

ALUMNI

NEWSLETTER

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Upcoming Events

GAC-MAC, Ottawa
May 25-27, 2011

Earth Sciences Year End Banquet - April 2nd, 2011

MERC Professional Development Courses: Structure, Tectonics, and Mineral Exploration - August 2011

Exploration Geophysics - December 2011



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Granite fully exposed at the Cirque of the Unclimbables, NWT, Canada
Photograph: Dr. Dan Kontak

Message from the Department Chair

Dr. Daniel J. Kontak



Greetings and welcome to the 2011 Earth Sciences Newsletter! It has been another memorable year for the department and its many faculty, staff and students. However, before conveying highlights it saddens me to have to pass on our sympathy to the family and friends of Dr. Jim Davies, former Professor in the department, who passed away in the fall. Jim is fondly remembered by his many students, past and present faculty and many friends for his teaching and engagement over many years at Laurentian. He remained active through his illness and with long time friend Bob (Whitehead) completed yet another contribution to

a field he much enjoyed. See our tribute to Jim further below.

After the successful launching of our 1st Alumni Night at the PDAC in 2010 we will continue the tradition with the 2nd Annual Alumni Night on March 7th from 7 p.m. to 9 p.m. We invite alumni and friends to come and meet the departmental faculty, staff and students and learn why we rank as one of the best Earth Science Departments nationally. I am particularly looking forward to having the opportunity to interact with former and potential students and to convey to all in attendance the many events which transpired



over the past year and new initiatives that are planned, in particular our first annual end of year banquet.

Change is inevitable; in fact it continually sculpts our surroundings and defines us. It is not surprising, therefore, that there will be a few changes in the near future.

department. She is appreciated by many and will be missed.

Some memorable events of the past year included graduation of our 2nd PhD student and several MSc students, continued delivery of our popular modular courses, a highly successful hosting of the 11th International

Success does not happen without support and effort.

Firstly, we wish Professor Balz Kamber, our geochemist extraordinaire, all the best as he continues his remarkable career across on the pond in Ireland (rumour has it that Guinness was a deciding factor!). I am sure this will be the beginning of a long and fruitful collaboration between DES and Ireland.

Next, Ms. Jennie Byron, the solution to anything IT, is moving south; her cheerful smile and ease with IT will be much missed. Mrs. Edda Bozzato brought warmth, cheerfulness, a smile and provided support in the everyday function of the

Platinum Symposium (IPS), expansion of analytical facilities to broaden research horizons, a continued increase in graduate students of both national and international origin, the forging ahead of the School of Mines initiative spearheaded by Dr. Michael Leshner, and graduation of another talented class of young geologists!

Success does not happen without support and effort. Thus, I would like to finish by thanking the staff, faculty and students, past and present for the combination of their effort which makes the Earth Science Department such a strong institution.



MERC is presently running
40 student projects
(18 MSc, 10 Applied MSc,
13 PhD, and 1 PDF) and
several faculty projects.

Many are in areas of traditional strength (magmatic Ni-Cu-PGE, hydrothermal Cu-Zn-(Au) VMS, and hydrothermal lode Au deposits) with others on carbonate-hosted Zn-Pb deposits, sediment-hosted Au, U, and Fe deposits, metalliferous black shales, new exploration geophysical methods, metal mobility during weathering, sulfide mineralogy, and mantle mineralogy. Field locations include Sudbury, other parts of Ontario, most other Canadian provinces, China, India, and Mexico. A complete list of past and current projects is posted on the MERC website (merc.laurentian.ca).

MERC has recently instituted a tiered membership plan (Foundation/Corporate/Junior Corporate/Supporting Member) with proportional benefits that include a position on the Advisory Board, discounts and guaranteed reservations for MERC workshops, short courses, and modular courses, opportunities for dedicated (embedded) scientists, access to the DES-MERC student employment pool, and access to a restricted website containing PDFs of student theses, research papers, meeting abstracts-posters-PowerPoint presentations, final reports of past projects, maps, and databases. The funds raised from the membership will be used to hire a full-time Director.

The following additional initiatives are in various stages of progress:

- Establishment of a Research Chair in Surficial Exploration Geochemistry
- Establishing DES and MERC as regular hosts of International Precambrian Symposia, to be offered every 5 years in tandem with the Western Australian-based International Archean Symposia
- Expanding our current Applied MSc in Mineral Exploration program into an Ontario-wide program, so that students at participating universities across Ontario will have greater access to a wider range of modular courses
- Developing an annual 5-week National Field School to train geologists in field mapping and core logging
- Offering regular 1-2 day workshops at national meetings (PDAC, Roundup, GAC-MAC) and in Sudbury on topics of interest to the mineral exploration community
- Developing an on-line database of all student theses, research publications, research reports, and maps to the extent allowable by IP agreements
- Greatly expanding the number of research projects and temporary research staff (graduate students and PDFs)

These initiatives will enhance our educational and research efforts, further cementing our status as one of the top mineral exploration research centres in the world. If you have any questions about MERC, please contact us.

