

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-039-21969

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF 079266
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR El Paso Natural Gas Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR PO Box 289, Farmington, NM 87401		8. FARM OR LEASE NAME Vaughn
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 2510'S, 1570'W		9. WELL NO. 30
K At proposed prod. zone same		10. FIELD AND POOL, OR WILDCAT Basin Dakota
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 30 miles North of Counselors, NM		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 28, T-26-N, R-6-W NMPM
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1570'	16. NO. OF ACRES IN LEASE 2560.00	17. NO. OF ACRES ASSIGNED TO THIS WELL W/ 320.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 900'	19. PROPOSED DEPTH 7270'	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6421'GR		22. APPROX. DATE WORK WILL START*

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 7/8"	4 1/2"	10.5# & 11.6#	7270'	1319 cu.ft. - 3 stages

1st stage - 353 cu.ft. to cover Gallup  
2nd stage - 539 cu.ft. to cover Mesa Verde  
3rd stage - 427 cu.ft. to cover Ojo Alamo

Selectively perforate and sandwater fracture the Dakota 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 28 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. Bisco TITLE Drilling Clerk DATE Nov. 6, 1978

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

ad Brook

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-107  
Supersedes C-124  
Effective 1-1-65

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

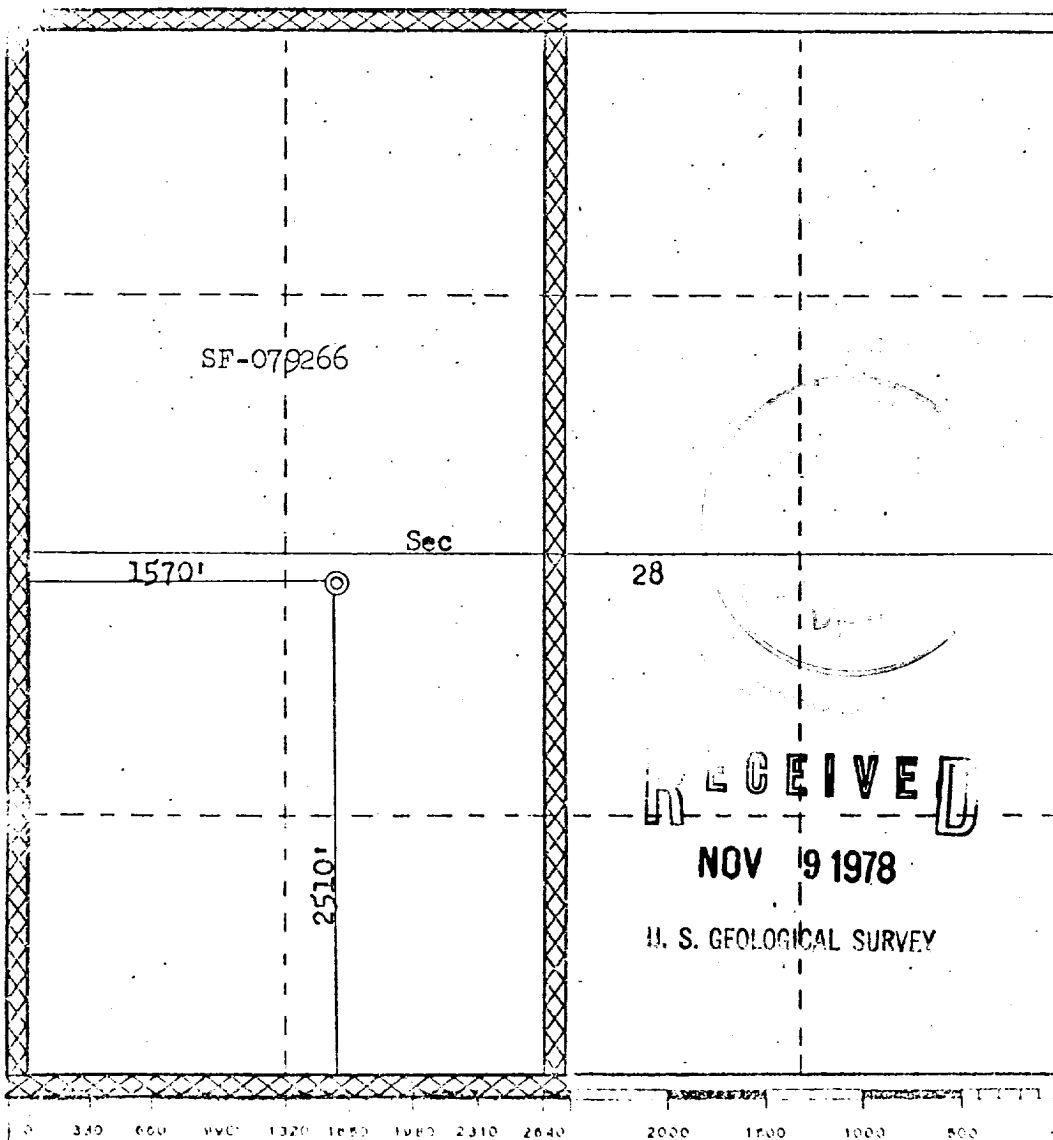
Operator <b>EL PASO NATURAL GAS COMPANY</b>			Lease <b>VAUGHN (SF-079266)</b>		Well No. <b>30</b>
Unit Letter <b>K</b>	Section <b>28</b>	Township <b>26N</b>	Range <b>6W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>2510</b> feet from the <b>South</b> line and <b>1570</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6421</b>	Producing Formation <b>Dakota</b>	Pool <b>Basin Dakota</b>		Dedicated Acreage <b>320.00</b>	

