Winter Meeting and Dinner Presentation

Middle Pennsylvanian Aged Tetrapod and Arthropod Trackways Discovered within the Roof of the Vail Mine, Upper Freeport Coal Member, Freeport, Ohio

by Michael P. Bohan, LPG, Rosebud Mining Company

Date: February 26, 2015

Location: La Scala
http://www.lascalaitalianbistro.com/LaScala.html

Schedule: Social Hour at 5:00 pm
Dinner at 6:00 pm
Presentation at 7:00 pm

RSVP: President-Elect Curtis Coe, curtis.coe@dnr.state.oh.us.

See Page 4 for event details

Also In This Issue:

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Farewell Address from the Past President, Curtis J. Coe, CPG-06240

Voting Instructions for Ohio Section Executive Committee Elections

Calendar of Upcoming Events

Ohio Section 2014 Annual Meeting and Dinner Presentation Recap

Upcoming AIPG Conference Includes Short Course and Field Trip to Highbanks Metro Park and Shale Hollow Preserve

News from Wright State University Student Chapter of AIPG

News from The Ohio State University Student Chapter of AIPG

AIPG Meeting Announcement: The Expanding World of Unconventional Shale Hydrocarbon Resources - The role of Hydraulic Fracturing in the Development of the Utica, Marcellus and other Shales of the Appalachian Basin

event flyer and registration form

Letters to the Editor and Editorial Submittal Guidelines
Message from the President

Tom Jenkins, CPG-07892

I am excited about the AIPG Ohio Section plans for 2015. Curt Coe has done a great job of re-booting the organization and we have implemented several new initiatives. We have a small but dedicated and hardworking group of individuals that keep the section going. It has been a real pleasure to work with the Executive Committee and I look forward to a productive year. We can certainly use more help and I encourage you to contact any member of the Executive Committee if you are interested in helping out. Curt has outlined much of what is going on in 2015 below. We are striving to increase the involvement of Ohio Section membership, and working to increase the Ohio Section revenue so that we have options for field trips and other activities. Stay tuned as we map out activities for 2015, it will be an active year for the Ohio Section.

Thomas Jenkins, CPG 7892
2015 President

Farewell Address from the Past President

Curtis J. Coe, CPG-06240

Fellow Members,

It has truly been an honor and privilege to serve as the 2014 President of the Ohio Section. I would like to thank the Executive Committee for their support over the past year. It is often said that “no man is an island” – it is only through the support of others that we are able to achieve our goals. Therefore, I would like to thank everyone that had a hand in making 2014 a successful year. When I started out the year, it was my vision to shape the organization into a unified and active voice for professional geologists in Ohio. I believed the best way to do this was to promote the Ohio Section website as an active source for distributing accurate, reliable, timely, and informative geological information to Ohio citizens. We now have an updated website and active blog. I hope each of you will read the blog and contribute your own thoughts and ideas.

In addition, it has been my vision to run the Section more like a business and to reach out to the membership. We are a stronger organization with each member we add and retain. We not only want you to participate in the organization, but we need you to. To achieve this goal, we have established a new committee: the Business Development and Membership Committee. The committee, which meets before the regular Executive Committee meetings, has a purpose of determining how to raise money for the Section and strengthen the membership. So if you have ever wanted to be involved with AIPG either on a local, state, or
national level, this would be a good time to get involved. Do not be surprised if you receive a phone call or e-mail asking for your support and participation. An initial goal of the committee is to recruit sponsors and add advertisements to the website and newsletter. To this point, the committee has developed a new advertising rate sheet.

The year has been very rewarding for me personally. It has been great to meet many of the Ohio Section members. I enjoyed attending the national meeting in Prescott, Arizona. It was a pleasure to represent the Ohio Section. I enjoyed meeting many old friends from around the country and making new friends along the way.

During 2015, the Ohio Section will again be hosting the 6th Annual AIPG Conference on “The Expanding World of Unconventional Shale Hydrocarbon Resources: The role of hydraulic fracturing in the development of the Utica, Marcellus and other Shales of the Appalachian Basin”. Also, in conjunction with the Ohio Geological Survey, the Ohio Geological Society, and Miami University, the Section will be hosting a short course and field trip to study the Ohio Shale up close and personal. Everyone that attends will get a copy of the OGS Information Circular 63, Ohio’s Geology in Core and Outcrop. This will be a great opportunity to learn more about Ohio’s remarkable geology. I hope many of you will plan to attend the conference.

