Geologically Speaking

A Michigan Section AIPG Publication

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Student Chapter of the Year! WMU
Andrew Mozola Scholarship Winner
Regulatory Roundup!
2023 Golf Outing Registration
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Front Cover: The Michigan Section AIPG 2023 summer field trip to the Sylvania Minerals Quarry on August 12th. Photo by Bill Begley, quarry geologist. Editor’s note: this photograph was digitally manipulated.
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Geology Crossword #13 Solution

Across
4. 2023 Q2 Editor's Column Subject
5. A measure of professional knowledge
7. All professional individuals are welcome
8. Typically retired member category
9. Highest Institute Award
14. First AIPG female President
15. An informal "teacher"
18. Presidential Certificate
20. A primary quality of several awards
21. Public Service Award
22. The first 743 members
23. Financial award for students

Down
1. Active interaction with ones peers
2. AIPG's First President
3. Takes over for President
4. Speaks for the Institute
6. Responsible for finances
10. Often a "slippery slope"
11. A solid base to build on
12. Responsible for publications
13. ECP Award
16. Primary publication
17. AIPG's guiding document
19. AIPG Board of Directors, abbr.
Hello fellow members! I have had the privilege to serve on two outstanding non-profit organizations executive committees thus far in my career. The career and personal benefits from these experiences have turned out to be priceless.

These organizations inherently include establishing a network and working with different perspectives to achieve common organizational goals. These dynamics alone are something that I have significantly benefited from professionally as it has applied to countless situations in my regular career. Bolstering these professional skills have translated directly into my career by enabling me to be more cognizant of all stakeholder perspectives, improved my communication skills, and learned how to compromise to achieve progress.

While my involvement has required sacrificing personal time in order to serve, and of course it requires a level of tenacity and forward-looking to do so without any financial compensation, the experience has enabled me to improve vital skills without a financial investment into a parallel track like a ridged training program. I have been able to find and establish mentors that I can rely on for advice and personal development, and conversely, I have been privileged enough to establish myself as a mentor to others early in their career. These opportunities would have been limited without the infrastructure and environment that this role has to offer.

As we approach our Michigan AIPG Section election season, I encourage any professional seeking to enhance their perspective and professional skills, to consider serving on the Michigan Section’s AIPG Executive Committee. What it offers is serving with other experienced professionals, with a minimal expectation, and empowers you to make a real impact within one of the most successful sections in a national organization. For me, my favorite element with serving has been that you truly get out what you put in. You can only limit yourself with how much you want to be involved. Fortunately, our section allows for most professional levels to become involved in a big way, especially with the recent inclusion and introduction to the Michigan Section’s own Early Career Professional. For those just starting out their career, my personal advice is that I don’t know a quicker way to get exposed to the greater industry than immersing yourself in a group like AIPG.

So, if you have the passion to grow industry professionals, mentor the next generation, and explore how to make an already successful organization even more valuable to its members, then don’t let this election season pass you up; get involved! All our committee members would be glad to discuss questions and provide you with the “lay of the land” of how we operate. We would love to have you and look forward to serving alongside of you.

I hope your 2023 has been safe, meaningful, and that each day looks better than the last!

Kalan

Check Out the AIPG Mentoring Program

Mentoring is an experience that promotes personal growth, creates meaningful connections, and sparks creative innovations. AIPG offers an opportunity to connect mentees with mentors. To sign up for the program is easy and can be done when paying your annual dues or updating your online profile. You may check the box on your paper dues renewal form that you send in via mail or log into your account at www.aipg.org and update your member profile. Be sure to check whether you would like to be a mentor or mentee and the fields of expertise. The system allows individuals to search for people with similar interests and connect via email. Check it out today!

Section Website Reminders

The Michigan Section has created a database of geologic photographs on our website. Please submit photographs that you are willing to share to Adam Heft at adam.heft@wsp.com. Don’t forget to include your name and a short explanation of what the photograph depicts. The photographs will be uploaded to the website periodically.

If you have suggestions on other items that should be included on the History page, please let a member of the Section Executive Committee know.
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Secretary’s Report

The Michigan section AIPG Executive Committee meets about every month on the first Friday with a few deviations due to schedules. During the monthly one-hour meetings, Executive Committee board members have discussed and planned various topics, highlighted by month below:

July Secretary Report

We are now well and truly into summer and more than half way through 2023 with another successful workshop in the rearview mirror. A big shout out to Sara Pearson and all those who supported making the workshop a reality.

As the Section Secretary, I can report the following:

- The Section continues to be in a strong and healthy financial position.
- We have good (could always be better) student participation and a number of very active student chapters.
- MI AIPG 2023 Andrew Mozola Memorial Scholarship was awarded to Julie Rudlaff who also happened to win a National Scholarship. Well done!
- Work on the new Section website is progressing and the new site should go live later this year.
- There is a joint meeting/event with MAEP coming up later this summer and the Section maybe in attendance at MAEOE event in Alpena (Sept 29 – Oct 1).
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Did You Know?

