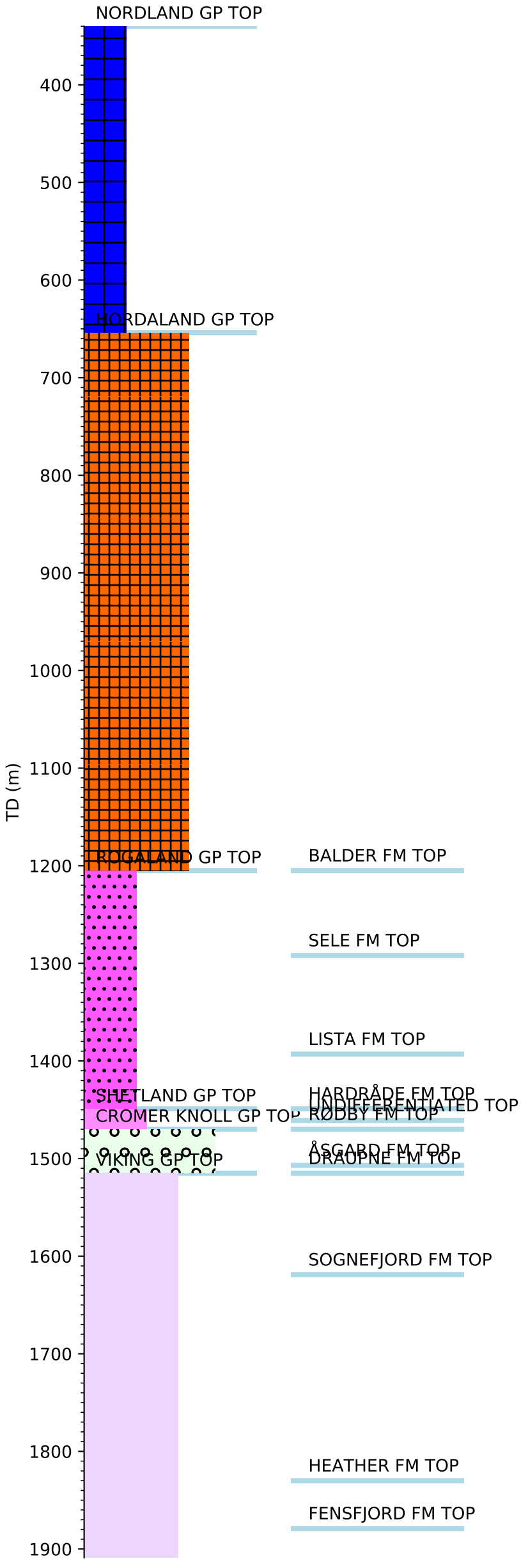
Groups

Formation Tops



Wellbore History

GENERAL

Well 31/5-4 S was drilled in a southern, down flank compartment of the Troll West Gas province, 1000 m north west of well 31/5-2. The Troll West Province is an easterly rotated fault block where the southern part is approximately 10 x 15 km with a general dip of 1 to 2 degrees at reservoir level. The primary objective was to provide a penetration hole for a later test production in a horizontal side track hole in the 13 m oil layer in the Sognefjord Formation. The test production should confirm the oil production potential from the Troll West Gas Province; obtain dynamic data from a potential development type well and obtain static reservoir and geological data to provide proper understanding of well behaviour.

OPERATIONS AND RESULTS

Well 31/5-4 S was spudded with the semi-submersible installation Transocean 8 on 13 September 1990 and drilled to TD at 1909 m in the Middle Jurassic Fensfjord Formation. No shallow gas was encountered, as prognosed. The well was drilled vertical down to 1040 m from where angle was built up to 53 deg at 1571 m. Tight hole problems were experienced at several depths, and at 1360 m the hole packed off and mud return was temporary lost. The well was drilled with seawater and hi-vis pills down to 940 m and with KCl/polymer polyacrylamide mud from 940 m to TD.

The Sognefjord Formation was penetrated from 1619 m (1535.4 m TVD RKB) to 1830 m (1660 m TVD RB). The formation was gas filled down to 1670 m (1535.4 m TVD RKB) and oil filled from there down to 1692.3 m (1567.2 m TVD RKB).

The well bore was plugged back to 1496 m for sidetracking. It was permanently abandoned on 10 October 1990 as a gas and oil appraisal well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/5-4 S