

28-30 APRIL 2025
CHEYENNE MOUNTAIN RESORT
COLORADO SPRINGS, COLORADO



i GENERAL INFORMATION

ACCESSIBILITY

Our events and functions are accessible to all attendees with wheelchairs. If you require special arrangements, please contact our staff at the registration desk.

ALCOHOL POLICY

SPE recognizes the legitimate serving of alcoholic beverages in the process of conducting business and social activities. We also recognize that the use and consumption of alcohol carries with it the requirement for all attendees to consume those beverages responsibly.

COMMERCIALISM

In remaining consistent with workshop objectives and SPE guidelines, commercialism in presentations will not be permitted. Company logos should be used only to indicate the affiliation of the presenter(s).

CONTINUING EDUCATION UNITS

Attendees will receive 2.0 CEUs. One CEU equals 8 contact hours of participation. CEUs will be awarded through SPE Professional Development for participation and completion of an SPE workshop. A permanent record of a participant's involvement and awarding of CEUs will be maintained by SPE.

DOCUMENTATION

Following the workshop, a URL containing released copies of the workshop presentations will be available to all attendees.

ELECTRONIC DEVICES

As a courtesy to the speakers and your fellow registrants, please turn off all electronic devices during presentations.

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NAME BADGES

Please wear your badge at all times. It is a courtesy to your fellow registrants, speakers, and sponsors.

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Any person attending may be photographed or videotaped, and by your attendance, you give permission to use your image in possible future marketing publications including print, online, and video.

WORKSHOP FORMAT

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.



Please take a moment
and let us know your
thoughts on this event!
go.spe.org/25ACOLAttendee

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New Perspectives in Well Performance Analysis and Production Forecasting

The SPE workshop is the preeminent venue for showcasing new and innovative practices and interpretation methods for well performance and production forecasting, driven by the SPE community. This workshop will feature case studies that demonstrate the practical applications of theories, models, diagnostics, and interpretation methods from the field. Examples from operators in unconventional reservoirs across the US, Canada, Argentina, the Middle East, China, and Australia will be presented.

The goal of these operator-focused presentations is to provide real-world examples, allowing participants to learn and contribute to the assessment of well performance in unconventional reservoir systems. There will be a specific emphasis on issues prioritized by operators, such as choke/drawdown management, GOR (and WOR) evolution, fracture-driven interactions ("frac-hits"), well spacing, and parent-child well effects in multi-well developments. New topics, such as Carbon Capture, Utilization, and Storage (CCUS) and geothermal applications, will also be covered to address the growing relevance of these technologies in today's energy landscape.

Additionally, the workshop will highlight the integration of Enhanced Oil Recovery (EOR) with refracturing operations, focusing on practical approaches that combine both techniques to improve well performance in unconventional reservoirs. The evolving role of Petroleum Data Analytics will also be directly addressed, with discussions on how advanced data analysis, machine learning, and predictive modeling are transforming well performance forecasting and diagnostics.



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Technical Agenda

Technical Sessions located in Centennial Ballroom

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MONDAY, 28 APRIL

0700-0740	Registration Check-In and Continental Breakfast	Centennial Room Prefunction Area
0740-0750	Chairperson's Welcome and Introduction	
0750-0900	Crafting Our Workshop Goals: A Dialogue With the Chairs	
0900-1030	Session 1: Case Studies in CO₂ Injection and Geothermal Session Chairs: John Boden, i2kConnect Dylan Longheed, SAGA Wisdom Inc. Carbon Capture—A Technology Developer's Perspective Dr. Gokhan Alptekin, TDA Research, Inc. Advances in Reservoir Engineering for Enhanced Geothermal Systems at Project Cape Kat Briggs and Louis Giguere, Fervo Energy CCS Well Test with Brine Injection and CO ₂ Injectivity Forecast Jacky Huang and Jordan Mimoun, Exxon	
1030-1100	Coffee Break	Centennial Room Prefunction Area
1100-1230	Session 2: Advanced RTA Tools and Diagnostics for Unconventional Reservoirs Session Chairs: Alejandro Lerza, Chevron Erdal Ozkan, Colorado School of Mines Estimating Stage-by-Stage Reservoir and Fracture Properties Using the Post-Fracture Pressure Decay Technique Chris Clarkson, University of Calgary Practical Applications of Space-Time Fractional Diffusion in Naturally Fractured Reservoirs Vincent Artus, KAPPA Characterizing Fracture Height and Parent-Child Well Interference at HFTS-2 for Well Performance Forecasting Zhishuai Zhang, Jiehao Wang, Chevron	
1230-1345	Lunch	Remingtons Ballroom

