For an unconventional project to meet its economic objectives, operators must optimize all phases of the project's life cycle, including well design, reservoir recovery, and project abandonment. Primary cementing has a major impact on all of these phases and ultimately affects project economics.

This workshop will provide an excellent opportunity to share and discuss the challenges of unconventional wells, specifically the impact of cementing practices on meeting project objectives. The sessions will cover a broad scope of unconventional cementing challenges from the initial job and slurry design through to final well abandonment. Topics will include cement placement in horizontal sections, cement and casing integrity, mitigating sustained casing pressure, factory mode cementing, cementing hardware, and cement job evaluation. This workshop is intended to foster interactive discussion on challenges, practices, successes, failures, and future opportunities for process improvement.

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Who We Are
SPE is the largest individual member organization serving managers, engineers, scientists and other professionals worldwide in the upstream segment of the oil and gas industry.
Technical Agenda  As of 12 September 2022

All technical sessions will be held in Grand Ballroom AB.

Tuesday, 27 September

0700–0800  Grand Ballroom Lobby
Registration Check-in
Continental Breakfast

0800–0830  Opening Comments

0830–1000  Session 1: Factory Mode Cementing
Session Chairs: Garrett Schultz, Rockwater Energy Solutions
Travis Baughman, Oxy
• Offline Cementing: Logistic Advancements and the Quality Initiatives That Make it Possible
  Joe Huwel, Nine Energy Service
• Streamlined Cement Operations and Design at the Wellsite
  Matt Spirek, American Cementing

1000–1030  Grand Ballroom Lobby
Coffee Break

1030–1200  Session 2: Achieving Zonal Isolation During Hydraulic Fracturing Stimulation: Cement and Casing Stresses
Session Chairs: Bill Carey, Los Alamos National Laboratory
Barbara Kutchko, National Energy Technology Laboratory
• Fluid-Driven and Rate-Dependent Damage of the Cement Sheath Under Conditions of Hydraulic Fracture Stimulation
  Andrew Bunger, University of Pittsburgh
• Cement Integrity: How Much is Enough?
  Axel-Pierre Bois, Curistec
• Key Factors in Cement Job Design Impacting Mechanical Robustness of Cement Sheaths of Unconventional Wells
  Vincent Liang, Schlumberger

1200–1330  Grand Ballroom CD
Lunch

1330–1500  Session 3: Mitigating Sustained Casing Pressure, Cost of Failure
Session Chairs: Deryck Williams, Chevron
Axel-Pierre Bois, CURISTEC
• Are Basic Cementing Techniques the answer to Mitigating Sustained Casing Pressure?
  Katie Hennessy, Chevron
• Sustained Casing Pressure: The True Costs of Failure
  Lance Sollohub, CUDD Energy
• Sustained Casing Pressure: Mechanical Solutions for Mitigation
  Nicolas Saltel, Saltel Industries

1500–1530  Grand Ballroom Lobby
Coffee Break

1530–1700  Session 4: Vertical and Intermediate Casing Sections
Session Chairs: David Stiles, ExxonMobil
Travis Baughman, Oxy
• Bradenhead Squeezes for Primary Intermediate Cementing in the Midland Basin
  Steven Le, XTO Energy; Jason Winegarden, NexTier
• Challenges Cementing Across Simultaneous Loss and Flow Zones
  Dan Weller, Schlumberger

1700–1830  Pool Deck
Networking Reception

Wednesday, 28 September

0700–0800  Continental Breakfast

0800–0930  Session 5: Optimal Slurry Designs for Unconventional Wells
Session Chairs: Simon Turton, Halliburton
Larry Todd, Synthomer
• Annular Slurry Placement Concentrations in Extended Laterals
  Dylan Phelan, Schlumberger
• Customized Spacer and Cement Design for Challenging Monobore Wells in the Rockies: Case History
  Afshin Ahmad, Halliburton
• Unconventional Use of Conventional Materials to Enhance Integrity of Wellbore Cements
  Raissa Ferron, University of Texas at Austin

0930–1000  Grand Ballroom Lobby
Coffee Break

1000–1130  Session 6: Achieving Effective Cement Placement in Horizontal Wells
Session Chairs: Gefei Liu, Pegasus Vertex
Donald Jagpath, Tucker Energy Services
• Approaches of Predicting Complex Displacement Flow Inside Casing String
  Hu Dai, Pegasus Vertex
• Highly Efficient Displacement Flows in Rotating Pipe and Reciprocating Annulus for Well Cementing Applications
  Seyed Mohammad Taghavi, Laval University
• Mud Displacement Challenges in Montney Monobores
  Jeremy Downs, Sanjel Energy Services
## Technical Agenda

### As of 12 September 2022

All technical sessions will be held in Grand Ballroom AB.

