Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-23544

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: El Paso Natural Gas Company

3. ADDRESS OF OPERATOR: Box 289, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1830'S, 910'W
At proposed prod. zone:

OCT 3 1979 U.S. GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.: SF 078421

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: McAdams

9. WELL NO.: 5E

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20, T-27-N, R-9-W N.M.P.M.

12. COUNTY OR PARISH: San Juan | 13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles Southeast of Bloomfield, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
910'	320	W/320.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
700'	7000	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6364' G.L.

22. APPROX. DATE WORK WILL START*:

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	200	165 cf. 100% excess to circulate
7 7/8"	4 1/2"	10.5 & 11.6#	7000	1st. 431 cf. 50% excess to cover Gallup. 2nd. 512 cf. 60% excess to cover Mesa Verde. 3rd. 497 cf. 60% excess to cover Ojo Alamo.

Selectively perforate and sandwater fracture the Dakota formation.

A 3000 psi WP and 6000 psi test double gate preventor 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 20 is dedicated to this well.

RECEIVED
OCT 04 1979
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

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. Gurico TITLE Drilling Clerk DATE October 2, 1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

NMOCC

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

1989
Form C-102
Revised 10-1-78

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

Operator	Lease	Well No.
EL PASO NATURAL GAS COMPANY	McADAMS (SF-078421)	5-E

Unit Letter	Section	Township	Range	County
L	20	27N	9W	San Juan

Actual Footage Location of Well:
1830 feet from the South line and 910 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6364	Dakota	Basin Dakota	320.00 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

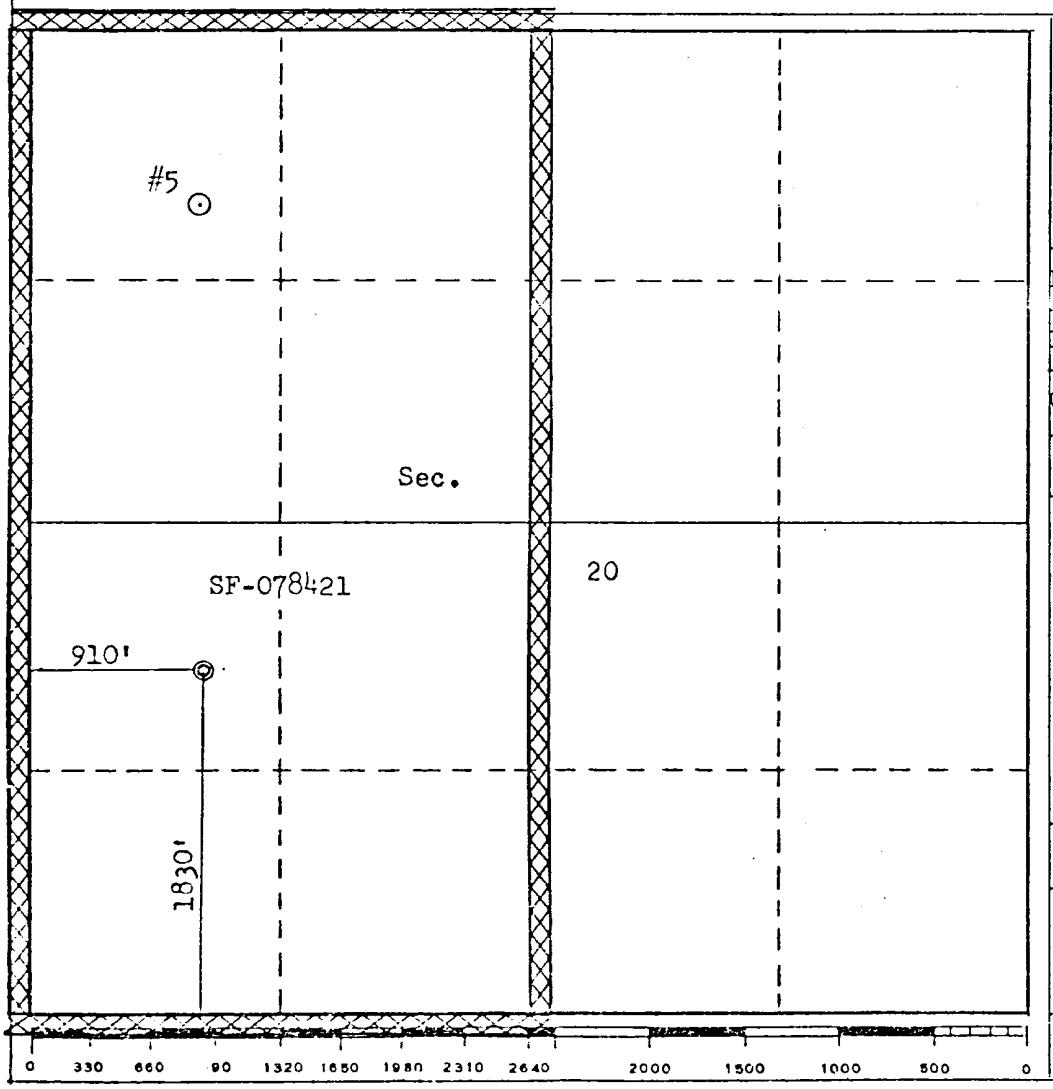
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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. G. Hess
Name
Drilling Clerk
Position
El Paso Natural Gas Co.
Company
October 1, 1979
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
September 18, 1979
Registered Professional Engineer and/or Land Surveyor
Fred B. Kerr, Jr.
Certificate No.
3950

