



Ohio Section American Institute of Professional Geologists

Winter Issue
February 2011

Chartered 1965

2011 Executive Committee

President
Tom Berg, CPG- 08208
(614) 431-2480
tberg@columbus.rr.com

President-Elect
Greg Kinsall, CPG- 10643
(614) 526-2040
greg_kinsall@coxcolvin.com

Past-President
Frank Majchszak, CPG- 10186
(614) 888-5760
fmajchszak@eagon.cc

Treasurer
Brent Smith, CPG-11130
(614) 459-2050
bsmith@burnip.com

Secretary, Ed. Outreach Chair
Lynn Kantner, CPG- 06205
(614) 209-0036
lkantner@csc.edu

Member-at-Large
Chris Krumm, CPG-09714
(614) 486-4383
christopher.krumm@stantec.com

Member-at-Large
Paul McCarren, CPG-10769
(513) 782-4700
paul.mccarren@shawgrp.com

Member-at-Large
Leonard Powell, CPG-10056
(614) 793-8777
powell@wideopenwest.com

Historian
Brent Huntsman, CPG-04620
(937) 320-3601
behuntsman@terrancorp.com

Screening Chair
Ann Harris, CPG-02814
(330) 941-3613
agharris@cc.yosu.edu

Membership
Scott Dailey, CPG-07993
(614) 459-2050
sdailey@burnip.com

Editor
Matt Justice, CPG-10485
(937) 879-2186
matt.justice@sbcglobal.net

Members and Guests Invited

Corn Ethanol Production—Potential Implications for Groundwater in the Midwest

by Rodney A. Sheets Jr., U.S. Geological Survey

Date: February 24, 2011

Location: LaScala Italian Bistro; <http://www.lascalaitalianbistro.com/LaScala.html>

Schedule: Social Hour 5 pm; Dinner 6 pm; Presentation 7 pm

RSVP: President-Elect Greg Kinsall (614) 526-2040;
Greg_Kinsall@coxcolvin.com

(See full announcement on page 5)

New Ohio EPA Director to Address Ohio Geologists

We are pleased to announce new Ohio EPA Director Scott J. Nally as our guest speaker **April 28**. Director Nally, sworn in by Governor Kasich on January 10, 2011, will discuss agency goals with Ohio's geoscience community. Members and guests are invited. Please RSVP to President-Elect Greg Kinsall.

State Geologist Larry Wickstrom to Present on Marcellus and Utica Shale, **Feb. 17** (See OGS announcement, page 13).

Ohio Geological Society / Ohio AIPG Sponsor

AAPG Distinguished Lecture

Examination of Potential Factors Affecting Successful Exploration and Production of Devonian Marcellus Shale Gas, Eastern United States,

by James L. Coleman Jr.

March 9; 4 pm, Hilton Easton; RSVP to President-Elect Greg Kinsall.
(See page 11 for full abstract)

2010 PRESIDENT'S FAREWELL ADDRESS ELECTION RESULTS

Frank L. Majchszak, CPG-10186

Fellow Members:

Building on the momentum of previous years, 2010 has been a busy and productive one for Ohio AIPG. We've seen an increase in the number of meetings and meeting attendance, and have hosted some great presentations, capped off by an enjoyable Fall Fieldtrip and Annual Banquet.

Our continuing success depends upon the enthusiastic participation of volunteer members. For 2011, Tom Berg advances to Section President, Greg Kinsall was elected President-Elect, Brent Smith was elected Treasurer, Lynn Kantner was reelected Secretary, Chris Krumm and Paul McCarren were reelected At-Large Committee Members, and Leonard Powell was newly elected as an At-Large Committee Member. Past-President Matt Justice has agreed to continue as Editor, carrying on the fine tradition of service exemplified by Mort Schmidt and predecessors.

For the following Committees: Scott Dailey continues on Membership, Lynn Kantner on Education Outreach, Brent Smith on Regulation and Legislation, and, despite plans to retire, Ann Harris and Fred Erdmann on Screening. Craig Cox has agreed to replace retiring long-time Member Dave Johe on Screening. Brent Huntsman will continue as Historian. Carol Swineheart has done a wonderful job responding to requests for website updates and for managing the online balloting process. On behalf of all Section Members, I thank each and every past and present volunteer for their unselfish and generous contributions of time, effort, and resources.

I'm sure Tom will be eager to appoint additional Committee Members to existing vacancies, so I encourage members to consider volunteering, or simply inquiring about ways to become more involved. As Past-President, I plan to continue in an active support and advisory role. For me, this year has been interesting and rewarding, and I am pleased to have had the opportunity to serve as Section President. I am grateful for the support and encouragement of fellow Committee Members and for generous contributions of time from my employer Eagon and Associates, Inc., including the newsletter editorial assistance and talents of our Office Manager Melissa Stonerook.

I will close by urging all members, particularly student members, to avail themselves of the timely information, professional interaction, and educational opportunities that Ohio AIPG is well positioned to provide in the coming year. Wishing you all a Happy, Healthy, and Prosperous New Year. *(Editor's Note: reproduced from December 30, 2010 email address to the membership).*

In Gratitude

The Executive Committee wishes to express our sincere gratitude to Past-President Frank Majchszak, for his continuing service and outstanding contribution as 2010 President.

