



American Institute of Professional Geologists Michigan Section

January 2016

From the President's Desk



To begin, I would like to thank Dawn Prell for her outstanding service to the Section as President in 2015. Building on the work of Craig Savage and John Barkach, Dawn has increased the Section's contributions to educators across the state and deserving geology students from our Central Michigan, Eastern Michigan,

Western Michigan and Wayne State student sections. Last year's highly entertaining and successful Wayne State Student Chapter meeting at the Detroit Historical Museum is a great example of her creative student outreach and will be long remembered. In 2016, the Executive Committee will follow her example and continue to generously support educators and geology students and, hopefully, make additional contributions to the Eddy Geological Center to create a legacy which will outlast each of us. Behind the scenes we are looking at several new opportunities to contribute which we will announce in the coming months.

But there are other ways that 2016 is going to be a busy year for the Michigan Section. Adam Heft will step into his new role as National President Elect. I can tell you first hand that the success of the Michigan Section has the attention of the other state sections. Adam is going to be a great ambassador and through his participation we are very likely to get new ideas to heighten our profile and increase our giving. An example of a good idea that we got from National is the establishment of an annual student scholarship. This is a multi-year project that is currently being spearheaded by Treasurer, Tim Woodburne. It's a fairly complicated process and an ambitious undertaking. Hopefully, if we can continue to have good turnouts for our events, when Tim

steps into the role of president in several years, he will have an exciting announcement for the section.

And, of course, during 2016 we will be organizing the events that you have come to expect from the Michigan Section. This year, I look forward to welcoming you to each Section meeting, our golf outing, and our workshop at the RAM center in June. We'll throw in a field trip or two for good measure. Your dedication to the Section over the years has led to great things, and we have much more planned for the future. Best wishes to each of you as we begin 2016.

Brian Burke, CPG – 2016 Michigan Section
President

Section Officers Reports

President: Information presented in the "From the President's Desk" article above.

Vice President (Linda Hensel): No Report.



Treasurer (Tim Woodburne): First and foremost, and perhaps most importantly, I want you to know that as I write, it is the eve of the holiday celebrations and the New Year is right around the corner. I know that by the time you are reading this, the holidays will have passed. I hope that each of you had a Happy Holiday!!! I hope



that 2015 was a great year and that 2016 will be even better.

Secondly, the officers of the Michigan Section have transferred responsibilities at the first of the year and I am now treasurer. I really enjoyed being secretary, but on the whole I am glad that Amy is taking over the Secretary position and confident that she will do a good job.

Thirdly, the Section's finances are very strong. I want to give a big thanks to Linda, and each of those who held the position of Treasurer before her; they handled the money honestly and with the best interests of Michigan Section in mind. The money in our account came from the 2007 Meeting, the summer workshops, membership dues, and golf outings. As a result, we have discussed ways to use this money. We have discussed putting a portion of this money into a Scholarship Trust Fund to support student members in Michigan. To do this we are proposing a scholarship trust fund agreement that helps manage how the money is invested and withdrawn. We anticipate there will be a trust fund board which will help manage the scholarship fund. Additionally, we will need a scholarship committee to help with applications, screening candidates and recommending student awards. Our goal is to award the first scholarships in 2016. I will be working hard on this issue, so please email me ideas, comments, or suggestions about Michigan Section scholarships. Thank you.

Secretary (Amy Hoeksema): *Editor's Note: Amy was confirmed as the winner of the Election at the December 2015 Section meeting on December 10th. Congratulations to Amy; the Executive Committee looks forward to working with her!*



As the newly elected AIPG Michigan Section Secretary, I want to say thank you for electing me and to let you know that I am honored to serve this great organization. I became an AIPG member in 1991, a few years after I graduated with my B.S. in Geology from Lake Superior State University and was working as a field geologist for an environmental consulting firm. The culture of the AIPG group has grown in a positive way since then, becoming more diverse and focused on thought leadership and educational promotion/support. I believe that this evolution of the AIPG culture will help to sustain the organization in the future.

I worked as a hydrogeologist and project manager for about 28 years in the environmental consulting

arena and recently moved to Consumers Energy where I am a project manager in their energy delivery group. Throughout my career, one of my passions has been promoting young professionals through mentoring and inspirational leadership. It is surprising to me how much influence we, as professional geologists, have on society and especially on the young people around us without realizing it. I challenge each of you to look around you and find a way to influence more young people to seek a career in geology. I had some great mentors along the way who provided great advice and I thought I would share a couple examples to show how simple words to a young person can help them in a profound way.

As a young girl, I enjoyed the outdoors and was always picking up rocks. I remember my mom saying "one day, Amy, you could be a geologist and then you could tell me what all those rocks are that are filling up your closet." That was the day that I started planning my career as a geologist.

I worked in Nevada for a gold mining company over the summer between college terms. I was hired to draft cross sections of gold concentrations from plant, soil and rock core samples. One of the senior geologists had these words of wisdom, "if you like to travel from place to place, go into mining geology because you will have to follow the deposits, but, if you want to pick the place you live and put down roots, go into groundwater, everyone needs clean water." These words set me on the path to be an environmental geologist/hydrogeologist.

As I move from environmental consulting into the energy field, I am excited to see how I can incorporate my years of experience from a new perspective. I look forward to working with all of you to continue to make AIPG the best it can be.

Past President (Dawn Prell): I would like to take this



opportunity to thank each and every one of you for allowing me the opportunity to serve on the AIPG executive committee. I have enjoyed working with the individuals who I have served with over the last nine years. AIPG has offered me many new friendships, colleagues and clients for which I am

grateful. I look forward to seeing you all in 2016.

Coming Events

February 11, 2016: Joint Michigan Section AIPG and MBGS Meeting, Johnson Center at Cleary College, Howell. Bob Mahin, CPG of Lundin Mining Corporation

will be speaking about "Exploration at Eagle/Eagle East: A Model-Driven Discovery."

