

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL

WELL ☒

GAS

WELL ☐OTHER ☐

SINGLE

ZONE ☒

MULTIPLE

ZONE ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation 14634

3. ADDRESS AND TELEPHONE NO.

P. O. Box 840, Farmington, NM 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1650' fnl & 1650' fw1 (SENW)

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

21 miles North of San Mateo, New Mexico

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any) 1850' ±

19. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

N/A

16. NO. OF ACRES IN LEASE

1676.13

19. PROPOSED DEPTH

3250'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6736' GR

22. APPROX. DATE WORK WILL START*

Fall, 1994

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" J-55	24#	240'	150 sxs (177 cu.ft.)
7-7/8"	5-1/2" J-55	15.5#	3250'	600 sxs (1126 cu.ft.)

Propose to drill 12-1/4" hole to 240' ±; cement 8-5/8", 24# surface casing with 150 sacks (177 cu.ft.). Top of cement at surface. WOCT for 8-10 hours. Will pressure test BOPs and casing to 500 psi for 30 minutes prior to drill out. Will drill 7-7/8" hole with LS non-dispersed mud to total depth at 3250' ±. Will run DST on Entrada formation. Open hole surveys will be run. If well appears productive, will run 5-1/2", 15.5# production casing to TD and cement in single stage with 475 sx lite cement (979 cu.ft.) followed by 125 sxs neat 'B' (148 cu.ft.). Estimated top at surface. Will perforate and stimulate as required. Other technical details attached.

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DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 prevention program, if any.

24

SIGNED

Steven S. Duph

TITLE

Operations Manager

DATE

8/30/94

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY (Original Signed) HECTOR A. VILLALOBOS TITLE

AREA MANAGER
RIO PUERCO RESOURCE AREA

NOV 1 1994

DATE

*See Instructions On Reverse Side

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <i>30-031-20984</i>	Pool Code <i>96317</i>	Pool Name <i>Wildcat, EL DADO-ENTRADA (OFE)</i>
Property Code <i>15931</i>	Property Name Sarcio	Well Number 1
GRID No. 014634	Operator Name Merrion Oil & Gas corporation	Elevation 6736' GR

¹⁰ Surface Location

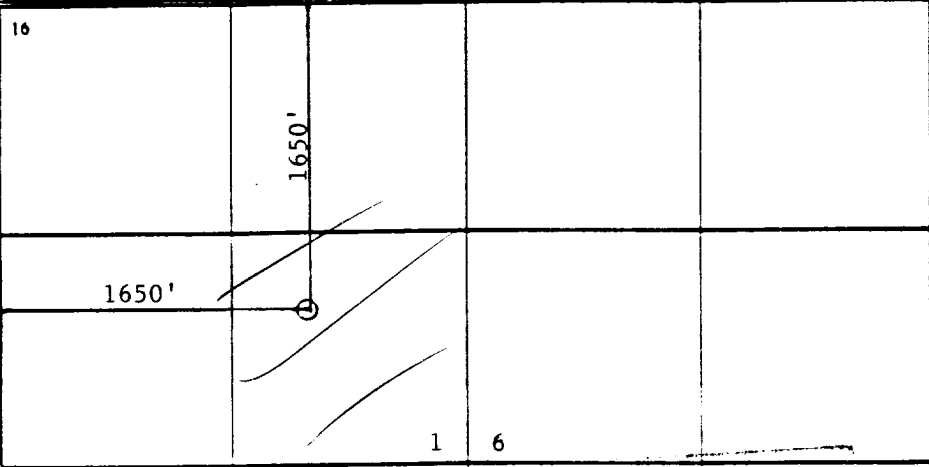
UL or lot no. F	Section 16	Township 15N	Range 6W	Lot Ida	Feet from the 1650	North/South line North	Feet from the 1650	East/West line West	County <i>Sandoval</i>
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedication Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <i>Steven S. Dunn</i> Printed Name Steven S. Dunn Title Operations Manager Date August 30, 1994
	¹⁸ SURVEYOR CERTIFICATION 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 belief. 10/24/91 Date of Survey Signature and Seal of Professional Surveyor: See attachment Certificate Number

