

# **9th European Formation Damage Conference 2011**

**Noordwijk, The Netherlands  
7 – 10 June 2011**

**Volume 1 of 2**

**ISBN: 978-1-61782-967-3**

**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© (2011) by the Society of Petroleum Engineers  
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact the Society of Petroleum Engineers  
at the address below.

Society of Petroleum Engineers  
P. O. Box 833836  
Richardson, Texas 75083-3836

Phone: (800) 456-6863  
Fax: (972) 952-9435

[books@spe.org](mailto:books@spe.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: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## VOLUME 1

<b>Combination of Chemical Diverters and Degradable Fiber Technology Enhances the Success of Stimulation in Complex Carbonate Environments.....</b>	1
<i>Qasem Dashti, Hai Liu, Todd Cirrincione, Mishari Al-Saqabi, Timothy M. Lesko, Azmin A. Majid,</i>	
<b>Smart Well Re-Entry and Intervention in Offshore Angola .....</b>	15
<i>B. McNerlin, D. Shirmboh, J. Spearman, C. Price-Smith</i>	
<b>Evaluation of Formation Damage from Transient Pressure Analysis: Unsteady State Skin Factor .....</b>	28
<i>Noaman El-Khatib</i>	
<b>Study and Application of High Density Acid in HPHT Deep Well.....</b>	44
<i>Xingsheng Cheng, Yongping Li, Yunhong Ding, Mingguang Che, Fuxiang Zhang, Jianxin Peng</i>	
<b>Evaluation of Damage Mechanisms and Skin Factor in Tight Gas Reservoirs .....</b>	47
<i>Hassan Bahrami, Reza Rezaee, Jakov Ostojic, Delair Nazhat, Ben Clennell</i>	
<b>Development and Evaluation of a New Environmentally Acceptable Conformance Sealant.....</b>	58
<i>Bjørn Bøye, Audhild Rygg, Caroline Jodal, Iselin Klungland</i>	
<b>Extending Well Productive Life by Acid Re-fracturing in a High Pressure/High Temperature Tight Gas/Condensate Carbonate Reservoir in the Jurassic Formation of North Kuwait.....</b>	68
<i>Mir Kabir, Qasem Dashti, J. R. Singh, San Prasad Pradhan, Ikhwan Nugraha, Liu Hai, Hamed Al-Ghadban</i>	
<b>Soda Ash as Gypsum Dissolver in 8-in. Production Line Case Study Gemsa Field, Gulf of Suez, Egypt .....</b>	83
<i>E.H. Riad</i>	
<b>Inflow Control Devices Minimize Annular Velocity in Gas Wells with Stand-Alone Screen Completions.....</b>	94
<i>Rhandy Regulacion, Noman Shahreyar</i>	
<b>A New Fracturing Design Using Compositional Flow Simulation for Wells with Asphaltene Deposition Problems.....</b>	106
<i>Takaaki Uetani, Masahiko Nomura</i>	
<b>Successful Application of a New Solids-Free Fluid Loss System in Acid Fracturing Treatments Achieved Significant Well Productivity Improvements in Saudi Arabian High Condensate Gas Producers.....</b>	116
<i>Jairo Leal, J. Ricardo Solares, Ali Taq, Jorge Duarte, Nayef Al-Shammari, Azmi Al-Ruwaisi, Saudi Aramco, Larry Eoff, Guillermo Izquierdo</i>	
<b>Alternatives to Minimize Scale Precipitation in Carbonate Cores Caused by Alkalies in ASP Flooding in High Salinity/High Temperature Applications .....</b>	128
<i>M.A. Bataweel, H.A. Nasr-El-Din</i>	
<b>Prediction and Localisation of Erosion Prone Areas along Non-Compliant Sand Control Completions.....</b>	139
<i>J. Tovar, Y. Zheng, L. McDonald</i>	
<b>First True Tight Gas (&lt;0.1 mD) Horizontal Multiple Fractured Well In The North Sea.....</b>	149
<i>Erik Schrama, Robin Naughton-Rumbo, Fred van der Bas, Mark Norris, Josef Shaoul</i>	
<b>Service for Dynamic Scale Removal of Barium Sulfate in Perforation Tunnels .....</b>	169
<i>Kevin Harive, Cam Le, Mohamed Abdel Khalek</i>	
<b>Determination of Optimum Perforating Strategy in Tight HPHT Gas Reservoirs Based on Modified RP-19B Section 2 and 3 Tests .....</b>	180
<i>D. Atwood, N. Sultan, A. Humphreys, B. Grove, B. Langseth</i>	
<b>Novel Environmentally Friendly Fluids to Remove Carbonate Minerals from Deep Sandstone Formations .....</b>	196
<i>M.A. Mahmoud, H.A. Nasr-El-Din, C.A. De Wolf</i>	
<b>The Effect of Fracture Face Matrix Damage on Productivity of Fractured Wells with Infiltrative and Finite Fracture Conductivities in Shale Gas Reservoirs.....</b>	212
<i>Boyun Guo, Ershad Ganji, Deli Gao, Chi Ai</i>	
<b>Investigation of Asphaltene Deposition Mechanisms During Primary Depletion and CO<sub>2</sub> Injection.....</b>	223
<i>T. Jafari Behbahani, C. Ghoibi, V. Taghikhani, A. Shahrabadi</i>	
<b>Improvement of the Criteria for Expandable Sand Screen Well Candidate Selection .....</b>	232
<i>Reza Salehi-Moorkani, Amir Ghasemzadeh</i>	
<b>Application of Genetic Algorithms to the Optimization of Pressure Transient Analysis of Water Injectors using Type Curves .....</b>	237
<i>Ahmed S. Zakaria, Mohamed M. Hafez, Jalel Ochi, Karim S. Zaki, Mehdi Loloi, Ahmed Abou-Sayed</i>	
<b>The Application of Sand Jet Perforation in Multistage Hydraulic Fracturing Treatments in Volcanic Reservoir India .....</b>	249
<i>Gaurav Aora, Sergey Stolyorov, Anish Gupta, Naresh Purusharthy, Mohit Mathur, Ratan Singh Cairn</i>	

