

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☐DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☐

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

CONOCO INC.

3. ADDRESS OF OPERATOR

P. O. Box 460, Hobbs, N.M. 88240

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

At surface

1980' FSL & 430' FWL

At proposed prod. zone

Same

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

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH

6200'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

3517.4' GR

22. APPROX. DATE WORK WILL START*

November 3, 1980

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#	1400'	674 SK. - Circ.
7 7/8"	5 1/2"	15.5#	6200'	1139 SK. - Circ.

To be proposed to drill a straight hole to a TD of 6200' &
complete it as a Blinberry oil well.

See attachments for 10-point well plan, 13-point surface use plan, & BOP specs.

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-E. Bingham

Administrative Supervisor

TITLE

DATE

9-22-80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY (Orig. Sgd.) PETER W. CHESTER

TITLE ACTING DISTRICT ENGINEER

DATE OCT 6 1980

CONDITIONS OF APPROVAL, IF ANY:

USGS-6
NMFU-4
FILE
Rel. folder -2

*See Instructions On Reverse Side

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 CONOCO, Inc.,			Lease Warren Unit		Well No. 85
Unit Letter L	Section 29	Township 20 South	Range 38 East	County Lea	
Actual Plotted Location of Well: 1980 feet from the South line and 430 feet from the West line					
Ground Level Elev. 3517.4	Producing Formation Blinberry		Pool Blinberry Oil & Gas	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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?

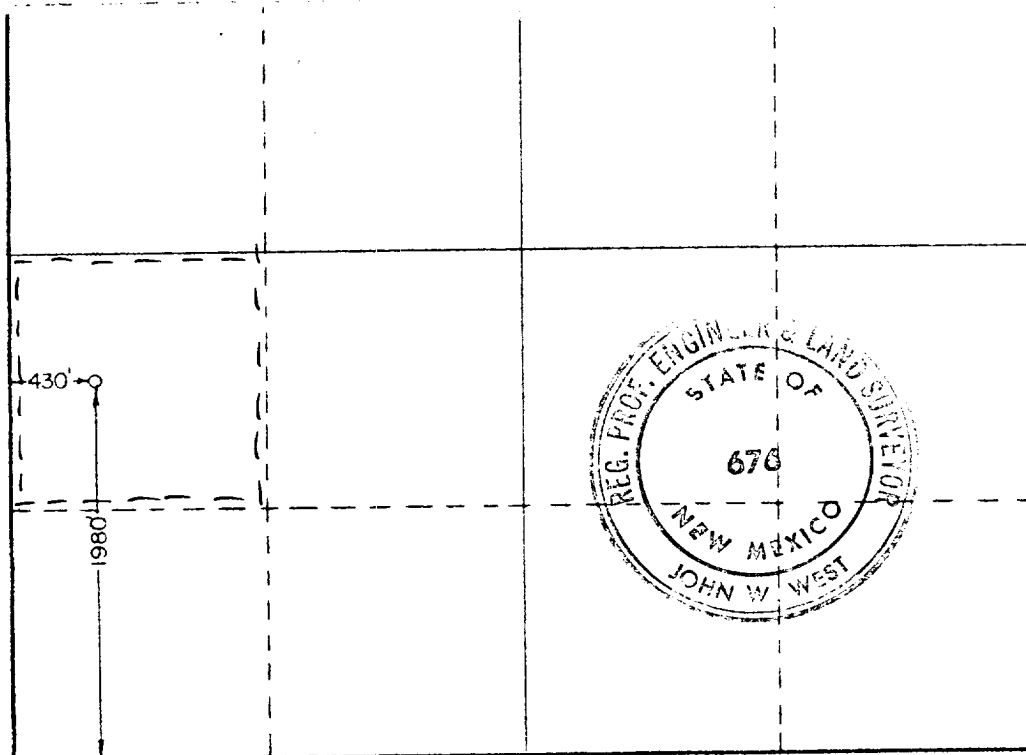
☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

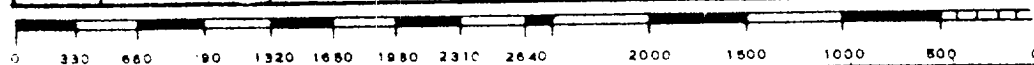
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

