

Meeting Highlights

- Permian Basin, Eagle Ford, Austin Chalk, and Haynesville stratigraphy and facies distribution and characterization
- Hydrocarbon geochemistry, expulsion, migration and oil saturation studies in the Permian Basin
- Water imbibition, wettability, and gas relative permeability in mudrock systems

Meeting Agenda

Day 1: Thursday, April 18th, 8:00 AM – 2:30 PM Technical Session

Technical Presentations I – Reservoir architecture and attributes in the Permian Basin

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| 7:30am | Breakfast |
| 8:00 – 8:30 | Facies characterization and reservoir attributes of the Late Pennsylvanian Wolfcamp D from Martin to Howard County, Midland Basin – <i>Toti Larson and Rob Reed</i> |
| 8:45 – 9:15 | Single zircon volcanic ash age dating across Wolfcampian and Leonardian stratigraphy in the Permian Basin – Informing a global perspective of high and low latitude climatic responses and associated sedimentation – Neil Griffis (USGS) and Toti Larson |
| 9:30 – 10:00 | Delaware Basin – Upscaling the Wolfcamp A-B facies training dataset to the Third Bone Spring Shale – Toti Larson, Lucy Ko, and Rob Reed |
| 10:15 – 10:45 | Delaware Basin – Organic matter source type and preservation across Wolfcamp A and B – integration of organic matter biomarkers and rock facies – Xun Sun, Lucy Ko, and Toti Larson |
| 11:00 – 11:30 | Midland Basin produced oil geochemistry – Xun Sun |
| 11:45 – 12:15 | Woodford Shale – Lithology and pore systems across the Delaware and Midland Basin of West Texas and New Mexico – Rob Reed and Toti Larson |
| 12:15 – 1:15 | Lunch |
| 1:15 – 1:45 | Oil geochemistry in the Delaware Basin and key geological controls to oil quality— Tongwei Zhang |
| 2:00 – 2:30 | Silt-rich mudstone and siltstone facies from the Bone Spring and Wolfcamp XY, Delaware Basin. New clues to their origin from CT-imaging, and importance to reservoir attributes - Rob Reed and Toti Larson |

2:30 – 5:00pm Core Workshop and Lab Tours

5:30 onward – Happy Hour at Celis Brewery

Day 2: Tuesday, April 19th, 8:00 AM – 4:00 PM Technical Session

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| 7:30am | Breakfast |
| 8:00 – 8:30 | Lateral facies variation and associated variability of reservoir properties of the Bossier and Haynesville Shale, Louisiana and Texas – Lucy Ko and Evan Sivil |
| 8:45 – 9:15 | Lithology and pores systems of the Haynesville shale – Rob Reed |
| 9:30 – 10:00 | New high-pressure gas adsorption experiments and preliminary CH ₄ -intake experimental results from the Barnett Shale – Tongwei Zhang |
| 10:15 – 10:45 | Eagle Ford Shale – Comparison of facies distribution between the south Texas Hawkville Trend (Dimmit County) and East Texas influence observed in Dewitt County – Evan Sivil, Lucy Ko, and Toti Larson |
| 11:00 – 11:30 | Austin Chalk – Volcanic ash facies characterization and machine learning application to predict ash (type) from wireline logs – Charlie Neal and Toti Larson |
| 11:30 – 12:45 | Lunch |
| 1:00 – 1:30 | The impact of gas adsorption on gas flow and permeability in nanoporous rocks – Sheng Peng |
| 1:45 – 2:30 | Interest group focused discussion |

3pm Adjourn

Core Workshop

- Wolfcamp A, B, and C – Midland Basin. A regional view of cored intervals tied to a stratigraphic framework across the Midland Basin
 - This core workshop will present cored intervals from Wolfcamp A, B, and C to highlight variation in depositional processes across the Wolfcampian and into the Leonardian. Attention to the work of Tucker Hentz and the STARR program and their research on the Eastern Shelf will be included.
- Eagle Ford – Dimmit County
 - Cored intervals from the Hawkville trend will be compared to Dewitt County and the Karnes Trough will be discussed
- Haynesville Shale – Texas
 - Geochemistry and lithofacies variations across upper, middle, and lower Haynesville sub-units in a cored interval from Texas
- Third Bone Spring Shale – 2nd Bone Spring Sand – Delaware Basin
 - Comparison of multiple cored intervals across Bone Spring intervals. A focus on reservoir properties of siltstone-dominated facies and interbedded mudrock facies

Poster titles

- The use of XRF on Bossier and Haynesville drill cuttings (validate landing zones and completion design) -Lucy Ko, Evan Sivil
- Clay mineralogy and diagenesis of the Bossier and Haynesville Shales - Lucy Ko
- Custom-made high pressure and high temperature gas adsorption apparatus and potential applications
- Gas intake experiments under reservoir conditions and application to shale gas storage, deliverability and enhanced recovery
- Webb County Austin Chalk and Hawkville trend Eagle Ford –Evan Sivil, Charlie Neal, and Toti Larson

Saturday 8:00 – 2pm

- Eagle Ford field trip and core work shop in Austin, Texas. We will visit the Eagle Ford outcrops in south Austin and follow up with a core workshop at Austin Beer Grden Brewing. Although only one outcrop, this provides a nice opportunity to trace out facies heterogeneities at the outcrop-scale, and compare outcrop to nearby collected cored intervals.