Michael Leshner, Director
www.merc.laurentian.ca



Second PhD Degree in Mineral Exploration
and Precambrian Geology Completed

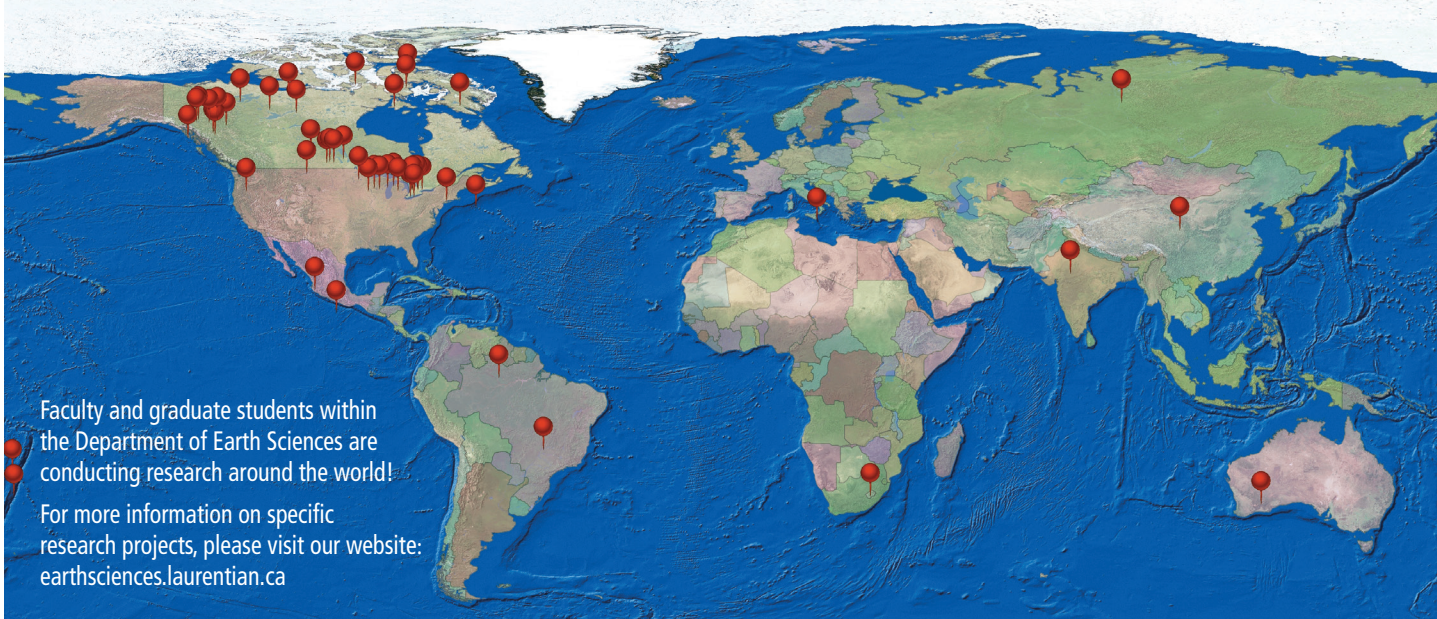
The Department is extremely proud to announce the graduation of our second PhD student. Nicolas Tonnelier (BSc Grenoble, MSc UQAM-Grenoble), working under the supervision of Prof. Michael Leshner (LU) and Prof. Nicolas Arndt (U Grenoble), defended this dissertation "Geology and Genesis of the Jinchuan Ni-Cu-PGE Deposit, China" in October 2010. Jinchuan is the third largest Ni-Cu-PGE deposit in the world and one of the most enigmatic. Nicolas' research showed that the deposit formed from a ferropicrotic not basaltic magma, that the anomalously large amount of net-textured olivine-sulfide ore at Jinchuan can be attributed to high fO2 enhancing the 'wetting' of olivine by sulfide melt, that most of the olivine and sulfide accumulated in situ rather than being transported as a viscous mush, and that much if not all of the S was derived from crustal rocks not the magma. These results profoundly change our understanding of the Jinchuan deposit and have important exploration implications for other deposits of this type.



