<table>
<thead>
<tr>
<th>Paper Number</th>
<th>Title</th>
<th>Author(s)</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 26057</td>
<td>Electrical Load Shedding Program at the Salt Creek Field Unit</td>
<td>F.B. Collier and E.N. Hardgrave, Mobil E&amp;P U.S. Inc., and R.J. Stanley and L.K. Hatfield, R.J. Stanley &amp; Assocs. Inc.</td>
<td>11</td>
</tr>
<tr>
<td>SPE 26510</td>
<td>Pull-Through Forces in Buckled Tubing</td>
<td>R.F. Mitchell, Enertech Engineering &amp; Research Co.</td>
<td>23</td>
</tr>
<tr>
<td>SPE 26513</td>
<td>Stress-Induced Permeability Reduction in Fissured Reservoirs</td>
<td>Hubert Buchsteiner, Mining U. Leoben; N.R. Warpinski, Sandia Natl. Laboratories; and M.J. Economides, Mining U. Leoben</td>
<td>65</td>
</tr>
<tr>
<td>SPE 26514</td>
<td>On Perforating and Fracturing of Deviated Cased Wellbores</td>
<td>C.H. Yew, M.E. Mear, C.C. Ckhang, and X.C. Zhang, U. of Texas</td>
<td>75</td>
</tr>
<tr>
<td>SPE 26515</td>
<td>Overbalance Perforating and Stimulation Method for Wells</td>
<td>P.J. Handren, T.B. Jupp, and J.M. Dees, Oryx Energy Co.</td>
<td>87</td>
</tr>
<tr>
<td>SPE 26518</td>
<td>A New Modular Approach to Comprehensive Simulation of Horizontal Wells</td>
<td>Kristian Brekke and T.E. Johansen, Norsk Hydro a.s, and Rudi Olufsen, Technical Software Consultants</td>
<td>109</td>
</tr>
<tr>
<td>SPE 26519</td>
<td>Effect of Accelerational Pressure Drop in a Horizontal Wellbore</td>
<td>Masaru Ihara, Japan Natl. Oil Corp., and Nobutoshi Shimizu, Japan Petroleum Exploration Co. Ltd.</td>
<td>125</td>
</tr>
<tr>
<td>SPE 26520</td>
<td>Quantitative Three-Phase Profiling and Flow Regime Characterization in a Horizontal Well</td>
<td>Y.L. Chauvel, Schlumberger, and F.M. Clayton, Brunei Shell Petroleum</td>
<td>139</td>
</tr>
<tr>
<td>SPE 26521</td>
<td>Friction Factor of Perforation Roughness in Pipes</td>
<td>Ze Su and J.S. Gudmundsson, Norwegian Inst. of Technology</td>
<td>151</td>
</tr>
<tr>
<td>SPE 26522</td>
<td>Void Fraction in Bubbly and Slug Flow in Downward Two-Phase Flow in Vertical and Inclined Wellbores</td>
<td>A.R. Hasan, U. of North Dakota</td>
<td>165</td>
</tr>
<tr>
<td>SPE 26526</td>
<td>Formation and Fracture Characterization by Inversion of Fracture Treatment Records</td>
<td>Kenneth Bhalla and B.H. Brady, Schlumberger Dowell</td>
<td>203</td>
</tr>
<tr>
<td>SPE 26527</td>
<td>Pressure-Transient Analysis of Fracture Calibration Tests</td>
<td>M.J. Mayerhofer, Mining U. Leoben; C.A. Ehlig-Economides, Schlumberger; and M.J. Economides, Mining U. Leoben</td>
<td>217</td>
</tr>
</tbody>
</table>
SPE 26528 “Pipelining,” Viscous Fingering Prop Fracture Technique Finds Wide Success in Permian and Delaware Basins ........................................... 231

SPE 26530 Opportunities and Pitfalls When Locating Horizontal Wells in a Geologically Uncertain Environment ..................................................... 245
Børre Antonsen, Gudmund Olsen, and Trond Høye, Norsk Hydro a.s

SPE 26531 Trends for Future Development Planning in the Norwegian North Sea .......... 255

SPE 26532 Hydrate Inhibition Design for Deepwater Completions ........................... 265

SPE 26534 Design Considerations and Fatigue Life of Offshore Structures ................. 281
M.M.A. Shahin, U. of Qatar

SPE 26538 A Spoolable Coiled-Tubing Gas-Lift Completion System ....................... 291

SPE 26539 Development of a Standard Coiled-Tubing Fatigue Test ......................... 303
K.R. Newman and P.A. Brown, Schlumberger Dowell