El Paso NATURAL GAS COMPANY

P. O. BOX 990
FARMINGTON, NEW MEXICO 87401
PHONE: 505-325-2841

Multi-Point Surface Use Plan

McAdams # 5E

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 Huerfano 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 on Plat No. 1,

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 sagebrush flat with sagebrush and juniper trees 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.

L. A. Aimes

L. A. Aimes
Project Drilling Engineer

October 2, 1979

OPERATIONS PLAN
McAdams # 5E

I. Location: 1830'S, 910'W, Section 20, T-27-N, R-9-W, San Juan County, New Mexico

Field: Basin Dakota Elevation: 6374' GL

II. Geology:

A. Formation Tops:

Surface	Nacimiento	Menefee	
Ojo Alamo	1156'	Point Lookout	4593'
Kirtland	1423'	Gallup	5738'
Fruitland	1988'	Greenhorn	6555'
Pic. Cliffs	2223'	Graneros	6607'
Lewis	2320'	Dakota	6725'
Mesa Verde	3788'	Total Depth	7000'

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:

Hole Size	Depth	Casing Size	Wt. & Grade
12 1/4"	200'	8 5/8"	24.0# K-55
7 7/8"	7000'	4 1/2"	10.5 & 11.6 J-5

B. Float Equipment: 8 5/8" surface casing - cement guide shoe

4 1/2" production casing-cement guide shoe and self-fill insert valve. Two multiple stage cementers equipped for three stage cementing. Set tool for second stage at 5193' and tool for third stage at 2520'. Run 20 centralizers 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 7000' 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: 8" x 2000 x 8 5/8" casing head with 8" x 4 1/2" casing hanger, 8" x 2000 x 6" 2000 xmas tree.

V. Cementing:

Surface casing (12 1/4" x 8 5/8") - use 140 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (165 cu. ft. of slurry, 100% excess to circulate) WOC 12 hours. Test to 600#/30 min.

