# TABLE OF CONTENTS

- Optimized Exploration Planning ................................................................. 1  
  M. Back
- Geologic and Dynamic Indicators Offering a Reliable Technology Paradigm to Reserve and Resource Estimation in Unconventional Oil Plays ................................................................. 14  
  G. Vassiliou, E. Elrafie
- Probabilistic Reserves Assessment and Evaluation of Sandstone Reservoir in the Anadarko Basin ................................................................. 31  
  W. Ampornah, R. Balch, H. Chen, D. Gunda, M. Cather
- Valuation of Prospective Resources - A Portfolio Approach ................................................................. 45  
  E. Jankowski, A. Kirchin
- Apply Two-Way Cluster Analysis to Select Candidate Reservoir Models from Multiple Realizations ................................................................. 61  
  N. Chaudhary, W. Lee
- Fast Economic Analysis and Optimization of Fracture-Stimulated Wells in Condensate Reservoirs ................................................................. 68  
  A. Filippov, X. Jia, T. McNealy, V. Khoriakov
- Detecting and Removing Outliers in Production Data to Enhance Production Forecasting ................................................................. 76  
  N. Chaudhary, J. Lee
- An Enhanced Method to Correct Rate Data for Variations in Bottom-Hole Pressure ................................................................. 97  
  N. Chaudhary, W. Lee
- Maximising the Value of Unconventional Reservoirs by Choosing the Optimal Appraisal Strategy ................................................................. 120  
  B. Willigers, R. Brautvold, J. Bickel
- Trust, but Verify: Maximizing Bluefield Value by Challenging the Engineering Assumptions ................................................................. 135  
  D. Sarostsi, S. Mhlashebeke, M. Komin, C. Meslenrocht
- Financial Impact of Price Volatility on the Oilfield Services Sector of the Petroleum Industry ................................................................. 147  
  A. Michael
- Simultaneous Solution for Ultimate Recovery, Original Hydrocarbon in Place, and Permeability from Production Data Analysis with Application to the Eagle Ford Shale ................................................................. 167  
  U. Naeem, D. Hussain, K. Khamees, J. Callard, D. Devegowda
- Forecasting Production of Shale Volatile Oil Reservoirs Using Simple Models ................................................................. 177  
  I. Makinde, W. Lee
- Production Forecasting in Shale Volatile Oil Reservoirs ................................................................. 209  
  I. Makinde, W. Lee
  M. Agerton
- What Factors Control Shale Gas Production Decline Trend: A Comprehensive Analysis and Investigation ................................................................. 258  
  H. Wang
- Integrating Planning, Financial and Economic Data - Closing the Integrity Gap ................................................................. 293  
  D. Trivino, N. Lazarde, E. Rincon, L. Uribe, I. Leon
- Solutions to 5 Strategic Issues Plaguing Executives in 2015-2016: Solving the Right Problems with Portfolio Management ................................................................. 304  
  J. Howell, L. Warren
- Comprehensively Valuing an Asset; How a Holistic Value Approach Aligns with Specific Corporate Goals ................................................................. 316  
  C. Capps, D. Jones
- Comparing the Results of an Exploration Portfolio Optimized Using Utility Theory Versus the Kelly Criterion ................................................................. 322  
  J. MacKay, G. Citron, P. Carragher
- Screening, Assessing, and Sorting Chinese Oilfields for CO2-EOR Suitability and Potential Economic and Social Benefits ................................................................. 331  
  X. Meng, H. Zhou, D. Luo
- An Investigation into Uncertainty Correlation in Resource Plays ................................................................. 344  
  J. DuBois, W. Dunn, J. Strother
- Analysis of Supply and Demand Dynamics to Predict Oil Market Trends: A Case Study of 2015 Price Data ................................................................. 361  
  M. Rafieisakhaei, B. Barazandeh, M. Tarrahi
- The Consequences of New Sources of Capital for the Oil and Gas Sector ................................................................. 372  
  E. Wild, N. Wansbury, J. Crudgington, M. Andrews
The Practice of Decline Curve Analysis .................................................................................................................. 382
D. Purvis

Evolution of Uncertainty Methods in Decline Curve Analysis ...................................................................................... 409
D. Purvis, H. Kuzma

Estimation of Unconventional Well Recoveries and Economics from Tranient Flow Data ......................................... 422
J. Seidle, L. O'Connor

Understanding Shale Resource Production: What are the Key Variables? ............................................................... 441
S. Ikonnikova, E. Vankov, G. Gulen, J. Browning

Impacts of Price Differentials, Taxation, and Costs on Shale Gas Drilling: A Marcellus Case Study ...................... 454
S. Ikonnikova, G. Gulen, J. Browning

The Impact of Changing Operational Activities on Unconventional Resource Extraction ........................................ 464
B. Cherian, E. Stacey, S. Chisler, R. Riria, K. Kablik, S. Narasimhan, J. Gray, O. Olareye, M. Atkinson

Analyzing the Effect of Debt on the Equity Valuation of Oil and Gas Producers in the Current Commodity Price Cycle .......................................................... 481
M. Devashish

Evolution of Shale Production in a Time of Turbulence ............................................................................................... 507
C. Cui, P. Galvin, M. Meyet, M. Mozur

Mexico’s Initiatives to Increase Oil Production and its Effect on North America Oil Production Outlook .................. 518
R. Suarez, A. Vazquez, J. Day, J. Roman, F. Rubio

An Update on Demonstrating Reliable Technology - Where are We Now? .......................................................... 545
R. Sidle, W. Lee

Uncertainty in Proved Reserves Estimates by Decline Curve Analysis ................................................................. 557
W. Apiwatcharoenkul, L. Lake, J. Jensen

How Corporate-Level Economics Enable Expected Value Thinking ..................................................................... 565
A. Adejumo, S. Queen, B. Gama, O. Germain

Data Mining and Analysis - Eagle Ford Formation, South Texas .............................................................................. 570
D. Romero, S. Poston

The Effect of Costs and Efficiencies on the Economic Viability and Resiliency of Production from Unconventional Reservoirs ........................................................................... 581
S. Ozkan

Unconventional Risk and Uncertainty: Show Me What Success Looks Like ............................................................ 593
D. Fulford

A Strategy for Low Cost Development of Incremental Oil in Legacy Reservoirs ..................................................... 636
E. Attanasi

Author Index