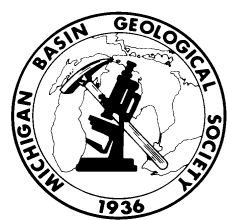




# ***ON THE ROCKS***

*A Newsletter of the Michigan Basin Geological Society*



2022-2023 Edition 5

[www.mbgs.org](http://www.mbgs.org)

January 2023

## **ANNOUNCEMENTS**

**MBGS Membership Meeting, January 18<sup>th</sup>, 2023, 7:00PM:** Madeleine Tan, Undergrad Student, University of Michigan, will present “Seismic Receiver function analysis of the Michigan Basin”.

### **Join Zoom Meeting**

<https://us06web.zoom.us/j/81780438239?pwd=cXdrRzdOODdjbU5rQmNFQzdCMkFVQT09>

Meeting ID: 817 8043 8239

Passcode: 577008

One tap mobile

+13052241968,,81780438239#,,,,\*577008# US

+13092053325,,81780438239#,,,,\*577008# US

### **Opportunity for Presenters**

MBGS is seeking volunteers to present topics related to Michigan geology for our 2022-2023 membership meetings. If interested, please contact Andrea Muñoz-Hernandez at [munozhernandeza@michigan.gov](mailto:munozhernandeza@michigan.gov) or at (517) 599-7525.

### **Core Display Educational Tool Available to Members**

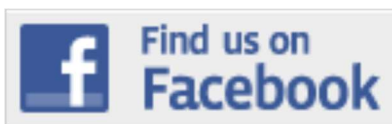
MBGS has a core display available for use that visually demonstrates permeability/porosity. There are educational posters available for use with the core display. Contact any of the officers to reserve this great educational tool.



### **MBGS Membership Dues – Deadline Extended to January 31, 2023**

MBGS continues to strive to provide a platform for geologist and environmental professionals to connect and offer learning and field trip opportunities. For 2022-2023, our annual dues are \$35. *Student Membership is free.* We now offer the option to renew your professional membership via PayPal. Please refer to the renewal notices that are included in the newsletter.

**Student Membership is free, see website for registration details.**



<https://www.mbgs.org>



## **January 2023 MBGS Virtual Membership Meeting**

**Presentation:** Seismic Receiver function analysis of the Michigan Basin

**Presenter:** Madeleine Tan, Undergrad Student, University of Michigan

**When:** January 18<sup>th</sup>, 7:00 PM, 2023

**Join Zoom Meeting:**

<https://us06web.zoom.us/j/81780438239?pwd=cXdrRzdOODdjU5rQmNFQzdCMkFVQT09>

Meeting ID: 817 8043 8239

Passcode: 577008

One tap mobile

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+13092053325,,81780438239#,,,,\*577008# US

### **Abstract: Seismic Receiver function analysis of the Michigan Basin**

The Michigan basin is an intracratonic basin approximately 400 km wide (Howell and Van der Pluijm, 1999). It is nearly circular, reaching the largest depth to the cratonic basin sequence in present day Saginaw Bay region. Previous receiver function analysis indicates Moho depth beneath the Michigan basin reaches 53 km, thinning out beneath its flanks (Moidaki et al., 2013; Shen et al., 2013). Stein et al., 2015 posit the Moho depth is on average 45 km beneath the Michigan basin, owing to the combined result of crustal thinning, post-rift volcanism, sediment loading, and basin inversion (Watts et al., 2018). My project focuses on new seismological constraints of the crustal structure beneath Michigan and the broader Great Lakes region using P-to-s receiver functions calculated from the recordings of distant (> 4,000 km) earthquakes at seismometers in Michigan. We will use USGS seismometers in the central US and U-M seismometers near Lake Erie (courtesy of Professor Yihe Huang) to measure variations of the thickness of the crust and sediments within and outside the Michigan Basin. New seismic analyses of the structure of the crust beneath Michigan and surrounding states will help place the Michigan Basin in a broader tectonic context and to constrain dynamic scenarios of its origin.

### **Biographical Sketch: Madeline Tan**

Madeleine Tan grew up in southeast Michigan and received her bachelor's in science in Earth Science and bachelor's in science in Interdisciplinary Physics from the University of Michigan in 2022. She is interested in geophysics, specifically seismology. Her undergraduate research projects have focused on analyzing receiver functions calculated from earthquakes recorded at stations in Michigan, as well as at stations around volcanoes in the Aleutian Islands, AK.