Location: Johnson Center, Cleary College, Howell.

Dinner: Taste of Italy Buffet; Manicotti with Meat Sauce, Grilled Vegetable Lasagna, Chicken Alfredo, Anti-Pasta Salad, Garlic Bread Sticks, Dessert.

Schedule: Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM.

Cost: Students free, Members \$30.00, Non-members \$50.00.

RSVP by February 8, 2016: RSVP for the meeting on the Eventbrite website no later than February 8th at: <https://www.eventbrite.com/e/aipgmbgs-joint-section-meeting-tickets-20014135819>.

February 24, 2016: MAEP Professional Development Meeting at Cleary College. The topic will be an update on new MDEQ-RRD criteria.

April 14, 2016: Michigan Section AIPG meeting, University Center, Central Michigan University. Speaker and topic to be determined. Proceeds of the meeting to benefit the CMU Student Chapter.

May 17, 2016: 12th Annual Michigan Section AIPG Golf Outing, Moose Ridge Golf Course, South Lyon. Full details and registration information is in the article below and in the attached flyer. Please direct any questions or inquiries for sponsorship opportunities to Bob Reichenbach at bob.reichenbach@ergp.net.

June 14-15, 2016: 6th Annual Michigan Section AIPG Summer Workshop. Topic: Environmental Risk Management: Why, When, Where and How. Save the Date! Abstracts are due on January 16, 2016. Sponsorship information will be available soon on the Section's website <http://mi.aipg.org/workshop/workshop.htm>.

September 9-13, 2016: 53rd Annual AIPG Meeting to be held in Santa Fe, New Mexico. Details available on the National AIPG website www.aipg.org.

September 29, 2016: Joint Michigan Section AIPG and MAEP meeting. To be held at the MDNR's Outdoor Adventure Center in Detroit. Speaker and topic to be determined.

December 1, 2016: Michigan Section AIPG Annual Meeting to be held at Weber's Inn, Ann Arbor. Speaker and topic to be determined.

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 Beach, Ryan Sleeper, Sean Miller, Jason Heivilin, Lauren Bugdalski, Kayla Lockmiller, and Benjamin Mark.

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.

WMU Thank you to AIPG

The following was sent to the Michigan Section AIPG Executive Committee in response to its 2015 donation to the Western Michigan University CoreKids program...

Greetings to the Members of the Michigan Section of the American Institute of Professional Geologists. The CoreKids program in the Department of Geosciences/Michigan Geological Survey at Western Michigan University would like to thank the society for their generous donation. We use those funds to support in-class and web-based outreach for K-12 classrooms in southern Michigan.

CoreKids does between 50 and 60 events a year in the classroom and at joint activities with our partners. The program has reached 44,000 students, teachers and members of the general public in the past two and half years! These events are held throughout the southern Lower Peninsula – with activities scheduled in the Bay City-Saginaw, Detroit, Lansing, Ann Arbor and Grand Rapids areas.

The events are run by our WMU students. It is great practice for them to do public speaking in their own field. They manage the classrooms and provide assistance to the children on the various hands-on and team activities that are part of our modules.

The CoreKids program promotes the earth sciences as an exciting career path. Our students discuss their research projects and professional goals with the children.



Photo courtesy of Dr. Peter Voice, Director, K-12 Outreach Unit and CoreKids Program, Dept. of Geosciences/Michigan Geological Survey, Western Michigan University.

Open Committee Position

If you are interested in getting more involved with AIPG but are not quite ready for the executive committee, the Awards Committee is looking for a chair person. The commitment is minimal. The

responsibilities include requesting nominations for section leadership award, reviewing membership list for longevity awards, preparing and presenting them; reviewing scholarship applications submitted through national and reviewing teacher grant applications.

If you are interested in this position, please contact Adam Heft (heft@pbworld.com) or Amy Hoeksema (amy.hoeksema@cmsenergy.com). AIPG would like to fill this position and announce at the next section meeting on February 11, 2015.

CMU Student Chapter Activities

CMU Student Chapter Enjoys Community Outreach...

Once per semester local radio station 104.3 WCZY hosts an event for Mount Pleasant area children. This autumn it was appropriately named “Boo Bash”, giving the kids an opportunity to trick or treat, to enjoy ice skating and other activities at Morey Courts in Mt. Pleasant. Central Michigan University Geology Club and AIPG joined forces to put together a table for the ghouls to learn what sort of jobs geologists do, along with passing out polished agates and candy to them.



From left to right: Chelsea Augustine, Kathleen Dragos, and Jon Andrews. Photo courtesy of Jon Andrews, CMU student chapter President.

AIPG President Jon Andrews talked about jobs, while Geology Club President Kathleen Dragos demonstrated the Make Your Own Volcano kits the club had assembled for the event. Club Secretary Chelsea Augustine passed out the candy and showed off the fossils and other samples that we had brought to showcase. Coprolite was the fan favorite, and many children knew other minerals by sight from the game Minecraft. Over the course of two hours we interacted with approximately 500 children and their parents. CMU AIPG and Geology Club really enjoys opportunities such as this one, Science Olympiad, and Earth Day events to interact with the community. This was our second WCZY Kids' event,

and we are excited to attend many more outreach programs.

12th Annual Michigan Section Golf Outing – New Venue

It's time to begin planning for our 12th Annual AIPG Golf Outing. Please spread the word to your suppliers/colleagues, and participate in this event which takes place on Tuesday May 17, 2016 at Moose Ridge Golf Course in South Lyon, Michigan.

This event is a great opportunity to spend time with colleagues and celebrate the return of warm weather to Michigan. It is open to everybody, so please come and take advantage of the opportunity. You don't need to be an avid golfer to participate. This is a fundraiser with an emphasis on fun.

The money raised is put toward the Michigan Section's K-12 Educational Grant recipients. To insure continued success of the program, please join us by participating, sponsoring, soliciting sponsors, and/or donating prizes or items. Contact me at 248-773-7986 or bob.reichenbach@ergrp.net for registration or sponsorship information.

