



Wellbore History

GENERAL

Well 2/7-19 R is a re-entry of well 2/7-19, which was drilled in 1980/81 by the semi-submersible Borgsten Dolphin. The well encountered gas in Early Cretaceous sandstones, but was suspended in February 1981 due to a BOP system that was not rated to allow a DST test to be performed. RFT tests measurements indicated a possible wellhead pressure of 11200 psi, while the BOP was rated to 10000 psi. A 7" liner was run to a depth of 4839 m and cemented, but not perforated. The purpose of the re-entry was to test 43 m of gross pay distributed in four sand lenses from 4712 to 4839 m. The DST test was designed such that it would be possible to keep the well for future production if flow rates were commercial.

OPERATIONS AND RESULTS

Wildcat well 2/7-19 was re-entered (2/7-19 R) with the semi-submersible installation Ross Isle on 15 January 1990.

During drilling of the 2/7-19 well, only gas was encountered. The test in the re-entry showed that the reservoir rocks were tight, but a positive feature was that oil was encountered during testing. The test confirmed the earlier anticipated formation pressure of 860 to 895 bar.

The well was permanently abandoned on 14 March 1990 as an oil appraisal.

TESTING

One DST test was performed from four sand lenses in the intervals 4712 - 4727 m, 4762 - 4783 m (Ula Formation), 4800 - 4818 m Ula/Bryne Formations), and 4830 - 4838 m (Bryne Formation). The total net pay in the perforated sections was 23 m. After acid treatment the well produced hydrocarbons at a rate of 34.8 Sm³ oil and 15631 Sm³ gas /d through an 11.91 mm choke. The CO₂ content of the separator gas was 4.4%. The GOR was 449 Sm³/Sm³ but this figure is uncertain due to slugging of the well and poor rate measurements. The matrix/acid job performed was not effective. The stable shut-in temperature at 4628 m (gauge depth) was 169 deg C, while maximum recorded flowing temperature was 172 deg C. It was not established which of the four perforated sections that contributed to the flow.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-19 R