



# American Institute of Professional Geologists

## Michigan Section

April, 2008

### From the President's Desk

Finding the pathways to success...

In addition to the business of running Michigan Section, the Section Executive Committee has been focusing its efforts mainly on two fronts: 1) creating the AIPG Michigan Section Endowment (AIPG-MI Endowment) from the expected proceeds from the 2007 Annual Meeting, money raised from the Golf Outing Events, and Michigan Section general funds, and 2) moving the Professional Geologist licensure bill (PG Bill) through the State Legislature so that Governor Granholm can sign it into law. Our goal is to complete both of these items this year. These will have a positive impact on geologists in Michigan and on the public welfare and economy of Michigan.

The AIPG-MI Endowment requires the Section Executive Committee to be good stewards of Michigan Section's money. The creation of an endowment is somewhat complicated, because it will require oversight, decisions about how the money should be invested, how and who will receive scholarships, and the size of the scholarship(s). The Section's account is now at Fifth Third Bank, where we are considering creating the endowment. The Section Executive Committee is currently evaluating ways to disburse the scholarship(s). This hopefully will improve contact with the colleges and universities and provide a reason for those institutions to consider creating an AIPG Student Chapter.

As indicated, our goal is to have the PG Bill signed into law in 2008. The Section's legislative committee, chaired by Walter Bolt, with significant time and effort added by committee members Kevin Lund and Eric Wallis, is currently considering having Michigan Section prepare a White Paper on the subject. The purpose of the White Paper is to formally state the benefits of the PG Bill and bring attention and awareness to the need of establishing the law. The legislative committee hopes to have the White Paper prepared by May 1, and have the PG Bill introduced in the Michigan House or Senate in June. If you are interested in helping the legislative

committee, please email Mr. Walter Bolt or one of the members of the Executive Committee. We could really use your help and this is a very important issue to volunteer your time. More to come on this topic in the near future.

And now back to geology... The other goal of the Michigan Section is to highlight Michigan's geology and how it impacts on our lives. This includes the mining issues of the Upper Peninsula, the bedrock uses of the Michigan Basin, and water supply and contamination projects within Michigan's glacial drift. Our remaining presentations this year will focus on these topics along with our first Annual Field Trip to Rockport Quarry in Alpena and the Lafarge Presque Isle Quarry on a weekend in July or August.

We are working to provide you the very best speakers and presenters on Michigan geology. The next meeting's talk is detailed below. The fall meeting will be located in Lansing in October and will focus on mining issues in Michigan's Upper Peninsula. It is good for each of us to know and understand Michigan's mining geology and how it will impact the economy and environment. The December meeting will have a presentation on remediation hydraulics by Dr. Fred Payne and some of his findings on how to predict and control fluid movement in the subsurface. This meeting will likely be held in the Ann Arbor area.

We hope to see you at each of the meetings this year.

Timothy B. Woodburne, CPG  
AIPG Michigan Section President

### Section Meeting May 15<sup>th</sup>

The Michigan Section is pleased to announce that Dr. David Barnes (a geology professor at Western Michigan University in Kalamazoo, Michigan) will discuss "Addressing Climate Change through Carbon Capture and Geological Storage in Michigan" at the May 15, 2008 Section meeting. The meeting will be held at the Radisson Riverfront Hotel in Grand Rapids, Michigan.

## **Educational Advancement Award Information**

One of the primary missions of the Section is to increase interest in the earth sciences for children of all ages. We accomplish this mission by supporting local schools with educational grants for projects related to earth sciences. For those members who have been regularly attending the Annual Meeting, they are aware that the Section has been awarding educational grants to various schools for a number of years. The grants have ranged from \$500 to \$1,000 per award. Over the years, the number of applicants has been fairly small (2-3 applicants per year), this year I would like to see a significant increase in the number of grant applicants. Consequently, for those members who have children in school (any age group), please make your student's teacher aware of the grant opportunity. Given the current status of state funding, this is a great opportunity for the schools to potentially receive some additional funding for a specific project or resource need. Inquiries regarding educational grants can be directed to any member of the executive committee.

Jason Lagowski, CPG – 2008 Michigan Section Treasurer and Awards Chairman

## **Change in Newsletter Delivery Policy**

Over the past several years, the Michigan Section newsletter and meeting announcements have been delivered to members, nonmembers, and students alike either by email or regular mail. At its February 20, 2008 meeting, the Section executive committee adopted a new policy regarding delivery of the newsletter to help minimize expenses related to postal delivery.

