

PCPG Newsletter

Communicating Key Information & Concerns
to Geologists and Environmental Professionals

Issue 3 / 2019

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MESSAGE FROM THE PRESIDENT

Greetings,

One of the greatest benefits of PCPG membership is access to networking opportunities for professional geologists, geologists in training, and allied scientists. Let's face it, who we know and how we interact with our colleagues is vital to our success as professionals. Networking through PCPG can help geologists connect with clients, establish collaborative relationships, and promote career opportunities and advancement.

PCPG is rolling out a new networking venue using the Slack professional media platform. In response to last year's strategic planning process, members will be able to connect through our Slack workspace using their smart phones or the internet. Users can subscribe and post to a variety of PCPG channels, including "Professional and Business Collaborations," "Mentoring," or "Ask a Geologist." We welcome suggestions for new channel categories. Members may also communicate with each other instantly with this free service similar to text messaging.

Although we certainly need to embrace new technologies, there's no substitute for networking at PCPG's face-to-face events. Our annual membership meeting, course offerings, field trips, and "Continental Drifters" social gatherings are all excellent places to connect with both new and familiar colleagues. We hope you will take advantage of all these opportunities and encourage others to join us to support the important work of geologists across the Commonwealth.

I am pleased to announce that Barb Dunst will be stepping up as PCPG President in 2020. Barb has a unique perspective to offer given her diverse background in coal, petroleum, and environmental geology. Many thanks to Rose Jeffries, this year's Board of Directors, instructors, and committee volunteers who have made PCPG the incredible organization that it is. I have thoroughly enjoyed my time as this year's President and look forward to continuing to serve the geologists of Pennsylvania next year as Past President.

Sincerely,

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



UPCOMING PCPG EVENTS

January 23, 2020

Central-PA Continental Drifters (Networking)

Harrisburg, PA

February 6-7, 2020

PG Review Course for the Practicing Geologists &
ASBOG® Exam Candidate

Cranberry Township, PA

February 25, 2020

PCPG Annual Meeting Program,
Student Poster Competition, Networking

Harrisburg, PA

May 15, 2020

The Big Picture: Geologic and Environmental
Applications of Drones

Cranberry Township, 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.

STRATEGIC OBJECTIVES: PCPG PROGRESS REPORT

By Tiffani Doerr, P.G., Strategic Planning Chair

PCPG is developing an informational series called "What Does a Professional Geologist Do...?" for various geoscience disciplines. This series is aimed at students and young professionals to learn what specific activities and responsibilities may be part of our daily jobs.

We're also developing a Geology Course of Study spreadsheet for students to aid in determining what courses might be most important to focus on for various industry sectors and geoscience disciplines.

PCPG is in the planning stages of developing a podcast series. This and other objectives will be supported with our new website to be launched in early 2020.

We've expanded member profile functionality on our website, and we now allow members to incorporate a profile photo, and add career updates. In the near future we plan to build out a search feature for purposes of professional networking with other PCPG members. If you have not yet updated your PCPG profile, please do so by logging on to our website, visiting your member record, and choosing to edit your profile.

REGISTRATION NOW OPEN

Tuesday, February 25, 2020

PCPG Annual Meeting

The Central Hotel & Conference Center

Harrisburg, PA

9:30 AM - 4:30 PM

We're expanding to a full day program that will include regulatory updates, education sessions, time to visit the student posters to review and discuss research projects, networking, great food, and door prizes.

Hotel Rooms: \$89.95++ for the night of Monday, February 24 or Tuesday, February 25. Visit PCPG's [dedicated overnight room reservation page](#) on the hotel's site to make your reservation.

FEBRUARY 25 ANNUAL MEETING PROGRAM

Join us on [Tuesday, February 25](#) for our PCPG 2020 Annual Meeting at the The Best Western Central Hotel & Conference Center, Harrisburg, PA. Our program opens 9:30 and concludes at 4:30 PM. Along with our featured speakers, attendees will have ample opportunity to visit the student research posters during our [3rd Annual Poster Competition](#).

PLANNED SESSION TOPICS AND SPEAKERS INCLUDE:

Troy Conrad, Director of PA Department of Environmental Protection's (DEP) Bureau of Environmental Cleanup & Brownfields, will present a session titled, *The Land Recycling Program: 25 years later*. At the 25th anniversary of PADEP's landmark Land Recycling Program, or Act 2, Mr. Conrad will discuss the Hazardous Site Cleanup Fund, which funds the operating budget of the Bureau. Mr. Conrad will also discuss Per- and Polyfluoralkyl Substances (PFAS) and what the Bureau is doing to combat these emerging contaminants.

