



Wellbore History

GENERAL

Well 15/12-7 S was designed to drill in Late Jurassic Oxfordian sandstones on the Theta North prospect in the southeastern part of the PL 116 licence area. The structure is a rotated fault block dipping southeast and bound to the west and north by faults. Based on mapping and inversion studies of the 15/12-5 well and the Beta-east structure it was likely that an Oxfordian sequence was present at the Theta structure. However, it could not be excluded that the Oxfordian reservoir had been eroded from top of the structure. The main objective of well 15/12-7 S was to test the potential for hydrocarbons in the Oxfordian sandstones. A secondary objective was to test possible Triassic sandstones. Seismic anomalies at 441 m and 792 m strongly suggested shallow gas. Because of this the spud location was set outside of the planned location.

OPERATIONS AND RESULTS

Wildcat well 15/12-7 S was spudded with the semi-submersible installation Deepsea Bergen on 6 November 1990 and drilled to TD at 3529 m in the Triassic Smith Bank Formation. Problems were encountered in building and dropping angle in deviated well section (13 3/8" to 9 5/8"). Pipe stuck at 2703 m and 2720m but came free. Stuck again with FMT-tool at 3425m. The tool was left in the hole. The well was drilled with seawater and bentonite pills down to 173 m, with seawater and CMC EHV from 173 m to 620 m, with gypsum/PAC from 620 m to 3027 m, and with gel/polymer/lignosulphonate from 3027 m to TD. No shallow gas was encountered at 441 m, but from MWD gas was encountered at 775 m. Several misruns while logging were experienced.

The Oxfordian reservoir sandstone (Intra Heather Sandstone) came in at 3025 m, 25.5 m shallower than prognosed. No hydrocarbons were encountered. One 27 m conventional core was cut from 3028 m to 3055 m in the reservoir unit with 94.4 % recovery. A total of 100 sidewall cores were attempted of which 93 were recovered. No sidewall cores were attempted in the 17 1/2" section (620 m to 1820 m) due to hole problems. No fluid samples were taken in the well.

The well was permanently abandoned on 7 January 1991 as a dry well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/12-7 S