

# The Rock Record – May 2006

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Newsletter*

The SGS Newsletter is produced by the SGS executive. Letters, announcements, notices, comments, photos, news and information about SGS members, etc. are always welcome. Call an executive member or write to us at:

**Saskatchewan  
Geological Society  
P.O. Box 234  
Regina, SK S4P 2Z6**

**SGS e-mail address:**  
[info@sgshome.ca](mailto:info@sgshome.ca)

**SGS Website:**  
[www.sgshome.ca](http://www.sgshome.ca)

All advertising inquiries should be directed to Jeff Coolican

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**Tuesday, May 2<sup>nd</sup>**

**AAPG Distinguished Lecturer  
Reservoir Quality Assessment:  
Petrography as a Tool for Deciphering Kinetically-  
dominated Systems  
and the Need for Petrographic Education**

**Dr. Kitty Milliken  
The University of Texas at Austin, Austin, TX**

**Lancaster Room, Royal Canadian Legion**

Cash Bar: 11:30; Lunch: 11:50

Meeting: 12:15 – 13:00

Members \$7.00, Non-members \$11.00

Contact: Jeff Coolican 787-8729

By NOON, Monday, May 1<sup>st</sup>, 2006

**Thursday, May 25<sup>th</sup>**

**Recent Experiences with  
Mineral Exploration in Mongolia**

**Presented by:  
George Sharpe  
Titan Uranium**

**Lancaster Room, Royal Canadian Legion**

Cash Bar: 11:30; Lunch: 11:50

Meeting: 12:15 – 13:00

Members \$7.00, Non-members \$11.00

Contact: Jeff Coolican 787-8729

By NOON, Wednesday, May 24<sup>th</sup>, 2006

Luncheon Talk Tuesday, May 2<sup>nd</sup>



## 2005-06 AAPG Distinguished Lecture

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### Abstract

**KITTY L. MILLIKEN**

Jackson School of Geosciences  
The University of Texas at Austin, Austin, TX

*Funded by the AAPG Foundation through the J. Ben Carsey Endowment*

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### **Reservoir Quality Assessment: Petrography as a Tool for Deciphering Kinetically-dominated Systems and the Need for Petrographic Education**

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As exploration efforts turn increasingly to unconventional reservoirs and, especially, to deep, hot targets, accurate prediction of reservoir quality becomes a great challenge. In rocks that have experienced a protracted history of post-depositional chemical and mechanical alteration, rock properties cannot be readily predicted from primary sediment characteristics. A dominant reason for this difficulty is that, despite temperatures that are somewhat elevated compared to the surface, reactions in sedimentary basin are relatively sluggish and driven largely by kinetics (rate-controls) rather than by thermodynamics. In such systems, prediction of reaction paths and mechanical behavior cannot be obtained from an understanding of bulk composition and thermal conditions alone. In sedimentary basins, rocks inevitably preserve a complex history of their modifications. Efforts to predict the progress of an individual, pore-modifying reaction (e.g., quartz cementation) must take the proper historical context of the reaction (i.e., its individual rate-control) into account. Predictive approaches that do utilize such a conceptual framework can meet with great success.

The broad field of sedimentary petrography involves the tools and skills required to assess kinetically-dominated processes and the complex historical records they leave behind. Although polarized light microscopy remains fundamental, the tool-kit of the modern petrographer encompasses a broad range of supporting methods. Cathodoluminescence, both SEM- and light microscope-based, fluorescence microscopy, and back-scattered electron imaging are examples of techniques that are yielding vital new insights into the post-depositional processes operative in reservoir rocks. Despite the advent of such technologies, and the great (and growing) practical utility of petrography, opportunities for university students to learn petrography have been diminished as a consequence of several intersecting historical factors that have displaced petrography courses from the curriculum. A multi-media digital resource, *Sandstone Petrology: A Petrographic Image Atlas*, is the result of an NSF-funded project to create and assess materials that lend efficiency to the study of highly visual subject matter. It is the hope that projects such as this will serve to support the growing industry demand for expertise in the area of rock characterization and rock property prediction.

Luncheon Talk Thursday, May 25<sup>th</sup>

## **Recent Experiences with Mineral Exploration in Mongolia.**

**George Sharpe**

**Titan Uranium**

### **Abstract**

George will present a brief overview of the geology of Mongolia with a more detailed exploration overview on several different projects with which he is involved.

