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## Message from the President

Fellow members... I am very honored to serve as your President during the coming year! The past few years have seen significant growth and change in our organization, and we look to continue that trend through 2009.



I would like to welcome our new board members, Jennifer O'Reilly of GES, Louis Vittorio of EarthRes Group, Dennis Bell of Skelly & Loy, and Donald Wagner, of the law firm of Stevens & Lee. These new board members have already taken an active role in several of our standing committees and are shaking things up!

PCPG's goals for 2009 place an emphasis on member value. We are planning an ambitious education schedule, with quality technical sessions on topics identified through our member surveys. We will also continue to track important legislative and regulatory issues that impact our profession.

In today's economy, we all need to be very selective with our investment of time and money. PCPG fully understands and appreciates this premise -- after all, we're all business people in addition to being scientists. Therefore, as an added value, we will be adding business development opportunities for our members. For instance, co-sponsored events with the Pennsylvania Bar's environmental attorneys will provide great access to decision-makers in an informal setting.

Our goal is to bring even more value to our members. So please look for me when you attend a PCPG function to pass along any ideas you may have, or just to say "hello." I look forward to meeting you.

David B. Farrington, P.G.  
President

## Post-Mortem Regulations for Algae: The Marcellus No Longer Resting In Peace

- Dan Erdman, P.G. (PCPG Government Affairs Committee)

If you had been around for over 300 million years, you would think that all the regulations that might pertain to you had long ago been set in stone...right? Wrong. The Devonian algae that was buried in the Appalachian Basin seabed and later became the gas present in the Marcellus Shale never really became part of the regulated community until the formation of PADEP's Bureau of Oil and Gas Management (BOGM) in 1982. And today, the morphed vegetative matter that has been resting peacefully at depths typically greater than 8,000 feet beneath much of our Commonwealth is the subject of much more post-mortem regulation.

For those interested in learning more, PCPG's Marcellus Shale Library includes regulation-related material relevant to the exploration and development of the formation. Reprinted with permission of Saul Ewing LLP, Joel Burcat's ***Oil and Gas Drilling and Production: A Summary of Pennsylvania Law*** is one of the initial articles placed "on the shelf" of our library, accessible through our website. Mr. Burcat's presentation includes an overview of BOGM's responsibilities, the regulatory programs and regulations in place, permitting requirements, environmental concerns, and a summary of related property and land use cases.

With the pending increase of Marcellus activity, 2009 promises to be a busy year for our regulators and the regulated community. Late last year, House Bill No. 2533 (HB 2533), known as the Surface Owners Protection Act, was introduced; this bill did not pass in 2008 but is likely to be introduced in some similar form this year. The oil and gas industry is presently exempt from numerous regulations, and a bill of this nature would provide surface owners with the ability to have more input on issues such as surface water drainage, location of access roads and pits, erosion control, noise pollution, and surface restoration. Copies of both HB 2533 and George Bibikos' Oil & Gas Alert ***What Lies Beneath the Surface Owners' Protection Act?*** (reprinted with permission of K&L Gates) are included in the on-line Marcellus Shale Library.

Amendments to the Oil and Gas Act of 1984 have just recently been proposed to change the permit fee structure for new wells. The PADEP expects to receive 40,000 oil and gas permit applications from 2009-2011. The amendments are projected to generate an additional \$6.28 million in fees, which the PADEP predicts will cover the costs of permitting and inspecting these new wells, and hiring an additional 42 staff in FY 2009. Justification for the amendments includes the following by PADEP:

*"Developing the Marcellus Shale requires new drilling techniques, greater earth activities, requires more fresh water, and generates more waste water than traditional oil and gas development...A non-vertical well, including the Marcellus Shale wells, must submit an addendum to the Department, along with the permit application. Review of the permit addendum requires additional staff time to evaluate because it includes water intake information, hydraulic fracturing, and water treatment of the hydraulic fracturing liquid."*

So, as the remains of our buried little hydrocarbon friends from the Devonian are shaken awake from the dark, tight fractures of the Marcellus Shale where they have rested, I think of them being welcomed into the 21<sup>st</sup> century with a cry paraphrased from an old Monty Python movie, ***"Bring up the dead...and regulate them."***

### This Month's Q&A

**Q:** I've heard PCPG Board members talk about "PA GEOPAC". What is a GEOPAC?

**A:** GEOPAC is a political action committee (PAC) formed and supported by Professional Geologists. More than 200 trade and professional organizations in Pennsylvania have formed PACs, including lawyers, bankers, doctors, dentists and builders. The PA GEOPAC is the official political action committee of the Pennsylvania Council of Professional Geologists. A PAC lends financial support to candidates who support their legislative goals. Advocacy contributions enhance the visibility of an organization. Without access, the legislative achievements of an organization will be limited at best. See Page 8 of this newsletter for details on how you can contribute.