## **FROM THE PRESIDENT'S DESK**

### **A NOTE FROM JEN**

Happy New Year! I hope you've had a chance to unwind and relax over the recent weeks. I'm looking forward to sharing another year with you all and the geology of Michigan.



We all had a great time at the December dinner meeting at Coral Gables in East Lansing. We gave away fabulous prizes and had a good time re-engaging with friends that we had not seen in a while. The food was good, but the company was excellent! We all enjoyed Dr. Velbel's talk and learned a lot about meteorites. He even brought some samples for us to examine. It was truly an exciting time. A possible field trip to Michigan State University's Abrams Planetarium to view 8 of Michigan's meteorites may be in our future. Dr. Velbel even said he would be willing to be "docent" for us. So, what do you think? Should we start planning a trip?

### **What is it? A Survey!**

Last month's mystery "rock" was a "Christmas Ore". If you followed the web page link, you learned about the minerals that fluoresced red and green. I don't have a mystery rock for you this month, as I've been too busy eating too much and then trying to work off all of the calories.

But, I do have a survey that I would like you all to fill out and send in. To be honest, it's been challenging to get members to volunteer to be officers in the MBGS executive committee and it's always a challenge to find monthly speakers. We were hopeful that going back to in-person meetings after Covid would increase attendance at our monthly meetings. Sadly, that has not been the case.

So, in an effort to better fulfill our mission of providing a forum for the discussion and study of the geology of Michigan and the Great Lakes area through meetings and field trips, we are asking for your input. Please fill out the questionnaire at Survey Monkey <https://www.surveymonkey.com/r/JY9V385>

Although this is an easy way to electronically reply, the Survey Monkey charges for additional "comments", "other – please specify" fields. So, if you would like to make additional comments, suggestions, etc, please e-mail them to [jennifer.l.trout@wmich.edu](mailto:jennifer.l.trout@wmich.edu). If you would rather, you can fill out the attached Word document with space for adding comments and e-mail it to me or snail mail it to:

MICHIGAN BASIN GEOLOGICAL SOCIETY  
ATTN: Survey  
P.O. Box 14044  
Lansing, MI 48901, USA

Thanks,

*Jen*

# Future of the Michigan Basin Geological Society

## 1. Are you a member of the Michigan Basin Geological Society?

- ☐ Yes
- ☐ No

## 2. If not a member, what keeps you from joining or attending meetings and field trips?

- ☐ Not a convenient time
- ☐ Not a convenient location
- ☐ Need more relevant speaker topics
- ☐ Need better field trips
- ☐ MBGS duplicates what I get from other geological societies

## 3. Would you prefer in-person meetings or Zoom meetings that are also recorded for viewing at your leisure?

- ☐ In person
- ☐ Zoom with recording

## 4. Would you prefer monthly speaker meetings or 3 speaker meetings annually, with or without dinners (not recorded)?

- ☐ Monthly - as is
- ☐ 3 Meetings per year (Sept, Dec, March) with dinner
- ☐ 3 Meetings per year (Sept, Dec, March) without dinner
- ☐ None of the above

## 5. What is your preferred location for in-person meetings?

- ☐ East Lansing at MSU
- ☐ Lansing area not at MSU
- ☐ Grand Rapids
- ☐ Kalamazoo
- ☐ Mount Pleasant
- ☐ Rotating

## 6. What type of field trips would you prefer?

- ☐ Local - cheaper, one day excursions
- ☐ Travel - more expensive, 2-3 day excursions

## 7. Please provide any additional feedback on how MBGS can increase membership and participation in the society by sending an e-mail to [jennifer.l.trout@wmich.edu](mailto:jennifer.l.trout@wmich.edu). If you have specific speakers or topics you would like to hear or field trips you would like to see organized, please let us know. Are you willing to serve as a committee member?

