

AGENDA FOR ANNUAL MEETING OF MSRL
March 20-24, 2017
Austin, Texas

Core Workshop: Held at Bureau of Economic Geology, Core Research Center

Monday, March 20, 9:00 AM – 4:00 PM

Classroom: VR room at the Bureau of Economic Geology (Room 1.116C, Bldg 130) on the Pickle Research Campus.

Core viewing: Viewing Room 1, Core Research Center (Bldg 131) on the Pickle Research Campus.

Organic-matter-poor and rich lithofacies, Austin Group, western Louisiana. *Loucks*

Integrated studies of an Eagle Ford horizontal core: *Ruppel, et al*

Lithofacies Characterization of the Upper Cretaceous Eagle Ford Group: *Alnahwi*

Integrated Sedimentology and pore system characterization of the Pearsall: *Ko*

The Bone Spring/Wolfcamp Series, Delaware Basin; Core 1: *Loucks, et al*

The Bone Spring/Wolfcamp Series, Delaware Basin; Core 2: *Janson, et al*

Agenda:

8:30 – 9:00AM Meet and greet, coffee, Welcome.

9:00 – 9:30AM Introduction to cores in VR Room, Bldg. 130.

9:30 – 12:00PM View cores in Viewing Room 1, Bldg. 131.

12:00 – 1:00PM **LUNCH** provided

1:00 – 4:00PM View cores.

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

Tuesday, March 21, 8:00 AM – 7:00 PM

Oral Presentations

8:00 – 8:20AM Welcome by the Bureau of Economic Geology's Associate Director for Energy: *Shuster*

8:20 – 8:40AM Introduction and overview: *Ruppel et al*

Reservoir Architecture and Attributes

8:40 – 9:10AM Can sequence stratigraphic concepts be applied in mudrock systems?: *Ruppel*

9:10 – 9:40AM Chemostratigraphy record of the Devonian Three Forks Fm, Williston Basin: *Rowe*

9:40 – 10:10AM Bone Spring pore networks, southern Delaware Basin: *Loucks*

10:10 – 10:25AM **BREAK**

10:25 – 10:55AM Geochemical proxies of the Wolfcamp in the Delaware basin: *Rowe*

10:55 – 11:25AM Facies Variability in the Eagle Ford across the Stuart City Margin, South Texas: *Alnahwi*

11:25 – 11:55AM Facies and chemostratigraphy: Yanchang Formation, Ordos Basin, China: *Ruppel*

11:55 – 1:00PM **LUNCH** provided

Pores and Porosity

1:00 – 1:30PM Pores in organic matter in mudrocks: a ten-year retrospective: *Reed*

1:30 – 2:00PM OM pore evolution in the Barnett and Woodford siliceous mudstone: *Ko*

2:00 – 2:30PM Pore System Heterogeneity and Microlithology in an Eagle Ford Horizontal Core: *Reed*

3:00 – 3:15PM **BREAK**

3:15 – 3:45PM Lithofacies, depositional setting, organic matter, and pores in the Austin Chalk: *Loucks*

3:45 – 4:00PM Group Discussion: *All*

4:00 – 4:15PM **Introduction to poster session**

4:15 – 7:00PM **Evening Poster Session.** *Hors d'oeuvres and drinks provided*

Poster Presentations

Lithofacies Characterization of the Upper Cretaceous Eagle Ford Group: *Alnahwi*
Comparison of Wolfcamp lithofacies in the Delaware and Midland Basins: *Baumgardner*
Methane re-saturation of Barnett core plugs; defining of post-coring gas loss: *Enriquez*
Permeability in heterogeneous rocks: Upscaling techniques from statistical physics: *Ghanbarian*
Application of high-resolution XRF analyses to lithofacies characterization: *Hendrix et al.*
The Bone Spring/Wolfcamp Series, Delaware Basin; Core 2: *Janson et al.*
Chemofacies characterization of the updip lower cretaceous Pearsall formation in south Texas: *Ko*
Integrated Sedimentology and pore system characterization of the Pearsall: *Ko*
Organic-matter-poor and rich lithofacies, Austin Group, western Louisiana. *Loucks*
The Bone Spring/Wolfcamp Series, Delaware Basin; Core 1: *Loucks et al.*
Sedimentology and chemostratigraphy of the Mississippian "two finger sand": *Mauck*
Chemostratigraphy of the Wolfcamp succession in Pecos County: *Moede*
Facies and depositional environments of the Barnett, Ft. Worth Basin: *Redmond*
Integrated pore system analysis and chemostratigraphy of a Barnett Shale Core: *Reed*
Integrated studies of an Eagle Ford horizontal core: *Ruppel, et al*