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|          |                                 | **Session Chairs:** Dale Doherty, ConocoPhillips  
|          |                                 |  
|          |                                 |  
|          |                                 |  Kevin Dockerty, Schlumberger  
|          |                                 |  
|          |                                 |  
|          |                                 | *Pumpdown Diagnostics for Assessing Cement Sheath Isolation Characteristics Along the Lateral*  
|          |                                 |  David Cramer, ConocoPhillips  
|          |                                 |  
|          |                                 |  
|          |                                 | *Rolling up Our Sleeves: What Can Data From Frac Operations Teach us About Cement?*  
|          |                                 |  Tim Lesko, M-I SWACO, a Schlumberger Company  
|          |                                 |  
|          |                                 | *Cement Evaluation in Unconventional Wells: Advanced Cement Evaluation and Combined Analysis*  
|          |                                 |  Rodolph “Roddy” Hebert III, Halliburton  
| 1430–1500| Grand Ballroom Lobby            | Coffee Break                                                                    |
| 1500–1630| Grand Ballroom AB               | **Session 8: Use of Non-Portland Cement to Repair a Failed Cement Barrier**     |
|          |                                 | **Session Chairs:** Anthony Badalamenti, CURISTEC  
|          |                                 |  
|          |                                 |  Andrew Bunger, University of Pittsburgh  
|          |                                 |  
|          |                                 | *Beyond Cement: An Introduction to the Possibilities of Alternative Barrier Materials*  
|          |                                 |  Mike Cowen, Consultant  
|          |                                 |  
|          |                                 | *Nano-Modified Polymer for Sealing Micro Annulus in Oil & Gas Wells and Storage Caverns*  
|          |                                 |  Mahmoud Taha, University of New Mexico  
|          |                                 |  
|          |                                 | *CO₂ Exposure of a CO₂-Resistant Cement vs Portland Cement*  
|          |                                 |  Barbara Kutchko, National Energy Technology Laboratory  
| Thursday, September 29| Grand Ballroom Lobby |  
| 0700–0800 | Continental Breakfast           |  
| 0800–0930| Grand Ballroom AB               | **Session 9: Permanent Abandonment**                                            |
|          |                                 | **Session Chairs:** Alan Parpliano, Hess  
|          |                                 |  
|          |                                 |  Jeff Long, American Cementing  
|          |                                 |  
|          |                                 | *Lateral Abandonment Using a Sacrificial String: Bakken Case Study*  
|          |                                 |  Nick Stille, American Cementing  
|          |                                 |  
|          |                                 | *P&A Optimization During Field Development*  
|          |                                 |  Josh Alberson, Alberson Cement Consulting  
|          |                                 |  
|          |                                 | *Permanent Plugging and Abandonment of Unconventional Wells: Applying Lessons Learned From the NASEM GRP Funded GoM P&A Project*  
|          |                                 |  Ipsita Gupta, Louisiana State University  
| 0930–1000| Grand Ballroom Lobby            | Coffee Break                                                                    |
| 1000–1130| Grand Ballroom AB               | **Session 10: Wrap-Up Breakout Session**                                        |
|          |                                 | **Moderator:** Axel-Pierre Bois, CURISTEC  
|          |                                 |  
| 1130–1200| Grand Ballroom AB               | Closing Comments                                                                 |

### Knowledge Sharing Posters

#### Grand Ballroom Lobby

- **Geomimicry Enhanced Wellbore Cements for Mitigation of Leaky Wellbores**
  Cody Massion, Sai Vamsi Vissa, Oklahoma State University; Yunxing Lu, University of Pittsburgh; Dustin Crandall, US Department of Energy-National Energy Technology Laboratory; Mercy Achang, Oklahoma State University; Andrew Bunger, University of Pittsburgh; Mileva Radonjic, Oklahoma State University

- **Displacement Efficiency in Cement Job Demystified**
  Hu Dai, Gefei Liu, Pegasus Vertex

- **Common Well Cementing Problems, Causes, and Solutions**
  John McCormick, Pegasus Vertex; Gunnar DeBruijn, Consultant

- **Evolution of the State of Stress of Portland Cement as it Cures From Liquid to Solid**
  Bill Carey, Los Alamos National Laboratory

- **Optimization of Cement Production and Hydration for Improved Sustainability, Performance, and Cost**
  Chengcheng Tao, Purdue University

- **Cement Placement Modeling: The Hidden Factors**
  Axel-Pierre Bois, CURISTEC

- **An Integrated Method for Cement Integrity Design: From Lab Testing to Numerical Simulation**
  Axel-Pierre Bois, CURISTEC
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Workshops maximize the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices. Many of the presentations are in the form of case studies, highlighting engineering achievements and lessons learned. In order to stimulate frank discussion, no proceedings are published and members of the press are not invited to attend.

Workshop Ideas
Have an idea for a new workshop or forum? Let us know about it by completing this online form. Use your mobile device: