



Wellbore History

GENERAL

Well 33/9-13 S was drilled on the Statfjord Nord Field on the Tampen Spur area in the North Sea. The primary objective was to prove oil in the Brent Group to the northeast of the 33/9-8 discovery well. Secondary objective was to test the Statfjord Group in a position up-dip of the 33/9-8 location.

OPERATIONS AND RESULTS

Well 33/9-13 S was spudded with the semi-submersible installation Ross Isle on 14 October 1987 and drilled to TD at 3077 m in the Early Jurassic Statfjord Group. The well location was moved ca 300 m to the south-southwest to avoid a potential shallow gas zone at 381 m. The well was deviated back to the original target position with maximum deviation 34.3° at 1739 m. Shallow gas was encountered at 399.5 m, 399.9m, 404.5 m, and 547 m. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis bentonite down to 398 m, with gypsum/polymer mud from 398 m to 2378 m, and with lignosulphonate/bentonite mud from 2378 m to TD.

The Brent Group, Rannoch Formation was encountered at 2726 m and was completely oil filled down-to 2795 m (2720 m TVD) with shows on claystones and siltstones down to top Dunlin Group. The Statfjord Group was encountered at 3003 m and was water filled. Shows were described only within the Brent Group.

Four cores were cut in the Brent and uppermost Dunlin Groups within the interval 2732 - 2828.3 m. No fluid samples were taken on wire line.

The well was permanently abandoned on 24 December 1987 as an oil appraisal well.

TESTING

Two Drill Stem Tests were conducted

DST 1.1 tested the interval 2778 to 2787 m (2703 to 2712 TVD). The test produced 122 Sm³ oil and 6960 Sm³ gas /day through a 9.53 mm choke. The GOR was 57 Sm³/Sm³, the oil density was 0.850 g/cm³, and the gas gravity was 0.890 (air = 1). The DST reservoir temperature was 93.1 °C.

DST 1.2 tested the interval 2758 to 2775.2 m + 2778 to 2787 m (2683 to 2700.2 m + 2703 to 2712 TVD). The test produced 642 Sm³ oil and 33139 Sm³ gas /day through a 9.53 mm choke. The GOR was 51.6 Sm³/Sm³, the oil density was 0.838 g/cm³, and the gas gravity was 0.830 (air = 1). The DST reservoir temperature was 93.1 °C.

DST 2 tested the interval 2727 to 2740.7 m (2652 to 2665.7 m TVD). The test produced 815 Sm³ oil and 41640 Sm³ gas /day through a 9.53 mm choke. The GOR was 51 Sm³/Sm³, the oil density was 0.839 g/cm³, and the gas gravity was 0.805 (air = 1). The DST reservoir temperature was 93.0 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 33/9-13 S