<b>Optimizing Production of Tight Gas Wells by Revolutionizing Hydraulic Fracturing .....</b>	262
<i>Mansoor Ahmed Daudpota, Jamshoro Pakistan</i>	
<b>Mythbusters: Formation Damage Myths Exposed! .....</b>	276
<i>Brian "BJ" Davis, Baker Hughes</i>	
<b>Effect of Initial HCl Concentration on the Performance of New VES Acid System .....</b>	288
<i>Guanqun Wang, Ahmed M. Gomaa, Hisham A. Nasr-El-Din,</i>	
<b>Viscoelastic Evaluation of A Surfactant Gel for Hydraulic Fracturing .....</b>	301
<i>A.M. Gomaa, K.E. Cawiezel, D.V.S. Gupta, P. Carman, Baker Hughes; H.A. Nasr-El-Din</i>	
<b>Bridging Particle Size Distribution in Drilling Fluid and Formation Damage .....</b>	318
<i>Wenwu He, Mike Stephens</i>	
<b>First Hydraulic Fracturing Treatments Improve HPHT Well Offshore India .....</b>	329
<i>Sergey Stolyarov, Greg Dean, Baker Hughes</i>	
<b>An Innovative Offshore Fracturing Campaign for a Mature Oil Field: Case Study Offshore West Africa .....</b>	338
<i>Gilles LeBlanc, Bonifacius Muryanto, Stephane Ducourneau</i>	
<b>Three-Dimensional Shear Data to Design Effective Completions in Unconventional Reservoirs .....</b>	350
<i>Jim Bray, Eliud Menendez, Charles H. Smith</i>	
<b>Improved Lost Circulation Treatment Design and Testing Techniques Minimize Formation Damage .....</b>	358
<i>Sharath Savari, Arunesh Kumar, Donald L. Whitfill, Dale E. Jamison</i>	
<b>Effect of Residual Oil Saturation on the Propagation of Regular, Gelled, and In-Situ Gelled Acids inside Carbonate Formations .....</b>	366
<i>Ahmed M. Gomaa, Hisham A. Nasr-El-Din</i>	
<b>Investigation of Solids Flowback after Hydraulic Fracturing and Remedial Treatments.....</b>	378
<i>Amit Agrawal, Achala Danait, Jajati Nanda</i>	
<b>A Novel Stimulation Approach for Scale Control in Marrat Carbonate Reservoir – Case Studies from Joint Operations, PZ Kuwait .....</b>	386
<i>Saleh Al-Ghamdi, Abdulaziz Al-Najim, Ahmed Bouyabes, Fahad S Al-Hadyani, Ikhwan Nugraha, Saad Hamid</i>	
<b>Formation Damage and Fluid Loss Reduction due to Plastering Effect of Casing Drilling .....</b>	396
<i>Moji Karimi, Ali Ghalambor, Monty Montgomery, Eric Moellendick</i>	
<b>Comparison of Skin Factors for Perforated Completions Calculated with Computational Fluid Dynamics Software and a Semi-Analytical Model .....</b>	406
<i>Datong Sun; Baoyan Li; Mikhail Gladkikh; Rajani Satti; Randy Evans</i>	
<b>Qualification of Scale Inhibitors for Conventional and Novel Scale Squeeze Applications to Deepwater Subsea Wells: Laboratory Testing to Field Application.....</b>	421
<i>Myles Jordan</i>	
<b>Measurement of Breaker Requirements for Concentrated HPG Solutions.....</b>	436
<i>Rick Gdanski, Jason Bryant</i>	
<b>Advancements in Screen Testing, Interpretation and Modeling for Standalone Screen Applications .....</b>	455
<i>Rajesh A. Chanchura, Selcuk Fidan, Somnath Mondal, Jamie S. Andrews, Frederic Martin, Richard M. Hodge, Joseph A. Ayoub, Mehmet Parlar, Mukul M. Sharma</i>	
<b>Temporary Zonal Isolation Minimizes Reservoir Damage During Workover Operations in Ecuador .....</b>	469
<i>C. Del Rio, A. Boucher, F. Salazar, A. Milne, Schlumberger, M. Robles</i>	
<b>Increasing Oil Production without Increasing Water Cut in Wells in Ecuador .....</b>	476
<i>A. Boucher, C. Del Rio, F. Salazar, A. Milne, M. Robles</i>	
<b>Optimizing Fracture Geometry and Productivity in High Permeability Reservoirs .....</b>	488
<i>F. Armriola, C. Pinto, M. Machacon, M. Lastre, A. Milne</i>	
<b>Combining Matrix Stimulation and Gravel Packing Using a Non-acid Based Fluid .....</b>	502
<i>F. Armriola, M. Machacon, C. Pinto, Cepcols, A. Milne, M. Lastre, E. Miquilena</i>	
<b>In-Depth Water Diversion Using Sodium Silicate on Snorre - Factors Controlling In-Depth Placement.....</b>	516
<i>A. Stavland, H.C. Jonsbråten O.Vikane, IK. Skrettingland H. Fischer</i>	
<b>Advanced Viscoelastic Surfactant Gels for High-Density Completion Brines.....</b>	528
<i>Ryan van Zanten, Dodie Ezzat</i>	
<b>Engineering Drill-in Fluids to Improve Reservoir Productivity .....</b>	535
<i>Ryan van Zanten, David Horton, Per-Bjarte Tanche-Larsen</i>	
<b>Fingerprint of Mud Losses into Natural or Induced Fractures .....</b>	543
<i>R. Majidi, S.Z. Miska, Jianguo Zhang</i>	
<b>Mixing Hydrochloric Acid and Seawater for Matrix Acidizing: Is It a Good Practice? .....</b>	555
<i>J. He, I.M. Mohamed, H.A. Nasr-El-Din</i>	
<b>Gravel Packing Depleted Reservoirs.....</b>	574
<i>Fady El-Dabi, Roman Bulgachev</i>	
<b>Formation Loading and Deformation of Expandable Sand Screens .....</b>	588
<i>Colin Jones, Ken Watson, Quentin Morgan</i>	