RECEIVED
NOV - 2 1994
OIL CON. DIV.
DIST. 3

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

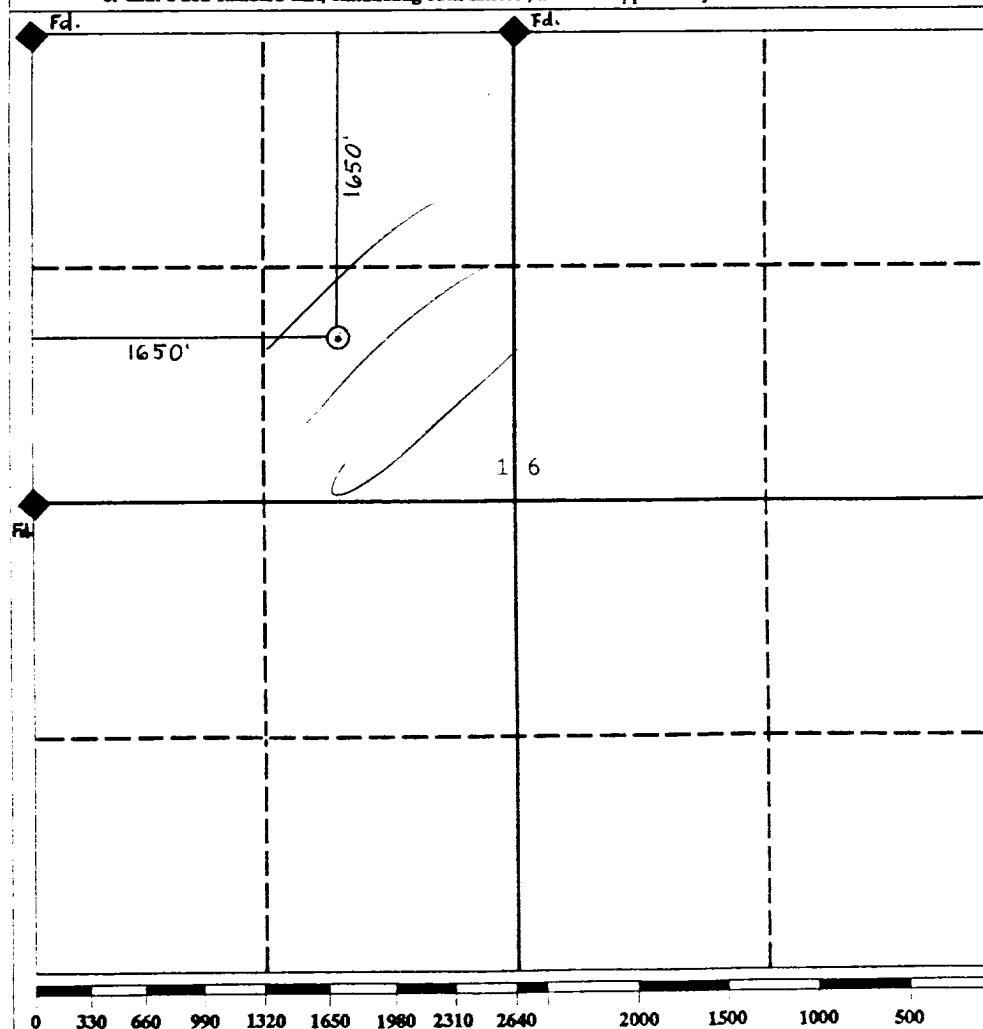
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Merrion Oil & Gas Corporation			Lease Sarcio		Well No. 1
Unit Letter F	Section 16	Township 15N	Range 6W	County NMPM	McKinley
Actual Footage Location of Well: 1650 feet from the North line and 1650 feet from the West line					
Ground level Elev. 6736'	Producing Formation		Pool	Dedicated Acreage: Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature _____
Printed Name _____
Position _____
Company _____
Date _____

SURVEYOR CERTIFICATION

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 **10/24/91**
Signature _____
Professional Surveyor _____
Certification Number **2466**

MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

SARCIO No. 1

1650' fml & 1650' fwl (SENW)

Section 16, T15N, R6W

Sandoval, New Mexico

1. ESTIMATED FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH</u>
Hospah	896'
Massive Gallup	1006'
Greenhorn	1616'
Dakota	1706'
Morrison	2028'
Entrada	3046'
Total Depth	3251'

2. WELL CONTROL SYSTEM

A. BOP SYSTEM

Proposed blowout preventer system (schematic drawings attached) is a series 900 double ram with choke and kill manifold, and will be used in 2M service.