Mike Maddigan, Environmental Group Manager of PA Department of Environmental Protection's (DEP) Bureau of Environmental Cleanup & Brownfields Voluntary Cleanup and Standards Section in Central Office, will present a technical session addressing recent happenings in the Land Recycling Program (LRP). Mr. Maddigan will present an overview of recent revisions to the LRP's Technical Guidance Manual and will highlight a proposed new Appendix: The Use of Caps as Engineering Controls. He will also provide a summary of the proposed Chapter 250 rulemaking.

Brian J. Dunst, P.G., Geologist Supervisor (PADCNR PA Geological Survey), *Appalachian Storage Hub for Natural Gas Liquids*. Subsurface storage of Natural Gas Liquids (NGLs) is an important part of the infrastructure necessary to support the petrochemical industry. The tri-state region of PA-OH-WV produces large volumes of this valuable commodity. The PA Geological Survey was part of a research team conducting a regional stratigraphic study of potential storage candidate formations and reservoirs in this area.

Scott A. Wendling, P.G., Vice President, Chief Operating Officer (ARM Group, Inc./ARM Geophysics) will provide an overview of the horizontal directional drilling (HDD) process and the potential issues associated with HDD projects. Mr. Wendling will then provide an update on the status of the PADEP's Stakeholder Workgroup for Horizontal Directional Drilling and Other Trenchless Construction Methods.

Gregory Holesh, P.E., Environmental Engineering Manager (DEP Waste Management) will present, *PADEP's Management of Fill Policy*. The DEP's Management of Fill Policy dates back to August 7, 2010, and an updated Management of Fill Policy is highly anticipated in early 2020. Mr. Holesh has been invited to present an overview of the anticipated updates to the policy.

We've also invited Ted Tesler, P.G., and Joe McNally, P.G., Professional Geologist members appointed by the Governor to serve on the State Registration Board for Professional Engineers, Land Surveyors and Geologists.

The program concludes with PCPG door prizes, followed by an informal networking mixer with great food and beverages lasting until 6:30 PM.

Seats are limited and registration is quickly filling-up. Visit the [February 25 Annual Meeting event](#) on our web site for more information. Hope to see you in February.

PGPG 3RD ANNUAL STUDENT POSTER COMPETITION

**Abstract deadline:
January 10, 2020**

Students pursuing undergraduate degrees in the geosciences at colleges and universities located within Pennsylvania, and contiguous states, are eligible.

The poster session will be held during PCPG's Annual General Membership Meeting on **February 25, 2020**, at the **Central Hotel & Conference Center** in Harrisburg, PA.

Limited to 10 posters | \$300 Travel/lodging stipend

PRIZES: \$1500 Best Poster | \$750 Runner-Up

See flyer appearing elsewhere in newsletter.

 **Visit 3rd Annual Student Poster Competition [web page](#).**



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Pennsylvania Council of Professional Geologists
116 Forest Drive • Camp Hill, PA 17011
Phone (717) 730-9745 • pcpg.org

PCPG 2020 Student Poster Session and Competition

First Place \$1500

Runner-Up \$750

Abstract deadline is January 10, 2020

Please contact PCPG by Emailing info@pcpg.org or telephone (717) 730-9745 with any questions regarding the PCPG 2020 Student Poster Session and Competition.

The Pennsylvania Council of Professional Geologists (PCPG) is announcing our 2020 Undergraduate Student Research Poster Session and Competition. Students pursuing undergraduate degrees in the geosciences at colleges and universities located within Pennsylvania, and contiguous states, are eligible.

The poster session will be held during PCPG's Annual General Membership Meeting on February 25, 2020, at the Central Hotel & Conference Center in Harrisburg, PA.

PCPG hosts this event as part of the organization's efforts to more fully engage with geoscience students studying at universities and colleges. Presenting a poster at the event is a tremendous opportunity to directly interact with individuals and companies that provide geoscience services throughout Pennsylvania. Our members include consultants, oil and gas geoscientists, university professors, and others.