This article is intended to remind members of various aspects of AIPG and benefits of membership. If there is something you would like to see featured in this column, please contact the Editor…

The last edition of Geologically Speaking included a list of all of the National Presidents with the year they served and their home Section. As you no doubt noted, there has only been one National President from the Michigan Section in 60 years. I’m happy to report though, that we’ll soon have a second National President representing Michigan—Sara Pearson! Sara was recently confirmed as having won the election, and will assume office as President Elect on January 1, 2024. She will succeed to the office of President one year later. Be sure to send her your congratulations for serving in this capacity!

The Election of Sara as National President creates a first in AIPG history. Not that a woman has served in this capacity, as there have been several women serving before her. This will be the first time that the three presidential positions (President Elect, President, and Past President) will all be filled by women serving on the same Executive Committee!

The last edition also included a photograph of the first National Executive Committee as it was convened in Golden, Colorado in 1963. The individuals pictured are: seated left to right: Allen Tester, Vice President (CPG-00002, Iowa); Tom Beveridge, Secretary-Treasurer (CPG-00003, Missouri); Martin Van Couvering, President (CPG-00001, California); Ben Parker, Advisory Board Chairman (CPG-00005, Colorado); and Frank Conselman, Editor (CPG-00004, Texas). Standing left to right: William Newton, Advisory Board Rep (CPG-00008, Colorado); Howard Rothrock, Advisory Board Rep (CPG-00009, Texas); Adolf Honkala, Advisory Board Rep (CPG-00007, Virginia); and Fred Earl, Advisory Board Rep (CPG-00006, Montana).

Do you know who the last surviving member of the original Executive Committee was? Look for the answer elsewhere in this edition!

Students - Reminder

Don’t Forget: Each Student Chapter must submit two articles for publication in Geologically Speaking each year to qualify for Section funding. Send the articles to Adam Heft at adam.heft@wsp.com.

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Please submit your draft article to the Editor, Adam Heft at: adam.heft@wsp.com. Technical requirements may be found on the AIPG website.
Coming Events

**September 12, 2023:** 19th Annual Michigan Section AIPG Golf Outing. Fox Hills Golf Course in Canton. Registration is open. See flyer in this edition of *Geologically Speaking* for additional details and registration information.

**September 16-19, 2023:** AIPG 60th Anniversary Conference. Covington, KY. Details are in the Apr/May/Jun edition of *TPG*.

**October 4, 2023:** Joint Michigan Section AIPG and MAEP meeting. Waldenwoods Conference Center, Howell. Sam Baushke of Geosyntec and Sheryl Doxtader of EGLE will be presenting on Advancing Vapor Intrusion Assessments in Michigan with Passive Sampling Techniques.

**December 12, 2023:** Michigan Section AIPG Annual Meeting. Weber’s Inn, Ann Arbor. Technical Presentation TBA. Student poster contest for both graduates and undergraduates. Registration will be forthcoming soon.

Minerals for Sale!

Long-time Michigan mineral collector and dealer, Bill Micols, is selling his lifetime collection of material. Bill is in Milford. For additional details, please see the full-page flyer on the following page.

Welcome New Members!

The Michigan Section is continuing to grow. Please welcome the following new CPGs, Professional Members, Early Career Professionals, Associate Members, and Students:

- Marissa Hudgins, ECP-1033; Christian Lundy, ECP-1035; Eric Schuemann, ECP-1034; Scott Topole, ECP-1080; Kat Utter, ECP-1082; Chris Landrie, MEM-3539; Daniel Ten Brink, MEM-3542; Edmond van Hees, MEM-3533; Mike Baldus, SA-11845; Lauren Bryan, SA-11772; Angela Castle, SA-11764; Paul Cousins, SA-11777; Samantha Davies, SA-11776; Jacob Dunwoody, SA-11768; Maya Giannecchin, SA-11765; Dylan Harter, SA-11846; Fletcher Kirkwood, SA-11780; Haley Murphy, SA-11844; Andrew Neckermann, SA-11751; Gregory Oduor, SA-11756; Nicholas Regan, SA-11934; Madison Smith, SA-11759; Abdiqani Yaasiin, SA-11941; Yasmina Zimmer, SA-11763; and Chase Zobl, SA-11929.

To each of our new members, welcome to our Section! We encourage you to attend Section meetings and other events. You are also invited to provide information for the Member’s Corner articles.
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Greetings everyone! I am pleased to announce that this year’s golf outing is scheduled and will be held on September 12th once again at the beautiful Fox Hills club and will feature their championship Golden Fox course in Canton, Michigan! The Michigan Section is deep in the planning phases for our 19th Annual AIPG Golf Outing. Please spread the word to your suppliers and fellow colleagues, and plan to bring your A-game, drivers, polished irons, and fancy putters (or just be willing to play 18 holes and have a good time!). The rolling picturesque landscape and rolling topography paired with an excellence in design and construction will make the engagement suitable for the stiffest of competition and cozy enough for us humans to just enjoy.

