In-person Seminar @NPD: Faults from seismic interpretation to geomodel and flow simulator - The Norwegian Petroleum Directorate

Abstract:

The DynaGeo multidisciplinary dashboard: Integrating Fault communication and tracer information

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Digitalization and uploading of different datatypes to the cloud opens for easier access to multitype data. In Equinor we are building a platform where we aim to co-visualize and co-analysis multitype data aiming to improve understanding of subsurface geology and production /injection behavior based on the integration of static and dynamic data. In the future we should be able to cross-plot static fault seal predictions against observed and modelled pressure differences, tracer observations and 4D anomalies. By making all data easily available to all disciplines the idea is that we can improve our understanding, our cross-discipline communication and give better input to our simulation models, potentially reduce uncertainty and increase understanding of well behavior and well placement for optimal injection, drainage or CO2 storage.

One of our key test datasets are from the Heidrun Field. In this presentation the value of covisualization of tracer observations together with fault juxtaposition and fault seal maps generated in FaultRoom (Equinor/NR developed plugin to RMS) will be demonstrated.

With the static predictions and the dynamic data on the same platform we should be able to, in the future, cross plot predicted fault seal against observed and modelled pressure differences, tracer break through times and thus improve our understanding of the connectivity in the reservoir and improve our reservoir models and well placements.