

ON THE ROCKS

A Newsletter of the Michigan Basin Geological Society



2020-2021 Edition 7

www.mbgs.org

April 2021



ANNOUNCEMENTS

We would like to invite all of you to attend a joint meeting of the AIPG Michigan Section and the Michigan Basin Geological Society. Our meeting will be on Wednesday April 14 beginning at 6:00 pm. We will start the evening with social time, bring your own beverage of choice, to catch up with colleagues and friends. Additionally, we hope students can take advantage of this time to converse with, and ask questions directly to professional geologists. The keynote of the evening will be a presentation by Adam Wygant, Director of EGLE-Oil, Gas, and Mineral Division, will present a perspective of the historical coal mining industry in Michigan. Other activities will be interspersed throughout the evening, including a live auction and trivia. The auction will include beautiful pieces of finished Michigan rocks (polished slabs, bookends, ...). So have your checkbook ready, and remember to bid high and bid often! Proceeds will go toward AIPG-MI and MBGS charitable causes. Please join us for a fun evening during these crazy times.

Hope to see all of you!

Bill Mitchell
AIPG Michigan Section President 2021

Chris Christensen
MBGS President 2021

OTHER NEWS

LED FIELD LENS AND MBGS LANYARD

The Michigan Basin Geological Society is offering geological field hand lens and lanyards. The field hand lens is a large 21mm lens with a 20X magnification. A pair of white LEDs provides illumination for all those darkened close-up viewing of rocks, minerals and fossils. A case is provided for the field lens with a key to remove the batteries. Batteries are included. The green lanyard has MICHIGAN BASIN GEOLOGICAL SOCIETY printed on one side of the 1" wide webbing. This lanyard is designed with a breakaway buckle clip and detachable keychain for versatile use and comfortable wearing. MBGS is offering the Lanyard/LED Hand Lens and Case combo for \$15 each and the Lanyard alone for \$5 each if picked up at a meeting or field trip. If you request to have your purchase mailed, standard costs for mailing container and postage will apply. Please contact Mark Wollensak at wollensak@att.net to order.





**Michigan Section American Institute of Professional Geologists
And Michigan Basin Geological Society
VIRTUAL JOINT MEETING ANNOUNCEMENT**



April 14, 2021

A PERSPECTIVE OF THE HISTORICAL COAL MINING INDUSTRY IN MICHIGAN

Featured Speaker: [Adam Wygant, Director of EGLE-Oil, Gas, and Mineral Division](#)

Location: Zoom Meeting

Time: Meeting Agenda: Welcome/Introduction 6:00 to 6:15, Social Networking 6:15 to 6:45, Trivia/Auction 6:45 to 7:15, Main Presentation 7:15 to 8:15, Wrap up 8:15 to 8:30

Zoom Link: <https://zoom.us/j/91433323285?pwd=ZEd4SVJqMWdpeDdvZjJSSkN1ZE1VUT09>

Abstract: Coal mining in Michigan was big business at one time, spanning from the late 1870's to 1952. This presentation will take an informative look at the geology and distribution of Pennsylvanian age coal deposits in Michigan and the history of Michigan's coal mining industry and related legacy issues. Abandoned coal mines in Michigan represent an ongoing geologic hazard which requires mitigation and planning. A case study of the impact of a Jackson County abandoned coal mine on a recent highway project illustrates the challenges of these anthropogenic geologic hazards. This retrospective look at a historic mining industry, now extinct in Michigan for 70 years, can give us insightful clues which are valuable to how we think about modern day mining and reclamation.

Speaker Bio:

Adam Wygant is currently the Director of the Oil, Gas, and Minerals Division of the Michigan Department of Environment, Great Lakes, and Energy and State Geologist. His current duties as a state policy executive, is the administration of regulatory programs involving several extractive industries and to work alongside of the Michigan Geological Survey. He is a graduate of Grand Valley State University and is an avid outdoor enthusiast.