Curtis J. Coe, CPG 6240
Past Present and President-Elect 2016
You are cordially invited to the AIPG Ohio Section’s Winter Meeting and Dinner presentation, which will take place at La Scala in Dublin on Thursday, February 26th. The Section is pleased to host Michael Bohan, who will be presenting: *Middle Pennsylvanian Aged Tetrapod and Arthropod Trackways Discovered within the Roof of the Vail Mine, Upper Freeport Coal Member, Freeport, Ohio.*

The event begins at 5:00 pm with social hour, followed by dinner at 6:00, and the feature presentation at 7:00. Please RSVP to President-Elect Curt Coe at curtis.coe@dnr.state.oh.us.

*Middle Pennsylvanian Aged Tetrapod and Arthropod Trackways Discovered within the Roof of the Vail Mine, Upper Freeport Coal Member, Freeport, Ohio*

*by* Michael P. Bohan, LPG

**ABSTRACT**

The Upper Freeport Coal is the uppermost member of the Allegheny Group within the Northern Appalachian Basin. It developed as peat islands over a broad flat surface on the lower delta plain, and at present day extends from Central Southern Ohio to the Allegheny Front in Western Pennsylvania. Upper Freeport peat accretion ceased when global glacial ice retreat led to sea level rise, inundating the swamps. The change is recorded in the immediate roof of the Vail Mine and is comprised of gray to black sideritic rhythmite shale. They were deposited within a tidally influenced backswamp (tidalites).

As the underlying sediments and peat became dewatered and compacted, the combination of a more resistant lenticular fluvial channel (beneath the coal) and localized thicker peat over the channel area resulted in the formation of a topographic high, leading to subaerial exposure. Tetrapods congregated on the terrestrial surface, and additional exposure led to desiccation of the sediments resulting in mudcracks, slight brecciation, and mottling. The surface then became submerged and subsequently buried by fluvial overbank and interdistributary bay fill sediments. An arthropod trackway (*Arthropleura*) was discovered within the overbank sediments a few inches (vertically) from the plane where tetrapod trackways are preserved.
PRESENTER

Michael P. Bohan, LPG, is the Chief Geologist of Ohio Operations for the Rosebud Mining Company. Mike graduated from the Indiana University of Pennsylvania (IUP) in 1994 with a Bachelor of Science Degree in Geology. He has worked abroad in various industries as a geologist and has 17+ years domestic and international experience in coal exploration, mining, and coalbed methane. In 2003, he received his Professional Geologist License from the State of Utah. Mike moved to Northeast Ohio in 2005 and has been employed by Rosebud Mining Company since 2009, providing evaluation and assessment of coal reserves for mining development, and works closely with engineering and operations.
Calendar of Upcoming Events

FEBRUARY 17  
Ohio Geological Society Lunch Meeting at the Holiday Inn-Worthington – *Weighing the Greenland Ice Sheet Using GPS*, by Dr. Michael Bevis, The Ohio State University. [www.ohgeosoc.org](http://www.ohgeosoc.org)

FEBRUARY 26  
Ohio Section AIPG Winter Meeting and Dinner Presentation at La Scala-Dublin – *Middle Pennsylvanian Aged Tetrapod and Arthropod Trackways Discovered within the Roof of the Vail Mine, Upper Freeport Coal Member, Freeport, Ohio*, by Michael P. Bohan, LPG, Rosebud Mining Company. [www.aipg-ohio.org](http://www.aipg-ohio.org)

FEBRUARY 28  
Day Trip to Cincinnati Museum of History – organized by The Ohio State University Student Chapter of AIPG (see Newsletter page 19).

MARCH 11  
Ohio Geological Society Meeting at the Hilton Columbus at Easton – *Hydraulic Fracturing and Earthquakes: Ethically, How Do We Move Forward and Do the Right Thing?* by Donald D. Clarke, University of Southern California, AAPG Distinguished Ethics Lecturer. [www.ohgeosoc.org](http://www.ohgeosoc.org)

MARCH 11-13  
2015 OOGA Winter Meeting – at the Hilton Columbus at Easton, Columbus, Ohio. [www.ooga.org](http://www.ooga.org)

APRIL 9  

APRIL 27 – 29  
AIPG Conference at the Holiday Inn-Worthington–*The Expanding World of Unconventional Shale Hydrocarbon Resources* [www.aipg.org](http://www.aipg.org) (see Newsletter pages 14-16, 20, 21).

