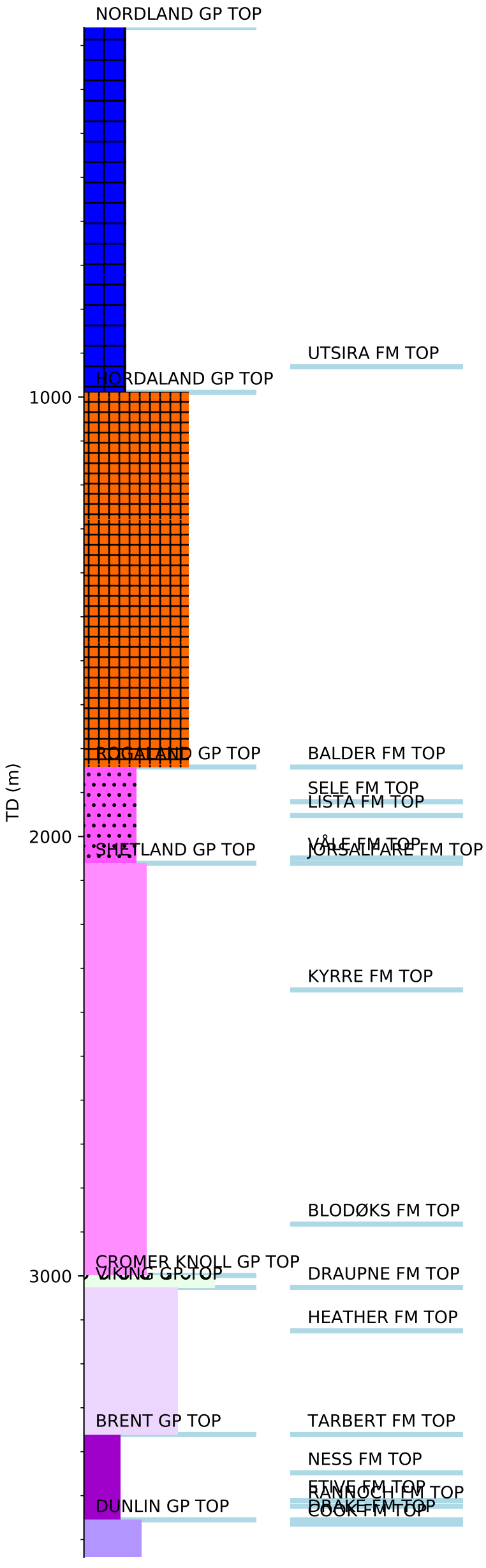
Groups

Formation Tops



Wellbore History

GENERAL

Well 34/10-36 was the sixth well drilled on the Gullfaks Sør structure. The objectives were to test the potential of Intra-Draupne Formation turbiditic sandstone, and to confirm the gas-oil contact, the oil-water contact, and the pressure regime in the Brent Group.

OPERATIONS AND RESULTS

Appraisal well 34/10-36 was spudded with the semi-submersible installation Deepsea Bergen on 28 April 1992 and drilled to TD at 3640 m in the Early Jurassic Cook Formation. A 9 7/8” pilot hole was drilled from surface to 859 m to check for shallow gas. The MWD indicated several sands but all were water-filled. The well was drilled with seawater and CMC down to 1071 m, with gypsum/polymer mud from 1071 m to 3010 m, and with Ancotemp/bentonite from 3010 m to TD.

The Draupne Formation consisted of shale with only traces of sandstone stringers towards the base. The Brent Group, Tarbert Formation was encountered at 3361 m (3355.3 m TVD), 55 m deeper than prognosed. It was oil-bearing down to the OWC at 3377.5 m (3371.9 m TVD). Shows were seen down to 3397 m. The GOC was not penetrated in the well location.

Three cores were cut in the well. Core 1 was cut from 3029 to 3054 m in the Draupne Formation. Cores 2 and 3 were cut in the Tarbert Formation from 3363 m to 3417 m. The core shifts for cores 1, 2 and 3 were 3.0 m, 2.3 m and 2.3 m, respectively. One segregated sample was taken at 3363.8 m. The 2 3/4 gallon chamber contained 3.5 litres of oil, 3.5 litres of mud filtrate and 0.22 m3 gas. No CO2 or H2S was detected from this sample chamber.

The well was permanently abandoned on 13 July 1992 as an oil appraisal well.

TESTING

One drill stem test was performed in the Tarbert Formation, from the interval 3371.2 - 3376.2 m. The well flowed 836 Sm3 oil and 161490 Sm3 gas /day through a 36/64” choke. The GOR was 193 Sm3/Sm3, the oil density was 0.869 g/cm3 and the gas density was 0.695 with 2 % CO2 and 3.5 ppm H2S. The recorded temperature was 126.1 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/10-36