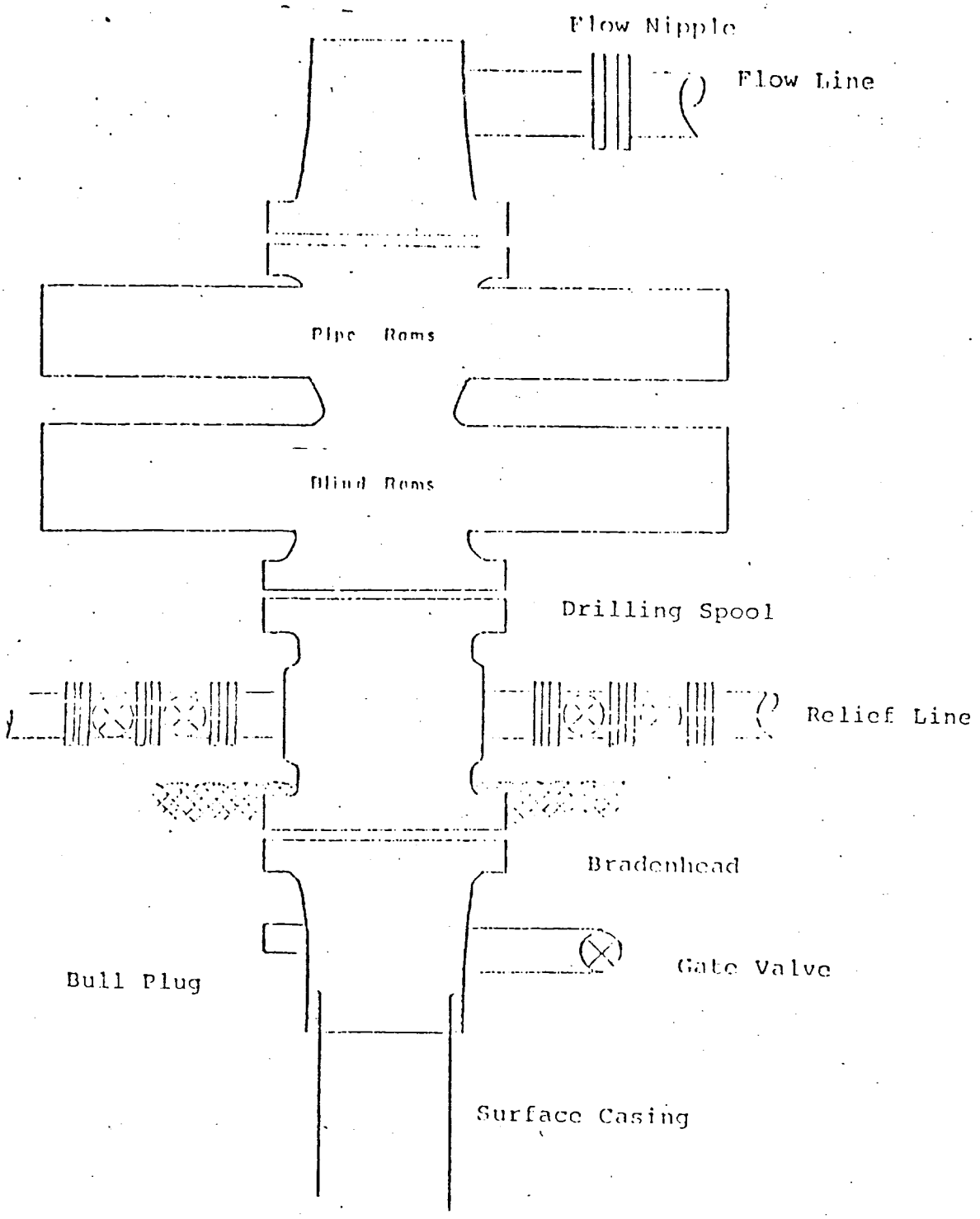
Production casing -

First stage (4 1/2" x 7 7/8") - use 204 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack followed by 80 sks. 50/50 Class "B" Pozmix with 2% gel, 2% calcium chloride and 1/4# fine tuf-plug per cu. ft. (431 cu. ft. slurry, 50% excess to cover the Gallup).

Second stage (4 1/2" x 7 7/8") - circulate mud for 2 hours, then cement with 316 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride and 8.3 gallons of water per sack (512 cu. ft. of slurry, 60% excess to cover the Mesa Verde).

