



MICHIGAN SECTION AIPG NEWSLETTER

IN THIS ISSUE

# From the President's Desk

by Tim Woodburne, CPG

One of the things I think we all love is that, in general, our profession requires us to travel and get out there to experience the geology. I know I have said this before, and it is worth saying again, and I am envious that I am not able to make it this year, but please remember to sign up and go, if you can, to the AIPG 55th National Meeting in Colorado Springs, CO. The meeting is September 8-11 (Saturday – Tuesday) so you still have time to sign up and arrange getting there. The geology is going to be fantastic. I personally have only been to two of the National Meetings, and both times they have been well organized with excellent field trips and everyone was having a great time. Therefore, please attend as many of AIPG's National Meetings as you can in your career.

Back to Michigan Section...

I encourage you to sign up to attend our next meeting which is a Joint meeting with MAEP on September 18, 2018 and the topic of the discussion will be "Effects of Air Knifing on Soil Gas Sample Results." The information for signing up has been sent out and also put on our website. I am looking forward to seeing many of you there.

Also, Michigan Section will be having its annual meeting at Weber's Inn in Ann Arbor on November 29 and I also encourage you to attend. We generally have a large crowd so please plan to sign up early. At this meeting, we will announce the next Secretary for Michigan Section. It might be a little early now, but I think it is worth prompting you to consider running if you would like to be in a leadership position.

Finally, I know a lot of people were able to attend the field trip which was another way to travel and see the geology in the Upper Peninsula of Michigan. I know many of you who were not able to go, like me, wanted to be there. Please review the photographs and summary in this newsletter and consider going to the next annual field trip next summer.

**Section Secretary??**

The Section Executive Committee is seeking candidates for 2019 Section Secretary. The responsibilities for the position are located on the [Section website \(http://mi.aipg.org/officers.htm\)](http://mi.aipg.org/officers.htm). If you are interested in running, please send a statement and bio to Adam Heft at [adam.heft@wswp.com](mailto:adam.heft@wswp.com) by November 1<sup>st</sup>.



**2018 Risk Management Workshop**  
Check out the 2018 Workshop highlights and see what you missed!

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**Hard Rock & Heavy Metal**  
See what the Michigan Section's 2018 summer field trip to the Marquette area was all about!

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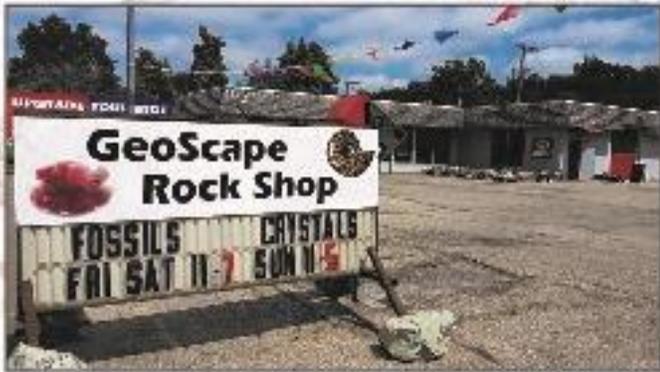
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## 2018 Technical Workshop

Once again, the Michigan Section's workshop committee delivered a highly successful and completely sold out (oversold!) event with its 8<sup>th</sup> annual summer workshop at the Ralph A. MacMullan Center. The 2018 theme was "Environmental Risk Management – Emerging Contaminants & Pathways: A New Paradigm."



AIPG National Executive Director Aaron Johnson presenting the keynote address for the Workshop. Photo courtesy of Adam Heft.

For those that were unable to attend, here are a few of the highlights of the Workshop...

This year, we were fortunate to have AIPG's very own Executive Director, Aaron Johnson, deliver the keynote address for the Workshop. His presentation, "It's a Good Time to be a Geologist" provided attendees with an overview of the profession and how the public perceives what we do. He showed examples of past and current mining operations, and how many people have a misconception of how resources are currently extracted, citing the "Sins of the Fathers" mentality that many have. He also showed how by working together, geologists, engineers, attorneys, and the government can successfully bring a project to completion and protect the public in the process – likening it to the way that in Star Wars it took everyone (both the good side and the dark) to save the universe.



