

2016 Eastern Section – American Association of Petroleum Geologists

Annual Convention in Lexington, Kentucky

Preliminary Schedule

Monday September 26th

Emerging Unconventional Plays – Oral (final presentation order TBD)

Gas Shales: A largely North American Phenomenon? - Frank R. Ettensohn

Geochemical Characterization of Lower Wolfcamp Unconventional Reservoirs, Midland Basin - Michael McGlue, Patrick Ryan, Patrick Baldwin, Zac Perlman, Joseph Lucas, Lowell Waite, Olivia Woodruff

Gas Generation from natural oils – The details matter in resource assessment - Donna Caraway Willette

Redefined Sauk sequence rocks in the Ohio region suggest emerging plays on the Ohio Platform and adjacent Rome Trough - Mark T. Baranoski

Assessing Thermal Maturity in Cambrian Source Rocks, Rome Trough, Appalachian Basin: Organic Petrology Complexities - Tim E. Ruble, Wayne R. Knowles, Samuel D. Ely, and Albert S. Wylie Jr.

Maturation patterns of the Cambrian Rogersville Shale in the Rome Trough of Eastern Kentucky and West Virginia - Christopher G. Willan, Craig A. Eckert, and Alex P. O'Hara

Unconventional Resource Potential of the Sunbury Shale, Berea Sandstone, and Antrim Shale in Central Michigan - Richard D. Fritz

Petroleum Geochemistry of Devonian Rocks and Produced Oil and Natural Gas in the Caseman - Gross Unit #1 Well, Bradford County, Pennsylvania - Christopher D. Laughrey, Fred J. Baldassare

Summary of Publicly Available Production Data for the Devonian Berea Sandstone Play, Eastern Kentucky - Brandon C. Nuttall

Emerging Unconventional Plays – Poster

Methanohalophilus is the Dominant Source of Biogenic Methane in Hydraulically Fractured Shales - Mikayla A. Borton, Rebecca A. Daly, David M. Morgan, Anne E. Booker, David W. Hoyt, Paula J. Mouser, Shikha Sharma, Michael J. Wilkins, Kelly C. Wrighton

Applications of scientific core drilling in North Carolina: Cumberland-Marlboro basin, and the Triassic rift / lacustrine Dan River basin - Jeffrey C. Reid, Kenneth B. Taylor, Katherine J. Marciniak, Walter T. Haven, Ryan A. Channell, and Ann T. Shields, and Chandler I. Warner

Thermal maturity assessment in the Lower Huron using Raman micro-spectroscopy - Travis B. Warner, Katie Heckman

Structure and Tectonic Effects on Reservoirs – Oral

Structural Origin of Henderson Dome: Stratigraphic & Geophysical Study of an Upper Ordovician Impact Crater - Travis Duran, Andrew Smith

Favorable Areas to Focus Future Trenton Exploration in Indiana - Alan W. Hinks

New Insights & Perspectives on the Effects of Structural Reactivation on the Upper Devonian Antrim Shale, Michigan Basin - Cameron J. Manche, Kyle J. Patterson, William B. Harrison III

Evidence for Oil Field Brine-Type Ore Fluids in the Southeast Missouri lead-Zinc-Copper Mining District - Kenneth B. Horrall

Sinistral transpression along previously existing faults, Appalachian Basin, Ohio - Michael P. Solis

State of Stress in the Illinois Basin and Constraints on Inducing Failure - John A. Rupp, Richard W. Lahann, and Cristian R. Medina

Kinematics of Past Tectonic Forces Inferred from Differential Sedimentation - John B. Hickman

Structure and Tectonic Effects on Reservoirs – Poster

New Insights into Precambrian Seismic Stratigraphy, South-Central Indiana - Andrew M. Parent, Ernest C. Hauser, Doyle R. Watts

Analysis on Distribution and Controlling Factors of Paleogene Reservoir, Beibuwan Basin - Xiaoqiang Yuan, Guangqing Yao

Groundwater and Environmental Issues - Oral (final presentation order TBD)

NORM and TENORM – Are We Heading For a New Legal Normal? - Karen J. Greenwell

A Protocol for Baseline Sampling of Water Sources in Areas of Shale Oil and Gas Development - Stephen D. Richardson, Jenna S. Kromann, Lisa J. Molofsky, Ann P. Smith, John Connor, and David Cercone