Beginning with the first newsletter issue in 2009,

delivery will be by email. For those individuals that cannot or will not receive the newsletter electronically, a hard copy can be mailed; however, a \$15 yearly subscription (paid in advance) will be required. The subscription will be paid directly to the Michigan Section, and will be in addition to regular annual dues. For the remainder of 2008, the newsletter will continue to be delivered by either regular mail or email.

If anyone has any questions regarding the newsletter delivery, please contact either Tim Woodburne or Adam Heft.

## **Michigan Section Membership Challenge**

*The following membership challenge was submitted by Larry Austin just prior to the last Section meeting in an effort to encourage our student members to attend. The challenge has been slightly modified and is renewed for the May Section meeting. If the challenge is successful, it will likely continue for future meetings. The March meeting saw costs covered for four students to attend. The executive committee would like to see that number double for the May meeting. Please consider pledging your support by either offering to buy a student dinner or to transport them to the meeting.*

I have an offer for one of the student members. I'll buy dinner at the next AIPG Section meeting and provide transportation for one major if they are willing to attend the meeting. I hope other members will take up the gauntlet and help cover costs as well.

By way of providing this information to Adam, whom I hope will distribute it to everyone in the section, I'm also:

1. Issuing a challenge to other AIPG members to

**AIPG Michigan Section Officers** Scott Cesarz, Past-President, 734-397-3100, ([scesarz@manniksmithgroup.com](mailto:scesarz@manniksmithgroup.com)); Tim Woodburne, President, 616-364-8491 ([twoodburne@preinnewhof.com](mailto:twoodburne@preinnewhof.com)), Sara Pearson, Vice President, 616-356-0253, ([pearsons@michigan.gov](mailto:pearsons@michigan.gov)); Jason Lagowski, Treasurer, 248-994-2243 ([jason.lagowski@arcadis-us.com](mailto:jason.lagowski@arcadis-us.com)), Don Conway, Secretary, 231-933-5132, ([dgconway@goslingczubak.com](mailto:dgconway@goslingczubak.com)).

**Newsletter Editors** Adam Heft, 517-887-1100 ([hefta@fitzhenne.com](mailto:hefta@fitzhenne.com)) and Tyrone J. Black, 989-705-3402 ([blackt@Michigan.gov](mailto:blackt@Michigan.gov)).

**Committees** Awards, Jason Lagowski ([jason.lagowski@arcadis-us.com](mailto:jason.lagowski@arcadis-us.com)); Educational Outreach, Adam Heft ([hefta@fitzhenne.com](mailto:hefta@fitzhenne.com)); Membership and Student Chapters, Walter J. Bolt ([wbolt@manniksmithgroup.com](mailto:wbolt@manniksmithgroup.com)); Registration, Scott Cesarz ([scesarz@manniksmithgroup.com](mailto:scesarz@manniksmithgroup.com)); Screening, Kevin Lund ([klund@q-eri.com](mailto:klund@q-eri.com)); 888-417-4440; Student Chapters, Eric Wallis ([Ewallis@WM.com](mailto:Ewallis@WM.com)); Quarterly Meetings, Scott A. Cesarz, ([scesarz@manniksmithgroup.com](mailto:scesarz@manniksmithgroup.com)); Treasury, Bruce Beltman ([bbeltman@gwsi.biz](mailto:bbeltman@gwsi.biz)).

**Circulation** of the Michigan Section Newsletter is to over 330 members, a number of prospective members, several geology departments, and companies for a total over 500. Distribution is by USPS and e-mail notice of web posting. Copy in PDF format is posted at <http://www.mi.aipg.org>.

**Newsletter Sponsors and Advertisements:** The Sponsor section is \$15 per name or column inch for copy ready art. Copy preparation at an additional charge is available.

**Professional Postings:** The Professional Posting section, where you may advertise positions, is \$10 per column inch.

**Seeking Employment:** Members seeking employment may submit a 50-word listing at no charge.

**Articles:** The newsletter will feature topics on a quarterly basis, and will have a quarterly deadline for submissions. If you have ideas for topics or articles, query us or submit it!

**Authors' opinions** in articles are not necessarily the opinions of the Michigan Section or National Headquarters of the AIPG.

do the same.

2. Offering to provide transportation from my office to the meeting for up to five additional students if other members will pick up the cost of their meal.
3. In the unlikely absence of sufficient students to fill my Durango, offering to share the ride with other members in the Grand Rapids area.

