11" - 3M psi WP RAMS BOP stack to be installed on the 8 5/8" csg. The BOP stack will consist of one blind ram BOP, one pipe ram BOP, and a rotating head. Test to 3000 psi before drilling the 8-5/8" casing shoe.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

    - 17 1/2" hole, 13 3/8" H-40 48# STC csg. Set csg @ 850'

    - 12 1/4" hole, 3200' of 8 5/8" K-55 28# BTC & 1400' of 8-5/8" K-55 32# LTC csg. Set csg @4600'.

      7 7/8" hole, 9000' of 5 1/2" K-55 17# LTC csg & 1150' of 5-1/2" N-80 17# LTC csg. Set csg @ 10,150'.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

    a. 13 3/8" csg: Lead cmt w/600 sxs Class "C" + 2% CaCl2 + 4% gel 1/4 pps Flocele; tail w/200 sxs Class "C" + 2% CaCl2 + 1/4 pps Flocele. Circulate cement to surface

    b. 8 5/8" csg: cmt (2 Stages), DV Tool @ +/-2500'. Stage l: lead - w/600 sxs Class "C" Lite + 9 pps salt + 5 pps Gilsonite + 1 pps Econolite + 1/4 pps Flocele. Tail - w/250 sxs "C" + 2% CaCl2. State 2: lead w/750 sxs Class "C" Lite + 9 pps salt + 1/4 pps Flocele, tail w/200 sxs "C" + 2% CaCl2. Circulate cement to surface.

    c. 5 1/2" csg: DV tool @ 7500'. Stage l: cmt w/620 sxs Class "H" 50/50 Poz + 2% gel + .6% Halad-9 + 3 pps KCL + 1/4 pps Flocele, displace cmt to seal plug. Stage 2: cmt w/725 sxs Class "H" cmt w/50/50 Poz + 2% gel + .6% Halad-9 + 3 pps KCL + 1/4 pps Flocele. Bring TOC to +- 4400'.