MESSAGE FROM THE PRESIDENT

Tom Berg, CPG-08208



Dear Ohio Section CPGs, Members, and Student Affiliates:

I am delighted—and consider it a great privilege—to be able to serve as your President for 2011. I served as Section President in 1994, and also served as National Vice-President in 2000. I follow my good friend and colleague Frank Majchszak who served with distinction as Ohio Section President for the year 2010. I look forward to building on the many successes of Frank's administration.

The Section is presently served by an outstanding group of Executive-Committee Officers and Chairs of special committees. I urge our readers to view the listing of outstanding professional geologists who are currently serving AIPG in Ohio on the section Website at <http://www.aipg-ohio.org/officers.php>. The Executive Committee and special-committee Chairs conducted their first meeting of 2011 at my home in Columbus on January 31, 2011. I can emphatically state that enthusiasm for moving the Ohio Section ahead is at an all-time high! President-Elect Greg Kinsall of Cox-Colvin, Inc. already has several outstanding speakers lined up for our bimonthly dinner meetings.

For this year, I have established the following priorities for the AIPG Ohio Section:

1. Provide high-quality services to our CPGs, Members, and Student Affiliates. We need to expand on this beyond our bimonthly meetings. This will most certainly involve activating many more of our members.
2. Increase the membership! Membership Chair Scott Dailey will need the help of a dedicated committee of CPGs and Members. This will not include work on the Student Chapters; that will be a separate effort (see Priority #5).
3. Elevate AIPG's Ohio Section of as one of the most reliable, consistent, and visible geoscience resources in the eyes of state and federal public-policy makers, and frequently go on record in support of wise legislation and regulation. This will mean hard work on outreach, including the production of an Ohio-Section **Public-Information Flier**, letters to legislators and public officials, and visits to the State House.
4. Revisit the **Geology**, **Professional-Geologist**, and **Geologic-Practice** definitions to see if we can get these into the Ohio Revised Code.
5. Promote and support geoscience careers and education by establishing and maintaining AIPG Student Chapters at Ohio geology departments. This priority should not fall on the shoulders of the Executive Committee Members. The hard work and constant nurturing and shepherding that are required ought to be done by CPGs and Members who reside close to the individual Student Chapters. A separate team of 3 or 4 CPGs or Members to shepherd each chapter is required. This effort needs to be organized and tracked by one dedicated CPG or Member—a **Student-Chapter Committee Chair**—whose only duty is to guide and follow up on the Student-Chapter Teams, and who regularly attends Executive Committee Meetings.

With regard to these priorities, we urgently need additional volunteers from the Ohio Section. We need your time and talent to increase our membership, increase our visibility with public-policy makers, work on professional-practice legislation, and activate Student Chapters. Please volunteer to help advance the American Institute of Professional Geologists in Ohio! Contact me at tberg@columbus.rr.com or at 614-431-2480 to let me know how you wish to serve. Of immediate importance, we need a volunteer to

serve as **Student-Chapter Committee Chair**. The section also needs to reestablish its Awards Committee, and we need a volunteer to serve as **Awards Committee Chair**.

To help increase our membership, I will be attending the Geological Society of America (GSA) Joint Section Meeting in Pittsburgh in March. AIPG National will have a booth at that meeting, and I will be there to help promote AIPG and sign up new members. If you are interested in attending this meeting and helping, please visit <http://www.geosociety.org/Sections/ne/2011mtg/>. The AIPG Ohio Section has contributed \$200 as a Sponsor for this GSA meeting, and as such, will gain significant exposure where professional geologists and geology students from 20 states, the District of Columbia, and 8 Canadian Provinces will be in attendance.

Please know that I am committed to closely coordinating our activities with our sister organization, the **Ohio Geological Society** (OGS). I extend sincere congratulations to the Society's members on the celebration of their Fiftieth Anniversary. I urge all AIPG members to check OGS's Website, <http://www.ohgeosoc.org/> and keep track of Society meetings and activities. OGS meetings are usually held as luncheon meetings on the third Thursday of each month from September through May at the Ramada Plaza Hotel and Conference Center at 4900 Sinclair Road in Columbus. Of particular interest on February 17, Larry Wickstrom—Ohio State Geologist—will give a presentation titled, "**An Overview of the Geology and Drilling Activity of the Marcellus and Utica Shale Plays in Ohio.**" Lunch will start at 11:30 am at Justin's Place Restaurant at the Ramada. The meeting and presentation will follow at 12:30 pm. RSVP for the lunch no later than February 16 to Bill Arnholt at barnholt@northwoodenergy.com or 614-457-1024. For other OGS activities this year, I will be in close communication with John L. Wicks, OGS President for 2011.

For our Ohio Section bimonthly meetings, President-Elect Greg Kinsall is lining up an impressive group of presenters with very interesting and timely topics. For our meeting on February 24, we are honored to have Rod Sheets of the USGS Ohio Water Science Center who will present "**Corn Ethanol Production—Potential Implications for Ground Water in the Midwest.**" For our meeting on April 28, the AIPG Ohio Section will present Mr. Scott J. Nally, newly appointed Director of the Ohio Environmental Protection Agency, who will discuss new directions for the agency and future interactions with the geoscience community. Greg Kinsall is working on scheduling other exciting speakers for our bimonthly meetings, and is negotiating with a well-known national figure to be our annual banquet speaker for November. As always, we strongly urge our AIPG Student Affiliates to attend the bimonthly meetings.

