

The Centre of Excellence for Sustainable Mining and Exploration (CESME), in collaboration with Indigenous education organizations, is working to develop a university level micro-credential that furthers STEM studies, particularly in Geology. The objective is to recontextualize existing first-year courses in Mathematics, Physics, Chemistry, Geology and English, to an Indigenous worldview. The ultimate goal is to increase participation in the Sciences, particularly Geology and Water Resource Science, amongst the Indigenous communities in Northern Ontario.

We have received considerable support from Indigenous leadership and educational institutions categorically stating that this innovative transfer pathway is needed.

At the 39th Annual Meeting (July 24 - 27, 2018), the Assembly of First Nations unanimously passed a resolution of support for Lakehead University's

development of the ICGS. A resolution of support that outlined the regional need for ICGS, was also passed by the Matawa Chiefs in Council (September 28, 2018).

As we move forward with this endeavor we will be working closely with our partners in communities and industry in order to develop a program that benefits everyone.

"We are very excited to partner with the Centre of Excellence for Sustainable Mining and Exploration and others to help make the ICGS a reality. It is an area that is under represented by the Indigenous population and helping create something that will help support the accessibility for Indigenous learners is vital."

 Brent Tookenay, Chief Executive Officer, Seven Generations Education Institute



"We are truly grateful for the support CESME is receiving from our partners in Northern Ontario – whether through the employment of our students, supporting our scholarship and bursary programs or engaging with us to solve the pressing research issues in the North."

- Dr. Pete Hollings, CESME Director

EXCEPTIONAL. UNCONVENTIONAL.





EXCITING PARTNERSHIP DEVELOPMENTS

Dr. Pete Hollings and his research team have a strong record of partnering with industry and academia. The recently completed AMIRA P1153 project was a collaboration between Lakehead, Barrick Gold Corp's. Hemlo Mine and the University of Tasmania.

Graduate students Joseph Vrzovski and Emily Gorner, along with HBSc students Liam Fay and Andrew Jedemann, worked with researchers at the University of Tasmania and geologists at the mine to investigate the mineral chemistry of the alteration halo around the Hemlo Mine. These results proved very promising and are already being integrated into Barrick's exploration strategies at Hemlo.

With P1153 complete, Lakehead is now working on P1202, this time collaborating with Freeport McMoRan in British Columbia. MSc students Patrick Hamilton and Andrew Jedemann are studying the alteration footprint of the porphyry and lithocap system in the Pemberton Hills area of Vancouver Island. Even though they only completed their field work in October 2018, the results are already looking very exciting!

CESME HIGHLIGHTS

One of the primary goals of CESME is to recruit and foster faculty, postdoctoral fellows, postgraduate, graduate, and undergraduate student participation.

Highlights from CESME in include:

Dr. Jim Franklin

CESME ADVISORY BOARD MEMBER AND SUPPORTER OF THE DR. MELVILLE BARTLEY MEMORIAL **CESME AWARD**

Was inducted into the Canadian Mining Hall of Fame in January 2019 — congratulations.

Dr. Dawn Mills

One of CESME's two dedicated research fellows has been working hard to develop the Indigenous **Certificate in Geological Studies**

We continue to engage with local partners through our 'Discovery Days' providing insight into the exciting research activities at Lakehead.

DR. MELVILLE BARTLEY **MEMORIAL CESME** AWARD RECIPIENT



Chanelle Boucher was the 2017/18 recipient of the Dr. Melville Bartlev Memorial CESME Award. This award is supporting Chanelle as she

works on her MSc in the Geology Department at Lakehead University investigating the genesis of komatiites in Lake of the Woods, Ontario. Her research will help us understand the processes that formed the Superior Crator 2.7 billion years ago.



Thank you to our donors for generously supporting the following Awards currently available to graduate students, who are learning an interdisciplinary approach to research. This approach is providing a learning experience that better prepares them for the unique regional needs of Northern Ontario.

- SNC Lavalin CESME Graduate Scholarship
- John R. Craig Memorial CESME Award
- Dr. Melville Bartley Memorial **CESME Award**



For more information, please contact

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