1345-1515	Session 3: AI & Machine Learning: Transforming Well Performance Analysis Session Chairs: Alireza Haghighat, S&P Global Vincent Artus, KAPPA Revolutionizing Well Performance: Leveraging Machine Learning in a Low-Code Environment Anahita Pourjabbar, Chevron Application of Machine Learning in Automated Workflows Darryl Fenwick, KAPPA From Static to Dynamic: Deep Learning for Accelerated Forecasting and Simulation Dr Siddharth Misra Texas A&M University	
1515-1545	Coffee Break	Centennial Room Prefunction Area
1545-1715	Session 4: Multiphase Well Performance Analysis and Production Forecasting: Where We Are, Where We Go From Here... Session Chairs: Birol Dindoruk, University of Houston Mariano Suarez, YPF Argentina A Diagnostic-Based Methodology to Analyze Multiphase Well Performance and Forecast Gas-Oil Ratio (GOR) or Condensate-Gas Ratio (CGR) Alvaro Betancourt, DeGolyer and MacNaughton Temperature and Pressure Dynamics in CO ₂ Injection Wells: Insights into Wellbore Behavior During Start-Up, Injection, and Shut-In. Hamid Behmanesh, Whitson Numerical Analysis of Condensate Banking and Development Optimization in the Deep Formation of the Permian Basin Jichao Han, Oxy	
1715-1830	Networking Welcome Reception	Grand Rivers Terrace

TUESDAY, 29 APRIL

0700-0800	Continental Breakfast	Centennial Room Prefunction Area
0800-0930	Session 5: Advanced Multiwell RTA and PTA Techniques—From Theory to Practice Session Chairs: Alejandro Lerza, Chevron James Ewert, ConocoPhillips Far-field Drainage Along Hydraulic Fractures: Insights From Integrated Modeling Studies in the Bakken and Permian Basin Chris Ponnors, ResFrac Examples of PTA/RTA of Interfering Horizontal Wells in Unconventional Reservoirs Erdal Ozkan, Colorado School of Mines Using the FMB Model to Determine Which Wells Out of a Group of Wells Belong to the Same Common Pool Alireza Haghighat, S&P	
0930-1000	Coffee Break	Centennial Room Prefunction Area
1000-1130	Session 6: Advancing Field Development with Rate Transient Analysis: Practical Applications Session Chairs: James Ewert, Conoco Phillips David Jones, NextEra Energy Resources Applying Numerical RTA to Public Data: Enabling Field-Wide Property Calibration and Improved Public Data EUR Forecasts Jordan Bowie, ARC Resources Ltd. RTA for Conventional Reservoirs- Field Examples from Around the World Dave Anderson, SAGA Wisdom Common Causes of Deviations From Linearity on Linear Flow ($\sqrt{t}$ mb) Plots Darryl Thompkins, RevoTesting	
1130-1300	Lunch	Remingtons Ballroom
1300-1430	Session 7: Comparative Study Results: Refracturing Dataset Case Session Chairs: Alireza Haghighat, S&P Global Neha Bansal, DeGolyer and MacNaughton Refracturing Analysis of SPE Dataset 1, Well #1 Mark McClure, ResFrac Refracturing Analysis of SPE Dataset 1, Well #2 Jorge Acuna, J Acuna Consulting Refracturing Analysis of SPE Dataset 1, Well #3 Leopoldo Ruiz Maraggi, Bureau of Economic Geology UT Austin	

1430-1500	Coffee Break	Centennial Room Prefunction Area
1500-1630	Technology Showcase Session 8 Showcase Chairs: David Jones, NextEra Energy Resources Alejandro Lerza, Chevron S&P Global Commodity Insights Upstream, Engineering Applications Kristina Epp, S&P Global DeGolyer and MacNaughton Production Performance Intelligence Dilhan Ilk, DeGolyer & MacNaughton Vx Spectra Multiphase Flow Meter Benjamin Marmon, SLB	
1630-1730	Networking Reception	Cheyenne Ballroom

WEDNESDAY, 30 APRIL

0700-0800	Continental Breakfast	Centennial Room Prefunction Area
0800-0930	Session 9: Creating Value in Unconventionals: Opportunities and Challenges for Subsurface Teams (Panel) Session Chairs: Bertrand Theuveny, SLB Sebastien Matringe, Hess Corporation Panelists: Monet Cernoch, Hess Corporation Senior Development Manager Bakken North of River Birle Bourgeois, Chevron Shale and Tight Director at Chevron Mouin Al-Masood, Devon Energy Subsurface Engineering Manager Juan Fernandez, Oxy Reservoir Engineering Advisor Sr	
0930-1000	Coffee Break	Centennial Room Prefunction Area
1000-1130	Session 10: Best of the SPEE Software Symposium—Automated Production Forecasting Session Chairs: Leopoldo Matias Ruiz Maraggi, Bureau of Economic Geology, UT Dilhan Ilk, DeGolyer and MacNaughton Speakers: Zack Warren, Velocity Insight David Fulford, EIV Capital, LLC The 2024 Software Symposium, hosted in October by the Society of Petroleum Evaluation Engineers, showcased the state of automated decline curve forecasting. The event featured a 'Bake Off' where 15 vendors' automated forecasts were analyzed on a common production dataset within 12 hours. This presentation dives into the parts of that analysis that David Fulford and Zack Warren focused on (and found most interesting): machine learning regression models, the use of synthetic well data, secondary phases, and humans vs. machines.	
1130-1145	Closing Remarks, Workshop Chairs	

“SPE provides shared expertise, resources, and life-long learning opportunities to fuel the success of our members and the future of the industry.”



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