

# ALUMNI NEWSLETTER

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## ALUMNI RECEPTION

*in association with  
AAPG 2005*

MONDAY, JUNE 20

5:30 - 7:30 PM

Crystal Ballroom  
Fairmont-Palliser Hotel  
133 Ninth Avenue SW  
Calgary

Space is limited!

Send your RSVP now by using  
our on-line registration form  
at  
[www.geo.ucalgary.ca/2005/](http://www.geo.ucalgary.ca/2005/)



## CLASS OF 1979 TWENTY-FIVE YEAR REUNION, OCTOBER 23, 2004

What do you say to someone you haven't seen in twenty-five years... "You haven't changed a bit, and I mean that as a compliment!" While the hairstyles, or lack of hair, may have been the most noticeable change, it was a remarkable experience to recognize a laugh and see a smile or a gesture of classmates not seen in many years, even though most of the class resides in Calgary.

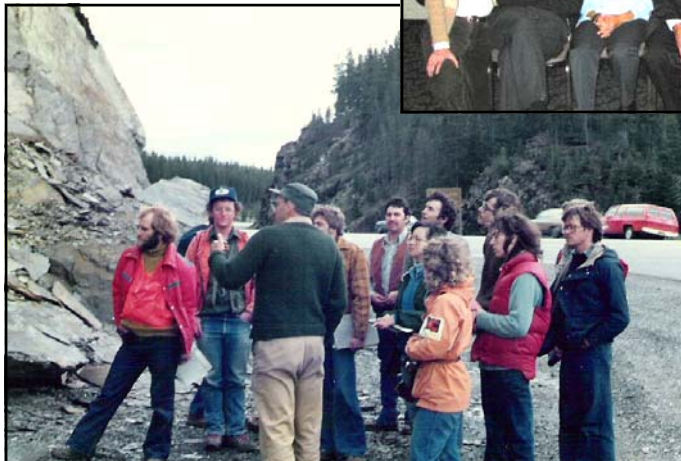
Special thanks go to those from out of town who made the trek back on October 23: from Vancouver (Maggie Kasekende), Tumbler Ridge (Kevin Sharman), Winnipeg (Nancy Chow) and St. John's, Nfld. (Donna Burden). Those that couldn't make it in person phoned the reception from Houston, Texas (Dave Grass) or sent emails from California, Colorado and a couple of places in the Middle East.

While it was difficult to interrupt the roaring reception, toasts by Drs. Wardlaw and Campbell, an address by Brian McLachlan describing his fellow classmates as "unique", a slideshow of fieldtrips and field schools narrated by Dave Thomas, and a video made by Louise Klatzel-Mudry on the current Dept. made the evening a *howling* success.

Thank you to the professors who came to reminisce and test their memory banks from classes 28 years ago— way to go Ed, Jon, Gerry, Fin and Norm!

Assembling 56 alumni and spouses, finding the perfect location for libations, fabulous food, and embarrassing photos was no simple task; the evening was expertly organized by Donna Burden, Shaheen Khan, Sandy McLachlan, Louise Morrison, Louise Klatzel-Mudry and Liz O'Neill. Thanks for an incredible evening!

**Editor's Note:** With Calgary hosting the AAPG Convention in June, alumni from around the world will be returning to Calgary! The Department of Geology & Geophysics is celebrating this unique opportunity with an **All Years Alumni Reception**. For more details, see announcement, left column.