For interested students, please submit your willingness to attend the meeting and accept one of the paid dinners to Adam Heft no later than April 30, 2008 so that reservations can be made. Paid student dinners will be available on a limited, first come, first served basis. Members that are willing to pay for a student to attend the meeting should also notify Adam as soon as possible so we will know how many students will have their costs and/or transportation covered and can confirm with the student(s).

Lawrence M. (Larry) Austin, CPG, CP

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## **Newsletter Notice via E-mail**

Save us costs and more quickly receive meeting announcements and newsletters. Submit an updated e-mail address to Adam Heft at [hefta@fitzhenne.com](mailto:hefta@fitzhenne.com). If you move or change places of employment, don't forget to send your new contact information to both the Section contact and to National.

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## **4<sup>th</sup> Annual Golf Outing**

This is a reminder that the 4<sup>th</sup> Annual Michigan Section Golf outing will be held at Lyon Oaks, located in Lyon Township on Tuesday May 20, 2008. Tee time is 9:30, lunch and dinner are included. See the attached brochure for details. Get your foursome together, and we hope to see you there!

2008 Golf Committee

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## **Why Did You Choose Geology as a Major in College?**

Field trips! Many of us chose a career in geology for the opportunity to be outside after all of those great experiences on the class field trips. The geology field trips were always the envy of the other sciences. We like being outdoors, exploring, collecting specimens, learning about new things, and enjoying a tasty beverage or two together.

In the spirit of enjoying the outdoors, collecting specimens, and enjoying the company of fellow geologists, the Michigan Section in conjunction with the Geologist Outreach Committee, has planned a field trip in late July or early August to visit the Rockport Quarry in Alpena and the LaFarge Presque Isle Quarry as a weekend trip. All interested geologists, not just AIPG members, including

Michigan Basin Geological Society (MBGS) members are invited to attend the weekend trip. Families are also invited. More details will be provided by special announcement in the next few months.

If you would like to assist or have suggestions for the quarry trip, please contact Sara Pearson at [pearsons@michigan.gov](mailto:pearsons@michigan.gov) or (616) 356-0253.

In addition to the planned quarry trip, there are several other upcoming field trips sponsored by the MBGS that AIPG members are welcome to join. These trips are listed in the "Coming Events" section of this newsletter. For more information on the MBGS trips listed below, please contact Mark Wollensak, CPG at [wollensak@hampmathews.com](mailto:wollensak@hampmathews.com) or (517) 641-7333.

Sara Pearson, Michigan Section Vice President

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## **Michigan Section Needs Leaders to Maintain Progress**

We are proud to be able to say that the Michigan Section of the AIPG is one of the more active sections in the country. Our membership is currently more than 300 geologists across the state. We hosted the National Annual Meeting in 2007 with great success. Our Annual Golf Outing is gaining in popularity going on its 4th year. We are striving to bring geologists together as a unified group with professional licensure. We are excited about our new opportunities with increased funding to provide scholarships to geology students. We are encouraging students to become members to provide networking opportunities for those seeking employment and those seeking quality applicants. This is an exciting time to be a member of the Michigan Section with so much momentum carrying us forward, but we cannot just ride this wave.

We are always looking for new prospects to advance geologists in this profession, and new perspectives are often a way of achieving this goal. We are seeking geologists who are willing to provide the leadership to carry on this forward momentum. Some examples of the opportunities that our talented geologists have for bringing their leadership, experience, and expertise to the Michigan Section include chairing committees, sponsoring student sections, and running for election to the Executive Board.

There are several committees that individuals may chair or participate in, including the screening committee, annual golf outing committee, and the professional licensure committee, etc.

We have active Student Chapters at Central Michigan and Eastern Michigan Universities. There are many more universities within the state offering

degrees in geology to students who could benefit from being members of AIPG by starting a Student Chapter. Larry Austin has issued a challenge to encourage more student participation by sponsoring a student at the Section meetings. This is a great opportunity for the students and the membership alike.

Election to the Executive Committee begins a five year commitment in which the membership votes every October/November for the new Secretary with the election results announced at the December Meeting.

The Secretary's duties include preparation for meetings, including compilation of the lists of attendees, printing nametags, and performance of other miscellaneous duties. After serving as Secretary for one year, the individual assumes the role of the Treasurer, who is responsible for maintaining the Section account, provide payments when necessary, and complete an annual tax summary.

