



SOCIETY OF PETROLEUM ENGINEERS

SPE NEWS

COPENHAGEN SECTION

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High HIGH ACTIVITY IN THE OIL AND GAS INDUSTRY

The SPE season was kicked off last month by Welltec who had organized a presentation on well intervention technologies – partly based on their tractor. The talk was very insightful and I have already heard several colleagues referring to the presentation in our daily work. I want to thank Welltec for organizing and hosting the event which was followed by an excellent dinner.

I'm sure that our next presentation also will be discussed by many, because it is one of the topics that keeps on gaining momentum these days: George Stosur will discuss the growing demand for oil and gas and the related global warming issues. The potential enhanced oil recovery projects that could be associated with CO₂ sequestration in oil and gas fields; the link to temperature oscillations in geological times and the

fact that Copenhagen will host the next conference on climate change provide plenty ingredients for an interesting evening. The presentation is at Hotel Adina on October 23rd.

In this issue of the Newsletter, you will find a story provided by Chevron on one of their international activities with interesting Danish links. On the Atlantic Margin between Shetland and the Faroe Islands they plan to use a new generation drillship designed to operate in that environment. DONG Energy is one of the partners in that project. We also have a story on the Maersk Oil summer school conducted in cooperation with Aalborg University where 34 students were taught some thermodynamics, asked to design a platform and sent offshore in a helicopter. Lastly, it is time to apply for the SPE Copenhagen Student Scholarship which is given to students with an excellent academic track record that study oil and gas related topics. If you read how to apply inside the Newsletter you will find that there also is another scholarship to apply for.

Per Bak
Section Chairman

FUTURE MEETINGS
FOR MORE INFORMATION
REGARDING THE PROGRAMME
SEE PAGES 4-5

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A STORY FROM THIS MONTHS MEETING SPONSOR

Chevron in the UK Atlantic Margin

The UK Atlantic Margin is a large area of the UK Continental Shelf lying to the north and west of Scotland and includes the region known as West of Shetland whose main feature is the deep Faroe-Shetland Channel separating Scotland from the Faroe Islands. Since 2003, Chevron has been evaluating these Quadrant 213 prospects including seismic surveys, detailed seabed biological surveys to examine the sensitivities of the marine environment, an exploratory well drilled in 2004 resulting in the Rosebank/Lochnagar discovery, and a three well appraisal drilling programme in 2006/2007. With the results so far encouraging, we are now planning to evaluate these potential resources further in a phased programme designed to maximise the information gathered in a safe, environmentally sensitive and cost-effective way.



Over the next three years, Chevron, in association with Rosebank Joint Venture partners (Statoil UK Limited, OMV (UK) Limited and DONG E&P (UK) Limited) hopes to complete a phased programme of exploratory and appraisal drilling commencing October 2008.

The operation will be carried out using a new generation drillship, fully certified for operations in this challenging environment. This drillship, the Stena Carron, will be equipped with the very latest technology in dynamic positioning systems to maintain itself on station while drilling and is designed to ensure that no discharges to sea exceed environmental limits under normal operations. The vessel has dedicated waste management facilities and a plan will be in place to reduce the amount of waste produced during operations.

Working with enterprises such as the British Geological Survey, the National Oceanographic Centre at Southampton, Geolab Nor and TNO Environmental and Geosciences, Chevron has gained an appreciation of the physical, chemical and biological characteristics of this part of the seabed in this part of north east Atlantic. This information will allow us to assess better the potential environmental risks and to fine-tune our environmental management plans accordingly.



Scholarship The SPE Copenhagen Section Student Scholarship

The SPE Copenhagen Section Student Scholarship can be applied for once a year by students working with petroleum engineering or closely related topics. The total amount that can be applied for is 12,000 DKK.

The scholarship can be applied for by filling in the application form, which can be downloaded from the website www.spe-cph.dk. The application form should be returned to the secretary of the SPE by 31st December 2008.