<b>A New Technique to Control Fines Migration in Poorly Consolidated Sandstones -Laboratory Development and Case Histories .....</b>	602
<i>Yenny Christanti, Schlumberger; Giovanni Ferrara, Travis Ritz, Brent Busby, Julie Jeanpert, Carlos Abad, Bala Gadiyar</i>	
<b>Optimizing the Design of Matrix Treatments.....</b>	615
<i>Guzel.T. Bulgakova, Rinat.Ya.Kharisov, Andrey R. Sharifullin, Aleksey V. Pestrikov</i>	
<b>Improving Return Permeability Test Data Through Representative Drawdown Simulation.....</b>	629
<i>M. Byrne, C. McPhee, E. Rojas</i>	
<b>Investigation of Depletion Induced Formation Damage Mechanisms in Fractured Reservoirs .....</b>	634
<i>Gbenga Folorunso Oluwemi</i>	
<b>The Role of Forensic Petrophysics in Formation Damage Evaluation .....</b>	639
<i>C. McPhee, M. Byrne, G. Daniels</i>	
<b>Determining Perforation Parameters from Single-Shot Tests: Radial vs. Axial Flow .....</b>	655
<i>J. Harvey, P. Kokel, L. Zhan, B. Grove, H. Huang, D. Atwood,</i>	
<b>Perforation Cleanup via Dynamic Underbalance: New Understandings.....</b>	664
<i>B. Grove, J. Harvey, L. Zhan</i>	
<b>Translating Perforating Laboratory Results to the Downhole Environment .....</b>	675
<i>B. Grove, J. Harvey, L. Zhan, D. Atwood</i>	

