

# SPE WORKSHOP



Society of Petroleum Engineers



Intervention & Coiled Tubing Association

11-12 April 2017 Archer Hotel Austin | Austin, Texas

## SPE/ICoTA Workshop: Refracturing and Advancing the Learning Curve

Across all oil and gas plays, the rapidly evolving approaches to completion and stimulation design and deployment have created enormous opportunities to re-enter and re-stimulate wells that were treated early in play development. With the deep and sustained reduction in oil price, refracturing creates a highly attractive opportunity for many of these wells. Subject matter experts will present case study presentations on extensive field experiences and provide technical updates on refracturing. This workshop is an opportunity to network as well as to learn the newest developments.

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**HALLIBURTON**



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BP

**Steve Baumgartner**  
Marathon Oil

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# SPE/ICoTA Workshop: Refracturing and Advancing the Learning Curve

## TECHNICAL AGENDA

### MONDAY, 10 APRIL

1730-1900 | Welcome Reception  
*Terrace Patio*

### TUESDAY, 11 APRIL

All technical sessions are located in Salon ABC.

0700-0800 | Registration and Continental Breakfast  
*Salon ABC Foyer*

0800-0810 | Chairperson's Welcome

0810-0840 | **Keynote Address: Well Integrity Performance Increases: What Modern Well Designs Accomplish**  
**George King, Apache**

0840-1010 | **Session 1: Selection Process for Refracturing Candidates**

Session Chairs: **Dave Allison, Anadarko**  
**Luis Castro, Baker Hughes**  
**Ali Daneshy, Daneshy Consultants**

- **Presentation 1:** Impact of Re-Fracturing Techniques on Reserves: A Barnett Shale Example  
**Chris Williams, Devon**
- **Presentation 2:** Evaluating Refrac Potential in the Permian Wolfcamp Formation  
**Bob Barba, Integrated Energy Services**
- **Presentation 3:** Refracturing Identification and Strategy: How to Make the Best Use of Your Data?  
**Riteja Dutta, Drilling Info**

1010-1030 | Coffee Break  
*Salon ABC Foyer*

1030-1200 | **Session 2: Frac Interference Mitigation**

Session Chairs: **Sam French, BP**  
**Jason Baihly, Schlumberger**  
**Neil Modeland, Halliburton**

- **Presentation 1:** Refracturing to Help Mitigate Detrimental Frac Hits  
**Garrett Lindsay, Schlumberger**
- **Presentation 2:** Frac Hits: Prediction, Impact Reduction & Remediation – Apache Case Histories  
**George King, Apache**

- **Presentation 3:** Legacy Well Protection Refrac Mitigates Offset Well Completion Communications  
**Neil Stegent, Halliburton**

1200-1330 | Lunch  
*Terrace Patio*

1330-1500 | **Session 3: Completions and Coiled Tubing Intervention - Past, Present, and Future**

Session Chairs: **Robert Coon, PetroFrac Oil Tools**  
**Luis Castro, Baker Hughes**  
**Andrew Zheng, Schlumberger**

- **Presentation 1:** Case Histories: Review and Considerations from Restimulation Applications of Coiled Tubing Straddle Systems  
**Luis Castro, Baker Hughes**
- **Presentation 2:** Refrac Case Histories in Different Horizontal Completions Using Mechanical Isolation  
**Rocky Seale, Resource Well Completions Technologies**
- **Presentation 3:** Expandable Refrac Liners  
**Harsh Chowdhary, Enventure**

1500-1530 | Coffee Break  
*Salon ABC Foyer*

1530-1700 | **Session 4: Diversion and Zonal Isolation - Past, Present, and Future**

Session Chairs: **Bob Murphy, Weatherford**  
**Tom Walker, Maha Energy Inc.**  
**Steve Baumgartner, Marathon Oil Corporation**

- **Presentation 1:** Well Recompletions  
**Taylor Huey, Mohawk Energy**
- **Presentation 2:** Field Trial Results for New Diversion Technology Used in Refracturing and Completion Operations  
**Roger Schultz, Thru Tubing Solutions**
- **Presentation 3:** Diverting Agents: Innovative Deployment in Resource Play Development  
**Andrew McMurray, STEP Energy Services**

1700-1830 | Networking Reception and Poster Session  
*Terrace Patio*

**Poster Presentations:** Posters will be displayed at Tuesday's networking reception and during all coffee breaks on Wednesday.

