

On the Rocks



A Newsletter of the Michigan Basin Geological Society

2005-2006 Number 1

www.mbgs.org

September 2005

EVENTS

September 14, 2005: MBGS meeting **A view of Michigan's glacial geology after a trip to Iceland**, speaker is **Kevin Kincare**. See abstract and biography below.

October 1, 2005: Once again **E.Z. Manos, Detroit Salt Company Manager**, will lead us on another tour of their salt mine. The Detroit Salt Company Mine has been in almost continuous service since 1910 mining at the 1,060' level in the Upper Silurian F Salt formation. There will be shifts at 8am and 11am limited to 12 each which will fill up fast so don't delay. Also, you must be a member of MBGS and at least 18 years of age. See the MBGS website, mbgs.org, for a membership application. Additional information below. Per usual we will be going to Vince's for excellent Italian food after the last shift.

October 12, 2005: Join us at the MBGS Mentors meeting to hear **Ken Petrie** discuss: **Winds of Change in Saudi Arabia**.

October 20, 2005: PTTC presents **Undiscovered Oil in the Michigan Basin, Part II**. See information below

November 2, 2005: The Society of Petroleum Engineers sponsors this months meeting with **Iskander Diyashev** looking at **The Oil Industry in Russia**.

2004-2005 MBGS Officers

The Executive Committee meeting minutes are available on the website.

PRESIDENT: DR. ROBB GILLESPIE,
WMU Geology Department
Ph: 269-387-5354, fax 269-387-5513
robb.gillespie@comcast.net or
robb.gillespie@wmich.edu

VICE PRESIDENT: ROBERT REYNOLDS,
Reynolds Geological, LLC
Ph: 517-676-9936, fax 517-676-8169
robb.gillespie@comcast.net

SECRETARY: DAVID BAXTER,
Petroda Resources
Ph: 517-669-5409
PetroDataRes@comcast.net

TREASURER & PUBLICATIONS: TOM HOANE,
FMFM, DNR
Ph: Bus 517-241-3769, fax 517-373-2443
hoanet@michigan.gov

BUSINESS MANAGER: LEONARD ESPINOSA
FMFM, DNR
Ph: 517-335-3248, Fax 517-373-2443
espinosl@michigan.gov

PAST-PRESIDENT: DR. MICHAEL GRAMMER,
WMU Geology Department
Ph: 269-387-3667, fax 269-387-5513
michael.grammer@wmich.edu

CO-FIELDTRIP DIRECTORS:
MARK WOLLENSAK, CPG
HAMP, MATHEWS & ASSOC, Inc.
Ph: 517-641-7333 Fax 517-641-7337
Cell 517-719-8321
wollensak@voyager.net

LEONARD ESPINOSA, FMFM, DNR
Ph: 517-335-3248, Fax 517-373-2443
espinosl@michigan.gov

NEWSLETTER EDITOR: TOM WELLMAN,
FMFM, DNR
Ph: 517-373-7666, Fax 517-373-2443
wellmant@michigan.gov

ELECTRONIC PUBLICATIONS, MARK WOLLENSAK
(see above)

WEBMASTER: GREG VARNUM
me@gregvarnum.com

University Talks and Seminars Websites

Western Michigan University:
www.wmich.edu/geology/SeminarGeos.html

Michigan State University:
www.glg.msu.edu/news/lectures.html

University of Michigan, Turner Lecture Series:
www.geo.lsa.umich.edu/announce/turner02b.html

Michigan AIPG Section website: www.aipg-mi.org.

MEETING CANCELLATION POLICY

Monthly meetings will be automatically cancelled whenever the National Weather Service issues a "Storm Warning" for the Lansing area. If driving conditions are poor but a "Warning" has not been issued please contact any member of the Executive Committee for the status of the meeting.

MICHIGAN BASIN GEOLOGICAL SOCIETY PUBLICATIONS

Historical CD #1: Nine out-of-print publications from 1949 through 1965 and 1998, Devonian to Silurian Rock Fieldtrips to MI, WI, IL and Ontario, 2000, \$15

Historical CD #2: Four out-of-print publications from 1947, 1959, 1983 and 1991, Northern Devonian and UP Fieldtrips in MI, 2001, \$10

Historical CD #3: Six out-of-print publications from 1947, 1959, 1983 and 1991, Northern Devonian and UP Fieldtrips in MI, 2001, \$12

Special Price - Historical CD #1, #2 & #3, \$30

Stratigraphic Lexicon for Michigan, 2001, prepared by MBGS and published by DEQ, 56 pp., chart, \$2.65 picked up or \$4 mailed, Can be ordered from MBGS or Geological Survey Div. of the DEQ

Price Includes postage, handling and any applicable sales tax. MBGS Members receive a 10% discount on MBGS publications. Orders for publications should be prepaid in U.S.