## **VOLUME 2**

<b>Acidizing Induced-Damage in Sandstone Injector Wells: Lab Testing and a Case History.....</b>	687
<i>A.M. Al-Mohammad, M.H. Al-Khaldi, S.H. Al-Mutairi, A.A. Al-Zahrani</i>	
<b>Taking Advantage of Fines-Migration-Induced Formation Damage for Improved Waterflooding (Reservoir Simulation using Polymer Flood Option).....</b>	715
<i>Abbas Zeinijahromi, Thi Nguyen Phuong, Pavel Bedrikovetsky</i>	
<b>Size-Exclusion Particle Capture During Mono-Dispersed Suspension Flow in Porous Media .....</b>	730
<i>D.I. O'Reilly, P. Bedrikovetsky, K. Lee, K., N. Zakaria.</i>	
<b>Controlled Use of Downhole Calcium Carbonate Scaling for Sand Control: Laboratory &amp; Field Results, Gullfaks .....</b>	754
<i>N. Fleming, E. Berge, M. Ridene, T. Jøsang</i>	
<b>Unique Self-Aligning Jetting Tool Provides Better Acid Stimulation and Better Production Results .....</b>	767
<i>Jim B. Surjaatmadja, Abdulla M. Al Hamad, Colt Ables</i>	
<b>Water-based, Frac-Pack Remedial Treatment Extends Well Life .....</b>	774
<i>P.D. Nguyen, J.D. Weaver</i>	
<b>The Effects of Wall Slip in a Couette Rheometer When Measuring and Comparing Hydraulic Fracturing Fluids .....</b>	791
<i>Scott Churchill</i>	
<b>Numerical Simulation Model of Geological Storage of Carbon Dioxide in Onshore Gippsland Basin, Victoria .....</b>	796
<i>A.T. Bu Ali, M. Alali, M. Alzaid, M. Bunch, S. Menacherry</i>	
<b>Controlled Wellbore Implosions Show that Not All Damage is Bad – A New Technique to Increase Production from Damaged Wells .....</b>	813
<i>Adil Al Busaidy, Zouhir Zaouali, Carlos Erik Baumann, Enzo Vegliante, Eni Oil</i>	
<b>Laboratory Evaluation of Organic Water Shut-off Gelling System for Carbonate Formations .....</b>	824
<i>M.S. Al-Anazi, S.H. Al-Mutairi, M.H. Al-Khaldi, A.A. Al-Zahrani, I.S. Al-Yami, Saudi Aramco, M.N. Gurmen</i>	
<b>Sand Control Completions for Ormen Lange Big-Bore, High-Rate Gas Development, Evaluation of Concept Selection, Qualification, Execution and Well Performance.....</b>	845
<i>A. van Kranenburg, J. Twycross, C. Combe, K. Hals</i>	
<b>Critical Assessment of Microemulsion Technology for Enhancing Fluid Recovery from Tight Gas Formations and Propped Fractures .....</b>	862
<i>Lakia M. Champagne, Andrei S. Zelenev, Glenn S. Penny, Kerry Travis</i>	
<b>Modelling the Near Wellbore and Formation Damage - A Comprehensive Review of Current and Future Options.....</b>	872
<i>M. Byrne, M.A. Jimenez, S. Salimi</i>	
<b>A New Technique to Characterize Drilling Fluid Filter Cake .....</b>	879
<i>S.M. Elkhatatny, M.A. Mahmoud, H.A. Nasr-El-Din</i>	
<b>Interactions of Organic-HF Systems with Aluminosilicates: Lab Testing and Field Recommendations .....</b>	893
<i>B.G. Al-Harbi, M.H. Al-Khaldi, K.A. Al-Dossary</i>	

