

Monday, May 24, 2010

Joint HGS North American and International Dinner Meeting

Westchase Hilton • 9999 Westheimer
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$28 Preregistered members; \$35 non-members & walk-ups

To guarantee a seat, you must pre-register on the HGS website and pre-pay with a credit card.

Pre-registration without payment will not be accepted.

You may still walk up and pay at the door, if extra seats are available.

Charles T. Feazel
Subsurface Technology,
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Currently: Feazel
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North Sea Chalk: 40 Years of Production at Ekofisk Field From a Rock Some Said Would Never Flow Oil

Chalk is deposited by pelagic settling of algal and foraminiferal skeletons which are subsequently modified by re-sedimentation in slumps, debris flows, and turbidites. Chalk is an improbable reservoir rock characterized by high porosity (25-45%) but low matrix permeability (typically < 1mD). Effective permeability due to fractures contributes significantly to flow.

Ekofisk, a world-class giant oil and gas field in the Norwegian North Sea, is approaching 40 years of production from the chalk



and has many years of economic life remaining. Technological advances – including 3D and 4D seismic, the world's largest offshore waterflood, monitoring and mitigating reservoir compaction and sea-floor subsidence, and creative design and

geosteering of long-reach and multi-lateral wells – have extended field life, increased ultimate recovery, and restored daily production to rates not seen since the 1970s.

Ongoing studies by the license partners facilitate effective management of the chalk reservoir and aid in planning new wells in a field containing greater than 300 existing wellbores, over 400 mapped faults, an expanding waterflood, a dynamically deforming overburden, and a challenging matrix which many geoscientists and engineers initially dismissed as non-productive. ■

Biographical Sketch

CHIP FEAZEL is a senior scientist in the Subsurface Technology group at ConocoPhillips. In 34 years with the company he has had research and management assignments in Oklahoma, Texas, and Norway. He earned a BA in geology from Ohio Wesleyan University, and MA and PhD degrees from Johns Hopkins. His specialties include carbonate



sedimentology, reservoir description, field development, and a wide spectrum of reservoir characterization from depositional facies to flow units. He has experience in numerous geological settings, including the Nevada desert, various Caribbean islands, Greenland, the Beaufort Sea, the North Sea, Alaska, the Gulf of Mexico, the US Midcontinent, the Mid-Atlantic Ridge, the Caspian Sea, and the Middle East.

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