- ☐ Yes
- ☐ No

## REFERENCES

*We are providing links for your reference. Please visit these sites to learn more about specific events and happenings. If you have an event to share, let us know!*



American Institute of Professional Geologist – Michigan Section – <http://mi.aipg.org/newsletters.htm>  
Central Michigan Lapidary and Mineral Society - <http://www.michrocks.org/>  
Eastern Section AAPG - <https://www.esaapg.org/>  
EGLE Calendar of Events - [Calendar \(michigan.gov\)](https://www.michigan.gov/calendar)  
Flint Rock and Gem - <https://flintrockandgem.org/events>  
Michigan Association of Environmental Professionals - <https://www.maep.org/>  
Michigan Basin Geological Society – [www.mbg.org](http://www.mbg.org)  
Michigan Clean Water Corps - <https://micorps.net/about/>  
Michigan Mineralogical Society - <https://www.michmin.org/>  
Midwest Mineralogical and Lapidary Society - <http://www.mmls.us/>  
Rock Clubs in USA - [All Mineral, Rock, Gem Shows, GeoSites, Rock Clubs in USA \(rockandmineralshows.com\)](http://rockandmineralshows.com)  
Society of Petroleum Engineers - <https://www.spe.org/events/calendar/>

## EVENTS

**January 10-12, 2023:** EGLE Soil Erosion and Sedimentation Control Plan Review and Training, [Soil Erosion and Sedimentation Control \(SESC\) Plan Review and Design Virtual Training \(michigan.gov\)](https://www.michigan.gov/soil-erosion-and-sedimentation-control-plan-review-and-design-virtual-training)  
**January 17-19, 2023:** Michigan Air Emissions Reporting System Training, [MAERS Webinar Series \(michigan.gov\)](https://www.michigan.gov/maers-webinar-series)  
**January 18<sup>th</sup>, 2023:** SARA Title III Tier Two in Person Workshop – Gaylord, [2023 SARA Title III Tier Two In Person Workshop - Gaylord \(michigan.gov\)](https://www.michigan.gov/2023-sara-title-iii-tier-two-in-person-workshop-gaylord)  
**January 19, 2023:** Remediation and Risk Management Series: Groundwater Modeling for Non-Modelers – Application and Case Studies, [Remediation and Risk Management Series: Groundwater Modeling for Non-Modelers - Application and Case Studies \(michigan.gov\)](https://www.michigan.gov/remediation-and-risk-management-series-groundwater-modeling-for-non-modelers-application-and-case-studies)  
**January 25, 2023:** SARA Title III Tier Two in Person Workshop – Grand Rapids, [2023 SARA Title III Tier Two Workshop - Grand Rapid \(michigan.gov\)](https://www.michigan.gov/2023-sara-title-iii-tier-two-workshop-grand-rapids)  
**February 01, 2023:** SARA Title III Tier Two in Person Workshop – Ann Arbor, [2023 SARA Title III Tier Two Workshop - Ann Arbor \(michigan.gov\)](https://www.michigan.gov/2023-sara-title-iii-tier-two-workshop-ann-arbor)  
**February 8, 2023:** SARA Title III Tier Two in Person Workshop – Lansing, [2023 SARA Title III Tier Two Workshop - Lansing \(In-Person\) \(michigan.gov\)](https://www.michigan.gov/2023-sara-title-iii-tier-two-workshop-lansing-in-person)  
**April 11-12, 2023:** EGLE MI Healthy Climate Conference, [MI Healthy Climate Conference - Michigan Department of Environment, Great Lakes, and Energy \(idloom.events\)](https://www.idloom.com/events/mi-healthy-climate-conference)  
**June 21-22, 2023:** Michigan Environmental Justice Conference [Michigan Environmental Justice Conference - Michigan Department of Environment, Great Lakes, and Energy \(idloom.events\)](https://www.idloom.com/events/michigan-environmental-justice-conference)