Funds and addressed to:
MBGS - Publications
c/o Dept. of Geological Sciences
206 Natural Sciences Building
Michigan State University
East Lansing, Michigan 48824-1115

MBGS Mug and Jacket Sale

The Michigan Basin Geological Society is offering mugs and jackets with the society logo for sale. The mugs are \$5.00 each. The jackets are \$60.00 each plus postage. Please contact Dan McGuire at: Phone (517) 772-5219, Fax (517) 772-7021, or danmcguire@sensible-net.com. Remember to include the correct size of the jacket and the quantity of each item. Checks should be made out to the MBGS.

DUES TIME AGAIN

Its time once again to renew your MBGS dues for the 2006 season, please take the time to return the information below with your dues. **Your newsletter editor encourages distribution by e-mail** as a more timely and cost efficient way to receive your newsletter. Timely renewal helps your officers plan for the upcoming year and is the best way to ensure there will be no interruptions in receiving your On the Rocks newsletter.

Michigan Basin Geological Society Dues Notice

Please fill out this form when paying your dues for 2005-2006. Dues are \$25.00 for active member and \$10.00 for students.

Name _____

Address _____

Phone _____

E-Mail _____

Amount enclosed _____

Send Newsletter by e-mail _____ or Mail _____ @ address above

Make check payable to: MBGS

Send to: Tom Hoane
1748 Danby Lane SE
Grand Rapids, MI 49506

MBGS Meeting

September 14, 2005 (WEDNESDAY)

**Coyote Creek
6951 Lansing Rd, Dimondale, MI.**

Schedule: 5:30 to 6:15 PM Social Hour
6:15 PM Dinner
Presentation after dinner

Cost \$25.00/member \$15.00 Student (includes dinner)

Topic: **“A view of Michigan's glacial geology after a trip to Iceland”**

By
Kevin Kincare

MBGS Dinner Meeting Reservation

Name _____

Number attending _____ Society _____

Enclosed Registration Fee _____

Please make checks payable to **MBGS** and return to Leonard Espinosa by **September 12, 2004**.
Members are welcome to attend the presentation after dinner for no charge. Please contact
Leonard Espinosa to ensure adequate seating. Send reservations to:

Leonard Espinosa
P.O. Box 18074
Lansing, MI 48901-8074
Ph: Bus Ph: 517-335-3248, Fax 517-373-2443
E-mail: espinosl@michigan.gov

A view of Michigan's glacial geology after a trip to Iceland

By Kevin Kincare

I had the opportunity to visit Iceland with a group from the University of Wisconsin in August of 2004. The purpose of the trip was specifically to examine the glacial deposits in Iceland and try to compare and contrast features seen in Iceland with those we see everyday in the Midwest (and maybe see some puffins). The large size of these glaciers and Iceland's (relatively) mild climate makes them a reasonable approximation to the North American ice-age glaciers. A number of observations were made by the group. Ice-marginal processes such as the delivery of meltwater and sediment to the proglacial environment were of particular (peculiar?) interest. We were able to traverse several glaciers, walk into abandoned meltwater conduits, and, since there are very few trees in Iceland, look across entire outwash plains to see the physical relationships between related landforms. An important aspect of our observations was a renewed appreciation for the work of Carl Koteff and his morphosequence concept.

Morphosequences are landforms can be traced from sub-glacial to sub-aerial ice-contact to proglacial types. Ice-front positions are determined by mapping the locations of ".ice-contact meltwater deposits, such as eskers or ice-channels fillings, kames, kame terraces [and] kame plains." (Koteff, 1974, p. 122). Morphosequence analysis is not just a morphologic examination of topography. It must also include the distribution of texture and sedimentary structures and reconstruct the grade and base-level relationships of the entire depositional sequence. The artesian head that develops within a glacier can be most impressive. While standing on the margin of Skaftafellsjokhul several fountains were emerging from beneath the glacier. Behind us was ice, in front of us was a river 30 ft wide and 6 ft deep flowing about 10 ft/sec. With the ice in general retreat in recent years, there are also opportunities to study deposits of diamict (till) in several forms; e.g. flow till, basal till, and supraglacial till. We even went underneath Skeidararjokhul to look at boulders embedded in the ice as well as basal ice and the layer of till between the ice and bedrock. The contact between basal ice and englacial ice is easy to see in some places.

