



The Rock Record – November, 2010

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*Please contribute to the SGS
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**

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info@sgshome.ca

SGS Website:

www.sgshome.ca

All advertising inquiries should be directed to **Tyler Music**

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Wednesday, November 10, 2010

Coastal Facies Models

Dr. Ron Boyd, ConocoPhillips
AAPG Distinguished Lecturer
(abstract attached)

Ramada Hotel Downtown, 1818 Victoria Avenue, Regina

Lunch: 11:45 a.m.

Meeting: 12:00 – 1:00 p.m.

Members: \$10.00 and Non-members: \$15.00 for lunch

For those not having lunch the talk is free

Please contact Kate MacLachlan (katem@apegs.sk.ca) or

Gavin Jensen (gavin.jensen@gov.sk.ca)

by noon, Monday, November 8th if you are planning to have lunch

Wednesday, December 8, 2010

Elbow Structure – Diatreme, Impact Structure Or?

Dr. Don Kent, Consulting Geologist

Royal Canadian Legion, Lancaster Room, 1820 Cornwall St., Regina

Lunch: 11:45 a.m.

Meeting: 12:00 – 1:00 p.m.

Members: \$10.00 and Non-members: \$15.00 for lunch

For those not having lunch the talk is free

Please contact Kate MacLachlan (katem@apegs.sk.ca) or

Gavin Jensen (gavin.jensen@gov.sk.ca)

by noon, Monday, December 6th if you are planning to have lunch

Requests

1) Williston Basin Petroleum Conference Workshops

The SGS will be organizing two WBPC workshops to be held next May, a core workshop, and a core logging workshop that will both be held at the Subsurface Core Laboratory in Regina. We are seeking volunteers to participate on a planning committee for the events. Duties of the committee will involve organizing the workshops, producing workshop volumes, and arranging volunteers to staff the events. These workshops will be a major revenue generator for the SGS. The geologists at the Lab are already committed to organizing and presenting at the Conference so we need others to step up and volunteer some time. Organizing and hosting events like these is the primary way that the SGS produces significant revenue to continue its many educational and social activities. If you are interested please contact me at murray.rogers@gov.sk.ca or tel: (306)-787-1932. Thanks to Mick Frank for volunteering after the first request.

2) SGS Executive for 2011

This is the second call for volunteers for next year's Executive. We will have some returning Executive members but will also need some new people. The SGS has relied almost exclusively for the last few years on geologists from the Saskatchewan Geological Survey to fill the positions. As a result those resources are becoming depleted, particularly with the loss of positions over the last couple of years. "The well is drying up". If you still want the benefits that the Society provides we need people to contribute their time. We really need some volunteers from industry and/or academia to fill some positions. If you are interested please contact me at murray.rogers@gov.sk.ca or tel.: (306)-787-1932.

3) We received a request from Regina Public Schools. Students at Henry Janzen School are beginning projects in mid November on catastrophic geological events. They are seeking the input of experts to help guide the on-going projects, review the final projects, and perhaps give guest presentations. If you would like more information and/or are interested in participating please contact Erik Van Dusen at erik.vandusen@rbe.sk.ca or (306)-596-5237.

4) Luncheon Talk Speakers

If anyone has any ideas for luncheon speakers please contact Gavin Jensen (Tel.: 787-2577) or Bernadette Knox (Tel.: 787-9373).

Other SGS Events

The SGS is organizing and co-sponsoring, with the Saskatchewan Mining Association and APEGS, two events in conjunction with the upcoming Saskatchewan Geological Survey Open House at the Delta Bessborough Hotel in Saskatoon.

1) **Dr. Lisa Morgan**, United States Geological Survey, will be giving a free **Public Lecture** from 7:30 – 8:30 p.m., Tuesday, November 30th, in the Battlefords Room, on Volcanism, Tectonism, Uplift, and Hydrothermal Activity on the Track of the Yellowstone Hot Spot: Past, Present, and Future.

2) A **Geology Student Career Night** will be held from 5:30 – 7:00 p.m., Tuesday, November 30th in the William Pascoe Room, Mezzanine Floor. Sean Bosman (sean.bosman@gov.sk.ca) and Ryan Morelli (ryan.morelli@gov.sk.ca) are organizing the event.

