



Marandoo Throughput Optimisation

PROJECT LOCATION

Marandoo, Pilbara, Western Australia

PROJECT CLIENT

Rio Tinto Expansion Projects

PROJECT SUMMARY

The Marandoo site had a base level of automation in terms of sequence interlocks. The project scope was to re-instate some instrumentation and add a layer of software into the PLC to achieve plant throughput optimisation.

BUSINESS IMPROVEMENTS

Proven 12% Throughput increase (~1.5 Mtpa) via addition of advanced control program in PLCs, achieved within 11 weeks

Expected Identification of constraints which were reducing plant availability by 15 hours per month, 3-4% increase expected

PROJECT SCOPE OF WORK

- Program and commission throughput optimisation system
- Re-instate instrumentation as required
- Run of Mine (ROM) management system
- Screening circuit re-development and optimisation
- Crushing circuit re-development and optimisation
- Sample plant upgrades, including sample cutter and rotary sample divider replacement
- Various conveyor upgrades
- Optimisation of overall plant control system philosophy to maximize throughput

SYSTEMS

Equipment / Processes

- Crushers
- Apron Feeders
- Screens

Technologies Used

- Modicon 984
- Citect v5.42

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ABOUT CALIBRE CONTROLS

Calibre Controls is an industrial automation specialist, providing clients with 'intelligent production' control and information management solutions for optimal plant throughput and 'increased asset utilisation'.

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