

Third EAGE Workshop on Naturally Fractured Reservoirs (Muscat2018)

Muscat, Oman
5 - 7 February 2018

ISBN: 978-1-5108-5940-1

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2018) by the European Association of Geoscientists & Engineers (EAGE)
All rights reserved.

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact by the European Association of Geoscientists & Engineers (EAGE)
at the address below.

European Association of Geoscientists & Engineers (EAGE)
PO Box 59
3990 DB Houten
The Netherlands

Phone: +31 88 995 5055
Fax: +31 30 634 3524

eage@eage.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Fracture Corridors in Fold and Thrust Zone, Devonian Sandstones Icla Syncline (Bolivia)	1
<i>J. Lamarche, B. Gauthier, G. Ondicolbery, D. Gallinier, J. Fleury, S. Viseur, M. Chavez, S. Chatelee</i>	
Pore Network and Hydraulic Behaviour Characterization of Fractured Sandstones	6
<i>C. Bossennec, Y. Geraud, I. Moretti, L. Mattioni</i>	
Understanding Controls on Fracture Geometry Using a Geomechanical Model of Fracture Propagation	11
<i>M. Welch, M. Luthje</i>	
DFN Simulation to Quantify Fracture Density Uncertainty in Wells. Impact of Some Typical Geological Constraints	16
<i>B. Gauthier, M. Garcia</i>	
Maps of Natural Fracture Reactivation Likelihood: a Comparison Between Homogeneous and Heterogeneous Stress Fields	21
<i>R. Plateaux, J. Joonekindt, F. Maerten, L. Maerten</i>	
Aperture Modelling for the Flow-Based Determination of Fracture-Matrix Ensemble Saturation Functions for Naturally Fractured Reservoirs	28
<i>S. Matthai, M. Sedaghat, H. Agheshlui</i>	
Fracture Aperture in Flow Models: to Average, or not to Average?	33
<i>H. Nick, K. Bisdom</i>	
Hybrid Modelling of Fractured Reservoirs Using the Effective Medium Theory	37
<i>D. Wong, F. Doster, S. Geiger, A. Kamp</i>	
Integrated Approach for Fractured Basement Characterization – the Lancaster Field, a Successful Case Study in the UK	42
<i>D. Bonter, R. Carvajal</i>	
Realizing the Multi-Scale Nature of Fractured Reservoirs in Dual Porosity Dual Permeability Models	47
<i>L. Wei, K. Rawnsley</i>	
Fracture Model Permeability and Porosity Calibration Using Core and Pressure Transient Analysis Data	52
<i>P. Richard, S. Lamine, P. Swaby, C. Pattnaik, V. Kidambi, R. Narhari, X. LeVarlet, Q. Dashti</i>	
Progressive Multi-zone Pressure Transient Test Design and Interpretation in Ansagan Fractured Carbonate Reservoir	57
<i>Y. Kaipov, T. Kulagina, M. Aimagambetov, B. Yeskozha, A. Burlibayev, A. Zhandin</i>	
New Calibration of Fracture Properties Using Geological Well-Testing	62
<i>D. Egya, S. Geiger, P. Corbett, J. Norgard, S. Hegndal-Andersen, L. Sundal</i>	
Flow Diagnostics for Naturally Fractured Reservoirs	67
<i>V. Spooner, S. Geiger, D. Arnold</i>	
Deciphering Diffuse Fractures from Damage Fractures in Fault Zones and Their Effect on Reservoir Properties in Urganian Carbonates	72
<i>I. Aubert, J. Lamarche, P. Leonide, N. Semmani, R. Bourezak, R. Castilla</i>	
Controlling Factor Analysis and Modeling of Fractures in Volcanic Rocks on The Basis Of Outcrop Database	77
<i>X. Deng, K. Ren, Y. Xiao, J. Li</i>	
Calibration of Fracture Models Using Multi-Scale Outcrop Analogues – the Importance of Mechanical Stratigraphy	82
<i>R. Jones, S. Kokkalis, J. Long, S. Daniels, S. Gilment, M. Wilkinson, D. Oxlade</i>	
Dimensional Threshold for Fracture Linkage and Hooking	86
<i>J. Lamarche, A. Chabani, B. Gauthier</i>	
Morphological Changes of Carbonate Deformed Clasts in a Neogene Fault Zone	91
<i>O. Igboke, M. Mueller, O. Abah, G. Bertotti, A. Immenhauser</i>	
Diffraction Imaging Via Depth-Oriented Seismic Decomposition: High-Definition Characterization of Fracture Fields	96
<i>E. Landa, K. Smirnov, C. Paleari</i>	
Discrepancies in Fracture Related Anisotropy Direction Obtained from Multi Scale Data	101
<i>I. Bogatyrev, E. Kharyba, K. Ezhov, T. Olneva, D. Semin, A. Inozemtsev</i>	
Calibration and Optimisation of Foam EOR in Fractured Carbonate Reservoirs	107
<i>A. Al-Maqbali, V. Spooner, D. Arnold, S. Geiger</i>	

Tensorial Fracture-Matrix Ensemble Relative Permeabilities in Naturally Fractured Reservoirs: Evidence from Discrete Fracture and Matrix Simulations	112
<i>M. Sedaghat, S. Mathai, S. Azizmohammadi</i>	
Static Reservoir Modelling of Fractured Carbonates: Multi Scenario Approach, Case Study from the Potwar Basin, Pakistan	117
<i>R. Lazar, Z. Ali, I. Afzal, Z. Zafar, S. Burley</i>	
Author Index	