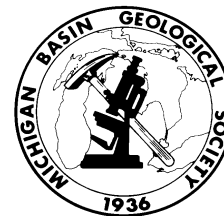




# ***ON THE ROCKS***

*A Newsletter of the Michigan Basin Geological Society*



2018-2019 Edition 5

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

January 2019

## **ANNOUNCEMENTS**

MBGS Membership Meeting, January 9th, 2019: Michigan Basin Geologic Society meeting will be hosted at Michigan State University in the Natural Science Building, East Lansing, Michigan. Roger D. Sharpe, United States Gypsum will present "The Multifaceted Role of the Industrial Minerals Geologist". Information is included in the newsletter.

## **2018-2019 Membership Dues**

It is time to submit 2018-2019 MBGS membership dues. Annual membership is \$25 for members and \$10 for students. Please fill out the appropriate membership form (included) and mail in with payment. *Members who have not renewed will stop receiving the newsletter.*

## **MBGS Publications**

There are two (2) new publications available! See details in the newsletter on page 7.

## **MBGS FIELD EXCURSION**

### **SPRING 2020 - GEOLOGICAL EXCURSION BY RAFT ON THE COLORADO RIVER THROUGH THE GRAND CANYON LEE'S FERRY TO WHITMORE WASH (PAGE, ARIZONA)**

A 7-day Grand Canyon rafting trip through Hatch includes: 188 miles of rafting from Lee's Ferry to Whitmore Wash, pre-trip stay at Cliff Dwellers Lodge, helicopter ride & return flight to Las Vegas or Marble Canyon, and meals, beverages, camping gear and dry bags provided by Hatch while on the river. Contact Mark Wollensak at [wollensak@voyager.net](mailto:wollensak@voyager.net) to get more information or reserve your spot on this trip.

## **OTHER NEWS**

### **LED FIELD LENS AND MBGS LANYARD AVAILABLE**

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@voyager.net](mailto:wollensak@voyager.net) to order.





**January MBGS Membership Meeting**  
**Roger D. Sharpe, United States Gypsum Company**  
**presenting**

***“The Multifaceted Role of the Industrial Minerals Geologist”***

**When:** January 9th, 2019. Executive committee meeting at 5:00 PM at Claddagh Irish Pub, Eastwood Towne Center, (members welcome), membership meeting and presentation at 7:00 PM

**Where:** Michigan State University, College of Natural Science Building, Room 204, 288 Farm Lane, East Lansing, MI 48823, (517) 355-4470

**Cost:** None

**Abstract:**

The Industrial Minerals Geologist provides expertise in a wide-variety of technical fields, in addition to geology. Companies that produce industrial minerals generally have very small geological/mining technical staffs resulting in the geologist performing numerous roles within the organization. There are no strict boundaries of areas of responsibility and the Industrial Minerals Geologist quickly finds that they have to be adept at acquiring new skills and responsibilities and able to jump into “the deep end” and learn quickly. The Industrial Minerals Geologist will find themselves handling property acquisition, environmental compliance, legal issues, and other problems that are not strictly geologic in nature. However, the knowledge of the geological environment as well as these other responsibilities provide the geologist with a more well-rounded experience of how their knowledge aids in the safe and efficient production of a wide variety of mineral products. The United States Gypsum Company, my employer, makes and sells over 400 different products, all starting with the gypsum rock found by geologist and mined from the ground.

