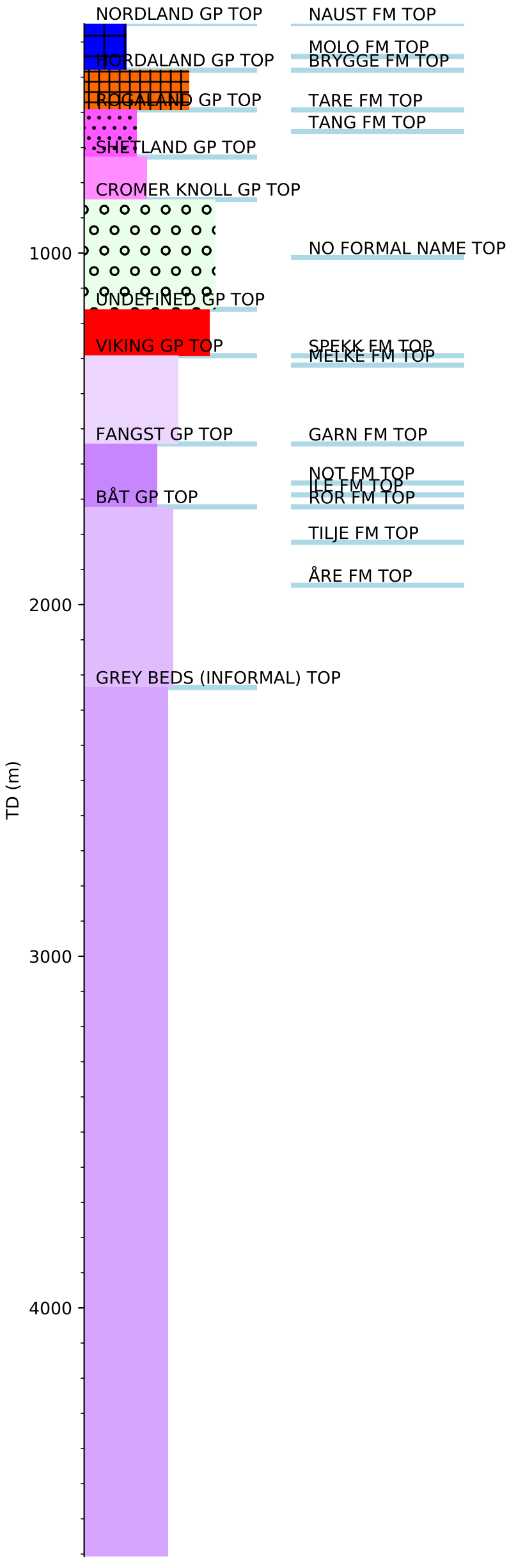
Groups

Formation Tops



Wellbore History

GENERAL

The main objective of well 6510/2-1 was to test the hydrocarbon potential of tidal to shoreface Lower Jurassic deposits in the "Vega" prospect, a large structure fault bounded to the East and South-East by the Ylvingen fault complex. Secondary objectives were Upper Permian shallow marine sand units expected to be sealed by Upper Permian source shales and Mid-Triassic aeolian sands sealed by Triassic Evaporites.

OPERATIONS AND RESULTS

The well 6510/2-1 was spudded on 16 August 1997 with the semi-submersible installation "Mærsk Jutlander" and reached a total depth of 4700 m in shales of Early Triassic age. It was drilled with seawater and bentonite with hi-vis pills from the surface to 1210 m and with BARASILC sodium silicate mud from 1210 m to 2926 m. From 2926 m to TD the Sodium silicate mud was gradually depleted to a glycol enhanced mud (GEM). At 3102 m the well was suspended and the rig taken to Kristiansund for repair due to riser tensioner difficulties. Further problems with the acoustic BOP control system caused a total 53 days delay before well 6510/2-1 R was re-entered.
Formation tops were penetrated within the prognosed range, except for the Top Permian, which was not encountered. The well found the Lower Jurassic to be developed in a more proximal facies than anticipated, possibly an intra tidal plain deposit. The sequence was predominantly shales, with interbedded coal layers and a few thin sandy intervals. Weak hydrocarbon shows were recorded intermittently in the Lower Jurassic sequence, but logs, core material and sidewall samples show the reservoir intervals to be water bearing.
Sand development in the Mid Triassic objective below the evaporites was also poor with no hydrocarbon indications. The Permian was not penetrated, and the Triassic sequence was found to be much thicker than expected. The well reached a total depth of 4707 m in shales of Early Triassic age. The well TD commitment was to drill to Early Permian or 5000 m, but as there was no seismic evidence for any reflector in the remaining section, it was decided not to drill further.
Two cores were cut at 1827 - 1837 m and 2126 - 2134 m in Early Jurassic, and one at 4083.5 - 4100.5 m in Middle Triassic. The main reason for the well being dry is considered to be the lack of charge. The well was plugged and abandoned as a dry well with weak shows on the 21 December 1997.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6510/2-1 R