The economic development of shales and other resource plays in a continued low commodity price environment compels us to find new ways of delivering greater productivity and superior ultimate recovery at lower cost.

Operators of all shapes and sizes are striving to find the right funding model, the optimum development plan, the most efficient production methods, and the combination of techniques and technology that will maximize economic recovery from their fields.

At the Shale Development Optimization Workshop, experts from all disciplines will share their experiences, learnings, and unanswered questions as we debate the latest and fastest-moving areas of shale development.
## TECHNICAL AGENDA

### MONDAY, 15 MAY

**1730-1900 | Welcome Reception**  
*Canyons Room*

### TUESDAY, 16 MAY

All technical sessions are located in the Forum Amphitheatre.

**0700-0800 | Registration Check-in and Continental Breakfast**  
*Forum Foyer*

**0800-0815 | Chairperson’s Welcome**

**0815-1000 | Session 1: Big Picture – Finding the Optimum Business Model**

Session Chairs: **Matt Bell**, Ikon Science  
**Lance Robertson**, Endeavor Energy Resources

- **Presentation 1**: Asset Attributes and Industry Improvements Causing the High Acreage Multiples in the Unconventional Lower 48  
  **Jeff Sieler**, Citibank
- **Presentation 2**: Maintaining a ‘Say-Do’ Ratio in a World of ‘Fake News’!  
  **Paul Doucette**, GE Oil and Gas
- **Presentation 3**: A New Fossil Fuel Era?  
  **Rob Bradley**, Institute for Energy Research

**1000-1030 | Coffee Break**  
*Forum Foyer*

**1030-1200 | Session 2: Understanding the Rock and Fluids**

Session Chairs: **Azra Tutuncu**, Colorado School of Mines  
**Nagi Nagarajan**, Hess

- **Presentation 1**: Optimizing Recovery Through Phases of Development: Role of Rock and Fluids  
  **Muralidharan Venkatraman**, BHP
- **Presentation 2**: Impact of Rock Characterization and Fluid Confinement  
  **Mohamed Piri**, University of Wyoming
- **Presentation 3**: Drillbit Geomechanics Successfully Detects Depletion of Existing Middle Bakken Completions  
  **Eric Marshall**, FractureID

**1200-1330 | Lunch**  
*Hill Country Dining Room*

**1330-1500 | Session 3: Play-by-Play, Part 1 – Expanding and Exploiting the Permian Basin**

Session Chairs: **Billy Harris**, Elk River Resources  
**James Courtier**, Laredo Petroleum

- **Presentation 1**: Cluster Design: An Evolution of Wolfcamp Completions in the Midland Basin  
  **Matthew Perry**, ProTechnics
- **Presentation 2**: Interdisciplinary Method to Improve Well Performance and Achieve Profitable Production Growth  
  **John Polasek**, Occidental Oil and Gas
- **Presentation 3**: Case Study on Pinpoint Fracturing and Depletion Mitigation in the Delaware Basin  
  **Ryan Epperson**, Devon

**1500-1530 | Coffee Break**  
*Forum Foyer*

**1530-1700 | Session 4: Latest Developments in Horizontal Well Completions**

Chairs: **Dick Leonard**, ProTechnics  
**Zack Warren**, Great Western Oil & Gas

- **Presentation 1**: Mining the Bakken: Driving Cluster and Capital Efficiency Higher  
  **Paul Weddle**, Liberty Resources
- **Presentation 2**: Using Water Hammer Characteristics as a Fracture Treatment Diagnostic  
  **Jessica Iriarte**, Well Data Labs and Colorado School of Mines
- **Presentation 3**: Innovating Completion Optimization  
  **Daniel Rojas**, Stage Completions Inc.

**1700-1830 | Networking Reception**  
*Hill Country Veranda*

### WEDNESDAY, 17 MAY

**0700-0800 | Continental Breakfast**

**0800-0930 | Session 5: Data Analytics and Multivariate Analysis**

Chairs: **Antoine Bertoncello**, Total  
**Bob Gales**, California Resources Corporation

- **Presentation 1**: Productivity Analysis of the Barnett Shale Play  
  **Emilian Vankov**, Rice University Baker Institute
- **Presentation 2**: Shale Analytics: Engineering Application of Data Science for Analysis, Modeling, and Optimization of Shale Wells  
  Shahab Mohaghegh, West Virginia University

- **Presentation 3**: Identification of Field Development Opportunities through Data-Driven Technologies  
  Xiang Zhai, Quantum Reservoir Impact

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**0930-1000 | Coffee Break**

**1000-1130 | Session 6: Improving Existing Well Performance**

Chairs: Lionel Ribeiro, Statoil  
Dick Leonard, ProTechnics

- **Presentation 1**: Parent-Child Well Interactions  
  Mukul Sharma, The University of Texas at Austin

- **Presentation 2**: Re-Frac Strategy in the Bakken: A Comprehensive Field Case Study  
  Ashley Schneider, Statoil

- **Presentation 3**: Re-fracturing Design Considerations for Operations and Engineering  
  Tim Leshchyshyn, FracKnowledge

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**1130-1300 | Lunch**

_Hill Country Dining Room_

**1300-1430 | Session 7: Tons, Tanks, and Trucks – A Focus on Sand and Frac Equipment**

Chairs: Lance Robertson, Endeavor Energy Resources  
Lionel Ribeiro, Statoil

- **Presentation 1**: Perspectives on the U.S. Onshore Oil Service Market  
  John Daniel, Simmons

- **Presentation 2**: The New “Conductivity” – Calculating the Most Conductive Path from the Mine to the Hopper  
  Kevin Kysar, Hi-Crush

- **Presentation 3**: Frac Sand Industry Update  
  Max Barrett, Tudor, Pickering, Holt & Co.

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**1430-1500 | Coffee Break**

_Forum Foyer_

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**1500-1630 | Session 8: The Evolving Regulatory and Community Landscape - Panel Session**

Chairs: Zack Warren, Great Western Oil & Gas  
Azra Tutuncu, Colorado School of Mines

- **Presentation 1**: Beyond the Fracking Debate: New Frontiers in Advocacy & Advocacy  
  Sarah Sandberg, Colorado Oil & Gas Association

- **Presentation 2**: An Operator’s Perspectives in an Evolving Landscape  
  Paul Krishna, XTO Energy

- **Presentation 3**: Creating a Social Contract to Operate – a Social Imperative  
  Dan Domeracki, Schlumberger

- **Presentation 4**: State Regulatory Leadership: The Texas Experience  
  Lori Wrotenbery, Railroad Commission of Texas

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**THURSDAY, 18 MAY**

**0700-0800 | Continental Breakfast**

**0800-0930 | Session 9: Play-by-Play, Part 2 – Success Stories from the SCOOP, STACK, and More**

Chairs: Brendan Elliott, Devon  
James Courtier, Laredo Petroleum

- **Presentation 1**: Unraveling the SCOOP, STACK  
  Riteja Dutta, DrillingInfo

- **Presentation 2**: An Integrated Approach to Optimizing Horizontal Well Infill Spacing Solutions in Unconventional Systems  
  Layne French, Marathon Oil Company

- **Presentation 3**: New Age Diagnostic Tools: A STACK Case Study  
  Kyle Dahlgren, Devon

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**0930-1000 | Coffee Break**

_Location_

**1000-1130 | Session 10: Wrap Up and Open Discussion**

Chair: Matt Bell, Ikon Science

We will close the workshop with an opportunity to reflect on what we have heard and learned, and to discuss topics that have not been covered during the scheduled program.
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