The registration and sponsorship form is included in this newsletter and has been posted to the Michigan Section's website (<http://mi.aipg.org/Golf/golf.htm>). Click on “Golf Outing”. Forms can be e-mailed or faxed to me at (248) 924-3108. We hope to see you May 17, 2016!

Augmented Reality Sandbox

The Michigan Section donated an augmented reality sandbox to the Eddy Geology Center at the Waterloo Recreation Area near Chelsea in September 2015. The sandbox was so well received that the Michigan Section Executive Committee has decided to donate a second one to the Michigan Department of Natural Resources' Outdoor Adventure Center in Detroit in 2016. Adam Heft is building the new table, and the computer system will be assembled, upgraded, and made operational by Eric Hendershott. The table will be donated and ready for use in time for a planned Section meeting to be held at this location in September 2016. Stay tuned for additional details about the upcoming meeting!

December Section Meeting

The Section held its annual meeting on December 10th at the Kellogg Center in East Lansing. Jeff Kimble and Tricia Edwards of EPA Region 5 spoke on Michner Plating – Time Critical Removals. The talk included some good information on how and why the EPA becomes involved in investigations.



Jeff Kimble and Tricia Edwards presenting their talk on Michner Plating. Photo courtesy of Adam Heft.

During the business portion of the meeting, awards were given. Longevity awards were given to the following: (10 Years) Daniel Cassidy, Steven Hoin, Jason Iseler, Heston Stein, Thomas Hernick, Jon Hirschenberger, Bradley Hoare, Charles Bush, Bruce Noble, Erin Hart, Carolyn Mack, Dale Elliott, and Jason Lagowski; (15 Years) Nickolas Rogers, William Mitchell, Thomas Sampson, Allan Blaske, Tim Woodburne, Steve Murray, Brian Burke, and Robert Lint; (20 Years) Alan Hinks, Maureen Allen, Patrick Lynch, Jamie Matus, Eric Wallis, Michael Tuckey, Thomas Kinney, Daniel Hendrix, Douglas Hull, Robert Schulz, Jeffrey Goedel, Lori Vanderkam, and James Wilson; (25 Years) Marc Florian, James Dexter, Jeffrey Anagnostou, James Brode, and Craig Savage; (30 Years) Christopher Peters. Congratulations to all on reaching these milestones!



Christopher Peters receiving his 30-year longevity award. Photo courtesy of Adam Heft.

Several students brought research posters to the meeting; the awards given to each are presented in a separate article below.



The 2016 Michigan Section Executive Committee. Left to right: Linda Hensel, Tim Woodburne, Adam Heft, Dawn Prell, Amy Hoeksema, and Brian Burke. Photo taken by Sara Verbrugge-Pearson.

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.

Michigan Department of Environmental Quality News

Michigan Underground Storage Tank Authority Now Accepting Underground Storage Tank Cleanup Fund Claims

Within a year of its creation and six months of the appointment of the MUSTA Board of Directors, the Underground Storage Tank Cleanup Fund is fully operational. The purpose of the Fund is to serve as a financial responsibility mechanism for refined petroleum underground storage tank owners and operators and assist in the payment of corrective actions related to confirmed releases from USTs.

On January 1, 2016, MUSTA began accepting claims, invoices, and requests for indemnification.

Claims must meet the following requirements in order to be approved:

- Release must have been discovered and reported on or after December 30, 2014.
- Release must have been properly reported within 24 hours of its discovery.

- The facility must be in compliance with UST registration and fee requirements of Part 211 both at the time of the discovery of the release and at the time of the filing of the claim.
- Maintenance of financial responsibility for deductible amount.

Upon receiving the approval of a claim, the owner or operator may submit invoices for reimbursement from the Fund. To be eligible for payment, the following requirements must be met:

- The owner or operator must have paid the deductible amount.
- The work performed or proposed to be performed shall be consistent with Part 213 and also consistent with achieving site closure.
- The corrective action performed is reasonable and necessary considering the conditions at the site of the release.
- The cost of performing the work must be at or below the allowable reimbursement amounts in the schedule of costs, be performed at or below its competitive bid amount, or be otherwise reasonable.

If MUSTA denies a request for determination, claim, invoice, or request for indemnification, the owner or operator may request a review by the Board. This request must be received by MUSTA within 14 days of the denial. The MUSTA Administrator may contact the owner operator to attempt to resolve the dispute prior to a hearing before the Board. If the dispute is not resolved, the matter will be scheduled for a hearing before the Board at its next regularly scheduled meeting.

Information regarding MUSTA, the Board, the cost schedule, competitive bidding requirements, list of ineligible costs, and submittal forms for all of the documents referenced in this article can be found at www.michigan.gov/deqmusta.

MUSTA Beginnings...

MUSTA's fast paced schedule began with the creation of the Fund on December 30, 2014 followed by the Governor Snyder's appointment of the Board in May 2015. The Board's first meeting was held at the beginning of July and by August 2015, the Board had appointed the Department of Environmental Quality (DEQ) as the administrator and Bob Reisner as the fund administrator.

The DEQ promptly submitted an application to the United States Environmental Protection Agency

requesting approval of the Fund as a required financial responsibility mechanism for owners of USTs on September 29, 2015 (the application is currently under review and pending the US EPA's determination, owners or operators are deemed to be in compliance if they have received an approved Request for Determination of Eligibility from MUSTA).

On October 1, 2015, MUSTA began accepting deductible buy-downs, documentation of financial responsibility for the deductible amount, and requests for determination of eligibility. Through December 2015, MUSTA had approved 25 deductible buy-down applications, 597 documentation of financial responsibility for the deductible amount submittals, and 507 requests for determination of eligibility.

Any questions regarding administration of the Fund may be directed to Bob Reisner, Fund Administrator at 517-284-5141 or reisnerr@michigan.gov.