B. WORKING PRESSURE

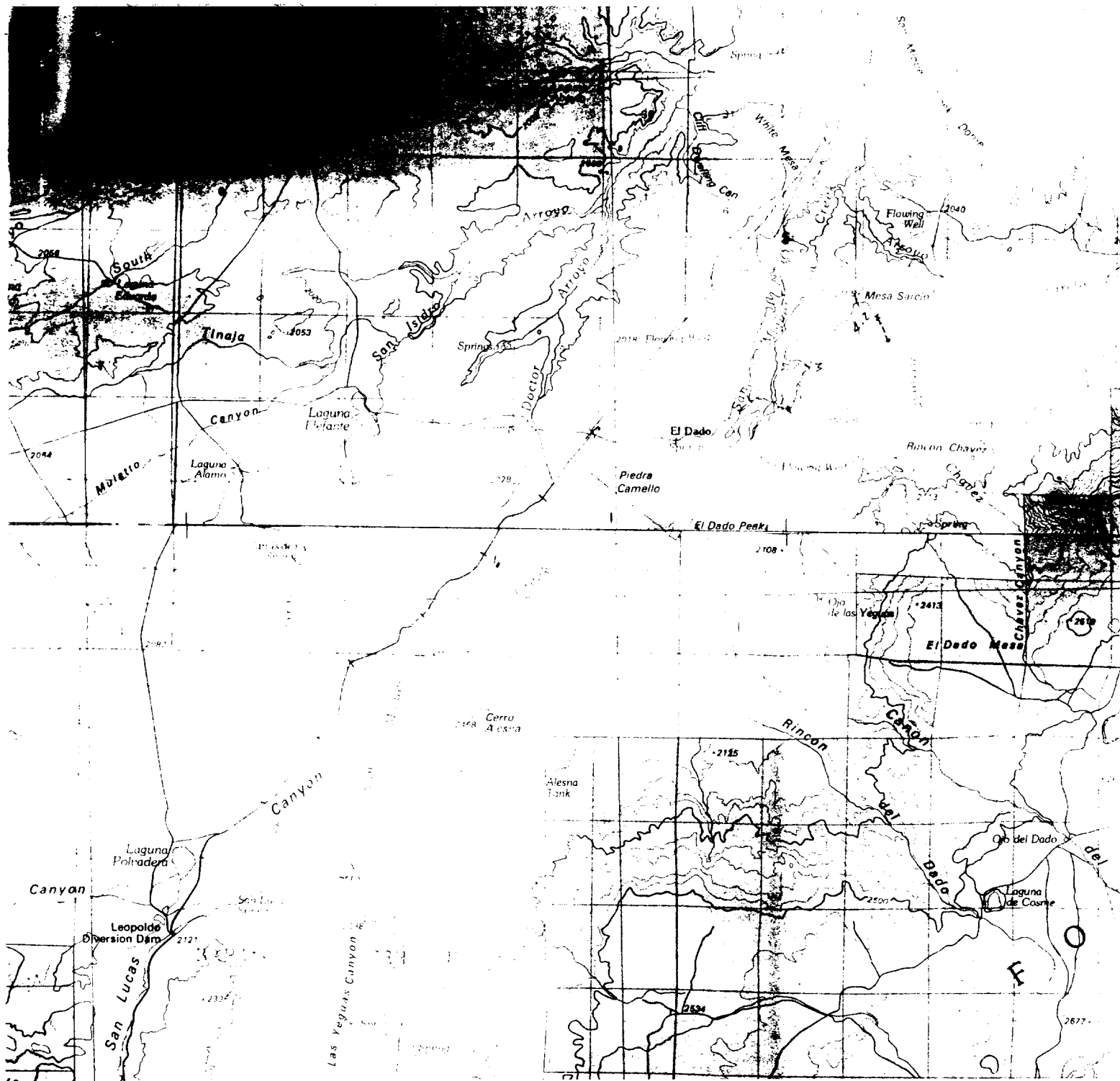
Minimum required working pressure rating for BOP stack is 2000 psi. Rationale for this rating is as follows:

