

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

2. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒OTHER ☐SINGLE
ZONE ☐MULTIPLE
ZONE ☐

3. NAME OF OPERATOR

Sun Exploration & Production Company

4. ADDRESS OF OPERATOR

P. O. Box 1861, Midland, Texas 79702

JUL 21 '88

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

At surface

Unit letter O, 990' FSL 1980' FEL
At proposed prod. zoneO. C. D.
ARTESIA, OFFICE

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

10 miles WSW from Dayton, NM

7. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drg. unit line, if any)

8. NO. OF ACRES IN LEASE

320

9. NO. OF ACRES ASSIGNED

320

10. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

11. PROPOSED DEPTH

9200

12. ROTARY OR CABLE TOOLS

Rotary

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

-3712 → 3716.5' GR

14. APPROX. DATE WORK WILL START*

ASAP

15.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	54.5	400	425 SXS CIRCULATE
11	8-5/8	24 & 15.5	2100 1300	625 SXS CIRCULATE
7-7/8	5-1/2	17	9000	600 SXS

Tops

San Andres	620
Glorieta	1950
Abo	4000
Wolfcamp	5230
Cisco	6905
Strawn	7684
Morrow	8707

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

Alvaro Franco

TITLE

Accounting Associate

DATE

6-28-88

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

AREA MANAGER

CARLSBAD RESOURCE AREA

DATE

7-28-88

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

Form C-102
Supersedes C-128
Effective 1-1-65

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

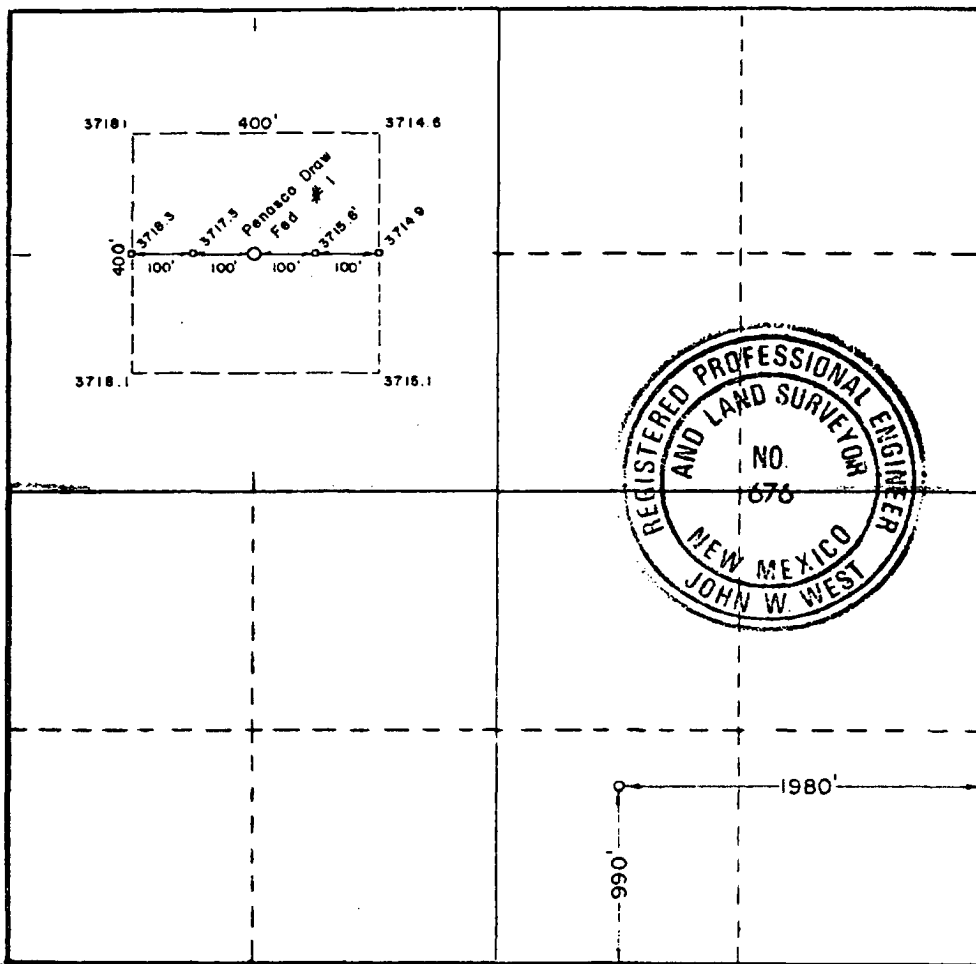
Operator Sun Exploration & Production Co.			Lease Penasco Draw Federal		Well No. 1
Unit Letter 0	Section 35	Township 18 South	Range 24 East	County Eddy	
Actual Footage Location of Well: 990 feet from the south line and 1980 feet from the east line					
Ground Level Elev. 3716.5	Producing Formation Undesignated Morrow		Pool UND. PENASCO DRAW MORROW Wildcat		Dedicated Acreage: 320 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 communization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitized south half with Chevron, Enron, Amoco, and Mesa Pt.

