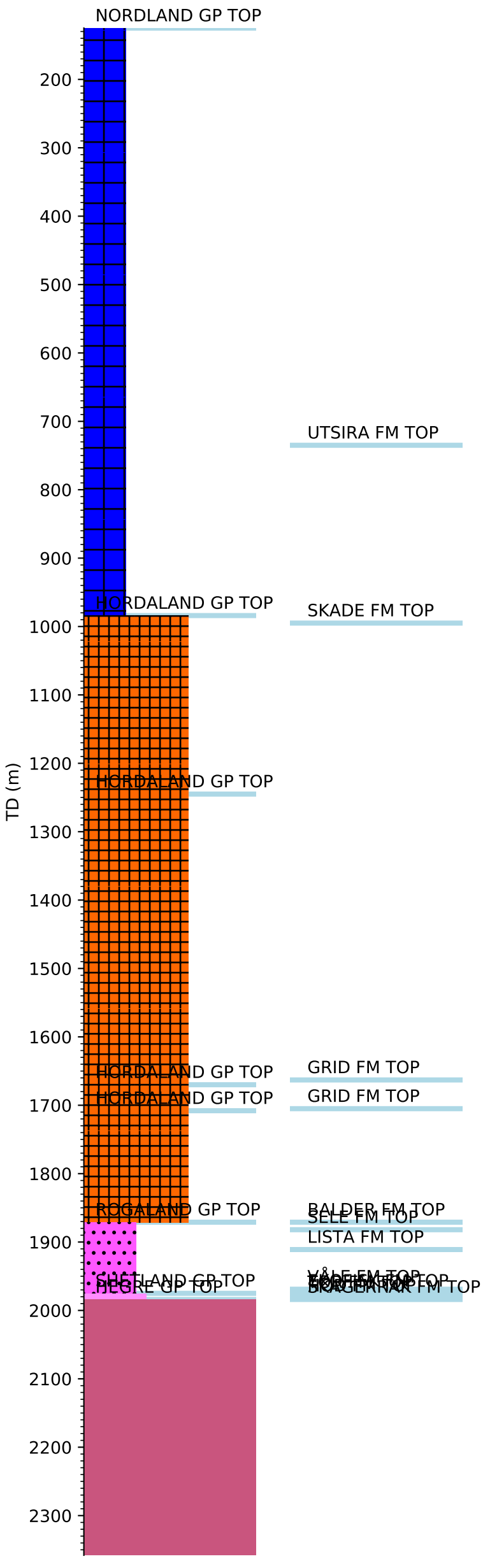

Wellbore History

GENERAL

Well 16/4-9 S was drilled to appraise the 16/4-6 S Luno II discovery on the Utsira High southwest of the Johan Sverdrup Field in the North Sea. The well should prove extension of Triassic/Jurassic reservoir sandstone and verify pressure communication towards the Luno II C segment northwest of the 16/4-6 S discovery well.

OPERATIONS AND RESULTS

Appraisal well 16/4-9 S was spudded with the semi-submersible installation Bredford Dolphin on 14 June 2015 and drilled to TD at 2358 m (2330 m TVD) in the Triassic Skagerrak Formation. The well was drilled S-shaped, building angle from 602 m to a sail angle of ca 12.9° in the interval 1000 m to 1750 m and back to vertical again from ca 1970 m. No significant problem was encountered in the operations. The well was drilled with seawater and high viscosity pills down to 6011 m and with Aquadril mud from 6011 m to TD.

Top reservoir Skagerrak Formation sandstones was penetrated at 1983 m. The reservoir consisted of relatively homogenous sandstone overlain by a more conglomeratic sequence. It held an oil column of ca 25 m down to a clean OWC at 2008.8 m (1981 m TVD). The oil is a mix of biodegraded residual oil and a fresh light oil. The reservoir is 4 bar depleted compared to well 16/4-6 S. No shows were observed above the reservoir. Below the reservoir, good oil shows were recorded on cores down to 2042 m, and weaker shows were seen down to 2053 m. No shows were seen below 2053 m.

Three cores were cut from 1985 m to 2066.2 m with close to 100% recovery. The core depth was 0.775 m deeper than log depth for all three cores. MDT fluid samples were taken at 1984.5 m (oil), 2000.1 m (oil), 2006.66 m (oil and water), and 2030.1 m (water).

The well was permanently abandoned on 16 August 2015 as an oil appraisal well.

TESTING

One production test (DST) was performed from the interval 1981 to 2001.9 m. The DST produced on average 136 Sm3 oil and 23400 Sm3 gas/day through a 28/64" choke (main flow). The GOR was 172 Sm3/Sm3. The maximum downhole temperature in the DST was 78.5 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/4-9 S