

Intermediate: Drill an 11" hole to approximately 1550' (into top of San Andres). Run deviation surveys every 300'. Limit deviation to 1°. Run 8-5/8" casing with guide shoe and insert float (2 joints up) to total depth. Thread lock and tack weld all connections through the top of insert float. Run centralizer in the middle of joints 1, 3, and 5. Cement with 650 sacks light weight + 5# gilsonite + 1/4# flocele + 2% CaCl. Tail in with 200 sacks Class "C" + 2% CaCl. Cement must circulate. Pump down backside through 1" pipe with Class "C" + 2% CaCl if necessary. WOC 6-8 hours, nipple down, and set slips with full weight of 8-5/8" casing. Cut off casing and install 12" API 3000 psi x 10" API psi casing spool. Nipple up 10" API 3000 psi WP double BOP & 10" API 3000 psi WP hydril, same as previous. Hook up 3000 psi choke manifold. Test BOP stack and choke manifold to 1500 psi, hydril to 1000 psi. WOC 18 hrs. Test casing to 1000 psi for 30 minutes with a maximum of 9.0#/gal fluid in the hole. Install pit level indicator, pit volume totalizer, and flow show prior to drilling into the Wolfcamp at approximately 6000'. Also, test BOP stack and choke manifold to working pressure by an independent testing company prior to drilling into the Wolfcamp.

Production: Drill 7-7/8" hole to total depth of approximately 8650'. Run deviation surveys every 500' or on dull bit less than 500'. Limit deviation to 5°. After evaluating logs, run 4-1/2" production casing with downjet float shoe and float collar (2 joints up) to total depth. Thread lock all connections through float collar. Run centralizer in the middle of joints 1, 3, 5, 7, and 9. Also one centralizer per joint across any prospective pay zones. Pump 20 barrels KCL water and cement with 750 sacks Class "H" + 5/10% Halad 22 + 2/10% CFR-2 + 5# KCL + 1/2# flocele. Displace top plug with 3% KCL water. Top of cement calculated at 6000' based on gauge hole plus 35% excess. Actual cement volume will be based on evaluating log as to uppermost zone to be completed and actual calipered hole size. Pick up BOP stack and set slips with full weight of 4-1/2" casing. Nipple up 10" API 3000 psi x 6" API 3000 psi tubing spool.

Blowout

Prevention:

1. Operational opening and closing checks will be run on all BOPs each trip. Checks will be reported on IADC reports.
2. Valve on casing head will be utilized only for emergency. Kill line will not be used to fill up the hole. Inside BOP and safety valve will be readily available on rig floor. BOP drills will be conducted on a regular basis and reported on the IADC (International Assoc. of Drilling Contractors) report.