The Vice President or President-Elect position provides assistance to the President as needed and has the honor of representing the Michigan Section at the Annual Meeting with funding for attendance provided by the Section, including travel, two nights stay, and fees for attendance at two events. I will be attending the 2008 Annual Meeting in Flagstaff, Arizona at the Grand Canyon. Upcoming meetings are planned to be held in Colorado in 2009; the DC area in 2010; Anchorage, Alaska in 2011; Florida in 2012; and Colorado again in 2013. The successful candidate elected to the Secretary's position this fall will be attending the 2011 Annual Meeting in Anchorage, Alaska!

The President selects topics to be discussed and speakers for the Section Meetings as well as heading up the Executive Committee. Upon leaving the office of President, the individual serves as an advisor to the group as Past-President for one year.

If you are interested in providing your leadership skills to Michigan Section, please contact the Executive Committee or forward your curriculum vitae and statement of purpose in writing indicating your reasons for wanting to become the next Secretary to Adam Heft at [hefta@fitzhenne.com](mailto:hefta@fitzhenne.com). All candidates will be announced in the newsletter prior to the election.

Sara Pearson, Michigan Section Vice President

## MDEQ-RRD Invites Participation From Stakeholders

A revised version of Operational Memorandum No. 4, Attachment 4 "Soil Gas and Indoor Air" will be available in April for peer review and comments.

The Michigan Department of Environmental Quality Remediation and Redevelopment Division (MDEQ-RRD) is inviting consultants to review the document and provide comments prior to releasing the document as a final version. Comments and reviews will be considered while the document is being finalized. If you would like to participate in the technical peer review process, please send your email request to Ms. Patty Brandt at [brandtp@michigan.gov](mailto:brandtp@michigan.gov). Ms. Brandt will forward a copy to you with further details on the length of the comment period and format for comments.

In addition to Attachment 4, the RRD is also preparing to release the Vapor Intrusion Technical Support Document for peer review and comments. If you would like to participate in the review of this document, please email your request to Ms. Brandt.

The RRD extends this invitation for peer review to several groups and individuals in an attempt to generate a broad spectrum of responses from stakeholders. If you have already submitted your request to participate in the peer review process for the two documents mentioned above, you do not need to submit another request.

Earlier this year, the RRD also invited volunteers to participate in the follow-up stakeholder process resulting from the recommendations of the Part 201 Discussion Group. Efforts are currently underway to formulate draft proposals that focus on key recommendations presented in the MDEQ Implementation Report and Action Plan for Michigan's Part 201 Environmental Remediation Program Review: Final Report and Recommendations dated November 28, 2007. The RRD anticipates that the draft proposals will be distributed to the volunteers with the intention of streamlining the review process by highlighting the major points to be discussed. In addition to the draft proposals, the RRD is also developing the framework for incorporating the recommendations into a complete program redesign. Updates on the progress of the draft proposals and the redesign of the Part 201 program will be given in future editions of the newsletter.

Sara Pearson, Michigan Section Vice President with Patty Brandt, MDEQ RRD Part 201 Specialist

## Coming Events

**May 2-4, 2008:** Michigan Basin field trip to the Niagara Gorge, Niagara Falls, NY. Friday Evening: Buffalo Geological Society's Annual Banquet and lecture by Dr. Rick Batt, "Fire Mountains, Flowing Ice, and Catastrophic Floods: a wander through the Pacific Northwest." Saturday: Hike into gorge and discuss Niagaran stratigraphy with Dr. Carlton Brett, Univ. of Cincinnati, and Dr. Gordon Baird, SUNY @ Fredonia. Saturday Evening: Dr. Marcus Bursik, SUNY @ Buffalo, to talk on "Geomorphology and Hydraulics of Niagara Falls." Sunday: Hike into 18 Mile Creek to review Devonian stratigraphy with Dr. Carlton Brett and Dr. Gordon Baird.

**May 15, 2008: AIPG Chapter Meeting:** "Addressing Climate Change through Carbon Capture and Geological Storage in Michigan" by David Barnes, Ph.D., Professor in the Geosciences Department at Western Michigan University.

Location: The Radisson Riverfront Hotel, Grand Rapids, Michigan.

Dinner: Choose from: Chicken Champagne, Fresh Whitefish, or London Broil. All entrees served with parsley red skin potatoes, fresh green beans almandine, house salad, warm rolls and butter and fruit pies.

Schedule: Cash Bar/Check-in 5:30 to 6:30 PM, Dinner: 6:30 Speaker: 7:30 to 9:00. Prize Raffle.

