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West Chester University of Pennsylvania
MHelmke@wcupa.edu

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EQT Production
bdunst@eqt.com

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Billman Geologic Consultants, LLC
dan@billmangeologic.com

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Vincent.Carbonate@hdrinc.com

Tiffani L. Doerr, P.G.
Evergreen Resources Management Operations
TLDERR@evergreenresgmt.com

Kurt Frieauf, Ph.D., P.G.
Kutztown University
frieauf@kutztown.edu

Martin F. Helmke, Ph.D., P.G.
West Chester University of Pennsylvania
MHelmke@wcupa.edu

Valerie Holliday, P.G., C.P.G.
GeoLogos, LLC
vholliday5@comcast.net

Tom Jordan, Ph.D., P.G.
Key Environmental
tjordan@keyenvir.com

Chris Kotch, P.G.
Barry Isett & Associates, Inc.
ckotch@barryisett.com

Russell Losco, P.G., C.P.S.S.
Lanchester Soil Consultants, Inc.
soildude@comcast.net

Jackie Reichl, P.G.
Moody and Associates, Inc.
jreichl@moody-s.com

Greg Rosenzweig, P.G.
Groundwater & Environmental Services, Inc.
grosenzweig@gesonline.com

John Torrence, P.G.
ERM
john.torrence@erm.com

Tom Wagner, P.G.
Cabot
tom.wagner@cabotog.com

Richard Wardrop, P.G.
Groundwater & Environmental Services, Inc.
wardrop@gesonline.com

General Information: info@pcpg.org

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MESSAGE FROM THE PRESIDENT



Greetings,

I hope everyone's field season is off to a good start. I am honored to serve as PCPG President this year. Throughout my career as a hydrogeology professor, consultant, and small business owner, PCPG has been my go-to organization for networking and professional development. I also know that PCPG "has my back" by representing geologists and environmental professionals across the Commonwealth and beyond. I welcome the opportunity to continue this tradition as we work to implement our strategic plan.

I want to thank Dan Billman for his service as President for the past two years. Dan brought fresh perspective to our leadership as a petroleum geologist in Western Pennsylvania and will continue to serve on the board as Past President. A hearty congratulations to Barbara Dunst for her election as President Elect by the executive board. Barb works as a geologist in the natural gas industry in the Pittsburgh Area. This year we welcome Tom Jordan, Chris Kotch, Jackie Reichl, and Gregory Rosenzweig to the board and congratulate Kurt Frieauf on his re-election. We want to thank Brenda Costa, Gary Kribbs, Jim LaRegina, and Jennifer O'Reilly for their many years of service. They have cycled off the board yet remain active within the organization.

The bulk of PCPG's accomplishments are achieved by our member volunteers, board members, instructors, and of course, Rose Jeffries. We are currently seeking member volunteers in our committees, including:

- Government Affairs: Monitoring and acting on legislative activities impacting geologists and allied professionals in Pennsylvania,
- Education: Designing courses to foster professional development, training, and networking,

Continued on Page 4

CONTINUING EDUCATION CALENDAR

July 16, 2019

Hydrostructural Geology: The Geology within Hydrogeology

(405 mins.)

Reading, PA

August 15-16, 2019

Two-Day PG Review Course for the Practicing Geologist & ASBOG® Exam Candidate

(900 mins.)

Plymouth Meeting, PA

September 12-13, 2019

Introduction to Inorganic and Organic Groundwater Geochemistry

(900 mins.)

Mars, PA

September 16-17, 2019

Introduction to Inorganic and Organic Groundwater Geochemistry

(900 mins.)

