Volume Number February 2016

64

36



SOCIETY OF PETROLEUM FNGINFFRS COPENHAGEN SECTION

CONTENT

PAGE

- The Value of Assessing Uncertainty (What You Don't Know Can Hurt You)
- **SPE Student News** 6
- **DONG Energy** in the West of Shetland

WELCOME TO 2016 AND THE SECOND HALF OF OUR SEASON

We have already begun the year by welcoming Mary Van Domelen back to Copenhagen in a professional context. For the one hundred plus of you who braved the subzero temperatures and icy roads to venture out to GEUS, you were rewarded with a very informative presentation looking at the progressions in long horizontal wells and the completion of them.

Hopefully you have managed to evaluate our first distinguished lecturer of the year online to ensure we keep getting interesting and quality speakers. If you have not yet done so I would urge you to by visiting http://www.spe.org/dl/contest.php . Not only will you be ensuring that the interest and quality of the speakers is maintained but you also help the Section to win a financial award and for the winning distinguished lecturer to be invited to an SPE conference and deliver their presentation.

> The role of the SPE is becoming increasingly more important as these times of uncertainty and change

continue. SPE is an independent organization that ensures technical learnings are shared, offers guidance and sets standards as well as offering access to an unparalleled global technical community and network. For those of you who are not aware, the SPE Esbjerg section has been born and kicked off its inaugural event at the start of February. We are excited that the expanding technical community in Esbjerg will have their own SPE section and look forward to seeing it evolve and expand.

Our next event is on 18th February in the Carlsberg Hall of Parken Stadium. Here Chevron will host our third distinguished lecturer of the season, Duane McVay from Texas A&M. Mr. McVay will be talking about "the value of assessing uncertainty" which is very relevant for these very uncertain times.

I look forward to seeing you all at the upcoming events and wish you all a safe and successful 2016.

Anders Krag Norman, **SPE Copenhagen Section Chairman**

FUTURE MEETINGS

FOR MORE INFORMATION REGARDING THE PROGRAMME SEE PAGE 4

ABSTRACT COPENHAGEN SECTION THE BOARD - 2015-2016 SEASON THE VALUI

SECTION CHAIRMAN Anders Krag Norman, HESS Corp. Østergade 26B, 1100 Copenhagen K Tel.: +45 3330 1216 · E-mail: anorman@hess.com

PROGRAMME CHAIRMAN Jonathan Hastings, Maersk Oil and Gas AS Esplanaden 50, 1263 Copenhagen K Tel.: + 45 3363 3731 E-mail: jonathan.hastings@maerskoil.com

NEWSLETTER CHAIRMAN Miriam Lykke, Shell Olie & Gasudvinding B.V. Midtermolen 3, 4., 2100 København Ø E-mail: Miriam.Lykke@shell.com

MEMBERSHIP CHAIRMAN Carsten Møller Nielsen, GEUS Øster Voldgade 10, 1350 Copenhagen K Tel.:+45 9133 3761 · E-mail: cmn@geus.dk

TREASURER AND WEB MASTER David Harrison, Schlumberger Kanalholmen 1,1, 2650 Hvidovre Tel.: +45 22414100 · E-mail: Harrison@slb.com

SPE STUDENT REP Farhad Varzandeh, DTU CERE DTU Chemistry, Building 206, Room 247, 2800 Kgs. Lyngby Tel.: +45 4525 2034 · E-mail: farvar@kemi.dtu.dk

SECRETARY Claus Myllerup, Centre for Oil and Gas – DTU Elektrovej, Building 375, 2800 Kgs. Lyngby Tel.: +45 4525 7226 · E-mail: cmyl@dtu.dk

SPE YOUNG PROFESSIONALS REP. Mette Juncker Hansen, Schlumberger Kanalholmen 1,1, 2650 Hvidovre Tel.: +45 60350711 · E-mail: mhansen4@slb.com

MEMBERS

Hans Horikx, Maersk Oil and Gas AS Esplanaden 50, 1263 Copenhagen K Tel.: + 45 3363 1735 e-mail: johannes.horikx@maerskoil.com

Alexander Shapiro, DTU CERE Tel.: +45 4525 2881 · e-mail: ash@kt.dtu.dk

Hans Plessing, Welltec Gydevang 25, 3450 Allerød Tel.: +45 4814 3514 · e-mail: hplessing@welltec.com

Jennifer McBeath, Chevron Denmark Parken, Øster Allé 48, DK-2100 Copenhagen Ø Tel.: +45 7021 8400

e-mail: Jennifer.McBeath@chevron.com Gregers Kudsk, Maersk Drilling

Esplanaden 50, 1098 Copenhagen (Visiting adresse:Gl. Lundtoftevej 7, 2800 Kgs Lyngby) Phone +45 3363 3250 / Mobile +45 40133260 e-mail: gregers.kudsk@maerskdrilling.com

Lars Gammelgaard, DONG Energy Oil & Gas A/S Nesa Allé 1, 2820 Gentofte e-mail: larga@dongenergy.dk

Pernille Silberg, DONG Energy Oil & Gas A/S Nesa Allé 1, 2820 Gentofte

Tel.: +45 9955 5945 · e-mail: persi@dongenergy.dk Kitt Anita Ravnkilde, The Danish Hydrocarbon Research and Technology Centre

Elektrovej, Building 375, room 020, 2800 Kgs. Lyngby e-mail: kittra@dtu.dk

THE VALUE OF ASSESSING UNCERTAINTY (WHAT YOU DON'T KNOW CAN HURT YOU)

The petroleum industry has underperformed for decades because of project evaluation methods that do not fully account for uncertainty. Chronic biases, particularly overconfidence and optimism, persist because there has been little emphasis in petroleum literature on the true cost of underestimating uncertainty and on how to quantify uncertainty reliably.