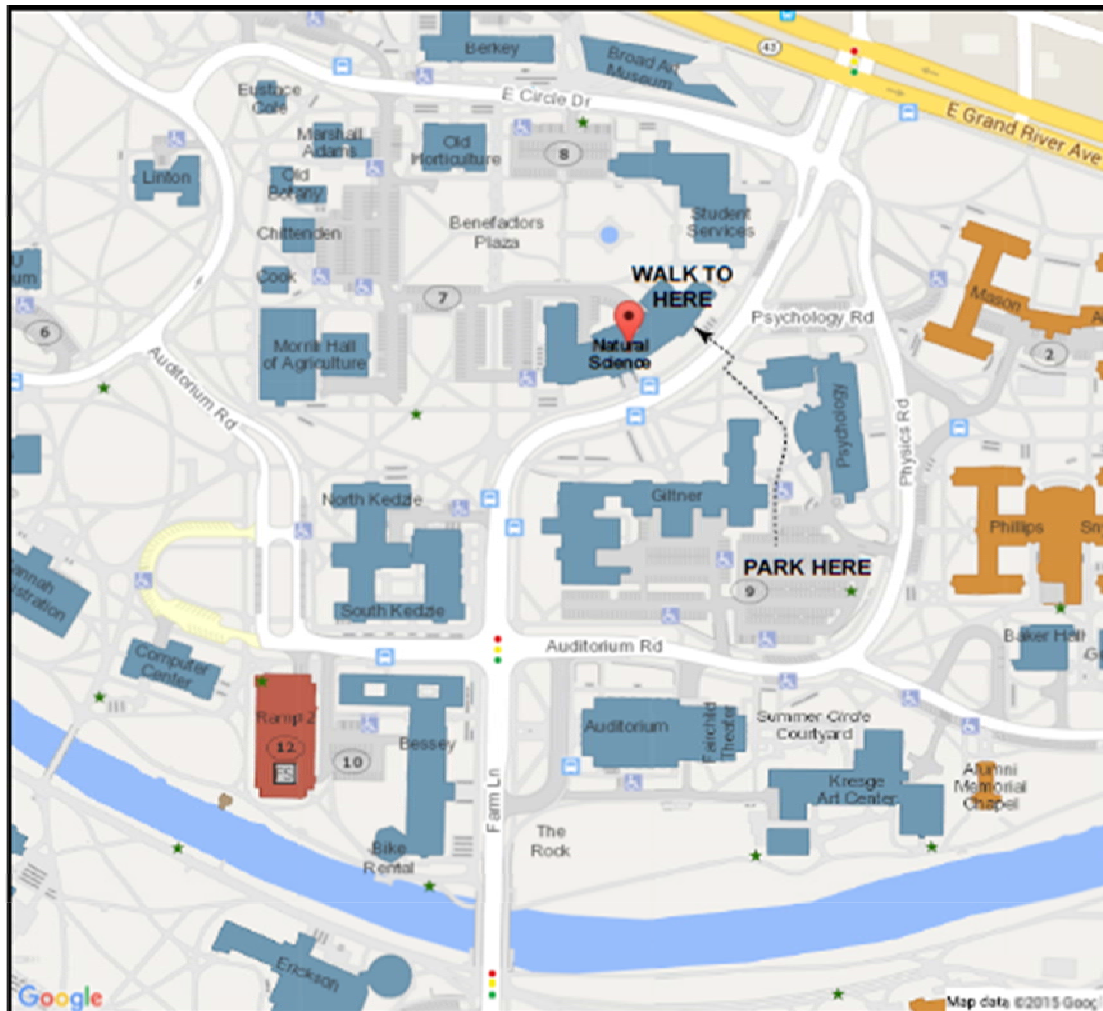
**Biography:**

**Education:** B.A. University of North Carolina at Greensboro – Major in Physical Geography  
M.S. University of Georgia – Petrology and Geochemistry of Southern Appalachian Ultramafic Rocks.

**Work:** Texas Bureau of Economic Geology – University of Texas at Austin (1978-1980)  
United States Gypsum Company – Began as Staff Geologist and advanced to Director, Geotechnical and Mining Services (1980 to present) [+38 years and counting].