SPE 26540 Low-Cost Alternative for Remedial Sand Control Application ................ 311

SPE 26541 A Simplified Pseudo 3D Model To Evaluate Sand Production Risk in Deviated Cased Holes ................................................................. 323
Nicolas Kessler, Yarlong Wang, and F.J. Santarelli, Elf Aquitaine Production

SPE 26543 High-Pressure Packing With Water: An Alternative Approach to Conventional Gravel Packing ......................................................... 333
L.B. Ledlow, M.H. Johnson, B.M. Richard, and T.J. Huval, Baker Hughes INTEQ

SPE 26545 A New Method of Overbalance Perforating and Surging of Resin for Sand Control ................................................................. 345
J.M. Dees and P.J. Handren, Oryx Energy Co.

SPE 26548 Measurement and Prediction of the Kinetics of Paraffin Deposition ............ 353
T.S. Brown, V.G. Niesen, and D.D. Erickson, Conoco Inc.

SPE 26549 Influence of Light Ends on the Onset Crystallization Temperature of Waxy Crudes Within the Frame of Multiphase Transport ................ 369
Veronique Ruffier Meray, Inst. Français du Pétrole; J-L. Volle, Elf Aquitaine Production; Claude Schranz, Total; Pierre Le Marechal, U. Louis Pasteur; and Emmanuel Behar, Inst. Français du Pétrole

SPE 26550 Development of a Film-Persistent Water-Dispersible Corrosion Inhibitor ...... 379

SPE 26553 Development of a Surface-Controlled Electric Gas-Lift Valve .................. 387
M.A. Schnatzmeyer, J.H. Yonker, C.M. Pool, and J.J. Goiffon, Halliburton Energy Services

SPE 26554 Continuous Gas-Lift Instability: Diagnosis, Criteria, and Solutions ........ 401
F.J.S. Alhanati, Petrobrás S.A./CENPES; Zelimir Schmidt and D.R. Doty, U. of Tulsa; and D.D. Lagerleff, ARCO Alaska Inc.

SPE 26555 Optimization of Heavy Oil and Gas Pumping in Horizontal Wells ............ 417

SPE 26556 Liquid Fall-Back Measurements in Intermittent Gas Lift With Plunger ........ 429
Ali Hernandez, Luisana Maracano, Sergio Caicedo, and R. Cabunaru, INTEVEP S.A.

SPE 26558 A New Look at Sucker Rod Fatigue Life ............................................. 439
N.W. Hein Jr., Conoco Inc., and D.E. Hermanson, LTV Energy Products (Retired)

SPE 26559 Fluid Selection for Fracturing High-Permeability Formations .................... 451
SPE 26561 Fracturing of High-Permeability Formations: Mechanical Properties Correlations .......................... 467
R.H. Morales and R.P. Marcinew, Schlumberger Dowell

SPE 26562 A Field Study of a Combination Fracturing/Gravel Packing Completion Technique on the Amberjack, Mississippi Canyon 109 Field ........ 477

SPE 26563 Design, Execution, and Evaluation of Frac and Pack (F&P) Treatments in Unconsolidated Sand Formations in the Gulf of Mexico ...... 491

SPE 26564 Frac and Pack Stimulation: Application, Design, and Field Experience From the Gulf of Mexico to Borneo .................................. 507
Leo P. Roodhart, P.A. Fokker, and D.R. Davies, Shell Research B.V., and Jacob Shlyapobersky and G.K. Wong, Shell Development Co.

SPE 26565 Single-Phase or Multiphase Blowdown of Vessels or Pipelines .............................................. 519
H.L. Norris III, Exxon Production Research Co., and R.C. Puls, U. of Texas

SPE 26566 Hilly Terrain Effects on Slug Flow Characteristics ......................................................... 529
Guohua Zheng, Texaco Inc., and J.P. Brill and Ovadia Shoham, U. of Tulsa

SPE 26567 Three-Phase Flowrate Measurement by Pressure Transducers ............................................. 543
Jianhang Qiu and Haluk Toral, Imperial College

SPE 26568 Piggling Dynamics in Two-Phase Flow Pipelines: Experiment and Modeling .... 551
Kazuoshi Minami, Petrobras S.A., and Ovadia Shoham, U. of Tulsa

SPE 26569 Criteria for Sizing Multiphase Flowlines for Erosive/Corrosive Service ........ 567
S.J. Svedeman, Southwest Research Inst., and K.E. Arnold, Paragon Engineering Services

SPE 26570 Acid-Resistant Microfine Squeeze Cement: From Conception to Viable Technology .......................................................... 579
J.F. Heathman, Halliburton Energy Services; R.B. Carpenter, ARCO Oil & Gas Co.; G.S. Sanders, ARCO Alaska Inc.; and M.L. Wedman, Halliburton Energy Services

SPE 26571 Elastomeric Composites for Use in Well Cementing Operations ........................................ 593
D.D. Onan, Halliburton Services; K.J. Goodwin, Mobil E&P Technical Center; and T.W. McPherson, Mobil E&P U.S. Inc.