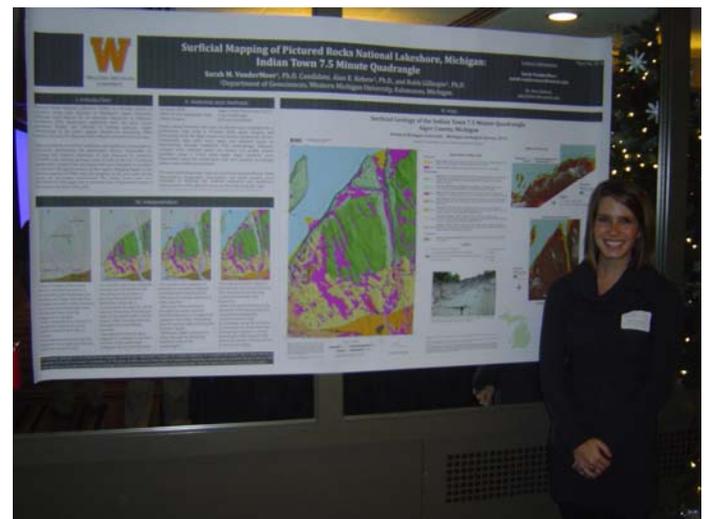
Sara Verbrugge-Pearson, CPG – MDEQ RRD Program Specialist

Support our Sponsors!

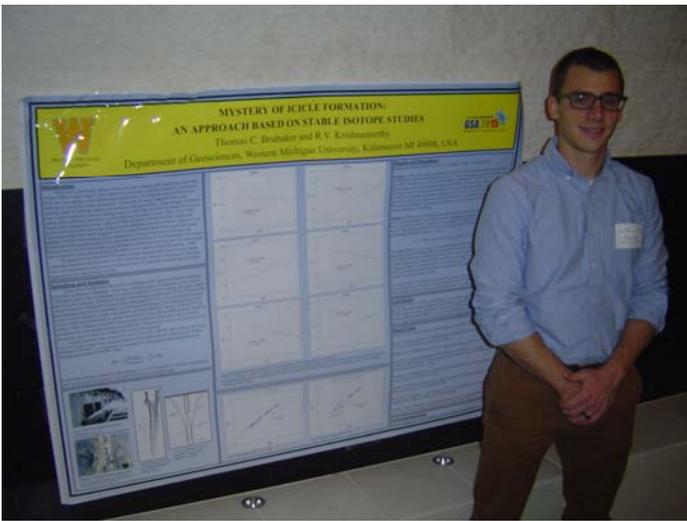
The Section Executive Committee would like to remind its members to support the companies advertising in the newsletter. Consider working with these companies, and when you speak with their representatives, let them know that you saw their ad in the Michigan Section newsletter.

Student Poster Contest Winners

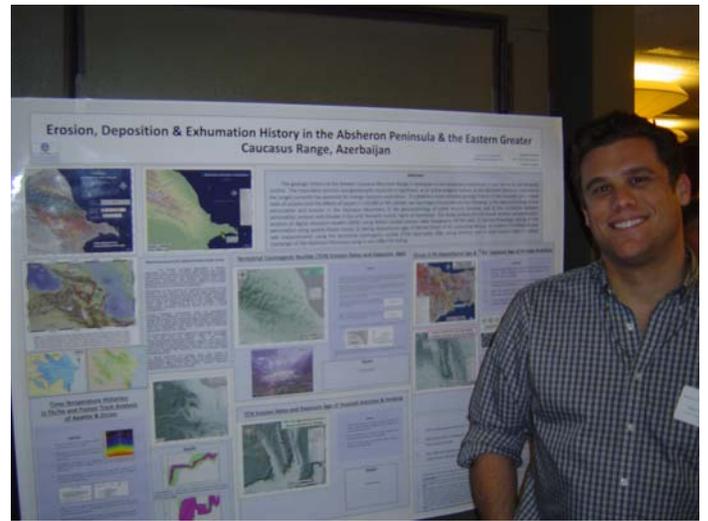
The Michigan Section held its annual student poster contest at the annual meeting at the Kellogg Center in East Lansing on December 10th.



Sarah VanderMeer, WMU graduate student with her first-place poster "Surficial Mapping of Pictured Rocks National Lakeshore, Michigan: Indian Town 7.5 Minute Quadrangle." Photo courtesy of Adam Heft.



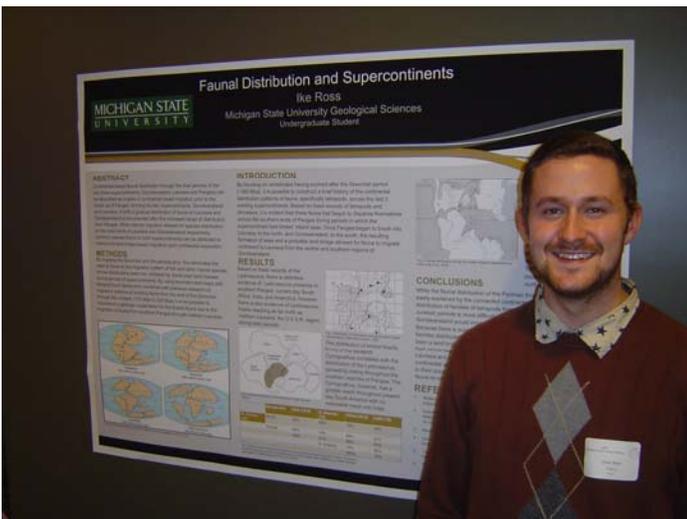
Thomas Brubaker, WMU graduate student with his runner-up poster "Mystery of Icicle Formation: An Approach Based on Stable Isotope Studies." Photo courtesy of Adam Heft.



Brian Schrottenboer, GVSU undergraduate student with his runner-up poster "Erosion, Deposition, & Exhumation History in the Absheron Peninsula & the Eastern Greater Caucasus Range, Azerbaijan." Photo courtesy of Adam Heft.



