



Wellbore History

GENERAL

Well 16/5-3 was drilled on a possible southern extension of the Johan Sverdrup discovery in the North Sea. The main objective was to prove hydrocarbons in Late Jurassic Intra-Draupne Formation sandstone. In case of discovery, it was important to verify the reservoir quality, fluid property, lateral extension and communication with the Johan Sverdrup discovery.

OPERATIONS AND RESULTS

The location for well 16/5-3 was given a shallow gas class 1 warning in an interval between 295 and 422. A pilot hole was drilled (off location), well 16/5-U-1. No shallow gas was observed.

Appraisal well 16/5-3 was spudded with the semi-submersible installation Ocean Vanguard on 20 February 2013 and drilled to TD at 1993 m in the Permian Zechstien Group. A sidetrack 16/5-3 T2 was kicked off from 1774 m in 16/5-3 and drilled as a bypass track in order to perform coring in zone of interest identified in the main wellbore. No significant problem was encountered in the operations. The well was drilled with seawater down to 916 m and with Performadril mud from 916 m to TD. The sidetrack was drilled with Performadril mud with tritium tracer.

The Intra-Draupne Formation sandstone reservoir was entered at 1898 m, which was 38 m shallower than prognosed. The reservoir contained oil down to 1911 m and had a thickness of 13 m, which was 2 m thicker than prognosed. Oil shows continued down to 1914 m in the underlying Skagerrak Formation. Below 1914 m, no shows were observed. There were no hydrocarbon indications in the well above top Intra-Draupne Formation sandstones. One core was cut in the sidetrack well bore from 1895.3 to 1922.5 m (lower Åsgard Formation, Intra-Draupne Formation Sandstone and upper Skagerrak Formation). The core recovery was 100%. MDT fluid samples were taken at 1901.9 m. Oil without contamination was recovered.

The well was permanently abandoned on 20 March 2013 as an oil appraisal.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/5-3