From left to right:
Back row: Devon Parry, Joshua Lymburner, Sonia Préfontaine, Oladele Olaniyan, Robert Lodge, Fabio Cafagna, Jennifer Durocher, Goeffrey Baldwin, Sean O'Hare, Michael Babechuk, Craig Fitchett;
Front row: John Hechler, Kate Rubingh, Lindsay Richan, Michael Burns, Caroline Mealin, Robert Stewart, Katie Hahn, Michael Kolaj, Taus Jorgensen.
Missing from photo: Sarah Gordon, Natalie Mantha, Joshua Mukwakwami, Edward Nelles, Joseph Petrus and Kirk Ross.

Current DES/MERC Research projects

Earth Sciences Faculty and Student Research in 2011



First Annual Alumni and Friends Reception



PDAC 2010

1 From left to right:
Dr. Tony Beswick (emeritus),
Mark Liinamaa,
David Burrows (Vale),
Frank Palkovits (LU alumni),
DES Alumni: Jill Stoness and
husband John Kiernan
(LU Eng. Alumnus)



2 DES Alumni: Peter Doyle,
Joe MacPherson, Kevin Filo



3 Drs. Rebecca Sproule and
Michel Houlé



4 Alumni: Nicole Tardif
and Allan Armitage



5 Alumnus Damien Duff
(CEMI) and Dr. Doug
Tinkham (DES professor)

6 DES emeritus professors:
Dr. Beswick and Dr. Rousell

7 Ed Debicki, Ruth Debicki,
and Dr. Reid Keays

8 Alumnus: Sébastien Bernier
and Keith Harrison; also on
hand, Paul Palmer

9 From left to right:
Virginia East, Claire Somers,
Craig Fitchett, Edward
Nelles, Diana Kuiper.

10 Frank Santaguida,
Damien Duff and
Jack Parker

11 Dr. Andy McDonald,
Laurentian University
president Dominic Giroux,
and Dr. Harold Gibson

First Annual Alumni and Friends Reception

PDAC 2010





From February 18th to March 5th, 8 students from the department travelled to Chile and visited several world class ore deposits.

We were joined by Prof. Dan Kontak and a geology student from Medellin, Colombia. Mines visited included Chuquicamata, Zaldivar, Candelaria and Franke. Excursions were also made to the geysers and Li/K rich salars near San Pedro de Atacama, Chañarcillo, Chile's first mining camp and into the El Indio belt of the high Andes. The attendees would like to thank our sponsors, Hornby

Bay Mineral Exploration, Knick Exploration, Newmont Mining, VMS Ventures, Kirkland Lake Gold, Bridgeport Ventures, and Wallbridge Mining.

Many thanks are also given to Barrick Gold, Codelco, Freeport-McMoran Copper and Gold, Gareste Ltda., Minera Quadra Chile Ltda., and Nexindio Mining for allowing access to their properties and providing first class tours.

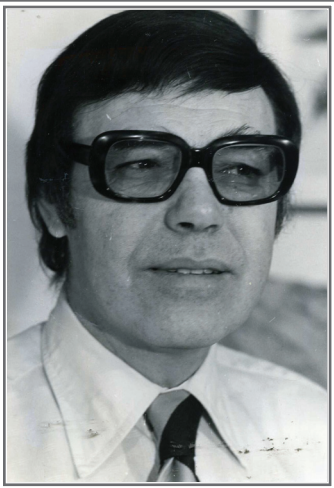
GALEN MCNAMARA

In Memoriam: James F. Davies

Sadly we wish to inform all of our readers that Jim Davis passed away on Sept 1st, 2010 at Sudbury Regional Hospital. Dr. Davies as he was known to his students and junior faculty alike, joined the Department of Geology at Laurentian University in 1967 as Associate Professor in Economic Geology.

He retired in 1989 as Full Professor and was immediately awarded Professor Emeritus status by the university. In the 22 years prior to retirement he taught well over 200 undergraduate students fundamental and many advanced aspects of the nature and origin of mineral deposits. As well, beginning in 1970 he had a continuous cadre of graduate students who carried out research on national and international projects, Timmins geology and associated gold mineralization being one his favorites. Throughout his tenure as a professor and until his passing, Jim maintained a close professional interest in Mexican hydrothermal ore deposits and close friends and family in the Mexico City area. Upon retirement he continued to carry on research at Laurentian in the “warm months” and migrated to Mexico in our winters. Although we saw less of him as his health deteriorated, he remained active in research and interested in the people and students in the department.