Karen Musser, GVSU graduate student with her first-place poster "Macro to Micro Scale Partitioning of strain and kinematics within the Chunky Gal Mountain Fault, Blue Ridge Province, southern Appalachian Mountains." Photo courtesy of Adam Heft.



Ike Ross, MSU undergraduate student with his runner-up poster "Faunal Distribution and Supercontinents." Photo courtesy of Adam Heft.

The Michigan Section appreciates all of the students who brought their posters to share with the attending members. Congratulations to each of the winners!

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 heft@pbworld.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.

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 heft@pbworld.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.

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.

What Happens when Lava Meets Ice and other Lava Videos:

<https://www.youtube.com/watch?t=72&v=yvSmPqqZB3Q>

<https://www.youtube.com/watch?v=GaSjwAu3yrl>

Photographic Atlas of Rock Breakdown Features:

<http://www.psi.edu/about/staff/mbourke/bourkepubs/atlas>

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 Member's Corner articles were received for this edition of the newsletter; however, please check out the Secretary's column for an introduction to Amy Hoeksema, the 2016 Secretary.

Employment Opportunities/Seeking Employment/Member Opportunities

To serve our members, and provide added value, the Michigan Section Executive Committee has decided to allow ads for employment or other opportunities to be posted 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.

Employment Opportunities

EXECUTIVE DIRECTOR SEARCH

The AIPG is recruiting candidates for Executive Director. AIPG is a 501(c) 6 professional geoscience society dedicated to advocacy, education and competence within the profession with a membership of more than 7000 and a dedicated staff of seven at its headquarters in Thornton, Colorado.

The Executive Director is responsible for headquarters operations and for maintaining excellent relationships with appropriate professional and technical societies, especially sister geoscience societies such as the American Geosciences Institute, the Geological Society of America, and the European Federation of Geologists. The Executive Director serves at the pleasure of the AIPG national Executive Committee in promulgation of duties to advance and maintain AIPG platforms and objectives as defined in the AIPG Bylaws and Strategic Plan.

The successful candidate will:

- Hold an advanced geoscience-related degree (MS or PhD); an additional degree in marketing or business is a plus.
- Have a minimum of 15 years of successful management experience at increasing levels of responsibility.
- Have a background in fiscal management tied to annual profitability, growth, and program expansion.
- Be a team-oriented leader with strong communication and interpersonal skills, and a proven entrepreneurial record.
- Demonstrate an appreciation of policy issues affecting geoscientists and the geosciences, especially at federal and state levels.
- Demonstrate an enthusiasm for service as a professional representative of the geosciences.
- Be willing to travel as needed. The responsibilities of this position often require weekend meetings and lengthy workweeks.
- Be committed to relocating to the Denver area.

In addition to these specific qualifications, the AIPG Executive Committee expects the successful Executive Director to help propel AIPG to a higher level of involvement in the geosciences community and in increasing its services to members. The Executive Director must be entrepreneurial, dynamic, and personable and be able to commit to an aggressive campaign to increase membership and develop additional sources of non-dues revenue. The Executive Director is also expected to seek additional alliances and collaborative arrangements with other professional societies that will serve to benefit AIPG both professionally and financially.

The Executive Director is responsible to lead the continual refinement and implementation of the AIPG Strategic Plan and ensure that both AIPG leadership and AIPG membership are engaged in its implementation.

The future of all professional societies is dependent upon the younger members of the profession becoming actively involved in the governance of the societies. In recent years, AIPG has greatly increased the involvement of students and young professionals. The successful Executive Director is expected to continue this success and vigorously engage students and younger members.

The Executive Director will report to the Executive Committee and is subject to periodic review by the

Executive Director Committee. The Executive Director will also supervise the staff of AIPG and will serve as ex officio board member of the Foundation of AIPG.

Applicants are required to send: 1) a complete, detailed resume, 2) the names and addresses of at least four professional references, and 3) a concise two page essay outlining the applicant's interest and the applicant's concepts for expanding AIPG service to members, visibility, influence, and financial strength. Applications will be accepted until the position is filled. Review of qualified applications will begin immediately. Salary range between \$105,000 to \$120,000 per year. Benefits include relocation assistance, health insurance subsidy, retirement plan contributions, vacation and sick leave.

Mailing address:

AIPG Executive Director Search Committee
American Institute of Professional Geologists
12000 North Washington Street, Suite 285.
Thornton, Colorado 80241

Environmental Services Project Manager

SME is seeking a regular, full-time Environmental Services Project Manager to join our team in our Plymouth headquarters office or Detroit office to play a key role on our Environmental Services project management team. Activities will include working with key clients to revitalize and reuse contaminated sites and assist owners with understanding and managing their regulatory requirements.

- Responsibilities for this position include:
- Effectively mentoring and leading other project team members to successfully complete assigned responsibilities.
- Collaborate with other SME service areas on multi-disciplinary projects.
- Development and implementation of environmental site investigations, due care evaluations, brownfield redevelopment strategies and environmental response actions, including remediation, on a variety of projects.

Requirements for this position include:

- Demonstrable experience in project management; site investigation; data evaluation, validation and visualization; due diligence; due care evaluations; report preparation; interaction of environmental

conditions and regulations with construction and development; brownfield incentive procurement and management; and working with owners and regulators to achieve and implement regulatory closures.

- Experience with mentoring and leading project teams.
- Candidates must be well versed in environmental regulations and applications, particularly in Michigan.
- Demonstrated client maintenance capabilities and strong understanding of project economics, contracting, and liability management.
- Exceptional ability to synthesize data and communicate effectively, both orally and in writing, with other team members and clients.
- A minimum of 7+ years of experience (preference will be given to candidates with experience in Environmental Consulting), 40 Hour OSHA HAZWOPER training, and a BS or MS in Geology, Hydrogeology, or Environmental Engineering.

