

Friday, October 16, 2020

Moderator: Bruce Brown, National Energy Technology Laboratory

1:00 PM Numerical and Laboratory Investigations for Maximization of Production from Tight/Shale Oil Reservoirs
Matt Reagan and George Moridis, Lawrence Berkeley National Laboratory

1:20 PM Mechanistic Approach to Analyzing and Improving Unconventional Hydrocarbon Production
Hari Viswanathan, Los Alamos National Laboratory

1:40 PM Understanding Water Partitioning between Shale Matrix and Fractures to Improve Water Use and Gas Production
Testu Tokunaga and Omotayo Omosebi, Lawrence Berkeley National Laboratory

2:00 PM Basin-Specific Geochemistry to Promote Unconventional Efficiency
John Bargar, SLAC National Accelerator Laboratory

2:20 PM Break

Moderator: Ellis Rosenbaum, National Energy Technology Laboratory

2:40 PM Fundamental Understanding of CH₄-CO₂-H₂O Interactions in Shale Nanopores Under Reservoir Conditions
Yifeng Wang, Sandia National Laboratory

3:00 PM A New Framework for Microscopic to Reservoir-Scale Simulation of Hydraulic Fracturing and Production: Testing with Comprehensive Data from HFTS and Other Hydraulic Fracturing Field Test Sites
Joe Morris, Lawrence Livermore National Laboratory

3:20 PM Role of Shale Geomechanical Changes in Affecting Gas and Fluid Flow
Dustin Crandall, National Energy Technology Laboratory

3:40 PM Geochemical Reactions Affecting Reservoir Porosity and Permeability
Alexandra Hakala and Christina Lopano, National Energy Technology Laboratory

4:00 PM Break

4:20 PM Shale Microbial Ecology Affecting Reservoir
Djuna Gulliver, National Energy Technology Laboratory



**FUNDAMENTAL RESEARCH
PROJECT REVIEW MEETING
Virtual Agenda
October 16, 2020**

- 4:40 PM** **Characterizing CO₂ as a Recovery Agent to Mobilize Hydrocarbons from Shale**
Angela Goodman, National Energy Technology Laboratory
- 5:00 PM** **Oilfield Mineral Scale Management Technology Development**
Barbara Kutchko, National Energy Technology Laboratory and Justin Mackey,
Leidos
- 5:20 PM** **Adjourn**