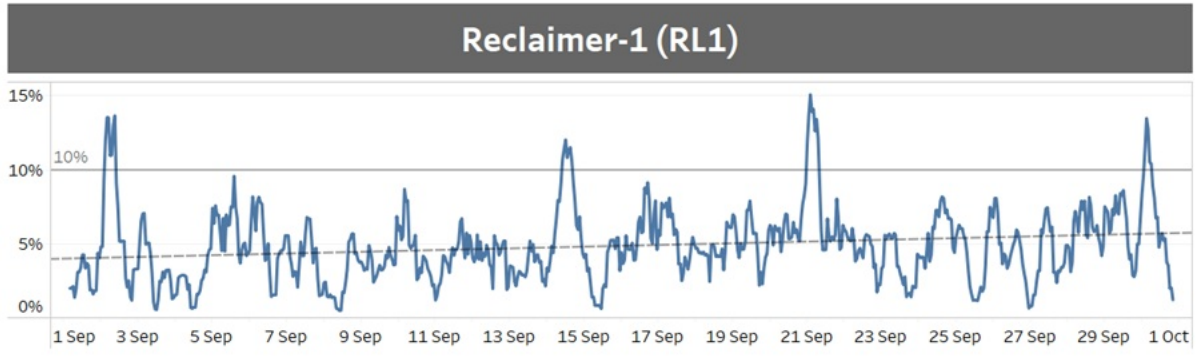
Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary

RECLAIMER

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary



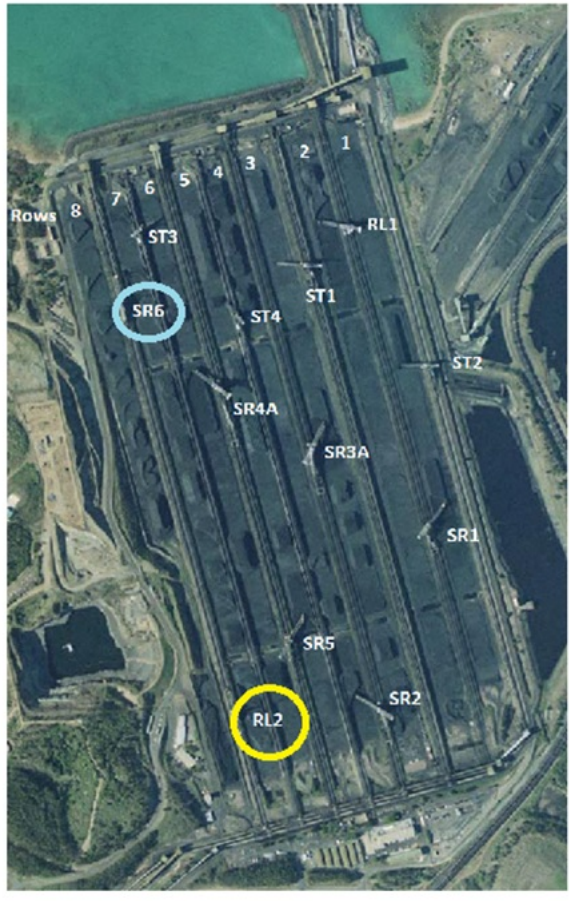
The image above illustrates the 8-hour moving average of idle capacity for Reclaime-1 (RL1), expressed as a percentage of nominal capacity.

