

Case Study.
Ontario, Canada.
Mining & Metals.

Gold Mining Company Achieves "Solid Gold" via Enhanced Mill Maintenance Practices.



Challenge

A gold mining company engaged dss+ in 2022 to conduct a rapid assessment of maintenance maturity in the Mill area and to develop an improvement roadmap. Mill availability was on a downward trend and got worse in the latter half of the year.

The assessment findings uncovered an opportunity to improve mill runtime by 270 hours per year which was worth about US \$20 million annually based on 2022 budget numbers. It was jointly agreed that half of the potential, 185 runtime hours, would be targeted in 2023 and dss+ was asked for implementation support for nine months starting from November 2022.

dss+ Approach

The dss+ team developed an approach that would capture runtime hours through two key drivers:

1. the reduction of shutdown schedule overruns (planned maintenance) and
2. the reduction of breakdowns (unplanned maintenance). This category also contributed to a third production loss associated with the time required to ramp the plant back up to full production after a breakdown.

Shutdown Management and Reliability Management workstreams were designed to reduce the direct losses and two other workstreams were created as key enablers - Planning & Scheduling Improvement and Maintenance Management. The key value added was creating and sustaining alignment within the Mill Maintenance area and with the other operational areas, especially Mill Operations.



Assignment

The specific deliverables for the 2023 calendar year included the following:

- Reduce shutdown overruns - targeted gain of 80 runtime hours
- Decrease unplanned downtime - targeted gain of 55 runtime hours
- Reduce ramp-up losses - targeted gain of 50 runtime hours (equivalent)

The total expected gain for 2023 was 185 incremental runtime hours.



Impact

- By August 2023 the project had eliminated shutdown schedule overruns completely.
- Shutdown work order completion rate increased to above 90%, an increase of 30%.
- The number of unplanned Mill outages reduced by 46% over the previous year-to-date period, with a major impact on ramp-up losses and unplanned downtime.
- The total incremental runtime hours exceeded the project goal of 185 hours by 28%, in only eight months versus the targeted 12 months.

"I am very happy with the results. Mill Operations saw a significant improvement. The Mill is performing better, cleaner and is overall a better work environment. There is less frustration, resulting in less (people) turnover."

Gold Mining Executive



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