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

Wednesday, March 22, 8:30 AM – 5:00 PM

Oral Presentations

Pores and Porosity (continued)

8:30 – 9:00AM Is MICP valid for measuring mudrock porosity and pore throat size distribution?: *Peng*
9:00 – 9:30AM Fluid injection in shale: dynamic in-situ micro-CT imaging: *Peng*

Hydrocarbons and Saturation

9:30 – 10:00AM Liquid hydrocarbon saturation and migration from Eagle Ford horizontal core: *Sun*
10:00 – 10:30AM Geochemical and lithological controls on oil saturation in a horizontal core: *Zhang*
10:30 – 10:45AM **BREAK**
10:45 – 11:10AM Thermal maturity of source rocks and producible fluids in the Eagle Ford: *Sun*
11:10 – 11:35AM Gas geochemistry and thermal maturity model for the Spraberry and Wolfcamp: *Zhang*
11:35 – 12:00PM Methane re-saturation of Barnett core plugs; defining of post-coring gas loss: *Enriquez*
12:00 – 1:00 PM **LUNCH provided**

Permeability and Fluid Flow

1:00 – 1:25PM Geological modeling of the Eagle Ford based on outcrop images-*Tahmasebi*
1:25 – 1:50PM Machine learning for identifying sweet spots and fracable zones in shale: *Tahmasebi*
1:50 – 2:15PM Network modeling of two-phase flow in shale: *Afsharpoor*
2:15 – 2:45PM Measurement of intact and fractured Eagle Ford gas permeability under in-situ stress:
Bhandari
2:45 – 3:00PM **BREAK**
3:00 – 3:30PM Realistic and stochastic permeability model of shale: *Javadpour*
3:30 – 4:00PM Role of gas diffusion in gas reserve and production of shale reservoirs: *Mehrabi*
4:00 – 4:25PM Upscaling shale gas permeability in shales: *Ghanbarian*
4:25 – 5:00PM Group Discussion of Present and Future Research Focus: *All*

Mudrocks Short Course: Held at Bureau of Economic Geology, Main Building

Thursday, March 23, 7:45 AM – 5:00 PM

Title: Introduction to Mudrock Systems: Origin, Distribution, Fluid flow, and Reservoir Characterization

Classroom: VR room at the Bureau of Economic Geology (Bldg 130) on the Pickle Research Campus.

Instructors:

Dr. Steve Ruppel – Stephen.Ruppel@beg.utexas.edu – (512) 471-2965

Dr. Bob Loucks – Bob.Loucks@beg.utexas.edu – (512) 471-0366

Dr. Farzam Javadpour – Farzam.javadpour@beg.utexas.edu – (512) 232-8068

Agenda:

		Instructor
7:45 – 8:00AM	Meet and greet, coffee, Welcome	<i>All</i>
8:00 – 9:30AM	Introduction to mudrock systems	<i>Ruppel</i>
9:30 – 10:45AM	Introduction to diagenesis of mudrocks	<i>Loucks</i>
10:45 – 12:00PM	Pore types and pore networks in mudrock	<i>Loucks</i>
12:00 – 1:00PM	<i>LUNCH provided</i>	
1:00 – 2:30PM	Defining and characterizing mudrock reservoirs	<i>Ruppel</i>
2:30 – 3:45PM	Advances in gas-in-place analysis and methods	<i>Javadpour</i>
3:45 – 5:00PM	Advances in fluid flow in shale	<i>Javadpour</i>