As former State Geologist of Ohio, most of you know that the ODNR Division of Geological Survey is near and dear to my heart. Also, you are probably aware that the Ohio Geological Survey has suffered severe budget cuts, along with many other state agencies. It is shocking that **ALL** general-revenue funds (\$2,000,000) for the Survey have been removed. Quite plainly—in the face of very serious concerns about the environment, water resources, energy resources, geologic hazards, and mineral resources—this is **BAD PUBLIC POLICY**. To the great credit of State Geologist Larry Wickstrom and his staff, the Geological Survey continues to serve the People of Ohio (albeit greatly scaled back) by creative funding and partnerships with other state and federal agencies. In order to provide all the geologic services that are crucially needed today, the Survey needs to have its general-revenue funds (GRF) restored. In coming months, I will be working to help get GRF money back into the Geological Survey's budget. I look forward to the full cooperation of our AIPG members in Ohio to make this a successful effort

(Continued page 13).

Corn Ethanol Production—Potential Implications for Groundwater in the Midwest

(Continued from page 1)

Rodney A. Sheets Jr., U.S.G.S.

Abstract: The amount of ethanol produced in the United States from corn has increased dramatically in the past few years—from about 2 billion gallons per year in 2000 to 13 billion gallons per year in 2009. Potential impacts of corn ethanol production include reduced water availability and impairment of water quality at local and regional scales.

Water is an essential ingredient in the process of industrial fermentation, chemical processing, and distillation of the corn feedstock. Estimates indicate that more than 5 gallons of water are needed to produce 1 gallon of ethanol and 2 to 4 gallons of that water are consumed (not recoverable). Although consumptive water use at ethanol plants has decreased over the past few years, probably as a result of improved equipment and more energy-efficient plant designs, many ethanol facilities in the Midwest are in areas where groundwater is the primary source of water and where groundwater depletion has been recognized as a problem for long-term water availability.

Increased corn production to satisfy ethanol feedstock demands also can degrade water quality as a result of increased fertilizer use and the expanded use of marginal lands for cultivation.

Excess nitrogen applied for growing corn feedstock can enter groundwater, discharge to surface water, and ultimately be delivered to nitrogen-sensitive coastal ecosystems, such as the Gulf of Mexico. Water-quality improvements from managed reductions in riverine nitrogen loads related to Total Maximum Daily Load (TMDL) regulations and the implementation of USEPA nutrient criteria could potentially be offset by increased fertilizer application for corn production. Watershed studies and statistical models indicate that both temporal and spatial variations in nitrogen loading to aquatic ecosystems are highly sensitive to changing agricultural practices over broad spatial scales.



The Speaker: Rodney A. Sheets Jr. is the groundwater specialist for the Water Science Field Team, U.S. Geological Survey (USGS). His current duties include groundwater research and providing technology transfer, technical assistance, and quality assurance to USGS Science Centers in the Northeast and Midwest Areas. Rod has applied a variety of techniques to groundwater issues in Ohio, across the U.S. and abroad, including aquifer testing, surface and borehole geophysics, and numerical groundwater-flow modeling and has over 50 published reports and abstracts. His current research includes use of existing data for aquifer properties, linearization of

water-table systems in numerical modeling, and evaluation of alternative energy sources (geothermal, biofuels) on water resources.

High Turnout 2010 Annual Meeting Dinner Presentation Dr. Scott Tinker, Texas State Geologist

Special Guest, AIPG National President Mike Lawless

Approximately fifty geologists and guests attended the Ohio Section annual meeting and dinner presentation on November 18, 2010 at La Scala Italian Bistro in Dublin, Ohio. After an enjoyable social hour, President Frank Majchszak called the meeting to order and acknowledged the service of the 2010 Ohio officers and committee members. President-elect Tom Berg delivered the invocation, and also offered a prayer for deceased member Kevin Bonzo who passed away in April 2010. As our special guest, AIPG National President Mike Lawless discussed business items covered during his 2010 term, including the new publication policy for our national newsletter, The Professional Geologist (TPG). The policy debuted in the Nov/Dec issue on page 27.

After dinner we were pleased to host a renowned speaker in the field of energy, Dr. Scott Tinker, Texas State Geologist and past AAPG president. Dr. Tinker covered trends in global energy supply and demand, and compared and contrasted dominant with alternative forms of energy. In conclusion, he offered a special sneak-preview of a movie he narrated on global energy. This film will debut on HBO in the near future. A major undertaking, the film examines all the major forms of energy, with proportional focus on those likely to be dominant in the next several decades. The project required extensive travel, and includes numerous on-site interviews with experts from all corners of the globe.



2010 Ohio Section Executive Committee and Chairmen with AIPG President Mike Lawless

Left to right: Scott Dailey, Membership; Lynn Kantner, Secretary; Brent Smith, Member-at-Large; Matt Justice, Past-President; Chris Krumm, Member-at-Large; Greg Kinsall, Treasurer; Mike Lawless, AIPG President; Frank Majchszak, Ohio President; Brent Huntsman, Historian; Tom Berg, President-Elect

