



Wellbore History

GENERAL

The Curran well 30/8-4 S was drilled west of the Osebeg Sør field in the Viking Graben of the North Sea. The purpose of the exploration well 30/8-4 S was to prove commercial hydrocarbon volumes in the Curran structure, assess reservoir quality, determine fluid type and contacts and to verify regional sedimentology and provide input to depositional models.

OPERATIONS AND RESULTS

Wildcat well 30/8-4 S was spudded with the semi-submersible installation Transocean Winner on 29 November 2008 and drilled to TD at 4210 m (4154.5 m TVD) in the Middle Jurassic Ness Formation. No significant technical problem was encountered in the operations. Due to shallow gas warning, a 9 7/8" pilot hole was drilled from 185 m to 348 m. No shallow gas was seen. Well path was vertical down to 2700 m. Angle was built to around 16 deg at 3110 m. From here, a ca 16 deg angle was kept all the way to TD. The well was drilled with Seawater and bentonite sweeps down to 1062 m, with Glydril mud from 1062 m to 3238 m, and with Versatec oil based mud from 3238 m to TD.

The expected large wedge of Late Jurassic turbidite deposits (Intra Draupne sandstone) was not found. Instead, the Heather formation was shallower and a well-developed Middle Heather (Middle Bathonian to Late Callovian) and Lower Heather (Early to late Bathonian age) was observed at well location. The Brent Group, Tarbert Formation, was found deeper than expected at 3899.5 m (3857.2 m TVD). The Middle Tarbert Formation at 3985.5 m (3939.6 m TVD) was oil bearing down to an ODT contact at 4003.7 m (3954 m TVD), giving a 14 m TVD oil column. PVT analyses of oil samples gave a single flash GOR of 427 Sm³/Sm³ and a stock tank oil density of 0.827 g/cm³ (i.e. light oil). The reservoir quality was poor, based on core analysis and logging data. Curran is evaluated to be a minor oil discovery. Oil shows were recorded in the top part of both of the cores otherwise no oil shows are reported from the well.

Two cores were cut in the well. Core 1 was cut at 3910.5 to 3937.7 m in the Upper Tarbert Formation and core 2 was cut at 3988.5 to 4042.5 m in the Middle Tarbert Formation. Oil sampling was performed with MDT and dual packer (Mini-DST) at 3987.5 m in Middle Tarbert Formation. The oil samples were contaminated 10-11% with oil based mud. Water sampling was performed at 4025.6 m in the Middle Tarbert Formation.

The well was permanently abandoned on 4 February 2009 as a minor oil discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/8-4 S