Conference venue: Copernicus Science Centre

Copernicus Science Centre has been established to promote modern science communication through interactive exhibitions addressed to different audiences (adults, adolescents and children), shows and workshops on scientific themes, debates and discussions as well as activities from the borderland of science and art. The mission of the Centre is to inspire curiosity, assist in independent discovering of the world, educate and encourage social dialogue on science. It is one of the largest and most modern institutions of this type in Europe. Since the opening in 2010 it is also one of the most popular conference venues in Warsaw.

Copernicus Science Centre hosted the first Shale Science Conference, which took place in Warsaw on 28 – 29 March 2011.

Wybrzeże Kościuszkowskie 20
00-390 Warsaw

Each participant will receive an extensive Monograph of the Shale Science first edition.

Hotel booking

About hotel booking please contact:
contact@shalescience.com

Conference fee

2200 PLN – Regular participants
440 PLN – EGI Consortium Members and University Professors
Free to – Officials and Honored Guests
Free to – Students

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DEVELOPING THE MENTAL PICTURE OF RESERVOIR QUALITY AND COMPLETION QUALITY FOR TIGHT SHALES

SHALE SCIENCE

Shale Science Conference 2nd Edition

16 – 17 May 2012
Copernicus Science Centre, Warsaw, Poland

ORGANIZERS

ORLEN Upstream
EGI Energy & Geoscience Institute AT THE UNIVERSITY OF UTAH
Schlumberger IC Innovation Center

SHALE SCIENCE

DEVELOPING THE MENTAL PICTURE OF RESERVOIR QUALITY AND COMPLETION QUALITY FOR TIGHT SHALES

Production of gas and oil from tight shale formations continues to be of high priority. The First Annual Shale Science Conference, in March 2011, focused on developing a better mental picture of the tight shale rock. The Conference noted the dominant geologic overprint in tight shale plays, including deposition and diagenesis, which promote local changes in rock texture and composition and substantial vertical and lateral variability in mechanical and reservoir properties. This heterogeneity in rock properties affects all aspects of tight shale exploration and production. Tight shales were defined as heterogeneous systems at all scales, containing abundant mineralized fractures and other planes of weakness that facilitate the development of complex fractures.

Furthermore, tight shales have extremely low permeability and low porosity. Thus, economic production from them depends on the creation of extensive surface area by hydraulic fracturing, using adequate volumes of water and proppant and closely-spaced wells. This requirement has led to the current emphasis on increasing lateral lengths, increasing the number of perforation and fracturing stages, and increasing the volume of water and proppants pumped. This trend is likely to be unsustainable. However, there are reasons to expect much improvement. For example, production logs suggest that 15 to 20% of the stages, or 38% of the perforation clusters, do not contribute significantly to well production. The low completion efficiency may be due to heterogeneity in reservoir quality or ineffective completion quality and provides a considerable opportunity for improvement. Similarly, numeric simulations of production per unit surface area, compared to the calculated surface area created during hydraulic fracturing, suggests that as much as 80 to 90% of the created surface area is ineffective for production. This inefficient use of resources provides another opportunity for improvement and cost reduction.

The goal of the 2012 Shale Science Conference is to continue improving the mental picture of tight shale plays. After focusing on the rock, this time we focus on the variability in Reservoir Quality (RQ) and Completion Quality (CQ), to better understand the sources of production inefficiency and to define possible solutions. We believe that solutions to current inefficiencies in completion and production require a better conceptualization of these plays, and developing a better mental picture of thigh shales is a necessary first step.

Conference committee

Roberto Suarez-Rivera – *chair*
Sidney Green
Wiesław Prugar
Raymond Levey

Agenda

16 May

09:00 Opening Introduction and Welcome – *Jacek Krawiec, President of PKN ORLEN*
09:10 Welcome by Hosts
09:20 Session 1: Review of the First Annual Shale Gas Conference – – *Roberto Suarez-Rivera, Schlumberger*
09:50 Coffee Break
10:20 Session 2: The Importance of Shale Gas Development in Poland – – *Wiesław Prugar, President of ORLEN Upstream*
11:05 Session 3: Improving Production Consistency in Unconventional Reservoirs – *Kyel Hodenfield, Schlumberger*
11:50 Lunch
13:00 Session 4: Silurian Shales of East Poland - Major Constraints on Sedimentary and Reservoir Properties – *Szczepan Porębski, ORLEN Upstream*
13:45 Session 5: Quantitive Geology for Better Reservoir Characterization and Completion Design – *Patrick Gathogo, Schlumberger*
14:30 Session 6: Retort and Dean Stark Saturations in Unconventional Shale Reservoirs – *David Handwerger, Schlumberger*
15:15 Coffee Break
15:45 Session 7: Seismic for Unconventional Plays – *David Paddock, Western Geco*
16:30 First Day Closing Questions/Discussion – *Sidney Green, Schlumberger*
18:30 Reception

17 May

09:00 Welcome and Review of the First Day – *Roberto Suarez-Rivera*
09:15 Session 8: Perforation Dependent, Near Wellbore Fracture Complexity – *Larry Behrmann, Consultant*
10:00 Session 9: Rock-Fluid Interactions in Unconventional Rocks – – *Dean Willberg, Schlumberger*
10:45 Coffee Break
11:15 Session 10: Near-Wellbore Completion Considerations – – *John McLennan, EGI*
12:00 Session 11: Important Considerations in Producing Liquids from Shales – *Milind Deo, University of Utah*
12:45 Lunch
13:45 Session 12: The Role of Rock Fabric on Fracture Complexity – – *Roberto Suarez-Rivera, Schlumberger*
14:30 Session 13: An Overview of Experimental Mudstone Sedimentology – *Juergen Schieber, Indiana University*
15:15 Coffee Break
15:45 Session 14: Mental Picture of RQ and CQ – *Roberto Suarez-Rivera, Schlumberger*
16:30 Closing Comments and Discussion – *Raymond Levey, EGI*

Agenda is subject to change, we will keep you informed.