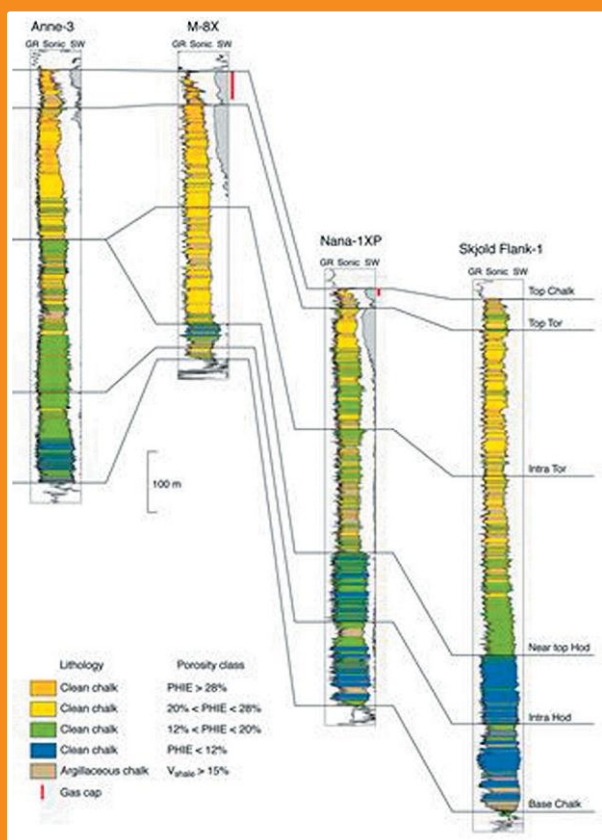


The Cretaceous Petroleum System in the Danish Central Graben

CRETSYS

Key aspects of the Cretaceous prospectivity are still to be developed due to the stratigraphic and structural complexity of the Cretaceous sedimentary system – Intra-chalk plays, Lower Cretaceous chinks, migration traps, redeposited chalk reservoirs, siliciclastic plays

Seismic-stratigraphic interpretation typically at field or local/semi-regional scale – lack a consistent regional framework with the integration of seismic, stratigraphic/biostratigraphic and petrophysical data

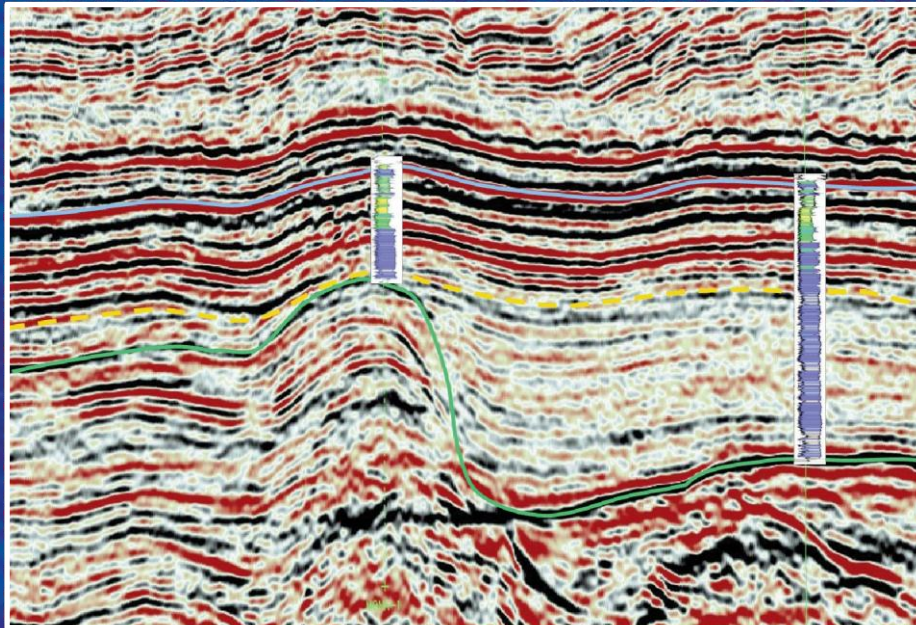


With PETSYS as inspiration and model - time is ripe to undertake a re-assessment of the Cretaceous of the DCG - moving from local (field) and semi-regional (license) scale to the scale of the petroleum system. In creating a consistent regional seismo-stratigraphic framework, develop a better understanding of basin evolution – and hence the spatial and stratigraphic development of reservoirs and migration pathways

Aims

- Establish a consistent seismic-stratigraphic framework for the Cretaceous and Danian in the Danish Central Graben
- Provide an overview of reservoir characteristics, i.e. porosity, permeability, sedimentology of both the Upper and Lower Cretaceous chalk and the Lower Cretaceous siliciclastic-dominated sediments
- Outline the regional variation of migration fairways from the Jurassic source rocks into the Cretaceous
- Present a synthesis of the Cretaceous prospectivity and hydrocarbon plays

Mona–Karl profile with GR/DT overlay

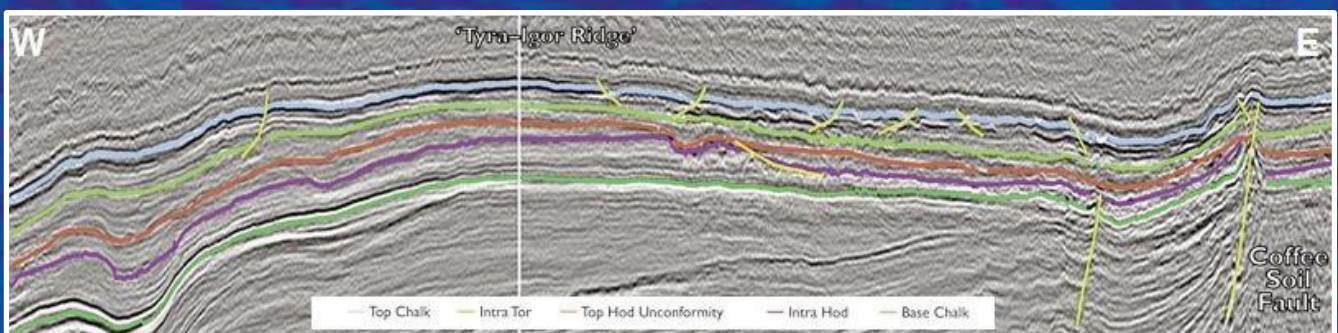


Study activities

- Compile GEUS data and published information (bibliography) to Web-GIS
- Stratigraphic framework, regional stratigraphic architecture and depositional setting
- Reservoir properties
- 3D seismic based interpretation and mapping of both the Lower and the Upper Cretaceous deposits to define basin development
- Seismic porosity prediction
- Modelling of trap filling
- Synthesis of activities 2-6

Deliverables, timing and economy

- The study is proposed to be a 3 year project carried out through collaboration agreements between GEUS and participating Oil Companies
- Throughout the project period results as described under deliverables will be made accessible to participating Companies through a restricted web-site and discussed during biannual workshops
- Status reports and the final synthesis will be delivered as PowerPoint presentations and will include documentation, technical summary notes and relevant figures



More information

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