

Drilling Procedure

(Continued)

between the 8-5/8" and 11-3/4" if it is not full). Nipple up a two ram plus annular hydraulic operated BOP stack 10" 5000 WP BEPCO IV (attached). Pressure test rams and choke manifold to 5000 psi. Drill out the shoe and 50' of new hole and pressure up to 1100 psi, 12 ppg. equivalent at the shoe. Test in 250 psi increments. If pump in is accomplished, discontinue pressure test.

BOPE Testing Procedures: BOPE stack is to be pressure tested last bit trip before entering Wolfcamp. The pipe rams should be checked for proper operation at least once each tour from 5800' - T. D. Blind rams should be operated each time a trip is made from 5800' - T. D. Maintain accumulator pressure at rated operating valve.

From 11,450' (Wolfcamp) to T. D. a reduced circulating pressure (approximately 30 spm) should be taken each tour and this data recorded on the daily drilling report. The attached BOP prevention worksheet should also be kept current.

Production Hole: A 7-7/8" hole will be drilled from 5800' - T. D. The drilling fluid will be fresh water lime, 9+ph to 11,000', 10 ppg. brine + 3% KCL + lime 9+ph to 13000', 10# -10.2# brine + 3% KCL + drispac, 32-34 vis., 9 + ph, <10 cc. WL to T. D. A mud-gas separator and rotating head should be installed before reaching 11,000'.

Evaluation: Samples should be sacked each 30' from 5800' to 11,000' acid each 10' from 11,000' to T. D. The hole will be logged from T. D. - base of Intermediate Casing @ 5800' with GR-FDC-CNL and DLL-MSFC. A mud logging unit will be installed before reaching 11,000'. A consulting Geologist will be utilized from 12,800'-T.D. Likely Drill Stem Tests are one in the Atoka, a n d two, in the Morrow formation.

Production Casing: 5-1/2" casing will be set in a 7-7/8" hole.

5-1/2" casing design for 14,200'

0'-1730'	1730'	17#/ft	N-80	Buttress
1730'-10,770'	9040'	17#/ft	N-80	LT&C
10,770'-14,200'	3430'	17#/ft	S-95	LT&C

The casing will be run with a float shoe and a float collar. The casing will be centralized and ruff-coated across potential pay zones. The cement volume should be calculated from the caliper log to return cement to 1000' above the T/Wolfcamp or to about 10,490'. The cement will be about 200 sx Howco Light + 5# KCL/sx followed with 600 sxs Class "H" + .3% CFR -2 + .6% Halad 22 + 5#KCL/sx 15.2 #gal, 1.18 cuft/sx.

Nipple Up: The tubing head will be a 7" nominal 10" 5000 WP X 6" 5000 WP. The rig will be moved off after the tubing head is installed.

Time: This well is estimated to require 55-60 rig days from spud to move off.