

## Program

### Tuesday May 24

8:00 a.m. **Field Trip 1:** Geology and gold mineralization of the Beardmore-Geraldton greenstone belt

**Leaders:** Mark Smyk & Tom Hart (OGS) and Phil Fralick (Lakehead University)

6:00 p.m. Overnight in Beardmore

### Wednesday May 25

8:00 a.m. **Field Trip 1:** Geology and gold mineralization of the Beardmore-Geraldton greenstone belt

**Leaders:** Mark Smyk & Tom Hart (OGS) and Phil Fralick (Lakehead University)

8:00 a.m. **Field Trip 2:** Quaternary Geology of the Beardmore – Nipigon area

**Leader:** Peter Barnett (OGS)

8:00 a.m. **Field Trip 3:** A Stratigraphic transect across the Northern flank of the Midcontinent Rift near Rosspport (I)

**Leaders:** Peter Hollings and Phil Fralick (Lakehead University)

6:00 p.m. **Return of Trips 1,2 and 3**

4:00 p.m. - 8.00 p.m. **Registration** (Nipigon Community Centre)

7:00 p.m. - 9.00 p.m. **Ice Breaker Social** (Nipigon Curl-a-Drome) **and Poster Setup** (Nipigon Community Centre)

### Thursday May 26

8:00 a.m. - 4:00 p.m. **Registration** (Nipigon Community Centre)

9:00a.m. - 9:05 a.m. **Introductory Remarks - Mark Smyk and Peter Hollings, Co-Chairs**

#### Technical Session I

**Session Chairs:** T. Boerboom (Minnesota Geological Survey), W. Cannon (US Geological Survey)

9:05 a.m. **Addison, W., Brumpton, G., Vallini, D., McNaughton, N., Davis, D., Kissin, S., Fralick, P. and Hammond, A.**

*Discovery of distal ejecta from the 1850 Ma Sudbury impact*

9:25 a.m. **Schnieders, B. and Scott, J.**

*Mining and exploration activity in the Thunder Bay South District*

9:45 a.m. **Hill, M.L. and Smyk, M.**

*Penokean fold-and-thrust deformation of the Paleoproterozoic Gunflint Formation near Thunder Bay, Ontario*

10:05 a.m. **Middleton, R. and Heggie, G.**

*Seagull Intrusion; A unique PGE-Ni-Cu Setting.*

10:25 a.m. - 11:00 a.m. **Coffee Break and Poster Session**

- 11:00 a.m. **Maric, M.\* and Fralick, P.**  
*Sedimentology of the Rove and Virginia Formations and their tectonic significance*
- 11:20 a.m. **Easton, R.M.**  
*The Grenvillian Tomiko quartzites of Ontario: correlatives of the Baraboo quartzites of Wisconsin, the Mazatzal orogen of New Mexico, or unique? Implications for the tectonic architecture of Laurentia in the Great Lakes region.*
- 11:40 a.m. **Medaris, G. and Dott, B.**  
*Riddle of the sands (Proterozoic) solved by quartzites at Hamilton Mounds Wisconsin*
- 12:00 p.m. - 1:30 p.m. **Lunch Break and Poster Session (ILSG Board Meeting by invitation)**

