MINSET
YOUR PERFORMANCE ADVANTAGE

Case study

Mobile maintenance productivity improvement

Client: Gold producer **Location:** Victoria **Duration:** April-October 2017

Context

A mine expansion had created the impetus for our client to assess their mobile equipment servicing approach and improve workgroup productivity for surface and underground teams. Increased availability and reliability of mobile equipment were known to deliver increased production capacity without additional capital. The maintenance team also had limited exposure to 'pit stop' servicing techniques and standardising work practices, creating significant scope to introduce these industry-leading methods to the project. Mine personnel identified service strategies and increased productivity as possible improvement areas and, as a result, engaged Minset.

Approach

Targets were set to implement revised service strategies and reduce the service duration of loaders, trucks and drills by 15%, with no compromise to safety, quality or equipment performance. Close engagement with workgroups set the foundation for best understanding problems and improvement opportunities, leveraging site team knowledge to enhance the service process. A trial-based approach was used, working with crews to refine, consolidate and implement changes before wider roll-out, followed by in-field monitoring.

The team changed from using both calendar and utilisation-based servicing intervals, to a purely utilisation-based approach, aligned to industry and original equipment manufacturer (OEM) standards. This was supported by improved defect capture to reverse the excessive volume of unplanned corrective maintenance. Team engagement and in-field time-use observations also helped to identify and eliminate process waste. The result was a leaner, standardised 'pit stop' process for each equipment service for the primary production fleet. Workshop reorganisation of facilities further streamlined workflows. A project knowledge transfer program was also delivered in parallel to build capability and ensure sustainability. Improvements created greater operational flexibility in plant and personnel deployment with the production benefit equating to 315 development metres, 1,908 production metres and 1,296,000 tonnes hauled.

Results

Physical

- Average service duration reduced by 31% for targeted equipment – 48% for trucks and 52% for loaders
- 9,936 hours saved in maintenance per year
- 6,456 hours eliminated in planned equipment downtime per year
- More than $740,000 cost savings achieved

Process

- 'Pit stop' process introduced including reorganisation of workshop facilities
- Utilisation-based servicing streamlined
- Defect capture improved
- Audit tools provided to support sustainability

People

- Quick changeover work sessions held with 30 maintenance technicians
- Knowledge transfer program delivered
- Workgroup morale improved
- Further improvement expected as workgroups embed new service processes