Maintenance, Engineering and Reliability Society, a technical society of the CIM, is pleased to invite its members for a webinar. The details are as follows:

Date: 22th Nov 2017: Time: 11.00 am to Noon PST: Format: 30 to 40 minutes of presentation, followed by 15 minutes of Q&A. Attendance certificates will be awarded; Please RSVP by emailing to MERS@cim.org. An e-webinar invite will follow.

Presentation Outline: Densimetric analysis in minerals processing

Densimetric analysis provides important operational information for any technology using gravity separation. Information such as; mass-balance and recovery efficiency information. This analysis also allows one to critically compare the performance of different technologies; Drum separator vs Cyclone vs Spirals vs Jigs or when evaluating different sized units - should one use a cluster of 360 mm diameter cyclones or one 610 mm diameter cyclone? A 3-curve densimetric analysis is conducted by taking representative samples of the feed, floats and sinks of a gravity separation process and then analysing these samples using heavy liquid separation (HLS). The Saskatchewan Research Council (SRC) can now conduct HLS testing to a specific gravity in excess of 3.5 g/ml. The SRC conducted a 3-curve densimetric analysis on their 150 mm diameter dense media cyclone (DMC) to quantify the misplaced material. Some of the interesting findings from this analysis are;

- At the DMC d50 cut-point, the average operational efficiency is 97.95%.
- The d50 value obtained from the DMC tracer test and from the heavy liquid densimetric tests are comparable.
- The d50 value shifts approximately 0.1 SG for each 1 mm change in particle size.

Speakers: Jane Danoczi and Mike McCubbing

Jane's bio: Jane has been involved in R&D for more than 30 years, first in the military and then for the mines. Jane has developed various technologies for the recovery of gems as well as manufactured simulants/standards for verifying the performance of a process. Jane has worked for De Beers for over 10 years, then ran her own consultancy for 8 years. Jane joined the SRC in 2014 and assisted in designing and developing the Micro DMS plant that recovers indicator minerals from exploration samples. More recently Jane have been involved in setting up services to assist the metallurgists and process engineers on the mines in determining the viability of using new technologies or determining the efficiency of the current technologies.

Mike's bio: Mike is the Supervisor of the Saskatchewan Research Council's Geoanalytical Laboratories Diamond Services Division. He has 16 years' experience in laboratory techniques of diamond processing including micro diamond extraction by caustic fusion and kimberlite processing by dense media separation for macro diamond recovery. He has served as chairperson and director for the Mineral Deposits Division of the Geological Association of Canada and is a registered professional geoscientist with APEGS.

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~ thank you ~

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Have an idea for the next e-Webinar? Want to sponsor next event?

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