Evolving EPA Subpart W Greenhouse Gas Reporting Rules Challenge Oil and Gas Operators - Thomas S. Seguljic, John P. Martin

Class II injection wells in Kentucky—An update of the map service of wastewater, brine-disposal, and enhanced-recovery wells in Kentucky - Thomas N. Sparks

Stable isotopic constraints on methane migration into groundwater and emissions to the atmosphere from unconventional natural gas extraction: Examples from OH, CO, TX - Amy Townsend-Small

Assessing methane in shallow groundwater for the Berea Sandstone and Rogersville Shale play area, eastern Kentucky – Junfeng Zhu, Steven E. Webb, Bart Davidson, Richard Smath, Charles J. Taylor, Thomas M. Parris, Ann P. Smith, Stephen D. Richardson, and Jenna Kromann

Groundwater and Environmental Issues - Poster

Revising the Fresh-Saline Water Interface in Eastern Kentucky – Ethan S. Davis, Thomas M. Parris

Methods and New Techniques – Oral (final presentation order TBD)

Cyclic Pressure Pulsing: A Promising Method to Improve Recovery from Hydraulically-Fractured Stripper Wells of Appalachian Basin - Emre Artun, Ozgur Irgav, Nurum Khairzhanov

Improving Unconventional Hydrocarbon Recovery by Reducing Formation Damage - David P. Cercone, Andrew M. Kiss, Yijin Liu, Anna L. Harrison, Adam D. Jew, Megan K. Dustin, Gordon E. Brown, Jr., and John R. Bargar

Building on Successes and Lessons Learned from the Unconventional Resources Drilling Revolution – K.C. Oren

Optimizing Lateral Placement and Production while Minimizing Completion Costs Using Downhole Geochemical Logging - Rick Schrynemeeckers

Elemental Data Collected in the Berea Sandstone of Eastern Kentucky: Applications to Wellbore Placement, Horizontal “Chemosteering” and Completion Strategy - Merril J. Stypula, David R. Blood, Ashley S.B. Douds

Monitoring Induced Microseismicity in the Rome Trough, Eastern Kentucky U.S.A. - Andrew S. Holcomb, N. Seth Carpenter, Edward W. Woolery, Zhenming Wang

Assessing Potential Seismic Hazards from Induced Earthquakes in the Central and Eastern United States - Zhenming Wang, Seth Carpenter, and Lifang Zhang

Long Period, Long Duration (LPLD) Seismic Events Observed During Monitoring of Hydraulic Fracturing in Pennsylvania and West Virginia - Abhash Kumar, Erich Zorn, Richard Hammack, William Harbert

Geomechanical Lithology-Based Analysis of Microseismicity in Organic Shale Sequences: A comparison from multiple hydraulic fracturing field sites - Erich Zorn, Richard Hammack, William Harbert, Abhash Kumar

Utilization of Factor of Safety in Geotechnical Solutions - Peter MacKenzie, Stephen Harrison, Corey Mislinski

Improved Oil-in-Place Estimates in Clay- and Pyrite-Bearing Shales Based on Inversion of Multi-frequency Electromagnetic Measurements - Siddharth Misra, Yifu Han

Estimation of Saturation-Dependent Relative Permeability in Shales based on Adsorption-Desorption Isotherm - Shiv P. Ojha, Siddharth Misra, Ali O. Tinni, Carl H. Sondergeld, Chandra S. Rai

EIA expanded geographic coverage of oil and natural gas production, with new data for 10 states - Olga Popova, Garry Long, Barbara Mariner-Volpe, Jeffrey Little, Elizabeth Panarelli, Neal Davis, Emily Geary

Methods and New Techniques - Poster

Most Effective Methods in Identifying, Etching, and Dissolving Limestones - Patrick Gooding, Malcom X Gooding

Tuesday September 27th

Ordovician Shale Resources – Oral

An Overview of Development of the Utica-Point Pleasant Play - Larry Wickstrom and Martin Shumway

Analysis and Characterization of Utica-Point Pleasant Production - Timothy Knobloch and Martin Shumway*