## Technical Session II

### Special Session - Lake Nipigon Regional Geoscience Initiative

**Session Chairs: Tom Lane (CAMIRO), Mark Severson (Natural Resources Research Institute)**

- 1:30 p.m. **Heaman, L. and Easton, R.M.**  
*Proterozoic history of the Lake Nipigon area, Ontario: Constraints from U-Pb zircon and baddeleyite dating*
- 1:50 p.m. **Smyk, M.**  
*Mineral deposits and metallogeny of the Midcontinent Rift in Ontario*
- 2:10 p.m. **Fralick, P., Metsaranta, R., and Rogala, B.**  
*Stratigraphy of the Mesoproterozoic Sibley Group and Nipigon Sills*
- 2:30 p.m. **Hart, T. and MacDonald, C.**  
*Mesoproterozoic diabase sills of the Nipigon Embayment, northwest Ontario*
- 2:30 p.m. - 3:00 p.m. **Coffee Break and Poster Session**
- 3:00 p.m. **Richardson, A.\* and Hollings, P.**  
*Geochemical variation within the Mesoproterozoic Nipigon diabase sills*
- 3:20 p.m. **Metsaranta, R.\* and Fralick, P.**  
*Depositional setting of the Pass Lake and Rossport Formations (Sibley Group) inferred from a combined sedimentologic/geochemical approach*
- 3:40 p.m. **Laarman, J.\* and Hollings, P.**  
*Petrogenesis and PGE mineralization of the Eva Kitto Intrusion, Northern Ontario*
- 4:00 p.m. **Magee, A.\*, Hollings, P. and Fralick, P.**  
*Preliminary stratigraphy and geochemistry of the Mesoproterozoic Pillar Lake volcanics, Wabigoon subprovince, Superior Province, Armstrong, Ontario, Canada*
- 6:00 p.m. **Annual Banquet and Award Presentation (Royal Canadian Legion)**  
**Announcement of 52<sup>nd</sup> Annual Meeting Location**  
**2005 Goldich Award Presentation to Mark Smyk**  
**2005 Banquet Address - Dr. J. Franklin**  
*Meeting participants not registered for the banquet are welcome to attend the address*

**Friday May 27**

9:00 a.m. - 12:00 p.m. **Registration**

**Technical Session III**

**Session Chairs: Mary Louise Hill** (*Lakehead University*), **Mike Easton** (*Ontario Geological Survey*)

9:00 a.m. **Holm, D., Cannon, W., Chandler, V., Schneider, D., Schulz, K., & Van Schmus, W.**  
*The incredible shrinking Penokean orogen: a new look at the accretionary history of the southern Lake Superior region.*

9:20 a.m. **Vallini, D.\*, Cannon, W. and Schulz, K.**  
*New age data for the Chocoday Group, Marquette Range Supergroup: implications for the Paleoproterozoic evolution of the Lake Superior and Lake Huron regions*

9:40 a.m. **Knudson, D.\*, Saini-Eidukat, B., Miller, J., and Daniels, P.**  
*Structural state of plagioclase phenocrysts in porphyritic rocks of the Midcontinent rift, northeastern Minnesota*

10:00 a.m. **Albers, P.\* and Miller, J.**  
*The geology and petrology of the Leveaux porphyritic diorite, Cook County, MN: Investigating possible magmatic relationships to the Anorthositic Series of the Duluth Complex*

10:20 a.m. - 11:00 a.m. **Coffee Break and Poster Session**

11:00 a.m. **Conly, A. and MacDonald, J.**  
*Origin of high-sulphate waters of the Hogarth Pit Lake, Steep Rock iron mine, Atikokan, Ontario.*

11:20 a.m. **Breckenridge, A.\* and Johnson, T.**  
*Lake Superior's oxygen isotope record suggests overflow to Lake Ojibway between 10,000 and 9,400 CAL BP (~8.9-8.4 <sup>14</sup>C KA)*

11:40 a.m. **Blackburn, C. and Kor, P.**  
*Control of Quaternary erosional and depositional landforms at the Eastern outlet of glacial Lake Agassiz by Precambrian bedrock and structure, Ottertooth-Pantagreau Lakes area, northwestern Ontario*

12:00 p.m. - 1:30 p.m. **Lunch Break**

**Technical Session IV**

**Session Chairs: Peter Hinz** (*Ontario Geological Survey*), **Charlie Blackburn** (*Blackburn Geological Services*)

1:30 p.m. **Weiblen, P., Peterson, D., Vislova, T.**  
*Implications of Midcontinent Rift and oceanic ridges analogies and 3D interpretations of the subsurface structure of the Bald Eagle Intrusion in the Duluth Complex and the East Pacific Rise*

