

APPLICATION TO DRILL

CONCHO OIL & GAS CORP.  
 FEDERAL "31" G # 5  
 UNIT "A" SECTION 31  
 T19S-R33E LEA CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	.Set 40' of 20' conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 360' of 13 3/8" 48# H-40 ST&C casing. Cement with 400 Sx. of Class "C" cement + 2% CaCl, + 1/4# Flocele/Sx. Circulate cement to surface.
8 5/8"	Intermediate	Set 4200' of 8 5/8" 32# J-55 ST&C casing. Cement with 1200 Sx. of Class "C" Light + additives, tail in with 200 Sx. of Class "C" + 2% CaCl, circulate cement to surface
5 1/2"	Production	Set 5500' of 5 1/2" 17# J-55 LT&C casing. Cement with 300 Sx. of Class "H" Premium + additives, top of cement at least 200' above 8 5/8" casing shoe.

\* *R-III trips require at least 100 ft but no more than 600 ft. Below Salt.*

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-360'	8.6	29-36	NC	Fresh water spud mud add paper to control seepage.
360-4200'	10.0-10.2	29-36	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
4200-5500'	9.0-10.0	29-38	10 cc or less	Cut brine use Dris-pac system to control water loss and high viscosity sweeps to clean hole.

*2850'  
3380'*

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.