

GEOBULLETIN

AUGUST 22, 2008

The GeoBadger Alumni Reunion

From Baraboo to Mars – GeoBadgers in the Field

September 25-27, 2008
Weeks Halls, Madison, WI

http://www.geology.wisc.edu/news_events/reunion08/

Welcome to all, new and old. May the year bring you personal growth and happiness as a member of the Weeks Hall family.

This is the first Geobulletin of the 2008-2009 school year. It is distributed weekly, on Friday by E-mail. Contributions are requested! Anything and everything (well almost) that you want to see in print. If you have a news item, a request, an announcement etc. email it to geodept@geology.wisc.edu. or leave it at the reception desk, Room 236 by noon on Wednesdays.

Welcome from the Chair **Cliff Thurber**

It is my pleasure to welcome you to the start of the fall semester. I have a great deal to learn as I begin my 3-year term as department chair, so my thanks in advance to all of you for your patience as I learn the ropes.

A special welcome goes to the 15 new graduate students joining our department this fall:

Erin Fenlon
Phillip Gopon
Andrew Honma
Jason Huberty
Scott Johnson
David Lovelace
Anosua Mukhopadhyay
Rachel Murphy
Summer Ohlendorf
Elizabeth Percak-Dennett
Anthony Pollington
John Schneider
Erin Stoesz

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David Ullman
Kelsey Winsor

There will be chances to meet and greet the new graduate students on Friday, August 29 in the Library around 2:45 PM, during the break between the new student orientation and TA training, as well as at the first of our regular “Weeks End” seminars starting around 5 PM that day (on the 4th floor balcony if the weather cooperates, otherwise in the Cline Lounge on the 2nd floor).

Other new members of the Weeks Hall community who joined us over the summer or are arriving in the fall include post-docs Ellen Syracuse and Noel Heim, and a number of visiting faculty: Tom Blenkinsop, Jim Evans, Suzanne Janecke, and Steve Wojtal; and also visiting scholars: Alan Matthews, Miryam Bar-Matthews, Yubing Sun, and Mei Zhang. Welcome to all, and my apologies if there is someone I have overlooked.

For those of you who are new to the department, please take the time to introduce yourselves to our excellent office and technical staff. These are the people who work hard both in visible places, like the main reception office, as well as behind the scenes, to keep our research and educational programs running smoothly.

Below is a list of staff, indicating their responsibilities and their contact information if you need their help.

Office Staff:

Jane Fox-Anderson (Student Records), Rm. 213, jefoxand@geology.wisc.edu
Shirley Baxa (Payroll & Benefits), Rm. 221, sbaxa@geology.wisc.edu
Christine Damon (Secretarial, Travel), Rm. 236, chrisk@geology.wisc.edu
Judy Gosse (Accounting), Rm. 217, judy@geology.wisc.edu
Jansi Prabakaran (Office Reception, Information), Rm. 236, jprabak@geology.wisc.edu
Michelle Szabo (Department Administrator), Rm. 225A, michelle@geology.wisc.edu

Technical Staff:

Ben Abernathy (Computer), Rm. 147, ben@geology.wisc.edu
Brian Beard (Radiogenic Isotope Lab), Rm. 309, beardb@geology.wisc.edu
Mary Diman, (Graphic Artist), Rm. 239, diman@geology.wisc.edu
John Fournelle (Electron Microprobe), Rm. 306A, johnf@geology.wisc.edu
Brian Hess (Thin Section Lab), Rm. 206, hess@geology.wisc.edu
Brian Jicha (Rare Gas Geochronology Lab) Rm. 335, bjicha@geology.wisc.edu
Jim Kern (Ion Microprobe Lab) Rm. 130-134 jkern@geology.wisc.edu
Noriko Kita (Ion Microprobe Lab) Rm. 145, noriko@geology.wisc.edu
Patrick Kuhl (Computer), Rm. 156, pkuhl@geology.wisc.edu
Neal Lord (Electronics), Rm. 146, lord@geology.wisc.edu
Lee Powell (Electronics), Rm. 146, leep@geology.wisc.edu
Lee Putman (Machine Shop), Rm. B148, put@geology.wisc.edu
Mike Spicuzza (Stable Isotope Lab), Rm. 337, spicuzza@geology.wisc.edu

