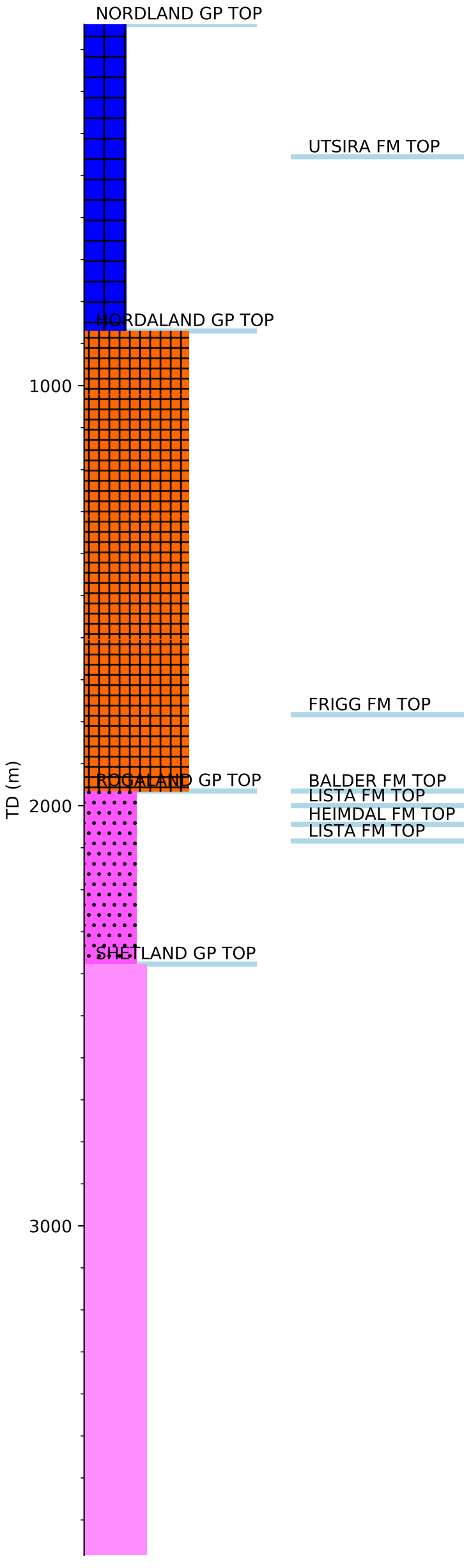
Groups

Formation Tops



Wellbore History

GENERAL

Well 30/7-6 was drilled on the East Shetland Basin in the North Sea close to the UK border. It was drilled as replacement well for wells 30/7-4 and 30/7-5, which were both junked for technical reasons. Well 30/7-6 (Phase I) was planned to be suspended after setting the 9-5/8" casing at ca 3800 m. The well would then be re-entered as 30/7-6 R (Phase II) and drilled to a TD of ca. 5000 meters employing the 11" 1000 bar BOP system. The main objective was Middle Jurassic sandstones, and this was planned to be penetrated in the re-entry. The exploration targets in the 30/7-6 well were the secondary ones: possible lower Cretaceous carbonate development, and possible Late Jurassic sandstones. The hydrocarbon-bearing Eocene sands (Frigg Formation) tested by the 30/7-2 well were also expected to be encountered within the same structural closure by this well.

OPERATIONS AND RESULTS

Wildcat well 30/7-6 was spudded with the semi-submersible installation Polyglomar Driller on 15 February 1977. At 3784 m, on April 14, a massive gas kick occurred and circulation was lost. The well was killed and plugged back into the 13 3/8" casing. A sidetrack was kicked off from 2619 m. The sidetrack proceeded with the 12 1/4" hole to 3252 m and the 8 3/8" hole to 3711 m. A 7" liner was set down to 3707. The cement flash set around the running string for the liner and 18 days were spent cleaning out the hole. At this point, the well was plugged back and suspended. The well was drilled with a gel/lignosulphonate mud system.

The top of the Eocene sands were penetrated at 1783.5 m and were found to be water wet. This agrees with the observation made in 30/7-2, in which the oil water contact was defined at 1783 m. No reservoir development was encountered in the Cretaceous limestone or in the Late Jurassic; only traces of sandstone was seen towards the base of the Heather Formation where the gas kick occurred.

Occasional oil stains on sandstone, limestone and siltstone were described between 1975 m and 2282 m in the Rogaland Group. Frequent shows on limestone stringers were described from 2343 to 3034 m in the Shetland Group. A geochemical extract at 2675 proved mature and migrated oil.

No cores were cut in the well. No fluid samples were taken

The well was suspended on 31 July as a dry well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/7-6