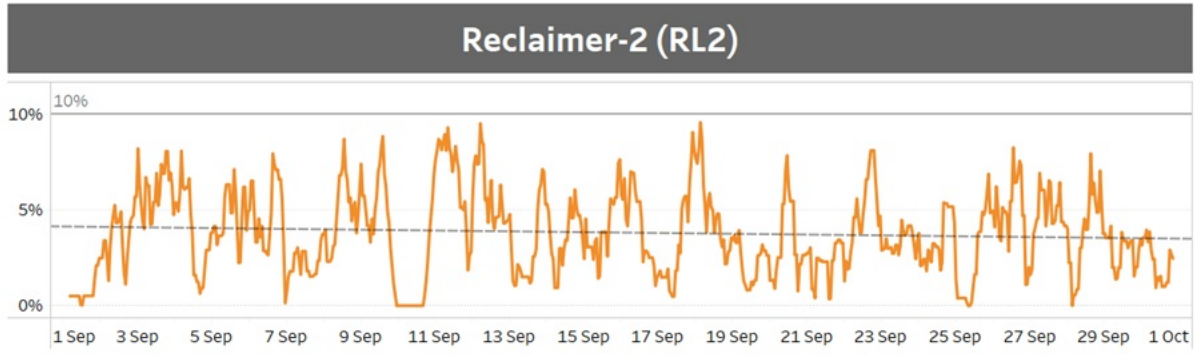
Throughout the month RL1 exceeded the allowable threshold multiple times.
2nd September - rolling average peaked at 14%
14th September - rolling average peaked at 12%
21st September - rolling average peaked at 15%
30th September - rolling average peaked at 13%

In addition, the data shows upward trend in the unused capacity for this machine. If the trend continues, every hour of operation will be increasing idle capacity by approximately 0.06% in the long run.
It is evident that this machine requires maintenance in the upcoming month.

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary





The image above illustrates the 8-hour moving average of idle capacity for Reclaimer-2 (RL2), expressed as a percentage of nominal capacity.

Tha chart shows that at no given point in time did the 8-hour average exceeded the threshold of 10%. This suggests that the machine is running smoothly and does not require maintenance.

The chart at the 10th September 2015, suggest that the machine was working at full capacity for a prolonged period od time. further investigation of the data showed that possibly this may have been achieved at the expense of sacrificed utilization of Machine SR6 which will be discussed in the report of this machine.

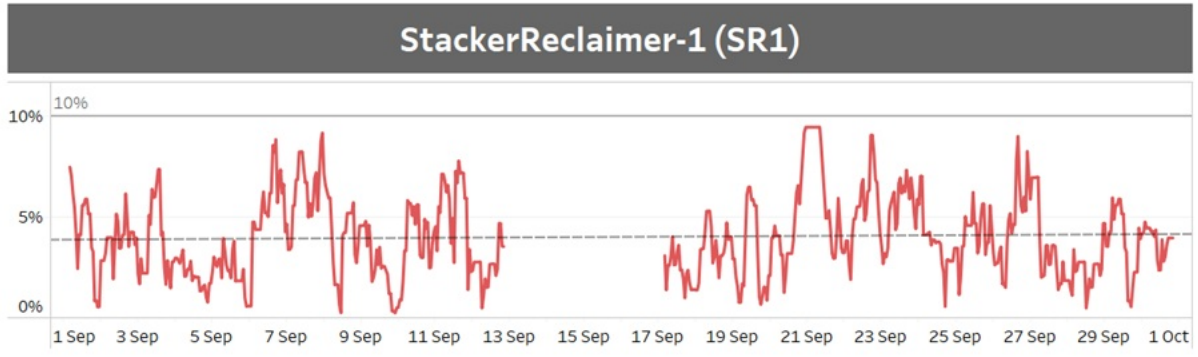
Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary

STACKER RECLAIMER

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary



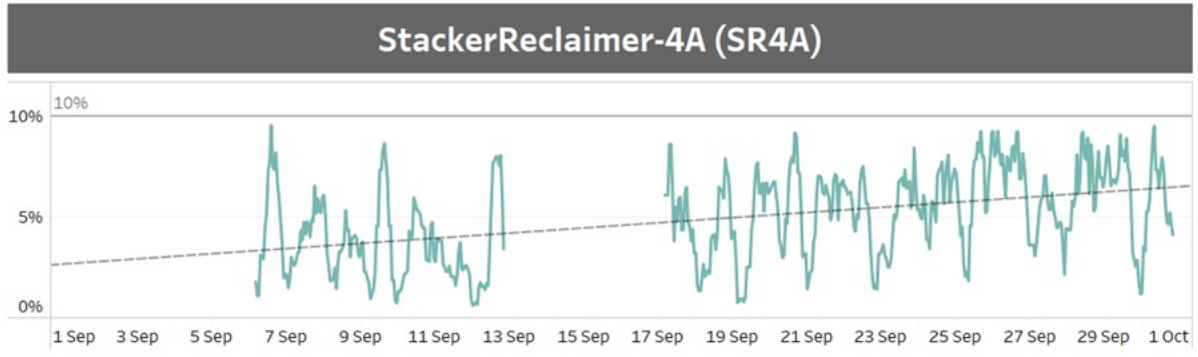
The image above illustrates the 8-hour moving average of idle capacity for StackerReclaimer-1 (SR1), expressed as a percentage of nominal capacity.