Cost: Students \$25.00, Members \$35.00, Non-members \$40.00.

**RSVP by May 9, 2008:** RSVP to Don Conway at [dgconway@goslingczubak.com](mailto:dgconway@goslingczubak.com). Notice by e-mail is preferred, and please include AIPG in the subject line. Don can also be reached at (231) 933-5132. Reservations not cancelled by May 12<sup>th</sup> will be billed. Checks to AIPG-Michigan.

Students attending the meeting and looking for full-time employment after graduation or a part-time summer position can bring several copies of their résumé. Leave one résumé at the sign-in desk upon arrival. Résumés obtained at the meeting are available to AIPG members seeking job candidates by contacting Kevin Lund, [klund@q-eri.com](mailto:klund@q-eri.com).

**May 5-8, 2008:** Brownfields 2008 Conference. The conference will be at the Cobo Center in Detroit. Information about the conference is available on the Brownfields 2008 website at: [www.brownfields2008.org](http://www.brownfields2008.org).

**May 6-10, 2008:** 54<sup>th</sup> Annual Meeting of the Institute on Lake Superior Geology. The conference will be at the Ramada Inn in downtown Marquette. Ted Bornhorst and John Klasner are Co-Chairs of the meeting. Technical presentations and field trips are part of the meeting. Additional information is available on the ILSG website at: [www.lakesuperiorgeology.org](http://www.lakesuperiorgeology.org).

**May 20, 2008:** 4<sup>th</sup> Annual Michigan Section Golf Outing. The 18-hole golf scramble supports the Michigan Section's grants and scholarships program, and will be held at the Lyon Oaks Golf Course in Wixom. Registration begins at 8:00 am, with a 9:30 am tee time. Cost is \$115 per individual, or \$420 for a foursome. Additional information is available on the attached flyer.

**June, 2008:** Michigan Environmental Compliance Conference. This MDEQ-sponsored, day-long conference will be offered on three dates in June in Boyne Falls, Kalamazoo, and Livonia. For additional information contact Jim Ostrowski at 517-241-8057 or Email at [ostrowskij2@michigan.gov](mailto:ostrowskij2@michigan.gov).

**August 9-10, 2008:** Michigan Basin field trip to Southern Indiana Karst Stratigraphy and Spelunking. Saturday: Spelunk Donohoe Cave in Bedford, IN area with Eastern Indiana Grotto guides. Additional caves if interested. Sunday: Return trip visits of outcrops to discuss Salem Limestone stratigraphy and karst features with Todd Thompson and Brian Keith, Indiana Geological Survey.

**September 20-24, 2008:** 45<sup>th</sup> AIPG Annual Meeting, held in conjunction with the 3<sup>rd</sup> International Professional Geology Conference. The meeting will be held in Flagstaff, Arizona. Details will be forthcoming in issues of TPG and on National's website at [www.aipg.org](http://www.aipg.org).

**September 2008:** Michigan Basin field trip to Copper Country, Houghton, MI. This four-day trip will include mine tours, rock collecting, a mineral museum tour and evening lectures. Trip leaders and lecturers will include Bill Haller, Dr. Bill Rose, MTU, and Dr. Larry Lankton, MTU.