SPE 26572 A Study of the Effects of Mixing Energy Imparted on Cement slurries by Field Equipment and Coiled Tubing ...................................................... 609
J.F. Heathman and F.L. Sands, Halliburton Energy Services; Alexander Sas-Jaworsky, Conoco Inc.; and A.M. Badalamenti, Halliburton Energy Services

SPE 26573 Improve Primary Cementing by Continuous Monitoring of Circulatable Hole ... 623
K.M. Ravi, Halliburton Services; R.M. Beirute, Amoco Production Co.; and R.L. Covington, Halliburton Services

SPE 26574 Real-Time Quality Control of Foamed Cement Jobs: A Case Study ........ 639
R.D. Thayer, D.G. Ford, Steve Holekamp, and D.J. Pferdehirt, Schlumberger Dowell

SPE 26575 Thickening Time Test Apparatus Provides Method of Simulating Actual Shear History of Oilwell Cements ........................................ 647
D.L. Purvis, D.T. Mueller, J.C. Dawson, and W.S. Bray, BJ Services

SPE 26576 Unconventional Acid Design Used To Stimulate Sandstone Reservoirs in the Gulf of Mexico ......................................................... 661
J.W. Ewing, Chevron USA Production Co.; Todd Clements, BJ Services; Syed Ali, Chevron USA Production Co.; and D.D. Dunlap, BJ Services

SPE 26577 The Optimum Injection Rate for Matrix Acidizing of Carbonate Formations .... 675
Y. Wang, A.D. Hill, and R.S. Schechter, U. of Texas
SPE 26579 Development of a Matrix Acidizing Stimulation Treatment Evaluation and Recording System (MASTERS) ................................. 689
C.T. Montgomery and Yih-Min Jan, ARCO E&P Technology, and B.L. Niemeyer, ARCO Oil & Gas Co.

SPE 26580 An Improved Method for Acidizing Oil Wells in Sandstone Formations ........ 697

SPE 26581 An Overview of Current Acid Fracturing Technology With Recent Implications for Emulsified Acids ......................... 709

SPE 26582 Effective Diverting on Horizontal Wells in the Austin Chalk ...................... 725
C.E. Bell, BJ Services; B.W. Holmes, Union Pacific Resources Co.; and A.R. Rickards, BJ Services

SPE 26583 New Well Completion and Stimulation Techniques Using Liquid Jet Cutting Technology ............................ 739
A.D. Peters and S.W. Henson, Penetrators Inc.

SPE 26584 Propellant Gas Fracture Stimulation of a Horizontal Austin Chalk Wellbore .... 747
G.S. Hollabaugh and J.M. Dees, Oryx Energy Co.

SPE 26585 New Wireline Inspection System Offers Expanded Capabilities ................. 757
G.Z. Fehrmann and E.J. Smith, Halliburton Energy Services; Günter Nolte, Otis GmbH; and G.B. Chitwood, Halliburton Energy Services

SPE 26586 Developing a Process Safety Management Plan for Production Facilities and Gas Plants ........................................... 769
K.E. Arnold and M.E. Thro, Paragon Engineering Services Inc.

SPE 26587 Engineering Document Enhancement Program Improves Facilities Specifications ................................................. 785
G.L. Sargent, Mobil R&D Corp., and K.B. LaGrone and R. Wong, Mobil E&P Technology Center

SPE 26588 API Tank Vapors Project ............................................................. 791
M.S. Choi, Conoco Inc.

SPE 26590 Evaluation of the Performance of a New Upflow Design ............................ 799
H.J. Aretz, Burgess-Manning GmbH, and J.D. Stell, Burgess-Manning Inc.

SPE 26591 Practical Automation for Mature Producing Areas ................................ 807
J.C. Luppens, Phillips Petroleum Co.

