



CLIENT: Iron Ore Mine

| LOCATION: Pilbara, WA

THE CHALLENGE:

EnterpriseIS were engaged by an Iron Ore miner in Western Australia, to undertake a detailed review of the production and delay data across their Mining operation (Haul Trucks only), to understand the key performance issues impacting the operation in achieving their business objectives, as well as correlating the outcomes with the current projects, to understand their priority.

THE SOLUTION:

EnterpriseIS sourced the mine plan and actual performance data from the clients' information management systems. The analysis steps included:

- Reviewing the historical mining plan
- Comparing the mining plan against actual performance for spatial compliance and mining process capability
- Comparing mine plan assumptions against actual truck performance to validate assumptions of fleet size, availability, utilisation, and effectiveness
- Analysing mine productivity against haulage distances
- Analysing truck cycles for delays and performance losses
- Analysing truck payloads to determine underloading and overloading capability.

All plan assumptions were analysed to determine where the greatest gaps with actual performance existed.

THE RESULT:

There was found to be a significant gap between the mining plan and actual performance. The discrepancies were due to:

- Inconsistency between Mine Plan assumptions and actual performance (>75% chance plan won't be met)
- Equipment 'Availability' targets considerably higher than fleet capability (both planned & unplanned)
- Growing distances travelled to meet the mine plan with static fleet size
- Large volumes of "Scheduled No Work" time for high capital, production critical equipment
- Broad distribution in payload performance (significant overloading and underloading to plan)
- Higher than planned loading & queuing times

The improvement projects to close the gap between the mining plan and actual performance were identified and prioritised for resourcing.