Above: Class of '79 at the October 2004 Alumni Reunion

Left: Looking back: Field school led by Phil Simony, ca. 1978

Photos by Louise Klatzel-Mudry and Dave Johnson

## COMING EVENTS

### **FATS (Friday Afternoon Talk Series)**

Fridays, 4:00 pm,  
ES 162

Check our weekly  
Newsletter  
for presentation topics

[www.geo.ucalgary.ca/  
newsletter/newsletter.htm](http://www.geo.ucalgary.ca/newsletter/newsletter.htm)

## RECENT AWARD WINNERS

**Jana Hanova** (Undergraduate Student) - "Best Undergraduate Technical Talk" at the Western Inter University Geology Conference 2005, entitled "Geology & Geophysics of the Eagle Butte Impact Structure"

**Dr. Phillip Currie** (Adjunct Professor) - Michael Smith Award for promotion of science to the public in Canada (presented by NSERC)

**Luc Rock** - first place in the graduate student poster competition at the international meetings of the American Society of Agronomy, Crop Science Society of America, & Soil Science Society of America ("Natural abundance N & O isotope ratios of nitrous oxide from agricultural soils in Southern Alberta")

# GEOLOGY OF THE GRAND CANYON

Among the Department's field course offerings is GLGY 399.04 (Geology of the Grand Canyon & Grand Staircase of Arizona & Utah). This optional course, taught by Dr. **Jerry Osborn**, was first offered in 2002, then again in 2003. In 2005, Jerry is again teaching this exciting course, paired with GLGY 399.05 (Tectonic Geomorphology).



• "...my suspicions are confirmed that I have found my future in the rock biz"

What could be more intriguing to a student of geology than the Grand Canyon & surrounding landscapes — probably the most renowned geological exposures in the world — excellent examples of both strata & structure, rendered visible by river erosion!

Students travel from Calgary by van, studying geologic features along the way (for example, the Snake River Plain, Zion National Park, Bryce Canyon) before embarking on a week-long whitewater raft trip through the canyon. Accommodation on the river consists of camping on the beach, with the hardship moderated by gourmet meals!

Registration is through the **Credit Travel Study** office. Find more information on the course web page (<http://courses.geo.ucalgary.ca/>)

Student comments have been enthusiastic:

- "Amazing field school, a once-in-a-lifetime opportunity.."
- "the majority of first and second year geology was represented in a more tangible succession than in a textbook"
- "I learned a great deal about geology and about life in a relatively short time."



## GEOSCIENCE PROFESSIONAL DEVELOPMENT CENTRE

The GPDC, operated within the Department of Geology & Geophysics, provides training for post-degree, petroleum industry professionals. Courses offered by the GPDC qualify for APEGGA professional development credit.

### **Upcoming courses being offered:**

#### **Overview of the Geology of the Western Canada Sedimentary Basin**

May 4–5, 2005 / Instructor: Grant Mossop

#### **Seismic Modeling and Imaging with the Complete Wave Equation**

May 16, 2005 / Instructors: Larry Lines & Phil Bording

#### **Stratigraphic Framework & Hydrocarbon Potential of the Jurassic-Lower Cretaceous Fernie-Manville Sandstones in Southern Alberta**

May 30–June 1, 2005 / Instructor: Lorne Rosenthal

#### **Compressional Structures in Hydrocarbon Exploration: Geometry, Imaging and Interpretation**

Sept. 13–15, 2005 / Instructor: Deborah Spratt & Don Lawton

#### **Evaluation of Oil & Gas Properties for Geoscientists**

Sept. 15–Oct. 27, 2005 / Instructors: P. Sidey, N.T. Stewart, & D.W. Woods

#### **Practical Sequence Stratigraphy: Concepts & Applications**

Nov. 8–9, 2005 / Instructor: Ashton Embry

#### **Applications of Geostatistical Reservoir Modeling - Overview**

Nov. 21–22, 2005 / Instructor: Clayton Deutsch

#### **Applications of Geophysical Inversion and Imaging**

TBA – Fall, 2005 / Instructors: Larry Lines & Brian Russell

#### **Heavy Oil & Tar Sands - Solving Exploration and Production Problems with Fluid Geochemistry**

TBA – Fall, 2005 / Instructor: Steve Larter

For more information and to register, see our website: <http://www.geo.ucalgary.ca/gpdc/>