## LEGISLATIVE NEWS FLASH!

### PA House Bill 587

was introduced into the Pennsylvania House of Representatives on February 24, 2009 by Representative Joseph Markosek. This bill proposes several amendments to the Engineer, Land Surveyor & Geologist Registration Law.

The bill defines the term Geologist In Training (GIT). In addition to reintroducing the concept of GIT, the last five pages of the bill modify requirements for continuing education.

At this time, PCPG is uncertain how the modifications pertaining to continuing education will impact the continuing education regulations written by the State Licensing Board. These draft continuing education regulations are currently under review by various inter-governmental committees and agencies, but have not yet been approved.

A copy of this bill is available on the PCPG Website "Legislation" page:

[www.pcp.org/legislation.asp](http://www.pcp.org/legislation.asp)



RINGING ROCKS OF BRIDGETON TOWNSHIP  
Southeast corner of largest field.  
(Photograph August 24, 1908, by B. F. Fackenthal, Jr.)

## PCPG Plans First Geologic Field Conference

*"Has it been since 1908 that you were on an outcrop? If so, sign up for the PCPG Field Conference."*

### PCPG is hosting its first Geologic Field Conference on June 19 and 20, 2009.

The Conference will focus on the geology of the Piedmont and provide geologists, and aspiring geologists, the opportunity to explore sites of geologic and environmental interest in Southeastern, Pennsylvania.

Participants will benefit from presentations by recognized experts including Jeff Featherstone, Ph.D. Temple University; Jack Epstein, USGS; Greg Cavallo, Delaware River Basin Commission (DRBC); Louis F. Vittorio, P.G., Earth Res Group; and Tom Ross, P.G., Keystone Engineers. The course will include a field guide and will offer CEUs for those requiring credits to maintain licensure.

Course registration will be limited to 80 attendees and will include an overnight stay (Friday, June 19) on the T-3 Ranch, a lodge in Riegelsville, Bucks County. Alternative hotel accommodations will also be provided. The course will culminate with an outdoor barbecue Saturday afternoon at the Ranch! Those who are interested in attending only the Saturday barbeque portion of the conference will be welcome.



T-3 Ranch, Reigelsville, PA

Additional details regarding the conference will be available soon. Check the PCPG website for more information.

Were you able to guess the location of the image on Page 1? It is the Delaware Water Gap, a likely stop in our June Field Conference.



## Science Fair Winner Pursuing Geology in College

*-PCPG Communications Committee*

In both 2006 and 2007 Hannah Hilbert won the PCPG Earth Science Award at the Del Valley Science Fair. The Del Valley Science Fair is one of several Pennsylvania science fairs at which PCPG and Pittsburgh Geologic Society (PGS) members present Earth Science Awards for outstanding Geology Projects. PCPG founding member and past president Grover Emerich, Ph.D./P.G. judges the Del Valley Science Fair and awarded Hannah the 2006 and 2007 awards.

Hanna Hilbert (-Wolf) recently communicated with Grover about her geologic endeavors as a freshman at Carlton College in Northfield, Minnesota. She indicated "I was able to spend a field season in Utah last summer, and fortunately will be going again this summer. I'll be continuing research on seismites, as well as getting more in depth in some new studies (possible tidal rhythmites, volcanic clastics, etc.)! ... Last year applying to Carleton and presenting posters at GSA meetings had my attention; both of which turned out to be meaningful experiences."



*Picture Insert at Right: Hanna Hilbert-Wolf at the waterfall in Yosemite National Park, California.*

## PCPG Presents Awards at Annual Meeting

*-PCPG Communications Committee*



At the PCPG Annual Meeting on December 12, 2008 several awards were presented. Grover H. Emrich, P.G., charter member of our organization presented the Emrich Meritorious Service Award to Lane Shultz, Ph.D., P.G. Dr. Shultz is also a charter member of PCPG and has been recognized as a member of the inaugural Board of Directors. He was first elected to the PCPG Board, by the membership, in January 1990. Dr. Shultz served as PCPG President in 1999 and 2000. He also served PCPG in various capacities including Finance Chair and special liaison for initiatives involving multiple stakeholders.

Mr. Emerich also had the honor of presenting former Pennsylvania State Representative Carole Rubley with the PCPG Distinguished Public Service Award in recognition of her service to the Commonwealth of Pennsylvania. Representative Rubley was a strong advocate for the environment and clean water supplies and served on the House Consumer Affairs and Environmental Resources & Energy Committees.