Plymouth Meeting, PA

For a complete list of upcoming events or to register online, check our

[HOME PAGE](#) **event calendar,**

or visit

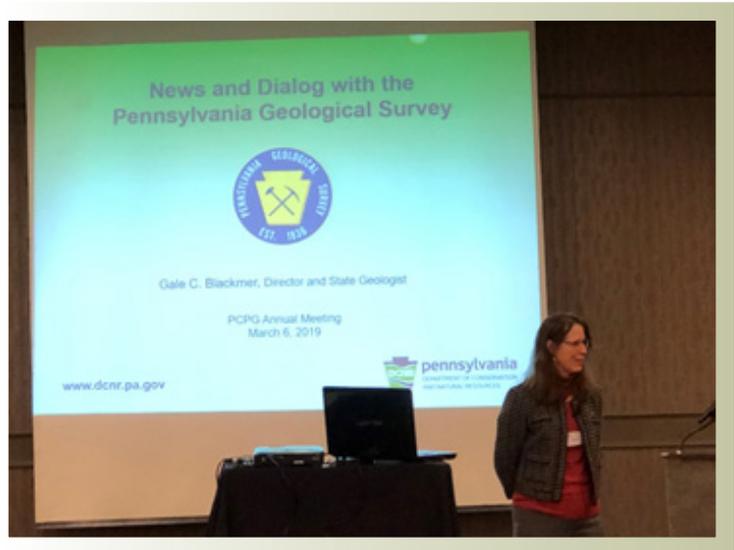
[PCPG'S COURSES AND EVENTS](#)

web page.

ANNUAL MEETING SUCCESS

PCPG's annual meeting took place on March 6, 2019 in Grantville. Thank you to the more than 80 attendees for helping make this year's meeting a success.

A special thank you to our speakers Brian L. Fritz (Quemahoning, LLC), Robert E. Hughes (Executive Director, Eastern PA Coalition for Abandoned Mine Reclamation), Gale C. Blackmer, Ph.D. (State Geologist, PA DCNR), and Lisa Voyce (Sr PM)/ Vincent Carbone, P.G. (HDR Engineering) for taking time out of their schedules to share information and experience with PCPG stakeholders. This year we heard very informative talks on the interactions between geology and archeology, mapping and monitoring of surface and underground mines, updates on the PA Geological survey, and a case study on the use of compound specific isotope analysis.



Gale Blackmer, Ph.D., Director and State Geologist, shares news on the PA Geological Survey.

PCPG is always excited to provide an opportunity for students to share their research. This year PCPG held a student poster session and competition. Nine undergraduate students were chosen from the field of 17 submissions to present their posters during the annual meeting. Each student was awarded \$500 for having been chosen to present, and the selected winner was awarded with a \$1,000 scholarship. All students did an amazing job and after judging based on various criteria, Cole Gardner was chosen as the winner! Cole attends Bucknell University and shared his poster *Late Devonian Sedimentary Record of Appalachian Tectonics and Erosion: Geochronology and Geochemistry of Detrital Muscovite and Zircon from North Central Pennsylvania Strata*.

PCPG would like to extend a special thank you to our poster judges: Rich Hazenstab, Kelly Kinkaid, Andrew Klingbeil, Paul Nachlas, Lane Schultz, and Jay Parish.

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ANNUAL *Continued from Page 2*



Poster Competition Winner, Cole Gardner and advisor Jeffrey Trop (Bucknell University)



Student Alexandra Garnand (Kutztown University) explains her poster during PCPG's annual meeting.

The annual meeting provided an opportunity to share PCPG's strategic planning efforts conducted over the last year. In 2018, PCPG elicited the help of Align, Ltd. to aid in developing our business strategies and launch new initiatives to help meet our stakeholders' needs. This initiative began with our stakeholder survey in June and subsequent focus group meetings from which we were able to prioritize some of the more common needs and challenges of geologists and geoscientists in our area. Using this information, PCPG developed a strategic plan including new goals and objectives.

The main challenges for geologists centered around three main topics:

- 1) Training – Challenges in finding job candidates with adequate applied knowledge and field experience.
- 2) Education – Finding continuing education courses with more frequency, variety, experience level, location, and convenience.
- 3) Public Perception – Challenges arising from public and business community public perceptions and limited awareness of the importance of professional geologic work.

Using these challenges to provide direction, PCPG has developed strategic goals to enhance our education and networking services to help build, connect, and support a sustainable workforce. PCPG will engage members and strategic partners to aid in implementing our strategic objectives:

- 1) Creating a platform for networking, mentoring and education.
- 2) Enhancing outreach and communications to reach and engage existing and potential young professionals and inform the general public.
- 3) Enhance and expand education to meet the needs of a contemporary workforce through varied courses and formats.

“What has PCPG done so far,” you ask?

