

23-25 July 2018 • Houston, Texas

# UNCONVENTIONAL<sup>®</sup>

## RESOURCES TECHNOLOGY CONFERENCE

FUELED BY SPE • AAPG • SEG

## URTeC 2018 Call for Abstracts Open

**Submission Deadline: 3 November 2017**

Submit your papers today and join us for the sixth edition of the Unconventional Resources Technology Conference. Your insights regarding new and emerging technologies will help to guide the exploration and exploitation of unconventional resources for years to come. Don't miss the opportunity to take part in the premier science and technology event for teams involved in exploration, appraisal, and development of unconventional resources.

### **Theme 01: Operators' Forum – Case Studies in Unconventional Reservoir Development: Impacts and Economics**

Presentations in this theme will be 50 minutes in length – twice as long as a standard presentation – and will feature two or three presenters from different disciplines providing a multi-faceted look at a particular basin or play.

1. Play Concept to Development – What the Rocks Say
2. Technologies and Processes that Delivered Bottom-Line Results
3. Case Studies That Dismantled Legacy Concepts and Delivered a Game-Changing Performance
4. Unconventionals Surprised Conventional Wisdom – Managing the Uncharted and Unconventional Pathways
5. The Evolution of “Best” Practices in Shale Plays
6. Surviving and Thriving in the Lower-for-Longer Price Environment

### **Theme 02: Integrated Characterization of Unconventional Reservoirs – From Outcrops to Geomodels**

1. Geology of Mudrocks: Depositional Processes, Facies, Sequence Stratigraphy, and Diagenesis
2. Horizontal Targeting Strategies and Challenges
3. Multi-Discipline Data Integration
4. Aligning Geoscience and Engineering Workflows by Reservoir Types

### **Theme 03: Advanced Formation Evaluation of Unconventional Reservoirs**

1. Imaging Unconventional Facies at the Macro-, Micro-, and Nano-Scales
2. Petrophysics and Formation Evaluation of Mudstones
3. Drivers for Understanding Reservoir Quality in Low-Permeability Rocks
4. Analytical Strategies for Whole Core: How Geologists, Geophysicists, and Engineers Can Have Their Way
5. Rock Physics of Unconventional Plays

### **Theme 04: Geomechanics in Unconventionals: From Mechanical Properties to Hydraulic Fracturing**

1. Beyond Young's Modulus and Poisson's Ratio – What Are the New Metrics?
2. Understanding the Role of Both Paleo and Current Stress Regimes on Reservoir Development
3. Applications of 3-D Seismic Stress Field Analysis
4. Upscaling for Geocellular Models and Simulation
5. Integration of Rock Data with Mechanical Stratigraphy
6. Integrating Microseismic Data, Mechanical Stratigraphy, and Seismic Volumes
7. Re-Stimulation – Where We Are and Where We Want to Be
8. Integrating Data to Optimize Completion, Perforation, and Stimulation Strategies

### **Theme 05: Unconventional Fluid Flow Physics and Simulation**

1. Integration of Nano- and Micro-Scale Data to Understand Macro-Scale Flow Behavior
2. Flow and Phase Behavior for Tight Oil and Shale Oil/Shale Gas Reservoir Systems
3. Reservoir Modeling for Unconventionals – Bringing Together Data, Disciplines, and Design
4. Application and Integration of Rock and Rock-Fluid Data

### **Theme 06: Seismic Applications to Optimize Development of Unconventional Reservoirs**

1. Induced Seismicity Mitigation and Best Practices
2. Microseismic Fracture Mapping
3. Seismic Attributes for Characterizing Rock Properties and Reservoirs – How Geophysics Clarifies Geology
4. 3-D Seismic Fault and Fracture Mapping Techniques
5. Predicting Rock Properties with 3-D Seismic Inversion