Tha chart shows that at no given point in time did the 8-hour average exceeded the threshold of 10%. This suggests that the machine is running smoothly and does not require maintenance.

The gap in the chart is attributed to lack of data for the period of 10 September 00:00 to 16 September 23:00 (inclusive). It is assumed that the machine was performing stacking tasks during the indicated period.

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary



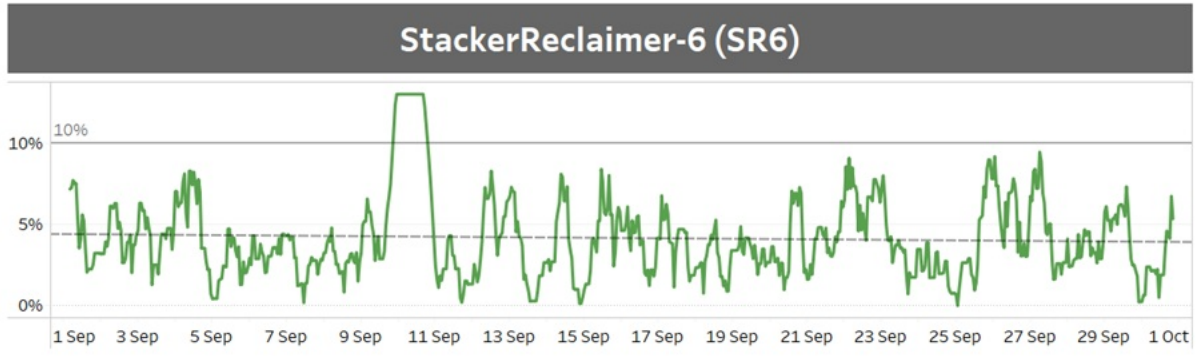
The image above illustrates the 8-hour moving average of idle capacity for StackerReclaimer-4A (SR4A), expressed as a percentage of nominal capacity.

Tha chart shows that at no given point in time did the 8-hour average exceeded the threshold of 10%. However, there is an evident upward trend in the dynamic range of this metric. If this trend continues, the 8-hour moving average of idle capacity is predicted to increase at a rate of approximately 0.13% per hour in the long run. It is highly recommended to review the performance of this machine in the coming weeks as preventative maintenance may be required.

The gap in the chart is attributed to lack of data for the period of 13 September 00:00 to 16 September 23:00 (inclusive). It is assumed that the machine was performing stacking tasks during the indicated period.

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary



The image above illustrates the 8-hour moving average of StackerReclaimer-6 (SR6), expressed as a percentage of nominal capacity.

The chart shows a surge in the 8-hour moving average of the idle capacity around the 10th of September 2015. Although per standard criterion this suggests that SR6 requires maintenance, this surge doesn't look normal. Further investigation uncovered that for the period between 9 September 19:00 to 10 September 19:00 this machine was operating at the constant reduced capacity of 3,000 tonnes flat. This happens to be the same period when the machine RL2 was operating at its maximum capacity. Given that both these machines are situated on the same line in the stockyard, it may be the case that there was a conflict of tasks between the two machines and priority was given to RL2. If this is the case, then it appears that SR6 does not require maintenance since it has not exceede the 10% threshold at any other point of the month.

Coal Terminal Maintenance Analysis

Reclaimer	RL1	RL2	Stacker Reclaimer	SR1	SR4A	SR6	Summary

SUMMARY

Surley needs maintainenace

Does not need maintenance

Does not need maintenance

Needs maintenance in the upcoming weeks

Might need maintenance if the surge is not because of the specified reason