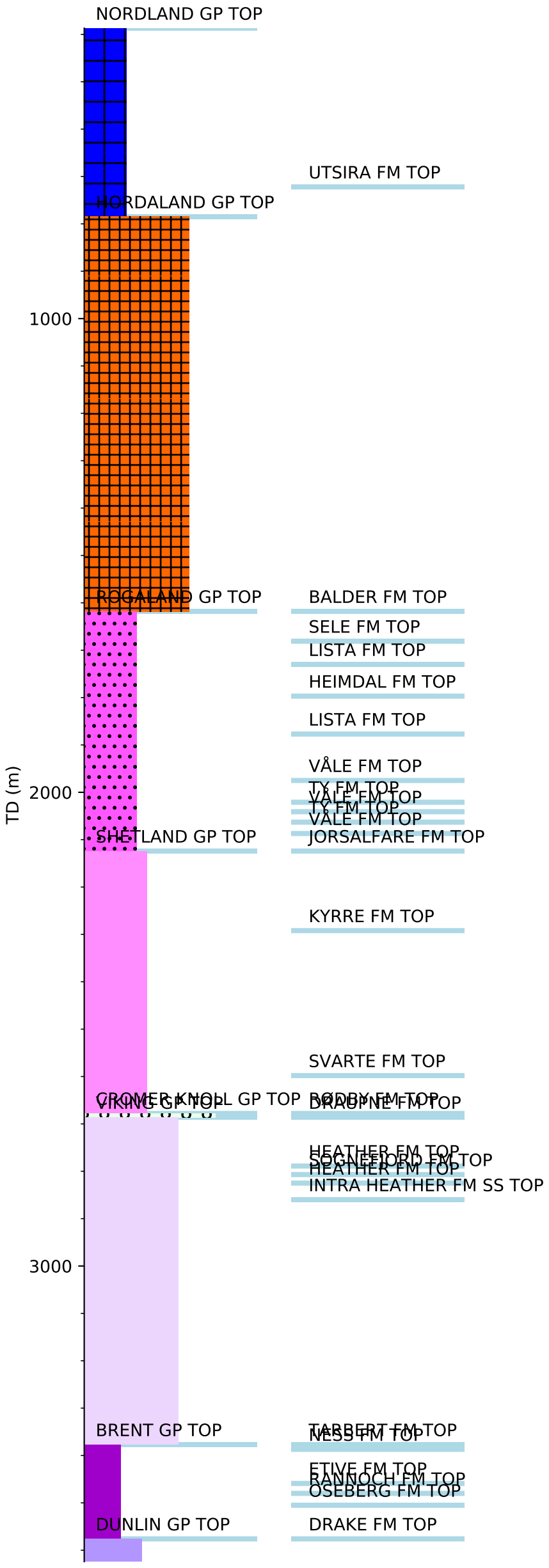

Wellbore History

GENERAL

Well 35/11-8 S is located ca 15 km due north of the Troll Field. It was designed to test the hydrocarbon potential in the H-structure located in a down-faulted position west of the F/C complex where oil and gas was discovered in the wells 35/11-4 and -7. The main targets were the Brent Group and the Sognefjord Formation equivalent. Possible secondary targets were seen in Intra Draupne sandstone and a mound feature in the Paleocene sequence.

OPERATIONS AND RESULTS

Wildcat well 35/11-8 S was spudded with the semi-submersible installation Treasure Saga on 3 March 1996 and drilled to TD at 3624 m (3355 m TVD RKB) m in the Early Jurassic Drake Formation. The well was drilled vertically in the top hole, starting to build angle below the 30" casing shoe at 447 m. From 950 m to 2250 m the deviation was kept at 31 ± 2°, from which point the inclination was gradually reduced towards a more vertical path. After the testing phase, operations were interrupted for some three days by an industrial strike. Operations went without significant technical problems. The well was drilled with spud mud down to 1233 m and with KCl/polymer mud from 1233 m to TD.

The Paleocene mound feature proved to consists of 66 m of water bearing sand with weak shows in the uppermost part.

The prognosed lead related to the high amplitude Intra Draupne reflector corresponded to the Late Jurassic source rock. A thin sandstone at the base of the Sognefjord Formation was water filled with weak shows. Oil and gas was discovered in a 115 m thick Late Jurassic turbiditic sandstone unit at 2860 m. The sequence could not be correlated with the Sognefjord Formation in the neighbouring wells and is classified as an Intra Heather Sandstone unit. From 2860 to 2881 m 20.7 m net pay gas reservoir showed a gas saturation of 89 % and the average porosity was calculated to 21.9 %. A 40.1 m net pay oil zone was calculated for the interval between 2881m and 2938 m. Average porosity for this interval is 22.1 % and the oil saturation is 80.0 %. MDT pressure measurements gave a gas-oil contact at 2881 m (2600 m TVD MSL) and an oil-water contact at 2938 m (2654 m TVD MSL). Low saturation of residual hydrocarbons were observed in intervals below the oil-water contact. The Brent Group was encountered at 3376.5 m and was water bearing. A trace oil show was however recorded at 3467 m in the Etive Formation. The MDT pressure measurements failed to define a water gradient due to poor reservoir quality. Four cores were taken in the Intra Heather Sandstone unit, covering the gas zone, the oil zone, and parts of the water zone. An MDT water sample was taken at 2818 m in the Sognefjord Formation. MDT water samples were taken also in the Brent Group.

The well was permanently abandoned on 11 May 1996 as an oil and gas discovery.

TESTING

Three drill stem tests were conducted in the Intra Heather Sandstone unit. DST 1 tested the interval 2924 m to 2931 m, DST 1B tested the intervals 2924 m to 2931 m and 2910 m to 2920 m, and DST 2 tested the interval 2885 m to 2892 m. All three tests produced 0.85 g/cm3 (35 deg API) oil with GOR in the range 95 to 113 Sm3/Sm3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/11-8 S