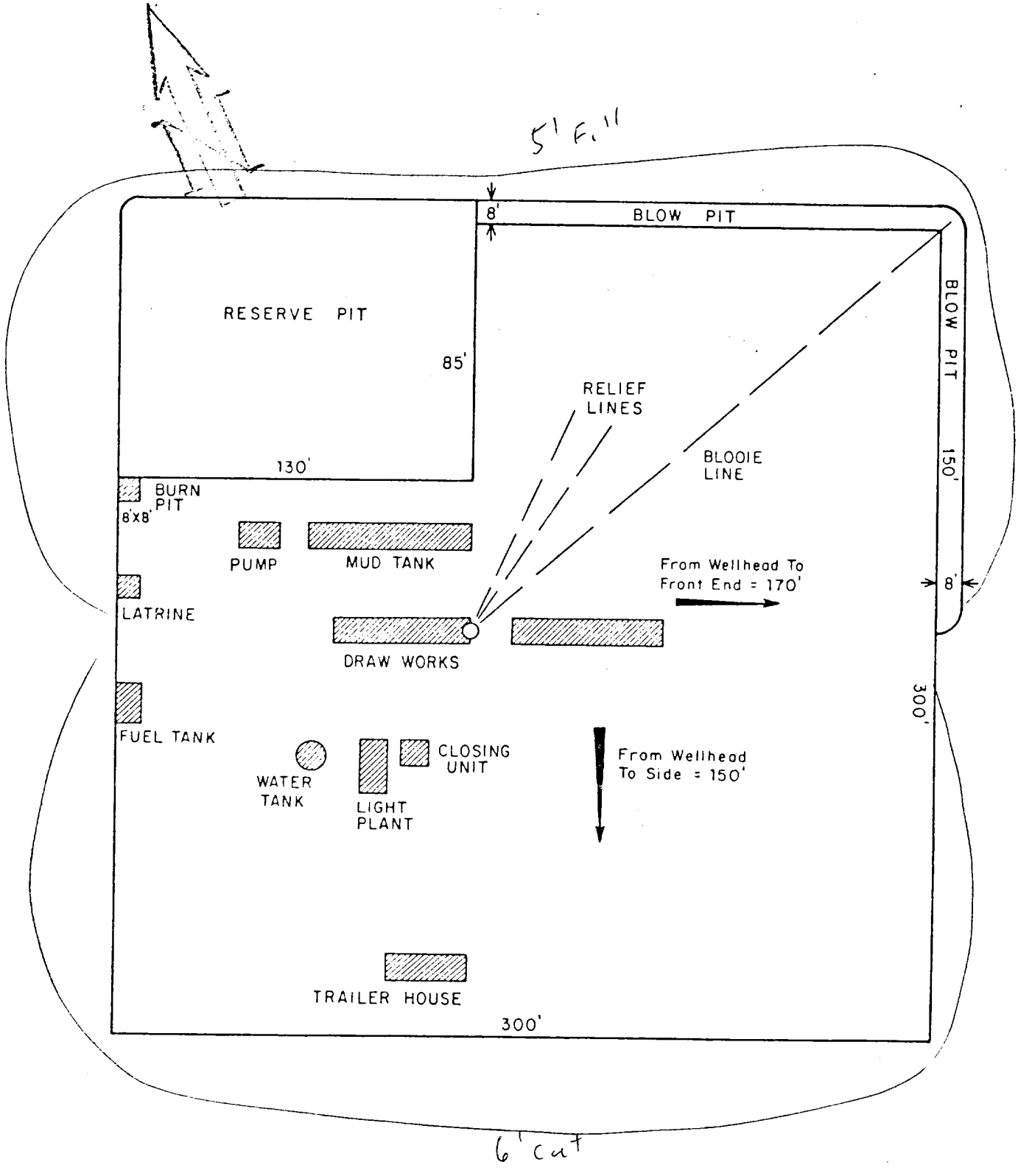
Third stage (4 1/2" x 7 7/8") - circulate mud for 2 hours, then cement using 307 sks. 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack (497 cu. ft. of slurry, 60% excess to cover the Ojo Alamo). Run temperature survey on top stage only at 8 hours. WOC 18 hours.

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.



PRT.	SEP.	DATE	TO	W.O.

PRINT RECORD

ENG. REC.		DATE
DRAWN	J.L.H.	8-16-78
CHECKED		
CHECKED		
PROJ. APP.		
DESIGN		
W.O.		