*Picture Insert (above left): Grover Emerich, P.G. presents Lane Shultz, Ph.D., P.G. with award.*

*Picture Insert (above right): Fmr. Representative Carole Rubley accepts award from Grover Emerich, P.G.*



## UPCOMING EVENTS

May 6, 2009

4:00 – 6:00PM

**Introduction to the  
Marcellus Shale**  
(networking & education)  
Exton, PA

June 4, 2009

**2<sup>nd</sup> Quarter PCPG Meeting**  
Pittsburgh, PA

June 19 – 20, 2009

**PCPG Field Conference**  
Piedmont Physiographic  
Province and Beyond  
Reiglesville, PA

September 10, 2009

**3<sup>rd</sup> Quarter PCPG Meeting**  
Lancaster, PA

December 3, 2009

**4<sup>th</sup> Quarter PCPG Meeting**  
Exton, PA

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## Do You Want To Be a PG?

The best place to start gathering information about the process of becoming a Licensed Professional Geologist is the PCPG Website. The new "Becoming A PG" web page has links to all of the licensing and examination board websites, and a news article discussing the courses required for acceptance to take the licensing exam. There is also information about reciprocity with other states.

Webpage Link:

[www.pcp.org/becomingPG.asp](http://www.pcp.org/becomingPG.asp)

## THE COST OF QUALITY: PART I – COMMUNICATIONS & PLANNING

*-Frank E. Stossel, President – American Westech, Inc*

I received a flattering letter from one of my clients praising my company for exemplary service. He wrote the letter after buying lunch at a fast food drive-through, where he was amazed to find that his lunch was exactly what he ordered. He noted this occasion because it is not often that we get exactly what we ask for, on time, with both high quality and service.

I continue to remind myself about the letter's purpose and what is ultimately important at the end of the day. With technological advancements and fierce competition, clients want everything yesterday, and in the midst of a serious recession, want it done inexpensively. So, the million dollar question is...how do you balance quality with price and service and still make a profit? What do you do when a client wants something done so quickly or so inexpensively (or both), that the quality of work may be jeopardized?

Part of the answer lies in the quality assurance (QA) process. The QA process must start much sooner than it is typically initiated. The QA strategy needs to be determined when a new project is initiated and needs to be supported by all levels of management. You must identify your client's goals and make sure you fully understand the overall scope of work and required deliverables. If you cannot perform the work due to lack of experience, expertise, or backlog, then don't accept it. One of the key components in any credible QA program is workload management. Think of it in simple terms, such as catching a baseball. We all can catch a single ball, but it is impossible to catch five fastballs thrown at you all at the same time.

Once the project scope is determined, address the regulatory requirements. If your client hints that cost is an issue, determine whether adequate funding is available. Discuss with your client how budgetary constraints can affect the success of the project. Although there are additional details to consider, a clear understanding of the general boundaries and budgetary constraints is key. If the project requires collection and analysis of samples or other subcontracted work, define the scope of work required by all subcontractors, including the laboratory.

It is important to develop a Quality Assurance Project Plan or QAPP, even though the plan may require simplification due to cost limitations. At a minimum, develop a list of parameters that must be analyzed for each sample matrix, analytical method(s), minimum required detection limits for each compound, and QA/QC samples required (if any) Provide that list to the laboratory and require that they notify you of any potential issues prior to commencement of field activities. Also, require the laboratory to provide you with appropriate sample containers and preservatives for each analytical group on your list, and check the containers for accuracy upon delivery. Lack of communication with your subcontracted laboratory can result in a lack of quality analytical data. This, in turn, may adversely affect your project outcome, your clients and your reputation ... at a cost perhaps much higher than that of an expedited analytical turnaround time.



# News of the Pennsylvania Geological Survey

- John Harper, Pennsylvania Topographic and Geologic Survey



**ACT 129:** In October, 2008, Governor Edward G. Rendell signed House Bill 2200 into law as Act 129 of 2008, with an effective date of Nov. 14, 2008. The main provisions of this act will make Pennsylvania a leading state in energy conservation. However, one of the provisions has far-reaching implications for the Survey by requiring the Department of Conservation and Natural Resources (DCNR), parent agency of the Survey, to assess the Commonwealth for carbon sequestration potential. Act 129 requires DCNR to complete a study to identify suitable geological formations for the location of a statewide carbon dioxide sequestration network by April 1, 2009. DCNR also has to consult with the Public Utility Commission (PUC) and hire one or more independent experts to: 1) assess estimates of capital requirements and expenditures necessary for the establishment, operation and maintenance of a state network; 2) collect data to allow for a safety assessment; 3) assess all potential risk associated with geologic sequestration in the state; 4) and include an analysis of regulatory standards, vulnerability, and liability issues; all by October 1, 2009. The Survey is currently working to assess the Commonwealth for one or more suitable sites for geological sequestration of large quantities of CO<sub>2</sub>. For more information, contact John Harper or Kristin Carter.