SME offers excellent opportunities for professional development and growth in a flexible, fast-paced working environment. Our robust benefits package for regular, full-time team members includes: medical/prescription coverage with no premiums required; life, disability and long-term care insurance coverage; matching 401(k); Profit Sharing; tuition reimbursement (up to \$5000 per calendar year); and generous bonus and paid time off programs. SME is an equal opportunity/affirmative action employer. Qualified applicants will receive consideration for employment without regard to protected veteran/military status, disability, race, color, religion, sex, sexual orientation, gender identity or national origin. SME is a VEVRAA Federal Contractor.

For immediate consideration, please email cover letter and resume, including salary expectations, to: recruiter@sme-usa.com.

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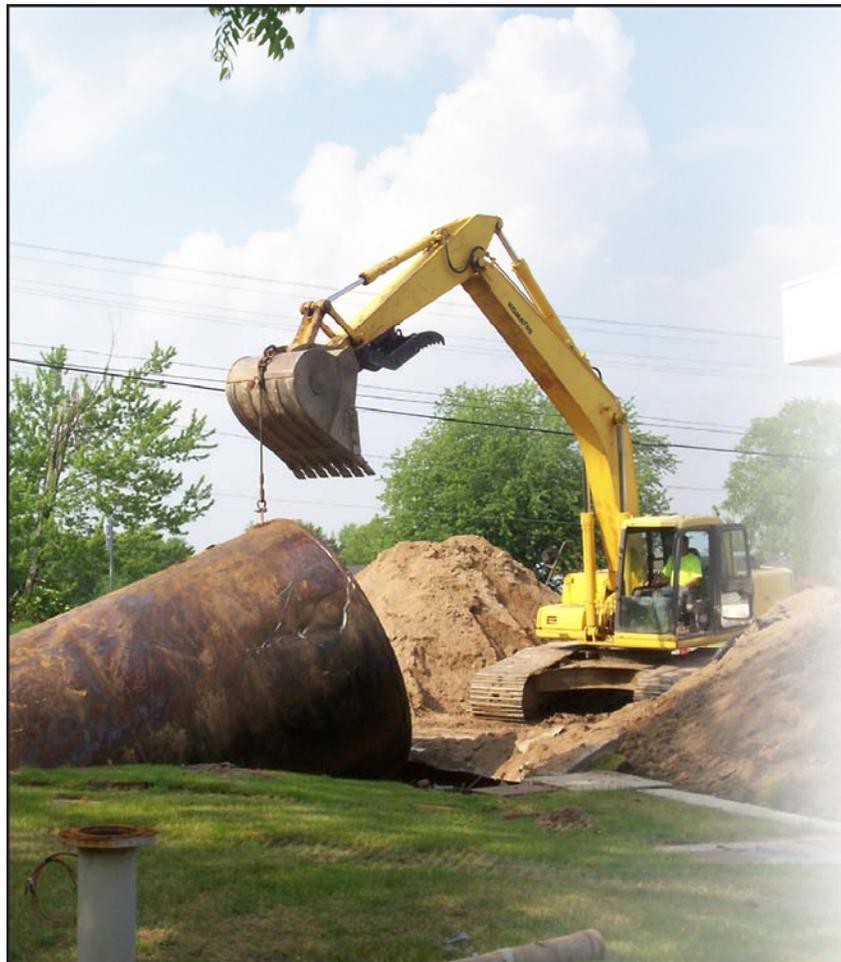
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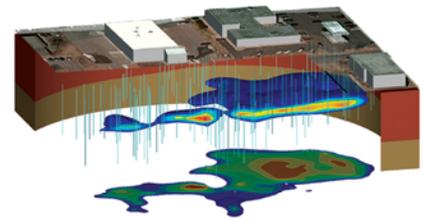
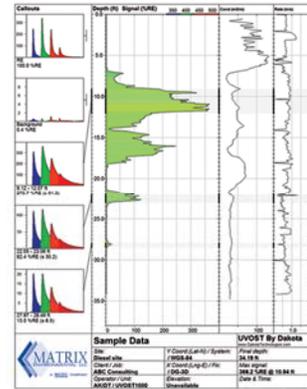
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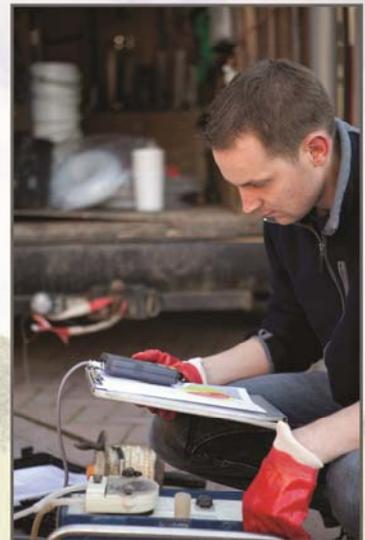