Late Ordovician (Katian) Upper Lexington-Kope Equivalents in the Point Pleasant Basin of Eastern Ohio: Correlation and Paleoenvironments of the Utica Point Pleasant System - Allison L. Young, Carlton E. Brett, Peter Holterhoff, Thomas Algeo, and Patrick I McLaughlin

Clay Mineralogy, Provenance, and Sequence Stratigraphy of Upper Ordovician Shales in Eastern Ohio
- Devin R. Fitzgerald, Greg C. Nadon

Redox Conditions during deposition and early diagenesis of the Upper Ordovician. Point Pleasant Ls of southwestern PA and northern WV: Insights from pyrite framboids and trace elements - David R. Blood

Organic Matter Maturation Trends and Source Rock Quality in the Utica Shale, East-Central Ohio - Cortland Eble, John Hickman

Creating a 3D Hydrocarbon Profile to Increase Production and Reduce Poor Economic Wells: a Utica Case Study - Rick Schrynemeeckers

Ordovician Shale Resources – Poster

Core Reflectance Spectroscopy and Well Logging of the Point Pleasant/Utica Sub-basin, Ohio - Julie M. Bloxson, Beverly Z. Saylor

Phosphate Minerals in Utica Shale: A possible Source of Trace Metals in Flowback Water - Susan A. Welch, Julia M. Sheets, John Olesik, Anthony Lutton, Alexander Swift, Matt Edgin, Steve Chipera, and David R. Cole

Marcellus Shale Energy and Environment Laboratory (MSEEL) – Oral

The Marcellus Shale Energy and Environment Laboratory (MSEEL) - Timothy Carr, Shikha Sharma, Thomas Wilson, Paul Ziemkiewicz, B.J. Carney, Jay Hewitt, Ian Costello, Emily Jordon, Zachary Arnold, Ryan Warner, Andy Travis, David Cole, Jeffery Daniels, Paula Mouser, Kelly Wrighton, Ray Boswell, Dustin Crandall, Robert Vagnetti

Preliminary analyses of core from the Marcellus Shale Energy and Environment Laboratory - Dustin Crandall, Johnathan Moore, Thomas Paronish, Alexandra Hakala, Shikha Sharma, Christina Lopano, Thai Phan, and Mengling Stuckman

Marcellus Shale Energy and Environment Laboratory Approach to Water and Waste Studies - Paul Ziemkiewicz

Understanding biogeochemical controls on spatiotemporal variations in total organic carbon in cores from Marcellus Shale Energy and Environment Laboratory – S. Sharma, V. Agrawal, R. Akondi, A. Warriar

Phospholipid Fatty Acid Evidence of Recent Microbial Life in Pristine Marcellus Shale Cores - Ryan V. Trexler, Rawlings Akondi, Susan M. Pfiffner, Rebecca A. Daly, Michael J. Wilkins, Shikha Sharma, Kelly C. Wrighton, and Paula J. Mouser

Mineral/organic Matter Associations and Pore Microtextures in the Marcellus Formation, West Virginia - Julie Sheets, Alex Swift, Tim Kneafsey, Susan Welch, and David Cole

Marcellus Shale Energy and Environment Laboratory (MSEEL) – Poster

Understanding kerogen composition and structure in pristine shale cores collected from Marcellus Shale Energy and Environment Laboratory - V. Agrawal, S. Sharma, and A. Warriar

Comparing Different Extraction Methods for Analyses of Ester-linked Diglyceride Fatty Acids in Marcellus Shale - R. Akondi, R.V. Trexler, S.M. Pfiffner, P.J. Mouser, S. Sharma

Sulfide Generation by Dominant Colonizing Halanaerobium Microorganisms in Hydraulically Fractured Shales - Anne E. Booker, Mikayla A. Borton, Rebecca Daly, Sue Welch, Carrie D. Nicora, Shikha Sharma, Paula J. Mouser, David Cole, Mary S. Lipton, Kelly C. Wrighton, and Michael J. Wilkins

Microbes in the Marcellus Shale: Distinguishing Between Injected and Indigenous Microorganisms - Rebecca A. Daly, Mikayla A. Borton, Travis A. Wilson, Susan A. Welch, David R. Cole, Shikha Sharma, Michael J. Wilkins, Paula J. Mouser, Kelly C. Wrighton

