

Groups	Formation Tops	Wellbore History
N/A	N/A	<p>GENERAL</p> <p>The Hod complex was proved to consist of two individual structures by well 2/11-3, which was drilled about 2.5 km due east of 2/11-2. Seismically, the Hod structural complex is difficult to map due to shallow gas in the Tertiary, mainly over the western part of the structure, which complicates the time to depth conversion. As it turned out, the chalk in 2/11-2 was drilled close to the limit of structural closure of the East Structure and was therefore dry with shows only. Well 2/11-3 A was a sidetrack from well 2/11-3 to test Late Cretaceous chalk in a graben feature indicated by seismic in the crestal regional of the East Hod structure. A graben, if present, would have possibilities for preservation of younger Maastrichtian rock which in general is of high reservoir quality with high porosity and often very high oil saturation.</p> <p>OPERATIONS AND RESULTS</p> <p>Well 2/11-3A was sidetracked from just below the 13 3/8-inch casing shoe on 3 December 1977 and drilled to TD at a total measured depth of 3400 m (2857 m TVD) in the Late Cretaceous Hod Formation. The pipe stuck at TD prior to logging and deviation survey. After working on the stuck pipe the string was disconnected at 3189 m and the well was kicked-off on the low side in order to complete logging and testing of the pay-zone discovered before the pipe got stuck. This technical sidetrack was drilled to 3333 m (2812 m TVD).</p> <p>Top Chalk was encountered in the sidetrack at 3189.5 meters (2713 meters TVD). The uppermost 5 m belonged to the Ekofisk Formation. Then followed 58.5 m of Tor Formation, 13 m of tight Middle Hod Formation, and 70 m of Lower Hod. The Chalk was found oil bearing from top Chalk to TD in the sidetrack, with exception of 8 m in Middle Hod. Shows on cuttings were recorded in the primary well bore down to 3370 m. No oil shows were reported from above top Chalk.</p> <p>Seven cores were cut in the top Chalk section in the primary un-logged well bore in the interval from 3192.4 m to 3250.3 m. Recovery varied from 18 % to 100 %. No wire line fluid samples were taken.</p> <p>The well was permanently abandoned on 13 March 1978 as an oil appraisal well.</p> <p>TESTING</p> <p>Two Drill Stem Tests were conducted in the well.</p> <p>DST 1 tested the interval 3268 to 3280 m. After hydraulic fracturing the test flowed on average 88 Sm³ oil and 12700 Sm³ gas /day through a 24/64" choke. The average GOR was 133 Sm³/Sm³, the oil gravity was 29.1 deg API, and the gas gravity was 0.8 (air=1). Maximum temperature recorded down hole was 102 deg C. A final flow on a 32/64" choke gave sluggish flow but did not increase rates much.</p> <p>DST 2 tested the interval 3230 to 3236 m. After acid stimulation the test flowed on average 915 Sm³ oil and 104500 Sm³ gas /day through a 32/64" choke. The average GOR was 114 Sm³/Sm³, the oil gravity was 33.9 deg API and the gas gravity was 0.69 (air = 1). Maximum temperature recorded down hole was 107 deg C.</p>

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/11-3 A