DATAMINE

PRODUCTION

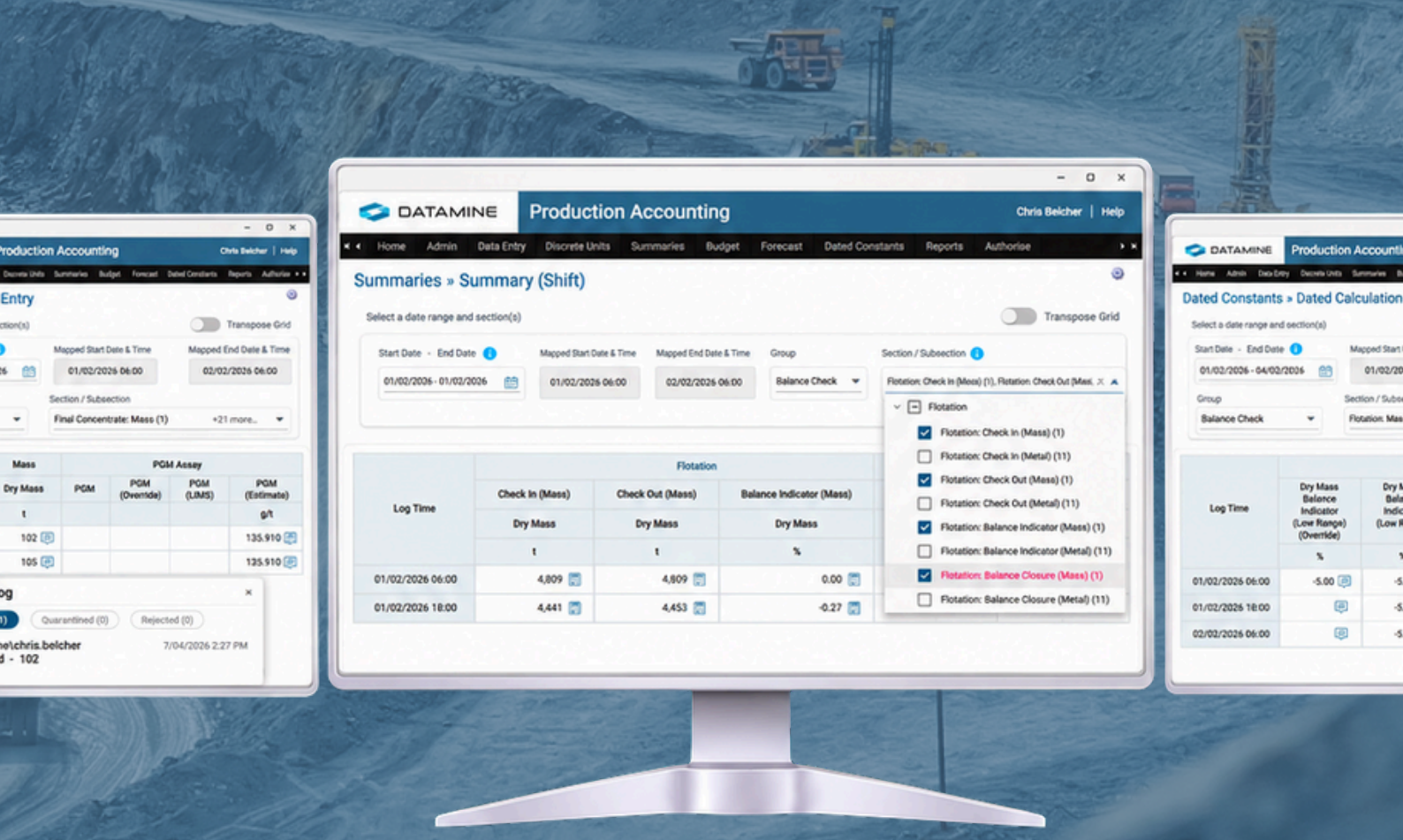
PRODUCTION ACCOUNTING: WHY COLLECTING PLANT DATA IS ONLY THE STARTING POINT

From source measurements to results your team can trace, review and explain.



Throughput measurements, laboratory assays and operational records help explain plant performance. But collecting these inputs does not make them ready to report. Between a measurement and a production result sit several essential steps: validation, metallurgical balancing and review.

The question is not simply, '**Do we have the data?**' It is, '**Can we explain the result?**'



THREE STAGES BEHIND A PRODUCTION RESULT

1 Data collection

Data collection establishes the inputs. Bringing plant measurements, assays and operational records together reduces repetitive extraction. It makes information available, but does not replace checking whether it is suitable for use.

2 Validation

Validation checks the information. Inputs need review before they enter calculations. Datamine Production Accounting provides validation routines, quarantine and review functions to help teams manage data with low integrity.

3 Balancing

Balancing relates measurements to the process. Material flows and assays are considered within a defined representation of the operation. Where statistical balancing is appropriate, measurements are reconciled against a model that respects conservation of mass.

Morrison and Gaylard (2008), discussing the AMIRA P754 Code of Practice for Metal Accounting, emphasise that understanding measurement accuracy and precision helps distinguish expected variation from discrepancies requiring investigation. Confidence depends on understanding the measurements, not just collecting them. [1]

A PRACTICAL EXAMPLE: REVIEWING COPPER RECOVERY

Consider a simplified circuit with feed, concentrate and tailings streams. Throughput measurements, stream assays and concentrate production records contribute to its accounting process.

An unexpected recovery result should prompt investigation: which inputs contributed to the figure, what checks were applied, and how were they used in the balance? Before interpreting it as a change in plant performance, the team needs to understand what the result represents.

The objective is not simply to calculate recovery, but to make the result traceable and explainable.

HOW DATAMINE SUPPORTS THE PROCESS

Datamine Production Accounting accepts data from multiple sources and combines validation, processing routines and audit trails with controls for authorising and publishing results. These functions help teams manage the path from source data to reported production.

1. The balancing method must still suit the operation and its data. Statistical mass balancing depends on suitable sampling practices, sample quality and laboratory results. [1]

2. Software supports this process; it does not replace sound measurements or metallurgical judgement. [1]

START WITH ONE REPORTED RESULT

Follow one production figure back to its source measurements, checks and balancing steps. Where that path becomes unclear, there is a practical priority for improvement.

A production report should provide results the team can trace, review and explain.

Within Datamine's Processing (Metals) Bundle, Production Accounting is complemented by plant performance monitoring, inventory management and operational analytics, connecting metallurgical accounting with the wider processing operation.

Explore Datamine's Production Bundles
One Partner. Every Stage. Every Challenge.

References

1. Morrison, R. D. and Gaylard, P. G. (2008). Applying the AMIRA P754 Code of Practice for Metal Accounting. MetPlant 2008, pp. 3-22. AusIMM.