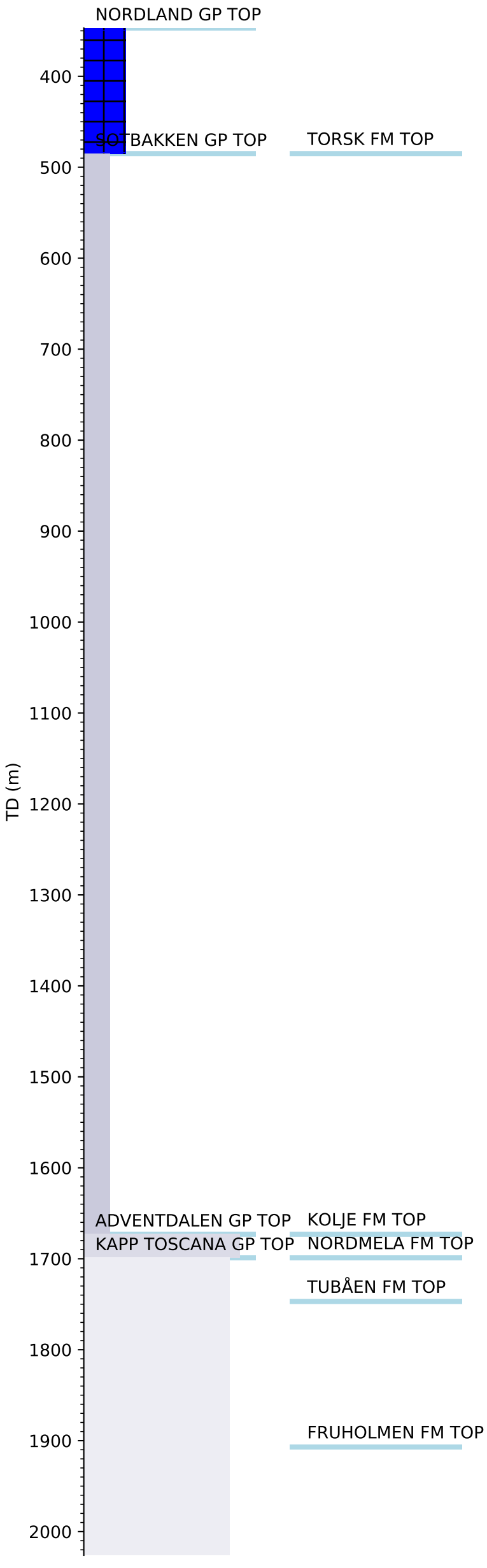
Groups

Formation Tops



Wellbore History

GENERAL

Well 7219/12-1 A is an appraisal of the 7219/12-1 Filicudi oil and gas discovery in Late Triassic sandstones of the Tubåen Formation. The objective of the appraisal was to test the hydrocarbon potential and reservoir properties of the Early Jurassic Nordmela Formation and the Upper Triassic Tubåen Formation in the fault block to the East of the main Filicudi prospect. The appraisal should confirm pressure communication and similar hydrocarbon types and contacts as in the main wellbore.

OPERATIONS AND RESULTS

Appraisal well 7219/12-1 A kicked off at 670 m from main wellbore 7119/12-1 on 19 January 2017. It was drilled with the semi-submersible installation Leiv Eriksson to TD at 2026 m (1825 m TVD) m in the Late Triassic Fruholmen Formation. Operations proceeded without significant problems. The well was drilled with Performadril water-based mud (3.2 – 3.6 % glycol) from kick-off to TD.

Top target reservoir, Early Jurassic Nordmela Formation sandstone, was encountered at 1699 m (1516.3 m TVD), overlying Late Triassic to Early Jurassic sandstone of the Tubåen Formation. The sandstones were gas and oil bearing with GOC at 1756.5 m (1568.5 m TVD) and the OWC between 1818 m to 1823.5 m (1624.5 m to 1630 m TVD). Two gas gradients were seen, the upper interval, above ca 1735 m is 2 bar less than the lower interval. The oil is heavy, with stock tank density 0.956 to 0.959 g/cm3.

Weak shows were seen in 2 SWCs in claystones at 1682 m and 1688.4 m above the reservoir. Below the reservoir cuttings had shows down to 1871 m (direct and cut fluorescence), while SWC's had oil shows down to 1910 m. The SWC shows down to 1850 were described as weak hydrocarbon odour, 30% bleeding dark brown staining, 50% patchy, moderately, orange direct fluorescence, moderately, streaming to blooming, moderate bluish white cut fluorescence, good, 90% bluish white fluorescence residue, 5% - 30% pale yellow residue. Below 1850 weaker shows without odour or stain were described.

Three cores were cut in succession from 1699 m to 1815 m with close to 100% total recovery. MDT fluid samples were taken at 1712.29 m (Gas), 1729.91 m (gas), 1751,46 m (gas), 1751.5 m (gas), 1767.2 m (oil), 1790.8 m (oil), 1796.6 m (oil), 1812.0 m (oil), 1817.2 m (water), 1817.5 m (water), 1827.2 m (water), and 1878.0 m (water).

The well was temporary abandoned on 28 February as an oil and gas appraisal.

TESTING

The testing equipment on the rig was not capable of handling the heavy oil found in the well. Therefore, no DST was carried out. The well was temporary abandoned for possible testing at a later stage.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7219/12-1 A