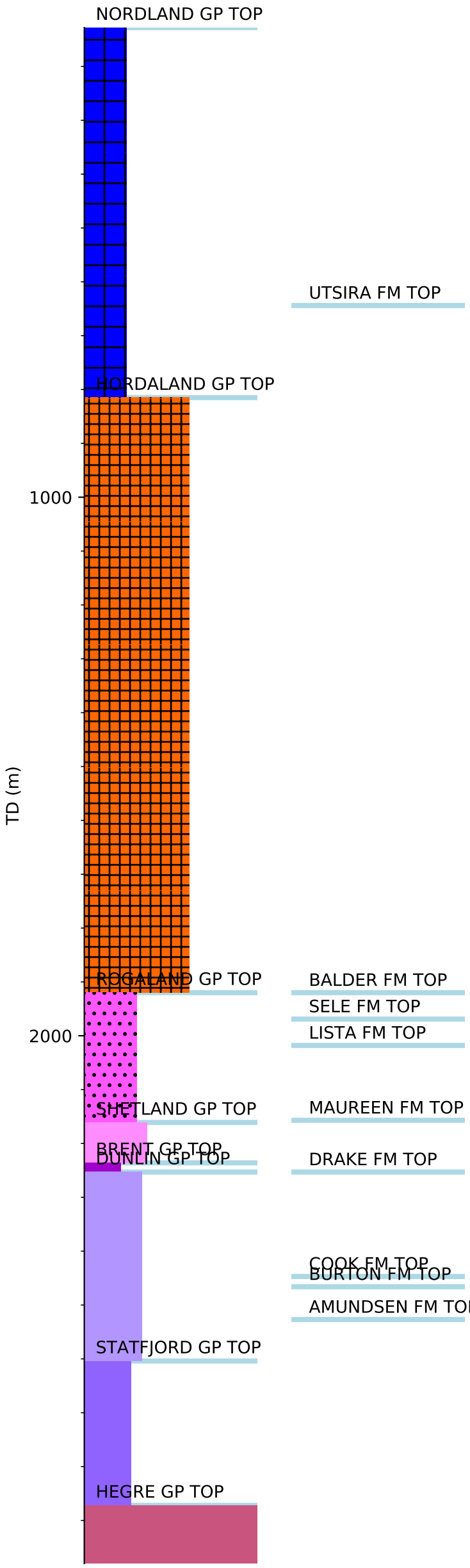
Groups

Formation Tops



Wellbore History

GENERAL

Well 30/9-5 S was drilled on the "J" prospect close to the western margin of the Horda Platform. The structure is bounded by Jurassic strata dipping down into the north, east and south and by the main Horda Platform fault to the west. The primary objective was to prove hydrocarbon accumulation in the Etive Formation of the Brent Group. Secondary objectives were possible hydrocarbons in sandstones if present in the Heather-Drake- and Cook Formations.

OPERATIONS AND RESULTS

Wildcat well 30/9-5 S was spudded with the semi-submersible installation Treasure Seeker on 27 May 1985 and drilled to TD at 2980 m (2963 m TVD) in the Triassic Hegre Group. Due to shallow gas indications on the site survey seismic the well location was moved approximately 150 m. The well was then deviated from a kick off point at 1000 m to reach the planned target. No significant problem was encountered in the operations. The well was drilled with seawater and gel down to 910 m, with KCl/polymer mud from 910 m to 1935 m, and with NaCl/polymer mud from 1935 m to TD.

The well encountered a gas bearing Cook Formation and minor amounts of gas in the Brent Group. No additional hydrocarbon bearing reservoirs were encountered by the well.

The Brent Group (2236-2253 m, 2222-2239 m TVD) was found severely eroded in the well with poorly developed sands. The net sand distribution is limited to a thin layer at the top of the formation. The rest of the formation appears to be very silty. The gross thickness is 17 m with a net pay of only 0.5 m. The average porosity is 20.2% and the water saturation 58.2%. The Cook Formation (2447-2466 m, 2433-2452 m TVD) has moderately good reservoir qualities in the upper part but is silty and tight in the lower part. The gross thickness is 19 m and the net pay is 7.9 m. The average porosity is 20.4% and the water saturation 24.7%. The Statfjord Formation was encountered water bearing at 2604 m (2589.5 m TVD). In addition to shows in the hydrocarbon-bearing sandstones in the Brent and Cook formations, local weak shows were recorded in the uppermost Statfjord Group sandstone, while continuous shows were described in dolomite stringers at 1945 m to 1960 m in the Balder Formation and at 2160 m to 2185 m in the massive limestones at the top of the Shetland Group.

Two conventional cores were cut in the well, one in the Cook Formation from 2455 m to 2473.2 m, and one in the Statfjord Formation from 2608 m to 2626.3 m. Two RFT runs were performed and 25 pressure recordings were done. Segregated samples were taken at 2452 m in the Cook Formation (gas, a little condensate, and water) and at 2238.5 m in the Brent Group (gas, trace condensate, and water).

The well was permanently abandoned on 19 July 1985 as a gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/9-5 S