MAY 31 – JUNE 3  
AAPG Annual Convention and Exposition, Denver, CO

SEPTEMBER 17  
Ohio Section AIPG Autumn Meeting and Dinner Presentation at La Scala-Dublin – *details to be announced*. [www.aipg-ohio.org](http://www.aipg-ohio.org)

SEPTEMBER 19 – 22  
AIPG 2015 National Conference, Anchorage, Alaska

SEPTEMBER 20 – 22  
Eastern Section AAPG Annual Meeting, Indianapolis, Indiana

NOVEMBER 20  
Ohio Section AIPG Annual Meeting and Dinner Presentation - *location and details to be announced*. [www.aipg-ohio.org](http://www.aipg-ohio.org)
The Ohio Section held its annual meeting and dinner presentation for 2014 at the Faculty Club on the main campus of The Ohio State University (OSU) on November 20th. The Section was pleased to host Dr. Larry Krissek of OSU who presented, Geologic Drilling in Antarctica: Drilling Back to the Future. Following the presentation, President Curt Coe presented the 2014 Section awards to the recipients in attendance. The evening’s events also included a 50/50 drawing, as well as the awarding of several door prizes to attendees. It was especially nice to see a significant number of attendees from the recently reactivated OSU AIPG Student Chapter.

**President of Meeting Agenda and Opening Remarks**

At the conclusion of social hour, **President Curt Coe** called the meeting to order and welcomed fellow members and guests. President Coe provided a recap of 2014 for the Ohio Section, touching on highlights including the Rosebud Vail coal mine field trip, the re-activated OSU Student Chapter, the continued activity of the Wright State University Student Chapter, as well as the year’s Executive Committee meetings and quarterly dinner meetings and presentations. The AIPG Ohio Section plans to continue this momentum into 2015.

**President-Elect Tom Jenkins** then introduced featured presenter **Dr. Larry Krissek**, a Professor and Associate Director in the School of Earth Sciences at OSU, and is also affiliated with the Byrd Polar Research Center. He has participated in nine field seasons in Antarctica, and has sailed on nine cruises of the Deep Sea Drilling Project, Ocean Drilling Program, and Integrated Ocean Drilling Program. Dr. Krissek is a former winner of the OSU alumni teaching award.
Dr. Krissek delivered his presentation, *Geologic Drilling in Antarctica: Drilling Back to the Future*. The talk was of great interest to all attendees. In addition to a review of drilling operations and the results of the project, Dr. Krissek discussed what the general experience is like for participants in the project, including the nature of travel to Antarctica, and daily activities at the base.

Krissek explained how records of Antarctica’s climatic and environmental changes, including the development, expansion, and contraction of large ice sheets during the past several tens of millions of years are not preserved on the continent itself, because most of the sediments deposited on the continent during this time subsequently were eroded by those ice sheets during times of glacial expansion. Evidence of these climactic changes is, however, preserved in marine basin sediments around the perimeter of Antarctica.

The most recent drilling program to recover sediment cores from these marine basins, known as ANDRILL, is one of several successful drilling programs that have been conducted in the last 40 years. Dr. Krissek discussed the ANDRILL McMurdo Ice Shelf (MIS) Project in detail, and the recovery of a core approximately 1,285 meters long from beneath the present McMurdo Ice Shelf. The sediments comprising the core range in age from modern to about 12 million years old. Sediments deposited under the influence of glaciers dominate most of the core, while the remainder of the core is composed of either volcanically derived sediments and volcanic rocks or sediments dominated by the remains of planktonic marine algae, which record times of open-water conditions at the site.