Copenhagen Section:
Gerwyn Williams, Chevron Denmark Inc.
Parken, Øster Allé 48, 2100 Copenhagen Ø

The letter should be marked:
SPE Student Scholarship.
The application should be
returned no later than 31st
December 2008.



Summer School Petroleum engineering taught by university and industry – The Maersk Oil Summer School

For any coming engineer, it is a grand experience to see theory, learnt in the class room applied in practice. Therefore it was with great joy that nine DTU students together with 25 other students from different countries attended Maersk Oil Summer School at Aalborg University in Esbjerg in the middle of August 2008. This two week course was a joint venture project by Maersk Oil and Aalborg University Esbjerg with the aim of spreading awareness of the oil and gas industry. The course structure was a series of lectures given by several Maersk Oil employees on various parts of the oil and gas industry. To further understand the applications carried out by Maersk Oil, professors from Aalborg University Esbjerg taught on various thermodynamic aspects and controlling. Moreover, the students carried out a project of designing an offshore platform, resulting in a report and a presentation. Every day was a full work day of

lectures and excursions to various locations of Maersk Oil to see the actual facilities and instruments used by the company. The highlight of the two weeks was the visit to an offshore platform, which was reached by helicopter.

It was an extraordinary two weeks of experience with a broad and at the same time thorough study of the petroleum industry. The lecturers were very knowledgeable and dedicated, which made the course an intense joyful event to participate in.

Casper Eastgate
Master Student
Petroleum Engineering, DTU

Nico van Wingen – Nico van Wingen Memorial Graduate Fellowship

The Nico van Wingen Memorial Graduate Fellowship in Petroleum Engineering is supported by the van Wingen fund of the SPE Foundation. Up to two awards will be given in the amount of US \$5,000 each per year. Eligible students must be members of an official SPE Student Chapter and must be at the Ph.D. level intending to pursue careers in academia.

Further details can be found on the SPE Copenhagen Section homepage www.spe-cph.dk where you may also download the application form.

**14th SPE ICoTA European
Well Intervention Round Table**
Well intervention: the future of the North Sea
18 & 19 November 2008 Aberdeen

September 18	MAIN SPEAKER	AFTER DINNER
TOPIC	Intervention Strategies for Production Enhancement	
SPEAKER	John Haukvik	
LOCATION	Welltec, Gydevang 25, 3450 Allerød	
SPONSOR	Welltec	
October 23	MAIN SPEAKER	AFTER DINNER
TOPIC	The Growing Demand for Oil and Natural Gas and the Related Global Warming Issues	
SPEAKER	SPE-DL George J Stosur	
LOCATION	Hotel Adina, Amerika Plads 7, 2100 København Ø	
SPONSOR	Chevron	
December 4	MAIN SPEAKER	DINNER SPEAKER
TOPIC	Hydrocarbon potential in East Greenland	East Greenland
SPEAKER	Jørgen Bojesen-Koefoed, Flemming Getreuer Christiansen	
LOCATION	GEUS, Øster Voldgade 10, 1350 København K	
SPONSOR	GEUS	
January 13	MAIN SPEAKER	DINNER SPEAKER
TOPIC	Hejre development – Uncertainty analysis using experimental design techniques	
SPEAKER	Jesper Werner Christensen	
LOCATION	DONG E&P, Agern Allé 24-26, 2970 Hørsholm	
SPONSOR	DONG Energy	
February 11	MAIN SPEAKER	DINNER SPEAKER / DISCUSSION
TOPIC	LNG – Roaring Ahead – Where Will it End?	
SPEAKER	SPE-DL John Morgan, John M. Campbell & Company	
LOCATION	Moltkes Palæ, Dronningens Tværgade 2 , 1302 København K	
SPONSOR	Shell E & P	
March 10	MAIN SPEAKER	DINNER SPEAKER
TOPIC	Mature Fields: Keep Revisiting the Fundamentals New Technology	Chevron: The ultrasound Well Scanner
SPEAKER	SPE-DL Dr. Neil Williams, Oil Search Limited - Tecwel, Chris Nussbaum	
LOCATION	Moltkes Palæ, Dronningens Tværgade 2 , 1302 København K	
SPONSOR	HESS	
April 16	MAIN SPEAKER	DINNER SPEAKER
TOPIC	Gas hydrates in flow assurance: Controlling hydrates at arctic conditions and evaluation of new green inhibitors	“Opal not only for fun” by Ida L. Fabricius
SPEAKER	Nicolas von Solms & Lars Jensen	
LOCATION		
SPONSOR	DTU	
May 19	MAIN SPEAKER	ANNUAL MEETING
TOPIC	Halfdan Northeast: Development of tight gas with dual lateral wells	
SPEAKER		
LOCATION	Mærsk Olie og Gas AS, Esplanaden 50, 1263 København K	
SPONSOR	Mærsk Olie og Gas AS	
June 19	MAIN SPEAKER	DINNER SPEAKER
TOPIC	Summer party	
SPEAKER		
LOCATION		
SPONSOR	Schlumberger	

