



## Wellbore History

### GENERAL

Well 16/3-4 A is a sidetrack to well 16/3-4, which was drilled to prove the extension of the Avaldsnes Discovery to the north-east of the structural crest of the Avaldsnes structure. Well 16/3-4 proved oil in a 14 m thick Intra-Draupne Formation sandstone overlying weathered basement rock. The oil was proven to be in pressure communication with the 16/2-6 Avaldsnes discovery well. The 16/3-4 A sidetrack was drilled up-flanks (south-south-west) of the main well bore. The objective was to further appraise the Avaldsnes oil discovery and to determine the extent, thickness, and quality of the reservoir in this part of the structure.

### OPERATIONS AND RESULTS

Well 16/3-4 A was kicked off from 790 m in the primary well on 28 June 201. I was drilled with the semi-submersible installation Bredford Dolphin to TD at 2128 m (1959 m TVD) in granitic basement. No significant problem was encountered in the operations. The well was drilled with Performadril mud from kick-off to TD.

The geological sidetrack 16/3-4 A encountered top Draupne Formation shales at 2065.5 m (1906.3 m TVD). At 2076.5 m (1915.6 m TVD) a 5 m vertical thickness of Intra-Draupne Formation sandstone was penetrated. The Draupne sandstone was oil bearing down to fractured basement at 2081.6 m (1919.8 m). Slightly different fluid gradients were recorded compared to the main wellbore, however, PVT analysis of the samples showed identical oil to be present in both wellbores. No oil water contact was established. The first oil shows in the sidetrack were observed in the marls of the Åsgard Formation in a sidewall core at 2052.8 m. More extensive oil shows were seen in the underlying Draupne sandstones. The oil shows became weaker in the fractured basement that was recovered in the core. Oil shows were seen in cuttings and sidewall cores below the core down to 2115.5 m; the last observed oil shows.

One core was cut from 2067 m to 2082.5 m in the Draupne Formation shales and reservoir sandstone, and into the basement. MDT oil samples were taken at 2079.2 m.

The well was permanently abandoned on 18 July 2011 as an oil appraisal well.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/3-4 A