HOW THE ONTRAK SYSTEM AND CONDITION-BASED LUBRICATION HELPED ARCH RESOURCES, INC. SAVE TIME, MONEY, AND RESOURCES ON THEIR CONVEYOR BEARINGS

ABOUT ARCH RESOURCES, INC.

Arch Resources, Inc. is a top-tier American manufacturer of metallurgical products catering to the worldwide steel industry. The company stands as the primary provider of premium High-Vol A metallurgical coal globally. More specifically, the Leer and Leer South facilities are supported by the Beckley and Mountain Laurel mines, collectively offering a comprehensive selection of superior metallurgical products that cater to the global market.

THE PROBLEM

Arch Resources, Inc., like many other companies, relies heavily on conveyor belts for their production. However, they were having issues with their conveyor bearings, which were wearing out prematurely and causing unplanned downtime and an increase in repair costs. The root cause of the problem, they determined, was improper lubrication practices. Some bearings were not receiving enough lubrication, while others were being over-lubricated, causing excess grease buildup that led to bearing failure. As a result, improper lubrication was causing unnecessary wear and tear on the bearings, ultimately resulting in more frequent replacements and downtime for the company.

THE SOLUTION

Arch Resources, Inc. adopted a condition-based lubrication approach as their primary solution, specifically leveraging the OnTrak system and UE Insights, a cloud-based platform, to remotely monitor and lubricate their conveyor bearings. The OnTrak system provides real-time monitoring of the bearings' health and lubrication condition, providing them the ability to lubricate them as needed from anywhere, anytime, with just a simple push of a button. Additionally, the OnTrak allows you to measure the amount of friction being produced in your bearings, taking the guesswork out of lubricating critical equipment. Once a need for grease is detected, the system notifies the operator through UE Insights. From there, with the push of a button, the operator can grease the bearing remotely by giving the system permission.

This shift towards condition-based lubrication allowed Arch Resources, Inc. to quickly realize the benefits of their conveyor bearings running seamlessly.

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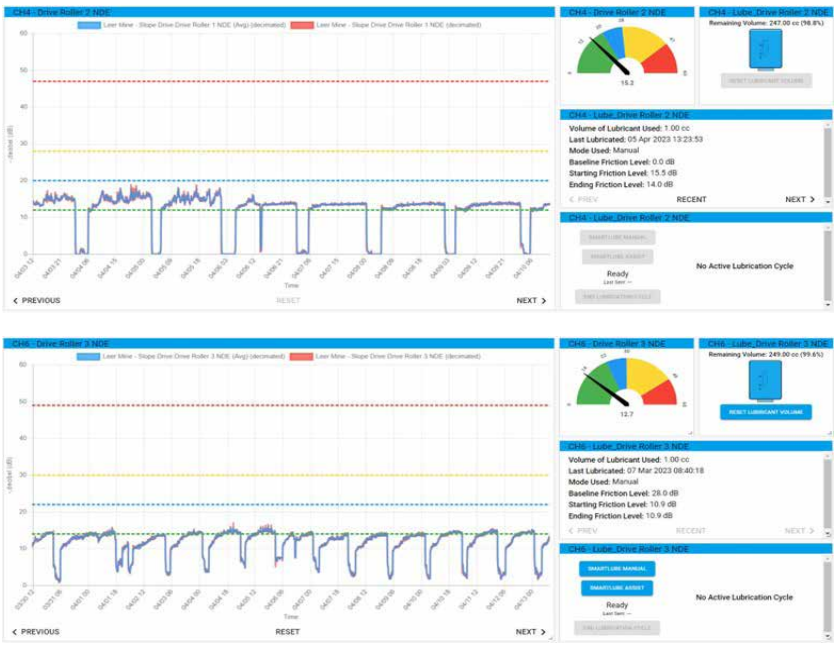
"Implementing the OnTrak system for our conveyor bearings has been a game-changer for our production process and maintenance personnel. With real-time monitoring and the ability to lubricate the bearings as needed, we've seen a significant improvement in the performance and longevity of our bearings. The OnTrak system has become an essential tool in our maintenance arsenal."

THE RESULTS

Within just a few weeks, Arch Resources, Inc. discovered that they had been significantly over-greasing their conveyor bearings. After two months of implementation, they had used a mere 12 grams of grease collectively across all their conveyor bearings. This amount is drastically less than the quantity of grease they used to apply in each conveyor bearing weekly, requiring an entire 14oz tube's worth of grease per bearing. To provide further context, before installing the OnTrak system, Arch Resources, Inc. were using a total of 1,587.56 grams of grease per month. Now, they only use 0.85 grams per month, **which is an astounding 99.95% reduction in grease usage!**

As you can see in the graphs, the UE Insights dashboard gives Arch Resources, Inc. the ability to visualize changes in real-time, allowing them to monitor trends and act accordingly by lubricating their bearings with the correct amount of grease.