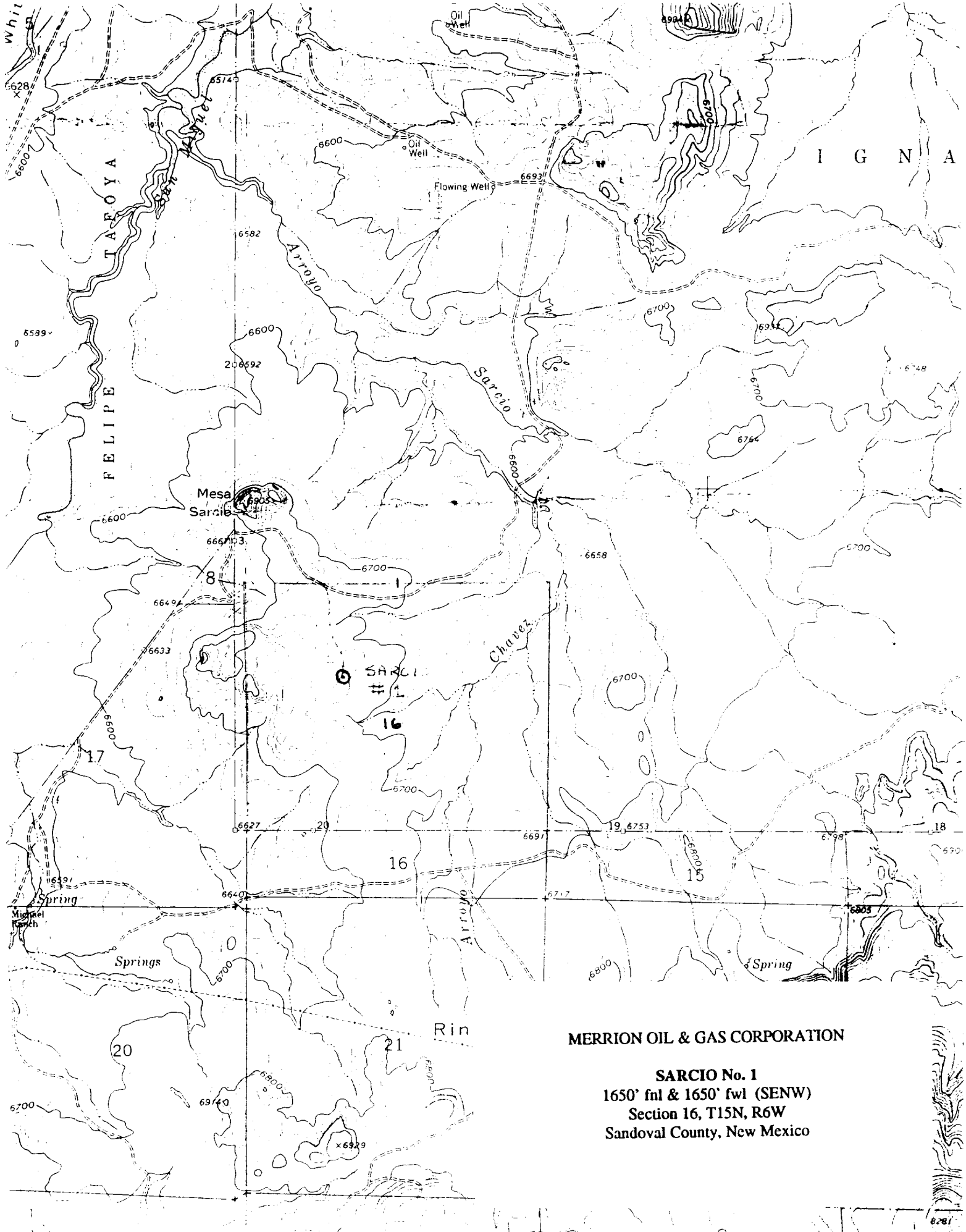
Max anticipated bottomhole pressure (MABHP):

$$\begin{aligned}\text{MABHP} &= 0.433 \text{ psi/ft} \times 3,500' \\ &= 1,516 \text{ psi}\end{aligned}$$

Anticipated surface pressure (ASP):

$$\begin{aligned}\text{ASP} &= \text{MABHP} - (0.22 \text{ psi/ft} \times \text{TVD}) \\ &= 1,516 \text{ psi} - (0.22 \text{ psi/ft} \times 3,500') \\ &= 746 \text{ psi}\end{aligned}$$





MERRION OIL & GAS CORPORATION

SARCIO No. 1
1650' fnl & 1650' fwl (SENW)
Section 16, T15N, R6W
Sandoval County, New Mexico