1:50 p.m. **Halls, H.**  
*Dyke swarms around the Lake Superior Region define Proterozoic (~2 Ga) deformation of the Archean Superior Province associated with evolution of the Kapuskasing Zone*

2:10 p.m. **Dahl, D.**  
*Gold grains, pathfinder elements, and till clast composition in a portion of the Vermilion Greenstone Belt, Northeastern Minnesota*

- 2:30 p.m    **Miller, J. and Jirsa, M.**  
*Geology, geochemistry and PGE potential of mafic and ultramafic intrusions in Minnesota, excluding the Duluth Complex*
- 2:50 p.m    **Presentation of Best Student Paper Award and Eisenbrey Awards**
- 3:00 p.m. - 3:30 p.m.        **Coffee Break and Poster Session (Posters removed after the break)**
- 7:00 p.m    **Mixer - Cash Bar (Nipigon Curl-a-Drome)**

### Poster Presentations

**Bucholz, T., Falster, A., and Simmons, W.**

*Mineralogy of pegmatites and spatially associated metasomatized zones, Michels Materials Quarry, Waterloo, WI*

**Cannon, W., Schulz, K., Daniels, D., Anderson, R., Chandler, V., Holm, D., Schneider, D., Van Schmus, R.**

*Geology of Precambrian basement rocks in Iowa and the southern parts of Wisconsin and Minnesota*

**Jirsa, M. and Miller, J.**

*Geologic implications of bedrock mapping in the Ely and Basswood Lake quadrangles, Northeast Minnesota*

**Lane, C.\* and Hollings P.**

*Geochemistry and petrography of the Rabbit Islands Breccia, North Central Lake Nipigon*

**MacTavish, A.**

*MetalCORP Ltd. Big Lake Ni-Cu-PGE, Cu-Zn-Ag, and Mo Property*

**Magee, A.**

*Mining and exploration activity in northwestern Ontario*

**Planavsky, N.\* and Murphy, J.\***

*New thoughts on old circles: A reexamination of spheroidal Gunflint taxa*

**Rossell, D. and Coombes, S.**

*The geology of the Eagle Lake Nickel-Copper deposit: Marquette County, Michigan*

**Severson, M.**

*PGE and gold potential of the Archean Deer Lake Complex, Minnesota, USA*

**Shareef, S. and Craven, J.**

*A view into the Nipigon Embayment: preliminary results of the largest magnetotelluric study ever in Ontario.*

**Stott, G. and Rayner, N.**

*Discrimination of Archean terranes in the Sachigo subprovince and relevance to volcanogenic massive sulphide exploration*

**Trow, J. and Young, C.**

*Correlation between self-potential and dowsing (IESG) at the Quincy Mine and at the Calumet and Hecla Mine, Michigan*

**Weiblen, P., Peterson, D., and Vislova, T.**

*Implications of Midcontinent Rift and oceanic ridges analogies and 3D interpretations of the subsurface structure of the Bald Eagle Intrusion in the Duluth Complex and the East Pacific Rise*

**Zieg, M., Forsha, C., and Habarka, J.**

*Textural examination of Kama Point diabase sill, Nipigon, Ontario*

**NOTE: Asterisk \* denotes a student eligible for a Best Student Paper Award**

**Saturday May 28**

8:00 a.m. **Field Trip 4:** Geology and Rare Element-bearing pegmatites of the Quetico Subprovince

**Leaders:** Mark Smyk (OGS) and Steve Kissin (Lakehead University)

8:00 a.m. **Field Trip 5:** Geology of the Black Sturgeon Area

**Leader:** Tom Hart (OGS)

8:00 a.m. **Field Trip 6:** A Stratigraphic Transect Across the Northern Flank of the Midcontinent Rift near Rosspport (II)

**Leaders:** Peter Hollings and Phil Fralick (Lakehead University)

6.00 p.m. **Return of Trips 4, 5 and 6**