

OPEN HOLE LATERAL #2

6-1/8" Open Hole. KOP @ +/-11,892'. (Sidetrack off initial build section @ 5 Degrees Inclination) Target Azimuth 130 Degrees, Final Inclination 85 Degrees. Total Vertical Section 1284'. Total Depth 13,323', 12,220' TVD

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. 17-1/2" Hole **13 3/8" csg**: Cmt w/450 sxs Class "C" Cmt + 2% Cacl, 0.25 pps Flocele. Circ'd 42 sxs cmt to surface.
 - b. 12-1/4" Hole, **9 5/8" csg**: **First Stage Lead**: w/485 sxs Class "C" Light Cmt, 6 pps Salt, 0.25pps Flocele, Tailed w/300 sxs Class "C" Cmt, 1% CaCl2. DV Tool @ 2020'

Second Stage Lead w/800 sxs Class "C" Cmt, 6 pps salt, 0.25 pps flocele, Tailed w/ 100 sxs C, 1% CaCl2..
 - c. 8-3/4" hole, **7" csg**: **First Stage Lead** w/600 sxs Class "H" Lite, 2% HR-5 Retarder, Tail w/250 sxs Class "H", 0.4% HALAD-9 Fluid Loss. DV Tool @ 5500'.

Second Stage Lead w/500 sxs Class "C" Lite, 0.25 pps Flocele, Tail w/200 sxs Class "C", 0.4% HALAD-9 Fluid Loss.
 - d. Pilot Hole to be plugged back w/cement, 130 sxs Class "H" + .75% CFR-3 (Dispersant), .5 pps D-AIR-1 (Defoamer), .6% Halad-9 (Fluid Loss).
6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

Mud Program:

0-402': fresh water, gel, and lime system, MW 8.9 - 9.3 ppg.

402'-3615': brine, MW 10.0 - 10.2 ppg

3615'-11,800': fresh water, cut brine mud MW 9.0 - 9.3 ppg

11,800'-12,250' (6-1/8") Open hole laterals: weighted water base mud
MW 11.5 - 15.0 ppg.