

WELLFILE

STRATIGRAPHICAL AND RESERVOIR CONCLUSIONS

ON THE SECTION DRILLED IN WELL NJØRD

10/8-1x

Based on paleontological, palynological, studies and electrical correlations with 9/12 well the final stratigraphical breakdown of the well is as follows.

- 105 (sea floor to 569 m) : Quaternary - Pliocene
Sand and gravels with dark shale intercalations and shell debris - glauconite.
- 569 - 728 m : Paleocene - Eocene
Sandstones, beige, fine, carbonated - Intercalations of chalky sandy limestones.
- 728 - 836 m : Danian
Chalk limestone packstone to wackstone cherty sometimes silicified.
- 837 - 1173 m : Upper - Cretaceous
Cenomanian - Maestrichtian
Chalk limestone (mudstone to wackstone) white cherty, glauconitic - Interbeds of green and brown marls at the base.
- 1173 - 1368 m : Lower Cretaceous
Valanginian - Albian
Shale : dark grey, silty, intercalations of brown and green marls and stringers of buff pyritic dolomite.
- 1368 - 1504 m : Jurassic
Oxfordian - Kimmeridgian
Silty shale, brown to black, pyritic.
- 1504 - 1567 m : Jurassic (middle)
Sand medium to coarse.
- 1567 - 2825 m : Triassic ? (Barren)
Sandstones : medium to coarse, subangular to subrounded, with silty-sandy shale interbeds some quartzitic levels and volcanic debris, the base of the sequence below 2750 m is more clayish.
- 2825 - 2861 m : Zechstein
Anhydrite, halite and potash salt - this salt is dated zechstein by palynology (further no potash salts are known in Triassic salt beds that exist only in the deepest part of triassic basins).

The lack of structuration below the Zechstein salt was an imperative reason to end the well in this formation.

Reservoir conclusions

This well has not given petroleum results, as unfortunately the reservoir encountered at depths and with thicknesses according to the prognosis, are water wet, with relatively low salinity water (45.000 ppm NaCl equivalent). Average porosity is 22 % in the jurassic sandstone with a reservoir thickness of 67 m. Porosities are comprised between 18 and 12 % in the triassic sandstones above 2140 m, dropping to 8 - 10 % below that depth, reservoir thickness averages 950 m in the Triassic section.

No shows were recorded in that well, but very small traces of C1 and C2 at the base of the chalk section.