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 communization, 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.

Alva Franco

Name

Alva Franco

Position

Accounting Associate

Company

Sun Expl. & Prod. Co.

Date

6-28-88

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.

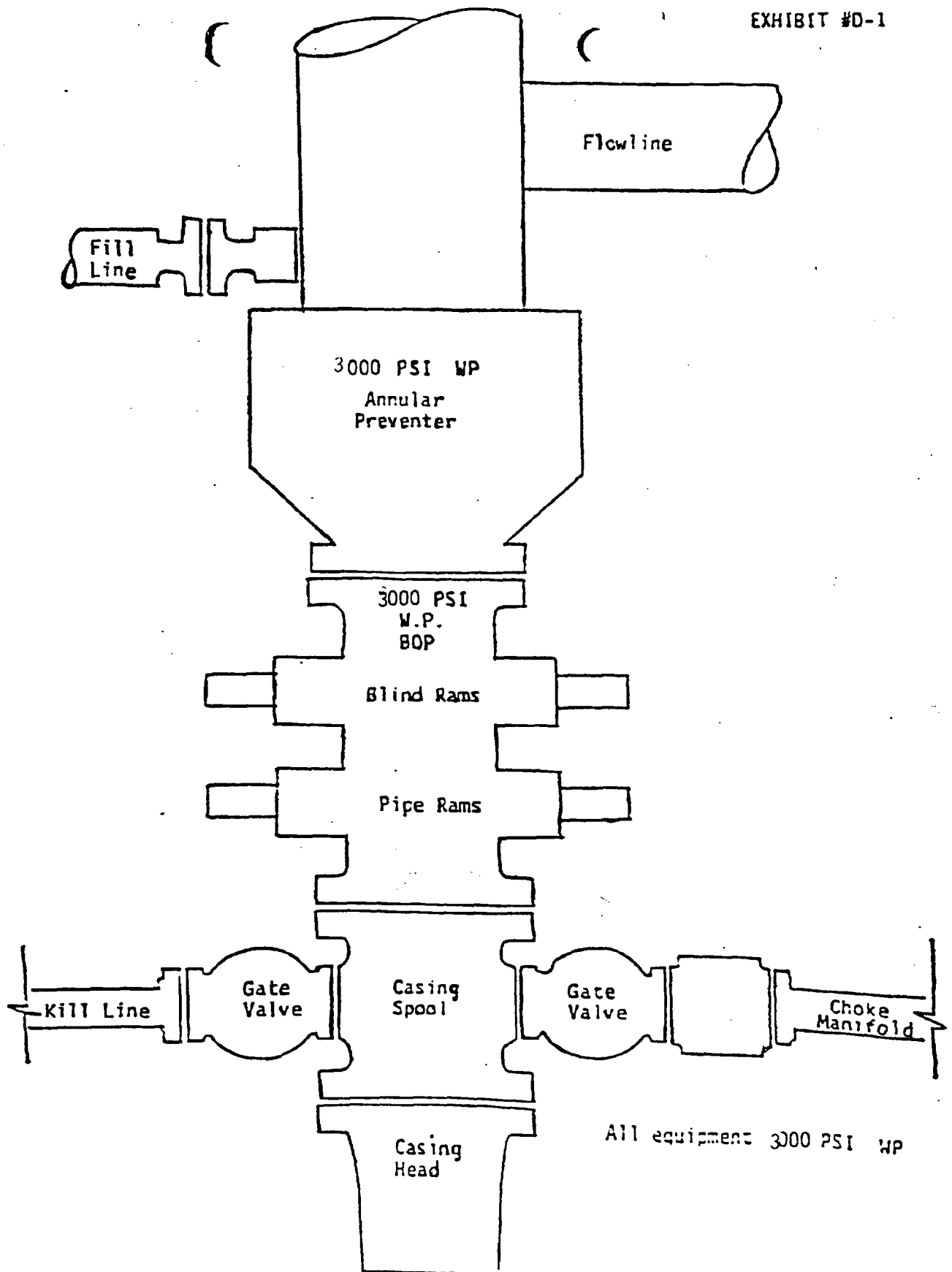
Date Surveyed

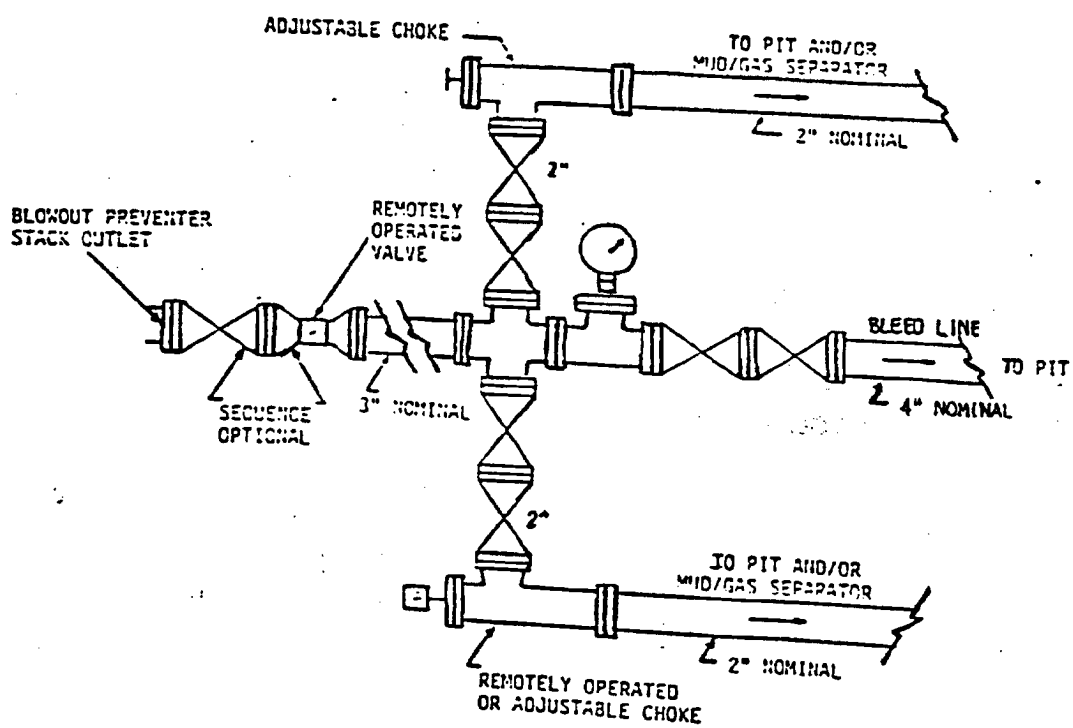
June 17, 1988

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST, 676**
RONALD J. EIDSON, 3239





TEN POINT DRILLING PLAN FOR
PENASCO DRAW FEDERAL NO. 1
IN COMPLIANCE WITH ORDER NO. 1

SUN EXPLORATION AND PRODUCTION COMPANY
PENASCO DRAW FEDERAL NO. 1
SEC. 15, T-18-S, R-24-E
1980' FEL & 1320' FSL,
EDDY COUNTY, NEW MEXICO

1. GEOLOGIC SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

San Andres	620
Glorieta	1950
Wolfcamp	5230
Strawn	7684
*Morrow	8707

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS

Formations possibly productive of oil or gas are indicated with an asterick (*) above in Section 2.