## SPOTLIGHT ON RESEARCH



For more than 20 years, **Lithoprobe** has been Canada's national, collaborative, multidisciplinary Earth science research project to understand the geological evolution of the northern part of North America. The program was designed as a distributed network of ten focused research areas, called transects, that cross Canada from the Atlantic passive margin to the subducting Pacific plate. Since 1987, the Department of Geology and Geophysics has been the site of the Lithoprobe Seismic Processing Facility (LSPF), one of two physical installations of Lithoprobe (the other being the Secretariat at the University of British Columbia). During the lifetime of Lithoprobe, nearly 15,000 km of geophysical data (seismic reflection, electromagnetics and seismic refraction) were recorded. In addition, more than 500 ancillary geological studies were undertaken in the ten transect regions. These results provide a regional framework for ongoing studies that target important features of the lithosphere from the surface to more than 100-km depth.

In October 2004, the **Lithoprobe celebratory conference** was held at the Ontario Science Centre in Toronto. Results were presented from all of the transects as well as from other parts of the world where Lithoprobe findings have led to new concepts of continental evolution. One of the major visual displays, spearheaded by scientists from the University of Calgary and the University of British Columbia, was a cross-Canada cross section (more than 5000 km long) of the lithosphere that is controlled to about 100 km depth by detailed geophysical data linked to surface geology.

Although most of the initial results from the Lithoprobe projects have been published (more than 1400 publications have been produced by Lithoprobe scientists so far with three special issues of Canadian Journal of Earth Sciences nearing completion), the data are available for enhanced analyses, as many data processing techniques that are used today were not available when Lithoprobe began. Recently, for example, Arie van der Velden has reprocessed seismic reflection profiles from Newfoundland and produced images that were not visible previously, including Paleozoic subduction zones in the upper mantle and detailed near-surface structures that can be correlated to outcrops.

**Dr. Kris Vasudevan** has managed the LSPF since its establishment and continues to undertake projects related to data processing and thermal modelling. **Graduate students** Nadine Emberly (MSc), Samantha Siegel (MSc), Sarah Travis (MSc) and Arie van de Velden (Ph.D) have been utilizing both the massive Lithoprobe data base and the processing facility in their research. It is clear that, even though the funding from the federal government (NSERC and the Geological Survey of Canada) ended in 2003, the legacy of Lithoprobe will be felt for a long time.



Contributed by  
**Dr. Fred Cook, Director, LSPF**

More information available at:  
<http://www.litho.ucalgary.ca> &  
<http://www.lithoprobe.ca>

## RECENT THESES

**Jonathan Downton (PhD):**  
*"AVO Inversion"*

**Sandy Chen (MSc):**  
*"4D time-lapse seismology on foamy oil and wormhole footprints in a heavy oil cold production reservoir, Lloydminster, Alberta"*

**Hannah Ng (Tran) (MSc):**  
*"Monitoring fluid injection using time-lapse analysis: a Rainbow Lake case study"*

**Simona Pitaru (MSc):**  
*"Hettangian ammonite faunas and a Triassic-Jurassic boundary succession at Williston Lake, British Columbia"*

**Jasen Robillard (MSc):**  
*"Geostatistics, wavelet analysis and high-resolution characterization of subsurface electrical conductivity using direct push profiling and electrical resistivity imaging"*

**Kun Liu (MSc):**  
*"Stability and accuracy analysis of space-frequency wavefield extrapolators for depth migration"*

**Carlos Nieto (MSc):**  
*"Multicomponent seismic exploration and ground-penetrating radar surveying in the Canadian Arctic"*

**Samantha Siegel (MSc):**  
*"Geophysical interpretation of the Fort Simpson Basin, southwest Northwest Territories"*

**Luc Rock (PhD):**  
*"Assessment of the usefulness of the isotopic composition of surface water nitrate (d15N and d18O) for identifying its sources in a watershed with differing land use"*

Theses are listed on the Gallagher Library website  
<http://www.ucalgary.ca/library/gallagher/>

## GALLAGHER LIBRARY UPDATE

Our current undergraduate and graduate students greatly appreciate the learning environment and the services of the Gallagher Library of Geology & Geophysics. On **Saturday, October 23, 2004** the undergraduate societies (Rundle Group, GUSS) organized a fun fundraiser event at the Den, with the appropriate theme **"Rock for the Gallagher"**. There was a Best Rock Star costume contest with gift certificates to the MEC and the Den as prizes. Some 450 rocking, enthusiastic Gallagher supporters jammed into the Den to raise \$2500. Our students certainly appreciate any support they can get from G&G alumni.