## ONLINE RESOURCES

American Geoscience Institute – Interactive Michigan Geology Maps: [Interactive map of the geology of Michigan | American Geosciences Institute](https://www.american-geosciences-institute.org/michigan-geology-maps)  
Digital Geology Library Overview: [https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20\\_307979\\_7.pdf](https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20_307979_7.pdf)  
GeoWebFace: [GeoWebFace \(michigan.gov\)](https://www.michigan.gov/geowebface)  
Digital Geology Library Mining Overview: [https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013\\_06\\_22\\_mining\\_425595\\_7.pdf](https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013_06_22_mining_425595_7.pdf)  
Michigan Geological Survey: [Michigan Geological Survey | Western Michigan University \(wmich.edu\)](https://www.wmich.edu/michigan-geological-survey)  
USGS Michigan Geological Map Data: [Michigan geologic map data \(usgs.gov\)](https://www.usgs.gov/michigan-geologic-map-data)  
CMU, Clarke Historical Library, Michigan Geology: [https://www.cmich.edu/library/clarke/ResearchResources/Michigan\\_Material\\_Statewide/Michigan\\_Oil\\_and\\_Gas\\_Industry/History\\_of\\_Michigan\\_Oil\\_and\\_Gas/Pages/Michigan-Geology.aspx](https://www.cmich.edu/library/clarke/ResearchResources/Michigan_Material_Statewide/Michigan_Oil_and_Gas_Industry/History_of_Michigan_Oil_and_Gas/Pages/Michigan-Geology.aspx)

## MICHIGAN BASIN GEOLOGICAL SOCIETY OFFICERS 2022-2023

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19275 Eight Mile Road, Stanwood MI 49346

W (231) 823-8451 [arlene.anderson-vincent@bluetriton.com](mailto:arlene.anderson-vincent@bluetriton.com)

**PUBLICATIONS: Open**

**ELECTRONIC PUBLICATIONS:** Please contact an officer for information

**WEBMASTER: JOHN ESCH**, [eschj@michigan.gov](mailto:eschj@michigan.gov)

# MBGS PUBLICATIONS

<http://www.mbgs.org/publications.html>

**Historical publications now available on USB Flash Drives". Each USB Flash Drive is 8GB**

Prices include postage, handling and any applicable sales tax.  
Orders for publications should be prepaid in U.S. Funds and addressed to:

MBGS — Publications  
P.O. Box 14044  
Lansing, MI 48901-4044

## **Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, 2000, \$15**

- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 19-20, 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 22-23, 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 16-17, 1949
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, Compiled by Erwin C. Stumm, Lewis B. Kellum and Jean Davies Wright, June 9-10, 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, Led by R. C. Hussey, June 2-3, 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 18-19, 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, Compiled by C. E. Prouty, Led by L. M. Cline, J. L. Hough and R. F. Black, 1960
- Classic Silurian Reefs of the Chicago Area, by Donald G. Mikulic and Joanne Kluessendorf, June 27, 1998
- Geology of Central Ontario, Canada, 1965

## **Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, 2001, \$15**

- Copper Country Field Trip, Michigan, June 20-22, 1947
- Geology of Mackinac Island and Lower and Middle Devonian, South of the Straits of Mackinac, June 12-14, 1959
- Tectonics, Structure and Karst in Northern Lower Michigan, August 1983
- Geology of the Pictured Rocks, Upper Peninsula, Michigan, July 11-13, 1991

## **Historical CD #3: Six out-of-print publications from 1948, 1952, 1990 - 1995, 2001, \$15**

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 18-21, 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 20-21, 1952
- Lower Ordovician and Upper Cambrian of Wisconsin, May 10-12, 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan September 12-13, 1991

## **Historical CD #4: Six out-of-print publications from 1957, 1958, 1961, 1967, 1968 and 1970, 2004, \$15**

- Silurian Rocks of the Northern Peninsula of Michigan, 1957
- Cambrian Geology of Parts of Dickinson and Iron Counties, Michigan, June 1958
- Geologic Features of Parts of Houghton, Keweenaw, Baraga and Ontonagon Counties, Michigan, May 19-21, 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan 1967
- The Geology of Manitoulin Island, June 1968
- Devonian Strata of Alpena and Presque Isle Counties, Michigan 1970

## **Historical CD #5: Five out-of-print publications from 1971, 1989, 2001, and Oil & Gas Fields Vol. 1 & 2, 1969 & 1992, 2006, \$50**

- Oil & Gas Fields Symposium, Volume 1, April 1969, 200 pp., maps, illus., second printing with updates
- Oil & Gas Fields Manual of the Michigan Basin, Volume 2, 1992, 520 pp., maps, illus.
- Glacial Geology of Southwestern Michigan, 1989, 53 pp. by A. Kehew, L. J. Schmaltz, and W. T. Straw
- Geology of the Lake Erie Islands and Adjacent Shores, 1971, 65pp., maps, illus. by Jane L. Forsyth
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, 2001, AAPG Eastern Section Meeting Field Trip, 32 pp., maps, illus. by A Kehew and A. Kozlowski



