

Attachment to Form 9-331 C  
Application for Permit to Drill

Sundance Oil Company, Cone Federal #23  
660' FSL and 660' FWL of Section 27, T.7S., R.32E.  
Roosevelt County, New Mexico

1. The geologic name of the surface information is Triassic red beds overlain by wind blown sands.

2. The estimated tops of important geologic markers are as follows:

Rustler	1870'
Salado	1900'
Yates	2290'
San Andres	3450'
P-1	4150'
P-2	4235'
T.D.	4420'

3. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations will be encountered are as follows:

Ogalala	150' water
Salado	1900' salt
San Andres	3450' oil and gas
P-1	4150' oil and gas
P-2	4235' oil and gas

4. The proposed casing program is as follows:

Surface: New 8 5/8", 24#/ft., ST&C.  
Production: New 4 1/2", 10.5#/ft., ST&C, K-55.

5. A sketch of an API Series 900 Blowout Preventer is attached. Pipe rams and blinds will be checked to 1000 psi for 30 minutes when BOP is installed. BOP will be checked when casing is set and operated daily for checks.

6. The proposed mud program is as follows:

0-1900' spud mud	8.5 - 9.0#/gal.
1900-3500' native mud	9.0 - 9.5#/gal.
3500-T.D. salt gel	9.0 - 10.0#/gal.

7. The auxiliary equipment to be used is:

- a. Kelly cocks.
- b. Floats at the bit.
- c. Stabbing valve on rig floor with sub to fit drill pipe.

8. It is proposed to run 2" and 5" GR, CNL, FDC, DLL/MLL logs from TD to 1800'.

9. No abnormal pressures or temperatures are expected to be encountered in this well.

10. The anticipated starting date for this well is December 1, 1980. Estimated duration of drilling operations is 10 to 12 days.

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177