Please also consider a sponsorship this year as we really could not have this event without our new and perennial sponsors. There are several different levels of sponsorship listed on the event page and event flyer. These sponsorship opportunities offer great exposure to some of the most influential professionals in our industry. Sponsors are also requested to include with their sponsorship a gift basket of at least $30 in value that will be raffled off with the rest of the prizes. Last year we raised approximately $280 from the gift baskets alone and we are ready to beat that amount with an even better event this year!

All money raised is put toward the Michigan Section’s awards programs and helps support our student chapters.

To ensure continued success, please join us by; participating, sponsoring, soliciting sponsors, and/or donating prizes or items. Volunteers are also highly encouraged and very welcome!

This event is a great opportunity to spend time with colleagues and celebrate the closing end of a busy “summer field work” season here in our beautiful state of Michigan. It is open to everybody, so please come and take advantage of the opportunity as so many others have done in the past. You need not be an avid golfer to participate; all are welcome!

The registration is open and can be completed at the event website here: https://www.eventregisterpro.com/event/americaninstituteofprofessionalgeologists-1. If necessary, a hard copy registration form, along with a check covering the registration costs, can also be submitted to Kalan Briggs at briggsk2@michigan.gov or mailed to 630 Piper Road, Haslett, MI 48840. Feel encouraged to take advantage of the “Early Bird” discount if you register/pay for golf by August 1, 2023.

We hope to see you on September 12, 2023!

Editor’s Note: Registration and information flyer for the 2023 Michigan Section AIPG Golf Outing can be found at the end of this edition of Geologically Speaking...
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The May 2023 edition of *Geologically Speaking* featured a photograph of Gabbro Falls on the Black River north of Ramsey, Goegebic County. The rock is the Pre-cambrian Siemens Creek Formation. Dave Adler correctly identified the photograph.

This edition of *Geologically Speaking* features a new photograph *at right* - not the photo on the cover page. The first person to correctly identify what the photograph depicts (feature name, location, formation, and age) will win AIPG swag! Submit your entry via email to the editor; only one per person per issue please.

Don’t forget to check out the feature article “Geology in Michigan” in this issue (as well as the last several editions) that presents a geologic feature of interest as a mini field guide. One of the best parts about being a geologist is field trips, and we are hoping that in your travels around the state or country you include these featured spots as a stop. Why not incorporate them into a family vacation or bring friends who may not be geologists and share these locations that make Michigan unique? We hope you enjoy reading about it, and more importantly, go see it in person! We invite you to share unique geologic features that you know about and submit a “mini field guide” to share with our members in future editions.

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**Invitation to Our Members!**

**Do you have a case study to share?**

The Michigan Section AIPG promotes knowledge sharing and would like to feature case studies from projects where others may benefit from successes as well as lessons learned. We feel as professionals that learning from each other is a great opportunity that AIPG offers our members. AIPG offers connection with other professionals and their experiences in the work we do every day. This case study represents what we would like to offer more to our members, not only as a way to solve problems, but unify us as professional geologists. Additionally, do you have a suggestion for other types of information to share that would be of interest to our membership?

Please send your case studies and suggestions for future publication in upcoming editions of *Geologically Speaking* to the Editor.

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**Update Your Information!**

Please be sure that you continue to receive the Section’s *Geologically Speaking* publication and other announcements. Submit an updated e-mail address to Adam Heft at adam.heft@wsp.com. If you move or change places of employment, don’t forget to send your new contact information to both the Section and to National. If you are not receiving announcements directly from the Editor, it is because your email address is not up to date with the Michigan Section or because your IT group may classify it as junk or a bulk sending.

Please help the Editor by making sure that your email address doesn't bounce when the next announcement is sent. And be sure to cc Dorothy Combs, National AIPG Membership Director at aipg@aipg.org when you update your contact information. Thank you!
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Student Chapter of the Year!

Editor’s Note: This is the WMU Student Chapter report as it was submitted to the AIPG Education Committee for consideration for the 2023 Student Chapter of the Year. Congratulations to WMU winning this prestigious award for 2023!

The Western Michigan University Student Chapter of the American Institute of Professional Geologists is proud to report a plethora of activities and successes throughout the past academic year of Fall 2022-Spring 2023.

AIPG Student Chapter Name: Western Michigan University Geology Club
Faculty Sponsor Name: Thomas R Howe
Faculty Sponsor Email: thomas.r.howe@wmich.edu

2022/2023 Student Chapter Officers:
- President: Avianna M Jackson
- Vice President: Moira A Burns
- Secretary: Mary E Howe
- Treasurer: Garrett W Link
- WSA Representative: Donovan S Vitale

2023/2024 Student Chapter Officer Nominees:
- President: Donovan Vitale
- Vice President: Av Fox
- Secretary: Mina Bohl
- Treasurer: Jordyn Gibbs
- WSA Representative: Mary Howe

Number of Members
Western Michigan University’s AIPG student chapter is currently 24 registered members strong with an additional 38 members who have expressed interest but have not yet registered with AIPG. We are always actively working to recruit new members into geosciences.

