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**PARKER & PARSLEY DEVELOPMENT CO.
ARCO FEDERAL NO. 2
EDDY COUNTY, N.M.**

RECOMMENDED BASIC DRILLING PROGRAM

Directional Control

1. Plan:

To guide the wellbore from a 1010 FS & 1980 FWL SHL to a target area at 6350' TVD, at an orthodox (standard) location under the (originally) preferred well location 660 FS & 1980 FWL of Sec. 34, T-19-S, R-28-E in Old Millman Ranch (Bone Spring) Associated field.

2. Method:

- a) Surface, 0-450', no control
- b) Intermediate, 450-1000', maintain conventional straight hole.
- c) Longstring, 1000 - 6500 (to drill a 4" deviated hole, 1230' - T.D.)
 - 1) Run gyro - directional survey at 100' intervals inside 8 5/8 csg before drilling out, determining BHL (950' md).
 - 2) Plan deviation and directional control measures.
 - 3) Drill out in 7 7/8 hole w/ slick dc's, make 230' new hole. run S. S. survey & POH for appropriate BHA (1230')
 - a) Run DHM to:
 - 1) build angle, &/or
 - 2) turn hole south
 - b) Or, if angle & direction acceptable, RIH NMDC on bit, proper stabilization to achieve short term objectives and drill ahead.
 - c) Run single shot surveys at 4 to 8 connections, permitting acceptable deviation & directional control down to 4300'
 - d) Run (2nd) gyro survey inside dp (4300 - 750' md)
 - 1) make motor (DHM) run, if direction off,
 - 2) Make any necessary changes in stabilization and drill ahead.
- 4) Drill to T.D. Run (3rd) gyro inside drill string, 1/ T.D. - 4100' for correct BHL & NMOC. The desired BHL is to fall within a 150' radial area encircling the (verticle) TVD under a 660 X 1980' surface location.

Ben Sparks