

## CASE STUDY

# A winning combination: Deswik & Contract Mining

An International Mining Contractor • Underground Metals

## OVERVIEW

In a highly contested bid for a decline development project for a world-class block cave mine, a mining contractor needed an innovative approach to submit a reliable and competitive tender. Deswik consultants assisted by building a flexible model using the Deswik suite of software. Multiple scenarios, communication via schedule animations and time-dependent reporting provided confidence in design and schedule, while allowing for understanding of project risks.

## SOLUTION

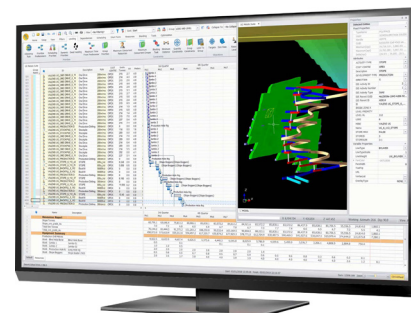
Deswik consultants built a robust first principles model using the Deswik Suite, enabling the contractor to confidently produce a competitive bid during the project tender.

- Sensitivity analysis to variables could be completed efficiently, leading to an understanding of the main project drivers and risks.
- The ability to dynamically sequence and create schedule dependencies through the Deswik.IS graphic interface allowed for thorough error checking and sequence validation.
- Customized reporting allowed for quantity reporting by period, and direct exporting to Microsoft Excel spreadsheets. This removed errors created by data replication and ensured project cash flow analysis could be easily produced.
- The integrated process allowed for clear communication of the resource leveled schedule, including animations, giving the client confidence that the tendered project could be achieved.

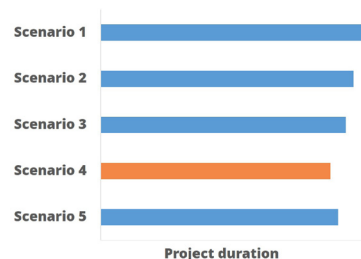
## IMPACT

The contractor, in joint venture with a local contractor, was awarded the first underground decline project at the large copper mine. They were able to clearly communicate their underground development plans and expertise using the Deswik suite.

- **Model manipulation:** As the model was built from first principles, it was able to be easily modified and updated when new information came to hand. Delays to the schedule were able to be built in, identifying key bottlenecks and critical paths.
- **Scenarios:** Multiple scenarios were able to be run quickly to test resource types and levels, assess the impact of delays, and determine the best strategy for the bid.
- **Resource leveling:** Using Deswik.Sched, the resource leveling tool ensured that there were no equipment over-allocations and that a practical schedule was produced.
- **Clear communication:** Using Deswik.IS, an animation of the leveled schedule was produced. This increased the client's confidence in the contractor's ability to perform the contract obligations. The animations were also used internally by key decision makers to understand and manage project risk.
- **Variation management:** The use of schedule baselines allowed increased visibility on contract variations. The contractor is using the ability to input plan updates from the client into the bid model and compare this to the original contract.



An animation of the leveled schedule was produced using Deswik.IS.



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