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Distinguished Lecturer 2008-09 Season

THE GROWING DEMAND FOR OIL AND NATURAL GAS AND THE RELATED GLOBAL WARMING ISSUES

Abstract ABSTRACT

World economies, particularly the transportation sector, run on oil. No other energy source comes close to matching the efficiency, economy and convenience of petroleum-derived fuels. The brightest minds agree (sometimes grudgingly) that both demand and supply for oil will continue to increase for the foreseeable future. Long-term projections (e.g. USGS, IEA, EIA), show the world's light oil production peaking in two decades. But, the world has much more unconventional than conventional hydrocarbon resources in the form of heavy oil, tar sands, oil shale, coal-bed methane, gas in ultra-tight formations and natural gas hydrates. Some of these are already commercial, while others may never reach that status. A few will enjoy an explosion of activity in mid-21st century, when conventional oil production declines, demand for liquid hydrocarbons continues unabated and oil price levels can support alternative recovery schemes.

The world is endowed with huge resources of heavy oil and tar sands. Immeasurable quantities of natural gas are locked in very tight formations, coalbeds, and particularly in the currently inaccessible natural gas hydrates. Some of today's uneconomic processes will become a staple of tomorrow's world economy.

Discussion will include promising new technologies such as direct conversion of (stranded) natural gas to transportation fuels and easy shipment from remote locations to markets. LNG is already hot, with \$28-30 billion in LNG projects currently under construction and 54 new tankers on order, some much larger than the old variety. An exciting long-range possibility (speculation?) is the production of gas from natural gas hydrates – an enormous resource that far exceeds that of conventional natural gas. Extra heavy oil (Orimulsion) already competes with coal for electric power generation.

The only counterpoint to this seemingly optimistic scenario is the ever-increasing public concern about the environment and the perceived issue of global climate change from carbon dioxide emissions. Technical, economic and political impediments may all be equally intractable.

The presentation includes discussion of sustainable issues affecting the oil industry, such as activities that involve sequestration of greenhouse gases in depleted reservoirs (often with oil or gas production as a byproduct). The global warming issue is briefly illuminated with historical background of Earth's many interglacial episodes and sharp temperature oscillations.



Biography BIOGRAPHY

Dr. Stosur managed the upstream oil and gas R&D program at the U.S. Department of Energy in Washington, D.C. He was responsible for DOE-sponsored research conducted at several universities, National Laboratories, the National Petroleum Technology Office, several joint research projects with other countries and a program with the International Energy Agency.