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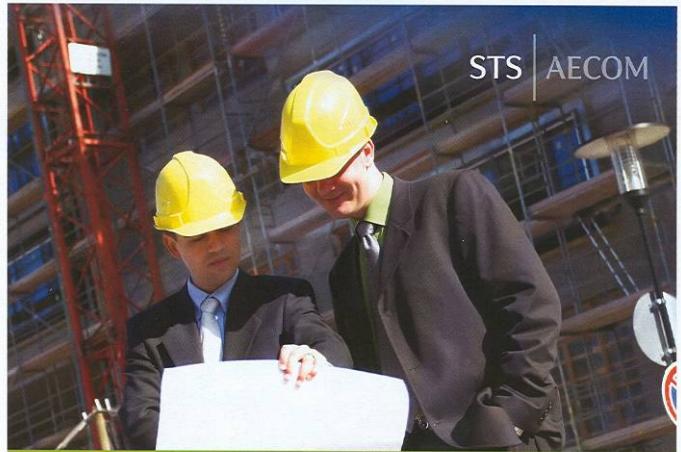
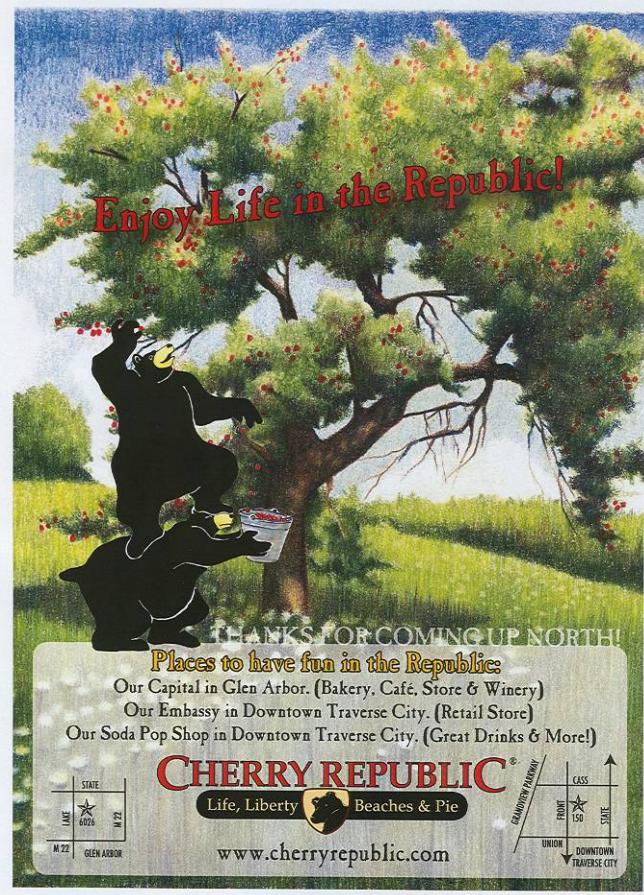
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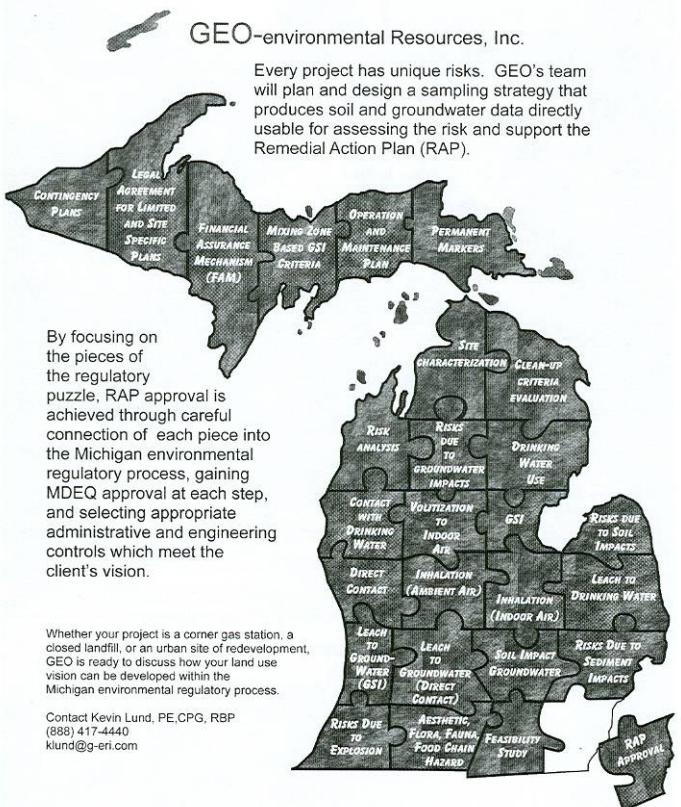
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## IN-DEPTH ENVIRONMENTAL LAW SERVICES

LOG OF ENVIRONMENTAL LEGAL SERVICES NO.: 1

Project: AIPG Annual Meeting  
Location: Traverse City, Michigan  
Date: October 7-11, 2007

Depth	Legend	Services Description	Proactive Problem Solving	Cost Effective	Successful	Str. %
1	Civil Litigation		Max.	+++	VVV	100
2	State/Federal Administrative Agency Proceedings		Max.	+++	VVV	100
3	Real Estate and Business Transactions		Max.	+++	VVV	100
4	Governmental Relations		Max.	+++	VVV	100
5	Toxic Torts		Max.	+++	VVV	100
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# AIPG – Fourth Annual Michigan Section Golf Outing

## Tuesday, May 20, 2008

### Sponsor Information

Dinner Sponsor- \$800

Investment includes:

- 1 foursome
- Signage at club house and lunch area
- Corporate recognition\*

Beverage Cart/Oasis Sponsors - \$500

Investment includes:

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

Tee Box/Award Sponsor - \$150

18 Available

Investment includes:

- Tee box signage
- Corporate recognition\*

Skill Sponsors – \$300

Investment includes:

5 Available

"Longest Drive" "Hole in One/Closest to Pin" awards to Male/female for each. Putting contest for \$\$, Signage on the hole or putting area, corporate\* recognition during the event.

