SUBMIT IN TRIPLICATE*

(Other Instructions on

Form approved. Budget Bureau No. 42-R1425.

DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY						30-045-2336/ 5. LEASE DENIGNATION AND SERIAL NO. SF 078502		
APPLICATIO	N FOR PERMIT	TO DRILL,	DEEP	EN, OR PLUG B	ACK	6. IF INDIAN, ALLOTTER	OR TRIBE NAME	
1a. TYPE OF WORK b. TYPE OF WELL	RILL 🗵	DEEPEN		PLUG BAG	CK 🗆	7. UNIT AGREEMENT N	AM E	
	GAR WELL X OTHER		8	INGLE MULTIP	LX	8. FARM OR LEASE NAS	ar.	
2. NAME OF OPERATOR						Vandewart	A	
	atural Gas Co	mpany		·		9. WELL NO.		
3. ADDEESS OF OPERATOR		NW 07.	407			1A		
), Farmingtor Report location clearly so			State requirements *)		10. FIELD AND POOL, OR WILDCAT		
At surface	800'S, 80		ILIZ ALLY	byate requirements.		Blanco Mesa Verde		
At proposed prod. zo	•	70 E				Sec.11,T-29-N,R-8-W		
14. DISTANCE IN MILES	AND DIRECTION FROM NE	AREST TOWN OR PO	ST OFFIC	E*		12. COUNTY OR FARISH	13. STATE	
						San Juan	NM	
15. DISTANCE FROM PROPOSED* LOCATION TO NUAREST PROPURTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any)			16. N	O. OF ACRES IN LEASE		NO. OF ACRES ASSIGNED TO THIS WELL 320.00		
18. DISTANCE FROM PROPONED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.				5710'	Rota			
6396'GL	nether DF, RT, GR, etc.)					22. APPROX. DATE WO	RK WILL START*	
23.		PROPOSED CASI	ING AN	D CEMENTING PROGRA	. M			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER	FOOT	SETTING DEPTH		QUANTITY OF CHMEN	·r	
13 3/4"	9 5/8"	32.3#		200'	224c	224cu.ft.to circulate		
8 3/4"	7"	20.0#		3530'	325cu.ft.to cover Ojo Ala			
6 1/4"	4 1/2"	10.5#		3380-5710'	406c	u.ft. to fil	1 to 3380'	
Selectivel	y perforate	and sandw	ater	fracture th	e Mes	a Verde form	ation.	
				able gate pre or blow out p				
This gas i	s dedicated.			Control of the contro		MAR 197	`7	
The $E/2$ of	Section 11	is dedica	ted	to this well	01	155.3 155.3		
one. If proposal is to preventer program, if an	drill or deepen direction			olug back, give data on pr on subsurface locations an				
SIGNED SEA	n Brads	usel 1	TLE	Drilling Cle	rk	DATE_Marc	h 4, 1977	

APPROVED BY _ CONDITIONS OF APPROVAL, IF ANY :

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

		VII digino	es must be fro	m the oute	r boundaries of 1	ne section	· · · · · · · · · · · · · · · · · · ·			
Operator			1	,ease Mondi	manage that		(an an	Well Ho.		
Fl Paso Matural Gas Company Unit Letter Section Township				Vandervart, "A" Henge County			(SF-07)	(SF-078502) LA		
P	11	29N		18		-	Juan			
Actual Footage Loc		2/11			<u>'</u>					
800	feet from the	South	line and	800	feet	from the	East	line		
Ground Level Elev.	Producing Fo	rmation		Pool		 -		Dedicated Acreage:		
6396	Mesa Ve	erde			Blanco			320,00 Acres		
1. Outline th	e acrenge dedica	nted to the	subject wel	l by colo	red pencil or	hachure	e marks on t	he plat below.		
	G		•	·	•			•		
2. If more th	an one lease is	dedicated	to the well,	outline	each and ider	itify the	ownership t	hereof (both as to working		
interest ar	nd royalty).							,		
D If 41-):{{+	anabin ia da	d:astad	to the well k	ava tha	interests a	f all owners been consoli-		
ľ	in one lease of o ommunitization,				to the well, i	iave ine	interests o	all owners been conson-		
dated by c	ommunitization,	unitization,	ioree-pooring	5. C.C.						
Yes	No If a	inswer is "y	es;" type of	consolid	ation					
		owners and	tract descri	ptions w	hich have ac	tually be	een consolid	ated. (Use reverse side of		
	f necessary.)	1 1			, ,	1.1	.) /			
								munitization, unitization,		
sion.	ling, or otherwise	or until a n	on-standard	unit, eii	minating suci	interes	sts, nas neer	approved by the Commis-		
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		8		1				CERTIFICATION		
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	1						Name			
				1			M)	ing Clerk		
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† <u> </u>				!	and the second second		(XI)	and correct to the best of my		
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P. O. BOX 990 FARMINGTON, NEW MEXICO 87401 PHONE: 505-325-2841

Multi-Point Surface Use Plan Vandewart 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.
- 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 thirty feet (30') 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. 1
- 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 and proposed 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 a water hole located SW/4 Section 9, T-29-N, R-8-W (Manzaneras Mesa 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. 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 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 #2 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 green.
- 11. Other Information The terrain is covered with rolling hills and sagebrush flats. Sagebrush is the only vegetation growing on the site. Cattle graze the proposed project site.

