



The
Geological
Society

serving science & profession

Geomechanical and Petrophysical Properties of Mudrocks

Monday 16 and Tuesday 17 November 2015

Programme

Day 1 – 16 November

10.00	Registration & Tea and Coffee
10.40	Opening Remarks
Session 1: Hydraulic Fracture and Mech Properties	
10.50	KEYNOTE: Hydraulic Fracturing in Anisotropic Rock Julia Gale (University of Texas, USA)
11.20	Anisotropy and Fracture Propagation in Shale with Elevated Confining Pressures Mike Chandler (University of Manchester, UK)
11.40	Hydraulic Fracturing and the Basic Geomechanical Considerations of Shale Prospectivity Tim Harper (Geosphere Limited, UK)
12.00	Fracture Characterisation in Shales for Efficient Development Susie Daniels (Geospatial Research Ltd, UK)
12.20	The Architecture and Frictional Properties of Faults in Shale Rosanne Murray (Durham University, UK)
12.40	Discussion
12.50	Lunch and Poster Session
14.10	Geomechanics and Petrophysics of Whitby Mudstone Auke Barnhoorn (Delft University, The Netherlands)
14.30	The Effect of Acid and Brine on Mechanical Properties of Shale Wyatt Wick (University of Oklahoma, USA)
14.50	Creep Behaviour of Organic-rich Shales: Anisotropy and strain partitioning Hiroki Sone (University of Wisconsin-Madison, USA)
15.10	A Workflow for Deriving Geomechanical Model Parameters from Petrophysical Data Famke Kraaijeveld (Shell Global Solutions International BV, The Netherlands)
15.30	Discussion
15.40	Tea and Coffee Break
Session 2: Permeability and Gas Flow	
16.10	KEYNOTE: Gas Transport Through Water Saturated Mudrocks Alexandra Amann-Hildenbrand (RWTH Aachen University, Germany)
16.40	Pressure-sensitivity of Permeability of Shales, and Implications for Shale Gas Reservoir Evaluation and Production Julian Mecklenburgh (University of Manchester, UK)
17.00	Direct Visualisation of Gas Flow in Clay-rich Low Permeability Materials Andrew Wiseall (British Geological Survey, UK)
17.20	Discussion
17.30	Drinks Reception

Day 2 – 17 November

08:30	Registration & Tea and Coffee
09.00	Geomechanical Properties and Permeability of Mudrocks and the Effect of Inherent and Induced Anisotropy Stephan Gehne (University of Portsmouth, UK)
09.20	Dilatancy driven gas flow in the Callovo Oxfordian Claystone and other mudrocks Jon Harrington (British Geological Survey, UK)
09.40	How Permeable is the Whitby Mudstone? Maartje Houben (Utrecht University, The Netherlands)
10.00	Permeability of Faults in Shale-dominated Sequences Yannick Kremer (University of Strathclyde, UK)
10.20	Tea and Coffee Break
Session 3: Reservoir Properties	
10.50	KEYNOTE: The Importance of Illitic Minerals in Shale Instability and in Unconventional Hydrocarbon Reservoirs Jeff Wilson (James Hutton Institute, UK)
11.20	The influence of diagenetic and mineralogical factors on the breakdown and geotechnical properties of mudrocks John C. Cripps (University of Sheffield, UK)
11.40	Integrating Microseismicity and Rock Mechanics in Shale Gas Development: Lessons for the UK Rob Westaway (University of Glasgow, UK)
12.00	Creating Synthetic Petrophysical and Rock Mechanical Logs from Geomechanical Data: Case studies in mudrocks and shale gas plays Alex Finlay (Chemostrat Ltd, UK)
12.20	Using Mineralogical and Sedimentological Data from Core and Cuttings Samples to Improve the Petrophysical Characterisation of Shale Reservoirs: Examples from recent industry studies Scott Brindle (CGG, UK)
12.40	Discussion
12.50	Lunch and Poster Session
Session 4: Porosity	
14.00	KEYNOTE: Pore Systems in Heterogeneous Shales Andrew Aplin (Durham University, UK)
14.30	What is the Porosity of Shale? Andreas Busch (Shell Global Solutions International BV, The Netherlands)
14.50	Water Vapour Sorption as a Tool to Assess the Pore Structure of Mudrocks Pieter Bertier (RWTH Aachen University, Germany)
15.10	The Influence of Petrophysical Variations on Modelling Gas in Place in Shale Gas Reservoirs Jenny Inwood (University of Leicester, UK)
15.30	Tea and Coffee Break
16.00	KEYNOTE: Multi-scale, multi-modal imaging of shales Peter Lee (University of Manchester, UK)
16.30	Multiscale Structural Characterisation of Natural Shales and Nanoporous Model Material Leon Leu (Imperial College London, UK)
16.50	Study on Elastic Response of Organic-rich Shales at Different Scales Using Experimental and Homogenization Methods Majid Goodarzi (Newcastle University, UK)
17.10	Closing Remarks
17.20	Conference End