**CASE HISTORY**

**TWO-STAGE CEMENTING**

Well Completion Requires Two-Stage Cementing Above Lost Circulation Zone or Gas Formation  

**Location:** North Sea

**CHALLENGE:** Well construction required full cementing to the platform wellhead deck level of 18-5/8 in. surface casing, inside 30 in. conductor.

**SOLUTION:** A 18-5/8 in. CAP and PC were run and positioned inside the 30 in. conductor casing. A 4-1/2 in. IF drill pipe inner string with Combo Tool was run and stung into the float. The first-stage cementing program was executed and a wiper plug landed. The work string was released, and the Combo Tool positioned to inflate the CAP. The PC was opened and annulus circulated to clean seawater. A 15.8 ppg neat cement slurry was circulated to surface until cement returns were achieved. The PC was closed and tested and the work string retrieved. Drilling continued without drill-out of the PC required.

**RESULTS AND BENEFIT:** Ten wells were successfully cemented with full returns to the platform wellhead deck in 800 ft water depth.