Krissek stated that the results of the project showed that repeated alternations between glacially influenced sediments and sediments deposited in open-water conditions indicate that the size of the McMurdo Ice Shelf has been much more variable than was known previously. Because the McMurdo Ice Shelf is fed by ice from the large ice sheets on Antarctica, the fluctuations in the extent of the McMurdo Ice Shelf also indicate that the continental ice sheets also have experienced significant changes in volume during the past 12 million years. This dynamic past suggests that future changes in ice sheet volume are also quite likely.
Awards Presentations by President Coe

AIPG Ohio Section awards were presented by President Coe as follows:

The Certificate of Merit
Colin Flaherty, CPG 11465

In recognition of his service to the President and Executive Committee, the Ohio Section of AIPG Present to Colin Flaherty this Certificate of Merit. On numerous occasions, Colin has worked to set up field trips and meetings that greatly added to the professional quality of each event. As a result, the Ohio Section is privileged and honored to present to Colin this Certificate of Merit for his service to the Ohio Section.

The Award for Outstanding Service to the Institute
Brent Smith, CPG 11130

In recognition of his service to the institute, the Ohio Section of the American Institute of Professional Geologists bestows upon Brent Smith the Outstanding Service to the Institute Award. Through Brent’s efforts, he has guided the financial affairs of the Institute with honesty, ethics, and integrity. This has greatly strengthened the financial stability of the Ohio Section. He has worked tirelessly on behalf of his fellow members to preserve our Institute’s chartered purpose to increase public understanding and awareness of the profession of geology. In recognition of his efforts, the Ohio Section of AIPG bestows Brent Smith with this high honor. Brent is an outstanding example for future generations of Ohio geologists.

The Award for Outstanding Service to the Institute
Robin Roth, CPG 09264

In recognition of his service to the institute, the Ohio Section of the American Institute of Professional Geologists bestows upon Robin Roth the Outstanding Service to the Institute Award. Through Robin’s efforts, he has helped to strengthen the student chapters in Ohio. He has worked tirelessly on behalf of his fellow members to preserve our Institute’s chartered purpose to increase public understanding and awareness of the profession of geology. In recognition of his efforts, the Ohio Section of AIPG bestows Robin Roth with this high honor. Robin is an outstanding example for future generations of Ohio geologists.
The Award for Outstanding Achievement
Carol Swinehart

In recognition of her service to Ohio’s geological community and the citizens of the State of Ohio, the Ohio Section of the American Institute of Professional Geologists bestows upon Carol Swinehart the Outstanding Achievement Award. During her tenure as webmaster for the Ohio Section of AIPG, Carol has worked tirelessly to maintain the Ohio website. Carol exemplifies the ideals of loyalty, service, and integrity for which we all strive. In recognition of her efforts, the Ohio Section of AIPG bestows Carol Swinehart with this high honor.

Meeting Summary

The evening’s festivities concluded with drawings for door prizes, which included several geological publications donated by the Executive Committee, and a few gift cards, including one donated by TerraCon. A 50/50 drawing was also held, which was won by OSU Student Chapter Treasurer Erin Lathrop. It was a merry way to conclude a memorable evening!

The 2014 Ohio Section AIPG Annual Banquet was a celebration of not only the achievements of several seasoned and accomplished professional geologists, but as a recognition of the future of the profession, as evidenced by the sizeable contingent of student members in attendance. The feature presentation provided the audience with an interesting topic that will be one of importance to geologists in the coming years. The Banquet proved to be a memorable and successful conclusion to a productive year for the Ohio Section of the AIPG.
SCENES FROM THE 2014 ANNUAL MEETING

TOP – Many members of the OSU AIPG Student Chapter were on hand for the event.

RIGHT – Dr. Krissek delivering his presentation.

BOTTOM – The OSU Student Chapter with advisor and Ohio Section Member-at-Large Karen Royce and Dr. Krissek.
SCENES FROM THE 2014 ANNUAL MEETING

RIGHT and BOTTOM – Several lucky attendees left the Annual Meeting with door prizes.
The 2014 Ohio Section Executive Committee – from left to right: President Curt Coe, Secretary Shavonne Gordon, President-Elect Tom Jenkins, Member-at-Large Robert Andrews, Newsletter Editor Tim Brown, Student Chapters Chair Robin Roth, Member-at-Large Colin Flaherty, Website Webmaster Carol Swinehart, and Treasurer Brent Smith.

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Upcoming AIPG Conference Includes Short Course and Field Trip to Highbanks Metro Park and Shale Hollow Preserve

Join the AIPG and Ohio Section of AIPG for:

The Expanding World of Unconventional Shale Hydrocarbon Resources: The role of Hydraulic Fracturing in the Development of the Utica, Marcellus and other Shales of the Appalachian Basin

When: April 27-29, 2015
Where: Holiday Inn Columbus-Worthington, 7007 North High Street, Worthington, Ohio 43085.