The James F Davies Economic Geology Laboratory is named in recognition of his contribution to teaching mineral deposit geology.



Experiences at Laurentian University:

KERANN HUTCHINSON

I am from a beautiful Island called St Vincent and the Grenadines, located in the Lesser Antilles, West of the Atlantic Ocean in the Caribbean.

When looking for a university, I had three criteria: size, cost and distance from Toronto. That is why I chose the Department of Earth Science at Laurentian University where I have been studying Geology for the past two years. I am really impressed with the quality of the courses and I feel very fortunate to have outstanding professors with whom I have very close interactions with, due to the small class sizes. It is great that each professor adds their own professional experience and personal style to their courses.

I am a member of the DES/MERC CO-OP program where I have gained mapping experience working for the Ontario Geological Survey during this past summer and I am looking forward to working within the industry once again this summer. The CO-OP program has also exposed me to excellent geology-related workshops and provides me with the experience needed to become a successful self driven geologist.

Thanks Laurentian!
KERANN HUTCHINSON
BSc candidate

LU hosts
11th International
Platinum Symposium

Every 4 years or so since 1970, academic researchers, government geologists, and industry geologists have gathered to discuss current research on the geology, mineralogy, geochemistry, and origin of platinum group element (PGE) and nickel-copper-(PGE) deposits. Past meetings have been held in Melbourne (Australia), Denver and Billings (USA), Pretoria and Rustenberg (South Africa), Toronto (Ontario), Espoo and Oulu (Finland), Perth (Western Australia), and Moscow (Russia).

The 11th IPS was held in June 2010 on the Laurentian University campus in Sudbury, Ontario and was attended by 295 participants (244 professionals and 51 students) from 26 countries, including Albania, Australia, Austria, Belgium, Brazil, Canada, Chile, China, Egypt, Finland, France, Germany, Hungary, Japan, Morocco, New Zealand, People's Republic of China, Romania, Russia, South Africa, Spain, Netherlands, Turkey, United Kingdom, USA, and Zimbabwe.

The meeting included: Three pre-meeting workshops (PGE in Mantle Melts, PGE-Chromite Connection, Layered Intrusions), three and a half days of technical sessions, including 86 morning-afternoon oral presentations and 57 late-afternoon poster presentations. Keynote speakers included Tony Naldrett (U Toronto/U Witwatersrand), Jean-Pierre Lorand (CNRS-Paris), Ed Ripley (Indiana U), Louis Cabri (Consultant) and Ray Goldie (Salman Partners). There were also nine pre- and post-meeting field trips (Levack Mine and North Range SIC, McCreedy West Mine and North Range SIC, Podolsky Mine and Whistle Offset, Sudbury Footwall Deposits, Sudbury Contact and Offset Deposits, Abitibi Komatiites and Ni-Cu-(PGE) Mineralization, Lake Superior Ni-Cu-(PGE) and PGE-(Cu)-(Ni), and River Valley PGE-Cu-Ni); and three laboratory tours (Ontario Geoscience Laboratories, MIRARCo 3D Virtual Reality Theatre, Xstrata Process Support).

The meeting was hosted by the Mineral Exploration Research Centre, the Department of Earth Sciences at Laurentian University, and the Ontario Geological Survey. Sponsors included Quadra-FNX and Stillwater Mining Company (Platinum Level), the Mineral Exploration Research Centre and Sudbury Geological Discussion Group (Rhodium Level), Marathon PGM, Mineralogical Association of Canada, Society for Geology Applied to Ore Deposits, and the City of Greater Sudbury (Iridium Level), the Mineral Deposits Division of the Geological Association of Canada (Osmium Level), and the Society of Economic Geologists and Stillwater Mining Company (Palladium Level).