Goodie Bag Sponsor - \$100 plus 144 goodie bag items

\*Dinner and Beverage Cart/Oasis Sponsors will receive AIPG membership. All sponsors will be recognized in the Quarterly News letter and on the Michigan Section Web Site through November 2008.

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: Lyon Oaks Golf Course

<http://www.oakgov.com/parksrec/ppark/lyon.html>

Event: 18-hole Scramble

Date: **May 20, 2008 Tuesday**

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

Tee Time: **9:30 AM**

Includes: Green fees, cart, range balls, lunch on the course, Networking Dinner and a raffle ticket for the grand prize.

50-50 raffle, and raffle the grand prize HDTV along with other prizes, "\$10,000 Hole in One" Ace, Trips, Putt for \$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.

Individual = \$115 Team = \$420 (4 players)

Player One: \_\_\_\_\_

Player Two: \_\_\_\_\_

Player Three: \_\_\_\_\_

Player Four: \_\_\_\_\_

Contact Name, Company and Phone Number for your Foursome  
\_\_\_\_\_

Make Checks to:  
**Michigan Section-AIPG**  
**C/O GEO-environmental Resources, Inc.**  
**2531 Jackson Road**  
**Suite #164**  
**Ann Arbor, Michigan 48103**

Contact:

Kevin Lund [klund@g-eri.com](mailto:klund@g-eri.com)

Bob Reichenbach  
[robert.Reichenbach@geotransinc.com](mailto:robert.Reichenbach@geotransinc.com)

CALL or FAX to reserve your place!

**888-417-4440**

The AIPG-MI Section is a nonprofit 501(c)(6) Organization

### Golfer Sign up Due by: **May 4, 2008**

# AIPG – Fourth Annual Michigan Section Golf Outing

## Tuesday, May 20, 2008

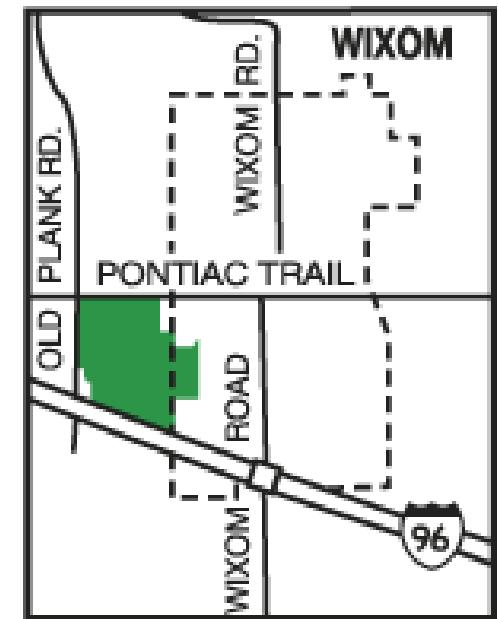


- Newest member of *Arthur Hills Golf Trail*, featuring acclaimed Art Hills courses throughout the state
- "Up North" feel in southwest Oakland County
- Par-72 championship golf course
- Get in the game faster - play afternoons 12:30 - 3:30 p.m.
- Hardwood forests and wetlands enhance natural golfing experience
- "Nature, Of Course!" interpretive signs along cart paths point out natural features of interest or significance
- Wide fairways enhance playability

- Arthur Hills-designed 18-hole course on 230 acres
  - Wetlands and ponds increase challenge of play
  - Sand bunkers and freshwater lakes provide a strategic challenge for accomplished golfers
  - Multiple tees on every hole make the course playable and enjoyable by all level players
  - State of the art practice facility with target greens and sand traps
  - Picturesque clubhouse with expansive views of the course accommodates parties of up to 450 for wedding receptions, banquets and educational meetings
  - Lyon Oaks County Park's day-use area features a 13-acre Dog Park and 2.5 miles of hiking trails
  - Day-use park area also includes a picnic shelter, playground and recreational fields
  - Trail head and parking for Lake Community Trail