This presentation will discuss the results of recent work assessing the monetary impact of chronic overconfidence and optimism on portfolio performance. Decision making will be optimal in the long run only when probabilistic forecasts are well calibrated, that is, P10s are true P10s, P90s are true P90s, and so forth. Changing corporate culture to consistently produce well-calibrated probabilistic forecasts will require education on the importance of look backs and calibration, as well as changes in business processes and incentive structures. A reliable assessment of uncertainty may have the potential to significantly improve company and industry financial performance.



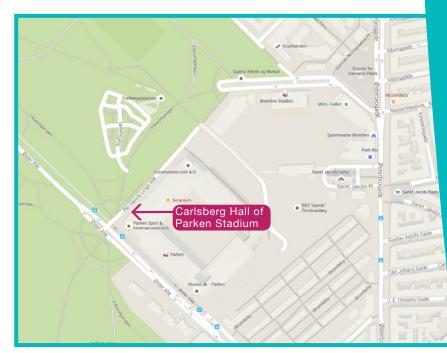
BIOGRAPHY



Duane A. McVay, Department of Petroleum **Engineering at Texas A&M University**

Duane A. McVay is the Rob L. Adams '40 Professor in the Department of Petroleum Engineering at Texas A&M University. His research is focused on the uncertainty quantification for production forecasting and reserves estimation in oil and gas reservoirs. He

joined the university in 1999 after spending 16 years with S.A. Holditch & Associates, a petroleum engineering consulting firm. McVay holds BS, MS, and PhD degrees in petroleum engineering from Texas A&M University. He is a Distinguished Member of SPE.



C O P E N H A G E M E E T I N Ν G THURSDAY 18 FEBRUARY 2016

PROGRAMME

17:00 - 18:00 Drinks

18:00 - 19:00 Presentation and SPE News

19:00 - 21:00 Dinner

LOCATION

Carlsberg Hall of Parken Stadium Per Henrik Lings Allé 2 2100 Copenhagen

SPEAKER

Duane A. McVay, Texas A&M University SPE DL

TOPIC

The Value of Assessing Uncertainty (What You Don't Know Can Hurt You)

ENTRANCE FEE None

REGISTRATION

Please indicate your attendance by Monday 15 February by signing up on the internet http://spe-cph.dk/









50E COPENHAGEN SECTION www.spe-cph.dk www.spe.org

3

September 16	MAIN SPEAKER	AFTER DINNER
ТОРІС	Cement Testing: Are we Looking at the Right Things the Wrong Way?	Culzean Project
SPEAKER	Donald Purvis, Consultant, SPE DL	Morten Stage, Maersk Oil
LOCATION	Maersk	
SPONSOR	Maersk	
October 6	MAIN SPEAKER	AFTER DINNER
ТОРІС	DTU Research Projects	Cross-Institutional Effort on
SPEAKER	Farhad Varzandeh, Alay Arya and Amalia Halim	Oil and Gas Educations
LOCATION	DTU	Martin P. Bendsøe, DTU
SPONSOR	DTU	
November 17	MAIN SPEAKER	AFTER DINNER
ТОРІС	Ormen Lange Development Phase 3; Nyhamna Expansion Project	
SPEAKER	Marianne Jensen Olsnes, Shell	
LOCATION	Charlottehaven	
SPONSOR	Shell	
January 19	MAIN SPEAKER	AFTER DINNER
TOPIC	Bridging the Gap between Drilling and Completions: Challenges and Solutions in Horizontal Wells	
SPEAKER	Mary Van Domelen, Continental Resources]
LOCATION	GEUS	
SPONSOR	GEUS	
February 18	MAIN SPEAKER	AFTER DINNER
TOPIC	The Value of Assessing Uncertainty (What you Don't Know Can Hurt You)	
SPEAKER	Duane McVay, Texas A&M	
LOCATION	Carlsberg Hall of Parken Stadium	
SPONSOR	Chevron	
March 16	MAIN SPEAKER	AFTER DINNER
TOPIC	DONG Energy in the West of Shetlands	
SPEAKER	Mike Smith, DONG Energy Oil & Gas	
LOCATION	DONG, Gentofte]
SPONSOR	DONG	
April	MAIN SPEAKER	AFTER DINNER
ТОРІС		
SPEAKER		1
LOCATION		
SPONSOR		-
May 24	MAIN SPEAKER	AFTER DINNER
ТОРІС	Chemical Water Conformance Treatment on South Arne	Annual General Meeting
SPEAKER	Agustin Riccio Rodriguez	Ĭ
LOCATION	Moltke's Palæ	1
SPONSOR	Hess	1
June	MAIN SPEAKER	AFTER DINNER
	SPE Summer party	
ТОРІС		
TOPIC SPEAKER		











Making the most of natural resources

Maersk Oil has a proven track record of making the impossible possible through deployment of integrated technical solutions and profitable field development.