Meetings Per Year
Chapter meetings are held weekly in the student geosciences common room. At meetings, members are informed of the club’s goals and objectives in both the short and long term. Formal meeting minutes are taken by the chapter’s secretary and the past week’s minutes are approved or modified. The treasurer, secretary, and each standing committee report all updates. For the 2022 Academic year, the WMU AIPG Student Chapter has conducted 30 documented formal meetings and dozens of informal meetings discussing club activities, club finances, and spring trip details.

Programs to Recruit New Members
A particularly important part of our weekly meetings is committee reports. Reports of programmatic activities, including recruitment efforts, are led by our program committee. The committee is responsible for club events, student engagement, and providing snacks or other incentives for meetings. The following are some of this section’s most successful recruitment programs throughout the past academic year:

Bronco Bash is WMU’s annual welcome-back festival to assist students in transitioning back to campus life. Over 450 booths participate each year with an estimated 17,000 students, staff, and community members attending. The Geology Club’s Bronco Bash table featured rock candy, quartz crystals, fossils, geode breaking, and even challenging students to a game of Whack-a-Dino! It was a tremendous success, and we had a line of people
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wrapped around the block waiting for the chance to “spin to win” and talk with us. Several new active members discovered our chapter at Bronco Bash, so this event is important for recruitment.

Another important recruitment program is WMU’s Future Bronco Days. Events at Future Bronco Days provide an accessible way for admitted students and their families to experience all the university has to offer. Events at the program feature touring classrooms/labs, residence halls, and the campus in general. Students also can speak with faculty and explore student organizations. The WMU AIPG student chapter has attended every possible Future Bronco Day and plans to continue attending them in the future.

All the events and more programmatic activities can be seen through the Chapter’s Experience WMU webpage. This webpage features our list of officers, advisor information, constitution bylaws, images from past events and trips, and more. The page also includes a list of all events hosted by the chapter where students can browse and RSVP. Through this webpage, the chapter can track who is attending events and how much engagement is to be expected for each programmatic activity.

**Activities in The Geosciences Department**

While the Student Chapter hosts events independent of the WMU Geology Department, we understand that an organization best functions alongside and in stride with its own. Through our strong connection with our staff and faculty, the WMU APIG student chapter is not only able to host, but also attend many departmental events. Some events we have attended are as follows:

In October of 2022, the club helped host the annual Geological and Environmental Sciences Department Alumni Event at Revel and Roll West in Kalamazoo, Michigan. At this event, proud alumni from all across the United States travel back to Kalamazoo for the purpose of celebrating the WMU Geology Department’s anniversary. Fundraising for our student chapter and the Dr. Richard Passero Endowment for Geosciences takes place every year at this event.

The student chapter often speaks at WMU Geology Departmental Meetings where officers present information about our chapter to faculty and other Geoscience majoring and non-majoring students. These lunch meetings give the club an opportunity to update the faculty and staff of the department on what the club has done so far and what the club’s plans/goals are. This year the WMU AIPG Student Chapter has invited and hosted two different guest industry speakers, David Stegink and Bailey Hannah, from Fishbeck which is a civil engineering company in Kalamazoo, Michigan. Both speakers gave hour-long seminars for our students and faculty to engage in conversation about opportunities and careers alike.

In February of 2023, eight members of the WMU AIPG Student Chapter along with our advisor drove to the Cranbrook Institute of Science in Bloomfield Hills, Michigan. We met our Michigan AIPG Early Career Professional and Student Chapter Liaison, Joe Swarz, as well as several members from the Wayne State University AIPG Student Chapter. Everyone gathered for a private tour of the museum given by Brad Zylman of the Michigan Mineralogical Society. An incredibly special portion of the tour consisted of viewing the life-sized replica of the Chicago Field Museum’s Tyrannosaurus-Rex “Sue” and the fascinating displays in the Hall of Minerals.

To celebrate the end of the year, we are in the final
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stages of creating a field trip guidebook and planning de-
tails for a geology Field trip to Ireland, including North-
ern Ireland, to take place from May 7th until May 17th of
2023. Opportunities for club members in Ireland will in-
clude touring and viewing various geological sites includ-
ing the Cliffs of Moher, Burren National Park, Killarney
National Park, Giant’s Causeway, The Mourne Moun-
tains, and various Irish Karst formations. The chapter has
arranged for some local experts on Irish Geology to assist
by guiding us through a select few sites. The chapter was
successful enough in fundraising to take fourteen mem-
bers on this trip through various events, travel grants, and
generous donations from faculty, friends, and alumni
alike.