Temporal Changes in Fluid Biogeochemistry and Microbial Cell Abundance after Hydraulic Fracturing in Marcellus Shale - Mary Evert, Jenny Panescu, Rebecca Daly, Susan Welch, Jessica Hespen, Shikha Sharma, David Cole, Thomas H. Darrah, Michael Wilkins, Kelly C. Wrighton, Paula J. Mouser

Analysis of Microbial Lipid Biomarkers as Evidence of Deep Shale Microbial Life - Andrea J. Hanson, Ryan Trexler, and Paula J. Mouser

Addressing Health Issues Associated with Air Emissions around UNGD Sites - Michael McCawley, Travis Knuckles, Maya Nye, Alexandria Dzomba

Arcobacter isolated from the produced fluids of a Marcellus shale well may play a currently unappreciated role in sulfur cycling - Jenny Panescu, Mary Evert, Jessica Hespen, Rebecca A. Daly, Kelly C. Wrighton and Paula J. Mouser

Indigenous life in extreme environments: Characterizing pristine shale rock hosted biomass - Casey Saup, Rebecca A. Daly, Danielle Goudeau, Rex Malmstrom, Paula J. Mouser, Kelly C. Wrighton, and Michael J. Wilkins

Sedimentology: Source to Sink – Oral (final presentation order TBD)

Lithofacies and Sequence Framework of the Upper Cambrian Galesville and Ironton Sandstones in Illinois - Yaghoob Lasemi, Zohreh Askari

Unification of Compositional Data and High-Resolution Facies Analysis in the Union Springs Formation of New York - John Mason, Michael McGlue, Teresa Jordan

Cypress Sandstone Reservoir Characterization Across the Clay City Anticline, Richland and Clay Counties, Illinois - Zohreh Askari, Yaghoob Lasemi, Nathan D. Webb

Subsurface Analyses of the Bedford-Berea Petroleum System in Eastern Kentucky - Julie Floyd, Stephen F. Greb

Quantifying Microporosity in Clay Minerals of the Cypress Sandstone: Implications for Petrophysical Analysis and Diagenesis - Leo G. Giannetta, Shane K. Butler, Nathan D. Webb

Reevaluation of the Heavy Oil and Bitumen Resources of the Western Kentucky Tar Sands: What Did We Learn about the Tar Sands That Is New? - J. Richard Bowersox

Changing Duration of Carboniferous Cyclothems: Implications for Coal and Lithofacies Distribution - Stephen F. Greb, Cortland F. Eble

Deep Cores Through the Pennsylvanian Section of Western Kentucky, Illinois Basin - Gerald A. Weisenfluh, Stephen F. Greb, Caleb Essex, J.P. Sparr, David A. Williams

Silurian Reef Systems in the Illinois and Michigan Basins: What Can Be Learned from Modern Quarrying Operations in North-Central Indiana - Dennis R. Prezbindowski, Benjamin Dattilo, Jon Havens and Rick Lucas

A sequence stratigraphic model for the Silurian A-I Carbonate of the Michigan Basin - Matthew J. Rine, Jonathan D. Garrett, Stephen E. Kaczmarek, William B. Harrison III

Manistique Group Reservoirs in the Michigan Basin: an Overlooked Resource - Peter J. Voice, Matthew Rine, Andrew Caruthers, Jeffrey Kuglitsch, William B. Harrison III

Late Silurian-Early Devonian Paleogeography: Basal Sands of the Sealevel Lowstand - Bill Pfalzer

Sedimentology: Source to Sink – Poster

A Devonian Callixylon Log of the Archaeopteris Tree Found in Marion County, Kentucky - Patrick Gooding, Richard Smath, Cortland Eble, Frank Ettensohn

An Analysis of a Near-Surface Big Clifty (Jackson) Sandstone Reservoir in Logan County, Kentucky - Tyler S. Bodine, Michael T. May*

Depositional and Sequence Stratigraphic Framework of the Middle Pennsylvanian Allegheny Formation, South-Central West Virginia: Analyzing Autogenic and Allogenic Influence on Depositional Elements - Oluwasegun Abatan, Amy Weislogel

The Formation of Diagenetic Trap in the Squirrel Sandstone - Landis Bates, Ian McGougan, Jeremy Gerdau, Eric Law

Thinning marine zones of the Breathitt Group along Kentucky Highway 15, Breathitt County, Kentucky - Stephen F. Greb, Rhodri M. Jerrett, and Cortland F. Eble

