

Achieving Operational Excellence in Open Pit Daily Inspection Procedures



The Problem

Apart from being a mandatory requirement, daily pit inspections are performed so mine operation stakeholders can have a clear picture of the actual performance against what was planned.

Information captured during the pit inspection is recorded on a paper-based system. These forms are collated and taken back to the site office, and work orders are distributed to the relevant personnel during the shift handover. Any new information obtained from these daily meetings will trigger new strategies to improve future pit planning.

However, a paper-based system often leads to the following issues:

- 1. Difficulties to track assigned tasks related to the issues found from the previous daily inspection
- 2. Lack of information during the shift handover since there's no digital data captured
- 3. Multiple groups of personnel from different departments with their own style of captured data

Due to the lack of information transparency, it is difficult to track day-to-day pit performance which leads to inefficient operations. By not having valuable pit data digitally historized, preventative or corrective actions are much harder to implement.

The Solution: j5 Operations Management Solutions

j5 Operations Management Solutions are used across the mining industry to improve communication and data collection at all levels of a mine operation. j5 applications enable operations, maintenance and process safety personnel within a mining company to manage their compliance duties efficiently and consistently.

j5 Operations Management Solutions can connect to external software such as the OSIsoft® PI System® to monitor real-time and historical data from equipment, sensors, instruments and the DCS and SCADA systems. This ensures that all the relevant data recorded at a mining asset can be shared with the correct people in real time.

j5 Operations Management Solutions make key shift information available to the entire operations team. This enables greater communication and direction within the group, which are crucial in processes like management of change (MoC) and incident and near-miss management.

Senior managers can also use j5 Dashboards, Reports and Views to analyze the performance of their mines. This allows them to compare and contrast mine performance to optimize costs and efficiency.

It is particularly effective for daily pit operations performance.



Daily Pit Inspection/Operator Rounds Workflow



Mine Engineering Team

- 1. Open daily pit service inspection form
- 2. Documentation of production checklist
- 3. Land clearing checklist
- 4. Haul road checklist
- 5. Pit stop checklist
- 6. Pit drainge & dewatering checklist
- 7. Setting pond checklist
- 8. Sloping checklist
- 9. Submission & workflow approval



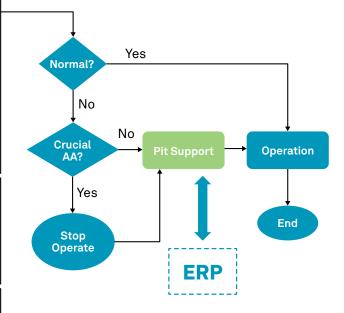
Pit Support

- 1. Received notification
- 2. Open "Pit Support Maintenance Assignment List"
- 3. Take action
- 4. Update assignment/status



Site Management Team

- <<During Daily Operation Meeting>>
- 1. Open logbook/inspection event list
- $2.\,{\sf Review}\,\,{\sf assignment}\,\,{\sf progress}\,\,{\sf status}$
- 3. Create necessary work instruction



Benefits of Digitalizing the Open Pit Daily Inspection Procedure



Benefits the mine will see quickly by implementing j5 Operations Management Solutions include:

- 1. Increased communications between departments and business units
- 2. Increase mine operations productivity due to optimized mine planning
- 3. Reduced operational risk due to the transparency and instant availability of pit information
- 4. Improved operational and regulatory compliance
- 5. Instant availability of past and present pit performance data for analysis
- 6. The elimination of paper and its associated physical storage space

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

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