Overall, the ability to trend the health of their bearings and grease them remotely significantly helped the efficiency of their conveyors. The switch to condition-based lubrication and implementing the use of the OnTrak system and UE Insights allowed these conveyors to run efficiently with far less greasing and maintenance, saving the company time, resources, and unnecessary repair costs.



SUMMARY

- **Conveyor Belt Challenges:** Arch Resources, Inc. faced premature wear and unplanned downtime due to improper lubrication.
- **Root Cause:** They identified over-greasing as the primary factor leading to bearing failure.
- **Solution:** They adopted condition-based lubrication utilizing the OnTrak system and UE Insights to monitor bearing health and ensure optimal real-time lubrication.
- **Remarkable Results:** Within weeks, they significantly reduced grease consumption from 1,587.56 grams monthly to just 0.85 grams monthly – a 99.95% decrease in grease usage.
- **Increased Reliability:** The OnTrak system's implementation and the data from UE Insights led to smoother conveyor operations, reduced maintenance, and significant cost savings in grease, time, and unnecessary repairs.

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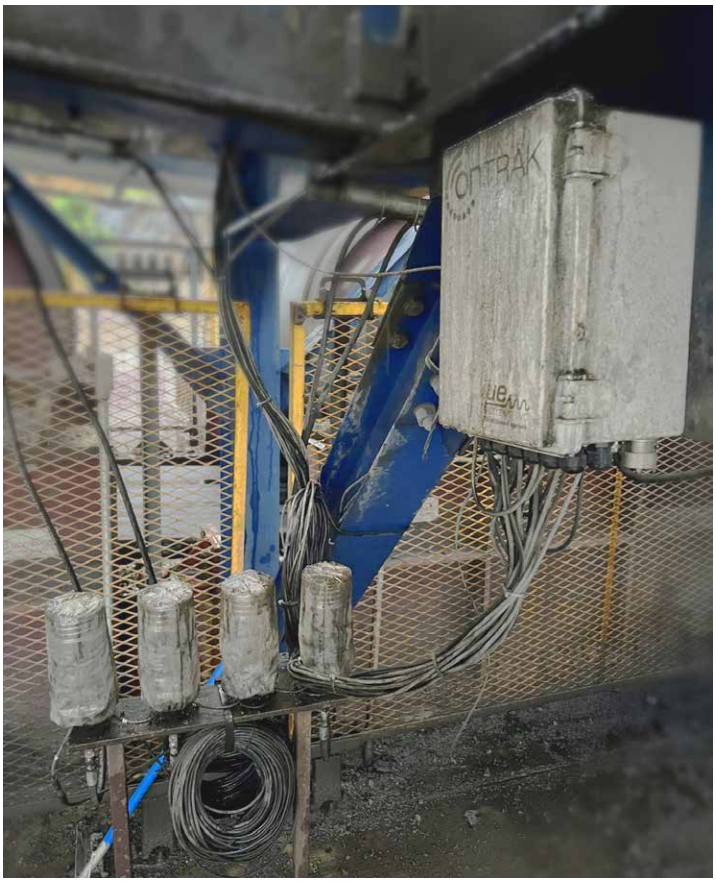