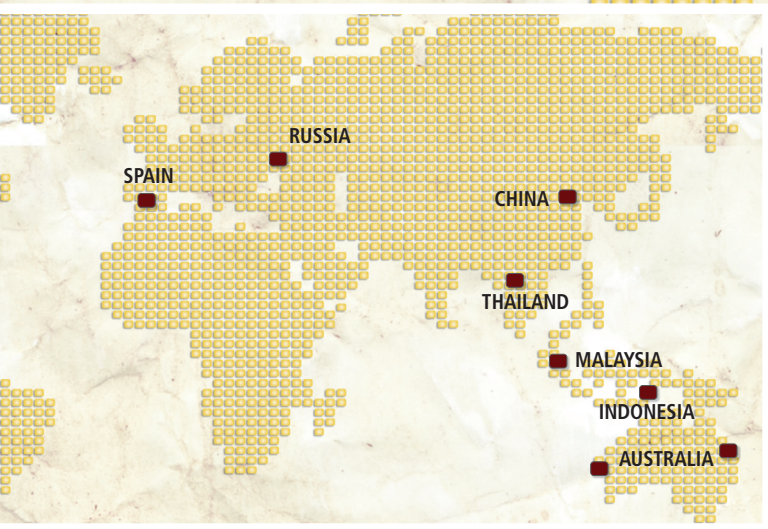
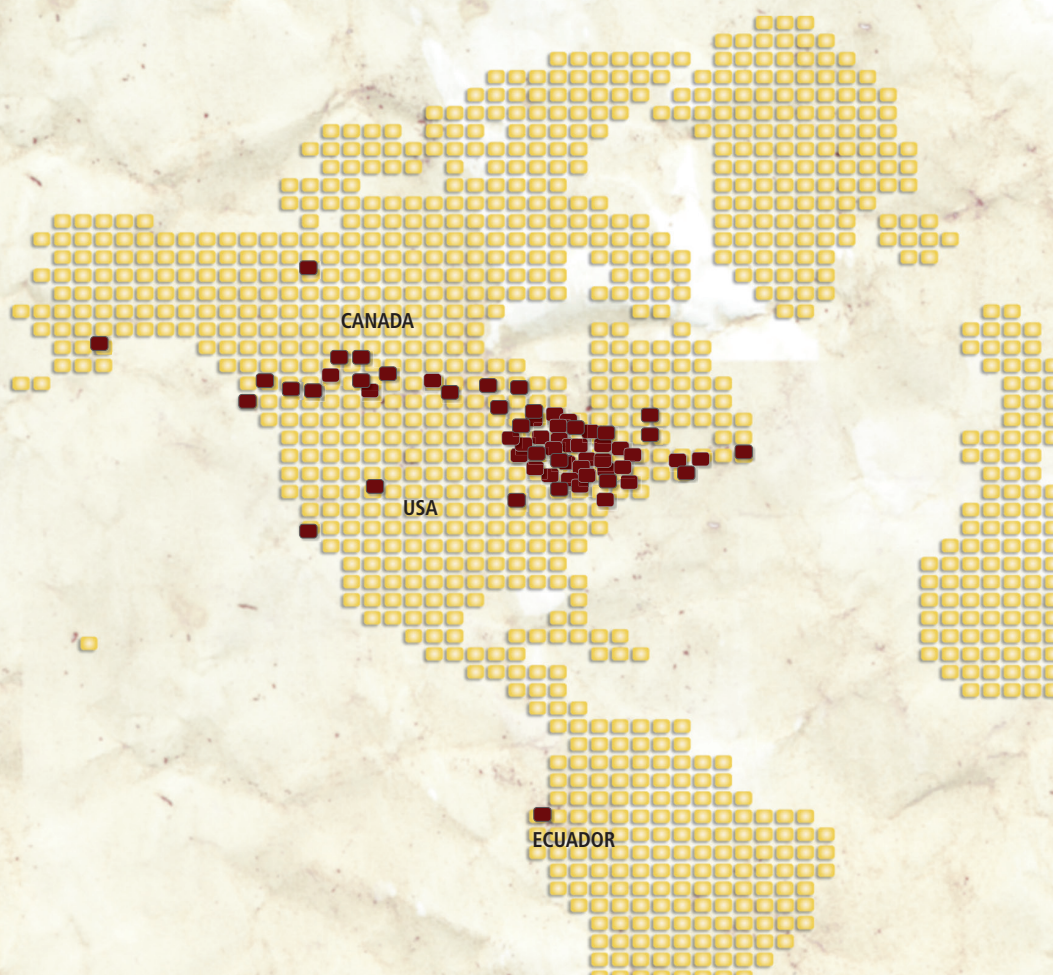
Readers interested in receiving information about future PGE and Ni-Cu-(PGE) meetings should contact Sarah-Jane Barnes (sarah-jane_barnes@uqac.ca), who manages the MAGSUL_L list server.

MICHAEL LESHER and PEDRO JUGO
Laurentian University

Where are our Alumni now?

Earth Sciences

Alumni in 2010



Department of
Earth Sciences
**FIRST ANNUAL
YEAR END BANQUET**

Saturday April 2nd, 2011
Italian Club
Copper Cliff, ON

ALL WELCOME!

For tickets and information:
des@laurentian.ca

If you have an item of interest,
or any news of your activities
(or those of your classmates),
please let us know.
Do keep in touch!



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