**Professional Certification:** AIPG – Certified Professional Geologist  
Virginia – Certified Professional Geologist  
Indiana – Licensed Professional Geologist  
California – Professional Geologist

**Michigan State University –January 9<sup>th</sup>, 2019, MBGS Monthly Membership Meeting**  
College of Natural Science Building, Room 204,  
288 Farm Lane, East Lansing, MI 48823, (517) 355-4470



Between 5pm & 6pm you can park in Lot 9 behind Giltner Hall and the Psychology Building (former Physics and Astronomy building) for free. Otherwise you can try your luck with the metered slots clustered around the Natural Science Building and the adjacent Student Services Bldg, no charge after 6. MSU Interactive Map: <https://maps.msu.edu/>





## UPCOMING EVENTS

**March 5-6, 2019:** NGWA Groundwater Fly-In and Water Resources Congressional Summit, Washington DC,  
<https://www.ngwa.org/get-involved/advocacy/fly-in>

**March 15-17, 2019:** Michigan Gem and Mineral Society Show, Jackson, Michigan

**May 3-5, 2019:** 60th Anniversary Rock and Mineral Show “Rockrama”. Kalamazoo County Expo Center.  
Information is available at: [www.kalamazoorockclub.org](http://www.kalamazoorockclub.org)

**May 19-20, 2019:** AAPG Annual Conference and Exhibition, San Antonio, Texas  
<https://www.aapg.org/events/conferences/ace>

**June 3-5, 2019:** NGWA Field Methods: Groundwater Sampling and Analysis (Short Course #226), Westerville, Ohio, <https://www.ngwa.org/detail/event/2019/06/03/default-calendar/226jun19>

**June 10-11, 2019:** AIPG Michigan Section’s Environmental Risk Management Workshop at the Ralph A. MacMullen Conference Center in Roscommon, Michigan. Call for Abstracts coming in November 2018.

**June 19-20, 2019:** NGWA The PFAS Management, Mitigation and Remediation Conference (#5010), Westerville, Ohio, <https://www.ngwa.org/detail/event/2019/06/03/default-calendar/226jun19>

**October 11-13, 2019:** Michigan Mineralogical Society, “The Show” Greater Detroit Gem, Mineral, and Fossil Show. Information is available at: [www.michmin.org](http://www.michmin.org).

### **MDEQ Calendar of Training and Workshops**

[http://www.michigan.gov/deq/0,4561,7-135-3308\\_3333---,00.html](http://www.michigan.gov/deq/0,4561,7-135-3308_3333---,00.html)

# **MICHIGAN BASIN GEOLOGICAL SOCIETY OFFICERS**

## **2018-2019**

**PRESIDENT: ADAM W. WYGANT**, Division Director  
Michigan Department of Environmental Quality, Oil, Gas and Minerals Division,  
W (517) 897-4828, [wyganta@michigan.gov](mailto:wyganta@michigan.gov)

**VICE PRESIDENT: JENNIFER TROUT**, Staff Geologist  
Michigan Geological Repository for Research and Education  
1903 W. Michigan Ave., Kalamazoo, MI 49008-5241  
W (269) 387-8633 C (269) 290-4048, [jennifer.l.trout@wmich.edu](mailto:jennifer.l.trout@wmich.edu)

**SECRETARY: JOHN A. YELlich**, Director  
Michigan Geological Survey, Western Michigan University  
1903 West Michigan Ave, Kalamazoo, MI 49008-5241  
W (269) 387-8649 C (303) 901-2886; [john.a.yellich@wmich.edu](mailto:john.a.yellich@wmich.edu)

**TREASURER: MIKE POZNIAK**, Senior Geologist  
Arcadis  
300 S. Washington Square, Ste 315, Lansing, MI 48933  
W (517) 324-5054 C (517) 898-3839 [mike.pozniak@arcadis-us.com](mailto:mike.pozniak@arcadis-us.com)

**BUSINESS MANAGER: PETER ROSE**, Geologist  
Office of Minerals Management, Michigan Department of Natural Resources  
W (517) 284-5901, [RoseP1@michigan.gov](mailto:RoseP1@michigan.gov)

