



Wellbore History

GENERAL

Well 6305/12-2 is located in the southwestern part of block 6305/12 in the Slørebotn Sub-basin. The primary objective

was to test the hydrocarbon and reservoir potential of a stratigraphic Cretaceous Wedge Prospect of anticipated Aptian to Cenomanian age. The secondary objective was to test the reservoir quality and hydrocarbon potential of a structural closure at the Base Cretaceous level called the E-prospect.

OPERATIONS AND RESULTS

Wildcat well 6305/12-2 was spudded with the semi-submersible installation Deepsea Bergen on 16 October and drilled to TD at 3162 m in the metamorphic basement. A kick occurred at 2973 m, in the top of Middle Jurassic sandstone, requiring increases in mud density to 1.45 sg and resulting in lost circulation further up the hole, most likely into the Paleocene Sandstone unit. After 7" liner was set to 2635 m background gas up to 10.5 %, formation gas peaks to 13.6 % and pumps-off gas peaks to 15.5 % made it necessary to increase the mud density in stages from 1.50 sg to 1.73 sg. The one successful FMT point, at 3000 m, showed formation pressure to be 1.69 sg in a very tight sandstone. The kick and technical problems related to coring led to two technical sidetracks that should be considered when evaluating logs and cores: the first from 2670 m to 2974 m and the second from 2910 m to final TD. The well was drilled with seawater and bentonite down to 437 m and with the ANCO-2000 KCl/glycol mud system from 437 m to TD.

The mapped stratigraphic wedge supposed to be of Cretaceous age was encountered at 2970 m and proved to be Middle Jurassic sediments. The sediments were gas bearing, but with extremely poor reservoir properties. The possible reservoir in the E - prospect consisted of metamorphic basement with no significant porosity or permeability. Moderate shows were observed in the Late Cretaceous, in sandstone stringers from 2530 m to 2580 m and in limestone and dolomite stringers from 2630 m to 2730 m. Spotted moderate shows were recorded again in thin sandstone stringers in the Early Cretaceous from 2750 m to 2830. Poor to very poor shows were seen from 2965 m 3144.5 m in the Middle Jurassic. The organic geochemical source rock screening was seriously affected by glycols in the mud system, so the only source rocks that could be ascertained with certainty were the coals and carbargillites of the Middle Jurassic. A very thin Late Jurassic shale at 2966 m was not sampled. The well appears to be immature through the Cretaceous and in the oil window from base Cretaceous to TD.

A total of 6 cores were cut at intervals through the well. Core 1 and 2 were cut in the first sidetrack and cores 3 - 6 were cut in the second sidetrack. One FMT fluid sample at 3001 m recovered water, mud filtrate and a small amount of gas.

The well was permanently abandoned on 16 December as a well with shows in the Cretaceous and gas in Middle Jurassic tight sands.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6305/12-2