The Outstanding Achievement Award

J. Matthew Justice, CPG-10485

To conclude the evening, President Frank Majchszak presented Past-President Matt Justice with the Ohio Section's *Outstanding Achievement Award*. In presenting the award, Frank shared that deceased member Dr. William Kneller (CPG-6356) who established the award was his graduate advisor at the University of Toledo. President Majchszak read the citation as follows: *"In gratitude, the American Institute of Professional Geologists Ohio Section bestows upon Matt Justice the Outstanding Achievement Award for his unfailing leadership, invaluable guidance, tireless efforts, and numerous contributions to the geologic profession and the general public. As President, Matt's initiatives to invigorate and involve the membership were best evinced by his contributions toward developing and bringing to a vote, the Ohio Section's position statement opposing the Markey-Waxman "Cap & Trade" bill, a national issue of critical importance. In the execution of his past and current duties, Matt's adherence to the highest ethical standards is exemplary, as is his dedication to the principles and purposes for which AIPG was founded. The Ohio Section is privileged to include Matt as a Member, and is honored to present Past-President Justice with this award."*



President Frank Majchszak (right) presents Past-President Matt Justice with the Ohio Section *Outstanding Achievement Award*

The Outstanding Achievement Award was established in 1992, in response to a monetary gift from now deceased member, Dr. William A. Kneller, CPG-6365. Dr. Kneller's gift directed that medallions be cast for the award. Per his instruction, "the award is presented to any person who has made an outstanding, geologically related contribution to either science or the general public in the State of Ohio." Past recipients of the award are as follows: Robert G. Van Horn (2001), Stanley E. Norris (2003), Lawrence Wickstrom (2004), Horace R. "Buzz" Collins (2006), Dale Gnidovec (2006), and William E. Shafer (2009).

J. Matthew Justice, CPG
114 E. Whittier Ave
Fairborn, OH 45323

December 29, 2010

President Frank Majchszak
Ohio Section of AIPG
Eagon & Associates, Inc.
100 W. Old Wilson Bridge Road # 115
Worthington, OH 43085-2263

Re: Reception of Ohio Section of AIPG *Outstanding Achievement Award*

Dear President Majchszak:

I wish to thank you and the executive committee for presenting me the Ohio Section's *Outstanding Achievement Award* on November 18, 2010. Reception of the award at our annual banquet, along with the thoughtful citation marked a proud occasion for me, for which I am most grateful. I also wish to thank you for your support and outstanding service to the Ohio Section. Serving with you and the committee these past years has been rewarding and I look forward to our continued collaboration.

Sincerely,



J. Matthew Justice, CPG -10485

Ohio Section Hocking Hills Fall Field Trip

On October 30, Ohio Section members along with family and friends enjoyed an autumn hiking tour through one of Ohio's geologic wonders, Hocking Hills. This exceptionally scenic area is located in the Appalachian Plateau, about an hour's drive south-southeast of Columbus along State Route 33. 2010 President Frank Majchszak planned and led the field trip. During his tenure with the Ohio Geological Survey, Frank conducted subsurface geologic mapping, and authored a publication on the subsurface extent and water quality of the "Big Injun" Sandstone (subsurface equivalent of the Black Hand) in counties to the northeast. The trek began under blue skies as hikers departed the Old Man's Cave interpretive center at Hocking Hills State Park around 12:30 pm. While wandering the narrow gorge, hikers encountered numerous scenic geologic features including the Upper Falls, Devil's Bathtub, the beautiful Lower Falls, and Old Man's Cave. Named in honor of a recluse civil war veteran who made the cave his home, Old Man's Cave is one of the largest recessional caves in Ohio.



Ohio Section members at the Upper Falls, Hocking Hills State Park, October 30, 2010: photograph by Carol Rowland

The Hocking gorge exposes more than 150 feet of the Mississippian-age Black Hand Sandstone member of the Cuyahoga Formation. As observed first hand, the Black Hand member is comprised of three distinct zones. The upper and lower zones are firmly cemented and very resistant to weathering, while the middle is loosely cemented



Upper Falls

and more easily weathered. The many rock shelters, caves, and recesses in this middle zone were sculpted by joint-controlled fluvial erosion.

The cool microclimate in the gorge provides an ideal home for quiet groves of Eastern Hemlock, more typically found in northern latitudes.

After edifying and entertaining members with his classic wit, Frank treated members to a surprise Section-funded picnic featuring authentic Italian subs, and a variety of soft drinks, chips, and snacks. Everyone had their fill, including seconds on the subs. And don't forget desert! Secretary Lynn Kantner offered everyone delicious homemade carrot cake muffins. Mark Rowland enjoyed seconds, and some say thirds.



Cedar Falls

After lunch, a handful of hearty souls embarked on a 6 mile round trip hike targeting the picturesque Cedar Falls. With the hiking completed and sunset approaching, the day was capped off with a brief visit to nearby Ash Cave, one of Ohio's true natural wonders and the largest recessional cave in the state (yet wheelchair accessible from the nearby parking lot). The cave's namesake is derived from a vast former ash deposit resulting from the countless camp fires of Paleolithic Indians. Gazing upward upon the cave ceiling, one is invited to follow the pronounced joint strike typical of those that control erosion patterns. Towering sandstone cliffs and the soft trickle of falling water made for peaceful and inspiring scene.

Ohio Geological Society / Ohio AIPG Sponsor
AAPG Distinguished Lecture (continued from page 1)

March 9; 4 pm, Hilton Easton; RSVP to President-Elect Greg Kinsall.



2010-11 AAPG Distinguished Lecture

Abstract

JAMES L. COLEMAN JR.

