DIGITAL TRANSFORMATION IN MINING OPERATIONS

Ampla Operations Management

Mining companies continue to face volatile global demand, commodity prices and intense competition. Ampla Operations Management software from AVEVA offers a transformative approach to production optimization, by holistically driving the efficiency of the entire mining supply chain, and maximizing utilization of all operating assets, so miners can strive to maximize profits.
Overview

Mining, Minerals & Metals (MMM) companies are faced with volatile market swings and increasing operating costs. Miners who rethink and shift their focus to proactively look inward into its processes, and leverage technology to drive operational excellence across the entire mining value chain, will be the winners of tomorrow. Ampla Operations Management software offers real-time optimization of mining operations by connecting and integrating operational silos for end-to-end value chain visibility across extraction, smelters and furnaces, and onto storage and transportation.

Inventory of materials is the most important asset of any mining company. AVEVA’s Operations Management software has proven its ability to help mining companies with production accounting and inventory management in near real time to provide an accurate, and timely indication of production performance, and inventory quantity and quality at any point of the value chain. The solution comes with easy to use visualization and reporting of data for critical KPIs. It provides real-time manufacturing intelligence by automatically capturing and contextualizing data from multiple mining plant and business systems. By applying modern analytics to a single trusted source of information, it provides an accurate view of inventory and visibility of compliance to plan. This approach eliminates delays, errors and inaccuracies related to the numerous calculation sheets, and point solutions used for production accounting and inventory management today. Ampla Operations Management enables data-driven decisions to be made in real-time, driving down the cost of production, and improving the efficiency through the entire operations process.

Benefits

With this shift to automated production accounting and inventory management, the solution empowers miners with accurate, real-time visibility of their inventory, to improve productivity and profitability:

Higher Operational Efficiencies
Efficient operations and collaboration across organization where performance and asset utilization can be managed, and continuously improve through accurate recording, visualization and reporting of data.

Increase Plant Throughput
Capture and maintain production results and inventories in terms of pre-processing, product and waste materials to improve production, inventory, quality management processes and reconciliation.

Reduce Material Losses and Reprocessing
Improve material management, minimize quality giveaway, reduce demurrage costs and improve customer satisfaction with a accurate picture of inventory – quality and quantity, at any given moment, and point of the value chain.

Improve Decision-Making
Increase predictability of mining operations and responsiveness to the changing market demands.
Transformative Approach to Operational Optimization

Ampla Operations Management offers key functionalities to provide a holistic overview of the mining value chain:

- Visualizes the most up-to-date version of the current short term production plan, by integrating with ERP and planning systems.
- Generates an accurate real-time view of production processes, asset utilization, OEE, energy consumption, material flows, and inventory - quantity and quality.
- Visualizes data and information on dashboards and interactive reports with drill-down analysis, including product genealogy and traceability of materials.
- Automatically log all the inputs and outputs of the production work.
- Offers a single trusted source of data, across organizations.

“Although the implementation process can be rigorous the end result is a reliable and functional solution which delivers production and plant performance information to all our key stakeholders. This allows our plant personnel to make informed decisions on achieving maximum productivity whilst managing underlying costs.”

Source: TechValidate. TVID: F4E-928-297

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<th>Performance improvements since using Ampla</th>
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<td>Inventory management</td>
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<tr>
<td>Equipment uptime</td>
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Ampla Operations Management empowers miners throughout the organization:

**Business Management**
- Obtain near real-time visibility into mining plant and business information to help maximize shareholder returns
- View performance against targets for any given period – day, week, month, and year
- Drive continuous improvement in business with access to timely, reliable data and KPIs

**Operations Management**
- Access timely, accurate data detailing the true state of the mine production process
- Empower effective decision-making with instantaneous feedback based on KPIs, e.g. OEE, yield and energy consumption
- Analyze, report, and manage product quality throughout the production process
- Reduce operating costs and energy usage while maximizing performance
Plant Management

- Get an accurate overview of the plant’s input and output
- Stabilize energy usage, improve operating procedures, and proactively determine future energy savings opportunities
- Manage and track inventory and material movements across the entire value chain to control production and costs
- Increase production and inventory visibility to make informed decisions

Maintenance Management

- Help ensure safe, timely, and efficient operation of plant machinery and equipment with improved visibility into equipment accumulators and maintenance activities
- Receive maintenance orders directly from operators during a downtime event
- Prioritize maintenance and proactively schedule downtime periods based on equipment performance

For more information on Customer FIRST or about Ampla Operations Management, please visit: https://aveva.com