**BUDGET CUTS:** Due to current economic conditions and their impact on state revenues, state funding for the PAMAP program was drastically reduced. At this time, only Federal funding is available for data processing. As a result, only a portion of eastern Pennsylvania data, acquired in 2008, will be processed in 2009. Lidar and orthos processed from 2006 data are available for western Pennsylvania and the 2007 eastern Pennsylvania will soon be available. For further information, contact Helen Delano.

**GEOLOGIC MAPPING UPDATE:** State Map - The U.S. Geological Survey National Cooperative Geologic Mapping Program (STATEMAP) awarded \$214,950 for FY2008 to the Pennsylvania Geological Survey. The award funds on-going geologic mapping projects in southeastern, central, and north-central Pennsylvania, as well as a new project in northwestern Pennsylvania. The Survey has submitted a proposal for \$299,510 to continue funding for those projects and to start new projects in the Pittsburgh and Harrisburg areas for FY2009. For additional information, contact Gale Blackmer.

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## The PCPG Newsletter Needs You!!!

Are you interested in contributing an interesting article to our newsletter?

Do you have an electronic image of an interesting outcrop, landform, or mineral?

Would you like to announce your member organization's unique accomplishment or milestone?

Then contact our PCPG Newsletter editor and Communications` Committee Chairperson, Kelly Lee Kinkaid by email at [kkinkaid@libertyenviro.com](mailto:kkinkaid@libertyenviro.com) or by telephone at 610-375-9301.

**DEADLINE FOR 2<sup>ND</sup> QUARTER 2009 NEWSLETTER IS MAY 20, 2009**



## Closing Notes on Membership... From the Desk of the Executive Director

PCPG recently sent membership renewal letters to all of its members. Hopefully, you have read your letter and are addressing your membership renewal for 2009. We understand that these are challenging economic times, but it is in these times, as professionals, we need to ensure that our voice is heard, particularly in the State Legislature. Please consider the voice we provide for you in the legislature and on numerous state advisory committees and professional boards. A small handful of the committees and boards on which PCPG serves include:

- Pennsylvania State Board of Licensure of which PCPG member Tom Gillespie is Vice President.
- Pennsylvania Department of Environmental Protection (PADEP): 1) Citizen's Advisory Council, 2) Scientific Advisory Board, 3) Underground Storage Tank Advisory Board, and 4) Oil & Gas Technical Advisory Board.
- Pennsylvania Department of Conservation and Natural Resources Technical Advisory Committee.
- Delaware River Basin Commission (DRBC), Water Management Advisory Committee.
- Water Resources Planning Act (Act 220), Regional Water Resources Committees.

The membership renewal letter also outlined several pieces of legislation that PCPG tracked and responded to during 2008. We continue to track legislation as it is being introduced into the new session of the General Assembly, in 2009.

PCPG is working diligently to reactivate a number of our internal, standing committees. Most notably, we have reorganized our Education Committee and that Committee is planning a number of important continuing education programs for 2009. As evidenced by this newsletter, our Communications Committee has also been reorganized. We are taking steps to ensure that PCPG publishes quarterly newsletters to keep our members abreast of PCPG's activities and those of the earth resources community. The Communications Committee has also revised PCPG's website to provide members with easier access to relevant information about our profession. If you have not seen PCPG's new website, please visit the site at [www.pcp.org](http://www.pcp.org). The Government Affairs Committee continues to track and respond to proposed legislation that potentially impacts PCPG members. Members are encouraged to serve on our various committees. Please feel free to contact me if you are interested in joining a committee or would like more information about a committee.

To ensure timely communications, in addition to the quarterly newsletter I personally, transmit e-mail updates to our membership, as appropriate, and plan to continue these updates. I hope that you find the updates informative and relevant.

I believe that PCPG provides tremendous value to our members and hope that you agree. If you haven't done so already, please show your support by renewing your membership for 2009.



# PA GEOPAC

## *The Political Action Committee for Geologists and Environmental Professionals!*

Each day, elected officials make countless decisions which affect your professional and personal future. Now you can have something to say about it. How? Through PA GEOPAC, the official political action committee of PCPG. Your donation strengthens our voice when and where you need it most...right now at the state Capitol where decisions are being made regarding water well legislation, water resource management policy, mining, professional practice requirements, and a state water plan.

***Joining GEOPAC is easy. Just complete this form and return it, along with your check payable to GEOPAC, 116 Forest Drive, Camp Hill, PA 17011.***

**Enclosed is my donation in the amount of:**     \$100     \$250     \$500     \$\_\_\_\_\_ (Other)

Contributions may be made by personal check or company check only if from a sole proprietorship or partnership.  
Otherwise, no corporate or business checks may be accepted.

Name: \_\_\_\_\_

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Home City/State/Zip: \_\_\_\_\_

Occupation: \_\_\_\_\_

PCPG: Please make financial contributions to political campaigns of those Pennsylvania legislators who support the issues important to geologists and environmental professionals in Pennsylvania.



Pennsylvania Council Professional Geologists

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