Another one of our most successful events was our
Friendsgiving party and Ping-Pong tournament which
is fondly reflected on by our members. This event was
held at our current chapter president and secretary's
home. The chapter decided to have this event in celebra-
tion of Thanksgiving, a holiday about surrounding oneself
with those they are thankful for. Members were able to
see the importance of getting to know each other outside
of class and valued our time together in a relaxed off-
campus environment. This event featured a potluck-style
dinner and a friendly ping-pong competition between
members with the incentive of having their team's name
engraved onto a real Geology Club legacy trophy.

Fundraising

One of our most regular activities is our Rock Sales to
fundraise for our end-of-year field trip. Rock sales include
selling rocks, club merchandise, and sometimes even
baked goods handmade by our members. In the fall, our
members cut coasters out of limestone core samples us-
ing lapidary machinery. Events such as coaster cutting
allow our members hands-on experience working both
geologically and organizationally to raise funds.

In February, the WMU AIPG Student Chapter held a Valentine’s Day themed Rock sale featuring items such as meteorites, rose quartz, pyrite hearts, and other heart-shaped geological wonders.

Sales often coincide with corresponding holidays; for another example, one of our most recent sales was St. Patrick’s Day-themed. We offered a photo opportunity with a raptor from the Western Michigan University Dinosaur Park, a scavenger hunt for gold coins, spin-the-wheel prizes, raffle giveaways, darts, coffee, and mini golf.

The profit accrued from rock/bake sale events goes towards our chapter’s education and outreach events as well as the end-of-year trip. As said previously, this year’s destination is Ireland and Northern Ireland, so our members have been very motivated to fundraise. Our chapter is currently planning our annual spring research showcase, and the spring student awards banquet.

**Activities at Western Michigan University**

In October, the student chapter hosted a Halloween party that included a costume contest, pumpkin decorat-
ing, soft drinks, pizza, and candy for students. Alongside the Halloween party, the student chapter hosted a Haunted House in the basement of our department building, Rood Hall. The haunted house was geology-themed and required the participants to collect clues and solve a geology riddle to receive free candy from our "mad geologist" advisor at the end.

Throughout the academic year, the chapter has hosted holiday parties for almost every major holiday. The holiday parties give our chapter a forum to meet prospective members and enjoy each other's company.

Additionally, this March, the WMU APIG Student Chapter collaborated with the WMU Students for Sustainable Earth to facilitate terrarium building as an educational opportunity for all students. Those who attended were given materials such as glass containers, activated charcoal, potting soil, vegetation, and decorative items to build their own terrarium. The chapter was pleased with the turnout, and students were happily engaged in sustainability.

Activities in Our Community

This year, the AIPG Student Chapter of Western Michigan University has put a great emphasis on our new educational outreach program. Knowing geology is heavi-
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So far, we have done school-specific events with Comstock Elementary, Otsego Middle School, Portage Public Schools, a Grand Rapids Montessori School, the Kalamazoo Boy Scouts, and the area community around the Galesburg Rockhound Rock Shop. Our educational efforts have reached over 700 K-12 students this academic year alone, with several more events on the books.

In early April, 200+ middle school students are coming to Western Michigan University. When students arrive at the geology department, we ask them questions to see what they already know about geology and what they think geology is. Students are also asked about their plans when they are older and explained how geology is a part of many career paths. Many students are surprised to learn geology plays an influential role in the cosmetics, construction, and technology industries. We show a slideshow presentation intermingled with hands-on activities pertaining to Michigan’s unique geology, the three rock types, and hydrogeology. We allow the students to dig for their rock and fossils in a sandbox and use magnifying glasses and their newly acquired geologic knowledge to figure out what type of specimen they have. The WMU AIPG Student Chapter aims to spark scientific intrigue and give students the basic knowledge and materials to become future geologists when they leave.
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The Geology Club has taken many trips to the Rockhound Rock Shop in Galesburg, Michigan. The Rockhound Rock Shop is the largest rock shop in Michigan featuring not only rocks and fossils, but also books, jewelry, and opportunities to break open your own geode.

Another successful community outreach event that this chapter participated in was supervising the Rocks and Minerals event for the Regional Science Olympiad Competition at the middle school and high school levels. This event was a task-oriented activity including the identification of rocks and minerals. Identifications were made based on observations of properties and characteristics, interpretation of graphs and charts, and analysis of data. Our chapter member volunteers proctored and scored the event. This event took place on March 18th on Western Michigan University’s main campus and included more than 45 schools in the region. The chapter will also be hosting the Statewide finals event in 2024.

Interactions

Every year our student chapter looks forward to the Annual AIPG Michigan Section Meeting, and this past meeting was a huge highlight for our members. We had eight members attend the meeting, and four from our student chapter took part in the undergraduate and graduate poster competitions. Western Michigan University took home 3 out of the 4 available poster prizes, winning $2,500 from their research. Ariel Martin and Ashley Scott took home the first and second-place prizes for the graduate competition, and Donovan Vitale took home the first-place prize for the undergraduate competition. Aside from winning the poster competition prizes, our chapter members enjoyed dinner, networking, the keynote presentation, and other-students’ poster presentations. The AIPG Michigan Section Meeting facilitated an environment for our members to engage with other students, such as Wayne State University’s AIPG Student Chapter, and foster ongoing relationships.

