

# CASE 1: Productivity based on analytics

## Optimisation of flotation

### Business opportunity:

A world-class mining operation hired Vantaz to build a multidisciplinary team whose mission was to increase the recovery of the flotation circuit through advanced analytical models, helping the shift supervisor / metallurgic supervisor / operator make better decisions.

### Solution:

Develop strategies to increase the recovery flotation circuit through automatic learning models to predict, simulate, and provide optimisation recommendations

Provide recommendations for operational adjustment points and operational ranges, for example:

- Air flow in a column
- Foam level in a conventional cell

Provide recommendations for the addition of reagents, for example:

- PH (CAL)
- Primary and secondary collectors
- Nash
- Foaming agent



### Results:

- Improve recovery by 0.5%-1.5% in the flotation circuit
- Operate with optimum operation points
- Run simulations of operational changes
- Identify the impact of variables in the process