



## Wellbore History

### GENERAL

Well 7435/12-1 was drilled to test the Korp fjell prospect on the Haapet Dome far east on the Bjarmeland Platform in the Barents Sea. The primary objective was to test the hydrocarbon potential, phase and source in the Realgrunnen Subgroup (Stø-Tubåen-Fruholmen formations). Secondary objective was to test the hydrocarbon potential in the Triassic Snadd and Kobbe formations.

### OPERATIONS AND RESULTS

The Korp fjell pilot well 7435/12-U-1 was spudded on 7 August 2017 and drilled as a vertical 9 7/8" hole. TD was set at 547 m in the Hekkingen Formation. The pilot hole confirmed the geological prognosis and proved no shallow hydrocarbons above the setting depth of the 10 3/4" surface casing in the main well.

Wildcat well 7435/12-1 was spudded with the semi-submersible installation Songa Enabler on 9 August 2017 and drilled to TD at 1540 m in the Middle Triassic Kobbe Formation. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 306 m and with KCL Polymer/Gem water-based mud from 306 m to TD.

The Hekkingen Formation was drilled without riser and no samples were available for analysis. However, high gamma ray readings indicate source rock with elevated organic content. Coal samples from the Nordmela and Snadd formations show very high TOC concentrations >50 wt% and together with elevated HI of 230 – 340 mg HC/g TOC, they have potential for gas and possibly some oil.

Sandstones in the primary target, in the Realgrunnen Subgroup, was encountered at 576.5 m. The reservoir proved to be hydrocarbon bearing, with a 34 m gas column in sandstones of good to moderate reservoir quality in the Stø and Nordmela formations. The gas-water contact is at 612 m. The deeper secondary targets in the Triassic Snadd and Kobbe formations were encountered at 779.5 m and 1168, respectively. Dry gas was found in thin sandstones in the Kobbe Formation with the highest mud gas readings from top Kobbe down to 1226 m. The reservoir quality in Kobbe was poor with only 2.4 m net reservoir.

Evaluation of diagenetic minerals and vitrinite reflectance indicate erosion and uplift in the area in the range 1.2 to 2.2 km. The well was almost devoid of oil shows. Only very weak shows were described in one spot sample from 584.5 m in the uppermost Nordmela Formation and from ditch cuttings in the interval 1293 – 1317 m MD in the Kobbe Formation.

One core was cut from 583.7 to 628.8 m in the Nordmela Formation with 99.3% recovery. MDT fluid samples were taken in the Nordmela Formation at 588.8 m (gas), 611.0 m (gas), and 616.5 m (water). MDT sampling was attempted also in the Snadd and Kobbe formations, but no sample was acquired.

The well was permanently abandoned on 1 September 2017 as a gas discovery.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7435/12-1