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 \_\_\_\_\_

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.

*A. H. Brisco*

Name

**Drilling Clerk**

Position

**El Paso Natural Gas Co.**

Company

**Nov. 6, 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

**JULY 1978**

Registered Professional Surveyor

and Licensed Geologist

**STATE OF NEW MEXICO**

**OFFICE OF THE STATE ENGINEER**


**3950 TERR. DR.**

Multi-Point Surface Use Plan  
Vaughn #30

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 Tapicito Wash Water Hole.
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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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 sandstone ledges with cedar and 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

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November 6, 1978

Operations Plan - Vaughn #30

I. Location: 2510'S, 1570'W, Section 28, T-26-N, R-6-W, Rio Arriba County, NM

Field: Basin Dakota

Elevation: 6421'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	4345'
	Ojo Alamo	1950'	Point Lookout	4870'
	Kirtland	2120'	Gallup	6030'
	Fruitland	2420'	Greenhorn	6792'
	Pic.Cliffs	2630'	Graneros	6851'
	Lewis	2720'	Dakota	6999'
	Mesa Verde	4300'	Total Depth	7270'

B. Logging Program: Induction Electric and Gamma Ray Density at TD.

C. Coring: none

D. Samples: none

III. Drilling:

A. Mud Program: mud from surface to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg.Size</u>	<u>Wt.&amp;Grade</u>
	13 3/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	5570'	4 1/2"	10.5# J-55
	7 7/8"	6500'	4 1/2"	10.5# J-55
	7 7/8"	7270'	4 1/2"	11.6# J-55

B. Float Equipment: 9 5/8" surface casing - Pathfinder guide shoe (Part #2006-1-010)

4 1/2" production casing - Howco guide shoe (Prod. No. 102-1) and self-fill insert valve (Prod. No. 177-13). Two Howco multiple stage cementers (Prod. No.200-03) equipped for three stage cementing. Set tool for second stage at 5470' and tool for third stage at 2820'. Run 20 Howco centralizers (Prod. No. 200-03) spaced as follows: one on each of the bottom 8 joints, one below each stage tool and five above each stage tool spaced every other joint.

C. Tubing: 7270' of 2 3/8", 4.7#, J-55 tubing with a common pump seating nipple and an expendable check valve with drill type guide.

D. Wellhead Equipment: 10" 3000 x 9 5/8" WKM Brewster Type R casing head with 10" x 4 1/2" Type SA casing hanger, 10" 3000 x 6" 3000 Brewster xmas tree (Dwg. #1-004-78). Wellhead representative to set all slips.

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V. Cementing:

Surface casing (13 3/4" x 9 5/8") - 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). WOC 12 hours. Test to 600#/30 min.

Production casing -

First stage (4 1/2" x 7 7/8") - use 132 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack followed by 100 sks. 50/50 Class "B" Pozmix with 2% gel, 2% calcium chloride and 1/4# fine tuf-plug per cu.ft. (353 cu.ft. of slurry, 25% excess to cover the Gallup).

