

Doug Milne

Topic: Characterization of the Rock Mass for Open Stope Mine Design

Doug Milne is a geological engineer with an MSc and PhD in mining rock mechanics from Imperial College and the University of British Columbia. He has over 20 years industry experience in surface and underground rock mechanics and teaches rock mechanics at the University of Saskatchewan. Doug's MSc research was on rock mass classification systems and he has written several papers on classification and worked in the field gathering data for classification and design. His PhD thesis was on open stope stability and deformation.

Doug's areas of research include rock mass characterization, stope design and dilution, rock support, empirical design methods and the interpretation of underground field instrumentation.



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Resumen

The stability, design and support of open stopes is of interest for underground mines. Predicting dilution from stope hanging walls is an area of ongoing research. Coupling empirical stope design, field instrumentation and detailed rock mass classification shows great promise for improving our ability to predict rock mass performance.

Rock mass classification and empirical stope design is often recognized as the initial or preliminary step for stope design. This would be followed by detailed numerical modelling and back analysis as mining progresses. In this presentation it will be proposed that empirical design and detailed rock mass classification is ideally used in all phases of mine development.