mental loads are significant. The optimum position and the dynamically computed operational limits used for position advice are shown in Fig.8.

Future applications of the Riser Management System

With the current trends in the industry, operations are becoming more and more challenging, introducing heavier equipment, deeper waters and harsher environments. At the same time the average level of experience of offshore operators is dropping. This emphasizes the need for operational tools for decision support in operations, such as the RMS, for ensuring save and optimal drilling operations in the future.

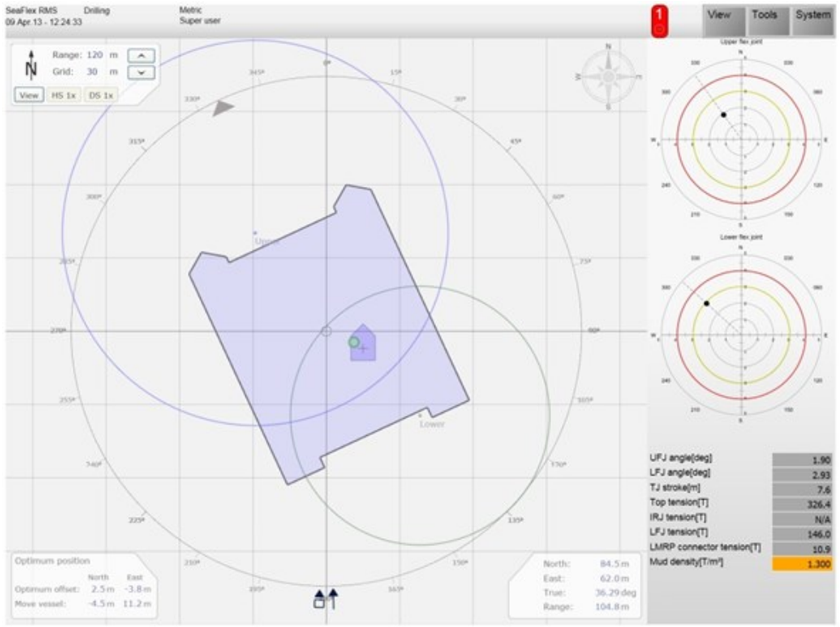

Fig.8 The optimum position advice is the most important system feature. Following the optimum position advice may increase the operation window

Insight into Upper Triassic depositional environments and stratigraphy from the Svalbard Archipelago, inferred from palynology, sedimentary organic matter and geochemistry

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Insight into Upper Triassic depositional environments and stratigraphy from the Svalbard Archipelago, inferred from palynology, sedimentary organic matter and geochemistry.

The Barents Sea and Svalbard Archipelago are increasingly the focus of academic research. This is primarily related to the regions hydrocarbon prospectivity and the UNIS CO_2 storage project in Spitsbergen.

Outcrop samples from Juvdalskampen and Botneheia sections from central Spitsbergen are used to reconstruct the depositional environment and to correlate the Triassic Kapp Toscana Group with the regional stratigraphic frame. This is approached by an integrated sedimentary organic matter and bio- and bulk carbon isotope stratigraphic study. The interval studied is the lateral equivalent of the Snadd Formation in the Barents Sea. These formations consist of alternating mudstone and sandstone sequences with an overall increase in sandstone from the base to the top.

Previous studies described that the Svalbard Archipelago was located at the northern rim of the supercontinent Pangaea in a shallow shelf setting at the time of deposition about 220 Ma ago. Over time progradation of deltas converted the shallow marine environment into a paralic setting with deposition of terrestrial sediments.

In this study a total of 60 samples were evaluated. The organic matter was mounted on microscope slides and carbon isotope values were measured for intersection correlation.

The top of the Botneheia Formation contains increased amorphous organic matter and palynomorphs indicative for a restricted environment. Above, the Tschermakfjellet Formation is dominated by terrestrial organic matter, with occasional marine forms therefore presumably deposited in a prodelta setting.

The overlying De Geerdalen Formation is dominated by degraded plant debris and wood particles and towards the top of the formation the amount of freshwater forms increases. Together with superabundance of certain spores taxa and thin coal seams results in this being indicative of a terrestrial humid swamp setting. Finally, the Knorringfjellet Formation is characterized by an increase in marine palynomorphs. This indicates a transgression and shift back to shallow marine shelf conditions as part of a new depositional cycle.

The interval is subdivided into five biostratigraphic zones. Each zone is characterized by distinct assemblages of palynomorphs which can be used for correlation, plus integrated with regional palynomorph schemes. Bulk carbon isotope values then also allow independent correlation. The results indicate a Carnian age for the whole succession. In more detail, the Tschermakfjellet Formation is of Julian 1/I age and the De Geerdalen Formation of Julian 1/II to Julian 2 age.

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Mueller, S., Veld, H., Nagy, J. & Kürschner, W.M., 2014. Depositional history of the Upper Triassic Kapp Toscana Group on Svalbard, Norway, inferred from palynofacies analysis and organic geochemistry. Sedimentary Geology 310, 16-29. DOI: 10.1016/j.sedgeo.2014.06.003

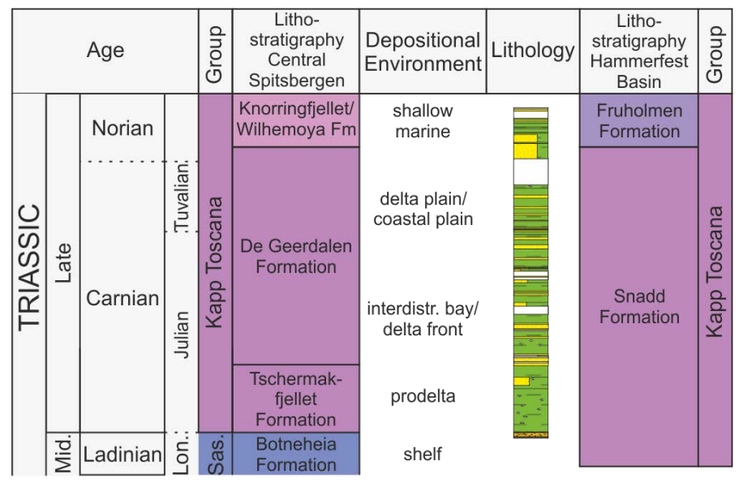

Fig.1: Summary of depositional environments and regional stratigraphy of the Kapp Toscana Group from central Spitsbergen