U. S. Geological Survey, Reston, VA

Funded by the AAPG Foundation

Examination of Potential Factors Affecting Successful Exploration and Production of Devonian Marcellus Shale Gas, Eastern United States

The Devonian Marcellus Shale is one of several, very high profile shale gas plays in the United States and is the most significant new play in the Appalachian Basin in several decades. The following key factors will probably determine whether or not this play will develop into a natural gas resource that meets national expectations:

(1) The volume of economically extractable resources. Assessments of the amount of undiscovered, technically-recoverable gas vary and depend on the effectiveness of horizontal drilling and multi-stage hydraulic fracture stimulation. Estimates of undiscovered, technically recoverable natural gas range from 0.8 to 3.7 trillion cubic feet by the U. S. Geological Survey (USGS) in 2002 to more than 100 times these amounts by industry consultants in 2008.

(2) The availability of sufficient fresh water for drilling, stimulation, and completion of the wells. Current shale gas well designs call for use of three to nine million of gallons of fresh water per well to attempt a successful completion. Given the number of forecasted wells necessary to extract the resource, there is concern that there will not be enough fresh water available for the work.

(3) The capacity for effective disposal or reclamation of post-completion drilling and completion fluids and

solids. All of the material pumped into the reservoir that is recovered back to the surface must be disposed or recycled. Currently, there is inadequate capacity to handle this flow-back material properly at the scale planned for full development.

(4) The potential for significant wildlife habitat fragmentation caused by drill pad density and gathering, compression, and pipeline facilities. In areas of large, contiguous habitat, the activities associated with well-site construction, maintenance, and production activities may produce unintended consequences with respect to forest health and invasive species.

With collaborators, the USGS is studying the relative importance of these factors and the role that they may play in the evolution of the Marcellus Shale gas play so that we can meet our mission obligation to improve the nation's understanding of ecosystems and resources. Proper and prudent planning with foresight to managing the entire natural resource base will be necessary if the Marcellus shale gas play will reach its stated potential. The first steps in this planning effort involve examining and understanding the baseline conditions of these four factors.

James L. Coleman Jr.



Jim Coleman is the Director of the Eastern Energy Resources Science Center, U. S. Geological Survey (USGS), which conducts research and resource assessments on fossil fuel resources and examines the effects of their presence and use on human health and the environment. At the USGS, he has continued his research on unconventional gas systems and oil and gas resource assessments in the Appalachian, Gulf of Mexico, and Arkoma-Ouachita Basins. Before joining the USGS in 2003, Jim worked for 25 years with Amoco and BP on a variety of international and domestic oil and gas exploration and production and produced water management projects.

Jim has published articles on unconventional gas reservoirs, oil and gas resource assessments, basin and petroleum system evolution, deep water sandstone deposition and reservoir development, thrust-

American Association of Petroleum Geologists

An International Geological Organization

P.O. Box 979 • Tulsa, Oklahoma 74101-0979 USA

(918) 560-2621 • Fax: (918) 560-2678 • email: kdotts@aapg.org

and fold-belt structural geology and petroleum accumulations, and carbonate sedimentology. His work comparing the American Petroleum Industry with the American Whale Oil Industry was recognized with the best presentation award for his talk at the Energy Minerals Division session at the 1994 Denver AAPG annual meeting. He received an M.S. in geology from Mississippi State University in 1978. He lives in Sterling, Virginia, with his wife Jane.

Recent publications relevant to lectures:

Coleman Jr., J. L., 2008, Tight-gas sandstone reservoirs: 25 years of searching for “the answer”, in S. P. Cumella, K.W. Shanley, and W. K. Camp, eds., Understanding, exploring, and developing tight-gas sands— 2005 Vail Hedberg Conference: AAPG Hedberg Series, no. 3, p. 221– 250.

Coleman, James, 2009, Tight-gas sandstone reservoirs: the 200-year path from unconventional to conventional gas resource and beyond, in T. Carr, T. D’Agostino, W. Ambrose, J. Pashin, and N. C. Rosen, eds., Unconventional energy resources: making the unconventional conventional – 29th Annual GCSSEPM Foundation Bob F. Perkins Research Conference, December 6-8, 2009, Houston, TX, Proceedings CD, p. 397 – 441.

Coleman, J. L. and C. S. Swezey, Examination of Potential Factors Affecting Successful Exploration and Production of Devonian Marcellus Shale Gas, Eastern United States (abstract): 2009 AAPG Annual Convention and Exhibition, Denver, Colorado, June 7-10, 2009, AAPG Search and Discovery Article #90090

<http://www.searchanddiscovery.net/abstracts/html/2009/annual/abstracts/coleman.htm>

Ohio EPA Introduces New Website on Marcellus and Utica Shale Drilling

<http://www.epa.state.oh.us/shale.aspx>

OGS MEETING

Thursday, February 17th

Lunch at 11:30, talk at 12:30 pm

Ramada Plaza Hotel & Conference Center
4900 Sinclair Rd., Columbus, OH 43229
www.ramadaplazacolumbus.com/

Please RSVP to Bill Arnholt at
barnholt@northwoodenergy.com or 614-457-1024

An Overview of the Geology and Drilling Activity of the Marcellus and Utica Shale Plays in Ohio

Larry Wickstrom, Stephen Kelley, and Christopher Perry
Ohio Department of Natural Resources, Division of Geological Survey
2045 Morse Rd., Bldg. C-1, Columbus, OH 43229-6693
Contact: larry.wickstrom@dnr.state.oh.us; (614) 265-6988

Recent drilling and completion technological advances have created a paradigm shift in the oil and gas industry – what once were mainly thought of as only source rocks are now viewed as reservoirs. Thanks to advances in multi-stage fracture stimulation and horizontal drilling the Devonian Marcellus Shale and the Ordovician Point Pleasant Formation-Utica Shale interval in Ohio are now the target “reservoirs” of a large lease play and perhaps soon a drilling “boom”.

