



Wellbore History

GENERAL

Well 2/7-4 is located in the southern part of the Norwegian North Sea and ca 10 km south east of the Ekofisk Field. The primary objective was the Danian Chalk, expected to be 90 m thick and possibly completely hydrocarbon bearing.

Secondary objective was Late Cretaceous carbonates, especially in the upper part, which could be oil bearing in communication with the Danian. Planned TD was at 3353 m in the Late Cretaceous. In the event that hydrocarbon shows were still evident at the proposed TD the well would be deepened until potential productive zones were completely penetrated.

OPERATIONS AND RESULTS

Wildcat well 2/7-4 was spudded with the semi-submersible installation Ocean Viking on 23 June 1972 and drilled to TD at 3356 m in the Late Cretaceous Tor Formation. The well was drilled without significant problems.

The "Danian Chalk" (Ekofisk Formation) was encountered at 3096 m, and the Late Cretaceous Tor Formation at 3186 m. Both formations were oil bearing. DST's and logs indicate oil down to 3225 m, while the deepest test at 3291 - 3266 m produced water, some gas, and trace oil. Oil shows were recorded on cores in the interval 3133 m to 3246 m.

Twelve cores were cut from 3116 m to 3264 in the Ekofisk and Tor Formations. No wire line fluid samples taken.

The well was permanently abandoned on 3 September 1972 on as an oil discovery.

TESTING

Six DST's were conducted in the Ekofisk and Tor Formations. Maximum production data after acid treatment follows: DST 1 tested the interval 3292 - 3266 m in the Tor Formation and produced 67 m³/day water, 2800 Sm³/day gas, and trace oil. DST 2 tested the interval 3197 - 3234 m in the Tor Formation and produced 1054 Sm³ oil and 273600 Sm³ gas /day on a 44/64" choke. The GOR was 260 Sm³/Sm³ and the oil gravity was 37.7 deg API. DST 3 tested the interval 3149 - 3170 m in the Ekofisk Formation and produced 200 Sm³ oil and 71200 Sm³ gas /day on a 36/64" choke. The GOR was 357 Sm³/Sm³ and the oil gravity was 44.5 deg API. DST 4 from the interval 3127 m to 3145 m in the Ekofisk Formation produced only water cushion: no formation fluid came to surface. DST 5 and DST 6 tested the interval 3106 m to 3114 m in the Upper Ekofisk Formation and produced small quantities of oil and gas to the surface from a nearly tight formation.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-4