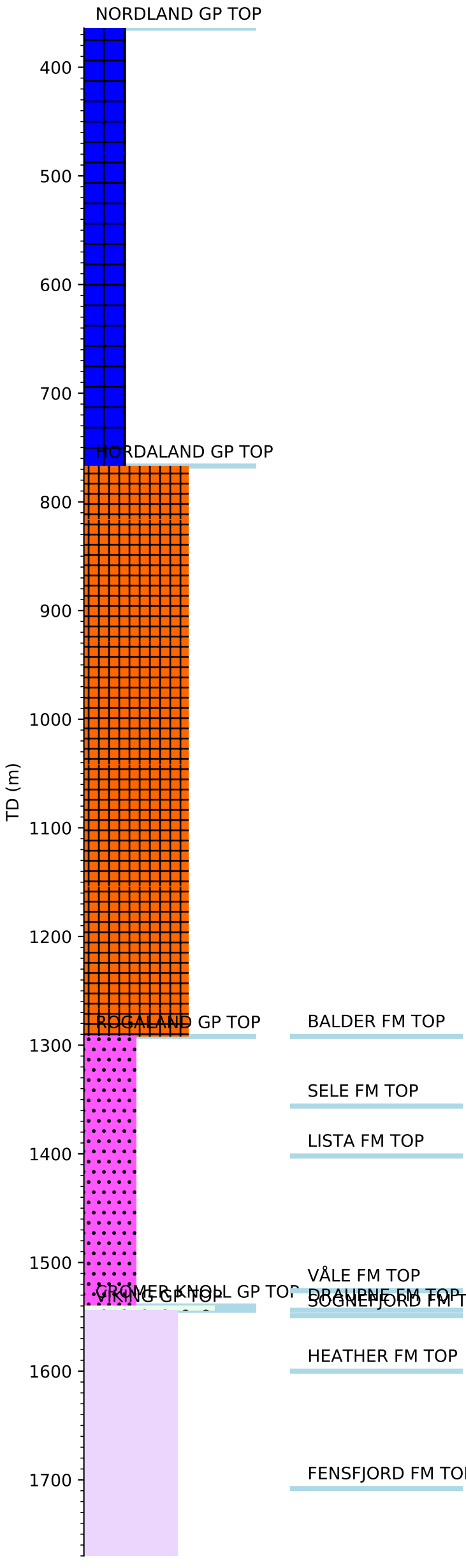
Groups

Formation Tops



Wellbore History

GENERAL

Well 31/2-9 was drilled northeast of the well 31/2-7 in the Troll West oil province in the Northern North Sea. The main objectives were to establish the extent of a previously proven thick oil column province in the Troll Field and to complete the well near the OWC in order to follow the development of water coning.

OPERATIONS AND RESULTS

Well 31/2-9 was spudded with the semi-submersible installation Borgny Dolphin on 29 August 1982 and drilled to TD at 1770 m in the Late Jurassic Fensfjord Formation. Some problems were encountered with the well head after running the 20" casing (2.5 days lost), and with the BOP after running the 13 3/8" casing (3.5 days lost). The well was drilled with spud mud down to 460 m, with seawater and gel from 460 m to 816 m, with KCl/polymer mud from 816 m to 1509 m, and with seawater/Drispac mud from 1509 m to TD.

Well 31/2-9 encountered a hydrocarbon bearing column of 34.5 m in the Late Jurassic Sognefjord Formation. The reservoir was gas bearing from 1549 -1570 m (21 m gas column) and oil bearing down to 1583.5 m (13.5 m oil column). This was a thinner oil column than expected. The gas reservoir consisted of very fine to medium grained bioturbated sandstones with a high mica content. The sandstones were very silty and well sorted. Around 1570 m a change in lithology to medium/ coarse grained sandstones with low mica content and less bioturbation was seen. In the lower part of the oil reservoir the mica content was slightly more than in the upper part and the sandstones were siltier. Below the OWC shows (moderate to very weak direct fluorescence) were observed on cores throughout the cored section down to 1628 m.

Five fiberglass sleeved cores were taken in the 12 1/4" section from 1554 to 1628 m. Four RFT runs were made and 5 samples were obtained: at 1573 m (29 deg API oil), 1571 m (oil), 1565 m (gas), and two samples at 1575 m (oil)

The well was permanently abandoned on 1 October 1982 as a gas and oil appraisal well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/2-9