This sixth annual conference features a short course and field trip presented by the AIPG in conjunction with the Ohio Geological Survey, Miami University, and the Ohio Geological Society – Ohio’s Geology in Core and Outcrop on Monday, April 27th. The course will be presented at the H.R. Collins Lab and Core Repository, and will focus on Ordovician (Utica) and Devonian (Marcellus and Ohio) Shales in Ohio. Lectures will be given on Appalachian Basin tectonic setting and stratigraphy as well as core logging and evaluation techniques. Participants will work in small groups to log selected intervals of core. The course will conclude with a field trip to nearby Devonian shale outcrops at Highbanks Metro Park and Shale Hollow Preserve. For more information and to register, see pages 20 and 21 of this Newsletter.

EnviroCore, Inc
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View of Shale Hollow Preserve

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TOP and BOTTOM – Photographs of concretions at Shale Hollow Preserve.
Photographs of Shale Hollow Preserve courtesy of Curt Coe.

LEFT – Close-up view of concretion at Shale Hollow Preserve.
Wright State University’s Chapter of AIPG Visits
Orton Museum
By David Peterman, Graduate Student EES Dept.
Wright State University

During the fall semester of 2014, nine students from the Wright State University Chapter of AIPG visited the Orton Museum at The Ohio State University for a tour of the fossils on display and in storage. This museum is named after Edward Orton Sr., a geologist and first president of OSU. Dale Gnidovec, Curator and Collections Manager of the Orton Geological Museum, led the tour. The first part of the tour was a quick look at the architecture of Orton Hall. There are several different layers of building stones that have slightly different colors. It turns out that this building is stratigraphically correct, in that the stones from older rock formations compose the foundation while age decreases upwards. When walking up the steps, a trained eye might notice some cross bedding structures and marine fossils at the face of each step, as well as fossiliferous handrails. Even the gargoyles at the top of each tower were modeled after several different prehistoric creatures. Every aspect of this building was indeed commissioned by a true geologist.

After learning about some history of Orton Hall, the tour of the museum began. It focused on significant fossils from each period, Precambrian to present. Some of the most noteworthy fossils on display were specimens of the Ordovician trilobite *Isotelus maximus*, the Devonian armored fish *Dunkleosteus terrelli*, a full scale replica of a *Tyrannosaurus rex* skull, the Pleistocene giant ground sloth *Megalonyx jeffersoni*, and the large armadillo-like Glyptodon. Following his usual tour of the fossils on display, Dale gave us an exclusive look at some of the individual specimens in the storage room. Drawers from the floor to the ceiling held thousands of fossil specimens. The first room was filled with mostly fossil cephalopods from the Pennsylvanian to the Cretaceous. Most of the specimens were recovered from the Cretaceous Interior Seaway deposits of the Great Plains. Many of these ammonites were exceptionally preserved and retained most of their original nacreous shells. One in particular, was the highly sought after *Placenticeras meeki* which was nearly 2 feet in diameter. Some of the rarer specimens were the Pennsylvanian nautiloids and ammonites found in Southeast Ohio. There was also a large group of Cretaceous ammonites collected from Seymour Island, Antarctica. These fossils were both rare and remarkably preserved. The most interesting of which was the large saxophone-shaped heteromorph Diplomoceras. The extreme shape of this creature raises many questions about the practicality to its mode of life and continues to baffle paleontologists. The next section was filled with many different trilobite specimens from several localities. Some of the Ohio trilobites were *Isotelus maximus* and gigas, and many Flexicalymenes from the Ordovician formations. Others include *Calyx cerebra* and Phacops from the Silurian and Devonian of Ohio, respectively. Other well-known fossil localities include the Wheeler Shale in Utah and the Bromide Formation of
Oklahoma. These yielded very fine specimens of Elrathia, Homotelus, Huntonia, and more. Each student could have spent days looking through the thousands of fossils at Orton Museum.

