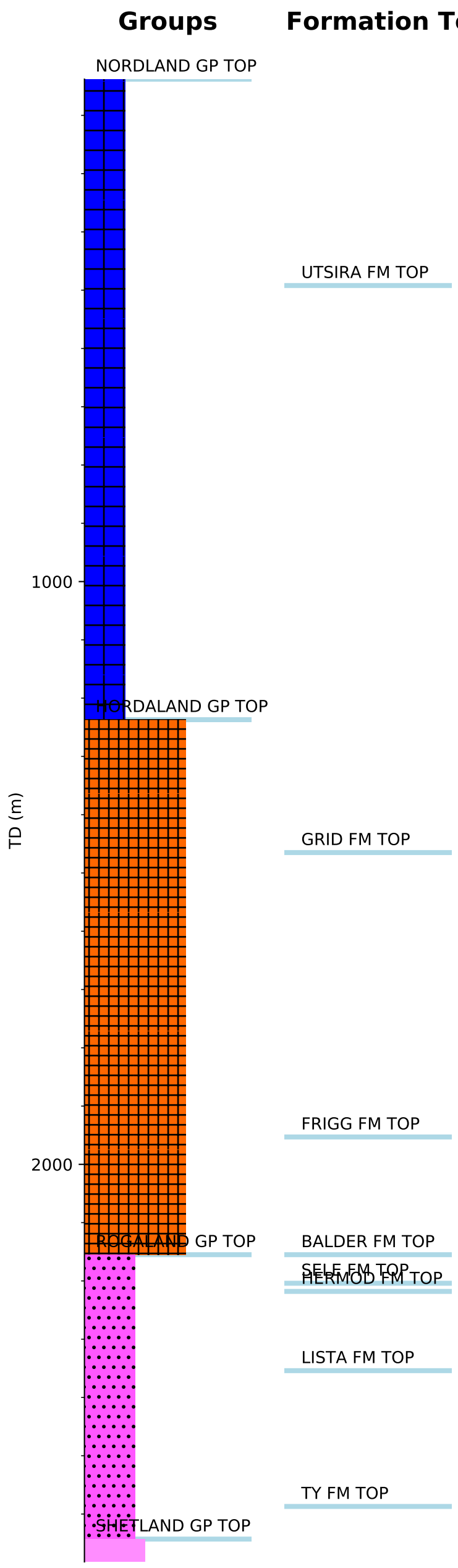

Wellbore History

GENERAL

Well 30/11-1 was drilled in the Fensal Sub-basin between the Frigg area and the Stord Basin in the North Sea. The primary objective was the Eocene Frigg sand, which was gas bearing in the Frigg, East Frigg, Northeast Frigg, Odin and Heimdal fields to the west and south. Secondary objectives were sands of Paleocene age.

OPERATIONS AND RESULTS

Wildcat well 30/11-1 was spudded with the semi-submersible installation Ocean Voyager on 5 February 1975 and drilled to TD at 2682 m in the Late Shetland Group. No significant problem was encountered in the operations. The well was drilled with seawater and viscous slugs down to 469 m, and with a lignosulphonate mud from 469 m to TD.

Four zones of interest were encountered in the well, namely the Frigg sand, Cod sand, Danian sand and Late Cretaceous limestone. All four intervals were interpreted as being water bearing.

From petrophysical analysis the Frigg Formation had 68 m net sand (N/G = 0.9) in the interval 1952.5 to 2026.9 m. The average porosity is 32%. The "Cod sand" (Sele and Hermod formations) from 2211.0 to 2354.3 m had 102 m net sand (N/G = 0.71) with 36% average porosity. The "Danian sand" (Ty Formation) from 2586.8 to 2638.7 m) had 43 m net sand (N/G = 0.83) with 25% average porosity. The Late Cretaceous limestone was described as shaly in parts, but clean limestone intervals had porosities from 4.5 to 7%. Gas readings were low in the well, and the only oil show described was "very, very faint solvent cut fluorescence" in the Frigg Sand.

Two cores were cut in the interval 1978.2 to 1994.9 m. No fluid sample was taken.

The well was permanently abandoned on 14 March 1975 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/11-1