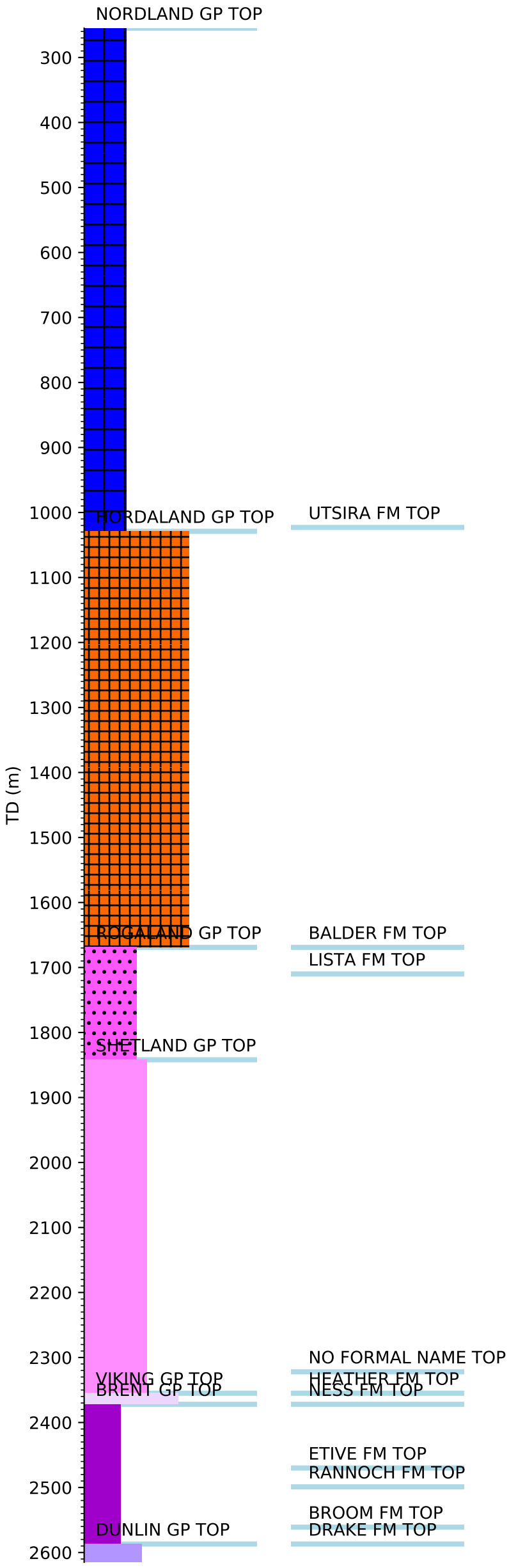
Groups

Formation Tops



Wellbore History

GENERAL

Well 34/7-33 was drilled in the Vigdis/Tordis area on Tampen Spur in the Northern North Sea. The primary objective was to test the potential for oil in the sandstones of the Brent Group in the M5 Sør prospect. The secondary target of the well was to acquire data to clarify the potential of the Sele /Lista interval, if reservoir with hydrocarbon was present and to acquire data over the Utsira Formation Sandstones in order to evaluate the potential for future injection of produced water from the Tordis Field sub-sea separator.

OPERATIONS AND RESULTS

An 8 1/2" pilot hole, well 34/7-U-17, was drilled to evaluate for shallow gas and to log the Utsira Formation. Based on MWD/LWD and ROV indications shallow gas was observed in intervals from 336 to 340 m and between 548 to 550 m. No indications of shallow gas were however observed in the subsequent 36" and 26" hole in well 34/7-33.

Wildcat well 34/7-33 was spudded with the semi-submersible installation Ocean Vanguard on 16 August 2008 and drilled to TD at 2615 m in the Early Jurassic Drake Formation. Due to flash setting of the cement when cementing the 9 5/8" casing the well was side-tracked (34/7-33 T2), with KOP at 1592 m. The well was drilled with spud mud down to 1053 m, with KCl/polymer mud from 1053 m to 1690 m, with HP/WBM mud from 1690 m to 2260 m, and with KCL/Polymer/glycol mud from 2260 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous, and Jurassic age. The well proved approximately 10 meters oil bearing sandstones in the Lista Formation. Cores were taken and good shows were recorded in the sand beds in these cores. Well results suggest that only 1 of the 10 meters sandy interval had properties as a producible reservoir. Gas peaks with a full range of C1 to C5 were recorded in the Balder and Lista Formation, and in the underlying Shetland Group increased gas levels (2-3%) with C1 to C5 were recorded in the interval 2150 to 2220 m. The well further proved, unexpectedly, the presence of Early Cretaceous and Heather age sands resting directly on the Brent Group Ness Formation. The uppermost Tarbert Formation of the Brent Group was not seen in the 34/7-33 T2 well. The reservoir sections in the Brent Group had excellent reservoir properties, as expected, but were water wet with only weak shows at 2392 to 2402 m and 2506 to 2522 m.

Two cores were cut before sidetracking from 1772 m to 1825 m in the Lista Formation. MDT pressure points were attempted before sidetracking in the Lista Formation but only three were obtained due to the thin sandstones encountered. A reliable gradient could not be established. Oil samples were taken at 1801.8 m but due to high drawdown the fluids obtained were not representative. A Mini DST was also attempted in the thin Lista Formation sands, but was not successful. A second MDT run in the sidetrack in the Viking and Brent groups obtained high quality pressure points. Several pressure barriers were indicated by these data. Good water samples were obtained at 2333 m.

The well was permanently abandoned on 15 October as a well with good shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/7-33