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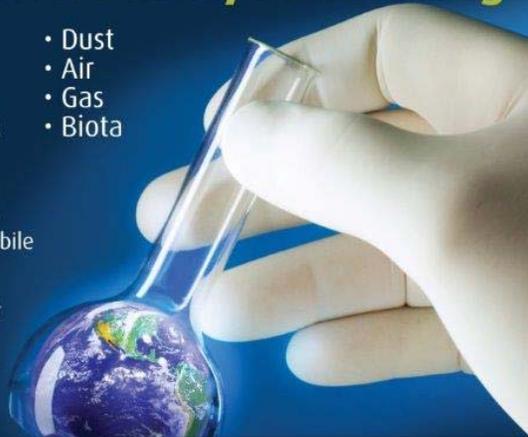
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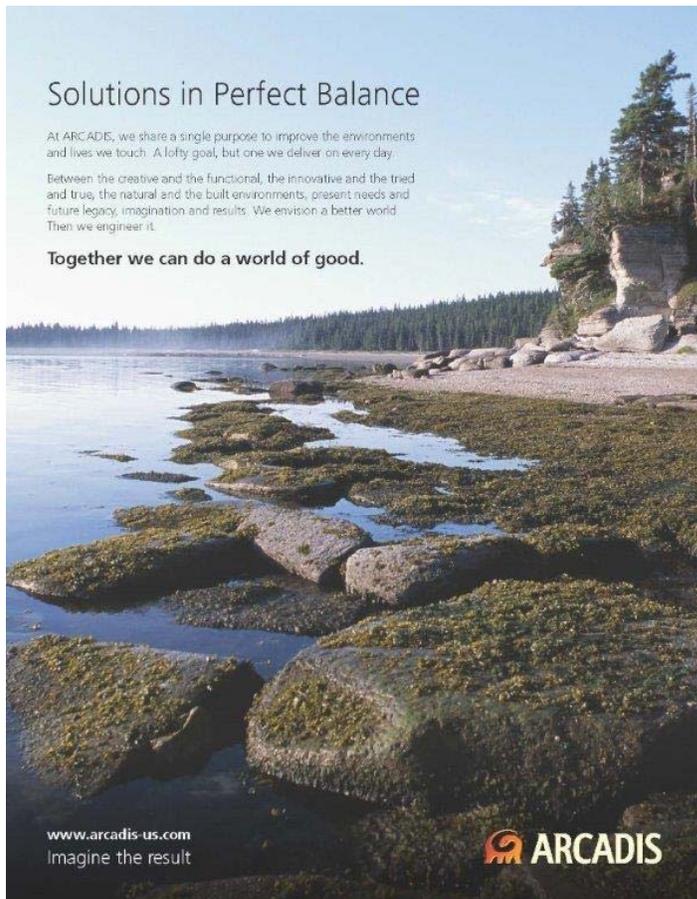
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12th Annual AIPG Michigan Section Golf Outing Tuesday May 17, 2016

Sponsor Information

Exclusive Dinner Sponsor- \$2,000

Investment includes:

- 1 foursome and 33% discount for additional golfers
- Highest Visibility Signage at the Event
- Corporate recognition*

Beverage Sponsors - \$800 (2)

Investment includes:

- Signage at the club house and on the Beverage Cart or Oasis.
- Corporate recognition*

Breakfast/Luncheon Sponsor - \$1,000

Investment includes:

- Signage at the grill/tent.
- Corporate recognition*

Hole-in-one Sponsors - \$600 (4)

Will have visible exposure on Par 3 Holes.

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

(36) Available

Investment includes:

- Tee box signage or
- Pin Flag with logo

Skill Sponsors – \$600

Investment includes:

(4) Available

"Longest Drive" "Closest to Pin" awards to Male/female for each.

Putt-4-Dough – \$800 Signage on the putting area, corporate* recognition during the event (includes contest coordination at the turn and following golf provided by you).

Team Photo Sponsors:

\$500 SPONSOR FEE - if your photographer and printer

\$700 SPONSOR FEE - if our photographer and printer

Raffle Prize Sponsors:

Will contribute prizes (\$100 minimum cash or 2 prizes with \$50 minimum value each, please) to the fund used to obtain raffle prizes. Recognition by name on prize table placards will be made, along with verbal recognition by the master of ceremonies. \$100 SPONSOR FEE ("lots" needed)

Goodie Bag Sponsor - Give-away items for 120 or more golfers

Practice Tee Sponsor - \$400

(1) Available

Investment includes:

- Practice Tee/Range signage

This event is our annual Fund Raiser. The Michigan Section of AIPG Golf fundraiser benefits the Michigan Section's ability to support K-12 education grants and scholarships.

Place: **MOOSE RIDGE**

11801 Doane Rd.
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Event: **18-hole Scramble**

Date: **May 17, 2016 Tuesday**

Registration: **8:00 to 9:30 AM**

Tee Time: **9:30 AM**

Rainout Date: *May 19, 2016 (based on course availability).*

Includes: Continental Breakfast, green fees, range balls, Lunch at turn, networking opportunities, and DINNER.

Also includes: 50-50 and Grand Prize raffles along with other prizes including, \$10,000, vacations, or sets of clubs for a "Hole in One", Putt-4 Dough \$2,500, men's and women's Longest Drive and Closest to Pin contests, \$20 gas cards to the four golfers traveling the furthest and goodie bag for all golfers.

Registration

Individual = \$180 if paid by April 15, \$200 thereafter

Foursome = \$600 if paid by April 15, \$680 thereafter

Player One: _____

Player Two: _____

Player Three: _____

Player Four: _____

Contact Name, Company and Phone Number for your Foursome:

Accepted forms of payment include:

Eventbrite <https://www.eventbrite.com/e/aipg-michigan-section-golf-outing-tickets-19731712082>



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**Joint Michigan Section American Institute of Professional Geologists
and Michigan Basin Geological Society
MEETING ANNOUNCEMENT**



February 11, 2016

EXPLORATION AT EAGLE/EAGLE EAST: A MODEL-DRIVEN DISCOVERY

Featured Speaker

Bob Mahin, CPG, Lundin Mining Corporation

Location: Johnson Center, Cleary College, Howell, MI (Map attached)

Cost: Students Free, AIPG/MBGS Members \$30.00, Non-members \$50.00. **Registration is payable electronically via Eventbrite (see link below). Please note: No refunds will be given for cancellations made within 48 hours of the meeting and/or "No Shows".**

Dinner: Taste of Italy Buffet; Manicotti with Meat Sauce, Grilled Vegetable Lasagna, Chicken Alfredo, Anti-Pasta Salad, Garlic Bread Sticks, Dessert.