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Librarians:

Marie Dvorzak, Rm. 440, mdvorzak@geology.wisc.edu

Toby Lathrop, Rm. 440, alathrop@library.wisc.edu

Building Manager:

Michelle Szabo – Primary Building Manager, Rm. 225A, michelle@geology.wisc.edu

Brian Hess – Back up Building Manager, Rm. 206, hess@geology.wisc.edu

ORIENTATION FOR NEW GRAD STUDENTS is Friday, August 29, 2008 --- 1:00-3:00 PM in Room A259. An orientation program for new TA's will follow. All new graduate students are expected to attend. New TA's are required to attend this session and the TA orientation session that follows (from 3-5 PM). Continuing grad students, faculty and staff are invited to the orientation and to join the students for refreshments in the Library around 2:45 PM during the break between new student orientation and TA training and/or come to Weeks End Seminar.

REMINDER --- The department offices on the 2nd floor will be closed on Monday, September 1st in observance of Labor Day. They will reopen Tuesday at 7:30 AM.

FACULTY MEETINGS --- The first faculty meeting of the year will be held Wednesday, September 3, 2008 at 3:30 pm. The remainder of the meetings for the first semester will be at the same time, same room and are scheduled as follows: September 24 (special meeting on the undergraduate curriculum), October 15, November 12 and December 10. There may be an additional special meeting on September 17. Council meetings will normally be held on the Wednesday one or in some cases two weeks prior to the faculty meeting.

GEOCLUB OFFICERS FOR THIS YEAR ARE AS FOLLOWS:

PRESIDENT ----- Amalia Doebbert

VICE PRESIDENT ----- Alex Teel

SECRETARY (T-shirt Czar) ----- Meg Dickoff

TREASURER ----- Melodie French

ELUCIDATOR ----- Eric Williams

FIELD TRIP ----- Andy Leaf

MONITORS ----- Andy Fraass (fall), Chole Bonamici, Eva Szilvagy

WEB CZAR ----- Joe Kington

SODA CZAR ----- Brett Carr (fall), Andy Fraass (spring)

AAPG:

PRESIDENT ----- Andrew Trzaskus

VICE PRESIDENT ----- Eric Williams

SECRETARY ----- JoAnn Gage

LECTURE SCHEDULE ---- All lectures (unless otherwise noted) are held on Fridays at 3:30 PM in AB20 (Laudon Lecture Hall). Coffee & cookies are served in the lobby starting at 3:15 PM.

FALL 2008 WEEKS LECTURE SCHEDULE

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September 05 -----

September 12 -----

September 19 ----- Henry Pollack --- University of Michigan

On Sept. 18 at 7 PM (supported by the UW Lectures Committee) his talk will be titled

"Scientific Uncertainty and Climate Policy: Moving on Without All the Answers"

On Sept. 19 at 3:30 PM (as part of the Weeks Lecture Series) his talk will be titled

"Earth's Changing Climate: View from Underground".

September 26 ----- Reserve for Alumni event and BOV

October 3 ----- David Blake --- NASA

October 10 ----- Glenn Spinelli --- New Mexico Tech

October 17 ----- John Tarduno --- University of Rochester

October 24 ----- Donald Mkhonto - UW

October 31 ----- Rick Law – VPI

November 7 ----- Peter Mozely – New Mexico Tech

November 14 ----- Steve Wojtal – Oberlin College

November 21 ----- Joseph Licciardi --- University of New Hampshire

November 28 ----- Thanksgiving Recess

December 5 ----- David Deamer

December 12 ----- Stephen Hasiotis

December 19 -----

POSITION OPENINGS:

- **The Department of Geological Sciences at the University of Minnesota Duluth** invites applications for a one-year, 2008-2009, sabbatical replacement in the area of *Structural Geology and Tectonics*.
- **The Commissariat for the Energy of the Atom (French Nuclear Agency)** is seeking a motivated candidate for a one-year funded, one-year renewable postdoctoral research position.
- **The Department of Geology at University of Wisconsin Oshkosh** - part-time lecturer to teach Geochemistry (369) in Fall Semester, 2008
- **Deister Concentrator, LLC** - Mining Separation & Classification Equipment Sales Representative
- **Houston Energy Fellow and Flagship Graduate Research Assistantship in Isotope Biogeochemistry and Geomicrobiology**, Department of Geology & Geophysics, Louisiana State University, Baton Rouge, LA, USA.
- **The Climate and Environmental Physics department at University of Bern** announces the availability of a full-time position for a lab technician or equal qualifications. The position is funded for three years with hope for prolongation.
- **The University of Michigan's Departments of Geological Sciences (GS) and Atmospheric Oceanic and Space Sciences (AOSS)** announce five tenure-track positions in the field of **Global Change: Cryosphere and Sea-Level Impacts**.
- **The Department of Geology, Geography and Environmental Studies at Stellenbosch University** is pleased to announce the availability of a position as **Lecturer in Geosciences**.

POSITION OPENINGS:

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The Department of Geological Sciences at the University of Minnesota Duluth invites applications for a one-year, 2008-2009, sabbatical replacement in the area of *Structural Geology and Tectonics*. This short notice is a consequence of a move to administration by one of our faculty. Start date is Sept. 2, 2008 (or earlier). Master's degree or advanced standing in a Ph.D. program in geology, geological sciences, geophysics, or closely related field is required. Ph.D. is preferred. We seek applicants with an excellent understanding of fundamental physical principles and processes and a demonstrated ability to apply that understanding in a quantitative manner to important problems in Earth Sciences. Salary will be competitive and the position includes benefits.

Duties/Responsibilities: the successful applicant will be required to teach an introductory course in Earth's Resources (GEOL 2350) during fall semester and Structural Geology (GEOL 4450, senior level) and an upper division/grad level course in Tectonics (GEOL 4480). The successful candidate will also have the opportunity to supervise undergraduate research or to help with advising graduate research if desired. UMD is a medium-size comprehensive public university in a splendid natural setting on the north shore of Lake Superior. The program in Geological Sciences offers undergraduate and graduate degrees in a wide range of earth science disciplines.

Interested candidates should attach a cover letter, curriculum vitae, three references (including name, address, phone, and email address), transcripts, along with a brief written statement of teaching and research interests. Please send the information to Howard Mooers, Head, Geological Sciences, 230 Heller Hall, 1114 Kirby Dr. Duluth, MN 55812. email: hmoors@d.umn.edu.

The selection committee will begin its review of complete applications as they come in. The position will remain open until filled.

The University of Minnesota is an equal opportunity educator and employer.

The Commissariat for the Energy of the Atom (French Nuclear Agency) is seeking a motivated candidate for a one-year funded, one-year renewable postdoctoral research position. The goal of the post-doctoral study is to provide a thorough knowledge of the fundamental structure and molecular-scale reactivity of uraninite (UO₂) surfaces contacted with aqueous solutions. This knowledge is desirable to build robust models of long-term behavior for spent nuclear fuel in nuclear waste repositories.

The first aim of the post-doctoral assistant will be to investigate the atomic-scale structure, surface relaxation and reconstruction of selected uraninite surfaces (e.g., <001>) in contact with water, by using high-resolution X-ray reflectivity. Next, the kinetics and mechanism of surface dissolution and transformation will be probed by in situ coupled flow-through dissolution and reflectivity studies. These results will be combined to place constraints on the dissolution mechanism, and thus derive a molecularly sound model of uraninite dissolution. The position will be located in the research center of Saclay (about 20 km or 13 mi southwest of downtown Paris). X-ray reflectivity experiments will be carried out at the ESRF, Grenoble.

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The applicant should hold a PhD degree for less than two years. An experience in surface characterization techniques using X-ray is desirable. The position is open to both French and foreign candidates.

Please send your application, including a resume, list of publications and communications, and list of references to Dr Michel Schlegel (michel.schlegel@cea.fr).

