



## Wellbore History

### GENERAL

Well 2/11-2 was drilled on the Hod prospect on the Skrubbe Fault between the Lindesnes Ridge and the Ål Basin in the southern North Sea. The "Hod" anticline is a satellite or subsidiary feature immediately to the southwest of the large Valhall structure. The primary objective was the Danian/Late Cretaceous chalk section, the productive horizon in surrounding fields. Paleocene sand/siltstones would be secondary objectives, if encountered. These had shows in well 2/11-1, located 6.4 km north.

### OPERATIONS AND RESULTS

Wildcat well 2/11-2 was spudded with the semi-submersible installation Zapata Explorer on 6 November 1974 and drilled to TD at 2806 m in the Early Cretaceous Rødby Formation. It was drilled in 37 days without major problems, although 10 days were lost due to waiting on water, combating lost circulation after an attempt to kill a gas kick, and waiting on a new BOP stack after a leak was found on the old equipment. The well was drilled with seawater and Milben saltgel mud down to 145 m, with seawater, pre-hydrated Milben, Flosal mud from 145 m to 383 m, with Drispac/Flosal mud from 385 m to 1295 m, with Shale Trol until gumbo, converting to a Unical/seawater mud from 1295 m to 2660 m, and with a Unical/seawater mud from 2660 m to TD.

High gas readings were recorded from approximately 1415 m to 1675 m. Oil shows (dull yellow fluorescence and poor - fair cut) and free oil in the mud was also noted during the drilling of the above interval. Oil bearing Santonian - Coniacian chalk (Hod Formation) was encountered at 2640.5. The section had 51.5 m net pay with estimated average porosity of 27.7 percent and an average water saturation of 40.3 percent.

A core was taken from 2660.9 m to 2670.4 m, with 100% recovery. No fluid sample was taken on wire line.

The well was permanently abandoned on 29 December 1974 as an oil discovery.

### TESTING

Three Drill Stem Tests were performed in the well.

DST 1 tested the interval 2672.2 m to 2679.8 m in Turonian-Santonian chalk (Hod Formation). The test gave a weak flow, too weak to measure flow rates, but a small amount of 35 deg API oil was produced.

DST 2 tested the interval 2642.6 m to 2665.5 m in Turonian-Santonian chalk (Hod Formation). The interval was stimulated with acid before testing. On a restricted flow, the well tested 463 Sm<sup>3</sup> oil/day with a well head pressure of 160.3 bar. No water was produced. The GOR was 194 Sm<sup>3</sup>/Sm<sup>3</sup> and the oil gravity was 36 deg API. Maximum flow was 546 Sm<sup>3</sup> oil and 82120 Sm<sup>3</sup> gas /day

DST 3 tested the interval 1499.6 m to 1503.3 plus 1512.4 m to 1517.3 m plus 1521 m to 1523.4 m in Oligocene silty shales of the Hordaland Group. After acid stimulation the test flowed very weak during all three flow periods. Some oil was produced towards the end of the last flow period.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/11-2