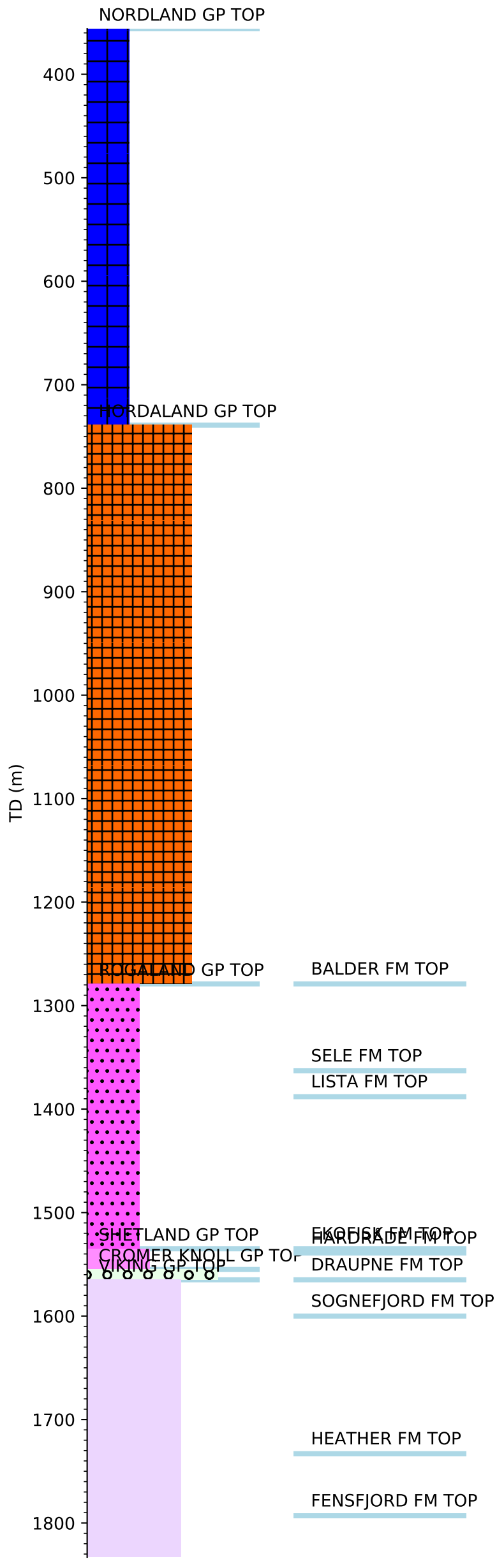
Groups

Formation Tops



Wellbore History

GENERAL

Well 31/2-10 was drilled as an appraisal well in the Troll West oil province in the Northern North Sea. The main objectives were to define the top and intra reservoir markers in this area of the Troll West, establish the extent of the 27.5 m oil column in the area in which the GOC is at 1541 m sub-sea (1567 m RKB), and to determine the reserves potential in the structurally low area east-north of well 31/2-5 and south east of 31/2-7.

OPERATIONS AND RESULTS

The site survey revealed, typical for the area, numerous pockmarks. These had a fairly random distribution of 15 to 20 per km2. Although the size of individual pockmarks varied, average sizes were between 30 and 40 m wide at the rim, and 3 to 4 m deep at the centre. At the location itself no pockmark was seen.

Well 31/2-10 was spudded with the semi-submersible installation Borgny Dolphin on 2 October 1982 and drilled to TD at 1833 m, 40 m into in the Early Jurassic Fensfjord Formation. After drilling the 36" section, a 14 3/4" pilot hole was drilled to 810 m. The hole was then logged without indication of shallow gas before opening up to 26". One and a half days were lost during coring due to bad weather. The well was drilled with spud mud down to 472 m, with gel/seawater from 472 m to 810 m, with KCl/polymer mud from 810 m to 1530 m, and with seawater/Drispac from 130 m to TD.

Top Jurassic was encountered with a 35 m thick Draupne shale. The Sognefjord Formation sands were encountered at 1600 m, below the prognosed OWC. The Heather Formation came in at 1733 m, and the Fensfjord Formation at 1793 m. From top Sognefjord Formation to 1647 m bleeding oil and oil stained grains were noted on the cores. However the petrophysical interpretation concluded the sands to be water bearing.

Ten cores were taken in the interval 1575 m to 1741.5 m and 127.98 m (77%) was recovered. All cores were taken in fibreglass sleeves to achieve better recovery in the loose sands. One RFT run was made between 1601.5 and 1817.5 m and confirmed a water gradient. No wire line fluid samples were taken.

The well was permanently abandoned on 31 October as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/2-10