The Department of Geology at University of Wisconsin Oshkosh is looking for a part-time lecturer to teach Geochemistry (369) in Fall Semester, 2008. This is a three-credit course without a laboratory. Applicants must possess a master's degree in the appropriate discipline. Ph.D. or equivalent preferred. Send letter of interest and resume to: Chair, Department of Geology, University of Wisconsin Oshkosh, 800 Algoma Blvd., Oshkosh, WI 54901. Have three letters of reference and transcripts sent to the same address. Screening will begin August 12, 2008 and continue until the position is filled.

Deister Concentrator, LLC

Job Description

Job Title: Mining Separation & Classification Equipment Sales Representative

Department: Sales

Reports To: The Sherman Group

FLSA Status: Exempt

Prepared By: John Rivera

Prepared Date: 7/1/08

Summary Sells separation and classifying equipment such as cyclones, sieve bends, and shaker tables by performing the following duties.

Qualifications To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education and/or Experience

Bachelor's degree (B. A.) from four-year college or university; or one to two years related experience and/or training; or equivalent combination of education and experience.

Mathematical Skills

Ability to comprehend and apply principles of advanced calculus, modern algebra, and advanced statistical theory. Ability to work with concepts such as limits, rings, quadratic and differential equations, and proofs of theorems.

Computer Skills

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To perform this job successfully, an individual should have knowledge of Contact Management systems; Spreadsheet software and Word Processing software.

Certificates, Licenses, Registrations

Current valid driver's license

Other Qualifications

Must be able to travel up to 50% of the time.

Physical Demands The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this Job, the employee is regularly required to talk or hear. The employee is frequently required to stand; walk and sit.

Work Environment The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this Job, the employee is occasionally exposed to moving mechanical parts and outside weather conditions. The noise level in the work environment is usually moderate.

Competencies

To perform the job successfully, an individual should demonstrate the following competencies :Customer Service - Manages difficult or emotional customer situations; Responds promptly to customer needs; Solicits customer feedback to improve service ; Responds to requests for service and assistance; Meets commitments.Interpersonal Skills - Focuses on solving conflict, not blaming; Maintains confidentiality; Listens to others without interrupting; Keeps emotions under control; Remains open to others' ideas and tries new things.

Reasoning Ability

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

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Houston Energy Fellow and Flagship Graduate Research Assistantship in Isotope Biogeochemistry and Geomicrobiology, Department of Geology & Geophysics, Louisiana State University, Baton Rouge, LA, USA.

A four-year PhD assistantship is available in the Department of Geology and Geophysics, Louisiana State University. The research project will utilize multiple stable isotopes to study denitrifying and sulfate-reducing microorganisms to understand modern and ancient metabolic processes. The applicant should have a strong academic background in geology, aqueous geochemistry, and/or microbiology. Excellent oral/written communication skills and teamwork spirit are essential.

The assistantship includes a stipend of \$25,000, summer support, and \$3000 for additional research expenses. Funding is in place to begin work as early as January 2009. Please contact Dr. Annette Engel (aengel@lsu.edu) or Dr. Huiming Bao (bao@lsu.edu) for more information. Visit <http://www.geol.lsu.edu/> for details about our department.

**Position announcement:
Physics Institute University of Bern (Climate and Environmental Physics)
Lab Technician**

Position: The Climate and Environmental Physics department at University of Bern announces the availability of a full-time position for a lab technician or equal qualifications. The position is funded for three years with hope for prolongation.

Background information: The ice core group at the Climate and Environmental Physics department is one of the leading labs analyzing greenhouse gas concentrations from deep ice cores drilled in Antarctica and Greenland. Within the EPICA project, two deep ice cores were drilled on the East Antarctic Plateau providing a large suite of climatic records over the last 800.000 years. While the concentration measurements of the greenhouse gases CO₂, CH₄ and N₂O are well established, the analysis of their stable isotope signature is more challenging and extraction methods are in the phase of development or being optimized. For this purpose a new stable isotope laboratory is currently built up. At present, it consists of one Thermo Finnigan MAT 253 coupled to a periphery for d13C on CO₂ extracted from ice cores. Two GVI-Elementar Isoprimes arriving soon will be dedicated for dD and d13C on CH₄.

