CASE STUDY

Deswik.OPS drives development productivity gains by providing real-time conformance to plan tracking

OPERATIONS SCHEDULING & TRACKING | UNDERGROUND MINING | Agnico Eagle - LZ5, Canada

"With readily available information from Deswik.OPS, the workers feel empowered and self-directed to achieve the best possible outcomes for the operation."

Maximizing productivity remains one of the top initiatives for mine operators around the globe. However, this can be difficult to achieve without a way to monitor the advance of high priority development. Whilst achieving the development target for each period is important, it is perhaps more critical that cuts (or rounds) are taken in the correct locations to ensure production targets are met.

In partnership with Deswik, Agnico Eagle has achieved significant increases in their development productivity using Deswik.OPS for operational scheduling and tracking at their Laronde Zone 5 (LZ5) mine in Canada.

LZ5 is an underground gold mine located in north-western Québec that performs sublevel stoping with paste or unconsolidated backfill to mine gold ore. The mine's development plans typically target 30 rounds per week from a pool of up to 35 different headings which are designated as 'Priority 1' or 'Priority 2'. In 2020, LZ5 was only achieving 450-500 meters of development per month, with plan conformance for Priority 1 headings at approximately 70%. Luc Girard, Mining Operations Superintendent explains that during this time, "it was difficult to achieve 500 meters of development advance per month."

Understanding priority jobs and the critical path

Upon evaluating several business improvement projects, Deswik.OPS was chosen to be implemented at LZ5 in fall 2021 to provide short-term scheduling and shift management to assist in the mine's operations.

The location-based timelines in Deswik.OPS which show the status of each heading proved to be an asset for the team due to its real-time view of shift progress and activity timelines. The crew was able to prioritize and focus on critical tasks based on the current mine plan and report back to the control room following job completion or any subsequent delays.

"We have visibility on priority jobs and can send workers to these locations first. Mine captains and workers have a collaborative understanding of

Deswik®

priority jobs and the critical path. With readily available information from Deswik.OPS, the workers feel empowered and self-directed to achieve the best possible outcomes for the operation," Girard comments.

Delivering value through real-time conformance to plan monitoring

The transparency of real-time activity timelines in Deswik.OPS has allowed LZ5 to realize significant productivity gains. With Deswik.OPS implemented, Girard adds that, "we are now exceeding our conformance to plan targets on Priority 1 development locations. In 18 months, we've seen a 40% improvement in our monthly development advance, increasing it to a maximum of 700 meters per month. In the very near term, we plan to increase our targets further from 30 to 38 rounds weekly."

The transparency of real-time activity timelines in Deswik.OPS has allowed LZ5 to realize significant productivity gains.

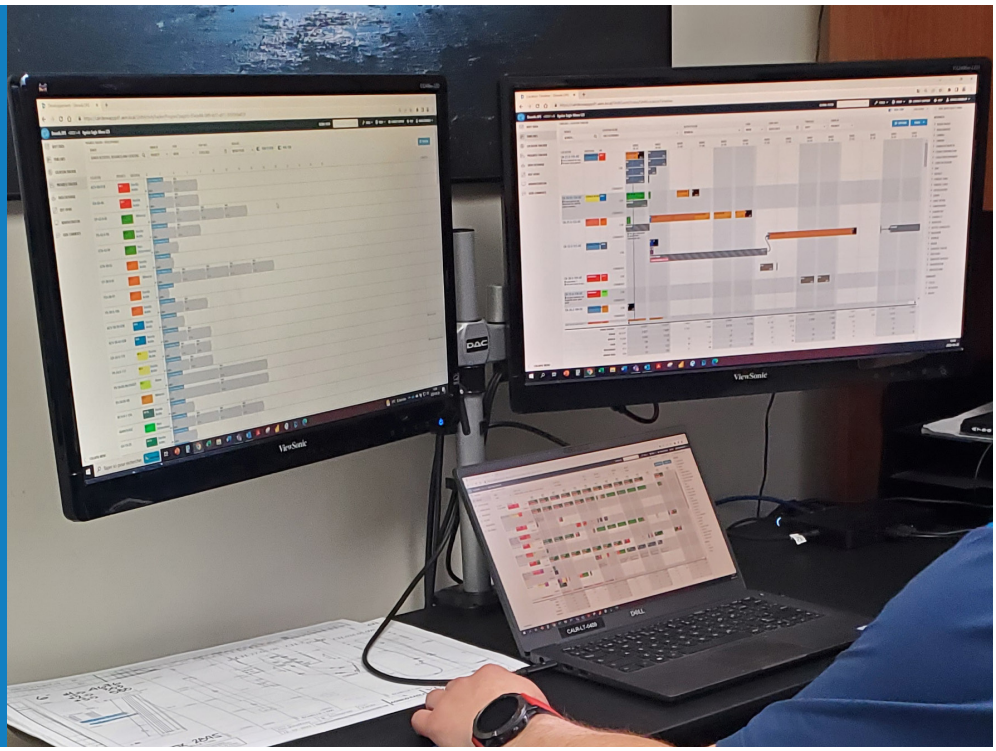

Figure 1 - Scheduling and conformance to plan monitoring at LZ5.

A platform for continuous improvement

The successful implementation of Deswik.OPS at LZ5 has led to further expansion plans to include the automation of reports. This is to enable geologists, engineers, and maintenance personnel to spend more time on data analysis for business improvement as opposed to data compilation.

LZ5 also intends on running a pilot study with Deswik's Operator App, which provides a digital view of the planned shift work for each operator on their mobile device. Workers can record production metrics at the face, stope, or stockpile in real-time, leave comments to provide valuable context to supervisors and managers, and access any information from previous shifts.

As a platform, Deswik.OPS has provided a solid foundation for LZ5 to further commit to improving the site's general communication, collaboration and collection of data to maximize productivity gains going forward.