**Historical CD #6: Six out-of-print publications from 1946, 1953, 1963, 1966, 1978 & 1987 plus the Richfield Challenge, 1952 & Tom Knapp's MS Thesis, 2007 \$15.**

- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 12, 13, 1953 by W. H. Shideler and B. T. Sandefur
- Guidebook for Ontario Geological Excursion to Kettle Point – Owen Sound- Waubesa, June 21, 22, 23 1946 by W. A. Roliff, C.S. Evans and J.F. Caley
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May 31- June 2, 1963 by C. H. Summerson, Jane L. Forsyth, Karl V. Hoover and J. R. Ulteig
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 21, 22, 1966 by Merideth E. Ostrom
- Geology of the Manitoulin Area, Special Papers #3, September 29, 30 and October 1, 1978 by J. T. Sanford
- and R. E. Mosher
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 14, 1987 by Bruce Wilkinson
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952 by Gordon H. Hautan
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Masters Thesis, 1947 by Tom Knapp

**Historical CD #7: Field Guidebooks from 1962, 1969, 1977, 1980, 1985 & 1988, \$15**

- Silurian Rocks of the Southern Lake Michigan Area, 1962, James H. Fisher, Chairman, MBGS Annual Field Conference
- Studies of the Precambrian of the Michigan Basin, by Harold B. Stonehouse, 1969
- The Geology of the Marquette District: a Field Guide By F. W. Cambray, 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980, R.B. Votaw, 40 pp., illus., maps
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985 K.R. Cercione and J.M. Budai (eds.), 96 pp., illus.
- Upper Keweenaw Rift-Fill Sequence, Mid-Continent Rift System, Michigan, 1988, P.A. Daniels and R.D. Elmore, M.S. Wollensak, ed., 150 pp., illus., maps

**OTHER SPECIAL OFFERS**

- **Historical CD Set - # 1 – 7 (detailed above) for a special purchase price of \$95**
- **NE Lower Peninsula Geological Field Conf., 2004, T. Black, M. Wollensak, On CD \$10**
- **Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, \$4**
- **Robert E. Mosher Geological Studies** A lifetime of geological research on Silurian Rocks with John T. Sanford. The disks are organized chronologically and include field work in North America and Europe. 2007, 2 CDs \$35.



# The 2023 Friends of the Pleistocene Field Conference – Midwest cell

Roscommon, Michigan

May 19-21, 2023



**Trip Leader:** Randy Schaetzl, Department of Geography, Environment, and Spatial Sciences, Michigan State University [soils@msu.edu](mailto:soils@msu.edu) (517) 648-0207

**Trip co-leaders (alphabetical):** Alan Arbogast, Chris Baish, Brandon Curry, Kevin Kincare, Ken Lepper, Tom Lowell, Catherine Yansa

The 2023 FOP conference will be held at the Ralph A. MacMullen (RAM) Conference Center, 104 Conservation Drive, Roscommon, Michigan. ([MacMullenCenter@Michigan.gov](mailto:MacMullenCenter@Michigan.gov)) All registrants must lodge at the RAM Center, on the shore of beautiful Higgins Lake (exceptions can be requested – contact Randy Schaetzl). Registration fees cover lodging, all meals except Friday dinner, refreshments, and busing. Early registrants will be afforded single-occupancy rooms at the RAM Center. Later registrants risk being placed in double-occupancy rooms. Conference participation is limited to 64 persons.

## **Tentative schedule:**

Friday, May 19

4:00 pm. Arrival and check-in.

5:30 pm: Ice-breaker begins. (Dinner is on your own; we will provide a list of restaurants in nearby cities (Roscommon, Houghton Lake, Grayling.) Expect good conversation around the RAM Center's fire pits, right on the Higgins Lake shore.

Saturday, May 20

7:00 am: breakfast.

8:15 am: "Trip overview" presentation in the RAM Center theater. Bus departs at 8:45 sharp.

6:00 pm: arrival back at the RAM Center, and refreshments.