Participants listening to one of the technical presentations following lunch the first day. Photo courtesy of David Adler.

This year's panelists included: John Cuthbertson of AECOM, Stephen Kuplicki of the Great Lakes Water Authority, Todd Fracassi of Pepper Hamilton LLP, Dave Woodward of Wood PLC, and Kaye LaFond of Michigan Radio. The panel moderator was Mike Jury of the MDEQ.



Participants enjoying lunch at the beach. Photo courtesy of David Adler.

The weather for the Workshop was perfect. The only rain came while everyone was in the morning technical session, and things dried out in time for lunch and dinner, which were again enjoyed on the beach. Following dinner, field demonstrations by the MDEQ (HVSr Passive Seismic), Limnotech (Continuous Sensors for Contaminant Tracking), Wood PLC (Sampling for Emerging Contaminants), Mateco Drilling (Sampling Equipment), and Triton (Polyurea Application) provided further relevant information to participants.

Many thanks to the band Waynesboro for providing the evening music for the social mixer; you guys ROCK!



Waynesboro playing during the Tuesday evening mixer. Photo courtesy of David Adler.

To all of the sponsors, presenters, exhibitors, panelists, and yes, all participants, THANK YOU for helping make this year's Workshop such a success. The planning committee works hard to bring you a relevant and informative event each year, and with your input, will continue to do so.

It is the feedback that is provided each year that helps shape the future workshops. Two

of the individuals that attended provided the following about this year's Workshop...

*"My name is Ross Helmer and I was part of the Western Michigan hydrology field camp that attended the AIPG conference this past week on Emerging Contaminants. I just wanted to write you briefly to thank you for having us students at your conference. It was a very educational experience for me as I learned about emerging contaminants in our state. I didn't realize how close to home some of these contamination issues really are! It was reassuring to hear all the intelligent people and sophisticated companies putting all of their efforts into learning more about these chemicals. The knowledge that I gained at this conference is something that I will talk about with my classmates back at Grand Valley. Hopefully next year we will have an even bigger student turnout!"*

*"Sara and Rick, I have been meaning to contact you both ever since I left the event to give you my thoughts. I wanted to let you both know that the event was very well run. From the volunteers (who were very pleasant and helpful), to the gifts, to the venue, food, music, and overall atmosphere, it was just fun to be a part of it, and you two should be proud for hosting such a fine event." By Louis Butkovich, Triton Services, Inc.*

And here are a few of the comments provided in the surveys that were turned in:

- *This is a unique and highly effective forum for the exchange of ideas, methods and networking.*
- *Presentations were informative and well thought out. Presenters were knowledgeable and thorough.*
- *Continue with the dynamic and flexible workshops.*
- *Great social and networking time. Thanks to the volunteers!*
- *Everything was wonderful. Thank you workshop committee for your time, effort and everything you do as this event gets better each year*
- *Best workshop/conference I have ever been to!*
- *Great gifts (minerals, fossils) – keep them coming!*
- *Fun conference and enjoyed the venue. I will request to be present at future gatherings.*
- *Great workshop and mix of regulators and private sector*
- *I love the RAM Center as a venue. Aaron Johnson was a great keynote speaker!*
- *Thank you, Sara, Rick, and Workshop Team!*
- *Superb networking!*



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## Student Chapter News

# W

AAPG Annual Meeting  
May 20-23, 2018 – Salt  
Lake City: WMU  
Contributions.



Photo of Kaczmarek and his graduate students at the 2018 joint AAPG/SEPM Conference in Salt Lake City, Utah. Photo courtesy of John Yellich.

### Student Presentations at the Meeting:

- Al-Musawi, M., and Kaczmarek, S. Application of XRF, Biostratigraphy, and Carbon Isotope Data to Establish a Sequence Stratigraphic Framework and Depositional Facies Model for the Burnt Bluff Group, Michigan Basin, U.S.A.
- Cohen, H., and Kaczmarek, S. Evaluating the Effects of Fluid Chemistry on

Dolomite Stoichiometry and Reaction Rate.