Auction Items Below (Proceeds to the AIPG/MBGS charitable causes)



EVENTS

Many organizations have switched to virtual platforms or have cancelled events. 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 - https://www.michigan.gov/egle/0,9429,7-135-3308_3333---,00.html

Flint Rock and Gem - <https://flintrockandgem.org/events>

Michigan Association of Environmental Professionals - <https://www.maep.org/>

Michigan Basin Geological Society – www.mbgs.org

Michigan Clean Water Corps - <https://micorps.net/about/>

Michigan Mineralogical Society - <https://www.michmin.org/>

Mid-Michigan Rock Club - <http://www.midmichrockclub.com/?Page=1>

Midwest Mineralogical and Lapidary Society - <http://www.mmls.us/>

Society of Petroleum Engineers - <https://www.spe.org/events/calendar/>

Event Schedule

Michigan Basin Geological Society Monthly Meeting – 2nd Wednesday of each month

June 14-16, 2021: Annual Environmental Risk Management Workshop: “The Data Tell the Story” at the Ralph A. MacMullan Conference Center, Roscommon, Michigan.

ONLINE RESOURCES

- **Michigan Geology Maps Available:**
<https://www.michigan.gov/deq/0,4561,7-135-3304-116670--,00.html>
- **Digital Geology Library Overview:**
https://www.michigan.gov/documents/deq/GIMDL-Catalog-2010-01-20_307979_7.pdf
- **GeoWebFace:** https://www.michigan.gov/deq/0,4561,7-135-3311_60700--,00.html
- **Digital Geology Library Mining Overview:**
https://www.michigan.gov/documents/deq/GIMDL-Catalog-2013_06_22_mining_425595_7.pdf
- **Michigan Geological Survey:** <https://wmich.edu/geologysurvey>
- **USGS Michigan Geological Map Data:** <https://mrdata.usgs.gov/geology/state/state.php?state=MI>
- **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

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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- Waubauskene, 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. Cercone 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.



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Announcing
Grand Valley State University American Association of
Petroleum Geologists (AAPG) Student Chapter
◆◆◆ **Spring 2021 Virtual Speaker Series** ◆◆◆

Featuring professionals talking about their work in the petroleum industry and academia. Please join us for the full series or any part thereof.

To attend email a chapter officer or faculty advisor for *individual, non-transferable* zoom links: Ethan Gardner at garndneet@mail.gvsu.edu, Luke Ellermets at ellermel@mail.gvsu.edu, or John Weber at weberj@gvsu.edu

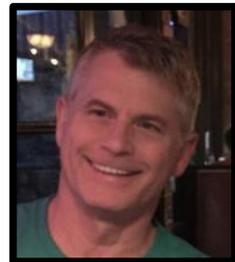
Monday 3/22 5pm William Defliese, School of Earth and Environmental Sciences, The University of Queensland, St Lucia, Queensland, Australia: “**The Impact of Snowball Earth Glaciation on Ocean Water $\delta^{18}O$ Values**”

William Defliese graduated from the University of Michigan with his PhD in 2014. He specializes in using geochemistry to study sedimentary systems. He completed several post-Doc appointments at some of the top labs on this topic before starting his academic position at the University of Queensland, Australia.



Friday 4/2 5pm David Buthman, (Chief Geoscientist Hilcorp Energy Corp.) Anchorage, AK: “**Terrestrial multi-ring impact structures as petroleum traps**”

David Buthman received his M.S. degree in structural geology from Southern Illinois University in 1982. Since, he has been busy solving complex structural puzzles for the oil and gas industry, having worked for both Unocal and Chevron before being promoted to his current position of Chief Geoscientist at Hilcorp Energy in Anchorage, Alaska.



Monday 4/12 4:30pm Jen DeLoge, Shell, Houston: “**Finding new life in old oil giants - UltraBrownfield Gulf of Mexico**”

Jennifer DeLoge is a GVSU-Geology alumna who went on to get a stratigraphy M.S. degree at MSU in 2009. Jennifer is currently a Senior Geologist at Shell in Houston, Texas. Jennifer has gained broad global experience working for Shell doing environmental hydrogeology, and petroleum exploration and production.

