



Maps of paleogeography and potential field data reveal the geological evolution of the Barents Barents and Kara Seas hydrocarbon provinces

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The Russian and Norwegian Geological Surveys (VSEGEI and NGU) currently integrate with support from Statoil, the Norwegian Petroleum Directorate and the Norwegian Research Council, the present knowledge from the Eastern and Western Barents Sea and Kara Sea region, to unveil the "Geological evolution of the Norwegian and Western Russian Arctic Basins". The compilation crosses traditional exploration boundaries, as recent studies suggest changes in the basin characteristics from the Western Barents Sea to the Eastern Barents Sea, with changes in the lithospheric mantle

Insights into the tectonic differences within the Barents Sea and between the Kara Sea and Pechora Basin can only be gained by integrating the present knowledge from the Eastern and Western Arctic basins available from the project partners.

A first compilation of the potential field data available at the project partners provides a new fundament to constrain the basin architecture and crustal pattern of the region. Especially interesting new insights can be gained into the transition zone between the Eastern and Western Barents Sea, which finds its expression in basin geometry as well as in crustal and upper mantle properties.

A good understanding of the basin evolution and the paleogeographic settings is needed to define successful exploration models and hydrocarbon plays. In order to improve the knowledge of the spatial distribution of source and reservoir rocks (including

provenance areas) we compile a series of paleogeographic maps from selected time slices spanning the Early Silurian to the Eocene time interval. The first compilation of Kazanian and Middle Volgian paleogeographic maps, shows already the potential to predict the distribution and understand the formation of the main depocenters and intrinsic sedimentary facies.