



Wellbore History

GENERAL

Well 7324/8-1 was drilled on the Wisting Central prospect in the Barents Sea between the Hoop fault complex to the east and the Maud Basin to the west. The primary objective was to evaluate the Jurassic Realgrunnen Subgroup for hydrocarbons.

OPERATIONS AND RESULTS

Wildcat well 7324/8-1 was spudded with the semi-submersible installation Leiv Eiriksson on 10 August 2013 and drilled to TD at 930m in the late Triassic (Carnian age) Snadd Formation. A 9 7/8" pilot hole was drilled down to 641 m to check for shallow gas. No significant problem was encountered during drilling and logging, but after permanent plugging cutting of the casing proved problematic and caused some down time. The well was drilled with bentonite spud mud down to 492 m and with Glydril mud from 492 m to TD.

The top of the reservoir, Stø Formation was entered at 662 m, only 237 m below the seafloor and contained oil. The well is located down-flanks on the structure; hence, the upper part may have a gas-cap. Due to increased claystone content and decreased porosity/permeability at the end of the coring, the oil/water contact was not clearly defined. However, log data and pressure data suggests that the Stø and Fruholmen formations are in communication and share a common OWC at 708.3 m. Oil shows were described in a Fruholmen sandstone at 728 m and in Snadd sandstones at 775 m, 784 m and 808 m. No shows were described below this depth or above top Stø Formation.

Three consecutive cores were cut in the Realgrunnen Subgroup from 662 m to 710.35 m. The total core recovery for all three cores was 47.05 m (97.3%). The core-log depth shifts were found to be +0.75 m, +1.36 m, and +0.6 m for core number 1, 2, and 3, respectively. MDT oil samples were taken at 664.54 m and 678.07 m. The reservoir temperature based on data from the MDT sampling runs was 16.35 and 17.22 °C in the Stø Formation at 664.54 m and 678.07 m, respectively. The reservoir pressure was about 68.9 bar (664.54 m) and 69.97 bar (678.07 m). The gas-oil ratio determined by PVT analysis was 50 Sm³/Sm³ and the oil gravity is 0.835g/cm³. Gas chromatographic analyses of the oil sample at 664.54 m show depletion of n-alkanes compared to iso-alkanes, suggesting slight biodegradation has occurred in the reservoir. MDT water samples were taken at 782.3 m.

The well was permanently abandoned on 17 September 2013 as an oil discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7324/8-1