S.L. Wellington, Shell Development Co.; J.F. Simmons, Shell Oil Co.; and E.A. Richardson, Shell Development Co. (Retired)

SPE 26595 The Use of Vapor Recovery Units in the Austin Chalk Field ....................... 831
Dianbin Liu and J.V. Meachen Jr., Union Pacific Resources Co.

SPE 26596 An Evaluation of Horizontal and High-Angle Wells Drilled in Prudhoe Bay After Five Years of Production ......................... 835

SPE 26597 Fracture Initiation and Propagation From Deviated Wellbores ..................... 849
Xiaowei Weng, ARCO E&P Technology

SPE 26598 Fracture Height Containment With Continuum Damage Mechanics ............... 865
Peter Valkó and M.J. Economides, Mining U. Leoben

SPE 26599 Hydraulic Fracture Modeling in Formations Exhibiting Stress-Dependent Mechanical Properties ...................................... 881
D.K. Poulsen and H.H. Abass, Halliburton Energy Services

SPE 26600 A New Method To Determine In-Situ Stress Directions and In-Situ Formation Rock Properties During a Microfrac Test ............. 891
Peng Lin and T.G. Ray, Halliburton Energy Services
SPE 26601  An Assessment of the Effect of Fracturing Fluid Performance on Well Productivity ................................................. 899
K.G. Nolte and S.V. Plahn, Schlumberger Dowell

SPE 26602  Realistic Fracture Conductivities of Propped Hydraulic Fractures ......................... 915
David Milton-Tayler, Fractech Ltd.

SPE 26603  Scale Prediction and Control in the Denver Unit CO₂ Flood .......................... 925
L.N. Morgenthaler, J.B. Lawson, and R.J. Faircloth, Shell Development Co., and
D.C. Berkshire, Shell Development Co. (Retired)

SPE 26604  Thermodynamic Measurement and Prediction of Paraffin Precipitation in Crude Oil ........................................ 933
D.D. Erickson, V.G. Niesen, and T.S. Brown, Conoco Inc.

SPE 26605  The Effect of pH, Calcium, and Temperature on the Adsorption of Phosphonate Inhibitor Onto Consolidated and Crushed Sandstone ............... 949
K.S. Sorbie, Ping Jiang, M.D. Yuan, Ping Chen, M.M. Jordan, and A.C. Todd,
Heriot-Watt U.

SPE 26607  Analysis of Residual Corrosion Inhibitors in Oilfield Brines ........................................ 965
C.L. Fortenberry Jr., N.J. Grahmann, C.D. Miller, and A.J. Son, Champion Technologies Inc.

SPE 26608  Prediction of the Oil Rate Increment With Water Profile Control by Polymer Injection .................................................. 981
C.B. Giudicelli, Elf Exploration Angola, and R.A. Truchetet, Elf Aquitaine

SPE 26713  A Joint Industry Research Project To Investigate Coiled-Tubing Buckling ...................................................... 993
R.J. Tailby, Statoil A/S; D.O. Cobb, BP Exploration; M.C. Riva, AGIP Spa; Colin Jones,
Norsk Hydro a.s; J.A. Rydland, Rogaland Research; and O.S. Christensen,
Saga Petroleum a.s.

SPE Paper Evaluation Form .................................................... 1003
No manuscript was received for the following:

SPE 26536 Development of Composite Coiled Tubing for Oilfield Services
*Alexander Sas-Jaworsky and J.G. Williams, Conoco Inc.*

SPE 26537 Design Criteria for Coiled-Tubing Spooled Gas-Lift Installations
*P.T. Eads, Consultant*

SPE 26544 Case Histories: Field Comparison of Through-Tubing Sand Control Remedial Methods
*H.J. Fitzpatrick Jr., Halliburton Energy Services*

SPE 26546 Impact of Hydraulic Fracturing on Developing High-Permeability Gas Fields: Case Study
*I.S. Abou-Sayed, Mobil R&D Corp., and R.S. Donders, Mobil Producing Netherlands Inc.*

SPE 26551 Materials Engineering in Marginal Field Developments

SPE 26570 Spectrum Evolution of Droplets Formed by Hydrate Inhibitor in Turbulent Flow in Pipe Line
*E.G. Sinaisky and G.V. Mikhaleva, Moscow State Academy of Oil & Gas*

SPE 26589 Design and Installation of the World’s Largest Offshore Firewater Pumping
*G.L. Bazin, Phillips Petroleum Co. Norway*

SPE 26592 Lessons Learned During Development of a Gas-Lift Troubleshooting Expert System: A Case History
*J.L. Ortiz and A. Prato, Lagoven S.A.*