- Hashim, M., and Kaczmarek, S. Genetic Origin and Diagenetic Transformation of LMC Microcrystal Textures in Limestones.
- Hemenway, M., Kaczmarek, S., and Rose, K. Application of Handheld XRF for High-Resolution Chemostratigraphy in Texturally Homogeneous Carbonate Mudstones: Salina A-1 Carbonate (Silurian), Michigan Basin.
- Hybza, J., Wagenvelt, K., and Kominz, M. Thermal Maturation Modeling of the Michigan Basin.
- Joupperi, C., Reeves, D., and Garrett, J. Reservoir Characterization and Fracture Network Modeling of the Highly Fractured Dolomitized A-2 Carbonate (Silurian) Gas Storage Reservoirs in the Michigan Basin.
- Manche, C., and Kaczmarek, S. Evaluating Dolomite Stoichiometry as a Proxy for the Chemistry of Dolomitizing Fluids.
- Ryan, B., Kaczmarek, S., and Rivers, J. Unraveling the Impact of Sea-level Changes and Early Diagenesis on the Reservoir Quality of Eocene Carbonates in Qatar.
- Ryan, B., Kaczmarek, S., and Rivers, J. Dolomite and Palygorskite: An

Alternative Pathway for the Formation of Palygorskite Clay.

### Student Presentations at the SEPM Carbonate Working Group Student Poster Presentation:

Of the roughly 30 students presenting – 8 students were WMU Students! WMU had by far the largest group of students at this meeting. The following students presented their posters from the meeting or other posters at the Working Group Poster Session:

- Mohammed Al-Musawi (Kaczmarek)
- Hanna Cohen (Kaczmarek)
- Mohammed Hashim (Kaczmarek)
- Matthew Hemenway (Kaczmarek)
- Clay Joupperi (Reeves)
- Cameron Manche (Kaczmarek)
- Zaid Nadhim (Kaczmarek)
- Brooks Ryan (Kaczmarek)

### Professional Service by W. Harrison III, S. Kaczmarek, and P. Voice

Harrison and Voice were actively involved in AAPG Committees, including:

- 1.) Served as Delegates for the Michigan Basin Geological Society at the AAPG

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House of Delegates Meeting (the legislative body for AAPG governance)

- 2.) Served as Delegates for the Michigan Basin Geological Society at the Eastern Section AAPG Section Meeting
  - a. Peter volunteered to serve on the Eastern Section AAPG Teacher of the Year Award Committee
  - b. Both Bill and Peter serve on the Outreach Committee
- 3.) Bill chaired the AAPG Preservation of Geoscience Data Committee; Peter acted informally as the secretary for the meeting

Kaczmarek served as a sub-theme chair for Carbonate Theme. His responsibilities included:

- 1.) organizing and planning technical sessions pertaining to carbonate diagenesis,
- 2.) securing technical reviewers for evaluating abstracts, compiling evaluation results, and planning 2 oral and 2 poster sessions,
- 3.) co-chairing an oral session: New Insights on the Complexity of Carbonate Diagenesis (SEPM)

#### Additional WMU Contributions

Hasiuk, F.J. and **Kaczmarek, S.E.** (2018) Carbonate chemostratigraphy caveat: micrite undergoes diagenesis (poster), American Association of Petroleum Geologists Annual Conference, May 20-23, Salt lake City, UT, #2856164

Pei Teoh, C., Laya, J.C., Whitaker, F., Gabellone, T., Tucker, M., **Manche, C.**, and **Kaczmarek, S.E.**, Miller, B. (2018) Unravelling reflux dolomitization: why size matters (poster), American Association of Petroleum Geologists Annual Conference, May 20-23, Salt lake City, UT, #2857418.

\*bold indicates WMU affiliation

#### 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 six members would be glad to hear from you. AIPG is your organization. Please help keep it relevant and interesting for all by participating.

#### Support Our Sponsors!

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

#### Regulatory Roundup

Record numbers at the polls in Michigan for the primaries! Yes, this is a step in the right direction!

"Democracy is a daring concept - a hope that we'll be best governed if all of us participate in the act of government. It is meant to be a conversation, a place where the intelligence and local knowledge of the electorate sums together to arrive at actions that reflect the participation of the largest possible number of people." - Brian Eno

Our participation should not end at voting booth, though. We as professionals in the industry should also participate in the development of policies that ideally support the common good for all in Michigan. We have the knowledge and experience to educate policy makers on complex technical topics that ultimately boil down to protecting

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our citizens and ensuring that we can be economically productive without leaving legacy issues behind. We encourage you as professionals in the many industries where the geosciences play a role to lend your expertise and join the conversation on matters in which you can share your knowledge. We provide the following links to help you find the most current trending topics.