<b>Application of Silicate/Polymer Water Shut-Off Treatment in Faulted Reservoirs with Extreme High Permeability .....</b>	918
<i>I. Lakatos, J. Lakatos-Szabó, B. Kosztin, H.H. Al-Sharji, E. Ali, E. Al-Mujaini, N. Al-Alawi</i>	
<b>A Thorough Investigation of Cleanup Efficiency of Hydraulic Fractured Wells Using Response Surface Methodology.....</b>	930
<i>P. Ghahri, M. M. Jamialahmady, M. Sohrabi</i>	
<b>Hydrajet Fracture Stimulation Technique Used To Rejuvenate Three Wells In Mature Offshore Oil Field Congo - Case History .....</b>	947
<i>D Rhodes, K Orski, C N'Gouma, P Guittiene</i>	
<b>Recent Advancements in Hydrajet Perforating and Stimulation Provide Better Penetration and Improved Stimulation .....</b>	966
<i>Jim B. Surjaatmadja Klaas Van Gijtenbeek</i>	
<b>Computational Fluid Dynamics for Reservoir and Well Fluid Flow Performance Modelling.....</b>	983
<i>M. Byrne, M.A. Jimenez, E. Rojas, E. Castillo</i>	
<b>New Approach for Completion Applications With Higher Internal Phase Inverts Utilizing Innovative Surfactants .....</b>	990
<i>Mark Luyster, Arvind Patel, Ray Ravitz Kim S. Lim</i>	
<b>Effect of Spent Acids on the Wettability of Carbonates at High Temperature and Pressure .....</b>	1001
<i>M. Saneifar, R.A. Nasralla, H.A. Nasr-El-Din, M. Fahes, A.D. Hill</i>	
<b>Specially Formulated Delayed-Breaker System for Extended-Reach Injectors in a Viscous Oil Waterflood Application.....</b>	1010
<i>L. S. Kim, R. Ravitz, A. Patel, H. Martens, M. Luyster, M. Kuck</i>	
<b>Improved Oil Recovery for Fractured Granite Basement Reservoirs: Historical Lessons, Successful Application, and Possibility for Improvement .....</b>	1027
<i>Cuong T. Q. Dang, Zhangxin Chen, Ngoc T. B. Nguyen, Wisup Bae, Thuoc H. Phung</i>	
<b>Understanding Drill In Fluid Invasion into Multi Layer Reservoirs Saturated by Compressible Fluids.....</b>	1040
<i>A.T.A Waldmann, A.L.Martins, C. Dannenhauer</i>	
<b>New Insights into the Removal of Calcium Sulfate Scale .....</b>	1052
<i>M.H. Al-Khalidi, A.M. Al-Juhani, S.H. Al-Mutairi, M.N. Gurmen</i>	
<b>Return to Basics and Proper Planning Opens the Possibility to Acid Stimulate a Difficult Chalk Formation.....</b>	1071
<i>Mary Van Domelen, Noor Talib, Gerard Glasbergen</i>	
<b>Reduced Solids Oil-Based Completion Fluid for Horizontal HPHT Openhole Completions.....</b>	1090
<i>C.H. van der Zwaag, G. S. Svanes, B. S. Schieffel, Z. Ibragimova, K. Austmo Moeller, H. Vikanes, C. Lund Smørdal, G. E. Pedersen, K. L. Bringsjord</i>	
<b>Translation of New Experimental Test Methods for the Evaluation and Design of Shaped Charge Perforators to Field Applications .....</b>	1104
<i>J. Hardesty, N.G. Clark, T. Zaleski, S. Bhakta</i>	
<b>Mechanically Induced Fracture Face Skin - Insights from Laboratory Testing and Numerical Modeling.....</b>	1119
<i>Andreas Reinicke, Guido Blöcher, Günter Zimmermann, Ernst Huenges, Georg Dresen, Sergei Stanchits, TerraTek; Björn Legarth, Axel Makurat</i>	
<b>Development and Testing of a Perforation Plugging Treatment Designed to Limit Reservoir Crossflow .....</b>	1134
<i>Mark W. Sanders, Russell B. Watson, Patrick Viste, Graeme Wylie, Paul Radcliffe</i>	
<b>Formation Damage Caused by Improper Mn<sub>3</sub>O<sub>4</sub>-based Filter Cake Cleanup Treatments .....</b>	1145
<i>Abdullah M. Al Moajil, Hisham A. Nasr-El-Din</i>	
<b>Mitigation of Fines Migration Using a New Clay Stabilizer: A Mechanistic Study .....</b>	1162
<i>I.A. El-Monier, H.A. Nasr-El-Din</i>	
<b>Stimulation Solutions for the High-Pressure, High-Temperature Naturally Fractured Carbonate Reservoirs in Mexico .....</b>	1174
<i>Jose G. Flores, Yuri de Antunano Munoz, Alan Diaz Vazquez, Leonardo Cruz Espinoza</i>	
<b>Laboratory Simulation of Flow through a Perforation .....</b>	1185
<i>James E. Brooks, Dennis Haggerty</i>	
<b>Engineered Particle-Size Distribution While Drilling Helps Minimize Wellbore Damage in Sandstone Reservoirs.....</b>	1195
<i>Monir Mohamed, Halliburton</i>	
<b>Measurement of Acid Placement with Temperature Profiles .....</b>	1206
<i>X. Tan, M. Tabatabaei, D. Zhu, A. D. Hill</i>	
<b>Reduction of Fines Migration by Nanofluids Injection, An Experimental Study.....</b>	1220
<i>A. Habibi, M. Ahmadi, P. Pourafshary Sh. Ayatollahi</i>	

