



GENERAL

Well 2/7-25 S was drilled on the Embla structure in the southern North Sea. The objective of the well was to prove the south-eastern continuation of the Embla reservoir sands seen in 2/7-20 and 2/7-21S, and if successful establish another drainage point for future development.

OPERATIONS AND RESULTS

Appraisal well 2/7-25 S was drilled from a temporary subsea template located over the 2/7-20 well, using the semi-submersible installation West Delta. It was spudded on 29 November 1990 and drilled to TD at 5177 m (4560 m TVD) in pre-Jurassic rocks. The well was deviated to a target location 2072 m southeast of the wellhead. I was drilled without any major problems. Shallow gas was encountered in four sand intervals in the 26" hole section over the interval 595 -652 m. A minor gas flow was controlled using 11.0 ppg kill mud with high viscosity pills. The well was drilled with sea water down to 780 m, with ester emulsion based Petrofree mud from 780 m to 4557 m, and with oil based Enviromul mud from 4557 m to TD.

Top Jurassic, Mandal Formation was encountered at 4711 m. The Jurassic consisted of 117 m Mandal Formation, 112 m Farsund Formation, and 214 m Eldfisk Formation at the base. Under the Eldfisk Formation, at 5157 m (4540 m TVD), a pre-Jurassic section was encountered. Oil shows were detected from 1594 m to 1786 m, with good shows from 1704 m to 1750 m at top Hordaland Group. Further oil shows were seen throughout all parts of the limestone section but were concentrated in the intervals 3470 m to 3484 m in the Ekofisk Formation and 4328 m to 4435 m in the Hod Formation. In addition solid bitumen staining was described on cores from the Mandal and Eldfisk Formations.

A total of 57 m core was recovered in four cores; core 1 in the Mandal Formation (4782.3 - 4801 m), core 2 in the Farsund Formation (4843 - 4854.9 m), and cores 3&4 in the Eldfisk Formation (5088 - 5113.9 m). No wire line fluid samples were taken.

The upper part of the well was temporary plugged to allow for sidetrack below the 13-3/8" or 20" casing should this prove economical in the future. The bottom part of the well was permanently abandoned on 31 March as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-25 S