## Appalachia - Unconventional Since 1859: Take Two - Newer and Lighter

PAPG and PTTC present:

<u>Appalachia - Unconventional Since 1859: Take Two - Newer and Lighter</u> March 19<sup>th</sup> at the Green Tree Radisson in Pittsburgh.

This day long event will feature select talks from the ESAAPG/SPE meeting held in Pittsburgh last October. The extraordinary turnout at the fall meeting resulted in overflowing sessions. Therefore, PAPG decided it would be worthwhile to have popular talks from the meeting presented again. The seminar will also feature talks related to Marcellus shale water remediation and disposal that were not presented at the fall meeting.

**Venue:** Green Tree Radisson Pittsburgh PA **Date:** March 19<sup>th</sup> 2009, 8:00 am – 5:00 pm

Cost: \$50 per person. Payment must be made in advance to reserve your spot.

Checks can be written to PAPG. Payment is also available online through a Paypal account.

(www.PAPGrocks.org/take2.htm)

Please rsvp to Jim Pancake to reserve your spot for this event. 412-395-3912, <a href="mailto:jpancake@eqt.com">jpancake@eqt.com</a>, 225 North Shore Drive Pittsburgh PA, 15212

## The PAPG and PTTC would like to thank the sponsors for the event.



Tetra Tech NUS, Inc.



Sunburst Consulting Inc.

## Agenda

7:30 – 8:25 Registration

8:25 - Opening remarks

8:30 Marcellus Shale - Regional Overview from an Industry Perspective G.R. Wrightstone, Texas Keystone, Inc.

9:00 Regional Geology of the Middle Devonian Marcellus Shale, Appalachian Basin K.L. Avary, D.G. Patchen, West Virginia Geological and Economic Survey

9:30 An Organic Geochemistry Database - Evaluating the Marcellus Shale and Other Potential Petroleum Source Rock in Pennsylvania

J. Kostelnik, C.D. Laughrey, Pennsylvania Geological Survey

10:00 – 10:15 Break, Sponsored in part by Sunburst Consulting Inc.

- 10:15 Thermal Maturity of Devonian Black Shale-Gas Reservoirs, Northwestern Pennsylvania Evidence from Organic Petrology, Geochemistry and Mineralogy C.D. Laughrey, Pennsylvania Geological Survey
- 10:45 Marcellus Shale Flowback and Produced Water Treatment Mark Gannon, PE, PMP, Water and Wastewater Department Manager, Tetra Tech NUS, Inc., Pete Miller, PE, PMP, Process Engineer, Tetra Tech NUS, Inc.
- 11:15 Siting and Permitting Brine Disposal Wells for Marcellus Shale Flowback and Produced Water

Dale Skoff, PG, CHMM, Geosciences Group Manager, Tetra Tech NUS, Inc.

- 11:45 1:15 Lunch, Sponsored in Part by Tetra Tech NUS, Inc.
- 1:15 Using ArcGIS to Estimate Thermogenic Gas Generation Volumes by Upper and Middle Devonian Shales in the Appalachian Basin
  J.R. Reed, Jackie Reed Geochemical Consulting, D. Dunbar, S. Brown, Geomark Research
- 1:45 Log Analysis of Legacy Marcellus Borehole Logs
  J. Ward, PetroEdge Resource Partners
- 2:15 Design, Execution, and Evaluation of a "Typical" Marcellus Shale Slickwater Stimulation: A Case History

J. Fontaine, SPE, N. Johnson, SPE, Universal Well Services: D Schoen, Guardian Exploration *SPE 117772* 

- 2:45 3:00 Break, Sponsored in part by Sunburst Consulting Inc.
- 3:00 Horizontal Development in the Appalachian Basin Devonian Shale L.J. Morris, Equitable Production Company
- 3:30 Facies and Depositional Setting for the Speechley Sandstone of the Upper Devonian Lock Haven Formation in the Subsurface of Western Pennsylvania
  P.S. McBride, P.J. Morath, E.A. Frame, R.W. Lynch Jr., Dominion Exploration & Production Inc.
- 4:00 Development of Non-Shale Reservoirs in the Appalachian Basin Using Horizontal Drilling Techniques

J.A. Pancake, S. McCallum, C. Zinn, Equitable Resources