- 12. Operator's Representative W. D. Dawson, Post Office Box 990, Farmington, New Mexico 87401
- 13. Certification -

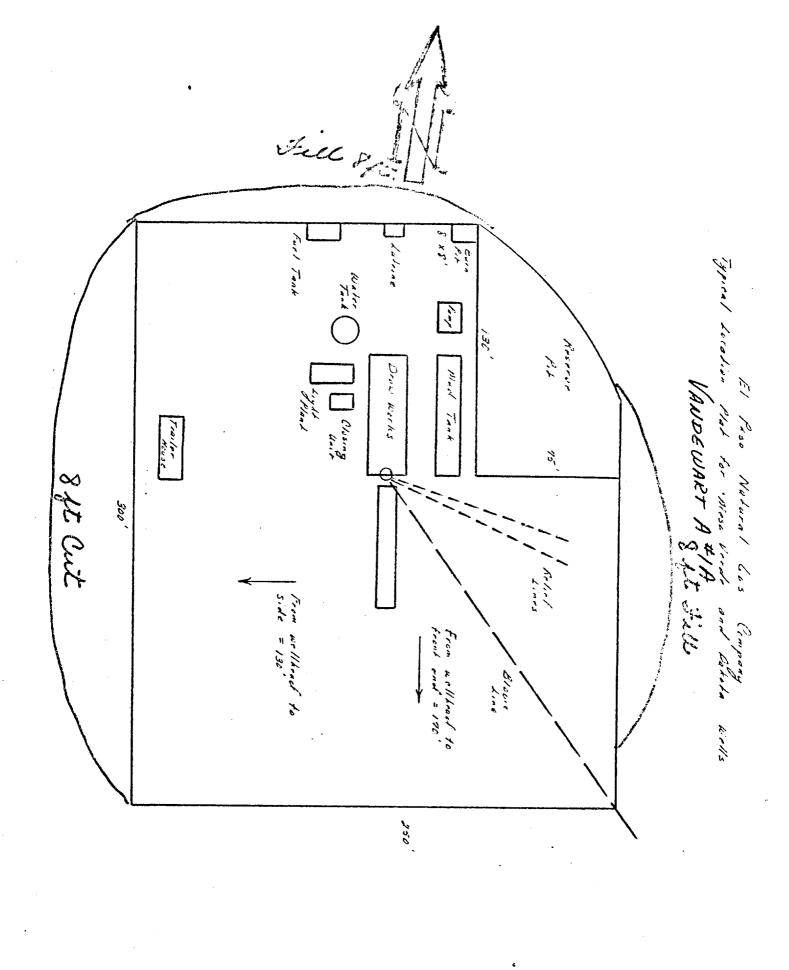
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated 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.

March 4, 1977

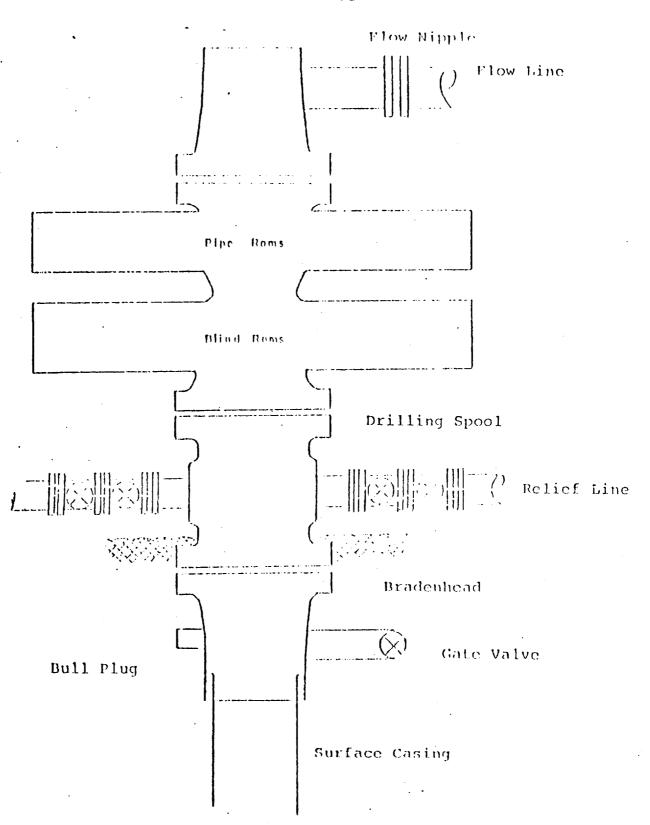
D. R. Read

Division Drilling Engineer

DRR:pb



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

Operations Plan Vandewart A #1A

I. Location: 800'S, 800'E, Section 11, T-29-N, R-8-W, San Juan County, NM

Field: Blanco Mesa Verde Elevation: 6406'DF

II. Geology:

Α.	Formation Tops:	Ojo Alamo	2080'	Lewis	3330'
	-	Kirtland	2260'	Mesa Verde	4750'
		Fruitland	2760'	Menefee	4905'
		Pic.Cliffs	3115'	Point Lookout	5310'
				Total Depth	5710'