The recent Marcellus drilling started in Ohio in 2006 following successful wells in Pennsylvania. The Marcellus is at best only about 60-feet thick in southeastern Ohio (eastern-most edges of Belmont and Jefferson Counties) and quickly thins to 10-feet as one heads west (Harrison County). Thus, while thousands of Marcellus wells were being permitted in Pennsylvania, Ohio only saw 30 wells drilled in this unit thru 2009. However, starting in 2010 the leasing frenzy of Pennsylvania spilled over to Ohio and approximately 60 Marcellus wells were permitted and huge swaths of land pursued.

While the Marcellus play has matured in Pennsylvania another organic-rich shale play has been slowly gaining momentum in the eastern U.S. Operators have had success using these new technologies within the Utica Shale in New York and along the St. Lawrence River lowlands of Quebec. While the Utica may be as much as 800-feet thick or more in these regions, over much of Ohio it is 200 to 350 feet thick – still plenty to justify pursuit of this target over about two-thirds of the state. Also, within much of Ohio the Utica is directly underlain by, and in part in an equivalent facies arrangement with, the Point Pleasant Formation, which is comprised of interbedded organic-rich limestones and black shales. Also, due largely to less ultimate burial depth, analyses indicate much of Ohio’s Utica interval may be oil prone. In fact, a number of historical wells have encountered large shows, and some have even produced oil from this interval.

Lawrence H. Wickstrom - State Geologist and Division Chief, ODNR, Division of Geological Survey
Larry Wickstrom received both his B.S. and M.S. degrees in geology from Kent State University. Mr. Wickstrom has been employed with the Ohio Geological Survey since 1983 as a geologist, IT coordinator, Energy Group Supervisor, Assistant Chief, and Chief. He has performed many geologic investigations that have led to over 40 publications and numerous speaking engagements before public and professional groups. Larry has researched geology and energy issues from many perspectives. As state geologist, Mr. Wickstrom is advancing new initiatives to re-invent the Survey to ensure this important agency is recognized for its importance to economic development and the health, safety and welfare of the citizenry.

TRAVELS IN ICELAND, LAND OF FIRE AND ICE

Secretary Lynn Kantner, CPG-06205



Lynn and David Kantner

In June of 2010, I had the opportunity to travel to Iceland as a Group Leader for a program now renamed “Road Scholars”. The program used to be called “Elderhostel” but has gone through several names changes and restructuring and is now available for people of all ages with an adventurous spirit. My program was **Land, Folk and Saga: An Introduction to Iceland**. We traveled around Iceland—north, south and west—with guides native to these regions. Two boat trips afforded the group a unique view, and taste, of the local fishing and whaling industries. There were informal talks with authors, musicians, farmers and ranchers. Large herds of horses roamed the valleys and mountain slopes and sheep, goats and cattle dotted the countryside everywhere. A geologist from the University of Iceland was our guide for the awesome and unmatched geology of Iceland. Where else but the Land of Fire and Ice could one find 800 hot springs, 10,000 waterfalls, 15 active volcanoes, and 4,500 square miles of glaciers? This is all mixed in with sagas of the Vikings dating back more than 1000 years.

Not far from Keflavik, Iceland’s major airport, is the famous Blue Lagoon. The therapeutic, milky blue, mineral-rich waters, ideal for relieving jet lag, are the “waste water” from the large geothermal plant nearby. “Waste water” is rather a misnomer because the water is just the cooler water after the boiling, scalding, steam from the hot springs below is cycled through the power plant.



Gullfoss Falls

The Golden Circle is the name given to a 190 mile (300 kilometer) circular route which encompasses many of Iceland’s most famous landmarks. The major stops are the stunning Gullfoss, the most powerful waterfall in Europe, and the geyser geothermal area where the reliable “Strokkur” spews hot water into the air every few minutes. This is where the great Geysir, no longer active, is also located. All other geysers are named after this one. Thingvellir National Park is the site of Iceland’s first parliament. Vikings from all over Iceland made the trek to Thingvellir every year to set up camp, settle disagreements and hear their elected “Leader” recite the laws from memory. The Icelandic (Viking)

word for Government is *Althing*—meaning everything. The Norwegian word for Government is *Storting*—THE Big Thin--still the word for government throughout most of Scandinavia. Thingvellir is also a place where the North American and European tectonic plates are splitting apart in a breathtaking crack in the Earth.

The Ring Road is sort of like the perimeter road, going all around the island mostly following the coast. It takes one through scenic small fishing villages, wide open expanses, green

valleys and moss-covered lava fields, deep fjords and high cliffs. Few Icelanders do not speak English so traveling around the country on your own is not difficult. Rental car companies are available at the airport and in Reykjavik, the capital. Here are some websites for further information. Icelandnaturally.com, and info@icelandtouristboard.com.

