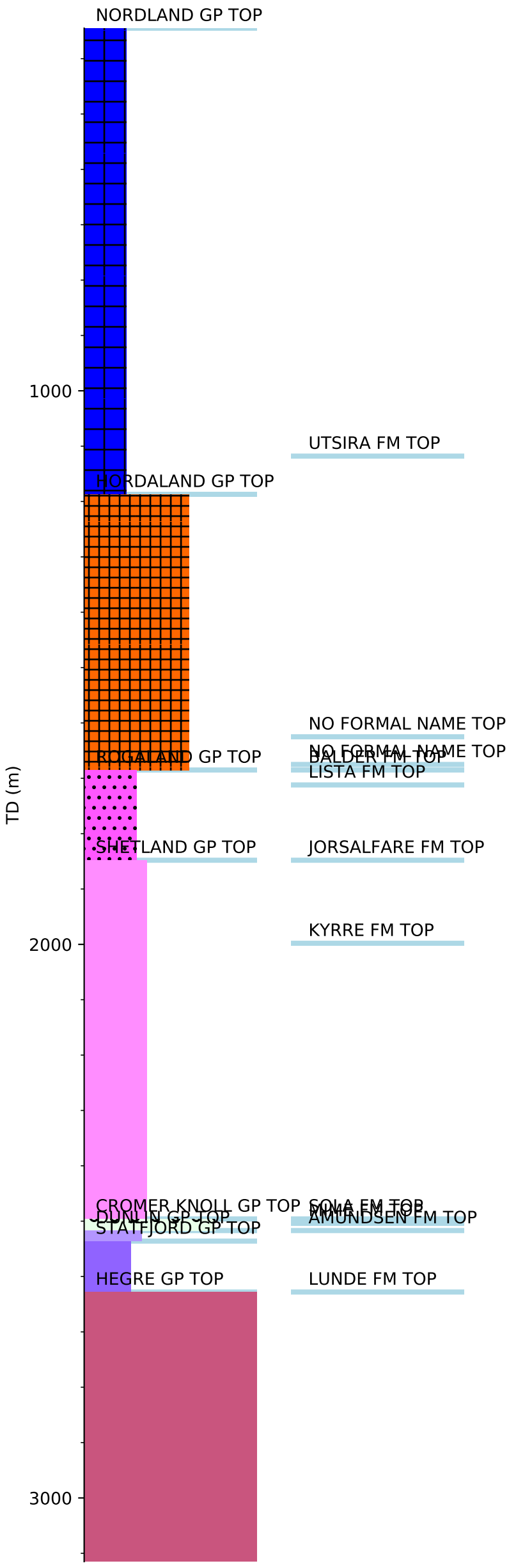

Wellbore History

GENERAL

Well 34/7-4 was drilled on the Snorre E structure in the northern part of block 34/7. The primary objectives were to further appraise the reservoir potential of the Statfjord Formation in the E-structure extension of the Snorre Discovery, to test the oil/water contact found in wells 34/7-1, and to test the reservoir quality in this area. A secondary objective was to test the reservoir potential in the upper Lunde Formation, which contain oil in an up-dip location.

OPERATIONS AND RESULTS

Appraisal well 34/7-4 was spudded with the semi-submersible installation Treasure Saga on 19 November 1984 and drilled to TD at 3115 m in the Late Triassic Lunde Formation. No significant problems occurred during drilling of the well. The well was drilled with spud mud down to 963 m, with gypsum/polymer mud from 963 m to 2759 m, and with lignosulphonate mud from 2759 m to TD.

Except for the sandy Utsira Formation (Late Miocene/Pliocene) and an Early Eocene sandstone unit (1625-1664 m) in the lower part of the Hordaland Group, the well proved mainly claystones down to the Early Jurassic Statfjord Formation at 2535.5 m. The Statfjord Formation was 92 m thick and was oil bearing down to claystones in top Lunde Formation at 2627.5 m. No definite oil-water contact was seen. The N/G ratio in the Statfjord Formation was 0.26. The average porosity was 20 % and the average water saturation was 44%. The Lunde Formation proved mainly a claystone/siltstone sequence in the upper part, while the lowermost 265 m proved a sequence of alternating sandstones and claystones with limestone stringers. Of this sequence some 123 m can be considered as net. The Lunde Formation reservoir was water bearing.

Three cores totalling 24.6 m (recovered 22.3 m. 91% recovery) were cut in the Statfjord Formation from 2533 m to 2557.5 m. Core depths were from 2.0 to 4.0 m short of logger's depth. Another two cores were attempted at 2558.5 m and 2559 m, but these gave no recovery. Two FMT-chambers containing reservoir fluid were collected in the Statfjord Formation at 2537 m and 2555 m. These samples proved not to be representative, since the bubble point pressures were too low.

The well was permanently abandoned on 16 January 1985 as an oil appraisal.

TESTING

One drill stem test was carried out in the interval 2547.0 - 2563.0 m in the Statfjord Formation. The zone produced clean oil at a rate of 865 Sm3 /day through a 9.5 mm choke with a wellhead pressure of 130 bar. The reservoir pressure was 386.5 bar and the temperature 91deg C at 2555.0 m. The formation permeability was estimated to 1330 mD and no heterogeneities were observed during the test.

The separator GOR was 34 Sm3/Sm3 and the dead oil density was 0.843 g/cc with a Formation Volume Factor of 1.27.

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LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/7-4