<b>Acid Placement in Acid Jetting Treatments in Long Horizontal Wells.....</b>	1236
<i>H. Sasongko, D. Zhu, A.D. Hill</i>	
<b>New Analysis Tool to Assess the Need for Enhanced Pumping Technologies for FracPacks.....</b>	1249
<i>Srikalyan Bhamidipati, Prasad Karadkar, Harvey Fitzpatrick, Travis Hailey</i>	
<b>Well Productivity Decline due to Fines Migration and Production: (Analytical Model for the Regime of Strained Particles Accumulation) .....</b>	1266
<i>Pavel Bedrikovetsky, Alexandre Vaz, Fernando Machado, Abbas Zeinijahromi, Sara Borazjani</i>	
<b>Phase Boundaries of Microemulsion Systems Help to Increase Productivity.....</b>	1275
<i>Lirio Quintero, Thomas A. Jones, Gianna Pietrangeli, Baker Hughes</i>	
<b>Optimizing the Displacement Design - Mud to Brine .....</b>	1285
<i>Paul H. Javora, Mike Adkins, Baker Hughes</i>	
<b>Pre-Crosslinked Pills Provide Efficient and Consistent Fluid Loss Control.....</b>	1295
<i>Jacob D. Gibson, Paul H. Javora, Mike Adkins, Baker Hughes</i>	
<b>Crude Oil Compatibility Method Significantly Minimizes Volumes Required.....</b>	1305
<i>Katrina Schultz, Paul H. Javora, Baker Hughes</i>	
<b>Development of Small Field in Malaysia Using Cost-Effective Open Hole Sandface Completion Technologies – A Case Study .....</b>	1314
<i>N. Safin, A.A. Ahmad Mahdzan, N.Z.S. Nik Khansani, N.M. Ghazali, O. Zainal Abidin, A.A. Aly Zeidan, C. Elliot, M. Zaidan Khalid, R. Regulacion, P. Domia, P.S. Lim, M.F. Abdul Rahim, P. Jackson</i>	
<b>Laboratory and Theoretical Investigation of Size Exclusion Suspension Flow in Rocks .....</b>	1327
<i>P. Chalk, N. Gooding, S. Hutton, Z. You, P. Bedrikovetsky</i>	
<b>Experimental Investigation of Clay Minerals' Effects on the Permeability Reduction in Water Injection Process in the Oil Fields .....</b>	1345
<i>Saeed Abbasi, Abbas Shahrabadi, Hassan Golghanddashti</i>	
<b>Measuring Fluid Placement of Sand-Consolidation Treatments Using DTS.....</b>	1355
<i>Josue Villesca, Gerard Glasbergen, David Attaway</i>	
<b>Protect and then Inject: Optimized Well Fluids Successfully Drill Depleted Reservoirs to Store Gas.....</b>	1363
<i>Stephen Vickers, Stephen Bruce, Alistair Hutton, Baker Hughes, Paolo Nunzi</i>	
<b>Modeling Non-Matrix Flow and Seals Integrity in Soft Sand Reservoirs.....</b>	1371
<i>Atef Onaisi, Jalel Ochi, Marc Mainguy, Philippe Souillard</i>	
<b>Remedial Sand-Control in Mature Field: Results &amp; Lessons Learnt from Through-Tubing Sand Screens Operations in the Gulf of Guinea .....</b>	1388
<i>H. Poitrenaud, S. Djomou, F. Poumerol</i>	
<b>Selective Stimulation and Water Control in High-Water-Cut Wells: Case Histories from Upper Magdalena Valley Basin in Colombia .....</b>	1402
<i>E. Rodriguez, C. Duarte, W. Martinez, J. León Ecopetrol, A. Ortega, M. Lastre, A. Milne, C. Navarro</i>	
<b>Author Index</b>	