



ANCIENT PILLARS OF ACTIVE SEISMIC WISDOM

Lecture Description

Twenty-five to thirty years ago a number of seismic tomography experiments were undertaken in underground mines for the purpose of assessing the value of the method in mapping and monitoring rock mass condition. In this presentation I review some of these experiments conducted for imaging the effects of de-stress blasting in a burst-prone sill pillar in a before-and-after experiment at BMS#12 Mine, characterizing rock mass condition in crown pillars from mines in Ontario and Quebec, and documenting rock mass changes over a period of several months in the footwall rocks adjacent to an active blasthole stope at Strathcona Mine in Sudbury. The purpose of presenting observations and key conclusions from a couple of decades ago is to help provide context for interpretation of modern experiments, as interest in the subject has been renewed. The discussion will include lessons learned regarding spatial resolution limits, realistic strategies for seismic monitoring of rock mass changes versus time, the importance of recognizing seismic anisotropy in fractured rock masses, and thoughts on useful ways forward.

Registration

To register for this lecture, please contact Courtney Folz at cfolz@miningexcellence.ca or 705.673.6568 x72.

There is no fee to attend this lecture, but seating is limited. Register today!

Metered parking is available in the Fraser Parking Lot across from the Willet Green Miller Centre.



John McGaughey
President

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Presenter

John McGaughey is President of Mira Geoscience Ltd. He is a graduate of Queen's University with a Ph.D. in applied geophysics. His focus is integrated, multi-disciplinary 3D and 4D interpretation and earth modelling for mining, mineral exploration, and geotechnical decision support. Prior to founding Mira Geoscience in 1999 he spent 10 years at the Noranda Technology Centre as a Senior Scientist in their exploration and rock mechanics groups. Mira Geoscience is a software and consulting company specializing in advanced 3D earth modelling applications for the mining, geotechnical, and geothermal industries, with offices in Montreal, Vancouver, Perth, and Brisbane.

For more information, please visit our website at www.miningexcellence.ca

This event will be recorded and will be made available on our website.