- We have already developed a Technology committee and engaged outside resources to aid in development of digital platforms and a networking portal.
- We've engaged young members and added them to committees.
- Began developing new courses dedicated to early career professionals. A new course, “Back to Basics: Soils for Geologists and Environmental Professionals,” has already been offered.

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ANNUAL *Continued from Page 3*

- We've added member profile functionality to our website.
- PCPG has added more PA-focused news to the bi-weekly blasts.
- Continued monitoring of legislation and regulations.



Jen Reiner, Chief Strategist of Align Ltd. discusses stakeholder challenges with attendees.

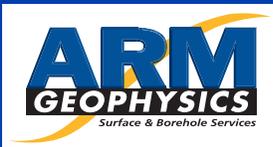
PRESIDENT'S MESSAGE *Continued from Page 1*

- Communications: Providing content for our quarterly newsletter, bi-weekly news blast, and social media platforms,
- Membership Services: Hosting networking events for members, presenting at professional meetings, and reaching out to academic institutions, and
- Ad-hoc Technology Committee: Helping us modernize our web content, providing online networking and mentoring services, and offering online professional development courses.

We ask that you encourage your junior colleagues to serve on one of these committees to support PCPG and our field. Those interested in contributing their talents should e-mail Rose Jeffries at info@pcpg.org or contact me directly at mhelmke@wcupa.edu.

Sincerely,

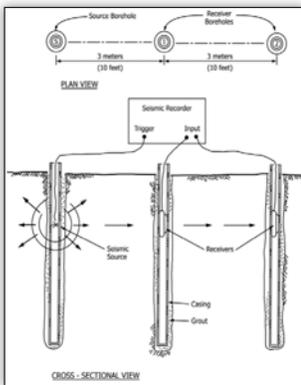
Martin Helmke, Ph.D., P.G.



ARM Geophysics solves complex problems and challenges by integrating expertise from Geophysics, Geology, Hydrogeology, Soil Science, Geotechnical and Civil Engineering.

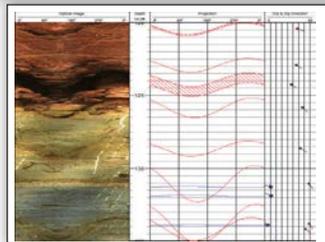
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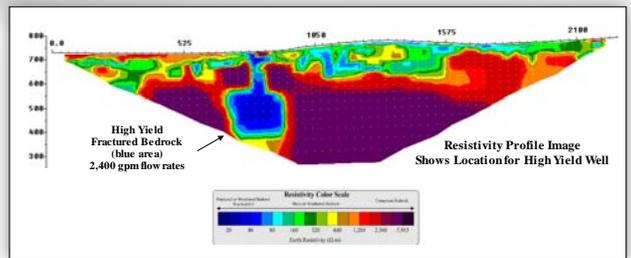


Poisson's Ratio, Shear Modulus, Young's Modulus

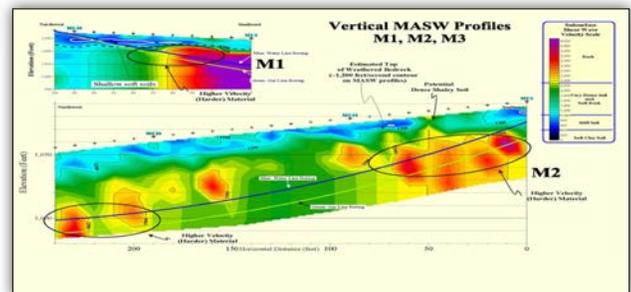
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2019 PCPG SOIL COURSE

Russell Losco, M.S., P.G.

This May PCPG ran a new soils course entitled “Back to Basics: Soils for Geologists and Environmental Professionals.” The course was held at West Chester University and was co-taught by Dr. Martin Helmke of West Chester University and Russell Losco of Delaware County Community College and West Chester University. This course began with one half-day classroom instruction followed by one half-day in the field examining and classifying soils.