CERTIFICATION

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



Position ADMIN. SUPERVISOR
Company CONOCO INC.
Date 9-22-80
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 August 13, 1980
Registered Professional Engineer and/or Land Surveyor <i>John W. West</i>
Certificate No. JOHN W. WEST 676 PATRICK A. ROMERO 6665 Ronald J. Eidson 3239



ATTACHMENT TO FORM 9-331 C
APPLICATION FOR PERMIT TO DRILL

Conoco Inc.
Warren Unit No. 85
Sec. 29, T-20S, R-38E
Lea County, New Mexico

1. The geologic name of the surface formation is Pleistocene Sand.
2. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan.
3. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on attached Proposed Well Plan.
4. The proposed casing program is as follows:
 - 0' - 1400' 8 5/8" 24# K-55 STC
 - 0' - 6200' 5 1/2" 15.5# K-55 LTC
5. A drawing of an API Series 900 Blowout Preventer Specification is attached. Pipe rams and blinds will be checked to 1,000 psi for 30 minutes when BOP is installed. BOP will be checked when casing string is set and operated daily for checks.
6. The proposed mud program is as follows:
 - 0' - 1400' 8.5 - 9.0 ppg. Spud mud
 - 1400' - 6200' 9.0 - 10.0 ppg. Salt water gel
7. The auxiliary equipment to be used is:
 - (1) kelly cocks
 - (2) floats at the bit
8. It is proposed to run GR CAL CNL FDC PDC logs at selected intervals.
9. No abnormal pressures or temperatures are expected to be encountered in this well.
10. The anticipated starting date is November 3, 1980 with a duration of approximately 17 days.

PROPOSED WELL PLAN OUTLINE

WELL NAME: WARREN UNIT NO. 85

COUNTY: LEA

LOCATION: 1980' FSL & 430 FWL
Sec. 29, T-20S, R-38E

STATE: NM

EST. KB: 3529'

EST. GL: 3516'

[illegible]

WELL NAME WARREN UNIT NO. 85 FIELD NMFU DATE 6/20/80
 ELEVATION EST. GRD 3516' NE 3529' PROPOSED T.D. 6200'
 LOCATION (SURFACE) 1980' FSL & 430' FWL OF SECTION 29 T-20S R-38E
 COUNTY LEA STATE NM SPACING

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>CONTENT</u>
WATER SS.	90'-170'	FRESH WATER
RUSTLER ANHY.	1370'	-
SALADO SALT	1430'	-
BASE SALT	2510'	-
SEVEN RIVERS DOLO.	2920'	O, W, G
QUEEN SS.	3510'	O, W, G
SAN ANDRES DOLO.	4020'	O, W, G
GLORIETA SS	5340'	O, W, G
BLINEBRY MKR.	5840'	O, W, G

WELL SURVEYS - (List types by code numbers as follows: Directional and/or Deviation (1); Deflection (2); Caliper (3); Temperature (4); Electrical (5); Radioactive (6); Geolograph (7) Photoclinometer (8); Mudlogging (9); Other (10) and name of that type)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0'-6200'	(1) Deviation	12-1/4" & 7-7/8"	Cne every 250' to base salt Cne every 500' thereafter
0'-6200'	(7) Geolograph	12-1/4" & 7-7/8"	
2500'-6200'	(5) DLL-GR	7-7/8"	2" & 5" Scales
2500'-6200'	(6) FDC-CNL-GR-CAL.	7-7/8"	2" & 5" Scales (Cal.-1400'-TD)
5000'-6200'	(6) PDC (GR-COLLAR)	5-1/2" Casing	Depth Control

CONOCO TO FURNISH WATER, CONTRACTOR TO FURNISH FUEL.

PROPOSED WELL PLAN

WELL NAME	WARREN UNIT NO. 85	FIELD	NMEU
<u>ATTACHMENT</u>	<u>NO.</u>	<u>REQUIRED</u>	<u>NOT REQUIRED</u>
CASING CENTRALIZERS, SCRATCHERS	_____	X	_____
CEMENTING	_____	X	_____
MUD PROGRAM	_____	X	_____
WELL PLAN OUTLINE	_____	X	_____
PORE PRESSURE - FRAC GRADIENT	_____	_____	_____
PROJECTED PROGRESS	_____	_____	_____
CROSS SECTION OR WELL COURSE	_____	_____	_____
HYDRAULICS PROGRAM	_____	_____	_____
BIT PROGRAM	_____	_____	_____
VENDER USAGE LIST	_____	_____	_____

DRILLING AND COMPLETION PROGRAM

1. 0'-1400' - Drill a 12-1/4" hole. Run and cement 8-5/8" casing (See casing and cement programs.) WOC 18 hours. Pressure test casing to 600 psi for 30 mins.
2. 1400'-6200' - Drill a 7-7/8" hole. Drill out shoe and pressure test formation to 275 psi. Run open hole logs, run and cement 5-1/2" casing. (See casing and cement programs)
3. Detailed completion procedure to be prepared after open hole logs are analyzed. Anticipate a single Blinbry completion.