This edition's spotlight focuses on proposed Senate Bill SB 943 that would increase tipping fees for waste disposal at landfills which would in turn be deposited into a Clean Michigan fund to be used as a sustainable funding mechanism for addressing contaminated sites and emerging issues that have known or suspected potential to cause adverse environmental or human health effects. This bill was introduced in April 2018.

The following is an article about the bill from the Gongwer News Service dated April 17, 2018.

## Nofs To Sponsor Tipping Fee Changes

The Senate will apparently start discussions on **Governor Rick Snyder's** proposal to using an increase in the tipping fee for landfills in the state to fund environmental cleanups and other programs.

**Governor Rick Snyder** announced **Sen. Mike Nofs'** (R-Battle Creek) agreement to sponsor the plan (**SB 943**). The bill would increase the tipping fee to \$4.44 per ton from the current 12 cents per cubic yard (essentially 36 cents per ton) and put that in a new Clean Michigan Fund. It would also put a number of other landfill fees into that fund. The change is expected to provide \$74 million annually for environmental cleanups, recycling programs, solid waste management and other related programs.

"Smart environmental investments are critical to ensure Michigan has a solid foundation for the future," Mr. Snyder said in a statement. "I thank Sen. Nofs for his leadership in introducing this legislation and look forward to working with my partners in the Legislature to implement a long-term plan that protects Michigan's environment and public health and promotes economic development."

"My first experience in politics was working with my neighbors to ensure developers of a local landfill were responsible for their impact on our township," Mr. Nofs said in the statement. "This bill is part of our obligation

to make sure future generations of Michiganders have the opportunity to enjoy the natural resources in every corner of our state."

The new plan is scaled back from what Mr. Snyder had rolled the proposal out as part of his 2018-19 budget, with a tipping fee of \$4.75 a ton to raise nearly \$79 million. So far, both chambers have rejected that plan in the budgets that are moving toward first house action this week.

Interest groups praised Mr. Nofs for championing the plan.

"Senator Nofs' call for funding to grow recycling is a key step in establishing conditions where Haworth can thrive by supporting Haworth's landfill free operations and sustainability goals," Bill Gurn, Haworth facilities manager and chair of the Michigan Recycling Coalition, said in a statement.

Kerrin O'Brien, executive director of the coalition, praised Mr. Snyder's work on the issue. "His recycling initiative and commitment to sustainable economic development for all Michigan communities and business has led us here," he said.

"Senator Nofs has kickstarted the legislative conversation on this important topic by proposing a reasonable increase to the state's tipping fee," Michigan Environmental Council President Chris Kolb said in a statement. "With at least 3,000 orphaned sites across our state, and new issues like PFAS emerging with concerning frequency, it is time to approve this sustainable funding source."

## Department of Environmental Quality Oversight Board Bills Become Law

Public Acts 267, 268 and 269 of 2018 went into effect on June 29, 2018 and create various boards with oversight over the Department of Environmental Quality. Public Act 267 of 2018 creates the Environmental Rules Review Committee which is an independent body within the Office of Performance and Transformation to oversee all rule-making of the DEQ. Public Act 268 of 2018 establishes an Environmental Permit Review Commission in the DEQ to advise the director on disputes related to permits and applications as well as creating an Environmental Review Panel to hear the disputes. Public Act 269 of 2018 creates an Environmental Science Board in the Department of Technology, Management and Budget comprised of governor appointees in the fields of engineering, environmental science, economics,

chemistry, geology, physics, biology, human medicine, statistics, risk assessment and other disciplines that the governor may consider appropriate. For more information about the new laws, [click here](#).

There is also a new feature for searching for current bills that allows you to download an excel table with the bills listed on the Michigan Legislature's website.