Our chapter is ever-expanding and vigilantly looking for opportunities to increase participation and love for the geologic sciences. The Western Michigan University AIPG student chapter is proud to be a part of AIPG and grateful for the opportunities provided by the association.

Respectfully submitted by,

Moira A Burns
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WMU AIPG Student Chapter Vice President

Mary E Howe
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WMU AIPG Student Chapter Secretary

Donovan S Vitale
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WMU AIPG Student Chapter WSA Representative
### Applicable Technologies for Chemicals of Concern

<table>
<thead>
<tr>
<th>Chlorinated Solvents / DNAPL</th>
<th>Petroleum Hydrocarbons / LNAPL</th>
<th>Metals</th>
<th>PFAS</th>
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<tr>
<td>BOS 100® (L, M)</td>
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<td>FerroBlack®</td>
<td>Fluoro-Sorb® (L)</td>
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<td>CAT 100 (M, H)</td>
<td>BOS 200+® (M, H)</td>
<td>ISCR (L, M)</td>
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<td>In Situ Chemical Oxidation (ISCO) (M, H)</td>
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<td>In Situ Bioremediation (ISBR) (L, M)</td>
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L = Low contaminant concentrations  
M = Moderate contaminant concentrations  
H = High contaminant concentrations

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Interesting Geology Links

The Editor has received links to various interesting geology-related sites. Some of the more interesting links are included here. If you have any links to geology-related sites that you would like to share, please forward them (with a citation, if applicable) to the Editor.

Thanks to Mark Francek of Central Michigan University for sharing via the “Earth Science Site of the Week” emails. This edition features a few “fun” links.

This is a glacial lake outburst flood: https://atlas.eia.gov/apps/5039a1a01ec34b6bbf0ab4fd57da5eb4/explore.

Tornado at the base of La Palma Volcano: https://www.youtube.com/watch?v=7OJi7HE7TSI.


Support our Sponsors!

The Section Executive Committee would like to remind its members to support the companies advertising in this publication. Consider working with these companies, and when you speak with their representatives, let them know that you saw their ad in the Michigan Section AIPG publication Geologically Speaking.

The last surviving member of the first AIPG National Executive Committee was Adolph Honkala. Mr. Honkala passed on September 20, 2018 and was a member until the end. He was AIPG’s longest serving member with 55 years with the Institute!

On August 1, 2023 our newest Early Career Professional board member, Sienna Meekhof, assumed office, taking over from Joe Swarz.

Sienna Meekhof is a Staff Engineer in the Geotechnical group at SME. She loves working with instrumentation like MAM/MASW (seismic) and resistivity, as well as working on trenchless utility installation projects.

She graduated with a Bachelor of Science in Geology from Michigan Technological University (MTU). During her time at MTU, she was Treasurer of the Geology Club, Vice President of the AIPG Student Chapter, participated in undergraduate research focused on petrology and mineralogy, and co-oped in the geotechnical group at SME.

Like any classic geologist, she likes to spend her free time rock hounding, hiking, skiing, and exploring National Parks.

The Member’s Corner includes information about the Section’s membership. This is your chance to provide information on where you are and what you are doing. Simply send the information to the Editor for inclusion in this section.

The Section Executive Committee would like to remind its members to support the companies advertising in this publication. Consider working with these companies, and when you speak with their representatives, let them know that you saw their ad in the Michigan Section AIPG publication Geologically Speaking.
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Regulatory Roundup

Governor Gretchen Whitmer announced the new permanent director for the Department of Environment, Great Lakes, and Energy (EGLE) at the end of June. Phil Roos is the new director of the agency and has been on the job learning much about EGLE for the past two months.

Roos’ expertise includes organizational strategy as a business leader, consultant, and entrepreneur. He has said he excited to lead the EGLE team while learning about the state department’s responsibilities and activities.

As indicated in the last Regulatory Roundup, the first six months of 2023 has been quite active legislatively. Three of the many bills that may be of interest to our members include Senate Bills 393 and 394 introduced in June by Senator Rosemary Bayer and House Bill HB 4826. If passed, the bills eliminate the Environmental Permit Review Commission inside EGLE and the Environmental Rules Review Committee.

Senate Bill 398 introduced by Senator Sean McCann and House Bill HB 4832 introduced by Representative Julie Rogers would give authority to EGLE to issue written emergency orders when inland lakes and streams are threatened and order responsible parties to begin immediate cleanup. The goal that these bills are meant to achieve is to respond faster to specific situations.