*This talk will be the final luncheon presentation for the spring and summer. Luncheon talks will resume late September or early October.*

### **PUBLIC LECTURE AND SCHOOL SERIES REPORT**

Shawn Harvey of Shore Gold Inc. gave two very entertaining presentations on the history of Diamonds in Saskatchewan to approximately 600 grade 7's and 8's on April 27<sup>th</sup> as part of our School Liaison program. Mr. Harvey also provided a well-received Public Lecture "Canada: A Diamond Producing Country; Saskatchewan: A Diamond Producing Province?" that evening at the Royal Saskatchewan Museum. Once again the SGS would like to thank Shawn, and also his employer, Shore Gold Inc., for allowing Shawn to spend his valuable time in this effort. We also want to thank Melinda Yurkowski of Saskatchewan Industry and Resources for organizing and handling most of the logistics of this annual event.

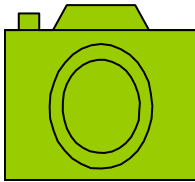
## Other Events

### Annual Field Trip:

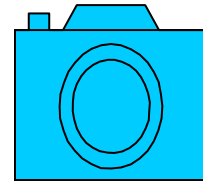
The 2006 SGS Field Trip will be to Wyoming during the fourth weekend in August (ca. August 25<sup>th</sup>-29<sup>th</sup>). For more information or to indicate your interest in participating, contact the SGS Field Trip coordinator John Lake at [lakegeol@sasktel.net](mailto:lakegeol@sasktel.net), or (306) 741-1529 or (306) 787-2621. You may also contact any executive member for more information. The cost will probably be around \$350 per person, although the final amount depends on the number of participants and the price of gas!

### SGS Photo Contest:

Keep in mind the SGS Photo Contest during your field seasons! We are trying to secure some corporate sponsorship so that we can turn the winning entries into a 2007 SGS calendar. We will be accepting photo entries starting immediately, up until August 30<sup>th</sup>, 2006.



## ***SGS Photo Contest and Calendar***



The photos must be of Saskatchewan and feature landscape of geological subject matter. You can submit photos digitally or as a hardcopy. Unfortunately we cannot guarantee that you will receive your photos back, so if you are sending a hard copy, make sure you keep the original. For digital photos please try to reduce the resolution to limit the file size. If we select your photo for the calendar we will request a higher resolution version for printing.

Submit Photos to:

Kate MacLachlan or Jennifer Smith  
Saskatchewan Industry and Resources  
2101 Scarth St.  
Regina, SK  
S4P 3V7

Or email [photocontest@sgshome.ca](mailto:photocontest@sgshome.ca)



## Saskatchewan and Northern Plains Oil & Gas Symposium

Preparations for the Saskatchewan and Northern Plains Oil & Gas Symposium are progressing with the technical program largely in place. The Symposium will take place in Regina during October 17<sup>th</sup> and 18<sup>th</sup>, with an associated core workshop on Monday October 16<sup>th</sup>, and an ichnology workshop by Dr. James MacEachern on Thursday October 19<sup>th</sup>. A field trip to the PCS Lannigan Potash mine will also be taking place on October 19<sup>th</sup>. Talks and poster displays will cover a wide-range of oil and gas settings including heavy oil, shallow gas, Paleozoic traps and also features such as regional fluid flow and the influence of basement structures on hydrocarbon trapping.

A Social Evening is planned for Tuesday, October 17<sup>th</sup> at the Saskatchewan Science Centre that will include food stations featuring different ethnic foods, access to interactive displays, IMAX movies, entertainment, telescope viewing opportunities and more, all as part of the general registration. In addition, the SGS will be publishing a hard-bound Proceedings Volume to be distributed at the outset of the symposium.

Early Bird registration commences May 15<sup>th</sup> and we currently looking for corporate sponsorships and commercial exhibitors. We will be accepting on-line registrations starting May 15<sup>th</sup> at [www.sgshome.ca](http://www.sgshome.ca).

There are two options for sponsoring the 2006 Symposium:

- 1) **General Sponsorship**
- 2) **Targeted Specific events and items**

**General Sponsorship:**

Bronze (\$250)	Gold (\$750)
Silver (\$500)	Platinum (\$1000+)

**For a list of Specific Events, please contact:**

Brian Brunskill (306) 757-4470 [brianbrunskill@sasktel.net](mailto:brianbrunskill@sasktel.net)  
Riona Freeman (403) 806-3550 [riona.freeman@canetictrust.com](mailto:riona.freeman@canetictrust.com)  
Steve Whittaker (306) 787-2577 [swhittaker@ir.gov.sk.ca](mailto:swhittaker@ir.gov.sk.ca)

