

DRILLING PROCEDURE

BIG EDDY UNIT #80

Location: 660' FEL & 5610' FSL, Sec. 3, T21S, R28E.

Conductor Casing: 40' + of 16" conductor casing will be set with a rathole machine and cemented to the surface with ready-mix.

Surface Hole: A 15" OH will be drilled to 450' + (Rustler Anhydrite) and 11 3/4" casing run to total depth. The surface casing will be cemented with 400 sx Class "C" plus 2% CaCl₂. Cement must be circulated to the surface.

Total WOC time is 8 hours.

Nippling up 11 3/4" casing: After waiting 4 hours "nippling up" procedures may begin. A 11 3/4" SW 3000# WP x 12" 3000# RJT casing head will be welded in place. A set of hydraulic operated pipe and blind rams will then be installed. (See BEPCO Drawing II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily drillers' log.

Intermediate hole: A 11" OH will then be drilled to 2925' (T/Delaware Mtn. Group) 8-5/8" casing will be run to total depth. A DV tool should be run at approximately 1450' (100' into Capitan Reef). An external casing packer may also be required if we lose circulation in the reef. The casing should be cemented in two stages as follows (1) cement the first stage with 350 sx Halliburton Lite tailed with 150 sx Class "C" plus 2% CaCl₂. After bumping the plug, open the DV tool and circulate for four hours. Cement the second stage with 450 sx Halliburton Lite tailed with 200 sx Class "C" plus 2% CaCl₂. Cement must be circulated to the surface.

Total WOC time for this casing string will be 12 hours.

Nippling up 8-5/8" Casing: After waiting 4 hours "Nippling up" procedures may begin. The 11 3/4" casinghead will be removed and 8 5/8" SW 3000# WP x 10" 5000# WP RJT casinghead installed.

A BOP stack consisting of hydril, pipe rams, and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hydro-statically tested to 5000 psi (hydril 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 8 5/8" BOP stack. A copy of the test results will also be furnished the USGS.

The results of this test will be recorded in the daily drillers' log.

Production Hole: A 7 7/8" OH will then be drilled to TD (12,350'+). A PVT recorder, flow-show sensor and rotating head will be installed before drilling the Wolfcamp.

5 1/2" casing will then be run to TD. This casing string will be cemented with 1000sx Class "H" plus 5# KCl per sack. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time: This well is estimated to take 48 days from spud to TD.