Second stage (4 1/2" x 8 3/4") - circulate mud for 2 hours, then cement with 333 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride and 8.3 gallons of water per sack (539 cu.ft. of slurry, 50% excess to cover the Mesa Verde).

Third stage (4 1/2" x 8 3/4") - circulate mud for 2 hours, then cement using 264 sks. 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack (427 cu.ft. of slurry, 60% excess to cover the Ojo Alamo). Run temperature survey on top stage only at 8 hours. WOC 18 hours.

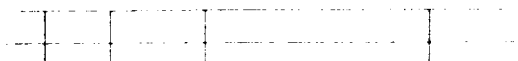

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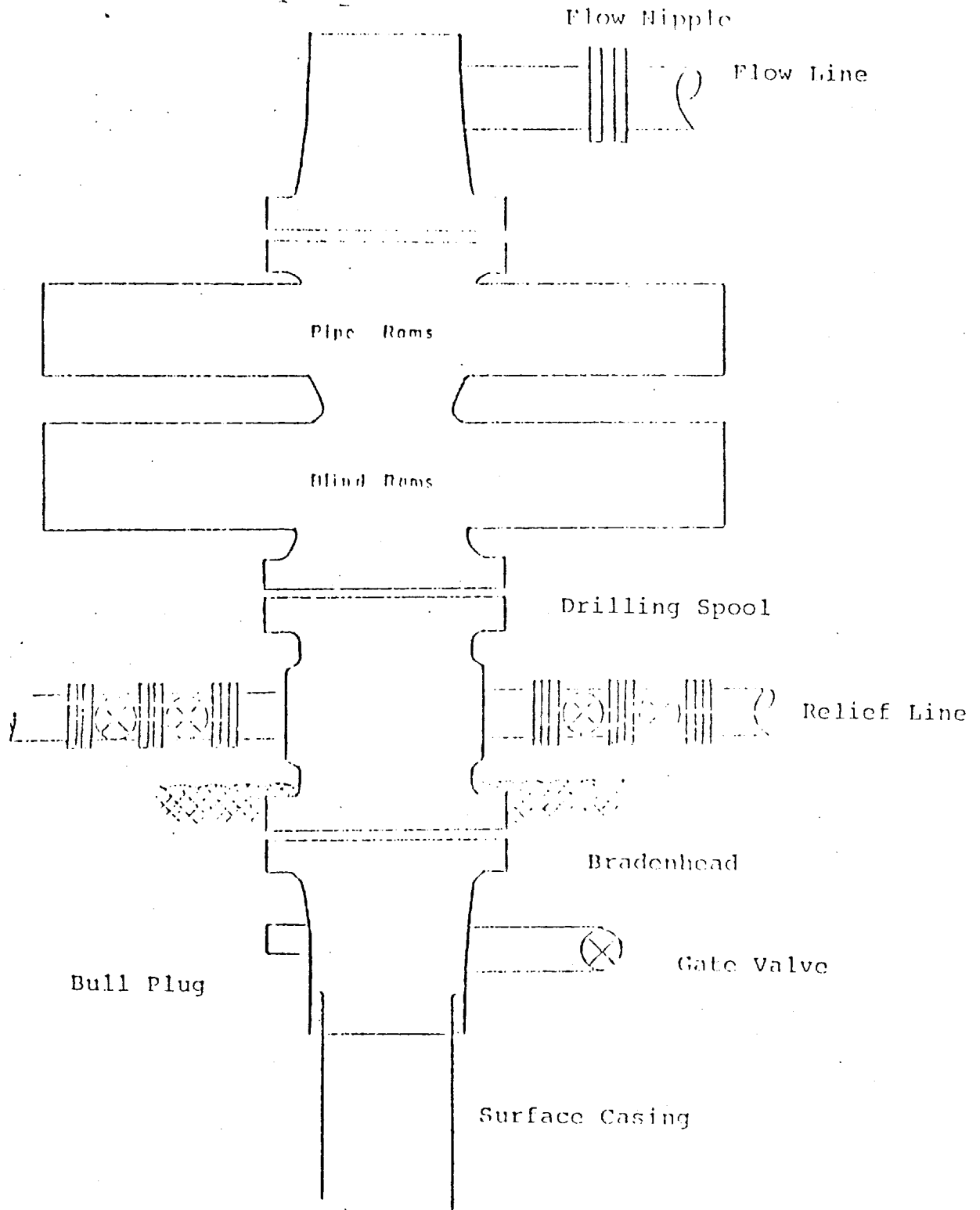
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			ENG. REC.		DATE		 <b>El Paso Natural Gas Company</b>			
			DRAWN	J. L. H.	8-16-78					
			CHECKED			<b>TYPICAL LOCATION PLAT FOR MESAVERDE OR DAKOTA DRILL SITE</b>				
			CHECKED							
			PROJ. APP.							
PRT.	SEP.	DATE	TO	W.O.	DESIGN			SCALE: 1" = 50'	DWG. NO.	REV
PRINT RECORD					W.O.					

