**“Monalco Problem Statement [Hari Bhatta]”**

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| **Problem statement**: Can the company “Monalco mining ” achieve profits when the price of iron ore has dropped to just around current operating breakeven by controlling ore crusher maintenance expenditure by 20 % within a year? | |
| **Context:**  Monalco mining company, historically a successful one in Western Australia, recently faces reduced profit margin as the ore sale price reduced from $110/ton to $55/ton; where break-even point is $50/ton. It has been found that there is extra expenditure ($30M maintenance costs in 2018) in the maintenance of the ore crushers and needs to be controlled. | **Stakeholders:**  Chanel Adams – Reliability Engineer,  Jonas Richards – Asset Integrity Manager,  Bruce Banner – Maintenance SME,  Jane Steere - Principal Maintenance,  Fargo Williams – Change Manager,  Tara Starr - Maintenance SME |
| **Key data sources:**  Further information will be taken from the following resources.  Data historian, SAP ,T3000 DCS , Ore Crusher System  Manufacturing Guide of the Ore-crushers |
| **Success criteria**:  By making reduction of % 20 worth of operational costs over the year (within 2019) on the ore crusher maintenance, it will create downward shifts in pricing and will result in profits. | **Constraints within solution space:**   * While reducing our maintenance events, we might face resistance from the reliability engineering team. * We can’t cut more than the recommended limit of one maintenance event at every 50,000 tons of iron ore processed. * Wear should be seriously considered while using; new planned cost estimation should be okay for all ore-crushers. |
| **Scope of solution space :**  It is found from the maintenance log of the ore crushers that we are performing maintenance every year where as it is equally possible to do it in every three years. There is clear reason, we will be successful to minimize our costs. | |