We are also pleased to report that since August 2004, we have received more than \$19,000 from alumni and friends, in support of the Gallagher Library. Our university's success in geoscience education and research has a direct link to the Gallagher Library, which has one of the largest collections of books, journals, and electronic resources of any Earth Sciences library in Canada. The University's Information Resources division has committed to maintaining the Gallagher Library in its current location for the foreseeable future, as a key support to undergraduate and graduate studies in our department, while also serving the Calgary geoscience community.

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*Some other useful  
websites:*

University of Calgary:  
[www.ucalgary.ca/](http://www.ucalgary.ca/)

U of C Alumni Page:  
[www.alumni.ucalgary.ca/](http://www.alumni.ucalgary.ca/)



UNIVERSITY OF  
CALGARY

## COMMUNITY RELATIONS

The Department of Geology & Geophysics and the Faculty of Science are eager to enhance their connection with the community. Some recent initiatives are described below.

**New Scholarships** — The Faculty of Science has announced that it is offering admission scholarships to every high school student with an admission average of 85% or higher who registers before April 1 in a first-year science program. The \$1000 **Dean's Merit Admission Award** will top up the U of C's university-wide Academic Merit Admission Award presented to all students with a high school average of 80% or better. To quote the Dean of Science, Dr. Michael Boorman: "We want to send a clear message to hard-working young scholars: 'Your achievements are significant, and the U of C wants to help you excel'".

**Calgary Youth Science Fair Prizes** — This year, for the first time, the Department donated awards for winners at the Calgary Youth Science Fair. The **U of C Department of Geology & Geophysics prizes** were presented on March 19 to two elementary and two secondary school students for projects related to the Earth Sciences. The winners received prize money and trophies for their excellent entries dealing with topics such as tsunami awareness, tree rings and climate, landslides, and oilsands tailings.

### Geology & Geophysics In the Mall — Market Mall, March 5, 2005

This annual event, organized by the graduate students, was again a big hit with people of all ages! G&G in the Mall is an excellent way to reach out to the community and to promote increased awareness of the geosciences at the University of Calgary. Students (both undergraduate and graduate), faculty, and staff spent the day at the Mall, demonstrating equipment

and answering questions from the public. Displays included rocks and minerals, meteorites, paleontology, petroleum geology, seismology, ground penetrating radar, and mapping.



Future Paleontologist?

Photo by  
Viki Bennett

## ALUMNI QUESTIONNAIRE

### *We need your help!*

The Department is gathering information about our graduates and their opinions about their education in Geology & Geophysics at the University of Calgary. A one-page questionnaire is enclosed with this Newsletter. We would be greatly appreciative if you would take the time to complete the survey and return it to us (address and other contact information listed above).

Individual responses will be kept in confidence and incorporated into a report without identifying any of the respondents.

Larry Lines, Department Head

## KEEP IN TOUCH!

We'd really like to hear how YOU are doing. Drop us a line! Let us know about your new job, your growing family, an interesting trip that you have taken!

Please write to us (address above, or by e-mail to [geoalumni@ucalgary.ca](mailto:geoalumni@ucalgary.ca)) with your news and to update your address and contact information. Be sure to include your degree and date of graduation.

*All information is collected under the authority of the Freedom of Information and Protection of Privacy Act. It will be used to update our records and will not be disclosed to any other parties. If you have any questions about collection or use of this information, please contact the Newsletter Editor.*