Typical B.O.P. Installation  
for Dakota 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.

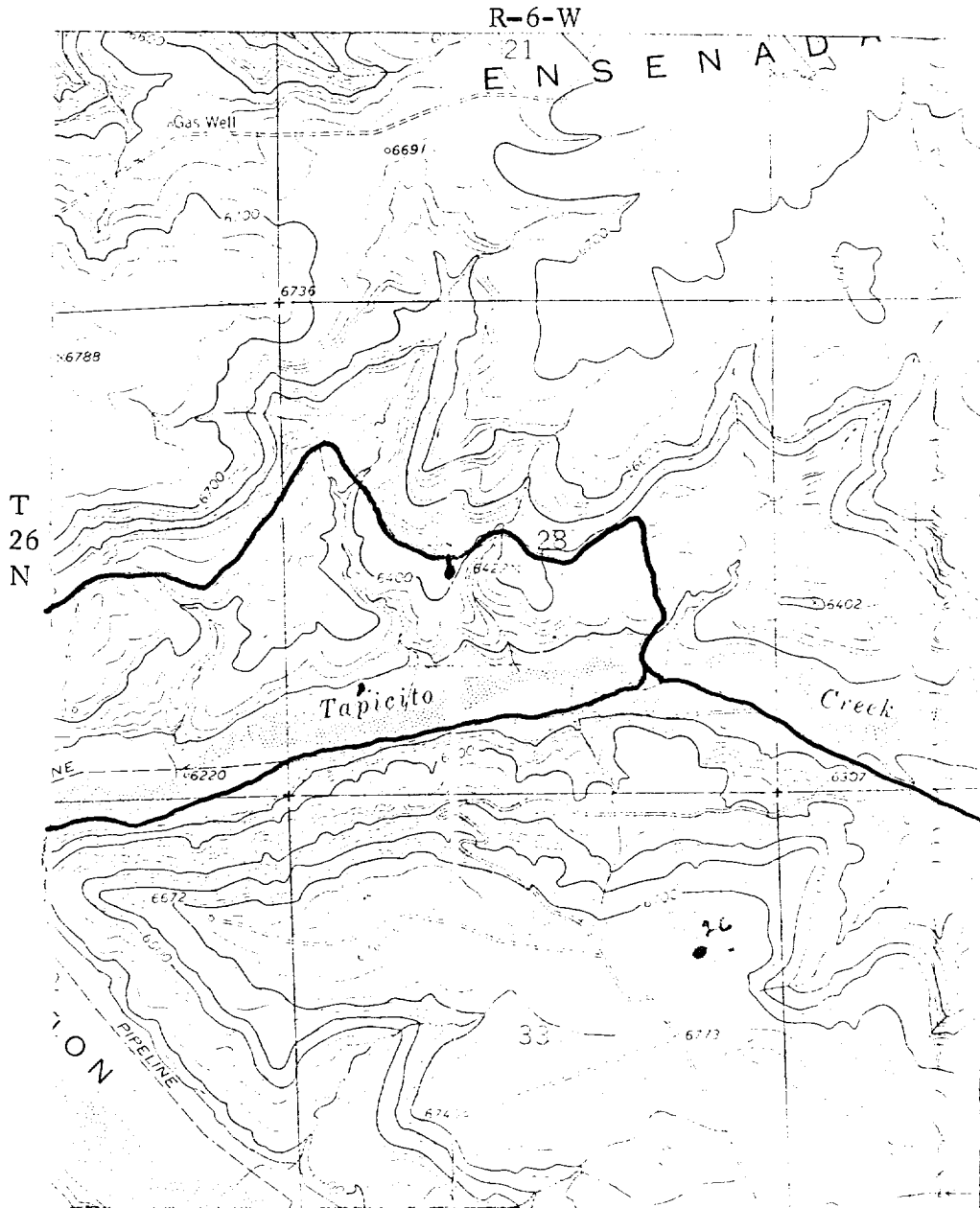
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EL PASO NATURAL GAS COMPANY  
 Vaughn #30  
 SW 28-26-6



