

## GEOSCIENCE FORUM WORKSHOPS

Four workshops/short courses will be provided during the 2014 Geoscience Forum. Note that to attend these does NOT require participants register for the Geoscience Forum. However, you must complete and fax or email the [registration PDF form](#) (click link).

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### Introduction and Guide to the New Mining Regulations

*Two identical courses offered at two different times:*

**Monday, Nov 24, 2014 – 2:00 PM to 3:00 PM, or  
Thursday, Nov 27, 2014 – 2:00 PM to 3:00 PM**

**Instructors:** *Rose Greening and Marcia Marsollier Moss, Mining Recorder's Office, Industry, Tourism & Investments*

This workshop will highlight the new Northwest Territories *Mining Regulations* and provide practical information on requirements for acquiring and maintaining mineral rights on lands controlled by the Government of the NWT in the Northwest Territories. Topics that will be addressed are acquiring and maintaining prospector's licences, prospecting permits, mineral claims and mineral leases. Maps produced by the Mineral Tenure Web Map will illustrate the new GIS format that can be accessed on-line.

**Lead:** Rose Greening (867-765-6722)

**Venue:** Dolomite Room, 1st Floor Gallery Building

**Cost:** Free

**Minimum # of participants:** 1

**Maximum # of participants:** 15

Note: Registration for the conference is NOT required.

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### Introduction to Exploration and Mining

*Two identical courses offered at two different times:*

**Monday, Nov 24, 2014 – 9:00 AM to 11:00 PM, or  
Monday, Nov 24, 2014 – 2:00 PM to 4:00 PM**

**Instructor:** *Dave Watson, Northwest Territories Geoscience Office*

This half-day course will present the terminology, concepts and practice of exploration, mining, mineral processing, tailings disposal and remediation that are in use today. In the exploration part, we will discuss the progression from prospecting through sampling, drilling and geophysics/geochemistry, to bulk sampling and decision making. The mining part of the course will introduce terminology used in both surface and underground mining and will follow the flow of material from the mine to the mill. Mineral processing will cover the various stages from size reduction to flotation, gravity separation, leaching and other methods. Reclamation and disposal of tailings and waste will comprise the final part of the program. The objective of the course is to introduce and explain terms and methods that occur in various media, and to explain the whole process.

**Lead:** Dave Watson (867-765-6618)

**Venue:** Capitol Theatre

**Cost:** Free

**Minimum # of participants:** 10

**Maximum # of participants:** 200

Note: Registration for the conference is NOT required.

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## Source Rocks 101

Monday, Nov 24, 2014 – 8:30 AM to 4:30 PM

**Instructor:** *Dr. Nicholas B. Harris, Earth and Atmospheric Sciences – University of Alberta*

Source rocks are the foundation of a petroleum systems analysis. This course provides a succinct overview of the characteristics of source rocks and how to evaluate them. Topics covered include:

Organic matter in sandstones: what it is and how it formed.

- Total organic carbon content of source rocks: what the range is, and how to measure it.
- Evaluating organic matter type: how to evaluate organic matter type and the relationship between source rock type and the hydrocarbons they generate.
- Thermal history in source rock generation: what it is, how to measure it, and the relationship between maturity and hydrocarbon generation.
- More sophisticated (and expensive organic geochemistry): when is it appropriate to apply these methods?

Basin modeling will be used to demonstrate the sensitivity of estimated volumes of generated and expelled hydrocarbons to organic matter richness and type, thermal maturity and cracking kinetics.

Examples will be drawn from western North America, including the Woodford Shale, Bakken Shale, Western Canada Sedimentary Basin, and U.S. Rocky Mountain source rocks.

This course will be of interest to geoscientists, petroleum geologists, petroleum engineers, managers and senior managers of petroleum related projects, programs or research.

**Lead:** Kathy Fiess (867-765-6603)

**Venue:** Lahm Ridge Building Lower level Board Room (LRT B)

**Cost:** \$100

Note: Registration for the conference is NOT required.

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## Prediction of Metal Leaching and Acid Rock Drainage (ML/ARD)

November 27 (3.30 pm-5.30 pm) AND November 28 (9 am-3 pm)

**Instructor – Stephen Day, SRK Consulting**

Prevention of metal leaching and acid rock drainage are among the major environmental and reclamation challenges faced by the mining industry. This 2-day course will introduce the techniques and methods used in the prediction of whether materials have potential for ARD and significant metal release; or whether leaching of metals in a neutral or alkaline pH environment will occur. It will discuss the information requirements and expectations for Environmental Assessment. The course is intended for professional/technical personnel conducting environmental work for the mining industry, government regulators and students or educators requiring experience in ML/ARD prediction.

**Venue:** to be determined

**Maximum # of participants:** 30

**Cost:** free

**Registration** is through the Geoscience Forum website at: [www.geoscienceforum.com/registration](http://www.geoscienceforum.com/registration)

Note that conference registration is NOT required in order to register for the short course

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