His private sector experiences include Chevron and Shell Oil Companies. There, he focused on petrophysics, R&D of EOR processes, heavy oil production problems and gas production from ultra-low permeability formations. George served as an SPE Section Director, three-times SPE Distinguished Lecturer and currently serves as a guest speaker for several cruise lines. He authored 86 papers and two textbook chapters on oil recovery. He holds two M.S. degrees and a Ph.D. in petroleum engineering.

Although the examples and trends are mainly from the Norwegian sector there are certainly similarities to other offshore locations.

COPENHAGEN
OCTOBER
MEETING
THURSDAY 23 OCTOBER 2008

PROGRAMME

17:00 – 18:00
Drinks

18:00 – 19:00
Presentation and SPE news

19:00
Dinner

LOCATION

Hotel Adina
Amerika Plads 7
2100 København Ø

MAIN SPEAKER

SPE Distinguished Lecturer
George J Stosur

TOPIC

The Growing Demand for Oil and Gas and the Related Global Warming Issues

ENTRANCE FEE

None

REGISTRATION

Please indicate your attendance by 17 October by signing up on the internet: www.spe-cph.dk

SPONSOR

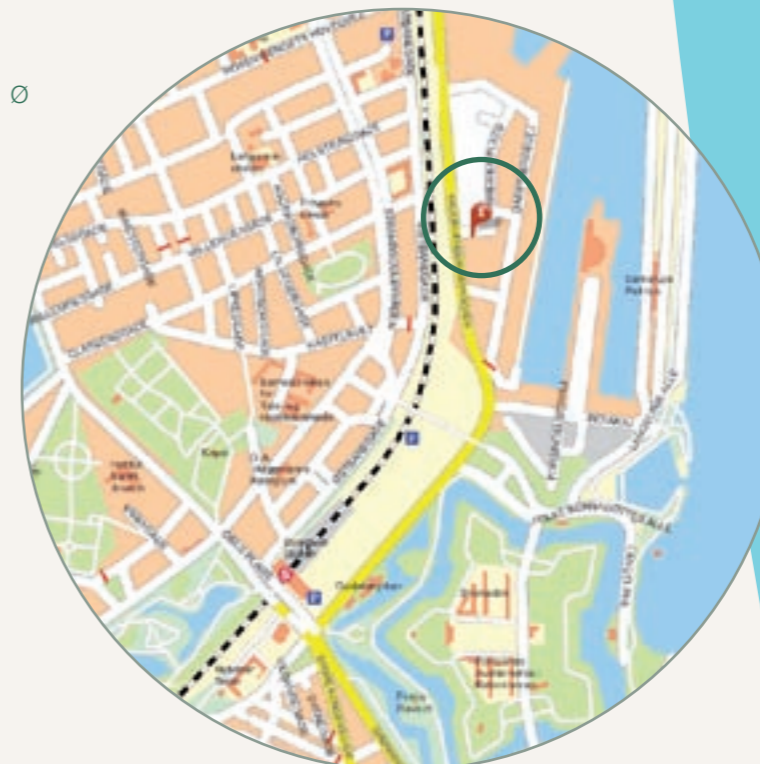


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www.spe.org

COPENHAGEN, OCTOBER MEETING:

Hotel Adina
Amerika Plads 7
2100 København Ø



Precision Robotics

The value-creating solutions provided by down hole precision robotics enable operators to minimize production losses and quickly get wells back on production.

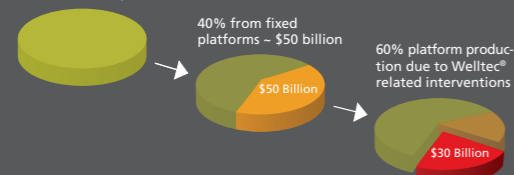
Returns on Investment

A major North Sea operator has estimated that they save 50% on their interventions when they apply Welltec's innovative services instead of conventional methods. More to the point, they recognized billions of dollars in value-creation as illustrated by the graphics to the right.