SPE STUDENT NEWS

GUEST LECTURE BY VURAL SANDER SUICMEZ (SENIOR RESER-VOIRENGINEER, MAERSK OIL)

On November 9, 2015, a brief insight on Gas Injection for Enhanced Oil Recovery was given by Vural Sander Suicmez from maersk Oil. His presentation was majorly based on Gas Injection in Danish North Sea. Initially he explained briefly the concept of PVT simulations and phase behavior of the fluids and then moved on to crucial concepts of Gas Injection, miscibility of gas in light and heavy oil. He ended the presentation with the detailed discussion of various case studies one of them being GOGD in Fractured Chalk.





GUEST LECTURE BY CHRESTEN MEULENGRACHT (PRINCIPAL ECONOMIC CONSULTANT, SCHLUMBERGER)

On November 10, 2015, a detailed discussion was held on the most important topic nowadays "Is there a Future for Oil and Gas?". Chresten touched upon the history of oil prices and major set downs during past years of oil industry. Counter arguments were given by students regarding the current situation of oil and gas industry, which were answered satisfactorily by Chresten. Later on he threw light on the other energy resources and how reliable they are to match the growth and major

transportation systems. The discussion ended with the conclusion that "There is definitely a future for Oil and Gas, we need to be patient and ready for the upcoming advancement challenges". After the presentation, the students enjoyed themselves with drinks and sandwiches.

FIELD TRIP TO STENLILLE GAS STORAGE FACILITIES (ENERGINET)

On November 20, 2015, DTU SPE Student Chapter along with Energinet organized a Field Trip to Stenlille Gas Storage Facilities. Students from different backgrounds showed interests in the field trip. The field

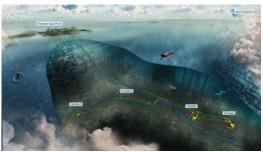
trip included insight about the concept of underground gas storage and taking it back for use whenever required. The program started with the brief concept of gas storage, when and where it started first, essential safety measures and precautions and technology in use. Lunch was provided to the students with the courtesy of Energinet. Further, a field



round of the different wells at different places was organized to have practical insight about the working off gas storage facility. David Sandberg from Energinet was the main coordinator who gave a brief introduction to the whole storage facility, its area and history of the field. Overall it was a very insightful trip as per student's response.

ABSTRACT

DONG ENERGY IN THE WEST OF SHETLANDS



DONG Energy first entered the West of Shetlands in 2000, another period of significantly low commodity prices, when it entered several exploration licenses in the UK and the Faroes. Its first discovery followed the next year, and the company en-

Subsea schematic of the West of Shetland development. (TOTAL E&P UK Ltd, DONG Energy Oil & Gas UK Ltd & SSE E&P UK Ltd)

tered a period of concentrated exploration activity and success. Since 2010, the company has focused on both exploration and development, with the sanction of the Laggan-Tormore project. This year, DONG Energy Oil & Gas UK adds production to the mix.

The presentation will highlight some of the key points of this journey, with a focus on the Laggan-Tormore project. It will also discuss how a company the size of DONG Energy can partner and influence supermajor operators with which it works.

Finally, the presentation will reflect on some of the current challenges that the West of Shetlands face in the current period of significantly low commodity prices, what the industry and government is doing about this, and what insights this may bring to the Danish sector of the North Sea.

BIOGRAPHY



Mike Smith, M.D of DONG Energy Oil & Gas UK

Mike is the M.D of DONG Energy Oil & Gas UK. He has been with DONG Energy since 2007 and has helped to grow the UK business from a starting point of a handful of people.

Mike training as a Geologist, before getting an M.B.A., and has 25 years' experience in the E&P industry, principally in the North Sea, but also North America and SE Asia.



COPENHAGEN⁷ MEETING wednesday 16 march 2016

PROGRAMME 17:00 - 18:00

Drinks

18:00 - 19:00 Presentation and SPE News

19:00 - 21:00 Dinner

LOCATION

DONG Energy Oil & Gas Nesa Allé 1 2820 Gentofte

SPEAKER Mike Smith DONG Energy Oil & Gas

TOPIC DONG Energy in the West of Shetlands

ENTRANCE FEE None

REGISTRATION

Please indicate your attendance by Friday 11 March by signing up on the internet www.spe-cph.dk

SPONSOR

DONG energy



SPE COPENHAGEN SECTION www.spe-cph.dk www.spe.org

CHALLENGING PROJECTS REQUIRE INNOVATIVE SOLUTIONS

MANARA MARCAN

Read more about DONG Energy Oil & Gas at **dongenergy.com**



THANK YOU! 20 YEARS OF PARTNERSHIP & INNOVATION