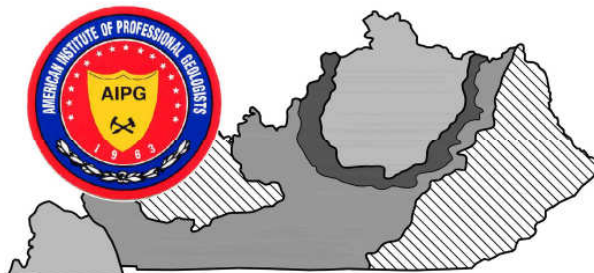
MESSAGE FROM THE PRESIDENT (Continued from page 3)

Since 2006, I have been involved in a project called the “**Trail of Geology**” headed up by former Ohio First Lady Hope Taft. This project has the goal of constructing an educational walkway at the Ohio Governor’s Residence that will be a creative stroll through geologic time, which will show the history of Ohio’s geology, and tell how the geologic formations in our state have contributed to the development of our heritage, our natural resources, our economy, and our environment. A committee of dedicated volunteers has been working with Mrs. Taft to make this a reality. But the final success will depend on finding funds to construct the trail. More than a year ago, the AIPG Ohio Section Executive Committee voted to match \$1,000 in contributions from members to yield a total of \$2,000 in support of this project. If you or your business would like to help support this great educational geoscience project in the name of AIPG, please contact me at tberg@columbus.rr.com or 614-431-2480. I look forward to seeing as many of you as possible during the 2011 meetings, events, and activities of the Ohio Section of the American Institute of Professional Geologists.

Dayton to Host Regional Water Conference in May 2011

The Dayton Development Coalition and the Connecticut-based Water Innovations Alliance are hosting the 2nd annual Dayton Water Conference on regional water issues. Topics include water management, monitoring, and analysis. The first conference organized in 2010 developed from a campaign to market the Miami Valley’s abundance of ground water. For more information or to register contact Vincent Caprio:(203) 733-1949; vince@waterinnovations.org

Kentucky Section to Host Professional Development Program



The Kentucky Section of the American Institute of Professional Geologists (KY-AIPG) is instituting a Professional Development Program designed to enhance the knowledge and skills of the practicing members of the geologic profession. The topics and the character of presentation of the sessions are designed to be acceptable for Professional Development Credits for those who desire them.

The first offering of this program will be a one-day conference titled *"An Overview of Contaminated Site Assessment and Remediation Technology"*. This conference will be held on Tuesday, [April 19](#) at the Kentucky Geological Survey, Well Sample and Core Library, 2500 Research Park Drive, Lexington, Kentucky 40511. Detailed information on the conference topics can be obtained at the KY-AIPG website, <http://ky.aipg.org/Announcements.htm>.

Fees for the workshops in the program are designed to cover the basic expenses of the workshops and allow students and other young professionals as well as more experienced geologists to participate. Kentucky Section requests your assistance in the development of this program. As additional workshop topics are added, we will need the unique knowledge and skills of our membership as well as outside volunteers to provide programs of benefit to professionals practicing in our area. Contact Dr. Jim Howard for more information: jfhoward89@hotmail.com

News Briefs

U.S. EPA Ruling on Ethanol

Late last November 2010 the Environmental Protection Agency ruled that Americans must use at least 13.95 billion gallons of ethanol in 2011, or about 8% of total U.S. fuel consumption. At the same time, 17 Senators signed a letter calling ethanol "fiscally indefensible" and "environmentally unwise." The Senators opposed subsidies which passed into law last December along with extension of the Bush-era tax cuts. Subsidies passed into law include a 45-cent-per-gallon tax credit for blending ethanol into gasoline, and tariffs on cheaper imports such as ethanol made from Brazilian sugar cane. Previously in October 2010 the agency approved 15% ethanol for all cars and trucks manufactured after 2007. The maximum blend in gasoline had been 10%.

Dayton Daily News

AP sources: EPA expected to OK more auto ethanol

By MARY CLARE JALONICK, The Associated Press

Updated 8:40 PM Thursday, January 20, 2011

WASHINGTON — The Environmental Protection Agency is poised to approve higher levels of corn-based ethanol in gasoline for all cars manufactured in the past decade.

Two people familiar with the decision said late Thursday the agency is expected to announce on Friday that 15 percent ethanol in gasoline is safe for cars manufactured between 2001 and 2006. Both officials requested anonymity because they were not authorized to speak publicly about the decision.

In October, the agency approved 15 percent ethanol for all cars and light-duty trucks manufactured since 2007. The maximum gasoline blend has been 10 percent ethanol.

The EPA has said there won't be a decision any time soon on boosting the ethanol concentration for cars and light trucks manufactured before 2001 — or for motorcycles, heavy-duty vehicles or non-road engines — because there is not sufficient testing to support such an approval.

Ethanol is popular in farm country because most of it comes from corn and other grains. It faces strong opposition, however, from the auto industry, environmentalists, cattle ranchers, food companies and a broad coalition of other groups.

Opponents argue that the increase in production of corn and its diversion into ethanol is making animal feed more expensive, raising prices at the grocery store and tearing up the land. Manufacturers of smaller engines, such as those found in lawn mowers and boats, also oppose increasing the use of the fuel, saying those engines are not designed for the higher concentrations.

The Obama administration has remained supportive of the renewable fuel, and the EPA has said a congressional mandate for increased ethanol use can't be achieved without allowing higher percentage blends. Congress has required refiners to blend 36 billion gallons of biofuels, mostly ethanol, into auto fuel by 2022.