LIST TYPE OF STRING BY CODE LETTERS, i.e. CONDUCTOR (C); SURFACE (S); INTERMEDIATE (I); PRODUCTION (P); LINER (L); PERFORATIONS (PP)

TYPE OF STRINGS &
INTERVAL (FT)

FROM-TO	OD	DRIFT ID	WT PER FT	GRADE	THREAD	AMT	WT. IN AIR, WT. IN MUD 1000 LBS 1000 LBS	REMARKS
0'-1400'	8-5/8"	7.972"	24#	K-55	STC	1400'	33.6	
0'-6200'	5-1/2"	4.825"	15.5#	K-55	LTC	6200'	96.1	Sandblast bottom 400' D.V. tool @ 3800'

TYPE OF STRING

CENTRALIZERS INTERVAL NO. FROM-TO	SCRATCHER NO. INTERVAL NO. FROM-TO	OTHER ACCESSORY EQUIPMENT (SUCH AS DEGASSERS, MUD, CENTRIFUGE FLOAT COLLARS, ETC. - SPECIFY)	REMARKS
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Surface	(14) 0'-1400'	None	Guide shoe and float collar	Centralizers-100' spacing
Production	(2) 1300'-1400' (10) 5800'-6200'	(24) 5840'-6200'	Float shoe, float collar, D.V. tool @ 3800'; and 2 metal petal baskets just below D.V. tool.	Centralizers-40' spacing Scratchers - 15' spacing

ADD PROGRAM

<u>DEPTH INTERVAL FROM-TO</u>	<u>WEIGHT LBS/CAL</u>	<u>TYPE</u>	<u>OIL %</u>	<u>pH</u>	<u>WATER LOSS (cc)</u>	<u>VIS. (sec.)</u>	<u>YIELD POINT</u>	<u>THINNING AGENTS</u>	<u>WATER LOSS AGENTS</u>
-1400'	8.5-9.0	Spud		9.0+					As needed
100'-5900'	9.0-10.0	Salt gel		9.0-10.0					As needed
5900'-6200'	9.0-10.0	Salt gel		9.0-10.0	10-15*	34-36*			As needed

MARKS

Below 1400' drill w/saturated brine to keep hole enlargement to a minimum.
 Add gelling agents as required to carry cuttings.
 Keep pressure surges to a minimum below 1400'.
 *Begin reducing water loss and increasing viscosity at 5900' to achieve above properties at T.D.

CEMENT

TYPE OF STRING INTERVAL (FT) FROM-TO TYPE MIX	GEL%	SALT%	CaCl ₂	SLURRY WEIGHT LB./GAL.	SLURRY YIELD CF/SKX	TOTAL AMT. REQUIRED SKX/CF	FILL UP	BHT	SIZE	REMARKS
(S) 0'-1400'										
Class 'C'	4%	-	2%	13.05	1.88	474/892	Circ.	75°	12-1/4"	100% excess
Class 'C'	-	-	2%	14.80	1.32	200/264				
(P) 0'-6200'										
Around Shoe										
Class 'C' Light	-	-	-	12.70	1.84	309/568	3800'	90°	7-7/8"	100% excess
Class 'C'	-	3#/sx.	2%	14.80	1.32	200/264				
Thru D.V. Tool @ 3800'										
Class 'C' Light	-	18%	-	13.20	1.92	430/826	Circ.	85°	7-7/8"	100% excess
Class 'C'	-	18%	-	15.20	1.38	200/276				

NOTE:

1. Add 1/4#/sx. Flocele to cement if necessary for lost circulation.
2. Reciprocate production casing while cementing.
3. Precede cement with 500 gals. mud flush.
4. Re-calculate cement volumes for production casing after open hole caliper is run.
5. Lab test production casing cement slurries prior to cementing.
6. Utilize top and bottom plugs. Pump top plug w/TFW.
7. Condition mud to have low plastic viscosity and yield strength.