Map #1

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LEGEND OF RIGHT-OF-WAYS

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

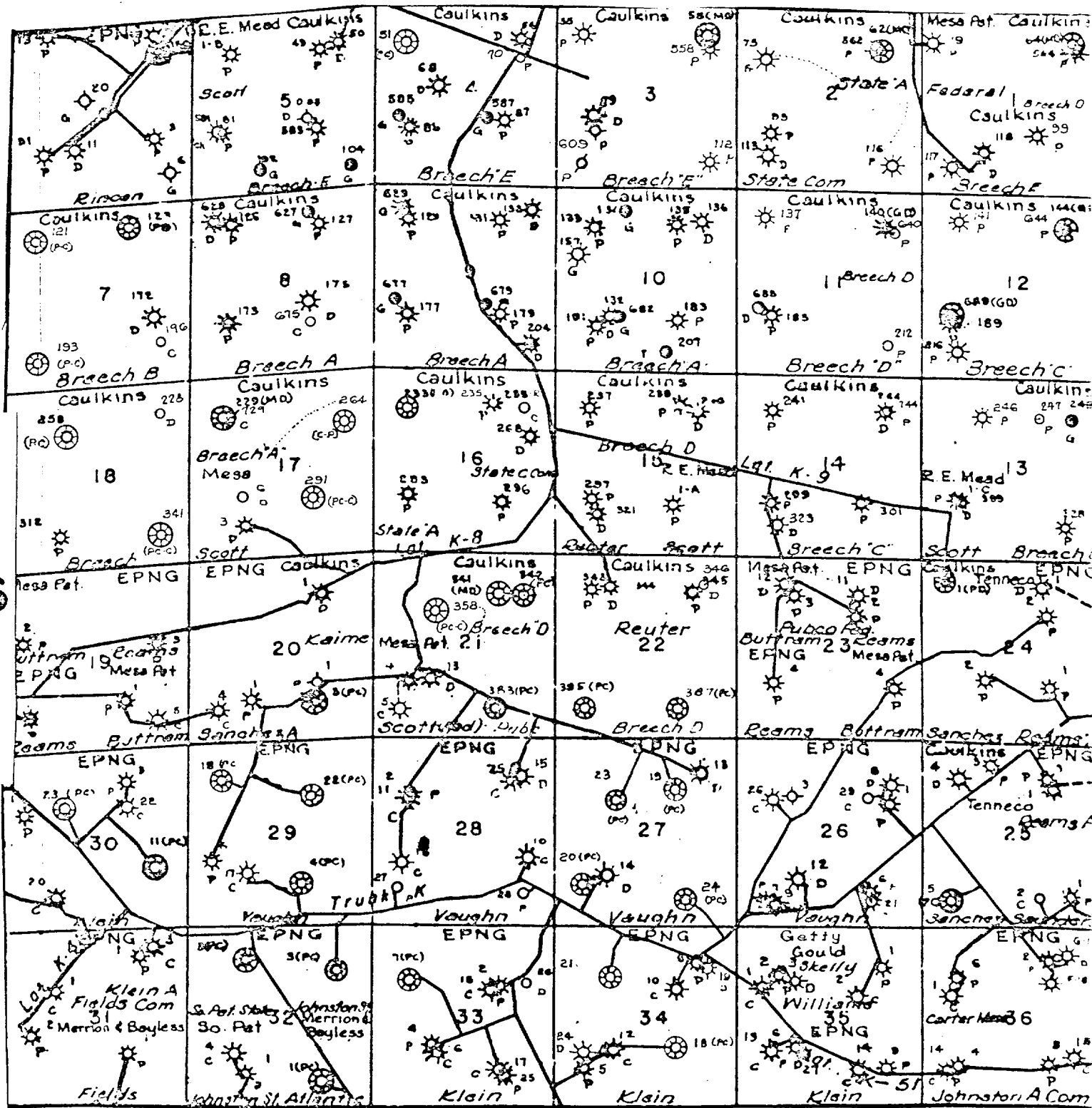
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Vaughn #30

SW 28-26-6

R-6-W

T  
26  
N



Map #2  
Proposed Location

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