



Wellbore History

GENERAL

Well 35/12-4 A is a sidetrack to well 35/12-4 S on the Ryggsteinen Ridge/Uer Terrace structural elements in the Northern North Sea. Both well bores are appraisal wells to the 35/12-2 Grosbeak discovery, a multi-level discovery, with hydrocarbons in the Sognefjord Formation (gas), in the Fensfjord Formation (oil) and in the Ness Formation (oil). Well 35/12-4 S proved a 14 m oil column in the Fensfjord Formation and a 40 m oil column in the Ness Formation. Well bore 35/12-4 A was sidetracked to appraise the oil in the Ness Formation in a position northwards and down flanks of 35/12-2 and 35/12 -4 S.

OPERATIONS AND RESULTS

Appraisal well 35/12-4 A was kicked off on 26 June 2011 from the primary well bore 35/12-4 S. The well was sidetracked at 902 m MD through a windows in the 13 3/8" casing. It was drilled with the semi-submersible installation Songa Delta to TD at 3413 m (2585 m TVD) in the Middle Jurassic Rannoch Formation. No significant problems were encountered in the operations. The well was drilled with Carbo-sea oil based mud from kick-off to TD.

While the Draupne Formation was not present in the primary well the sidetrack well penetrated a thick Draupne Formation section from 2836 m to 2967 m (2239.5 m to 2318 m). No Fensfjord Formation was encountered in the 35/12-4 A sidetrack. The Middle Jurassic Ness Formation came in at 3230 m (2475 m TVD), but was shaled out above the previous known contact from 35/12-2 and 35/12-4 S at ca 2485 m TVD. Weak hydrocarbon shows were however seen in the upper part of the Ness Fm. The underlying water wet sandstones had an average porosity of 19 % when using a 10 % cut-off.

No cores were cut in the sidetrack well. A total of 20 pressure tests were attempted with the RCI tool, obtaining 17 good tests. No fluid samples were taken to surface, but fluid scanning was performed at three stations, all showing formation water in the Ness Formation.

The well was permanently abandoned on 17 July as a dry well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/12-4 A