3) The **Annual General Meeting** will be held in the evening of Saturday, January 29th in the Solarium Room (max. 50 people) of the West Harvest Inn on South Albert Street in Regina.

Dr. Jack Mollard, O.C., founder and past president of J.D. Mollard and Associates Ltd., will be receiving Saskatchewan's highest honour, the **Saskatchewan Order of Merit**, in a ceremony to take place on November 23rd in Regina.

Upcoming Talks at the University of Regina

November 3rd, Tina Maki, APEGS; Becoming a Professional Geoscientist, CW 237.1, 4:00 pm.

November 10th, Jullie Fillmore; Graduate Student; TBA

November 17th, Brian McEwan, Graduate Student; Structural Style and Regional Correlation of the Ketyet River and Woodburn Groups, Nunavut, Canada.

November 24th, Rachele Boulanger, Graduate Student; Petrographic and Geochemical Characterization of the Midwest Northeast Roughrider Zone Unconformity-Type Uranium Deposit, Athabasca Basin, Saskatchewan, Canada.

Contact maria.velez.caicedo@uregina.ca for more information.

Field Trip Guides

Following from a suggestion by Brian Brunskill, the SGS will start compiling a library of field trip guides and maps at the Subsurface Laboratory. These will comprise the guides that John Lake compiles for our annual field trips and any published guides. The titles of those available will be listed on our website. Any SGS member can then sign them out for temporary use instead of having to buy them. If anyone has any guides that they would like to contribute please contact Tyler Music (contact information below).

SGS Merchandise

The SGS has a variety of reasonably-priced merchandise, mainly clothing, that is posted on the website: www.sgshome.ca for viewing. This includes seasonal items such as very nice golf shirts, t-shirts, and hats. Please contact Tyler Music at (787-6984) or tyler.music@gov.sk.ca if you are interested making a purchase.

It's time to renew your membership for 2011. Please fill out the attached form and submit it with the payment at a meeting, or mail it to the SGS postal address on the first page. Jason Berenyi at (787-2579) or jason.berenyi@gov.sk.ca is the contact for memberships. You can also sign up for membership on-line at http://www.sgshome.ca/sgs_membership_form.

Abstract

Coastal Facies Models

Dr. Ron Boyd, ConocoPhillips

AAPG Distinguished Lecturer

Coasts occur on the critical interface between land and sea. Coastal sedimentation can be categorized as occurring mainly under either transgressive or regressive conditions, based on the balance between sediment flux and relative sea level change. Further subdivision results from the dominant marine processes operating at the shoreline, mainly either waves or tides, and the influence of river systems. Transgression produces eroding linear coastlines, barrier-lagoon shorelines occupying embayments with little fluvial input, and estuaries at the mouths of river valleys and deltas. Shelf shoals and ridges consisting of reworked shoreline deposits lie seaward of transgressing coastlines. Landward of transgressing coastlines, major clastic deposition is typically constrained to river valleys. On regressing coasts, sediment is supplied by rivers to deltas that range from tide to wave and river dominated forms. Sediment is also supplied from deltas, offshore areas and eroding updrift coasts to deposits in strandplains and shorefaces in wave dominated regions, and tidal flats where tidal processes prevail. Transgressive coastlines record a lower rate of sediment input compared to their rate of relative sea level rise. The resulting stratigraphy is composed of more seaward facies overlying more landward facies and details are determined by the presence of incised valleys, the accumulation of estuarine and coastal barrier sediments and the trajectories of the major wave and tidal ravinement surfaces. Styles of modern and ancient stratigraphy range from low accommodation and low trajectories in which only the lowest incised valley and estuarine deposits are preserved, to complex transgressions with higher accommodation and higher trajectories and stacked transgressive/regressive parasequences. Regressive coastal sedimentation results in more landward facies overlying more seaward facies. It has been extensively documented in strandplain/shorefaces, river dominated deltas, and to a lesser extent in wave dominated deltas but is only at an early stage in tide dominated deltas. Here extensive shore normal sediment transport, high mud contents and low gradients result in facies and facies models that contrast with their river and wave dominated counterparts. By combining the principles of sediment flux and relative sea level change together with the major controlling processes of rivers, waves and tides, a suite of facies models can be constructed that synthesizes the major depositional features of each coastal environment.