Down Hole Precision Robotics

Generates multi-billion dollar value-creation

Estimated total revenue base for 2008 – \$125 billion



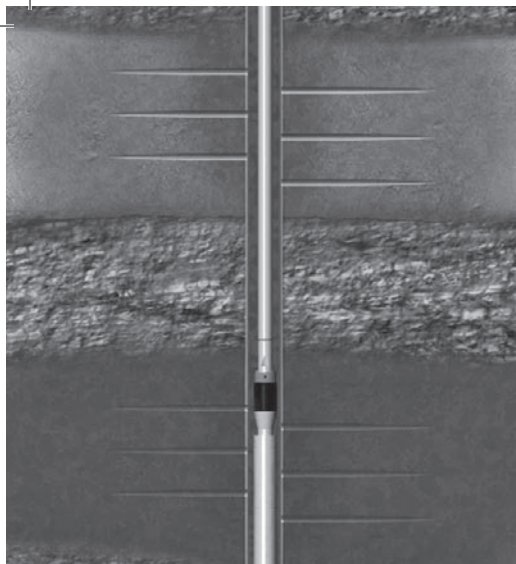
Based on estimated revenue for major North Sea operator

This is Noreco

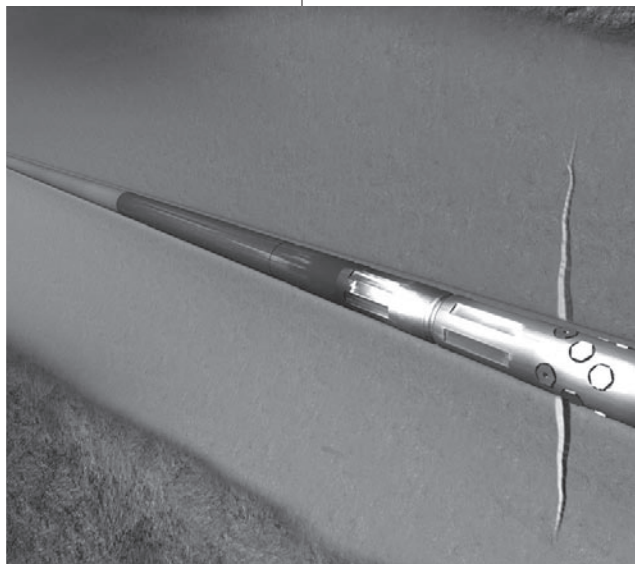
Noreco is a fast growing Norwegian, independent oil and gas company. The company's focus is to explore, develop and produce oil and gas in the North Sea. Since its start in 2005, the company has grown rapidly through license rounds and acquisitions. Noreco operates in Norway, Denmark and United Kingdom, and employs 70 oil and gas professionals. Noreco is listed on the Oslo Børs under ticker NOR.

NORECO

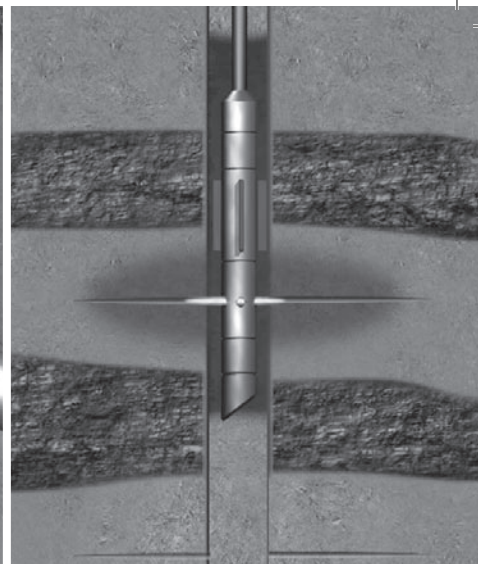
Norwegian Energy Company ASA
Haakon VII's gt. 8, P.O. Box 550 Sentrum, 4005 Stavanger, Norway
Kongevejen 100C, DK-2840 Holte, Denmark www.noreco.com



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