Once back in Michigan it was time to sort out what was seen in Iceland with what we encounter here. Kettle holes, outburst floods, ice-marginal sequences, outwash fans, debris flows, englacial till, and collapsed topography seem to make a little more sense now as the glacial mapping program continues its exceedingly slow progress. The presentation will intersperse slides of features and stratigraphy seen in Iceland with maps and photos of glacial geology mapping being done in Michigan.

Biography

Kevin Kincare has a B.S. and M.S. in Geology from Western Michigan University and is currently working on a Ph.D. in Geology at Michigan State University. After an ill-fated career as an archeologist, Kincare became a state employee in 1982. He was hired into the hazardous waste program then spent a brief tour in the Cadillac field office before returning to Lansing to work in the hydrogeology group of the long-forgotten Ground-Water Quality Division. In a desperate attempt to escape from environmental lawyers, he transferred to the Geological Survey Division in 1991 and joined a cooperative glacial geology mapping effort with the US Geological Survey and the state surveys of Illinois, Indiana, and Ohio. Look for him appearing soon in a gravel pit near you.

MICHIGAN BASIN GEOLOGICAL SOCIETY FIELD TRIP

DETROIT SALT COMPANY MINE TOUR

1 October 2005

WHERE: Detroit Salt Company, 12841 Sanders Street, Detroit, MI 48217, 313-841-5144

WHEN: Saturday, 1 October 2005, two tours - 8am & 11am

COST: None

DRESS: The mine is 59°F so a light coat, jeans or field attire, and boots are required.

EQUIPMENT: Bring a sample bag along for salt specimens. Hard hats, a mine belt, and a mine light will be provided by the Detroit Salt Company.

PHOTOGRAPHY: Still cameras only. No video cameras please.

AGE LIMIT: 18 and above.

PARTICIPANT LIMIT: Twelve for each tour and **MBGS MEMBERS ONLY!** (Those on the waiting list and who are also MBGS Members, please confirm your reservation by Wed 21 Sep 05. After that it will be "first come, first served".

REGISTRATION DEADLINE: Wednesday 28 September 2005

LUNCH: After the last tour we will all descend on Vince's for a superb Italian meal as recommended by our tour leader, Emanuel Z. Manos.

DETROIT SALT COMPANY MINE TOUR

NAME: _____

ADDRESS: _____

E-MAIL ADDRESS: _____

TX#: _____ **FAX#:** _____

PLEASE MAIL, FAX, OR E-MAIL THIS FORM

TO: Len Espinosa, Forest, Mineral, and Fire Management, PO Box 30452, Lansing, MI 48909-7952; Fax# 517-373-2443, Tx# 517-335-3248, E-mail espinosl@Michigan.gov





PETROLEUM TECHNOLOGY TRANSFER COUNCIL

Michigan PTTC Center

Michigan Basin Core Research Laboratory

Western Michigan University

and the



MICHIGAN OIL AND GAS ASSOCIATION

Jointly present a one-day workshop

Part II--Undiscovered Oil and Gas in the Michigan Basin

At the Holiday Inn, Mt. Pleasant, MI, on October 20, 2005, from 8:00am to 4:00pm

Geoscientists from the United States Geological Survey, Western Michigan University, and the University of Houston will address these questions:

- How much undiscovered oil and gas still exists in the Michigan Basin?
- Which formations offer the best prospects?
- What is the potential for EOR through CO₂ sequestration in the Michigan Basin?
- How can you use the "petroleum systems" concept to develop exploration models?
- Which facies are the best oil and gas producing zones?
- How can you use information from modern depositional environments and their ancient analogs in exploration?
- How might new seismic imaging techniques provide the tools for new discoveries in Michigan?

A panel of Michigan independents will share their thoughts on these concepts.

Cores will be available from modern and ancient carbonate environments and from producing source rocks.