Proposed Rules

Safe Drinking Water Act, PA 399 of 1976, as amended, [bill search](#)

Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, [bill search](#)

Gas Safety Standards, PA 165 of 1969, as amended, [bill search](#)

## Hard Rock & Heavy Metal Field Trip Delivered!

For those who missed it, the 2018 Michigan Section field trip was to the Marquette area August 3-5. The main event was a tour of the Humboldt Mill and the surface facilities of the Eagle Mine on Saturday, followed by a picnic barbeque dinner at Presque Isle Park.



Field trip participants in front of the Eagle Mine portal. Photo courtesy of David Adler.

The mine and mill tours were bracketed by activities with the Ishpeming Rock & Mineral Club. Participants visited the Republic Mine property to collect samples of banded iron formation. While the AIPG group consisted of about eight cars and 20 participants, the overall group at Republic was close to 75 vehicles and 200 participants.

Other stops included the Champion Mine, where additional samples of the Negaunee Iron Formation and a variety of minerals were available for collecting, and a stop to view contorted folds in the iron formation at Jasper Knob to round out the heavy metal portion of the field trip.

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A few of the field trip participants collecting banded iron formation at the former Republic Mine. Photo courtesy of David Adler.

And what day in the field would be complete without the chance to sample tasty beverages? Several individuals met at the Ore Dock Brewery in Marquette to do just that.



Participants enjoying tasty beverages and good conversation at the Ore Dock Friday evening. Photo courtesy of David Adler.

Sunday afternoon the trip reconvened for the hard rock portion of the trip at the Lindberg Quarry where the Kona Dolomite is being mined, mostly for use as aggregate and landscape rock. We learned that the original "mountain" (a large hill) has been completely removed and is now a pit. Virtually all the traditional deep red-colored Kona has been mined out, although yours truly managed to find a nice piece or two of it.



Participants collecting Kona Dolomite at the Lindberg Quarry on Sunday. Photo courtesy of David Adler.

Here's a few testimonials of the participants about their experiences on the Hard Rock & Heavy Metal field trip:

"I had an amazing experience on the AIPG 2018 field trip in Marquette, MI! I was able to see some amazing spots I've never heard of before, like Jasper Knob. I learned about the mining and milling process of nickel and copper. I also collected so many awesome samples of BIF, Kona dolomite, and hematite. I hope to make it out again!" By Clarissa Crist

"Marquette county is famous for its wealth of natural resources and a rich mining history. On this field trip, AIPG members investigated the heritage of mineral extraction, and explored present day mining operations near Marquette.



Clarissa Crist and Max Fraleigh, recent EMU graduates, collecting samples of the Eagle Mine ore. Photo courtesy of David Adler.

"On Friday and Sunday, we tagged along with the Ishpeming Rock and Mineral Club to collect at the retired Republic Mine and Lindberg's Quarry. Fantastic banded iron samples were collected at Republic, along with brilliant specular hematite. Attendees at Lindberg's Quarry collected fragments of Kona Dolomite, at one of the only locations in the world where it is found. We also stopped in downtown Ishpeming to view the world-famous Jasper Knob banded iron formation.

"My favorite part of the trip was viewing the Humboldt Mill and Eagle Mine on Saturday. Up bright and early for a tour of the Mill, we saw firsthand how raw ore is processed and shipped off to the smelter by train. The tour took us through every step of this process, and we watched as Humboldt staff rendered freshly extracted ore into copper and nickel particles less than four microns in diameter! After a short lunch break, we reconvened

at the Eagle Mine, near Big Bay, to collect some samples and see where the extraction takes place. Everybody went home with some great hand specimens. I would recommend AIPG Michigan Section field trips to all members!" By Max Fraleigh



A box fold in the Negaunee Iron Formation at Jasper Knob, Ishpeming. Photo courtesy of Adam Heft.

"During the weekend of August 3, twenty fortunate Rockhounds met in Ishpeming to collect rocks and learn about the Marquette area geology. On Friday, we met up with the Ishpeming Rock Club to collect at the closed Republic Mine. We loaded up with plenty of banded iron formation. I really like this location because the material is great for cutting and making bookends and polished slabs. Later in the day we went to the old Champion mine, again lots of great cutting material, and a great place to collect mineral specimens in matrix.

