

SURFACE CASING CEMENT DETAILS

Surface casing consisted of 1196' of new 9 $\frac{5}{8}$ " 36#/ft.

2 T&C casing was run and cemented to surface.

Float inserted at 1090' - strapweld shoe and 1<sup>st</sup> collar - centralizers at 1100', 990', 920', 880', 840', 800', 760', 720', 680', 640', 600', 560', 520', 480', 440', 400' and 360'.

(No fill - No Problems). Used Dowell Head - circulated with Rig Pump. Circulated 200 Bbls to the top.

Cemented 9 $\frac{5}{8}$ " casing with FCI - Fleet Cementers, Inc.

As follows: On Oct. 5, 2001 at 1:00 am, broke circulation and chained pipe down, pumped 250 SKS class "C" FCI Lite with 2% cc  $\frac{1}{4}$ # celloflake, wt. 12.5, yield 2.01, 89.5 Bbls of slurry, vol. 502.5, 1,605' of fill, pumped 150 SKS class "C" 2% cc, wt. 14.8, yield 1.32, 35.3 Bbls of slurry, vol. 198, 632' of fill, dropped plug and displaced 92.5 Bbls.

At 3:00 am bumped plug at 1200 psi and at 4:00 am, released pressure - float held.

CASING REPORT TO BOTTOM

114 JTS 5 $\frac{1}{2}$ " J55 17# - 5044.42'

CASING CEMENT TO BOTTOM DETAILS

On Oct. 19, 2001 at 12:00 am, Rigged up; at 7:00 pm broke circulation, pump 275 SKS class "H" 50/50 POIs, wt. 14.8, yield 1.7, 83.3 Bbls of slurry, vol. 467.5, 1005' of fill, dropped plug at 8:00 pm, displaced 117 Bbls; At 10:00 am bumped plug at 1200 psi, at 10:30 am released pressure - float held.