

Problem Statement Worksheet (Hypothesis Formation)

<What is the business problem you are investigating? (Use SMART principles)>

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1 Context

Market demand for ore went up. Monalco Mining increased production by investing operating technologies like ore-crushers and poured money into maintenance. But due to increase in production, the prices for ore was cut in half (\$110 per ton of iron ore to \$55 per ton of iron ore). In order to stay profitable Monalco Mining has to look to make changes.

2 Criteria for success

Decrease cost by 20% over ore crusher maintenance within a year to stay profitable.

3 Scope of solution space

Focus on ore crusher maintenance to be reduced within this next year.

4 Constraints within solution space

Resistance from engineering team about cutting down maintenance.

Can't cut down the maintenance of what is recommended from OEM limit.

Confirming cost to maintain ore crushers.

5 Stakeholders to provide key insight

1. Chanel Adams – Reliability Engineer
2. Jonas Richards – Asset Integrity Manager
3. Bruce Banner – Maintenance SME
4. Jane Steere - Principal Maintenance,
5. Fargo Williams – Change Manager
6. Tara Starr - Maintenance SME

6 Key data sources

Determining how to cut down costs of maintenance of the ore crushers by looking into the data based upon the Data Historian, SAP, and Ellipse to see if doing the maintenance at the recommended intervals (50,000 tons of iron ore processed).

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