



Wellbore History

GENERAL

Well 34/8-8 R is a re-entry of appraisal well 34/8-8 on the N-1 segment of the 34/8-1 Visund discovery on Tampen Spur in the Northern North Sea. The primary objective of well 34/8-8R was to determine the pressure regime and pressure gradient in the hydrocarbon bearing sands in Tarbert, Ness and Etive formations. The secondary objective was to determine the fluid system/composition and the possible presence of a gas oil contact in the Tarbert/Ness formations. The third objective was to investigate the mobility of oil and water down to the interpreted free water level (FWL)

OPERATIONS AND RESULTS

Well 34/8-8 was re-entered on 16 February 1993 with the semi-submersible installation Polar Pioneer.

The well was drill stem tested. No significant problems occurred in the operations.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 9 March 1993 as an oil appraisal.

TESTING

Two drill stem tests were performed. In both tests production logging (PLT) was performed during the main flow.

DST 1 tested the interval 2960.2 to 2973.2 m in the Ness/Etive formations. The test sequence consisted of an initial and a cleanup flow/build-up period with down hole shut-in. The main flow with PLT was interrupted by poor weather conditions and the well was immediately killed. Only a limited amount of the surface sampling program was therefore accomplished. No down hole samples were collected. The test produced 775 Sm³ oil, 10600 Sm³ gas and 161 m³ water/day through a 12.7 mm choke in the cleanup flow. GOR was 137 Sm³/Sm³. The oil density was 0.852 g/cm³ and the gas gravity was 0.665 (air = 1) with 1.6% CO₂ and 0.25 ppm H₂S. Flowing BHP was 423.3 bar and flowing BHT was 112.3 deg C. The PLT results showed an effective OWC at 2971.5.

DST 2 tested the interval 2921 to 2950 in the Tarbert/Ness formations. The test sequence consisted of an initial and a cleanup flow/build-up period with down hole shut-in. After the cleanup build-up bottom hole sampling was accomplished with the well flowing on a low rate. Three out of five samples were good. The well was production logged (PLT) during the dual rate main flow period. The test produced 956 - 772 Sm³ oil, 147100 Sm³ gas and 0 m³ water/day through a 19.05 mm choke in the main flow. GOR was 164 - 191 Sm³/Sm³. The oil rate was steadily decreasing while the gas rate was relatively constant. Consequently, the GOR steadily increased during this period. The oil density was 0.844 g/cm³ and the gas gravity was 0.660 (air = 1) with 1.4% CO₂ and 1.5 ppm H₂S. Flowing BHP was 234.6 bar and flowing BHT was 112.4 deg C. No gas/oil contact was reported from the test.

After the main build-up with surface shut-in, a minifracture test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/8-8 R