Critics said the change could be frustrating for drivers of older cars who will have to figure out which service station pump to use. And they argue that many retailers will opt not to sell the higher blend because of the expense of adding new pumps and signs.

The EPA has delayed decisions on using 15 percent ethanol several times as the agency and the Energy Department have tested the ethanol-blended gasoline to make sure it is safe. The agency has only approved the blend for newer cars and trucks because they have more durable emissions systems.

Ethanol burns hotter than gasoline, causing catalytic converters, which help clean engine emissions, to break down faster.

January 21, 2011 01:38 AM EST

Copyright 2011, The Associated Press. All rights reserved.

Dayton Daily News

Greenhouse gas regulations target Ohio coal power

By Steve Bennish, Staff Writer

Updated 9:03 AM Tuesday, January 18, 2011

DAYTON — The power industry nationwide might have to spend more than \$80 billion and retire 45,000 megawatts of coal-fired power plants over several years in adjusting operations to meet current and possible new EPA regulations, according to a report from investment bank FBR Capital Markets.

In Ohio, 17 older plants potentially under the gun include DP&L's O.H. Hutchings Station and Duke Energy's Walter C. Beckjord plant east of Cincinnati and its Miami Fort plant west of Cincinnati, according to FBR. A coal plant owned by the city of Hamilton also is vulnerable, according to FBR. For American Electric Power, which serves southern Ohio and Columbus and various parts statewide, the Conesville, Picway (near Lockbourne), Muskingum River (near Beverly) plants are named.

The city of Hamilton's generating station employs 50 people, said Al Scobee, plant superintendent. He said the city will strive to meet U.S. EPA regulations as they are issued. The city also has stakes in hydropower generation from a plant on the Ohio River. "We want to keep a diverse generation capability," he said.

Lacking an energy bill from Congress, the Obama administration plans to attack climate change and boost the emerging renewable energy industry with stepped-up regulations. Ohio, with 90 percent of its power from coal combustion, is on the hot seat. In total, 4,936 megawatts of coal generation in Ohio are at risk to be retired, but the state is committed to generating by 2025 at least 25 percent of all electricity sold in the state from renewable or advanced sources, such as nuclear. One megawatt powers about 1,000 U.S. homes. The oldest, least efficient coal plants — some of them too old to economically retrofit — are especially vulnerable, according to FBR.

FBR's report is not the only one on the fate of U.S. energy amid debate over global warming's implications for rising sea levels, food shortages and hotter temperatures that could alter economy and society. The U.S. Energy Information Agency, for example, forecasts that U.S. greenhouse gases will rise because of continued dependence on coal into 2035. On the other hand, Black & Veatch, the global engineering and consulting firm, predicts coal use will plunge.



Kasich urges EPA to make tough decisions

CantonRep.com staff report

Posted Jan 21, 2011 @ 03:14 PM

COLUMBUS — Ohio Gov. John Kasich has told employees of the Ohio Environmental Protection Agency they need to make tough decisions and not delay things forever.

The governor, a critic of the agency's backlog of permits, recently touted the signing of a permit he said had been stalled at the agency for more than 20 months.

Kasich has said the state should move at what he calls "the speed of business" while protecting the environment at the same time.

Kasich, a Republican, stressed on Friday the importance of teamwork at the agency, encouraging staff not to do anything to hurt the team and telling employees that if they have a problem, they can come to him.

The governor also talked about his plans for Ohio, and took several questions from EPA staff.

Copyright 2011 CantonRep.com. Some rights reserved

Governor Kasich Addresses Ohio EPA Staff

On January 21, 2011 Governor Kasich and newly appointed Ohio EPA Director Scott Nally addressed approximately 1,000 Ohio EPA employees at the Riffe Center, in downtown Columbus. In lamenting Ohio's unemployment rate, the governor offered a number of objectives to restore the state's economy. In particular, he stressed the need for teamwork to reduce the agencies backlog of some 800 permits. He said that environmental protection and business are "not mutually exclusive" and urged employees to be respectful of the general public.

Ohio Section Publication Policy

“Letters to the Editor,” Editorials, and Featured Articles

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. Contributions should be under one page in 12 pt. Arial font.
5. Member authors should provide their name and certification number

Please send submittals to the Editor at matt.justice@sbcglobal.net

TestAmerica, Inc
4101 Shuffel Drive NW
North Canton, OH 44720
Ph: (330) 497-9396
www.TestAmericaInc.com



Terran Corporation
4080 Executive Drive
Beavercreek, OH 45430-1067
Ph: (937) 320-3601
www.TerranCorp.com

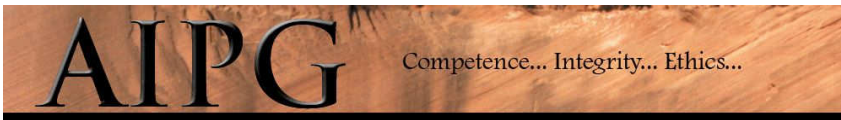


Cox-Colvin & Associates
7750 Corporate Blvd.
Plain City, OH 43064
Ph: (614) 526-2040
www.CoxColvin.com



Advertisements

Advertisements in the Ohio Section newsletter may be purchased for \$125 per year. The fee entitles you to a business-card size advertisement in the newsletter, the Annual Meeting program, and a hotlink on the Section website. Please contact the Treasurer for details.



Visit us on the Web:
<http://www.aipg-ohio.org/>