The posters must be illustrative of research performed and presented by the entrant with oversight by their advisor. The poster topic shall generally fall within the disciplines of the geosciences (geology, geochemistry, geophysics, etc.). PCPG anticipates entrants will submit abstracts covering a wide range of topics.

Enter the competition by submitting an abstract to info@pcpg.org by January 10, 2020. Ten students will be selected from the abstracts to present posters at PCPG's Annual General Membership Meeting.

Each successful entrant shall be awarded a \$300 check from PCPG the day of the meeting, which is in recognition of being selected for the session and can be used for lodging, travel and reproduction services. In addition, prizes will be awarded at the end of the meeting for Best Poster (\$1500) and Runner-Up (\$750).

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Page Two - PCPG 2020 Student Poster Session and Competition

Guidelines for entering PCPG's 2020 Undergraduate Research Poster Session and Competition are as follow:

- Correctly following these guidelines is a criteria for being selected to present your poster at PCPG's Annual Meeting.
- Abstracts must be 300 words or less.
- Abstracts must be signed and dated by the student and their advisor.
- Abstracts must be submitted to PCPG by emailing info@pcpg.org by midnight January 10, 2020. The Email subject line must contain the sender's last name and the phrase 2020 Poster Abstract so it appears as (for example), Smith 2020 Poster Abstract.
- A cover page containing the following information must be attached to the signed abstract submission: Entrant's full name, university, full mailing address, phone number, Email address, and Advisor's name and Email address. (Advisor's *signature* must appear on the abstract document, not the cover page.)
- Ten students will be selected to present their posters at PCPG's Annual Meeting on February 25, 2020, to be held at the Central Hotel & Conference Center, 800 East Park Drive, Harrisburg, PA 17111.
- Posters should be on heavy stock paper (preferred) or foam board, in landscape orientation, 4 feet by 8 feet in size. Mounting frames will be provided for presenting posters at the venue.
- Presentation will begin in the morning and continue throughout the day (details pending).
- Posters will be judged by a panel of Professional Geologists (PGs) who are members of PCPG.
- Judging of the posters will be based on:
 - A clear statement of research objectives.
 - Overall poster appearance (organization, effective use of illustrations, proper grammar).
 - Clear presentation of poster title, author and co-authors, and school affiliation.
 - Logic of the presentation of research.
 - Author's ability to explain the poster to the judges.

Prizes: The author of the "Best Poster" will be awarded a prize of \$1,500 and the author of the Runner-Up poster will be awarded a prize of \$750 at the close of the Annual General Membership Meeting.

Please contact PCPG by Emailing info@pcpg.org or by telephoning (717) 730-9745 with any questions regarding the PCPG 2020 Student Poster Session and Competition.

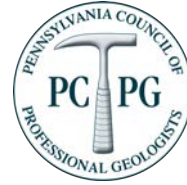
SITTING FOR THE ASBOG® EXAM IN 2020?

READ ON....

PCPG can help you get ready by attending the PG Review Course for the Practicing Geologist and ASBOG® Exam Candidate. Our next offering is scheduled for **February 6-7** at Regional Learning Alliance, Cranberry Township, PA. This will be the last offering prior to the October 2020 Exam. More importantly, many exam candidates attend this refresher 12 mos. prior to the intended exam date.

If you are already a PG, the course offers 18 PDHs for license renewal.

Additional details, including the two-day program agenda, are available by visiting the [February 6-7 event page](#).



CENTRAL-PA PCPG CONTINENTAL DRIFTERS

| January 23 in Harrisburg |

Join PCPG for an informal meet-up on
Thursday, January 23
from 5:30-7:00 PM at

Appalachian Brewing Company
50 North Cameron Street, Harrisburg, PA

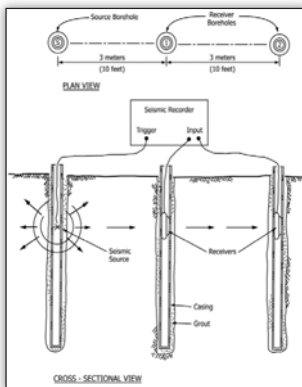
Complimentary registration is requested.