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"On Saturday, we were so lucky to get a personal tour of the Eagle Mine and the mill at Humboldt. We started at the Humboldt mill and saw how ore from the mine was processed to remove and separate the nickel and copper from the host rock. Afterwards we drove up to the Eagle Mine and participated in a tour of the surface facilities. This was very interesting to observe the latest technology in mining to reduce environmental impact, particularly the capture and treatment of water recovered from the surface and subsurface. We were able to collect from the raw ore pile. It was like kids in a candy store. After collecting we still had a portion of our tour remaining, so we had to carry our treasures through the remaining portion of our tour. Nickel/copper ore is heavy (Duh!); many of us were hunched over carrying our packs. It was definitely worth the effort.

"On Sunday, the group hooked up again with the Ishpeming Rock Club and collected Kona dolomite at the Lindberg quarry. Once again we were able to load up with as much beautiful rock as our vehicles could handle.

"A great time was had by all! The step into the bed of my truck got shorter and shorter as the trip progressed with the continued addition of rock squashing the rear suspension.

"Many thanks to the Ishpeming Rock Club for allowing us to tag along on their field trips, and

the personnel at the Eagle Mine who took time away from their jobs to show us their facilities. Lastly, thank you Adam and Sara for organizing this great trip!" By Bill Mitchell

## Section Website Page - Student Information

Be sure to check out the newest page, "Student Information" located on the website at <http://mi.aipg.org/studentsinfo.html> features information about the Student Chapters of the Michigan Section. Currently, the annual reports for each of the chapters has been uploaded; additional information will be added in the future. Please check out the page to see what our student chapters have been up to recently!

## Welcome New Members

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

Brian Westhoff, CPG-11947; Charles Hackel, MEM-2998; Jonathan Haynes, MEM-3008; Leonard Mankowski, MEM-3031; Samantha Strahl, MEM-3046; Jessica Argue, SA-9501; Kayla Bicknell, SA-9376; Wyatt Bostick, SA-9377; Kelly Brown, SA-9276; Marissa Buehler, SA-9516; Catherine Butchart, SA-9378; Michael Chretien, SA-9379; John DeYoung, II,

SA-9538; Adam Donahue, SA-9539; Alica Downard, SA-9562; Lincoln Grevenoged, SA-9540; Leevi Hansen, SA-9372; Kristina Harbin, SA-9380; Stephan Hlohowskyj, SA-9503; David Kelly, SA-9515; Alexander Lamore, SA-9556; Sasha LaPonsa, SA-9381; Trey Meechan, SA-9547; Sienna Meekhof, SA-9328; John Phillips, SA-9491; Michael Roberts, SA-9536; Jonathan Schaap, SA-9542; Ben Gorp, SA-9414; Leah VanLandingham, SA-9345; Cathleen Yung, SA-9391; Aislinn Deely, YP-0344; Andrew Gordon, YP-0369; and David Greening, YP-0377.

To each of our new members, the Michigan Section Executive Committee would like to welcome you to our Section and encourage you to attend Section meetings and other events. You are also welcome to provide information for the Member's Corner articles.

## Where in Michigan? Contest

The May 2018 edition of the newsletter featured a photograph of the Mona Schist at Lighthouse Point in Marquette. No one correctly identified the photograph.

This edition features a new photograph at the top of the first page. The first person to correctly identify what the photograph



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depicts (feature name, location, and formation) will win AIPG swag! Submit your entry to the Editor; only one per person per issue please.

## 2018 Michigan Section Golf Outing

May 15, 2018 was a great day for our 14th Annual AIPG Michigan Chapter Golf Outing. 76 players enjoyed a day of golf and camaraderie for this year's event at Moose Ridge Golf Course. Proceeds of \$3,962 from this year's event go to support of our K-12 educational grants. The winning golf team, with a 11 under par 60, was the returning champs Nesa & Associates foursome.



One of the 19 groups of golfers; Ed Greenlee, Graig Marlow, Jenny McCrary, and Kevin Lepak. Photo provided by Bob Reichenbach.

The Grand Prize, an 8" Samsung Tablet was won by Jeff Goedtel, a Roomba was won by Bill Henderson of Atwell, and a golf bag was won by Duane Hattem of ESC Labs. The 50/50 Raffle was won by Doug Watson of Pace Analytical. Skill prize winners were Chuck Pinter /Laura Lambert (Long Drive awards) and Chris Michalek, Jen Roether, Drew Santini, Jeff Goedtel, and Nick Lieder (Closest to Pin awards).



