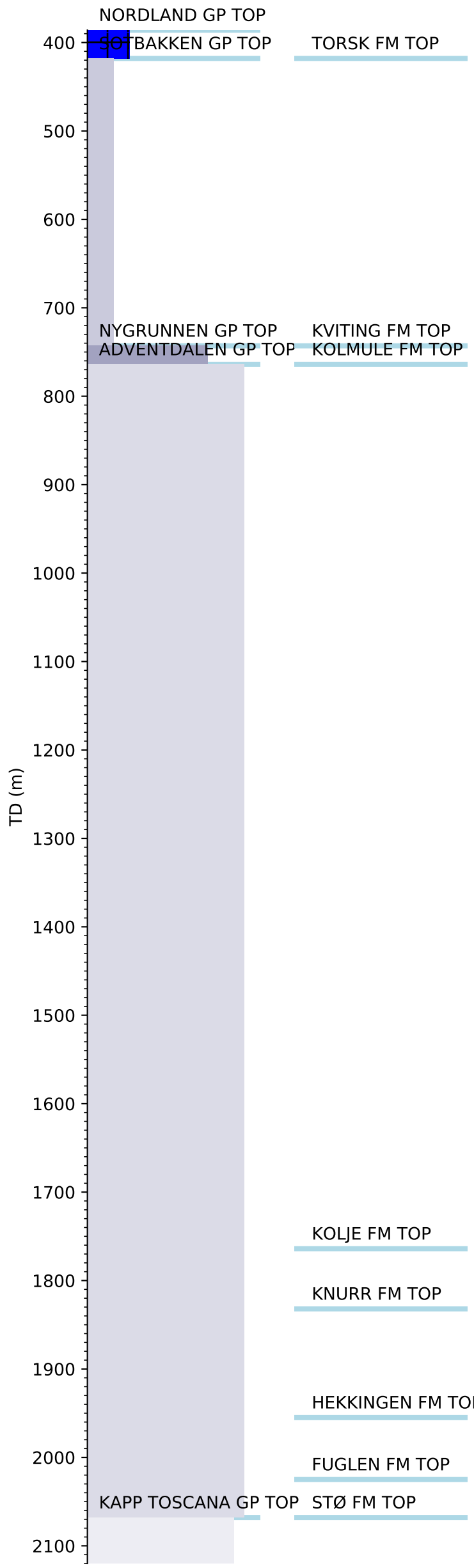
Groups

Formation Tops



Wellbore History

GENERAL

Well 7122/2-1 is located on the northern periphery of the Hammerfest Basin towards the Loppa High. The primary objective of the well was to test the potential of Valanginian and Hauterivian stratigraphic prospect 7122/2, 3-A. Additional objectives were to undertake a coring and sampling programme necessary for evaluation of the hydrocarbon potential of the 7122/2 3-A prospect and the surrounding area; to obtain an improved understanding of the reservoir potential, source rock development and maturity of the area; and to obtain better stratigraphic and velocity control. Planned TD was at least 50 m into the Middle Jurassic Stø Formation, and if hydrocarbons were encountered, to drill on until shows ceased.

OPERATIONS AND RESULTS

Wildcat well 7122/2-1 was spudded with the semi-submersible rig Polar Pioneer on 7 October 1992 and drilled to TD at 2120 m in the Middle Jurassic Stø Formation. The drill string stuck at 669 m in the 24" section and a technical sidetrack was performed. Apart from this drilling operations went on without significant problems. The well was drilled with seawater and hi-vis pills down to 734 m and with KCl/PHPA/polymer mud from 734 m to TD.

The primary target, The Knurr Formation, was encountered from 1831.5m to 1954.5m and was water bearing. It consisted of massive sandstone sequence. Average horizontal permeability from cores was 636.3 mD. The secondary target, the Stø Formation, was also water bearing. Top Stø Formation was penetrated at 2067.5 m.

Organic geochemical analyses showed that the maturity of the penetrated sections in well 7122/2-1 range from immature/early mature in the Lower Cretaceous (800 m / %Ro ca 0.47) to peak mature in the Lower Jurassic (2120 m / %Ro ca 0.75). Both source rock sections, the Middle Barremian to Early Aptian Kolje Formation and the Late Jurassic Hekkingen Formation are mature with respect to oil generation. The remaining hydrocarbon generation potential of the Kolje and the Hekkingen Formations is still very good. Both source rock sections contain Type II kerogen and have potential for oil generation. The upper part of the Kolje Formation, from 1765 m to 1781 m, have the highest hydrogen indexes in the well (typically 300 - 500 mg HC/g TOC and TOC in the range 3 - 12 %) and appear more marine than the Hekkingen Formation (typically 200 - 300 mg HC/g TOC and TOC in the range 2 - 13 %). No significant amount of migrated hydrocarbons was detected by the analyses.

A total of 8 cores were cut in the well covering the intervals 1771 m to 1783 m and 1812 m to 1825m in the Kolje Formation, and the interval 1833-1931.8 m in the Knurr Formation. A total of 21 RFT pressure measurements, including one segregated sample at 1874 m were taken in one run. The sample contained water.

The well was permanently abandoned on 11 November 1992 as a dry hole.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7122/2-1