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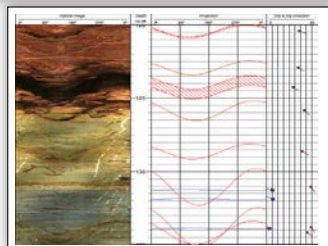
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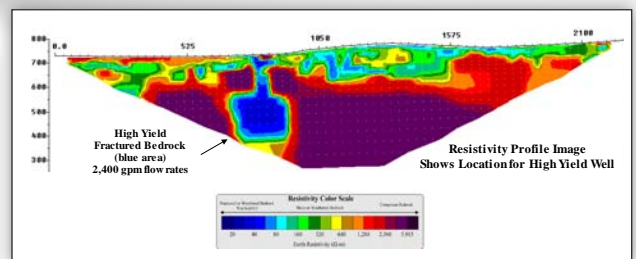


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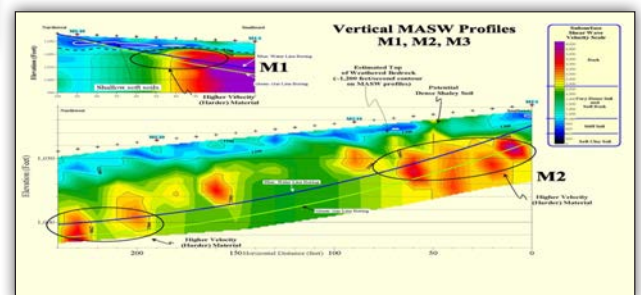
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GROVER EMRICH – 90 YEARS OF ADAPTING AND GEOLOGIZING

By Kurt Frieauf, Ph.D., P.G.

Birth of a geologist

The year 1929 – the year of the great Wall Street Crash and beginning of the Great Depression – a time when millions of Americans learned first-hand the connection between the economy and our day-to-day lives.

In Europe, Mussolini's fascists took control of Italy, Germany's economy collapsed to pave the way for the rise of fascism there, and the French began work on the Maginot Line in preparation for potential war.

1929 was also the year that professional geologist Grover Emrich was born into this world of tremendous uncertainty.

Raised in a world of uncertainty

Grover grew up in small town in New Jersey with <4,000 people, but unlike many small towns, his was located near Columbia University. He notes, "there were always geniuses around (including several Nobel Prize winners)." His little hometown was relatively sheltered, but the world was continuing to experience major changes. By the time Grover started primary school, the unemployment rate had climbed from 3.14% to 24.75%. During Grover's elementary school years, America struggled through the Great Depression, then when he entered middle school, Germany invaded France and began bombing London. The uncertainty of Grover's world continued to grow.

Grover graduated from high school in 1947 – two years after World War II ended, just as the Cold War began heating up in earnest. The U.S. government formed the Central Intelligence Agency, the Voice of America began transmitting radio broadcasts into Eastern Europe and the Soviet Union, and the House Un-American Activities Committee began its investigations into communism in Hollywood. Looking ahead at college, Grover didn't know what to major in so he took an aptitude test which recommended either mining engineering or geology.

Becoming a geologist

The useful practicality of geology appealed to Grover, so he enrolled at Franklin and Marshall College, Lancaster, PA, in 1948. He perceived biology class as preparation for paleontology, his chemistry class as mineralogy, math a prelude to geostatistics, and physics the fundamental basis for applied geophysics. One might imagine his college graduation in 1952 to be a bellwether for smooth sailing into his career as a geologist, but life is neither linear nor full of certainty, so Grover's path did not settle down into a calm routine.

Upon graduation, Grover got married, and he and his wife had their first set of twins, delaying graduate school.

Grover's advice to college students:

- Take a business class
- Don't skimp on your public communications course – that's important.
- A master's degree will open doors
- "Have fun – enjoy what you're doing. Even when I retired at age 86, I looked forward to getting up most mornings. You'll find a lot of people who dread mornings – they live for the weekends."
- Keep your mind open about people – Creative people come in all shapes and sizes.
- The worst thing is to have a closed mind about **anything**.



Continued on Page 6

Young Grover Emrich

EMRICH *Continued from Page 5*

Instead, he worked and saved, feeding his hunger to learn by subscribing to multiple geology publications. Long-term employment in New York required more than a bachelor's degree, so he moved his family to Florida to study sedimentary facies where he earned his master's degree.

Keen to become a petroleum geologist, Grover moved to Illinois to go to Northwestern University, but his quest for a PhD was delayed by birth of his third child. Instead, Grover got a job with the Illinois Geological Survey – his first hard-core geology job, starting in the stratigraphy department, then moving into hydrogeology. After several years working with the Survey, Grover entered the PhD program at the University of Illinois.