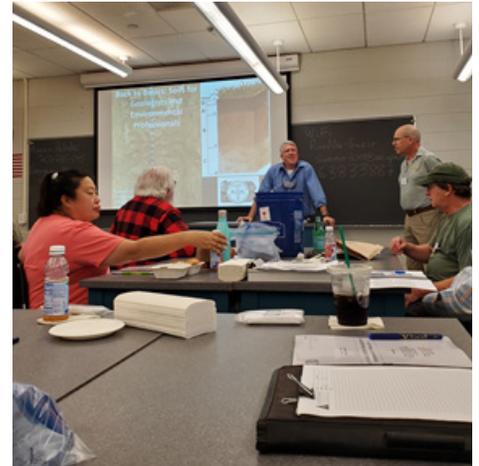
The classroom instruction covered both the US Department of Agriculture (USDA) classification system and the Unified Soil Classification System (USCS). Following a brief orientation on soils basics, it was time to break out soil samples and get everybody’s hands dirty. Everybody spent time learning hand texturing of soils to classify soils using both systems. Time was also

spent learning to use the Munsell Soil Color books to properly determine soil color. Then it was back to instruction to discuss soil genesis, horizonation and soil classification. Attendees were introduced to Soil Taxonomy and the 12 soil orders. Soil Taxonomy can seem daunting, even to those of us who have been using it for many years, however it’s a system that can be used to transmit a great deal of information.

Following a lunch break, it was time to move into the field. The class reassembled on the south campus of West Chester University and hiked to a section of the Gordon Natural Area to examine the Chrome soil series. The Chrome series is derived from serpentinite and is often extremely shallow. This site is no exception, with bedrock being encountered within inches of the surface. This area is also the location of the University’s seismometer, anchored into the shallow bedrock. Next the class moved to another section of the Gordon Natural Area to examine soils with a shallow depth to seasonal water table that exhibited distinct redoximorphic features. Then it was on to the test pits. Three soil test pits had been excavated with a backhoe and attendees were divided into groups to rotate through the pits and examine and describe them according to the two systems that had been covered in the classroom.

Soil Taxonomy can seem daunting, even to those of us who have been using it for many years...

This format of course generated a lot of dynamic discussion and hands-on learning. It brought the worlds of geology and soil science together for comparison and contrast. The attendees all reported very positive outcomes having learned many new facts and techniques. PCPG looks forward to offering similar courses in the near future.



CELEBRATING THE CAREER OF BILL KOCHANOV

Bethany Reeves

MS Geoscience Student, West Chester University of Pennsylvania

Intern, Pennsylvania Geological Survey

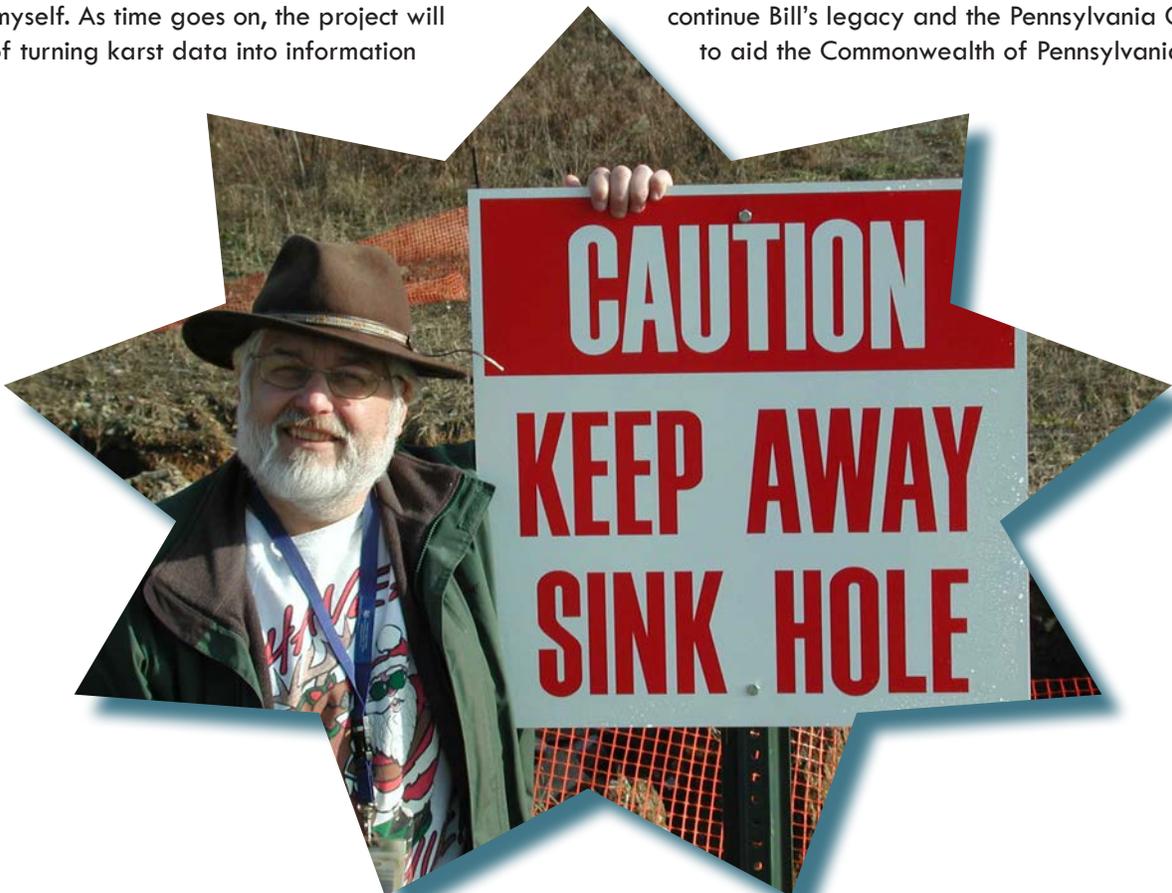
Bill Kochanov, the man who literally wrote the book on sinkholes, has become a household name across Pennsylvania for those who encounter the challenges of karst geology. Bill was hired by the Pennsylvania Geological Survey in 1985 with the intent to create an inventory of karst features across the state. Since then, he has made an invaluable contribution to protect public welfare and advance the field of geology by publishing numerous reports and investigating countless sinkholes during his career.

