

Petroleum potential in the northern Norwegian Barents Sea

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In May 2017, the Norwegian Petroleum Directorate (NPD) published a report titled “Geological assessment of petroleum resources in eastern parts of Barents Sea north 2017”. According to new calculations presented in the report, the undiscovered oil and gas resources in the whole Norwegian Barents Sea are now twice as large as previously assumed, but the northern Barents Sea has not been opened for petroleum activity. The work was based primarily on 2D-seismic data, shallow stratigraphic boreholes and fieldwork on Svalbard. During 2012-2017 the NPD acquired almost 40 000 km of new 2D-seismic data in the northern Barents Sea, primarily in the eastern part. In addition NPD has more than 70 000 km of older 2D-seismic data in the area from the 70’s, 80’s and 90’s. In order to age constrain specific seismic reflectors NPD has drilled and cored more than 30 shallow stratigraphic boreholes in the northern Barents Sea, the newest ones in 2015. These boreholes have greatly contributed to increased understanding of the regional geological development. The geological mapping shows that the potential exists for a number of very large geological structures which are prominent at several geological levels, and hence the area has possible petroleum accumulations of considerable size. Given the current knowledge, the main conclusions are that the northern Barents Sea has a substantial upside in terms of resources and value.