**PAST – PRESIDENT: PETER ROSE**, Geologist  
Office of Minerals Management, Michigan Department of Natural Resources  
W (517) 284-5901, [RoseP1@michigan.gov](mailto:RoseP1@michigan.gov)

**NEWSLETTER EDITOR: ARLENE ANDERSON-VINCENT**  
Nestle Waters North America  
19275 Eight Mile Road, Stanwood MI 49346  
W (231) 823-8451, [arlene.anderson-vincent@waters.nestle.com](mailto:arlene.anderson-vincent@waters.nestle.com)

**PUBLICATIONS: JOHN SHOOK**, [jshook@detroitssalt.com](mailto:jshook@detroitssalt.com)

**ELECTRONIC PUBLICATIONS: MARK WOLLENSAK**, CPG, [wollensak@voyager.net](mailto:wollensak@voyager.net)

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

# MICHIGAN BASIN GEOLOGICAL SOCIETY PUBLICATIONS 2018

*The following list details the contents of each available CD-ROM.*

*This list is also available on-line at <http://www.mbgs.org/publications.html>*

*Prices include postage, handling and any applicable sales tax.*

*Orders for publications should be prepaid in U.S. dollars and addressed to:*

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

## **HISTORICAL PUBLICATIONS DISK 1**

### **Nine out-of-print publications – Cost - \$15**

- The Stratigraphy of Manitoulin Island, Ontario, Canada, June 1954
- The Devonian and Silurian Rocks of Parts of Ontario, Canada and Western New York, June 1951
- The Traverse Group of the Northern Part of the Southern Peninsula of Michigan, June 1949
- The Devonian Strata of the London-Sarnia Area, Southwestern Ontario, June 1956
- The Ordovician Rocks of the Escanaba-Stonington Area, June 1950
- The Niagara Escarpment of Peninsular Ontario, Canada, June 1955
- Lower Paleozoic and Pleistocene Stratigraphy Across Central Wisconsin, May 1960
- Geology of Central Ontario, Canada, May 1965
- Classic Silurian Reefs of the Chicago Area, June 1998

## **HISTORICAL PUBLICATIONS DISK 2**

### **Four out-of-print publications – Cost - \$15**

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

## **HISTORICAL PUBLICATIONS DISK 3**

### **Six out-of-print publications – Cost - \$15**

- Pleistocene and Early Paleozoic of the Eastern Part of the Northern Peninsula of Michigan, June 1948
- Stratigraphy and Structure of the Devonian Rocks in Southeastern MI and Northwestern OH, June 1952
- Lower Ordovician and Upper Cambrian of Wisconsin, May 1990
- Guidebook to the Precambrian Geology and Metallogeny of the Central Upper Peninsula of Michigan, September 1991
- Diamond Bearing Kimberlite and Related Geology in the Upper Peninsula of Michigan, April - May 1993
- Karst Geology of Northeast Lower Peninsula, Michigan, April 1995

## **HISTORICAL PUBLICATIONS DISK 4**

### **Six out-of-print publications – Cost - \$15**

- Silurian Rocks of the Northern Peninsula of Michigan, June 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 1961
- Correlation Problems of the Cambrian and Ordovician Outcrops Areas, Northern Peninsula of Michigan, June 1967
- The Geology of Manitoulin Island, June 1968
- 1970 Field Excursions - Pleistocene, Devonian, Precambrian, May 1970



## **HISTORICAL PUBLICATIONS DISK 5**

### **Five out-of-print publications – Cost - \$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, September 1989
- Geology of the Lake Erie Islands and Adjacent Shores, 1971
- Glacial Geology of Southwestern Michigan, Landforms of the Lake Michigan Lobe, Southwestern Michigan, September 2001