Time: Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM

RSVP: On the Eventbrite website no later than February 8th at:

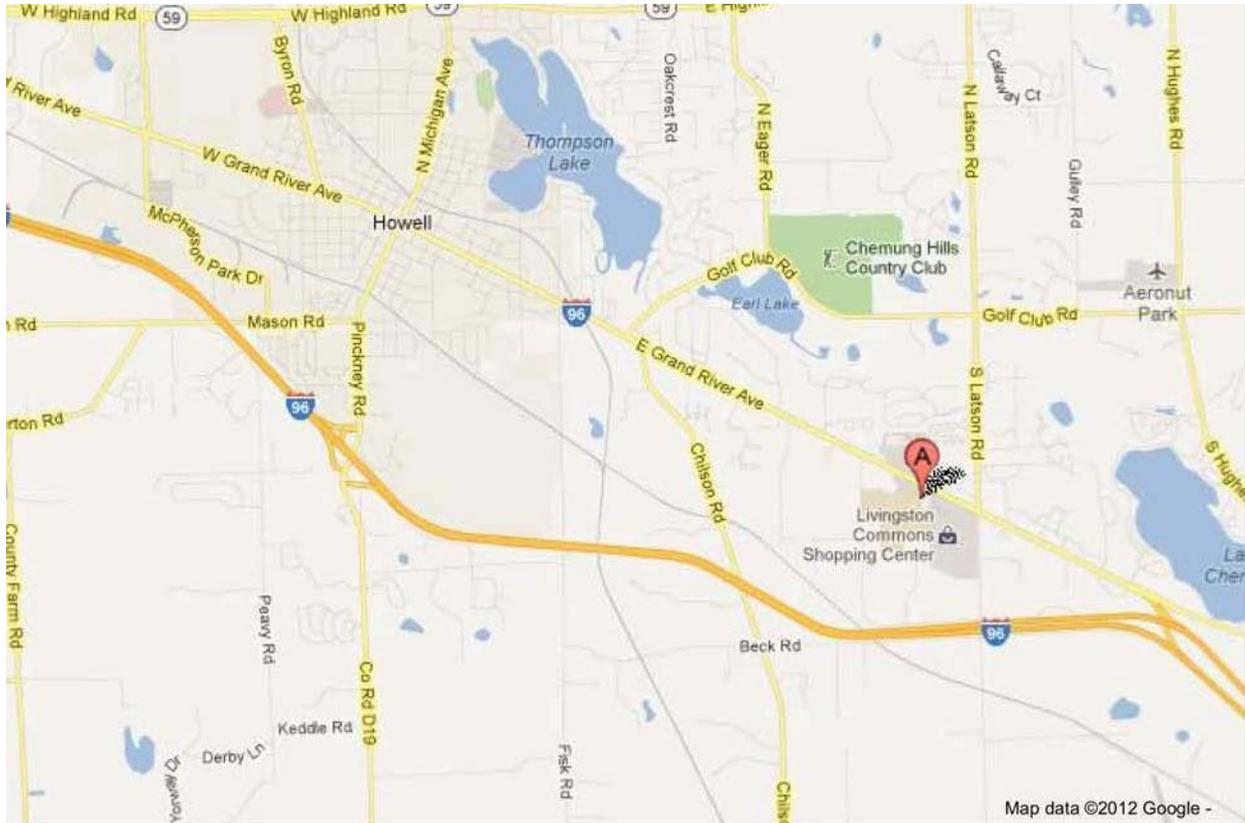
<https://www.eventbrite.com/e/aipgmbgs-joint-section-meeting-tickets-20014135819>.

Abstract: In June 2015, Lundin Mining Corporation announced the discovery of very high grade magmatic nickel-copper mineralization similar in style to the Eagle deposit (5.2 MT reserves @ 3.12% Ni, 2.56% Cu) approximately two kilometers east of Eagle. The best intercepts from the new zone included 23.9 meters of 5.3% Ni and 4.4% Cu and 30.9 meters of 5.2% Ni and 8.7% Cu. The latter included 16.4 meters of massive sulfide grading 6.7% Ni, 13.6% Cu, 6.7 gram/tonne Pt, and 6.9 gram/tonne Pt. The new zone is approximately 960 meters deep and as such, would not have been detected by airborne geophysics. In addition, it is in an undrilled area, so borehole geophysical data was absent. In short, the target had no geophysical support and the discovery was the result of exploration based purely on the open-system chonolith model of magmatic sulfide deposits. The Eagle deposit was likely formed by a series of magma pulses that employed a single magma conduit, or chonolith, allowing sulfides to settle out more or less continually while the conduit remained dynamic. (This differs from a closed, differentiated intrusion system.) Eagle East is a separate intrusion from the Eagle deposit that was known to contain uneconomic levels of nickel and copper in the upper portions. Previous drilling at Eagle East determined that at depth, the intrusion necks down to a narrow, barren dike. Eagle geologists postulated that the narrow dike should be sourced in a larger magma chamber and used directional drilling to trace the dike, eventually resulting in the discovery.

Speaker Bio: Bob Mahin is currently the Exploration Manager and Mineral Resource Qualified Person for the Eagle Mine. He is an AIPG Certified Professional Geologist and has 25 years' experience in the exploration and mining industry, mostly in Michigan and Minnesota. He has been at Eagle for four years, starting with Rio Tinto, remaining with the project after Lundin Mining acquired it in July of 2013. He spent the previous 9 years with the Aquila Resource's Back Forty project. Prior to that, has worked with Western Mining Corporation, Kennecott Exploration, Cliffs Natural Resources, and Minerals Processing Corporation. He has a BS in Geology and a BA in Technical Communications from Purdue and an MS in Economic Geology from the University of Utah.

Joint AIPG/MBGS Meeting February 11, 2016

Johnson Center, Cleary College, Howell



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From I-96 East: I-96 East to Exit #137 (Michigan Avenue/D-19), north onto Michigan Avenue. Turn right on Grand River. Follow Grand River through town to Grand Oaks Drive. Turn right onto Grand Oaks, then left onto Cleary Drive; OR, go through the lights at Grand Oaks and in front of the Speedway station, and turn right onto Cleary Drive.

From M-59: (east- or westbound) South onto Latson Road; follow Latson to Grand River Avenue (2nd traffic light). Turn right onto Grand River, go through the next light (at the Meijer entrance) and make an immediate left onto Cleary Drive. Follow the drive back to the campus.