**Chairs:** **Andrew Zheng, Schlumberger**  
**Robert Coon, PetroFrac Oil Tools**  
**Luis Castro, Baker Hughes**

- **Presentation:** What Microseismicity Tells Us About Refracturing: An Engineering Approach to Refracturing Treatment in Naturally Fractured Reservoirs  
**Alireza Agharazi, MicroSeismic**
- **Presentation:** New Coiled Tubing Technology and Grades for Improved Coiled Tubing Operations  
**Bruce Reichart, Tenaris Coiled Tubes**
- **Presentation:** Innovative E-line Technology for Improved Efficiency in Well Refrac Preparation  
**Daniel Gomez, Welltec**
- **Presentation:** Managed Pressure Flowback: A Permian Basin Case Study  
**Darryl Tompkins, Halliburton**
- **Presentation:** MorphPacker Expandable Steel Packers for Refrac Applications  
**Don McLean, Nine Energy**
- **Presentation:** Results You Can Take to the Bank  
**Jay Miller, Tech Flo**
- **Presentation:** Stuck Pipe Rescue - An Innovative Approach  
**Kevin Jones, Tenax Energy**
- **Presentation:** Multicycle Frac Sleeves Enable a 25-stage Pinpoint Refrac  
**Michael Mckown, NCS Multistage**
- **Presentation:** Adopting New Technologies to Enhance Stimulation Efficiency: Temporary Diverters Engineered Design  
**Mojtaba Shahri, Weatherford**
- **Presentation:** Advancement in Multistage Fracturing Technology Enhances Stimulation and Refrac Capabilities  
**Rair Barraez, Stage Completions**
- **Presentation:** Utilizing Slimhole Systems with Mechanical Isolation for Effective Refracture Treatments  
**Tess MacLeod, Packers Plus**
- **Presentation:** Isolation and Diversion Methods: Restimulation Results in the Bakken/Three Forks Play  
**William Ruhle, Halliburton**

**WEDNESDAY, 12 APRIL**

0700-0800 | Continental Breakfast  
*Salon ABC Foyer*

0800-0930 | **Session 5: Refrac Design and Modeling**

**Session Chairs:** **Ross Rucker, Aramco Services**  
**Jason Baihly, Schlumberger**  
**Brian Ward, Marathon Oil**

- **Presentation 1:** EP Energy Eagle Ford Refrac Optimization Study  
**Steve Geetan, EP Energy**
- **Presentation 2:** Re-Frac Re-Design: Should I Do Something Different?  
**Mike Smith, NSI Tech**
- **Presentation 3:** Refracturing as a Strategy to Control Parent-Child Well Fractures  
**Mukul Sharma, University of Texas at Austin**

0930-1000 | Coffee Break  
*Salon ABC Foyer*

1000-1130 | **Session 6: Diagnostics and Surveillance**

**Session Chairs:** **Dick Leonard, ProTechnics**  
**Tom Walker, Maha Energy Inc.**  
**Neil Modeland, Halliburton**

- **Presentation 1:** Refrac Design and Post Treatment Evaluation of the Three Forks Formation: A Single Well Case Study  
**William Ruhle, Halliburton (on behalf of North Plains)**
- **Presentation 2:** Diagnosing a Re-Stimulation Strategy for Infill Drilling  
**Mehdi Rafiee, Statoil**
- **Presentation 3:** Improving Re-Completion Techniques with Real-Time Downhole Fiber Optic Monitoring  
**Robert Loov, Schlumberger**

1130-1300 | Lunch  
*Terrace Patio*

1300-1430 | **Session 7: Flowback, Productivity and Economics**

**Session Chairs:** **Steve Asbill, Silver Oak Energy**  
**Martin Rylance, BP**  
**Dave Allison, Anadarko**

- **Presentation 1:** Less Equals More: Increasing Cash Flow "1/64th" at a Time  
**Nabeel Masood, BP**

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- **Presentation 2:** Multi-Well Project Brings Enerplus Basin-Level Strategy Refinements for Refracturing in the Bakken  
**Jason Baihly, Schlumberger (on behalf of Enerplus)**
- **Presentation 3:** Refracture Learnings in the Eagle Ford – An Encouraging Collaboration Story  
**Lina Paola Charry Tovar, Schlumberger**

1430-1500 | Coffee Break  
*Salon ABC Foyer*

## 1500-1630 | **Session 8: Future and Emerging Technologies**

Session Chairs: **Martin Rylance, BP**  
**Robert Coon, PetroFrac Oil Tools**  
**Ali Daneshy, Daneshy Consultants**

- **Presentation 1:** Diverters: Ugly Truths and the Cost of Knowledge  
**Dario Stemberger, Devon**

- **Presentation 2:** Latest Developments in a Far-Field Proppant Detection Method  
**Terry Palisch, Carbo Ceramics**
- **Presentation 3:** Protective Refracturing of Depleted Wells - A Field Study Using Pressure Monitoring on Offset Wells  
**Erica Coenen, Reveal**

Complete a quick 5 question survey to share your thoughts.

[www.spe.org/go/SPEjaus17](http://www.spe.org/go/SPEjaus17)

## 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 1.6 CEUs. One CEU equals 10 contact hours of participation. CEUs will be awarded through SPE Professional Development for participation and completion of SPE workshop. A permanent record of a participant's involvement and awarding of CEUs will be maintained by SPE.

### Documentation

The workshop online community will contain released copies of the workshop presentations.

### Electronic Devices

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

### Name Badges

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

### Photography and Recording Policy

SPE reserves the exclusive rights to all video/audio recording or reproductions of the workshop.

Unauthorized video/audio recording is expressly prohibited in the session room(s) or poster area, whether by video, still or digital camera, mobile phone, or any other means or form of reproduction.

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.