Another of the 19 groups of golfers; Lesa Sweet, Matthew Dodt, Ben Fruchey, and Brian Richardson. Photo provided by Bob Reichenbach.

A very big thanks to our primary sponsor:

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Thank you to all our sponsors, without whom, this event would not be possible. Additionally, thanks to the volunteers that make this event happen; Cheri DeLyon and Lori Near (Fibertec) for assisting with registration and the putting contest, Jennifer David (ERG) for helping with the hole-in-one grand prize hole and team photographs. Laura Lambert (ERG) also assisted with the raffles and awards presentation. I also like to thank the staff at Moose Ridge Golf Course for the service provided for our event.

Thanks to all attendees!

Bob Reichenbach, Golf Outing Chairman

## 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...*



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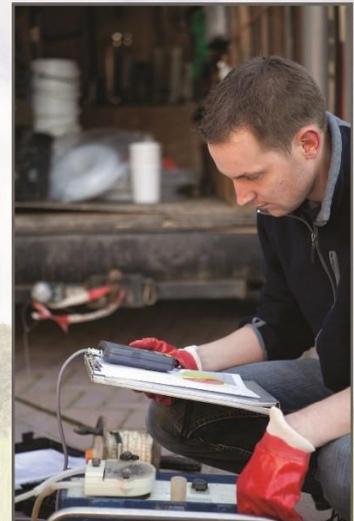


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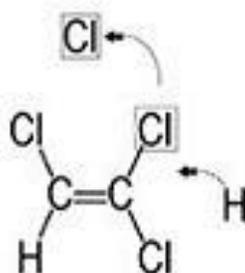


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According to the Section 1.2 of the AIPG Bylaws, "The purposes of the Institute shall be to: 1) Advance the geological sciences and the profession of geology; 2) Establish qualifications for professional geologists; 3) Certify the qualifications of specific individual Member geologists to the public; 4) Promote high standards of ethical conduct among its Members and Adjuncts, and within the profession of geology; and 5) Represent, and advocate for, the geological profession before government and the general public.

## Section Website Reminders

As you may have noticed, the Michigan Section is building 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](mailto: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.

## Newsletter Notice via E-mail

Please be sure that you continue to receive the Section newsletters and other announcements. Submit an updated e-mail address to Adam Heft at [adam.heft@wsp.com](mailto: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.

## 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 links 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.

### The Simple Science Behind this "Boiling" Sand:

<https://www.mnn.com/green-tech/research-innovations/videos/science-behind-boiling-sand-pretty-simple>

## How Does Geoscience Affect Your State?

<https://www.americangeosciences.org/policy/factsheet/states>.

## Employment Opportunities

To serve our members, and provide added value, the Michigan Section posts ads for employment or other opportunities in the Section newsletters. Employment ads will run for one edition unless renewed. There is no cost to our members or sponsors for this service. Send your employment opportunities to the Editor.

No employment ads were received for this edition of the newsletter.

## Member's Corner

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.

No Members Corner articles were received for this edition of the newsletter.

## 2018 Michigan Section Executive Committee

Here are the current officers of the Michigan Section. Be sure to talk with them at the Section's events when you see them...

## Coming Events

**September 8-11 2018:** Purple Mountain Majesties: 55th Annual AIPG Meeting to be held in Colorado Springs, CO. Register at: [https://netforum.avectra.com/eWeb/DynamiPage.aspx?Site=AIPG&WebCode=EventDetail&evt\\_key=20efab8a-9171-41d8-91be-f3fd4c399f1d&mssm=0d793135-353a-46ec-9c05-67d2d2b6ba77&cst=05a7b8e7-0coa-4f42-b69f-ced56ac58745&ent=b96cb9af-c2da-4547-8c5d-aa2b18607f54](https://netforum.avectra.com/eWeb/DynamiPage.aspx?Site=AIPG&WebCode=EventDetail&evt_key=20efab8a-9171-41d8-91be-f3fd4c399f1d&mssm=0d793135-353a-46ec-9c05-67d2d2b6ba77&cst=05a7b8e7-0coa-4f42-b69f-ced56ac58745&ent=b96cb9af-c2da-4547-8c5d-aa2b18607f54).

