

GRAIN BUCKET ELEVATOR FAILURE

THE PROBLEM

A Canadian grain bucket elevator experienced a catastrophic motor failure in January 2023 on a main bucket elevator head drive.

The equipment was a 500HP motor with a fluid coupling driving a gearbox. The root cause of the failure was traced back to poor lubrication practices.

THE INVESTIGATION

The motors and gearboxes were outfitted with Machine Sentry® Fixed 2 (MSF) probes and a Machine Sentry® Gateway in April 2023 to monitor vibration and temperature every 12 hours.



SERVICE

Here at AVT Reliability, we understand that unexpected process failures can have a significant impact on your operations.

Our team is equipped to provide rapid lubrication services, including emergency oil changes, flushing, and contamination analysis, ensuring your assets remain in optimal condition.



THE RESULTS

Monthly monitoring of the MSF probes caught a small increase in bearing noise in September 2024.

The recommendation was made to the site to have all the motor bearings greased.

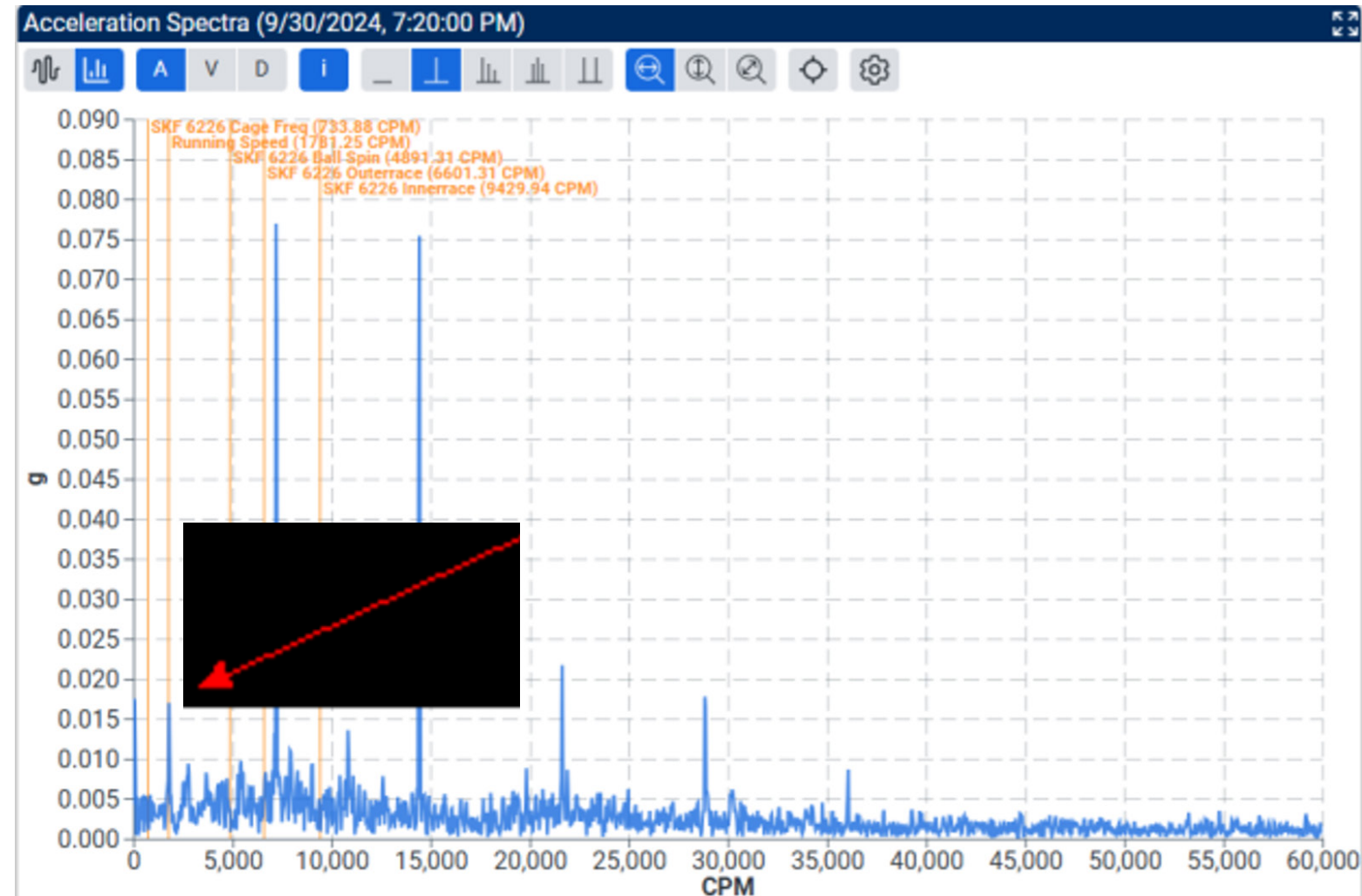
The following month's analysis showed a decrease in vibration energy and confirmation with site personnel indicated that greasing made an immediate improvement in audible noise and machine operation.

Using the Grease Wizard tool on Machine Sentry® we were able to recommend an optimal greasing strategy to continue maintaining equipment reliability.



RECOGNITION

Comments from the site manager "Your identification of issues and recommendation for greasing have saved us from costly equipment failure and paid for the reliability program. Keep up the good work!"



CONTACT

If your plant is facing similar issues, reach out to AVT Reliability for expert support in condition monitoring and lubrication management.

We're here to keep your operations running smoothly.

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