## **HISTORICAL PUBLICATIONS DISK 6**

### **Eight out-of-print publications – Cost - \$15**

- Guidebook for Ordovician Stratigraphy of the Cincinnati, Ohio and Richmond, Indiana Areas, June 1953
- Guidebook for Ontario Geological Excursion to Kettle Point –Owen Sound- Waubesa, June 1946
- Guidebook for the Stratigraphy of the Silurian Rocks in Western Ohio, May - June 1963
- Guidebook for Cambrian Stratigraphy in Western Wisconsin, May 1966
- Geology of the Manitoulin Area, Special Papers #3, September - October 1978
- Middle Devonian Cratonic Carbonates and Shales in Southwestern Ontario, November 1987
- The Richfield Challenge, A Review of the Richfield Developments in Michigan, 1952
- A Theory of Rogers City and Dundee Relationships in Central Michigan, Tom Knapp Master's Thesis, 1947

## **HISTORICAL PUBLICATIONS DISK 7**

### **Six out-of-print publications – Cost - \$15**

- Silurian Rocks of the Southern Lake Michigan Area, 1962
- Studies of the Precambrian of the Michigan Basin, 1969
- The Geology of the Marquette District: a Field Guide, May 1977
- Ordovician and Silurian Geology of the N. Peninsula of Michigan, 1980
- Special Paper #4: Ordovician and Silurian Rocks of the Michigan Basin and its Margins, 1985
- Upper Keweenaw Rift-Fill Sequence, Mid-Continent Rift System, Michigan, September 1988

## **HISTORICAL PUBLICATIONS DISK 8**

### **Four out-of-print publications – Cost - \$15**

- Niagaran Stratigraphy: Hamilton, Ontario, 1972
- Silurian Reef-Evaporite Relationships, 1974
- Special Papers #1: Middle Devonian Stratigraphy and Depositional Environments in the Michigan Basin, 1974
- Sedimentology and Paleogeography of the Pennsylvania Strata of Grand Ledge, Michigan, May 1989
- Paleozoic Geology of the Central Upper Peninsula of Michigan, August 2014

## **HISTORICAL PUBLICATIONS DISK 9**

### **Five out-of-print publications – Cost - \$15**

- Geology and the Environment: Man, Earth and Nature in Northwestern Lower Michigan, 1973
- Special Papers #2: The Belle River Mills Gas Field: Productive Niagaran Reefs Encased by Sabkha Deposits, Michigan Basin, 1977
- Geohydrology of Carboniferous Aquifers of the Michigan Basin, September 1994
- Sedimentology, Paleogeography and Geochemical Weathering of the Pennsylvania Strata of Grand Ledge, Michigan, September 1994
- Geological and Historical Field Trip to the Keweenaw Peninsula: A Tribute to Douglass Houghton: "Michigan's Pioneer Geologist," Field Guidebook, September 2016

## **A DIGITAL PUBLICATION**

**Northeast Lower Peninsula Geological Field Conference, 2004, T.J. Black and M.S. Wollensak, 133 pp, illus., maps, digital presentations and posters (available on CD-ROM only). Cost - \$10**

- Road Log and Stop Descriptions by T.J. Black, D. Baxter and M.S. Wollensak
- Methane Gas Venting at Hemlock Lake, by T.J. Black
- The Glaciated Landscape in the Grand Traverse Bay Region of Michigan and the Nature of the Greatlakean Advance of the Laurentide Ice Sheet in Michigan, USA, poster by S.C. Lindstrom
- Thunder Bay Marine Sanctuary Sink Hole Investigations, poster by T.J. Black
- Evaluation of Relationships Between Hydrogeologic Environment and Petroleum Hydrocarbon Remediation in Quaternary Glacial Sediments, presentation by Lisa M. Botcher and Arden D. Davis
- Log Curve Amplitude Slicing of the Traverse Group in the Pentwater Field, Oceana County, Michigan, by Albert S. Wylie, Jr.
- Traverse Group Stratigraphy in the Michigan Basin - A Detailed Review, by Albert S. Wylie, Jr.

