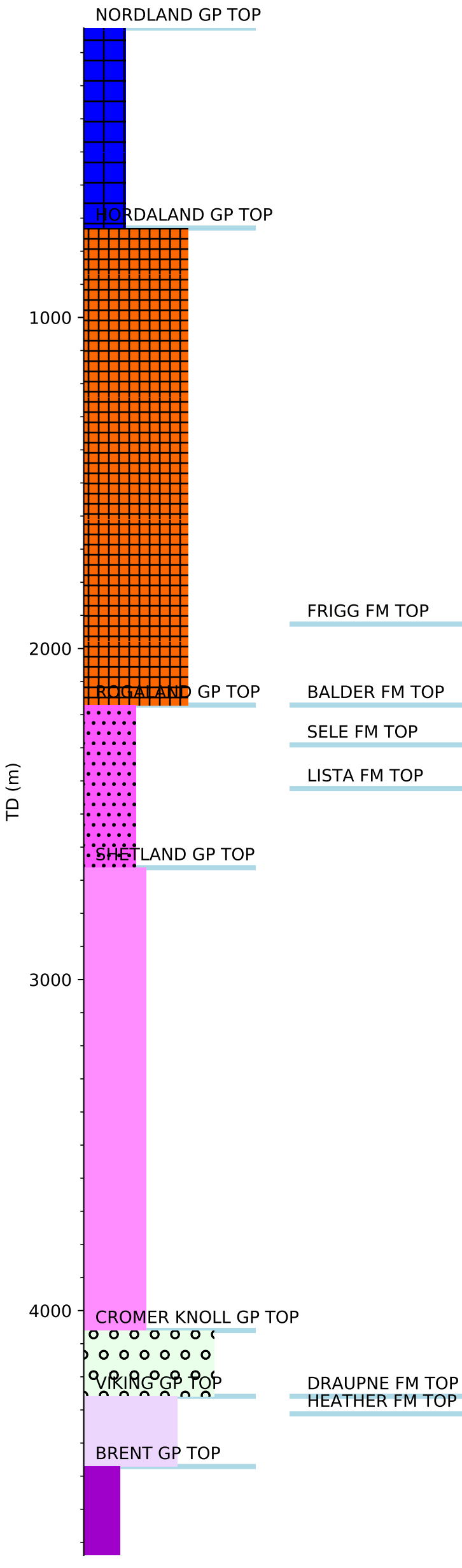

Wellbore History

GENERAL

Well 25/1-10 was drilled on the northern part of the Frigg Field in the Viking Graben. The primary objective was to test the Mesozoic "Deep Frigg" structure below the Frigg Field. The structure is a narrow north-south trending rotated mesozoic fault block. The first well drilled on the structure, 25/1-1, penetrated the top of Middle Jurassic sandstones at more than 4500 m, but was abandoned due to water flow associated with high pressure. The second well, 30/10-5, encountered both Middle Jurassic Brent Group sandstones and Lower Jurassic Statfjord Group sandstones, but the sandstones were water bearing. Well 25/1-10 was designed to test the remaining up dip potential of the Brent and Statfjord reservoirs. Secondary objectives were to establish the sweeping status of the Lower Eocene Frigg Formation and to obtain additional petrophysical data from this reservoir.

OPERATIONS AND RESULTS

Wildcat well 25/1-10 was spudded with the semi-submersible installation Vinni on 19 April 1988 and drilled to TD at 3739 m in the Middle Jurassic Brent Group. The interval 287-923 m was drilled with a 14 3/4" pilot hole to check for shallow gas. No gas was detected during drilling. The main problems during operations were encountered with the shales above the Frigg Formation and subsequent mud losses into the Frigg Formation. Further hole problems and mud losses occurred in the Brent Group, related to high pressures and fragile formation.

Top of Frigg was found at 1926 m. The electrical wireline logs clearly showed that formation water has swept the gas that was initially present in the Frigg reservoir sands. Quantitative analysis indicate average porosities of 29 - 30 % and a residual gas saturation of 19 %. The well penetrated the Brent Group at 4771 m. Brent was found water bearing with an average porosity of 18 % and a Net/Gross ratio of 0.54. The average water saturation is 95 %. FMT pressure measurements showed a formation pressure of 926.8 bar at 4503 m. This is severe overpressure. For well safety reasons, the Statfjord formation was not drilled.

Hydrocarbon indications were scarce except for generally high background gas readings from 3600 m within the Shetland Group and down to TD. Minor oil shows were recorded from 1955 m to 1980 m in the Frigg Formation and from 2863 m to 2870 m in the Shetland Group.

One core was cut from 4473 m to 4483 m with 16% recovery. No wire line fluid samples were taken.

The well was permanently abandoned on 14 September 1988 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/1-10