to the best of my ge and belief.
						Date Surve July Registered and La Fraca Certificate	25, 1978  Wrotessional Lingtoner  Wisurveyor  B. Kenry Ur.





### Multi-Point Surface Use Plan San Juan 28-5 Unit #102

- 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 29-6 Water Well #1.
- 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 a Plat No. 1,

7. cont'd.

will be plevided for human waste. If large amounts of liquids are left in the reserve pit after complation 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 railed pinon and cedar with oak brush 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

### Operations Plan San Juan 28-5 Unit #102

I. Location: 1180'S, 470'E, Section 11, T-28-N, R-5-W, Rio Arriba County, NM

Field: Basin Dakota Elevation: 7471'

## II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	6299 <b>'</b>
	Ojo Alamo	3759 <b>'</b>	Point Lookout	6604'
	Kirtland	3909 <b>'</b>	Gallup	7630 <b>'</b>
	Fruitland	4179 <b>'</b>	Greenhorn	8575 <b>'</b>
	Pic.Cliffs	4423'	Graneros	8631'
	Lewis	4549 <b>'</b>	Dakota	8750 <b>'</b>
	Mesa Verde	6224'	Total Depth	8870 <b>'</b>

- B. Logging Program: GR-Ind. and GR-Density at Total Depth.
- C. Coring Program: none
- D. Natural Gauges: 6604', 7630', 8630', 8750' 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 4750'Gas from intermediate casing to Total Depth.

## IV. Materials:

A. Casing Program:	Hole Size	Depth	Casing Size	Wt.&Grade
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	4750'	7"	20.0# K-55
	6 1/4"	6500'	4 1/2"	10.5# K-55
	6 1/4"	8000'	4 1/2"	11.6# K-55
	6 1/4"	8870'	4 1/2"	11.6# N-80

B. Float Equipment: 9 5/8" surface casing - Pathfinder guide shoe (Part No. 2006-1-012).

7" intermediate casing - Pathfinder guide shoe (Part No. 1003-1-007) and Pathfinder self-fill insert float valve (Part No. 2010-6-007), 5 Pathfinder stabilizers (Part No. 107-10) every other joint above shoe. Run float two joints above shoe.

- 4 1/2" production casing Larkin geyser shoe (fig. 222) and Larkin flapper type float collar (fig. 404 M&F)
- C. Tubing: 8870' of 1 1/2", 2.9#, J-55 lord EUE tubing with an expendable check valve on bottom and a common pump seating nipple one joint above bottom.
- D. Wellhead Equipment: 3000 psi test tree. Wellhead representative to set all slips and cut off casing.

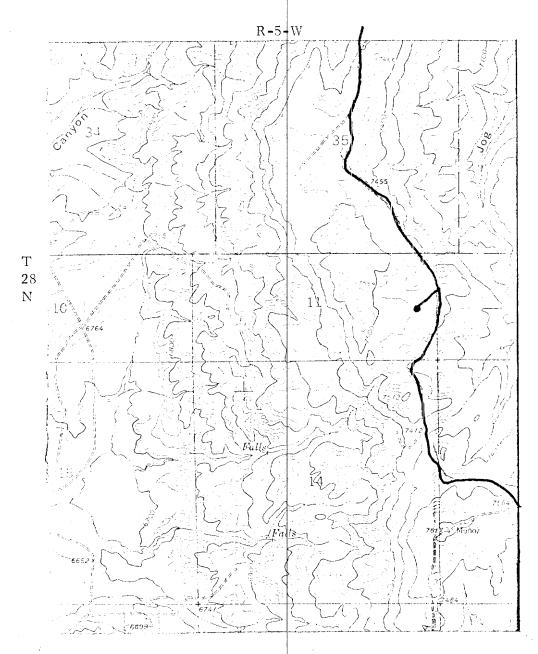
## V. Cementing:

- 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 65 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 (223 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" production casing precede cement with 40 bbls. of gel water (4 sks. gel) cement with 246 sks. of Class "B" with 8% gel, 1/4 cu.ft. fine gilsonite per sack and 0.4% HR-7, followed by 100 sks. of Class "B" with 1/4# fine tuf-plug per sack and 0.4% HR-7 (634 cu.ft. of slurry, 50% excess to fill to intermediate asing). Run temperature survey at 8 hours. WOC 18 hours.

3 Son Jan 2 8 - 5 # 102 135 ). }-100 Jan Harry 1 3. 0 cut the Jill 4 16. 5.165 Closes 5 175 

Scrics 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 CAS COMPANY San Juen 28-5 Unit #102 SE 11-28-5



MAP #1

LEGEND OF RIGHT-OF-WAYS

EXISTING	ROADS			
	A A A A A A A A A A A A A A A A A A A			
EXISTING	ROAD & PIFELINE	} <del>  </del>		<b>+</b>
PROPOSED	ROADS			
	PIPELITES		•	·
PROFOSED	RCAD & PIFELINE	· +-		<del></del>

## EL PASO NATURAL GAS COMPANY San Juan 28-5 Unit #102 SE 11-28-5

R-5-W EPNG 11 12 EPNG EFNG <u>းပည်ဆီ 5 Unii</u> EPNG 23 EPNO 32 36

Map #2
Proposed Location ●