Stratigraphy and Reservoir Characterization of the Grundy Formation (Pennsylvanian, Eastern Kentucky) in Relation with the Overlying Pikeville and Hyden Formations – A. Le Cottonnec, R. Lathion, D. Ventra, A. Moscariello

Late Silurian-Early Devonian Paleogeography: Explaining Devonian Brachiopod Provinciality and Distributions - Bill Pfalzer

CO₂ Use and Storage – Oral (final presentation order TBD)

Thermodynamically Driven Fluid Mixing Across Phases Induced by Viscous Flow Instabilities in Porous Media - Mohammad Amin Amooie, Joachim Moortgat, Mohamad Reza Soltanian

Analysis and Integration of Advanced Logs and Core Data: Characterization of the Copper Ridge Dolomite in Morrow County, Ohio - Amber Conner, Erica Howat, Isis Fukai, Srikanta Mishra

Progress towards Safe and Effective Geologic Storage of Carbon Dioxide in Midwest and Mid-Atlantic States - Lydia Cumming, Neeraj Gupta, and Joel Sminchak

CO₂ Storage Resource Estimates for Cambrian-Ordovician Formations in Eastern Ohio - Isis Fukai, Autumn Haagsma, Mackenzie Scharenberg, Priya Ravi Ganesh, and Neeraj Gupta

Petrophysical Characterization of the Kerbel Sandstone in Central Ohio for CO₂ Storage Potential - Autumn Haagsma, Erica Howat, Neeraj Gupta

Integrated Sub-Basin Scale Exploration for Carbon Storage Targets: Advanced Characterization of Geologic Reservoirs and Caprocks in the Upper Ohio River Valley - Erica Howat, Neeraj Gupta, Mark Kelley, Jared Hawkins, Autumn Haagsma, Isis Fukai, Amber Conner, Oladipupo Babarinde, Glen Larsen, Joel Main, Caitlin McNeil, Jacqueline Gerst, E. Charlotte Sullivan

Hierarchical Evaluation of Geologic Carbon Storage Resource Estimates: Cambrian-Ordovician Units within the MRCSP Region - Cristian R. Medina, John A. Rupp, Kevin Ellett, David A. Barnes, Matthew J. Rine, Matthew S. Erenpreiss, Steve F. Greb

Using Ultrasensitive Surface Detection to Evaluate Potential and Actual CO₂ Sequestration Sites - Alan Silliman, Rick Schrynemeeckers

Reservoir Simulation of Tracer Transport in Multicomponent Multiphase Compositional Flow with Applications to the Cranfield CO₂ Sequestration Site - Mohamad Reza Soltanian Joachim Moortgat, David R. Cole, David Graham, Susan Pfiffner, Tommy Phelps, Seyyed Abolfazl Hosseini, Susan Hovorka

An Integrated Approach to Identifying Residual Oil Zones in the Cypress Sandstone in the Illinois Basin for Nonconventional CO₂-EOR and Storage - Nathan D. Webb, Nathan P. Grigsby, Joshua J. Arneson, Leo G. Giannetta, and Scott M. Frailey

CO₂ Use and Storage – Poster

In-Situ Stress Characterization of Appalachian Basin Cambrian-Ordovician Caprock and Reservoirs via Detailed Image Log Analysis - Zachary Cotter, Samin Raziperchikolaee, Mark Kelley

Development of Quick-Look Maps for CO₂-EOR Opportunities in the Appalachian and Michigan Basins
- Eric Lewis, Jessica P Moore, Philip Dinterman, Michael E Hohn, Ronald McDowell, Susan Pool

Insights on Porosity and Pore Size Distribution Using Multiple Analytical Tools: Implications for Reservoir Characterization in Geologic Storage of CO₂ - Cristian R. Medina, Maria Mastalerz, John A. Rupp

Subsurface Geomechanics, Fracture Breakdown Pressures, and 'Fracture-tunnels' in the Midwest U.S.
- Joel R. Sminchak, James E Hicks, Glenn E Larsen

CO₂ Storage Capacity Estimation and CO₂-EOR Evaluation for Jacksonburg-Stringtown Oil Field, West Virginia, USA - Zhi Zhong, Timothy R. Carr