## Theme 07: Novel and Emerging Technologies

1. Advanced Materials and Chemistry
2. Nanotechnology for the Oil Field
3. Biomedical Applications to the Oil Field
4. Artificial Intelligence and Big Data
5. Surveillance of Unconventional Production – Collecting the Right Data at the Right Time

## Theme 08: Understanding Petroleum System Chemistry From Source Rocks to Produced Hydrocarbons

1. Geologic Controls on Source Rock Genesis
2. Organic Geochemistry of Oil-Prone and Gas-Prone Unconventional Resource Plays
3. Inorganic Geochemistry of Unconventional Plays
4. Effects of Burial, Uplift, and Temperature Histories on Hydrocarbon Types
5. Chemostratigraphy of Sedimentary Sequences – Applications of Elemental Proxies to Understand Depositional Environments
6. Produced Fluid Fingerprinting and Geochemical Surveillance
7. Understanding Commingled Production Streams – How Much Rock Am I Draining?

## Theme 09: EOR Applications for Unconventional Reservoirs

1. Enhanced Oil Recovery Techniques for Unconventional Reservoirs – The Time is Coming
2. Friction Reducers and Surfactants for Nano-Darcy Rock
3. Conformance Control in Challenged Reservoirs
4. Gas Compression Challenges for Low-Permeability Reservoirs
5. Laboratory Test to Field Pilot to Full-Scale Implementation

## Theme 10: Production Engineering, Operations, and Facilities in Unconventional Development

1. Reservoir Production and Recovery Mechanisms in Permeability Challenged Systems
2. Pressure Transient Testing/Well Testing
3. Resolving Early-Time Well Performance in Unconventional Reservoirs
4. Artificial Lift – Systems and Optimization for Unconventional Reservoirs
5. Downhole Fluid Separation

## Theme 11: Reserves Estimation and Production Forecasting

1. Use, Abuse, and Limitations of the SRV Concept
2. EUR and Performance Prediction
3. Assessment and Reserves
4. Well Spacing and Well Interference
5. Reserves Aspects of Conventional Versus Unconventional Plays
6. Production Diagnostics – Understanding the Big Picture on Production Forecasting

## Theme 12: Emerging Unconventional Plays

1. Occurrence of Unconventional Petroleum Systems Through Geologic Time – Where Do We Look Next?
2. Play Identification to "Sweet Spots"
3. Unconventionals Going Global – What Can North America Export to the World?
4. Defining and Managing the "Combination" Play
5. What Are We Missing? – Application of Unconventional Strategies to Under-Exploited Plays

## Theme 13: Stakeholder Management and Social Performance (HSSE)

1. Water Resources: Management, Utilization, Recycling, and Disposal
2. Social Issues and Social License to Operate
3. Managing Roles, Expectations, and Relationships
4. Social Investment and Impacts
5. Effective Communications Strategies
6. Groundwater Protection and Geohazard Mitigation

## Theme 14: Well Construction Optimization and Best Practices

1. Drilling Practices for Unconventional Reservoirs
2. Novel Well Designs
3. Drilling Challenges of Multi-Well Pads
4. Case Histories and Recommended Practices for Well Manufacturing
5. Well Path Planning and Geosteering (Including Fault Zone Predictions and Time-to-Depth Registration)
6. Fault Detection in Horizontal Wells – How Geoscientists and Engineers Can Avoid Surprises
7. Wellbore and Cement Integrity in Horizontal Multistage Completions

## Theme 15: Mid-Stream Integration

1. Upstream to Mid-Stream Collaboration
2. Facilities Optimization for Unconventional Resources
3. Integrated Asset Management – From the Reservoir to the Sales Line
4. Case Histories – Some Best Practices that Maximize Midstream Margins

## Questions? Contact Us:

**Rachel Piotraschke**  
Technical Programs Coordinator  
Tel: +1 918 560 2631  
Email: rpiotraschke@urtec.org

**Terri Duncan**  
Technical Programs Coordinator  
Tel: +1 918 560 2641  
Email: tduncan@urtec.org

For more information please visit:

**URTeC.org**