



Wellbore History

GENERAL

Well 7220/5-2 Nunatak was drilled in the Polheim sub-basin west of the Loppa High in the Barents Sea. The well was placed about five kilometres north of the 7220/8-1 discovery well ("Skrugard"). The primary objective was to prove petroleum in Cretaceous reservoir rocks (the Knurr Formation), as well as acquire information for the planned field development of Johan Castberg. Potential Intra Hekkingen Formation sandstones was a secondary target in the well.

OPERATIONS AND RESULTS

Wildcat well 7220/5-2 was spudded with the semi-submersible installation West Hercules on 19 May 2013 and drilled to TD at 1780 m in the Early Jurassic Tubåen Formation. A 7" liner was set at 1532 m to be able to acquire rock

mechanical data in Jurassic sandstones. The well was drilled with seawater (spud mud) down to 844 m and with Low Sulphate/KCl/Polymer/Glycol mud from 844 m to TD.

In the overburden, the well penetrated Tertiary and Cretaceous Claystones and minor Limestones. In the reservoir section, the well penetrated Cretaceous Claystones and Sandstones as well as Jurassic Claystones, Siltstones and Sandstones. The well encountered top of the target Knurr Formation sandstones at 1255 m. The Knurr Formation was gas bearing with gas down-to 1359 m. Petrophysical evaluation gave a gross 104 m gas column in the well with a net/gross = 0.89. Pressure data indicate the Gas-Water Contact (GWC) to be at 1372 m. The reservoir quality was poorer than expected. No oil shows were described in the well and hydrocarbon core scanning confirmed a general lack of oil components in the Knurr reservoir sands. Stable carbon isotopes in the gas components show very good correlation between the Skrugard gas and the Nunatak gas. No sandstones were encountered in the Hekkingen Formation.

One 45 m core was cut in the Knurr reservoir sandstones. A reduced discovery case wireline program was conducted. MDT fluid samples were taken at 1340.9 m (gas) and 1386.7 m (formation water).

The well was permanently abandoned on 8 July 2013 as gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7220/5-2