



Wellbore History

GENERAL

Block 35/3 is located where the Måløy Terrace continues into the Selje High. The Selje High has a NE/SW trend, whereas the Måløy Terrace is dominated by a N-S fault trend.

The objectives of well 35/3-6 were to test for commercial hydrocarbons and locate any associated hydrocarbon contacts within the Måke Nord prospect, to investigate the Albian Agat Formation, and to obtain and evaluate data required for any potential appraisal drilling.

OPERATIONS AND RESULTS

The exploration well 35/3-6 was spudded on 6 February 2002 with the semi-submersible installation Deepsea Bergen and drilled to a total depth of 3366 m in the late Jurassic Heather Formation. The 36" section was drilled with seawater and swept with high viscosity pills. The 9-7/8" pilot hole was drilled riser-less with seawater and high viscosity pills and displaced to 1.20 sg mud. This hole was then opened to 17 1/2" with seawater and high viscosity pills and displaced to 1.20 sg mud prior to running the 13 3/8" casing. The 12 1/4" section to TD was drilled with KCl/polymer/glycol mud (Glydril). When drilling the 36" section, a boulder bed was experienced from 270m to 275m (22 m to 27 m below seabed). This led to hole inclination going up from 1 to 3.5 degrees. After setting the 13 3/8" casing, the wellhead was inspected with the ROV and a flow was observed from below the guide base, which was partially covered by debris. After an unsuccessful attempt to stop the flow by grouting the 30" conductor and landing the BOP, a combined cement bond log and temperature log were then run. It was concluded that the water-flow originated from the Utsira Formation sands below 587 m. A bridge plug was set, the casing perforated at 568 m and a cement retainer installed. By repeated injection and partially circulation of kill mud through the perforations, the well was stabilized. A combination of a cross-linked polymer pill and low-density cement was placed in the annulus, which effectively stopped the flow.

The observed formation tops from seafloor to the primary target top Agat Formation were in accordance with the prognosis with only minor differences observed. An approximate 90 m of Agat Formation sandstone was anticipated, but only 2.5 m was present in the well location. As a consequence, both the Top Åsgard Formation and the Base Cretaceous Unconformity came in much shallower than prognosed. The 2.5 m thick Agat Formation consisted of carbonate cemented sandstone with traces of hydrocarbons. Otherwise the well encountered no hydrocarbon bearing intervals. No reservoir was found. The majority of the prospect strata are older than the Agat reservoir sandstones of the Agat Formation observed in offset wells. The space available for deposition defined by isopachs was filled with mostly Barremian shales prior to sandstone input in the Albian. This resulted in bypass and erosion rather than deposition in the prospect area during Albian times.

The cutbacks observed from the resistivity could indicate increasing pore pressure. Other parameters like gas does not confirm this but the gas readings were low and as such indicate a huge overbalance. No cores were cut and no fluid samples were collected in well 35/3-6.

The well 35/3-6 was plugged and abandoned as a dry well. The anchors were pulled on 1 of April.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/3-6