



Session: Coal #1
Tuesday, Sept 23
8 – 10 a.m.
Room N253, Las Vegas Convention Center, Upper Concourse

Title: An Integrated Procedural Approach to Underground Mine Planning that Increases Value

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Abstract:

The value that is derived by good mine planning is often underestimated as many mines steer their attention and recognition to the more immediate and more easily recognised successes made by the day to day operational “bush fire” fighting. Similar to machine maintenance, the efforts made to quickly rectify short term, breakdowns are well recognised, whereas the value derived from the work in planning, and scheduling and undertaking preventative maintenance is not so obvious or readily quantified. Too often the focus of the business shifts to building and supporting an efficient operations team at the expense of developing a highly experienced team of mine planning practitioners that are well trained with procedures and purpose built tools to develop optimum mining strategies.

A resource has an inherent value based on its quality parameters and its likely mining conditions. How well that value can be unlocked is governed to a large degree by the proficiency of the mine planning practitioners, as they essentially set the foundation of the mine business and the path along which the mine will operate.

The importance of having a well documented and procedural mine planning methodology which integrates both a thorough technical and economic understanding of the resource cannot be over emphasised. The aim of the mine planning process is to develop a robust mine design and production capability which can best cater for future uncertainty whilst providing the best opportunity to maximise cash flow into the business. The planning process must be transparent and auditable, clearly summarising the process steps and assumptions made to arrive at a justifiable and defensible outcome. To provide maximum value to the

business, the planning process must be repeatable and scaleable to enable easy replication throughout the different mines and projects within an organisation.

The diminishing numbers of highly experienced personnel within our industry, coupled with the growing pressure to clearly demonstrate that appropriate due diligence has been exercised, means that well documented and monitored mine planning processes using purpose built and innovative tools need to be developed to ensure optimum outcomes.

The aim of this paper is to:

1. discuss a systematic approach to establishing well designed mine planning processes which incorporate purpose built tools;
2. provide an overview of one of the main fundamental processes for incorporating an economic understanding of a resource early in the mine design process, namely Margin Ranking; and
3. present the summary results of a case study which demonstrates the value gains which can be realised through the implementation of a well integrated technical and business planning methodology.