We would like to thank Dale and The Ohio State University for giving us the tour and letting us view the massive fossil collection at Orton Museum. We appreciate being able to have an exclusive look at the research specimens. Every student enjoyed looking at some very interesting fossils and this opportunity served as a great educational experience.
Wright State University Chapter of AIPG, 2014 – 2015

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<td>John Christenson, SA-3107</td>
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<td>Vice President</td>
<td>John Ernst, SA-4819</td>
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<td>Secretary</td>
<td>Randy Mickle, SA-3171</td>
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<th>ADVISOR</th>
<th>Stacey Hundley, Ph.D., Lecturer, Earth &amp; Environmental Sciences</th>
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UPCOMING WSU STUDENT CHAPTER EVENTS

February 14-15  TechFest at Sinclair Community College
Spring 2015    Ohio Caverns Field Trip with Student Members and CPGs

Please take a moment and welcome these WSU Student Chapter of AIPG officers and their fellow student members at a future AIPG event.

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ALS Environmental

www.alsglobal.com
News from The Ohio State University
Student Chapter of AIPG

The Ohio State University's (OSU's) Student Chapter of AIPG has provided the Newsletter with a listing of officers as well as a preliminary schedule of activities for the 2014-2015 academic year.

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<td>OFFICERS</td>
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<tr>
<td>Karen Royce, Ph.D., Academic Counselor and Staff Assistant, College of Arts and Sciences, School of Earth Sciences, MEM-0330</td>
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<tr>
<td>UPCOMING OSU STUDENT CHAPTER EVENTS</td>
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Please take a moment and welcome these OSU Student Chapter of AIPG officers and their fellow student members at a future AIPG event.

FIELD TRIP RESCHEDULED!

Contributed by: Andrew Collins, OSU Chapter of AIPG President

AIPG Ohio Section Members,

You are invited to join the AIPG OSU Student Chapter for an afternoon at the Museum! On Saturday, March 28th, they are headed to the Cincinnati Museum of Natural History to peruse the exhibit halls and caves (yeah, caves – complete with a live bat colony)! The portion of the tour open to Ohio Section Members will start at approximately 12:00 noon.

Museum tickets are $10.50 each and can be purchased at the entrance. Museum parking is $6. For more information on the museum and how to get there, please visit http://www.cincymuseum.org/visit. We look forward to seeing you there! •
The Expanding World of Unconventional Shale Hydrocarbon Resources

The role of Hydraulic Fracturing in the Development of the Utica, Marcellus and other Shales of the Appalachian Basin

When: April 27-29, 2015 (Monday Short Course/Field Trip; Tuesday/Wednesday Technical Program)

Where: Holiday Inn Columbus-Worthington, 7007 N. High Street, Worthington, Ohio 43085. A block of rooms have been reserved at a rate of $89 per night in the AIPG room block. For hotel reservations call 1-800-HOLIDAY, and be sure to use the group code ‘AIPG 2015 Shale Conference or 1206737’ to receive the discounted conference rate of $89 per night, which will be honored until April 12, 2015. The hotel offers complimentary internet and parking.

Program:
- Monday, April 27, 2015 Short Course and Field Trip - Ohio’s Geology in Core and Outcrop — 8:00 am-5:00 pm
- Tuesday and Wednesday, April 28-29, 2015 - Technical Presentations — 8:30 am-4:30 pm

The American Institute of Professional Geologists (AIPG) will present a short course, Ohio Geology in Core and Outcrop, in cooperation with the Ohio Geological Survey, Miami University, and the Ohio Geological Society at the H. R. Collins Lab and Core Repository. The short course will focus on Ordovician (Utica) and Devonian (Marcellus and Ohio) shales in Ohio, and will consist of background lectures on the tectonic setting and stratigraphy of the Appalachian basin, as well as an overview of core logging and evaluation techniques. Participants will work in small groups to log selected intervals of cores from Ohio and complete exercises focused on identifying (1) key sequence stratigraphic horizons and (2) zones of potential hydrocarbon resources based on lithological characteristics, geophysical logs, and organic geochemical data. The short course will conclude with a field trip to nearby Devonian shale outcrops at Highbanks Metro Park and Shale Hollow Preserve.

Each attendee will receive a copy of the Ohio Geological Survey’s Information Circular (IC) 63, Ohio’s Geology in Core and Outcrop—A Field Guide for Citizens and Environmental and Geotechnical Investigators. The publication will be used as a field trip guide and instruction manual. (Earn 8 contact hours or 0.8 CEU’s.)

