# TABLE OF CONTENTS

1. **SPE 94532 Shallow Gas Shut-Off Using Rigid Polymer Gel in Lake Maracaibo, Venezuela**  
   J.F. Hurtado and A. Milne, Schlumberger, and E. Olivares, Petróleos de Venezuela S.A.

6. **SPE/IADC 95818 Low-Cost Multilateral on Gullfaks**  
   O.H. Lie, Statoil, and S. Fraser, Weatherford Intl.

20. **SPE/IADC 96022 Impact of Formation Type on Cement Bond Logs**  
    B. Vidick and K. Krummel, Schlumberger, and D.S. Kellingray, BP

27. **SPE/IADC 96206 Smart Operations: Cutting Costs by Use of Simple Completion Solutions on the South Pars Field, Offshore I.R. Iran**  
    A.S. Teigen and B. Johannessen, Statoil ASA

33. **SPE/IADC 96211 Analyses of the Accuracy and Reliability of Magnetic Directional Surveys**  
    E. Nyrnes, Norwegian U. of Science and Technology (NTNU), and T. Torkildsen, Statoil ASA Norway

53. **SPE/IADC 96362 Breakthrough Drilling Performance in Horizontal Deep Gas Wells With Application of Geo-steering Technique in Saudi Arabia**  
    S. Thomas, J. Al-Thuwaini, and M. Petrick, Saudi Aramco, and D. Nwabor, Schlumberger

64. **SPE/IADC 96792 New PDC Technology Significantly Improves Performance in Drilling Deep Khuff Wells for a Major Operator in Abu Dhabi**  
    A. Jaffar, R. Birch, and P. Teasdale, ReedHycalog, and S.A. Ani, ADMA OPCO

75. **SPE/IADC 96832 Drilling and Completing Wells Uphill**  
    P. Prince and R. Tarmidi, Brunei Shell Petroleum, and T.W. Hou, Weatherford Completion & Production Systems

83. **SPE/IADC 96982 Accelerated Well Delivery Through High-Performance Directional Drilling Systems—A Middle East Case History**  
    J. Vestvik and T. Andersen, Statoil ASA, and N. Istad, E. Rattray, B. Sutcliffe, and C. Craig, Baker Hughes

91. **SPE/IADC 97008 Physio-Chemical Characterisation of Vegetable Oils and Preliminary Test Results of Vegetable-Oil-Based Muds**  
    Md. Amanullah, CSIRO Petroleum
100 SPE/IADC 97025 Developing the Micro-Flux Control Method—Part 1: System Development, Field Test Preparation, and Results
H. Santos and P. Reid, Impact Solutions Group; J. Jones, Drilling Systems; and J. McCaskill, Power Chokes

109 SPE/IADC 97281 Next Generation Expandable Completion Systems
G. Innes, Q. Morgan, A. Macarthur, and A. Green, Weatherford


126 SPE/IADC 97314 Diverse Application of Unique High-Performance Water-Based-Mud Technology in the Middle East
A. Al-Ansari and K. Yadav, Saudi Aramco, and D. Anderson, R. Leaper, W. Dye, and N. Hansen, Baker Hughes Drilling Fluids

135 SPE/IADC 97317 The Feasibility Study of Using Underbalanced Drilling in Iranian Oil Fields

P. Teasdale, N. Riley, and P. Mackinnon, ReedHycalog

160 SPE/IADC 97347 Laboratory and Field Validation of a Sealant System for Critical Plug and Abandon Situations
A.C.G. Nagelhout, Shell Brunel; M.G.R. Bosma, P.J. Mul, G.G. Krol, J.F.G. van Velzen, and J.S. Joldersma, NAM; and S.G. James, B. Dargaud, G.J.R. Schreuder, and F. Théry, Schlumberger

169 SPE/IADC 97356 First Medium Radius Horizontal Well in Marrat Formation in Kuwait: Case History of Umm Gudair 56
M. Al-Saeedi, B. Al-Mutairi, D. Al-Enezi, and V.S. Mahesh, Kuwait Oil Co.

