

**Agenda for Annual Meeting of MSRL
March 21-24, 2016,
Austin, Texas**

Pre-Meeting activities: Held at Bureau of Economic Geology

Sunday, March 20; 8:30 AM - 4:30 PM

Short Course: Introduction to Chemostratigraphy: concepts, methods, instrumentation, and interpretation: *Instructors: Harry Rowe and Bruce Kaiser*

Monday, March 21; 8:00 AM -5:00 PM

Short Course: Introduction to Mudrock Systems: origin, distribution, and reservoir characterization: *Instructors, Greg Frebourg, Steve Ruppel, Bob Loucks*

Main Meeting: Held at Commons L'il Texas Room, Pickle Research Campus

Tuesday, March 22

Oral Presentations

8:00 - 8:05AM Welcome: *Associate Director Eric Potter*

8:05 - 8:20AM Introduction: *Ruppel et al*

8:20 - 8:30AM Updates on MSRL data and delivery: *Breton*

Mini-Session 1: Revisiting the Barnett

8:30 - 8:55AM Revisiting the Barnett in the heart of the Ft. Worth Basin: *Loucks*

8:55 - 9:20AM Depositional systems and models: Barnett Fm, southern Fort Worth Basin: *Redmond*

9:20 - 9:55AM Refining Mississippian depositional conditions in the southern midcontinent: *Rowe*

9:55 - 10:10AM **BREAK**

10:10 - 10:35AM Barnett Shale pores revisited: *Reed*

Facies and Facies Architecture

10:35 - 11:00AM Regional controls on Woodford mudrock attributes: Permian Basin: *Ruppel*

11:00 - 11:25AM Integrated analysis of Pennsylvanian Cherokee Group mudrocks; Anadarko Basin: *Hu*

11:25 - 11:50AM Lateral variability in Eagle Ford mudrocks in core and outcrop: *Frebourg*

11:50 - 1:00PM **LUNCH**

Paleo-oceanography and Redox

1:00 - 1:25PM Interpreting the occurrence and absence of OAE-2 event in South Texas: *Rowe*

1:25 - 1:50PM High resolution chemostratigraphy of the Woodford Fm in the Permian Basin: *Rowe*

Organic matter and hydrocarbons

1:50 - 2:15PM Gas geochemistry of Spraberry and Wolfcamp Formations, Midland Basin: *Zhang*

2:15 - 2:40PM Organic matter source and depositional environments in the Eagle Ford Group: *Sun*

2:40 - 2:55PM **BREAK**

Pores, Pore Systems, and Porosity I

2:55 - 3:20PM Pore and organic matter evolution from dynamic nano-CT imaging: *Peng*

3:20 - 3:45PM Organic matter pores – new findings from lower thermal maturity mudrock: *Reed*

3:45 - 5:15 PM **Introductions to poster session**

5:15 - 7:00 PM(?) **Evening Poster Session: Hors d'oeuvres and drinks provided**

Poster Presentations

Facies and Facies Architecture

- Subregional variations in Bakken Facies and Stratigraphy: *Berney*
- Integrating Lithostratigraphy and Chemostratigraphy: Barnett Fm, Fort Worth Basin: *Redmond*
- High-resolution chemostratigraphy of Wolfcamp mudrocks: Delaware Basin: *Rowe/Nance*

- Facies and chemostratigraphy of the Buda and Austin Chalk: *Hendrix*
- Eagle Ford litho- and chemostratigraphy across the Stuart City reef margin: *Alnahmi*
- Chemostratigraphic and tephrochronologic record of the Eagle Ford: *Nieto*

Pores, Pore Systems, and Porosity

- Grain-edge dissolution pores in ion-milled surfaces: authentic or artifacts? *Reed*
- Basin-wide study of thermal maturity data, Wolfcamp interval, Midland Basin: *Baumgardner*

Organic Chemistry

- CH₄ re-saturation in core plugs and implication to gas loss in post coring: *Enriquez*
- Organic Geochemistry of Triassic lacustrine Yanchang Fm mudrocks: *Xun Sun*
- Geochemical impact on Middle Bakken during CO₂-based fracturing: *Lu*

Fluid Flow

- Molecular dynamics simulation of liquid slip flow in shale: *Javadpour*
- Langmuir slip-Langmuir sorption model for gas flow in shale: *Javadpour*

Methods and Instrumentation

- Artifacts related to large-area Ar-ion-milled surfaces: *Reed*
- Chemostratigraphy of the Lower Bexar Member of the Pearsall Fm: *Ko*
- Technical Methods for conducting horizontal core chemostratigraphy: Eagle Ford: *Sivil*
- Advances in supervised cluster analysis to define facies in Wolfcamp mudrocks: *Baumgardner*

Wednesday, March 23

Oral Presentations

Mini-Session 2: Construction of an Eagle Ford 3D geological model with multi-scalar data

- 8:00 – 8:25AM Integrated multiscale study of fluid flow in shale: molecular-to-core scales and wireline log-to-reservoir scales: *Javadpour*
- 8:25 - 8:50AM Sedimentology and architecture of the Eagle Ford for interwell modeling: *Frebourg*
- 8:50 - 9:15AM 3D model of Eagle Ford outcrop: *Tahmasebi*

Pores, Pore Systems, and Porosity II

- 9:15- 9:40AM Quantifying pore types and reservoir quality in the Late Triassic Yanchang lacustrine system, Ordos Basin: *Loucks*
- 9:40 - 9:55AM **BREAK**
- 9:55-10:20AM Pore types and pore-size distribution in Upper Triassic Yanchang Fm lacustrine mudstones: *Ko*
- 10:20-10:45AM Importance of natural microfractures in unconventional shale oil and gas systems: Real, imaginary or hypothetical?: *Loucks*
- 10:45-11:10AM Mudrock porosity: different results from different methods: *Peng*
- 11:10-11:35AM Effect of oil and water on mudrock pore size: *Zhang*
- 11:35-12:00AM Confinement correction to MICP data of shale: *Javadpour*
- 12:00- 1:00PM **LUNCH**
- 1:00 - 1:25PM Wolfcamp pore systems from Eddy Co., New Mexico: *Reed*

Permeability and Fluid Flow

- 1:25 - 1:50AM Matrix permeability in shale: particle/plug size effect and implications: *Peng*
- 1:50 - 2:15PM In-situ stress measurement of Eagle Ford matrix permeability: *Bhandhari*
- 2:15 - 2:40PM Multiscale 3D stochastic characterization of shale SEM samples: *Tahmasebi*
- 2:40 - 3:05PM Network modeling of liquid flow in noncircular pores: *Afsharpoor*
- 3:05 - 3:20PM **BREAK**
- 3:20 - 3:45PM Langmuir slip-sorption stochastic gas permeability model: *Naraghi*
- 3:45 - 4:30PM Discussion of Future Research Directions and Collaborations: *All*

Thursday, March 24: Core Workshop

8:00 AM - 4:00 PM; Bureau of Economic Geology

- Barnett, central Ft. Worth Basin: *Loucks*
- Barnett, southwestern Ft. Worth Basin: *Redmond*
- Eagle Ford horizontal core, central South Texas shelf: *Frebourg*
- Cherokee Fm, Anadarko Basin: *Hu*
- Mississippian Two Fingers Formation, Midland Basin: *Mauck*
- Eagle Ford Fm at the Stuart City margin: *Alnahwi*
- Cariaco Basin, offshore Venezuela: *Hammes*
- Austin and Buda on the south Texas shelf: *Hendrix*