4. PROPOSED CASING PROGRAM

<u>Size</u>	<u>Casing Seat</u>	<u>Footage</u>	<u>Grade</u>	<u>Wt & Thread</u>
13-3/8"	400'	400'	K-55	54.5# STC
8-5/8"	2100'	2100'	K-55	24.0# STC
5-1/2"	9000'	500'	K-55	15.5# LTC
		7500'	K-55	15.5# STC
		1000'	K-55	17.0# STC
2-7/8"	9000'	9000'	J-55	6.5# 8rd EUE

PROPOSED CEMENTING PROGRAM

13-3/8"	Cemented to surface w/ 425 sx Class "C" + 2% CaCl ₂ + 1/4#/sx Flocele
8-5/8"	Cemented to surf w/ 500 sx Lite + 1/4#/sx Flocele followed by 125 sx Class "C" Neat
5-1/2"	Cemented to 6000' w/ 600 sx 50/50 Poz "H" + 2% Gel + 2% KCL + .3% TF-4 + .5% Fluid Loss Additive

Cement volumes adjusted by calipers for 8-5/8" & 5-1/2" casing strings.

5/6 BOP & AUXILLARY EQUIPMENT

BOP and choke are set up as indicated on Exhibits #D-1, and #D-2.

Accumulator volume will be sufficient to provide repeated open and closing of preventers.

A drill string and drill collar safety valve in the open position will be kept on the rig floor at all times during drilling operations.

An upper and lower kelly cock will be used.

The hole will be kept full and fill volumes will be monitored on all trips.

Mud logging unit to be in service from 2100' - TD.

TEST PROCEDURE AND DRILLS

Ram type preventers will be tested to rated W.P. or 70% of casing burst, whichever is less.

Annular type BOP will be tested to 50% of W.P.

Pipe rams will be operated once each 24 hrs, and blind rams will be operated on each trip.

Approved close-in procedure to be posted on rig floor.

Each rig crew to hold weekly BOP drill.

7. TYPE AND MUD SYSTEM CHARACTERISTICS

<u>From</u>	<u>To</u>	<u>Type</u>	<u>Wt</u>	<u>VIS</u>	<u>Wtr Loss</u>
0	400	Frsh wtr, gel & lime	8.4 - 8.8	28 - 34	NC
400	2100	Frsh wtr, gel & lime	8.4 - 8.8	28 - 34	NC
2100	6500	Frsh wtr, gel & lime, ASP - 700	8.4 - 8.8	28 - 32	NC
6500	8500	Frsh wtr, gel, caustic ASP - 700	8.6 - 9.0	30 - 34	10
8500	TD	Same/add 2% KCL from 8500' to TD, 100 ppm nitrates	8.6 - 9.0	32 - 36	10

LCM may be used through all intervals for hole cleaning & controlling seepage.

8. TESTING PROGRAM

Possible DST's 6500'-TD as dictated by shows. Such tests, if necessary, will be conducted under prudent industry practices.

8. TESTING PROGRAM (cont'd)

Open hole logs planned - Schlumberger
CNL/LD/GR/CAL 2100 - TD*
DLL/MSFL 2100 - TD*
BHC/GR 2100 - TD*

GR log will be ran from surface to TD. Other logs and logging intervals at wellsite geologist discretion.

9. POTENTIAL HAZARDS

No H²S or abnormal pressures are anticipated.
Maximum mud weight is anticipated to be 9.0 PPG.

10. ESTIMATED STARTING TIME

Anticipate starting operations as soon as possible, subject to approval of this permit.

SUN EXPLORATION & PRODUCTION CO.

PENASCO DRAW FEDERAL #1

SEC. 35, T-18-S, R-24-E

990' FSL, 1980' FWL

EDDY COUNTY, NEW MEXICO