## **SPECIAL OFFERS**

- Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, **Cost - \$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 **Cost - \$35.**
- Historical CD Set - #1–#9 and 2004 NE LP Geological Field Conference (detailed above) for a special purchase price of **\$125 (best price for all).**

## **INTERESTING LINKS**

<b>Site Name</b>	Quaternary Sediment Thickness and Bedrock Topography of the Glaciated United States East of the Rocky Mountains
<b>Site URL</b>	<a href="https://pubs.er.usgs.gov/publication/sim3392">https://pubs.er.usgs.gov/publication/sim3392</a>
<b>Site Author</b>	David R. Soller and Christopher P. Garrity

<b>Site Name</b>	Perry-Castaneda Library Map Collection
<b>Site URL</b>	<a href="https://legacy.lib.utexas.edu/maps/map_sites/states_sites.html#N">https://legacy.lib.utexas.edu/maps/map_sites/states_sites.html#N</a>

<b>Site Author</b>	The University of Texas at Austin
<b>Description</b>	For more than 125 years, the University of Texas Libraries have committed to building one of the greatest library collections in the world Maintaining more than 10 million volumes and providing access to the latest digital journals, databases and web resources, the Libraries collects and preserves the finest achievements of human knowledge in support of not only research and instruction needs, but also the exploration of ideas and intellectual innovation.



# INVOICE

INVOICE NUMBER	N/A
INVOICE DATE	November 1, 2018
OUR ORDER NO.	N/A
YOUR ORDER NO.	N/A
TERMS	60 Days

Return this copy  
with payment

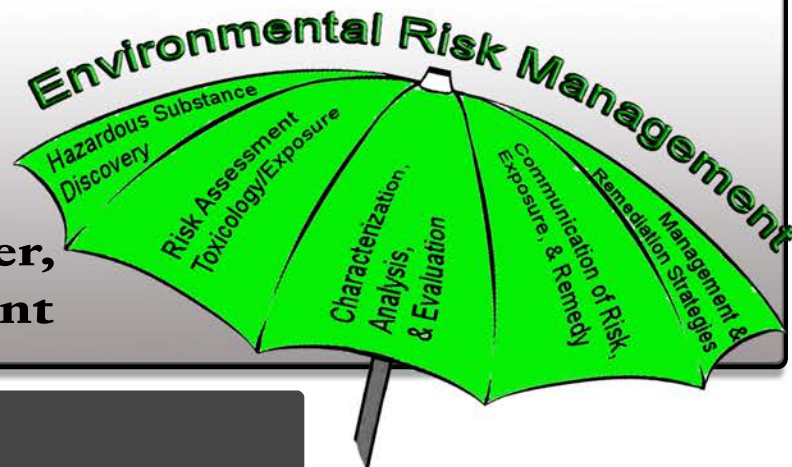
**THANK YOU FOR MAINTAINING YOUR MEMBERSHIP!**



*AIPG Michigan Section Announces the*

# 9<sup>TH</sup> ANNUAL

## Environmental Risk Management Workshop Hazardous Substances in Groundwater, Soil, & Vapors: The New Turning Point



## Call for Abstracts

The American Institute of Professional Geologists' (AIPG) Michigan Section is calling for abstracts for the 9th Annual AIPG Michigan Workshop to be held June 11-12, 2019, at the Ralph A. MacMullan Conference Center on Higgins Lake in Roscommon County, Michigan.

This 9th workshop in the series of annual training events hosted by the AIPG Michigan Section focuses on providing quality technical information and case studies. These environmental workshops bring together a broad base of topic expertise from consulting, regulatory, academic, and owner perspectives. This unique workshop forum promotes collaboration for solving tough environmental problems through real site case studies using innovative approaches as valuable technical learning tools to develop strategies for evaluating and managing risks associated with releases of hazardous substances to the environment.