This sixth annual conference is a great opportunity for industry, research scientists and engineers, regulators, and consultants to come together to learn about the critical aspects developing hydrocarbon resources from shales in the Appalachian Basin. Topics will include geology of shales, the process of hydraulic fracturing, the control and monitoring of fracture propagation, the relationship of fracture propagation to overlying aquifer systems, monitoring for environmental contamination, surface controls to prevent environmental damage, recent developments in the processing and recycling of production and flowback water, legal and regulatory perspectives, and many other technical and environmental aspects.

To submit an abstract, please go to http://www.aipg.org/abstract/ to submit an abstract online by March 23, 2015. Abstracts must be in Word format, single spaced, 12 point Times New Roman, and should not exceed one page. No tables or pictures will be accepted. You will be notified by March 31, 2015 if your abstract has been accepted. Extended abstracts and full papers are welcome, but not required. Oral presentations will be approximately 30 minutes, which includes time for questions. (Earn 8 contact hours or 0.8 CEU’s each day.)

Sponsors/Exhibitors: Sponsor the conference at $250 or $450. Exhibit booth $450. For additional information and to register online go to www.aipg.org!

Earn up to 24 contact hours or 2.4 CEU’s by attending all three days!!
Registration Form

Name: ___________________________________________ AIPG Member # __________________________

Company/Organization Name: ________________________________________________________________

Address: __________________________________________________________________________________

City/State/Zip: __________________________________________________________________________

Telephone: (_____) ___________________________ E-mail: _________________________________________

Emergency Contact Name: ___________________________________________ Contact Phone: ____________

Registration Fees: **Save $50 if attending all three days!!** Earn contact hours towards CEU’s

**Ohio’s Geology in Core and Outcrop** Short Course/Field Trip-Monday, April 27, 2015 (8:00 am-5:00 pm)
H.R. Collins Lab and Core Repository, 3307 South Old State Road, Delaware, Ohio 43015 (Space is Limited!)

- AIPG Member - $189 by April 6, 2015 - $214 after April 6, 2015
- Non-member - $214 by April 6, 2015 - $239 after April 6, 2015
- Student - $100 by April 6, 2015 - $125 after April 6, 2015

**AIPG Expanding World of Unconventional Shale Hydrocarbon Resources**-Tues./Wed., April 28-29, 2015
(8:30 am-4:30 pm) Holiday Inn Columbus-Worthington, 7007 N. High Street, Worthington, Ohio 43085

- AIPG Member - $325 by April 6, 2015 - $350 after April 6, 2015
- Non-member - $395 by April 6, 2015 - $420 after April 6, 2015
- Daily Registration - $220 by April 6, 2015 - $245 after April 6, 2015
- Student - $150 by April 6, 2015 - $175 after April 6, 2015

(*conference registration includes conference program, lunch Tuesday and Wednesday, networking reception Tuesday, continental breakfast and breaks both days)

Total Amount Due $___________ (in U.S. Funds) subtract $50 if registering for all three days!!

Method of Payment:
- [ ] Enclosed is a Check for payment in full (make checks payable to AIPG)
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Credit Card # ________________________________ Expiration Date: ___________ CVV: _________

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Letters to the Editor and Editorial Submittal Guidelines

The Ohio Section welcomes and encourages membership discourse via the Section newsletter on relevant geopolitical and geological topics, in accordance with our chartered purpose. Contributing authors are requested to abide by the following guidelines to ensure civility and professionalism.

1. Scientific interpretations should include accurate and effective references.

2. Opinion pieces should be presented with reasoning. Fellow members may choose to comment or challenge a submittal with their own contribution.

3. Authors must abide by the AIPG Code of Ethics. Any author who violates this code will not be published. Authors must be respectful to fellow members, all political parties, officials and candidates.

4. Letters to the Editor should be under one page in 12 pt. Arial font.

5. Member authors should provide their name and certification number.

6. The Ohio Section also welcomes and will consider relevant articles from non-members, provided contributions abide by the above stated guidelines.

Contributions to the Ohio Section newsletter do not necessarily reflect the opinion of the Ohio Section or the editor. We reserve the right to edit for clarity and space considerations. Please send submittals to the editor at tbrown@hullinc.com.