



Wellbore History

GENERAL

Well 25/4-8 was the second exploratory test of a large, irregular 4-way closure known as the Gekko structure, discovered by well 25/4-3 in 1974. The reservoir target was the Paleocene Heimdal formation, in a mapped culmination 1.7 km to the WNW of the discovery well. While well 25/4-3 found 8 m of hydrocarbons in a structurally low position, well 25/4-8 was expected to encounter a hydrocarbon column of 45m with an anticipated oil/water contact at 2107 m TVD SS.

OPERATIONS AND RESULTS

Wildcat well 25/8-4 was spudded with the semi-submersible installation Deepsea Bergen on 3 June 2003 and drilled to TD at 2286 m in the Paleocene Heimdal Formation. Some problems with hole fill were experienced in the top 36" hole and repeated drill string stalling and sticking in the 17 1/2" section. After setting the 13 3/8" casing at 796 m these problems ceased and the well was drilled on to TD with no significant problems. The well was drilled with seawater down to 803 m and with Carbosea oil based mud from 803 m to TD.

Significant gas peaks were recorded in the interval 2096 m to 2129 m. Drilled cuttings were adversely affected by the use of PDC bits, especially in the sandstone intervals, and hydrocarbon shows were affected by the use of oil-based mud in the 8 1/2" hole section. Oil shows were however recorded on cores from 2082 m to 2134 m. Petrophysical evaluation of wire line logs acquired demonstrated that sands within the Lista Formation were gas bearing and that the Heimdal Formation is gas and oil bearing at the location with a gas-oil contact (GOC) at 2121.8 m (2098.8 m TVD SS) and an oil-water contact (OWC) at 2128.5 m (2105.5 m TVD SS). The OWC was 1.5 m shallow compared to that described for the exploration well 25/4-3 and is consistent with shows described from core and cuttings within the Heimdal. Two conventional cores were cut in the interval 2082 m to 2136 m in the Lista and Heimdal Formations. Fluid samples were taken with the MDT tool at 2097 m (gas), 2120 m (gas), and 2127.2 m (oil).

The well was permanently abandoned on 22 June as a gas and oil appraisal well.

TESTING

No drill stem test was performed.

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LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/4-8