

Wellbore History

GENERAL

Well 30/6-18 was drilled on the Kappa structure, which is located in the south-western corner of the block. Kappa is an elongated down faulted block bounded by north south trending major faults to the east and the west. The structure is an easterly tilted fault block where the Base Cretaceous truncates both the Brent Group and the Statfjord Formation. The main objective of the well was to prove hydrocarbons in the Statfjord Formation by drilling on a location that leaves a minimum of possible reserves up dip of the well. Secondary objectives were to improve stratigraphical and structural knowledge of the area and to acquire input data for further exploration activity in blocks 30/6 and 30/9.

OPERATIONS AND RESULTS

Wildcat well 30/6-18 was spudded with the semi-submersible installation Byford Dolphin 1 August 1985 and drilled to TD at 3690 m in Late Triassic rocks. Drilling proceeded without any significant problems. The well was drilled with spud mud down to 658 m and with a KCl polymer mud from 658 m to TD. The Statfjord Formation came in 120 m higher than prognosed. The logs show that the Statfjord Formation contains 16 m of gas and 44 m of oil. Oil/water contact was defined at 3181 m. The reservoir quality seems to be good. There is a separate column of 19 m oil further down in the Statfjord Formation. A thick shale sequence from 3287 to 3305 m separates the upper reservoir unit from the lower. The lower oil column is probably restricted to only one layer of sand with a gas cap on top. Eight cores were cut in the Statfjord Formation in the interval 3126 - 3215 m. Three sets of segregated RFT samples were retrieved from 3165 m, 3125.5 m, and 3312.8 m in the Statfjord Formation. The well was plugged and abandoned on 23 November 1985 as an oil and gas discovery.

TESTING

Three drill stem tests were performed in this well. The intervals were $3306\ m$ - $3323\ m$, $3198\ m$ - $3210\ m$ and $3164\ m$ & $3173.2\ m$.