7:30 pm: banquet.

Sunday, May 21

7:15 am: breakfast. Bus and car caravan depart at 8:30 sharp.

2:00 pm: expected return to the RAM Center, and final departure.

## **IMPORTANT DATES**

Feb 1 – Registration opens. Registration fees are due at the time of registration.

April 15 – Last day to withdraw for full refund. (Later withdrawals receive half of their fees back.)

Please contact Randy Schaetzl with questions [soils@msu.edu](mailto:soils@msu.edu) (517) 648-0207



## Invitation to Submit an Article for

# ***The Professional Geologist (TPG) Student Edition***

**February 1st submittal deadline**  
**AIPG Second Quarter Publication (April/May/June)**

As the AIPG National Editor, I'd like you to submit an article for publication in [\*The Professional Geologist\*](#). Your contributions will enrich the content of [\*The Professional Geologist\*](#). We are not only looking for content for this edition, but for all future editions as well.

We are accepting articles for the Student Edition (April/May/June 2023). We want articles from students, faculty, and members alike. Student research projects, student life, and field camp are all great topics of interest to readers. Share your perspective! Faculty members, this is a great opportunity for publishing technical articles with students, as well as providing commentary on geoscience education, or other relevant topics. We are a diverse group of geoscientists, and we are looking for technical articles in your area of expertise, career experiences, advice to students, the state of the science, and other topics you feel would be of interest to our readers. We accept writings from non-members and encourage you to share this call for articles with your colleagues and the value of being an AIPG member.

Information on article requirements may be found at: <https://aipg.org/page/TPGArticleSubmittal>, but here are some points to keep in mind:

- please submit the article in MS Word format
- submit any graphics (figures, tables, photos, etc.) as a minimum 300 dpi image – do not imbed them into the document
- Please verify that you have permission to publish it if the graphic is not your own
- Please indicate if you are submitting the article for peer-review
- Please include a statement that the article has not been submitted to other journals for publication

The TPG editorial staff is supportive of new authors and experienced authors, and we are here to offer guidance and constructive reviews with the goal of helping you publish your best articles. Our mission is to advocate for the geosciences profession. We want to highlight the science and work done every day by the individuals, teams, and organizations who are part of our community.

The deadlines for the 2023 editions of *TPG* are as follows; however, please note that some articles may be reserved for future editions. Below are the deadlines; however, we encourage submissions at any time.

### **Issue Submission**

### **Submittal Deadline**

- |                             |              |
|-----------------------------|--------------|
| • January/February/March    | November 1st |
| • April/May/June            | February 1st |
| • July/August/September     | May 1st      |
| • October/November/December | August 1st   |

Please forward this email to anyone you think may be interested in submitting an article. Feel free to contact me if you have any questions; I'd be happy to discuss article possibilities with you. Thanks!

Adam W. Heft, CPG  
2023-24 AIPG National Editor  
Phone: 517-886-7400  
Email: [adam.heft@wsp.com](mailto:adam.heft@wsp.com)

**AIPG Michigan Section 19<sup>th</sup> Annual Golf Outing**  
**September 12, 2023 Golf Outing**  
**Fox Hills – Golden Fox Golf Course**  
**\*SAVE THE DATE\***

Greetings everyone! I am pleased to announce that this year's golf outing is scheduled and will be held on **September 12<sup>th</sup> 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 perineal sponsors. There are several different levels of sponsorship listed on the event page and event flier. 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 year 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 the our beautiful state of Michigan. It is open to everybody, so please come and take advantage of the opportunity that so many others have done in the past. You need not be an avid golfer to participate, all are welcome!

The registration will be open on **Wednesday, January 25<sup>th</sup>, 2023 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 @ [briggsk2@michigan.gov](mailto: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.

## State of Michigan Webinars

**January 18, 2023; 4:30 - 6:00 PM**

[Radioactive Michigan](#) January is National Radon Action Month, so our January webinar will bring EGLE's radiological protection team to EGLE Classroom! Learn what radioactive materials are found in Michigan, both naturally occurring and at nuclear power facilities, and find out how EGLE staff monitor sites, educate communities, and prepare action plans to protect the public.

