

Efficient Energy: Observations, Monitoring, & Diagnostics

2019 HFC Workshop, June 27, 2019. New York, USA

7:30 – 7:45 Opening Mark: TCHF & HFC Highlights

7:45 – 9:55 Mine-Back and Core-Through Experiments

Chairs: Ken Perry (GTI), Joe Morris (LLNL)

- Overview of Hydraulic Fracturing Test Sites (HFTS) in the Permian Basin and Summary of Selected Results (HFTS-I in Midland and HFTS-II in Delaware), Jordan Ciezobka, Gas Technology Institute
- Coring Through Stimulated Rock Captures Complexities of Actual Hydraulic Fractures and Proppant Distribution, Debotyam Maity, Gas Technology Institute
- EGS COLLAB Project, Timothy Kneafsey, Lawrence Berkeley National Lab; Doug Blankenship, Sandia National Lab
- Looking Back at the Developing Conceptual Models of Hydraulic Fractures from the Perspective of the MWX-SHCT Project – John Lorenz, Fracture Studies LLC
- FORGE: Frontier Observatory for Research in Geothermal Engineering, John McLennan, University of Utah
- Group Discussions (30 minutes)

9:55 – 10:10 Coffee Break

10:10 – 12:00 Field and Lab Observations

Chairs: Doug Blankenship (SNL), Ahmed Alawi (SAO)

- MSEEL: Seismic Attribute Application Distributed Acoustic Sensing Data, Timothy Carr, West Virginia University
- Active acoustic monitoring of hydraulic fracture growth in scaled down laboratory experiments, Brice Lecampion, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
- Comparison between visualized hydraulic fractures and seismic event hypocenters, Kohei Tamura, Japan Oil, Gas and Metals National Corporation (JOGMEC)
- Laboratory Experimentation on Simultaneous Propagation of Multiple Hydraulic Fractures, Andy Bunger, University of Pittsburgh
- Group Discussions (30 minutes)

12:00 – 12:50 Lunch

- Keynote: A New Technique & Field Results for Quantifying Pressure Interference in Permian Basin Wolfcamp Horizontal Shale Wells, Kyle Scott, Pioneer National Resources

12:50 – 15:00 Fracture Monitoring and Diagnostics I

Chairs: Alexei Savitski (Shell), Ivan Gil (BP)

- Integrated Frac Diagnostics and Fiber Optics – New Insights into Hydraulic Fracture Stimulation, Gustavo Ugueto, Shell
- Microseismic Monitoring: Beyond Hydraulic Fracture Geometry, Jing Du, Total
- Stress Shadowing Fracture Diagnostics: Informing Spacing/Completion Design Cheaper and Faster, Nico Rousset and Dave Cramer, ConocoPhillips

- Learnings from the Hydraulic Fracturing Test Site (HFTS) #1, Midland Basin, West Texas - A Geomechanics Perspective, Shugang Wang, Chevron.
- Assessment of Fracturing Horizontal Wells Through Holistic Data Integration on a Clastic Tight Gas Accumulations in Oman, Juan Florez Chavez, Petroleum Development Oman
- Group Discussions (30 minutes)

15:00 – 15:15 Coffee Break

15:15 – 17:25 Diagnostics II: Pressure and Production Responses

Chairs: Robert Hurt (PXD), Holger Meier (XOM)

- Fracture Modeling - Importance of modeling shut-in data for fracture geometry prediction, Holger Meier, ExxonMobil
- DFIT Analysis Considering Complex Interactions of Hydraulic and Natural Fractures, Ahmad Ghassemi, Oklahoma University
- Hydraulic Fracture Modeling and Innovative Fracturing Treatment Design to Optimize Perforation Cluster Efficiency, Lateral Placement and Production Results, in a Mancos Shale Gas Appraisal Well, Ivan Gil, BP
- Results from a Collaborative Study on DFIT Interpretation, Mark McClure, Resfrac
- Diagnosing Stimulation Performance of Multistage Fracture Wells with Rate & Pressure Transient Analyses, Phil Fair and Lang Zhan, Shell International Exploration and Production
- Group Discussions (30 minutes)

17:25 – 17:40 Closing Mark: Reality Check

17:40 – 19:00 Social Networking