Another item that Michigan’s legislative members have expressed interest in pursuing after the summer recess is an expansion of the bottle deposit to include non-carbonated beverages. Additionally, they indicated that they intend to introduce legislation that would require acceptance of all recyclable containers that take recycled bottles. These bills were introduced during the previous session and will be reintroduced. In addition to promoting recycling, the bottle bill has provided funding for the Cleanup and Redevelopment Trust Fund annually from unclaimed deposit fees. EGLE’s Remediation and Redevelopment Division uses these dollars for state funded actions at contaminated sites. Reports from Gongwer News Service indicate that this expansion of the bottle bill will continue to provide funding anticipating $25 million for managing risks associated with contaminated sites.

The legislature also increased EGLE’s budget by 44 percent over the previous year’s budget and added more staff for projects including lead service line replacement, remediation and redevelopment of non-petroleum related contaminated sites, and new positions including water quality programs and air quality. Three million in funding is also appropriated for the Michigan Geological Survey at Western Michigan University for storage of geologic core samples.

This is just a sampling of recent legislative initiatives. We encourage our members to maintain awareness of bills that are introduced and moving through the legislative process and where there is opportunity, share your expertise to ensure that the science is well understood, and policies made include consideration of sound science.

Rule promulgation is different from the legislative efforts. If you are interested in progress of rule sets, be sure to subscribe to the EGLE calendar for dates on upcoming public hearings and comment opportunities.

In addition to legislative activities, EGLE is also taking action on climate pollution. EGLE’s Office of Climate and Energy recently announced a request for proposals for the Climate Pollution Reduction Program.

The following is a reprint of the article that appeared in Gongwer News on August 15, 2023.

EGLE Seeking Bids For Climate Pollution Reduction

The Office of Climate and Energy in the Department of Environment, Great Lakes and Energy released Tuesday a request for proposals for the Climate Pollution Reduction Program.

The program is designed to help implement the MI Health Climate Plan. The plan’s goals are to clean the electric grid, reduce carbon usage in homes and businesses, pursue environmental justice, electrify vehicles and increase public transit use, protect land and water and drive innovation in industry.

Funding comes from the U.S. Environmental Protection Agency’s Climate Pollution Reduction Grants, part of the federal Inflation Reduction Act, that contains $250 million for noncompetitive planning grants and $4.6 billion for competitive implementation grants. The EPA expects the competitive grants to range from $2 million to $500 million. Plans are due early in 2024.

Proposals are due by August 30 with the anticipated start date September 14.
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Hey everyone, I would like to encourage you to submit your articles for publication! As the Michigan Section Editor, and also the 2021-24 National Editor, I am working to put together two top-quality publications for our members. This is not a one person job. This is where you come in. I welcome your technical articles, case studies, opinion pieces, mini field guides, and letters to the Editor.

The guidelines are pretty simple for articles for Geologically Speaking. All submissions must be professional and may not violate the AIPG code of ethics. They also may not have been submitted for publication elsewhere.

For the past eight years, the Michigan Section has honored the memory of its first Section President, Andrew Mozola, by awarding a $4,000 scholarship in his name. The requirements are rigorous; applicants must be an AIPG student member attending one of the Michigan Colleges or Universities, be at least a sophomore, and have a 3.5 or better grade point average in geology (3.0 overall).

The scholarship committee reviewed the applications for this year, and selected Julia Rudlaff from MSU as the 2023 recipient of the Andrew Mozola Scholarship. Julia joins Teagan Cox (CMU—2022), Emily Yoder (CMU—2021), Lauren Galien (CMU—2020), Dustin Helmer (MTU, 2019), Katie Kring (MTU—2017), and McKenna Thayer (UofM—2016). A scholarship was not awarded in 2018 due to a lack of qualified applicants.

While most submissions will be accepted, we do not accept articles that are a sales pitch for a product or company.

The deadline for submitting articles for TPG is two months before the start of the quarter for which the TPG edition is published. Thus, February 1 is the deadline for the Apr/May/Jun edition.

Please submit your articles of no more than 3,200 words in MS Word format directly to me or to Dorothy Combs at National Headquarters at aipg@aipg.org. All graphics (photos, figures, or tables) should be submitted in .jpg, .tiff or other standard format at 300 dpi. Please ensure your graphics are clean and easy to read to make things easier for the editorial staff. Complete information on submitting an article may be found on National’s website at: https://aipg.org/page/TPGInformation.
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ASBOG Exam Update

**ASBOG adopts Computer Based Testing for FG and PG Exams**

As of March, 2023, the ASBOG Fundamentals of Geology (FG) and Practice of Geology (PG) Examinations are administered using Computer Based Testing (CBT).

The FG and PG exams continue to be given during the third Friday in March and the first Friday in October each year. All examinees must be certified to take the examination at an approved Prometric/Iso-Quality Testing (IQT) testing facility. There are multiple testing centers throughout Michigan.

Central Michigan University qualifies candidates to take the FG examination in Michigan and surrounding states.

The next scheduled examination date is Friday, October 6, 2023.

