

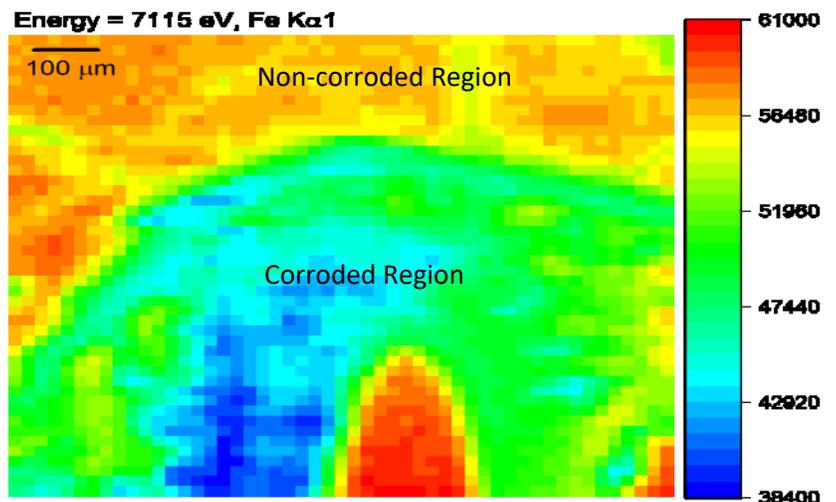
2017 Third Quarter Highlights

We are pleased to provide the following highlights from the summer of 2017 and a brief look ahead.

Project Highlights

- ◆ Cumberland College started a new pre-apprentice electrician program on August 28th with 12 students – seven of whom are Indigenous. To date, 58 students have graduated from the IMII-sponsored electrician and industrial mechanic applied certificate programs in Cumberland College.
- ◆ The corrosion inhibitors project at the University of Regina – one of four under the mining materials research cluster, was approved for Mitacs Accelerate internship funding.
- ◆ A new post-doctoral fellow joined the slurry erosion corrosion project at the University of Saskatchewan.
- ◆ The concrete corrosion project – another under the mining materials research cluster, recorded a first using a special beamline at the Canadian Light Source. They have demonstrated the ability to image the surface of steel rebar beneath a polymer coating. This non-destructive technique will allow the researchers to track the corrosion of polymer-coated rebar over time to develop a detailed understanding of how these materials corrode in potash mining/milling environments, and determine which polymer coatings provide the greatest, long-term protection. Reinforced concrete is an important construction material in the potash industry. The corrosion of reinforced bar (rebar) in reinforced concrete can lead to the cracking and breaking of concrete, creating a potential safety issue.

X-rays penetrate through a corroded polymer-coated rebar sample resulting in an X-ray fluorescence image to be developed that shows the location of corrosion at the polymer-rebar interface.



- ◆ The rebar shear project reported that all in situ fibre-optic instrumented rebar rock bolts were installed at Mosaic – Colonsay, Agrium – Vanscoy and PotashCorp – Allan. This cutting edge equipment will allow researchers to monitor the dynamic strains the rock bolts are subjected to in real time.
- ◆ Three IMII supported research projects were highlighted in the University of Saskatchewan's College of Engineering *Thorough* publication – the mining materials research cluster, the rebar shear project and the deep hydrogeology project (see http://www.imii.ca/fileadmin/user_upload/IMII%20News%20Articles/2017/UoS_News_Release_College_of_Engineering_20170822.pdf)

“Innovations that Matter to Mining”

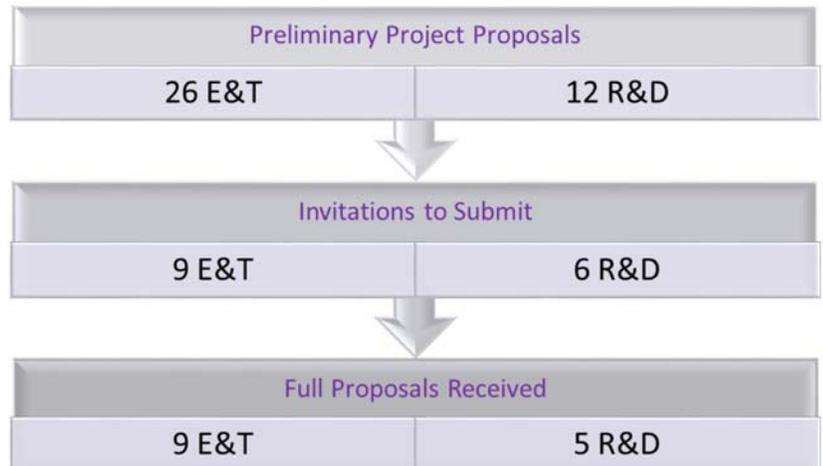


IMII News

- ◆ In July, IMII announced that nine of 26 preliminary project proposals were shortlisted by its funding members for further consideration under the \$1 million Diversity & Inclusion Challenge program.
- ◆ Also in July, IMII welcomed Women in Mining and Women in Nuclear Saskatchewan, Inc. (<http://wimwinsk.com/>) as an associate member.
- ◆ In August, IMII welcomed New Concept Mining Canada (<http://www.newconceptmining.com>) as a major supply chain member.
- ◆ Also in August, the U of S Innovation Enterprise and IMII announced that six research teams from Saskatchewan post-secondary institutions were by shortlisted by industry members of IMII to advance to the next stage of a partnership initiative aimed at fostering innovative solutions to provincial mining industry issues. Selected teams represent the University of Saskatchewan, University of Regina and Saskatchewan Polytechnic.
- ◆ On plan in September, IMII received five R&D proposals and nine E&T project proposals. These proposals are in consideration for more than \$1 million allocated to R&D project funding under IMII’s *Exploring Innovations* and *Developing Innovations* programs, and up to \$1 million in E&T project funding under IMII’s *Diversity & Inclusion Challenge* program.
- ◆ To close out September, IMII’s executive director spoke at a national mining conference in Saskatoon on how member mining companies are acting, through IMII’s Diversity & Inclusion Challenge Program, to increase the number of women and indigenous people in the mineral sector’s workforce.

Fourth Quarter Outlook

- ◆ In October, mining’s CLEER (Clean, Low-Energy, Effective, Engaged and Remediated) innovation supercluster initiative application was one of nine shortlisted by the Government of Canada. Innovation, Science and Economic Development Canada received more than 50 letters of intent and the nine shortlisted applicants have until November 24th to submit detailed proposals. IMII submitted a letter of support for the mining supercluster’s initial application and the detailed proposal.
- ◆ Recommendations for project funding will be submitted from IMII’s R&D and E&T Funders’ Panels to the Board of Directors for approval in December – bringing this year’s project development process to an end.



For more information on these projects and activities we invite you to contact us at (306) 668-2070 or visit our website at www.imii.ca.

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