Initially, karst features were located by studying collections of USDA air photos. The features were then transferred onto topographic maps using a stereo transfer scope. Data were also collected via questionnaires sent to municipalities across the state. The questionnaires inquired about sinkhole occurrences and repairs within the given municipality. Today, the Pennsylvania Geological Survey receives reports of new sinkholes virtually every week. The reports are documented then field-checked if feasible to do so. As time and technology advanced, GIS, LiDAR, and Google Earth™ have all developed into powerful tools for identifying more karst data.

The vast regions of carbonate bedrock and associated karst features in Pennsylvania posed a considerable challenge to the project due to the copious amount of data. The Pennsylvania Geological Survey has maintained an enormous collection of sinkhole related cases, with the earliest records dating back to the 1940s. Since these records of karst features have been collected for many decades, they have existed in various forms including hand-written case files, correspondence, newspaper articles, photos, spreadsheets, and emails--just to name a few. With that in mind, one state-wide database to hold all of the karst records that the Geological Survey possess has become a primary focus of the project. Over the past two years, Bill and his colleague Michael Moore (also with the Pennsylvania Geological Survey) have developed a new karst database that is currently in the data-entry phase.

Although Bill Kochanov recently retired from a very successful 33 years at the Geological Survey, the karst database project will continue. Presently, work on the database is being overseen by interns like myself. As time goes on, the project will Survey's goal of turning karst data into information residents.

and maintained by employees of the survey, including work continue Bill's legacy and the Pennsylvania Geological to aid the Commonwealth of Pennsylvania and its



DEADLINE FOR OUR NEXT NEWSLETTER IS JULY 22, 2019

For more information, contact our PCPG Newsletter Editor and Communications Committee Chairperson - John Torrence, P.G., by **Email** or telephone at 609-932-7090.

2019 PCPG MEMBER SPONSORSHIP RATE

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Size	Commitment:	1x	4x
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Thank you!

Special thanks to our 2019 Student Poster Judges. We appreciate their ongoing contributions in support of PCPG's mission of advocacy, education, and networking.

Rich Hazenstab, P.G.
Kelly Kinkaid, P.G.
Andrew Klingbeil, P.G.
Paul Nachlas, P.G.
Jay Parrish, Ph.D., P.G.
Lane Schultz, Ph.D., P.G.

Our judges barely had time to grab a bite to eat, but reported enormous satisfaction from the experience after spending the day in discussions with the students.



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