**February 21, 2023; 4:30 - 6:00 PM**

[Charting Michigan's Course Toward Carbon Neutrality, Clean Energy, and Sustainability](#) Join EGLE's Sustainability Unit as they share the EGLE programs that work toward meeting the goals of the [Michigan Healthy Climate Plan](#). Learn how the programs EGLE funds catalyze energy transitions, sustainable development, and resilience in communities across the state.

**March 15, 2023; 4:30 - 6:00 PM**

[What Makes EGLE Spatial? How to ask and answer environmental questions with EGLE's Maps and Data Portal](#) Geographic data helps tell a story and create intelligence about the world around us. Join EGLE's Lead Geographic Information Systems (GIS) Analyst to discover how EGLE develops innovative geospatial solutions that analyze and visualize data to inform decisions, streamline workflows, increase productivity, and tell our story in every EGLE Division. Learn how you can access Michigan data from EGLE's Maps and Data portal that will bring environmental issues to life for your students, and how your students can collect, visualize, and analyze data of their own!

## State of Michigan Opportunities

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is currently recruiting for an Environmental Quality Analyst 9-P11 position within the Water Resources Division. This position is located at Constitution Hall, 525 W. Allegan Street, Lansing, MI. Interested applicants must apply through NEOGOV. [Job Posting](#)

The Michigan Department of Environment, Great Lakes and Energy (EGLE) is currently recruiting for an Environmental Quality Analyst 9-P11/12 (Project Manager) position for Remediation and Redevelopment Division, Superfund Section. This position is a permanent full-time position and is located in Lansing, MI. This position is open to all applicants. [Job Posting](#)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is currently recruiting for a Geological Technician 11 position within the Remediation & Redevelopment Division. This position is located in Lansing, MI and is open to all applicants. Interested applicants must apply through NEOGOV. [Posting](#)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is currently recruiting for a Student Assistant position within the Remediation & Redevelopment Division. This position is located in Lansing, MI. This position is open to all and interested applicants must apply through NEOGOV. [Job Posting](#)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is currently recruiting for a Departmental Analyst-E (Grants Analyst) position within the Water Infrastructure Financing Section of the Finance Division. The location of this position will be determined based on the selected candidate. This position is open to all and interested applicants must apply through NEOGOV.

[Job Posting](#)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) is currently recruiting for an Environmental Quality Analyst 9-P11/12 position within the Remediation & Redevelopment Division. This position is located in Jackson, MI and is open to all applicants. Interested applicants must apply through NEOGOV. [Click here for posting](#)





# SILENT MINERAL AUCTION

**Saturday**

**Student Center**

**February 18, 2023**

**Ballroom**

**5:00 - 8:00 pm**

**Second Floor**

Proceeds go to  
WSU's chapter of AIPG

**Tickets are \$5 at the door**

5221 Gullen Mall, Detroit, Michigan 48202  
Parking in Structure #2 or on Anthony Wayne Drive

# MICHIGAN BASIN GEOLOGICAL SOCIETY

# INVOICE

P.O. Box 14044  
Lansing, Michigan 48901

ACTIVE MEMBER ANNUAL DUES FEE:


INVOICE NUMBER	MBGS 2022-2023 Dues
INVOICE DATE	October 2022
OUR ORDER NO.	
YOUR ORDER NO.	
TERMS	30 Days
SALES REP	
SHIPPED VIA	USPS or EMAIL

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	ACTIVE MEMBER MBGS 2022-2023 Annual Dues	\$ 35.00	\$ 35.00
We now have an option to pay electronically using PayPal. If you prefer to submit your annual membership dues payment electronically, please visit the MBGS website at <a href="http://www.mbgs.org">www.mbgs.org</a>		SUBTOTAL	\$ 35.00
		TAX	
		FREIGHT	
			\$ 35.00
			PAY THIS AMOUNT

DIRECT ALL INQUIRIES TO:  
Peter Rose  
[RoseP1@michigan.gov](mailto:RoseP1@michigan.gov)

MAKE ALL CHECKS PAYABLE TO:  
Michigan Basin Geological Society  
Attn: Treasurer - 2022-2023 Annual Dues  
P.O. Box 14044  
Lansing, Michigan 48901

THANK YOU FOR YOUR CONTINUED SUPPORT!

Return this copy  
with payment