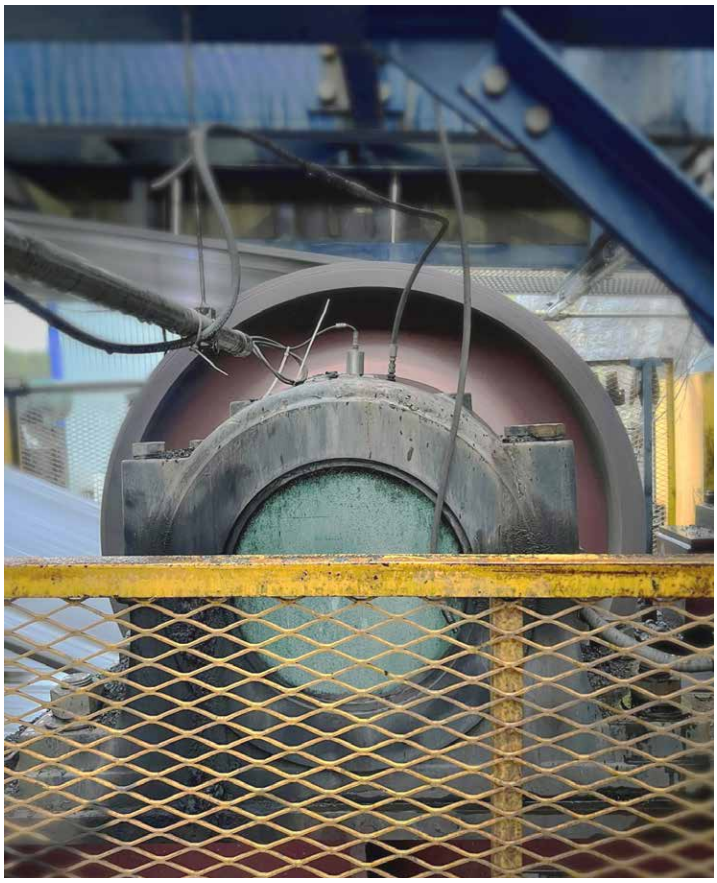

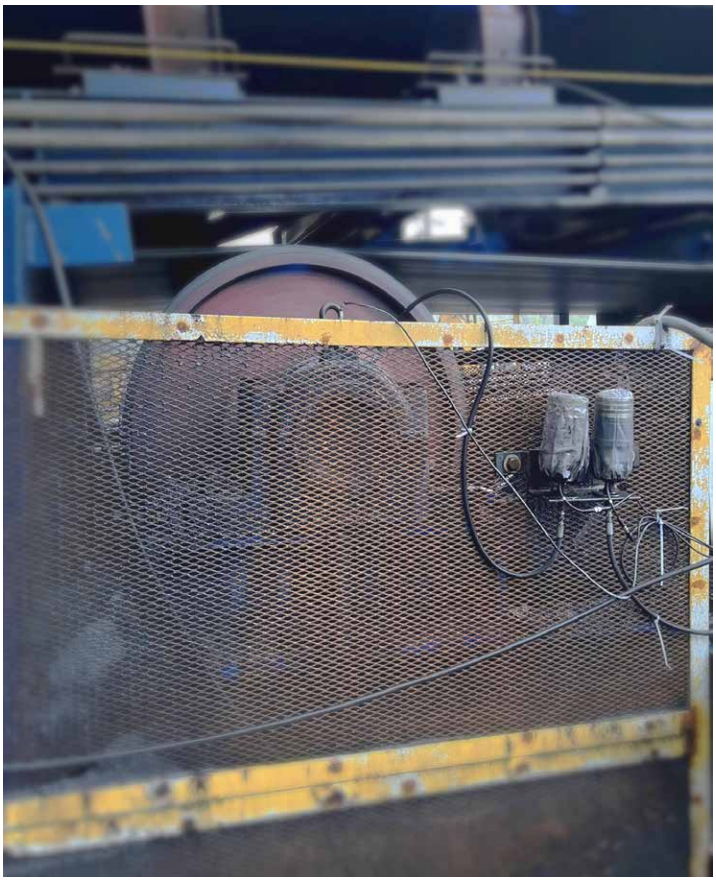

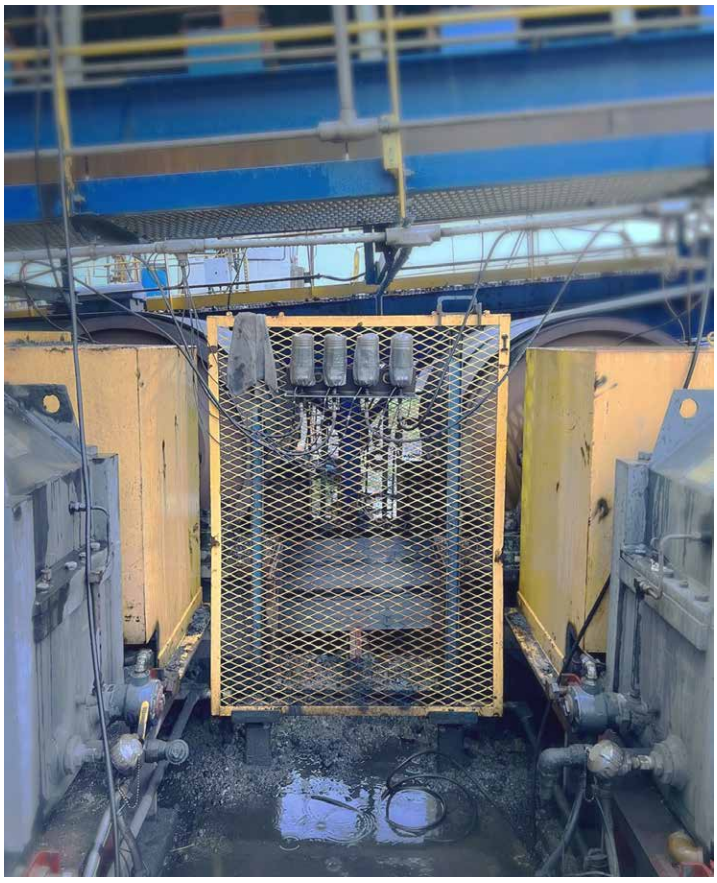

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