

The Use of Real Options Methods in the Valuation and Management of Mining Projects

When: 8:00-4:30 - Sunday

Where: Shaw Convention Centre - Room #

Presented by: Mr. Keith Spence and Dr. Bill Roscoe, Co-Chairs, CIM Special committee on Valuation of Mineral Properties (CIMVal).

Instructors: Dr. Michael Samis (Consultant, Kuiseb Mineral Consulting), Dr. Graham Davis (Associate Professor of Economics and Business, Colorado School of Mines) and Dr. David Laughton (Adjunct Professor of Business, University of Alberta)

Topic: As part of its continuing education CIMVal will present a one-day workshop on the "Options Method" for valuing mineral properties. The "Options Method" is not well understood by many in the mining industry, but it can be a powerful tool in valuation. Advances in finance theory and risk management have had an important influence on decision-making in financial markets. This has now begun to spread to non-financial industries, such as mining and the upstream petroleum industry. Course participants will acquire 1) A conceptual understanding of how real option valuation can provide a consistent valuation approach that differentiates projects by their unique cash flow risk characteristics, 2) Insight into important aspects of project structure, such as management flexibility and operating costs, influences risk-adjustments and value, and 3) Practical examples of the range of projects where real option valuation is applicable.

Instructor Biographies:

Dr. Michael R. Samis began his mining career in South Africa where he worked in production, planning and valuation positions at several gold and coalmines. While in South Africa, he completed a M.Sc. degree in mineral economics that focused on using real options to analyse project financing proposals for marginal gold mines. In 2000, he completed his Ph.D. at the University of British Columbia where his research considered the interaction between geological structure, capital and operating costs, management flexibility and project uncertainty. His professional experience includes valuing major capital investment projects with complex forms of management flexibility, producing and leading professional development workshops discussing the use of real options to value and manage natural resource projects, and providing expert witness affidavits for business litigation involving natural resource valuation problems. Dr. Samis is registered as a Professional Engineer in Ontario, Canada.

Dr. Graham A. Davis is an Associate Professor of Economic and Business at the Colorado School of Mines. Dr. Davis has a bachelor's degree in engineering, an MBA, and a Ph.D. in mineral economics. He is recognized as an expert in applying real options to real world problems, and has undertaken real options valuation projects for government and private organizations worldwide. He teaches a 15-week graduate-level course on real options applications in the mining and petroleum industries.

Dr. David Laughton has provided advanced valuation consulting and professional development services since 1982 for major corporations and government agencies in

Canada, Europe and the United States of America. As a result of his applied real options research, he has been asked to edit a special journal issue on this topic by the International Association for Energy Economics, to provide a review of the field for the Journal of Energy Literature, and to organise a workshop on next steps in asset valuation for the Society of Petroleum Engineers. Dr. Laughton received a PhD in physics from Princeton in 1979, and in Finance from MIT in 1987. He has been an Adjunct Professor at the University of Alberta since 1993.