There are three fees for taking the FG examination: $50 CMU administration fee, $200 ASBOG examination fee, and $75 Prometric testing center seat fee. For October, the deadline to apply through CMU has passed.

Complete information on applying to take the FG exam is available at se.cmich.edu/asbog. Useful information to help prepare for the FG Exam can be found in the ASBOG Candidate Handbook, which is accessible on the ASBOG website.

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**Member Input Sought**

The Section Executive Committee is seeking input from members on a variety of topics. Do you have any suggestions regarding speakers/presentation topics that you would like to hear? What about field trips or other events? Some place you’d like to see us go, or something you think the membership would enjoy doing?

Then make your voice heard; please send your suggestions to one of the members of the Executive Committee; any of the seven members would be glad to hear from you. AIPG is your organization. Please help keep it relevant and interesting for all by participating.
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**Geology Crossword #14**

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**Across**
1. Glasses for viewing 3-D
2. Shallow dishes, for separation
4. Slabbing tool
6. Prevents a burn
10. Hand protection
11. Dining implement
12. Lodestone
13. Reading material
15. Toxic element
17. Measures stratigraphic thickness
19. Goodbye, slang
21. Long dash
22. Strong repellant
23. A type of coral
25. Cephalopod chamber name
27. Multi-use directional tool
28. Storage for drilling samples
30. For checking relative durability
32. Portable magnifyer

**Down**
1. Unglazed ceramics for color check
2. Satellite technology, not TV
3. For heaping it on
5. For slaking one's thirst
7. For fluorescent minerals
8. For recording one's findings
9. Pointed digging tool
14. For measurement
16. For stashing precious specimens
18. For particle size separation
20. Mjöllnir
24. For gentle work
26. Topographic or geologic
29. Provides crystallography info
31. Caustic liquid
33. For use on ice or wood

*The solution to this geology crossword will be included in the next edition of Geologically Speaking.*
Many thanks to the Michigan Section AIPG Sponsors and Exhibitors!

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- Golf Outing
- Section Meetings
- Scholarship Program
- And of course—Geologically Speaking!
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The 19th Annual AIPG Michigan Section Golf Outing promises to be another successful event. Proceeds generated from the outing benefit the AIPG K-12 Education Grant fund, which provides thousands of dollars to a variety of worthy projects every year. Your generosity has been and will continue to be the key to enabling organizations and schools to provide meaningful educational programs and activities in the Geosciences.

This event also offers our sponsors exposure to many of the most influential professionals in our industry. **Registration will be open on January 25, 2023.**

This year’s outing will be once again at the beautiful Fox Hills and specifically their world class Golden Fox course in Plymouth, Michigan.

**Place:** Fox Hills – Golden Fox  
8768 N. Territorial  
Plymouth, MI 48170

**Event:** 18-Hole Scramble  
**Date:** September 12, 2023

**Registration:** 7:30 to 8:15 am  
**Shotgun Start:** 8:30

**Registration and payments can be completed at the link below**  
https://www.eventregisterpro.com/event/americaninstituteofprofessionalgeologists-1

Additionally, registration can be done manually by completing this form and mailing it and a check to the information below. Please make sure to provide the point of contact for your foursome and the names of all golfers:

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**Registration Includes:** Continental Breakfast, green fees, range balls, lunch at turn, networking opportunities, and dinner. Also includes: 50-50 drawing, raffle prize baskets, and Grand Prize raffles along with other prizes including, Putt-4 Dough for $2,500, men’s and women’s Longest Drive and Closest-to-Pin contests, and goodie bags for all participants!
Sponsor Package Information

Sponsorship pricing levels are detailed below. We would like to humbly request that all sponsors assemble and donate a charity basket for raffling. Charity baskets can be of any theme and requested to be of minimum $35 value (or more). Raffles tickets will be sold throughout the event with winners being drawn at the end of the event immediately following event ceremony and announcements.

Executive Sponsor - $2,500 (2 available)
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Exclusive Dinner Sponsor- $1,800
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• Corporate recognition

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• Corporate recognition

Breakfast/Luncheon Sponsor - $600
Investment includes:
• Signage at the breakfast and at the turn grill/tent.
• Corporate recognition

Hole-in-one Sponsor - $600 (2 available)
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If a golfer hits a hole-in-one, the prize will be, either $10,000, a golf vacation or a deluxe set of irons.

Tee Box or Hole/Flag Sponsor - $250 (25 available)
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• Choice of tee box or green signage

Skill Sponsor – $300 (4 available)
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• Tee box signage
• Corporate recognition
“Longest Drive”, “Closest to Pin” awards to Male/female for each.

Putt-4-Dough Sponsor – $400
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• Signage on the putting contest area, corporate recognition during the event (includes contest coordination at the turn and following golf provided by you). Provides interaction with all participants.

Team Photo Sponsor: - $400
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• Signage and option to provide a photographer from your organization.

Goodie Bag Sponsor - Give-away items for 100 or more golfers (open and encouraged for all sponsors!)