- B. Logging Program: GR-Ind. and GR-Density at Total Depth.
- C. Coring Program: none
- D. Natural Gauges: 4740', 4900', 5300' 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 3530'. 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"	3530'	7"	20.0# K-55
		6 1/4"	3380-5710'	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 T.I.W. liner hanger with neoprene packoff. Larkin geyser shoe (fig. 222) and Larkin flapper type float collar (fig. 404 M&F).
- C. Tubing: 5710' 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" OCT casing head. 10" 900 x
 6" 900 OCT xmas tree.

V. Cementing:

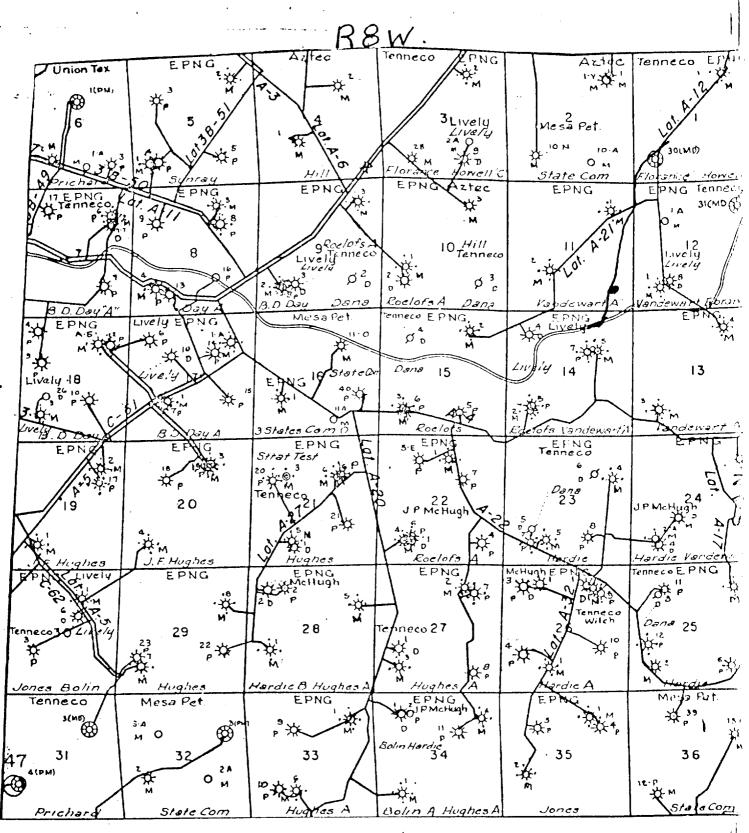
9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

7" intermediate casing - use 92 sks. of 65/35 Class "B" Poz with 12% gel (15.52 gallons of water per sack) followed by 70 sks. of Class "B" with 2% calcium chloride (325 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 225 sks. of Class "B" cement with 4% gel, 1/4 cu.ft. of fine gilsonite per sack and 0.6% Halad-9 (406 cu.ft. of slurry, 70% excess to circulate liner).

DRR:pb

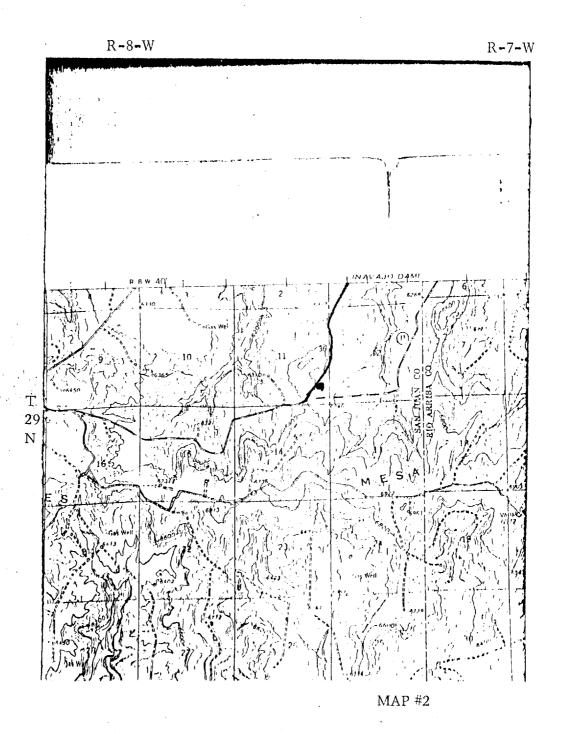
EL PASO NATURAL GAS COMPANY VANDEWART A #1A SE 11-20-8



MAP #1

No Road

EL PASO NATURAL GAS COMPANY VANDEWART A #1A SE 11-29-8



LECEND OF RIGHT OF MAYE.

EXISTING ROADS

EXISTING FORD PILELINE

PROPOSED ROADS

PROPOSED FIPELINES

PROPOSED ROAD A PUTELINE