

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

Highland Production Company

## 3. ADDRESS OF OPERATOR

810 N. Dixie Blvd., Suite 202, Odessa, Texas 79761

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

At surface

2310' FNL and 2310' FEL

At proposed prod. zone

2310' FNL and 2310' FEL

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

22 Miles SW of Jal. New Mexico

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

330 FNL

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.None

## 16. NO. OF ACRES IN LEASE

280

## 19. PROPOSED DEPTH

8500'17. NO. OF ACRES ASSIGNED  
TO THIS WELL40

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3172.1 GR

## 22. APPROX. DATE WORK WILL START\*

4/20/88

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE   | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH    | QUANTITY OF CEMENT                     |
|----------------|----------------|-----------------|------------------|----------------------------------------|
| <u>12 1/2"</u> | <u>8 5/8"</u>  | <u>24.#</u>     | <u>1200 feet</u> | <u>125 SX Class C Circulate</u>        |
| <u>7 7/8"</u>  | <u>5 1/2"</u>  | <u>15.5#</u>    | <u>6800 feet</u> | <u>2500 SX HLC/W Class C Circulate</u> |
| <u>7 7/8"</u>  | <u>5 1/2"</u>  | <u>17.#</u>     | <u>8500 feet</u> |                                        |

## Additional Information:

1. Surface formation is Tertiary with some Triassic exposed.
2. Estimate geological tops: Rustler - 950', Anhydrite - 1,000', Top Salt - 1,300', Lamar Line - 4,100', Delaware Top - 4,310', Bone Spring - 8,500.
3. Pressure control equipment: Double hydraulic pressure tested to 3,000 PSI, full closing hydril on top tested to 3,000 PSI. Pressure control diagram is attached. Testing will be on installation, daily and on trips.
4. Proposed circulating medium: 0-1,200' - Spud Mud, 1,200 - 8,500 - Brine Water.
5. Estimate will encounter water from 890' to 950'.
6. Estimate will encounter oil at 8,500 feet.
7. Logging Program: Gamma Ray Neutron Log.
8. No coring or drill stem testing.
9. No abnormal pressures or temperatures are expected to be encountered.
10. Anticipate starting date is April 20, 1988

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 prevention program if any.

SIGNED

TITLE

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY

RECEIVED

MAY 24 1988

OCD

HOBBS OFFICE