

GOLD FIELDS

Case Study:

Manage the reliability and performance of
underground trackless Mining Equipment in near real
time with IBM Maximo



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Discussion Points

- *Introduction to Gold Fields – South Deep*
- *Initial State (April 2016)*
- *Problems with initial state*
- *Resolutions and Changes*
- *Current State*
- *The way Forward*



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Initial State (April 2016)

- Breakdowns on Trackless equipment.
 - Breakdowns on TM3 were reported to control room.
 - Details were captured in a book.
 - Then the data in the book was captured in excel to create morning reports.
 - Information was copied from excel to WhatsApp and distributed.
 - Some breakdowns were captured in ON-Key at a later stage from the books.
 - Control room did not report to planned maintenance.
- Services on Trackless equipment
 - Services were scheduled in On-Key, printed and handed out.
 - Upon return data was captured and Service Sheets were filed.
- Utilization of Trackless Equipment
 - All pre-start check sheets were submitted to planned maintenance.
 - Hour meters were captured in On-Key.
 - Utilization reports were generated from captured hours.



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Problems with initial state

- Breakdowns on Trackless equipment.
 - Multiple points of entry created errors in data.
 - Planned maintenance tried to do reports from incomplete data captured on the system.
 - No spares were linked to breakdown work to obtain the cost.
 - Planned maintenance could not prescribe to control room what to do.
- Services on Trackless equipment
 - The system did not have forecast functionality to schedule properly.
 - No Spares were linked to services to obtain costs.
- Utilization of Trackless Equipment
 - Wrong readings would be accepted by the system without warning flags.
 - Many Pre-start checklists were not returned. No Check sheet no reading.
 - Utilization reports were wrong due to no/ wrong data being captured.



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- People do not do what you expect...
- they do what you inspect! (AvL 2015)



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Resolutions and Changes

- Took over Control Room
- Implemented data visibility
- Implemented Maximo
- Created controls and checks in Maximo

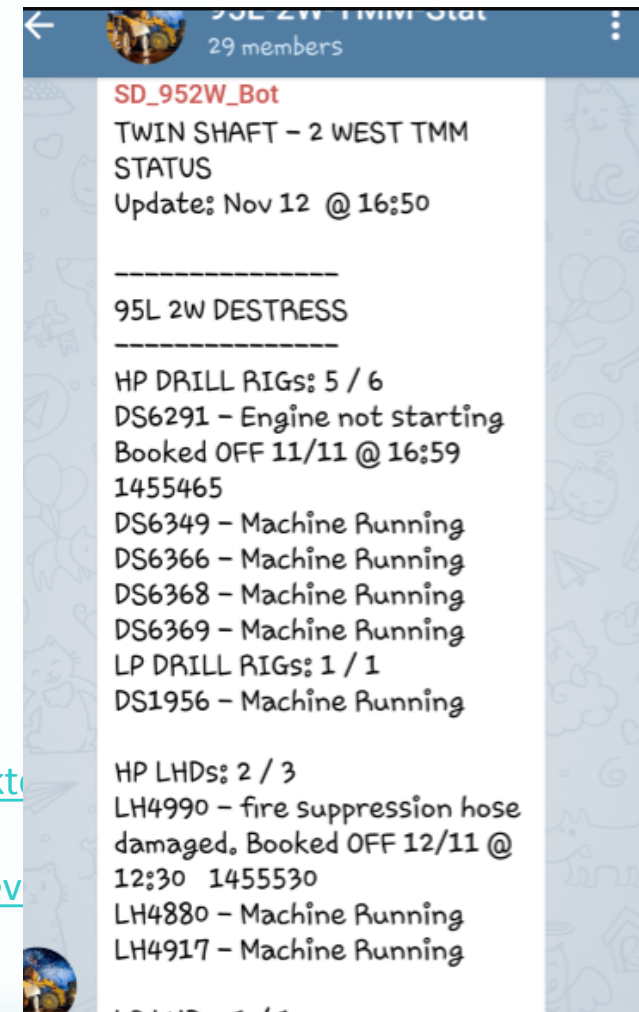


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Current State

- Input Data.
 - What - Information is captured accurately,
 - How – Make all info visible – (Telegram)
- System Controls
 - What – Eliminate errors on meter inputs.
 - How – Created start centre query to prompt Planners.
- Outputs - Reports
 - 24 Hour Breakdown report.
 - Daily availability report.
 - Availability vs Utilization [C:\..\..\Users\z7513075\Desktop\Analysis Oct 2017.pdf](#)
 - Failure analysis... [..\..\Users\z7513075\Desktop\95 Lev Analysis.pdf](#)



Questions