**September 18, 2018:** Joint Michigan Section AIPG and MAEP Meeting, Michigan Brewing Company, Novi. Dr. Steve Beukema of the MDEQ-RRD will be speaking on "Effects of Air Knifing on Soil Gas Sample Results." See the Insert below...

**September 20, 2018:** AIPG webinar: [Why and How does a Groundwater Well Decline in Performance and What causes a Well to Plug](#). By Ray Talkington, Ted Morine, and Frank Getchell. CEUs available.

September 27, 2018: Ohio Section AIPG fall meeting. Jeffery C. Dick, PhD, Chairman, Department of Geological and Environmental Sciences, Youngstown State University will be speaking on "The State of the Oil and Gas Industry in Ohio and the Appalachian Basin." The meeting will be held at the Boulder Creek Golf Club & Event Center, 9700 Page Road, Streetsboro, Ohio 44241 at 7 pm. Register and payment for the meeting at: <https://www.aipg-ohio.org/payment.php>.

## 2018 AIPG Michigan Section Executive Committee



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Linda Hensel



President  
Tim Woodburne



Vice President  
Amy Hoeskema



Treasurer  
Sara Pearson



Secretary  
Bill Mitchell



Newsletter Editor  
Adam Heft

**September 29-30, 2018:** The Grand Traverse Area Rock and Mineral Club Annual Jewelry, Gem, Fossil, Rock and Mineral Show. Cherryland VFW Post 2780, 3400 Veterans Drive, Traverse City.

**October 5, 2018:** Fundamentals of Geology portion of the ASBOG exam. Exam to be given on the campus of Central Michigan University, Mt. Pleasant.

**October 10-11, 2018:** Ohio Section and Cox-Colvin Vapor Intrusion Short Course. To be held at the ODNR H.R. Collins Core Laboratory Conference Room in Delaware, Ohio.

**October 19-21, 2018:** Central Michigan's 53<sup>rd</sup> Annual Gem, Mineral, Fossil, Lapidary & Jewelry Show. Main Arena, Ingham County Fairgrounds, 700 E. Ash Street, Mason.

**November 29, 2018:** Michigan Section AIPG Annual Meeting, Weber's Inn, Ann Arbor.

**September 14-17, 2019:** 56th Annual AIPG Meeting to be held in the Burlington, Vermont; dates TBD.

**Fall 2020:** 57th Annual AIPG Meeting to be held in Sacramento, California; dates TBD.

**Fall 2021:** 58th Annual AIPG Meeting to be held in Marquette, Michigan; dates TBD.



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Rick Dunkin and Sara Pearson awarding the grand prize to Darlene Pearson at the conclusion of the 2018 Workshop.



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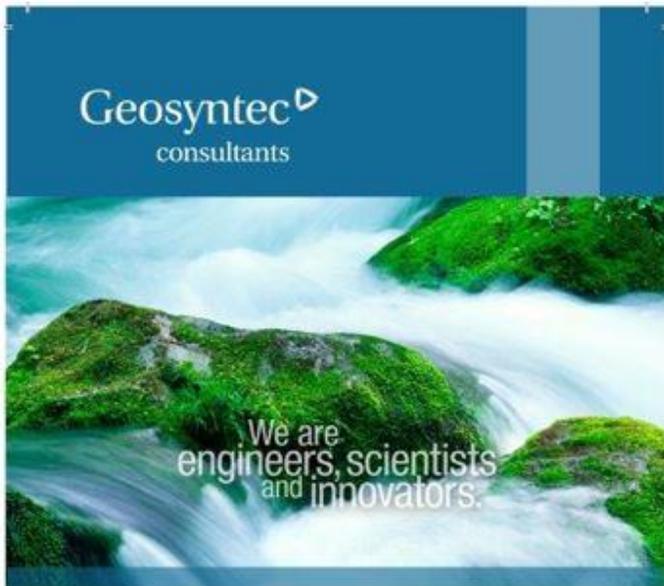
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Intrepid golfers preparing to tee off at the 2018 golf outing.

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