El Paso Natural Gas Company

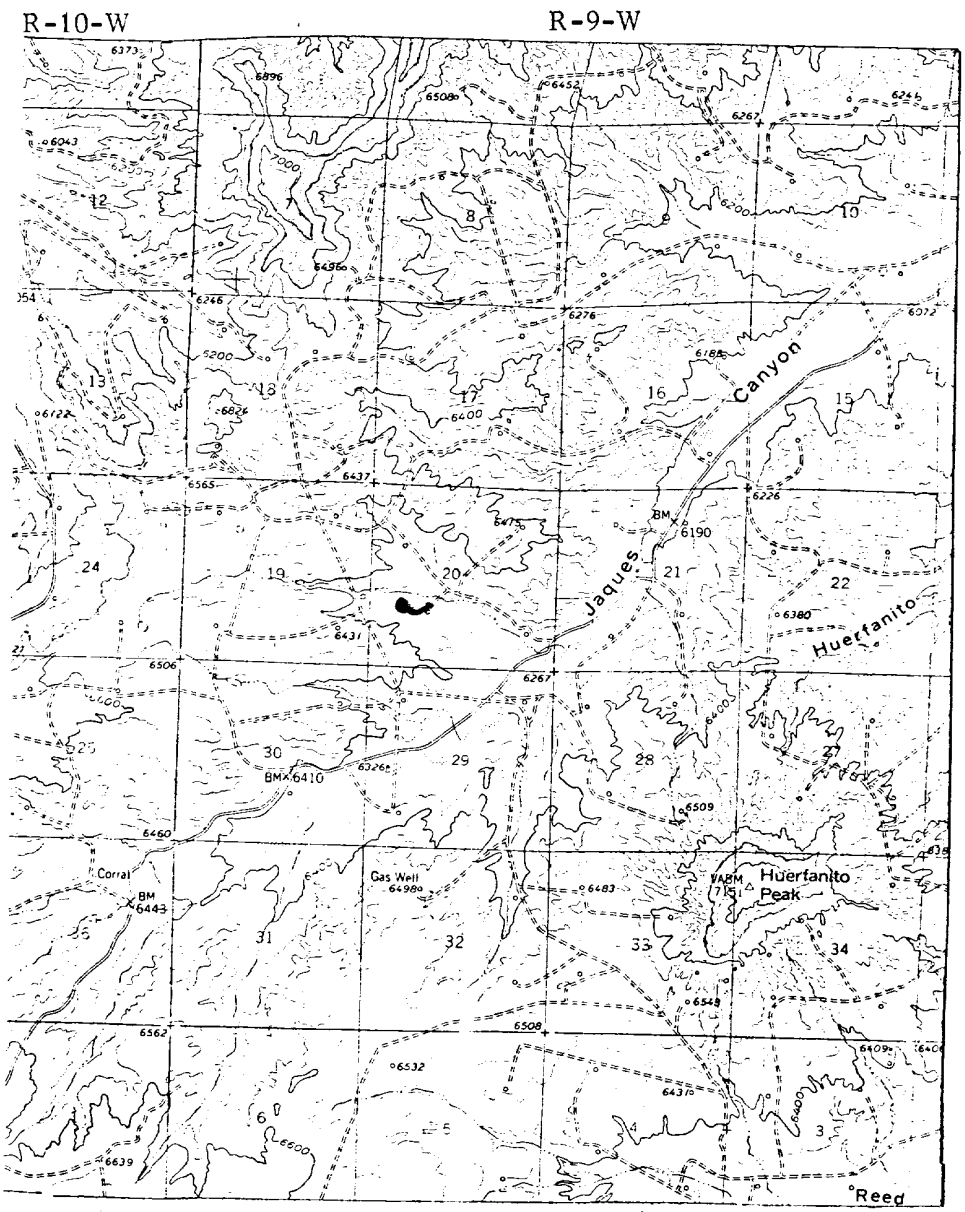
TYPICAL LOCATION PLAT FOR MESAVERDE OR DAKOTA DRILL SITE

SCALE: 1" = 50'

DWG. NO.

REV.

El Paso Natural Gas Company
McAdmas #5E
SW 20-27-9



MAP 1

LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS
EXISTING PIPELINES
EXISTING ROAD & PIPELINE
PROPOSED ROADS
PROPOSED PIPELINES
PROPOSED ROAD & PIPELINE