180 SPE/IADC 97357 Expandable Tubular Successfully Scab Off Severe Casing Leaks

184 SPE/IADC 97361 Combined High-End Technologies Deliver Increased Efficiency in Low-Cost Drilling Environment: Case History in a Western Siberian Field
V.Y. Lischuk, Sibneft; A.A. Brown, Hughes Christensen; and A.M. Bakici, Schlumberger

197 SPE/IADC 97363 Dynamic Underbalanced Perforating System Increases Productivity and Reduces Cost in East Kalimantan Gas Field: A Case Study
D. Minto, P. Falxa, D. Manalu, and M. Simatupang, Total E&P Indonésie, and L.A. Behrmann and A. Kusumadjaja, Schlumberger
205 SPE/IADC 97364 Kuwait Oil Company Sets Drilling Record Completing the Zubair Section in One Run
M.J. Al-Saeedi, B. Al-Mutairi, and H.S. Al-Ajmi, Kuwait Oil Co., and M. Sharma, M. Swadi, and S. Tyagi, Hughes Christensen

221 SPE/IADC 97368 The Challenge of Selecting Appropriate Drill String Enhancing Features for Drilling in the Middle East Harsh Environment
G.J. Plessis and J.-B. You, Grant Prideco

231 SPE/IADC 97372 Evaluation of Drillstring and Casing Instrumentation Needed for Reservoir Characterization During Drilling Operations
G. Nygaard, K.-K. Fjelde, G. Nævdal, R.J. Lorentzen, and E.H. Vefring, RF-Rogaland Research

241 SPE/IADC 97373 A Unique Experience of Using Hydraulic Workover Unit (HWU) for Re-entry and Drilling Operation Onshore Gabon
F. Yunus, J. Dufour, A. Ripayre, and M. Mercier, Total, and C. Suro and E. Sredensek, Halliburton

247 SPE/IADC 97415 Slotted Completion for Sand Management: A Novel Screenless Completion Technique
M.A. Addis, M. Khodaverdian, C. Lee, and D. Fehler, Shell Intl. E&P

257 SPE/IADC 97417 Real-Time Azimuthal Laterolog Image Interpretation for Successful Horizontal Drilling in a Carbonate Reservoir in the U.A.E.

265 SPE/IADC 97422 New 4 3/4" Rotary Steerable System Is Combined With a Performance Drilling Motor To Reduce Risks Associated While Rotary Drilling With Small-Diameter Pipe
R. Kellas, J. Ruszka, and H. Gruenhagen, Baker Hughes Inteq

271 SPE/IADC 97426 Solid Expandable Tubulars Slim Well Design and Isolate Zones for Brownfield Redevelopment in Oman
W. Morrison and T. Sanders, Enventure Global Technology, and C. Leuranguer, Petroleum Development Oman

278 SPE/IADC 97427 Wellbore Cleanup by Water Jetting and Enzyme Treatments in MRC Wells: Case Histories

295 SPE/IADC 97430 Beyond Stress Relief Features: The Bottom Hole Assembly Connection for the Harshest Fatigue Environments
R.B. Chandler and A. Muradov, Grant Prideco; M.L. Payne and J.C. Wright, BP America; M.J. Jellison, Grant Prideco; and M.E. Reeves and D.S. Pixton, IntelliServ Inc.
306  SPE/IADC 97443 Recent Material and Geometrical Changes in Impreg Technology on Turbine Drive Lead to Reduced Drilling Costs in Hard Rock Application
C. Heywood, A. Currie, and D. Robson, Petroleum Development Oman, and P. Casey, Smith Bits

325  SPE/IADC 97449 Application of a Light Rig in Deep Exploration Drilling Operations in Nigeria
H. Okwa, I. Azoom, and E. Omini, Shell Petroleum Development Co. of Nigeria Ltd.

338  SPE/IADC 97514 World’s First MRC Window Exits Out of Solid Expandable Open-hole Liner in the Shaybah Field, Saudi Arabia