### Accolades

- Garnered a 4.5 star rating by *Golf Digest 2007* and named the #2 course in Detroit to play in ESPN's *Sports Travel Golf Course Guide of the Best Places to Play*
- Named #4 in Jeff Lesson's Top 10 Public Golf Courses in southeast Michigan. (Lesson hosts "*Lesson on Golf*" on WXYT and WWJ radio stations)
- Named in 2005 Detroit Free Press *Top 10 Public Courses*
- Included in The Oakland Press' "*Ten to Try This Summer*" listing of Oakland County Public Golf Courses



**Michigan Chapter  
American Institute of Professional Geologists  
MEETING ANNOUNCEMENT**

**May 15, 2008**

**ADDRESSING CLIMATE CHANGE THROUGH CARBON CAPTURE  
AND GEOLOGICAL STORAGE IN MICHIGAN**

Featured Speaker: **David Barnes, Ph.D.**

Geosciences Department, Western Michigan University

**Location:** Radisson Hotel Grand Rapids Riverfront, Grand Rapids, MI (Maps attached)

**Cost:** Students \$25.00, Members \$35.00, Non-members \$40.00 Registration is payable at the door by cash or check; however, prepayment is preferred and speeds up the check-in process at the door. *Please note: Cancellations made within 24 hours of the meeting and/or "No Shows" will be charged and expected to pay the registration fee.*

**Dinner:** Choice of Chicken Champagne, Fresh Whitefish, or London Broil. All entrees served with parsley red skin potatoes, fresh green beans almandine, house salad, warm rolls and butter, and fruit pies.

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

**RSVP:** Don Conway, at [dgconway@goslingczubak.com](mailto:dgconway@goslingczubak.com) (preferred - put AIPG in the subject line) or (231) 946-9191 no later than May 9, 2008.

**Guest Speaker:** **David Barnes, Ph.D.** is a professor of geology in the Geosciences Department at Western Michigan University and the Michigan Geological Repository for Research and Education (MGREE). Dr. Barnes is a graduate of the University of California at Santa Barbara, and joined the WMU faculty in 1986 after several years of employment in the petroleum industry. His main area of expertise is sedimentary geology with an emphasis on the subsurface geology of Michigan.

Dr. Barnes is the project director for Michigan Basin Geological Carbon Storage studies in the Midwest Regional Carbon Sequestration partnership. He is interested and very active in addressing climate change issues through Green House Gas Emissions mitigation using Carbon Capture and Geological Storage Technology. Carbon Capture and Geological Storage technologies should play an important role in Regional Greenhouse Gas Reduction Programs in Michigan, especially in light of the recent commitment by the Michigan Governor's office to the Midwestern Governor's Association Greenhouse Gas Reduction Accord. We can do it here!

Regional geological carbon storage (GCS) capacity in the Michigan basin was reported in the DOE/NETL \*/Carbon Sequestration Atlas of the US and Canada (CSAUS&C)/\*. Substantial carbon storage potential (in excess of 86 billion metric tons of CO<sub>2</sub>) was identified in Michigan with a majority in saline reservoir formations including: Lower Paleozoic clastic and Middle Paleozoic mixed carbonate and clastic formations. Investigations were undertaken to refine these initial estimates with the objective of establishing the feasibility of GCS for point source emissions from several coal-fired electric power plants in Michigan.

Areal variation in geological carbon storage potential occurs in saline reservoirs due to variation in depth-related alteration and lithology. Lower Paleozoic, quartzose sandstone formations may have little effective porosity in the central basin below approximately 1.8 to 2.0 km depth. Lithologic/sedimentary facies variability in Middle Paleozoic mixed carbonate and clastic formations results in substantial areal variation in fundamental rock properties. Geological site characterization of saline reservoirs in central and west central Lower Michigan provide a more refined assessment of storage capacity relative to CO<sub>2</sub> emissions from nearby coal fired power plants. Using methodology modified from the \*/CSAUS&C, /\*estimates of storage capacity of the Mt. Simon Sandstone in Ottawa Co. are between 5000 and 15000 metric tons per acre and the combined storage capacity in the Sylvania/Bass Islands in Bay CO. is 700 to 2500 metric tons per acre. These localized estimates of storage capacity, along with computational reservoir simulations to address injectivity, can be used to evaluate the feasibility of GCS for existing large emission sources in Michigan.

# AIPG Section Meeting

## May 15, 2008

# **Radisson Hotel Grand Rapids Riverfront, Grand Rapids, Michigan**

# LOCATION MAPS