The theme for this year's Environmental Risk Management Workshop is **Hazardous Substances in Groundwater, Soil, & Vapors: The New Turning Point**. Advances in science and technology along with the discovery of new contaminants has changed the way we investigate, remediate and manage risks from hazardous substances released to the environment. We are at a turning point in the environmental industry. In some situations, science and technology have resulted in greater accuracy and efficiency; in others, the advances raise more questions than answers; and as we are discovering, new situations where the science and technology are non-existent.

Hazardous substances volatilizing to indoor air from contaminated soil and groundwater is at the forefront of concern across the nation. In the past decade, we have learned more about these invisible threats and means for managing the risks associated with them. AIPG is dedicating an entire track at this year's workshop to vapor intrusion, requesting demonstration oriented presentations with opportunities for workshop attendee participation. Demonstrations featuring investigative, sampling, and analytical techniques are being requested.

In addition to the discovery, investigation, remediation, and management of vapors, the Michigan Section is also seeking abstracts for innovative and collaborative approaches to addressing and managing risks from contaminants in all media in case-study format.

The presentations in the 1st track at this workshop will feature the many aspects of the volatilization to indoor air pathway (VIAP) including investigation, sampling, analytical, and mitigation methodologies. The 2nd track will focus on innovative approaches to evaluating the risks, characterizing the contaminants, communicating the risks, and management and remediation strategies in all media. This workshop will provide thought-provoking, high quality technical presentations and discussions that have come to be expected of the AIPG Michigan Section's annual workshop. As professionals working in the environmental industry sharing the latest information on the advances in the science as well as the regulatory requirements and other legal issues, we can make better, informed decisions regarding the risks associated with these substances in the environment.



## Submittal Deadline: January 18, 2019

Complimentary room and board offered for up to two speakers for selected abstracts.

# *AIPG Michigan Section Guidelines for Abstract Submittal*

**IMPORTANT:** The following guidelines provide details on the style and format of abstracts. The AIPG Michigan Section appreciates your interest and submittal of quality abstracts. Thank you.

Abstracts shall be no more than one page in length, and all text shall be 12-pt Times New Roman font with single spacing with one-inch margins.

The abstract title shall be centered at the top of the page and be in bold 14-point Times New Roman font. Directly below the title, list the presenter's names and firm(s) followed below by the authors' names.

**Writing style should NOT be in first person.** Rather, please use third person and the correct verb tense (e.g. present, future, past). The abstract should include the nature of the work and its relationship to the Workshop theme and Environmental Risk Management, justification for the work, key/data findings and conclusions. Leave one blank line between paragraphs and other headings and text. Use right and left justification of all margins and do not indent paragraphs.

**Please do NOT indicate in the abstract that particular information will be discussed during the presentation.** The abstract should stand on its own merit and not point to the presentation that will be made at the Workshop.

Please add a notation in the header of the abstract indicating topic - emerging contaminant or pathway.

## **Information on Authors**

**Please include the following:**

### **Name of Presenter(s):**

Last Name, First Name, and Initial

Place of Employment, Job Title

Email Address and Work/Mobile Phone Number(s)

If there are more than two presenters, please list the two key presenters first.

### **Names of Other Authors:**

(Please include the information below for all key authors. If there are more than four authors, add the additional authors on a separate page.)

### **Name of Author(s):**

Last Name, First Name, and Initial

Place of Employment, Job Title

Email Address and Work/Mobile Phone Number(s)

**Abstracts Due: January 18, 2019 - Selection Notification: February 25, 2019**

**Submit to: [AIPG.MI.Section@gmail.com](mailto:AIPG.MI.Section@gmail.com)**

**Questions? Contact Co-Chairs: Sara Pearson ([pearsons@michigan.gov](mailto:pearsons@michigan.gov)) or Tammy Rabideau ([tammy.rabideau@ergrp.net](mailto:tammy.rabideau@ergrp.net)).**