Finding his specialty

During his time with the Illinois Survey and University of Illinois (1956-1961), hydrogeology was an evolving science. Initially, they focused on water as a resource targeted for exploration, but finding and characterizing environmental contamination became an issue when events like the Haverford radium-222 contamination caused a cancer cluster, motivating concern at the Fermi lab near Chicago. People were panicking because contamination of groundwater was an invisible threat and we didn't know our exposure. Grover and his colleagues looked at the geology and dispersion pattern to find a relationship between the rock formations and groundwater age and flow path.

The radioactive waste led Grover to an interest in solid waste disposal because people were just dumping junk in holes wherever they found one. He worried that maybe solids could start releasing leachate into the groundwater.

In 1961, with his newly-minted PhD in hand, Grover traveled from the freezing Illinois winter to the warmth of Mobile Labs in Texas, interviewing to get his long-dreamt-of job in the petroleum industry, but the oil guys he'd talk to all said that he sounded like he liked groundwater more than oil. Sometimes it takes us each quite a while to learn what we really want rather than what we just thought we might want. Enlightened by this realization, Grover talked with his wife about moving to someplace with nice hills and trees.

Grover's advice to middle career geologists

- *Always look forward to tomorrow*
- *Embrace the challenge of boom/bust cycles and make sure work you do is valuable and appreciated by your clients*
- *Compliment people sincerely when they do a good job*



“Ask for a lot and you’ll get a little. Ask for just a little and you’ll get nothing.”
– Grover Emrich (learned at the Illinois Geological Survey)

Coming home to Pennsylvania

In 1963, they moved to Harrisburg to work for the state Health Department in the Sanitary Engineering division, designing a set of criteria for determining where it was safe to put solid waste ground in different settings. They had three types of settings to investigate: 1) carbonate bedrock near Penn State, 2) Chester County deep soils on metamorphic rocks near Drexel University, and 3) coal mines of the anthracite region. They constructed 6'x6'x8'deep lysimeters (8' is the height of a cell of solid waste), and filled them with trash. They monitored the temperature, water balance, and captured the leachate to determine if the waste cells might self-combust due to heat during decomposition (answer: it did not).

Working for the Health Department, Grover found that engineers would submit forms for permits, claiming they knew geology, but they did not. This “unwisdom” motivated Grover to work with Dick Wright and Ron Landon to get the bill requiring licensing of professional geologists into consideration by the legislature. Whether it be through obstinance or perseverance, it took 21 years for that bill to pass.

The PCPG was originally about two dozen people trying to get the licensing bill passed, mostly hydrogeologists and environmental geologists. Grover served as board member for three terms, eventually earning the first Emrich Award.

In 1971, Grover started looking for an industry job instead of government work and landed with SMC-Martin doing groundwater work. Nine years later, Grover was president of the company. Finally, in 1988, Grover started Emrich Associates because a friend had observed that he seemed so much happier when working on his own.

Continued on Page 7

EMRICH *Continued from Page 6*

Grover has let his six kids be the big determining factor in where he and his wife chose to live – choosing places based on the quality of the educational system after thoroughly interviewing/vetting each candidate. Our lives are more than our jobs and he tries to maintain a good work-life balance.

Why I wrote this

I met Grover in 2000 when touring the Cornwall iron deposit in Lebanon County, PA. He was only 70 years old back then and just as full of good geological insight and observation as he is today. I was brand new to Pennsylvania and knew no one. Grover very generously helped connect me over the following years with many local industries where my Kutztown University undergraduate students could do independent research projects on hydrogeology and structural geology problems, as well as get invaluable work experience through internships. The tremendous positive impact on the lives of those students is difficult to fathom - most of them have become professional geologists and all of them had life-changing experiences due to Grover's altruism. I started writing this piece because I believe his commitment to helping others in the geologic community is admirable, and in writing this piece, I learned that we all have good lessons to learn from his rich life experience. Thank you, Grover.



Grover Emrich 2019

Things Learned from Grover's Story

- *There will never be certainty in life – there will always be unplanned and unexpected events in life. These are not obstacles, rather they are the forces that help us discover what we value and love.*
- *Be open-minded to the probability that we may believe we want one thing, but actually may be happier with another.*
- *Connect with people to form lasting friendships and collaborations.*
- *Be resilient.*

DEADLINE FOR OUR NEXT NEWSLETTER IS JANUARY 30, 2020

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