Responsibilities and duties: Key duties of the position comprise the assembly of a melt extraction line for CH₄ d13C analysis, followed by routine measurements of ice core samples after the system was successfully set-up and thoroughly tested. Besides this, the duties include sample preparation, like cutting of ice cores as well as maintenance of the devices.

Desired skills: Hands-on experience with gas chromatography and IRMS mass spectrometers and continuous flow peripherals, including development of new techniques. Preference will be given to candidates with additional skills and experience in electronics, instrument design and development or computer programming for real-time instrument control.

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Application closing: Review of applications will begin September 1st and will continue until the position is filled. The position begins at October 15th.

To Apply:

Climate and Environmental Physics
Physics Institute, University of Bern
Prof. Hubertus Fischer
Sidlerstrasse 5
CH-3012 Bern

The University of Michigan's Departments of Geological Sciences (GS) and Atmospheric Oceanic and Space Sciences (AOSS) announce five tenure-track positions in the field of Global Change: Cryosphere and Sea-Level Impacts.

Pending final approval, the objective of this cluster hire is to advance cross-disciplinary research in Global Change research as part of the University of Michigan's interdisciplinary junior faculty initiative. Candidates are sought in the fields of (1) Glaciology, (2) Climate and Ice Sheet Modeling, (3) Coastal Processes, (4) Physical Oceanography, and (5) Regional Climate Modeling.

Candidates will be appointed at the Assistant Professor level with a university year appointment in either GS or AOSS, but will be expected to interact with the cluster cohorts in both departments, as well as existing faculty.

The Applied and Environmental Geology Group at Leicester is expanding with TWO new positions available (a Chair and a Lectureship).

For details see refs P3812 and A3814 at:
<http://www.le.ac.uk/personnel/jobs/a&r.html>

Closing date: 25th August.

These are great opportunities to join a research-led Geology Department that is a leader in student-satisfaction and where exciting new teaching developments are taking place in collaboration with De Beers.

Dr Gawen RT Jenkin & Kip Jeffrey (kip1@le.ac.uk)

Leicester Geology Department - Top Ranking for Student Satisfaction.

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Highest % of Student Satisfaction amongst departments teaching full-time Geology degrees (2007 National Student Survey www.unistats.com).

Geology Department Student Recruitment and Schools Liaison Tutor
<http://www2.le.ac.uk/departments/geology>

Secretary/Treasurer Mineral Deposits Studies Group mdsg.org.uk
Geo-metamorphism Listowner www.jiscmail.ac.uk/lists/geo-metamorphism.html

Lecturer in Applied Geology direct dial: +44 (0116) 252 3934
Department of Geology general office: +44 (0116) 252 3933
University of Leicester fax: +44 (0116) 252 3918
LE1 7RH, UK

The Department of Geology, Geography and Environmental Studies at Stellenbosch University is pleased to announce the availability of a position as Lecturer in Geosciences.

The historical town of Stellenbosch is sited in the beautiful wine-growing country of the Western Cape of South Africa, amid the mountains of the Cape Fold Belt. The Geology Section of the Department hosts the Centre for Crustal Petrology - a strong research group in igneous and metamorphic petrology, geochemistry and petrogenesis, structural geology and tectonics. We also have growing research strength in the area of Environmental Geochemistry and Earth Systems, as well as activity in Ore Petrology and Petrogenesis, Sedimentology and Gemmology. The bulk of our teaching is in the English Language.

The post (soon to be advertised in Earth Works) will be filled by an energetic person, with expertise in the geological sciences, and committed to quality undergraduate teaching, postgraduate supervision and innovative research. The area of specialisation is left open, but will be complementary to existing strengths in the Department, and there may be a preference for someone with expertise in the general area of mineralogy or environmental mineralogy. A PhD is required, and recent doctoral graduates are particularly encouraged to apply.

The attached document gives some more details. Please contact Prof. John D. Clemens (Executive Head) for further information, or to informally discuss the post.

tel: +27 (0)21 808 3159
e-mail: jclemens@sun.ac.za

~ ~ ~ ~ ~ ~ ~ ~ **HAVE A GREAT WEEKEND!** ~ ~ ~ ~ ~ ~ ~ ~