

## Hitachi EX8000 Excavator

### **MAG-SHIELDS® Stop Repeat Failures and Reduce Fluid Contamination Confidence in Contamination Alarm System Restored**

#### **The Problem**

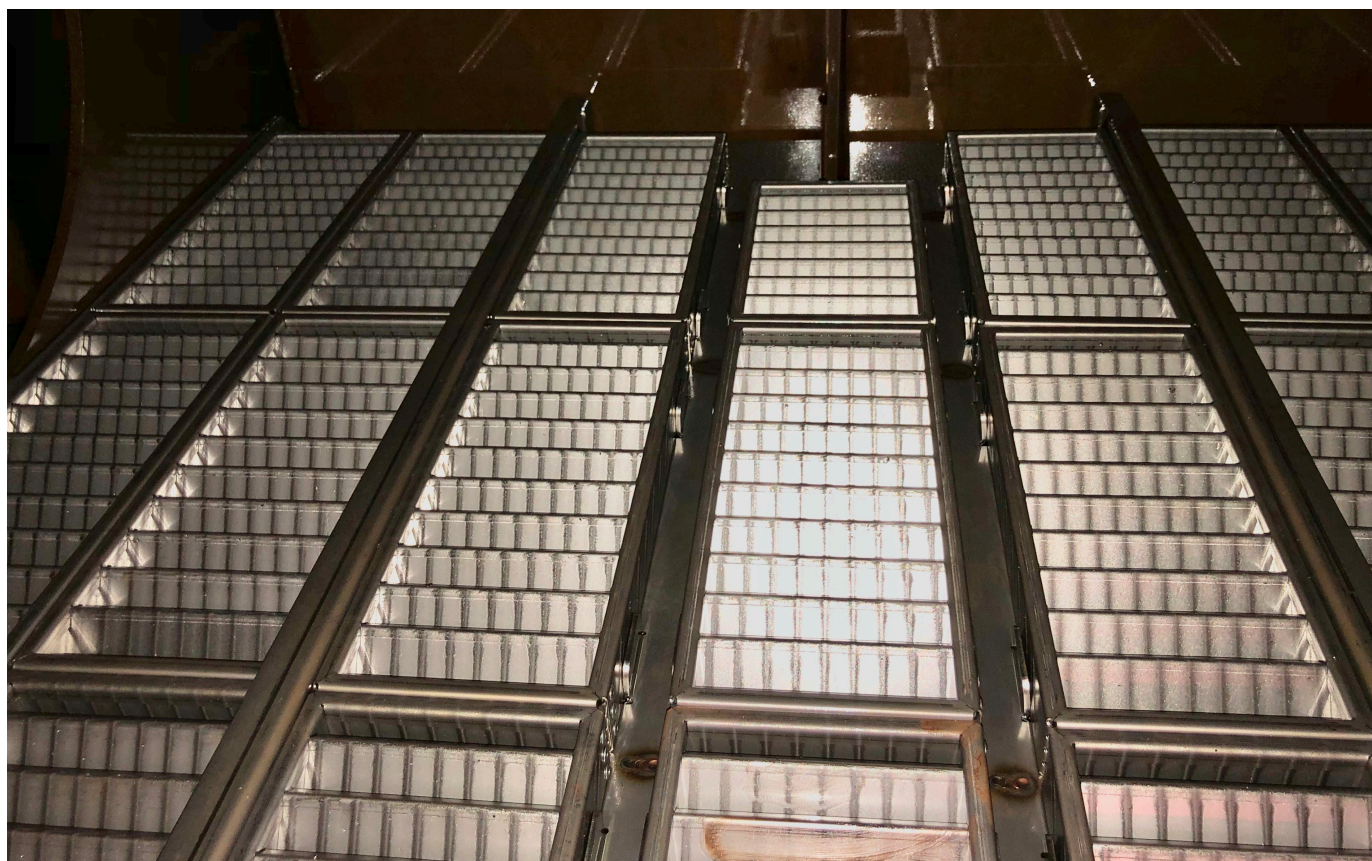
**April 2021**

This EX8000 excavator operates at a Western Australian mine and has suffered repeat failures of the hydraulic main pumps. Additionally, engineering staff lost confidence in the contamination alarm system due to many ongoing false alarm indications.

#### **The Solution**

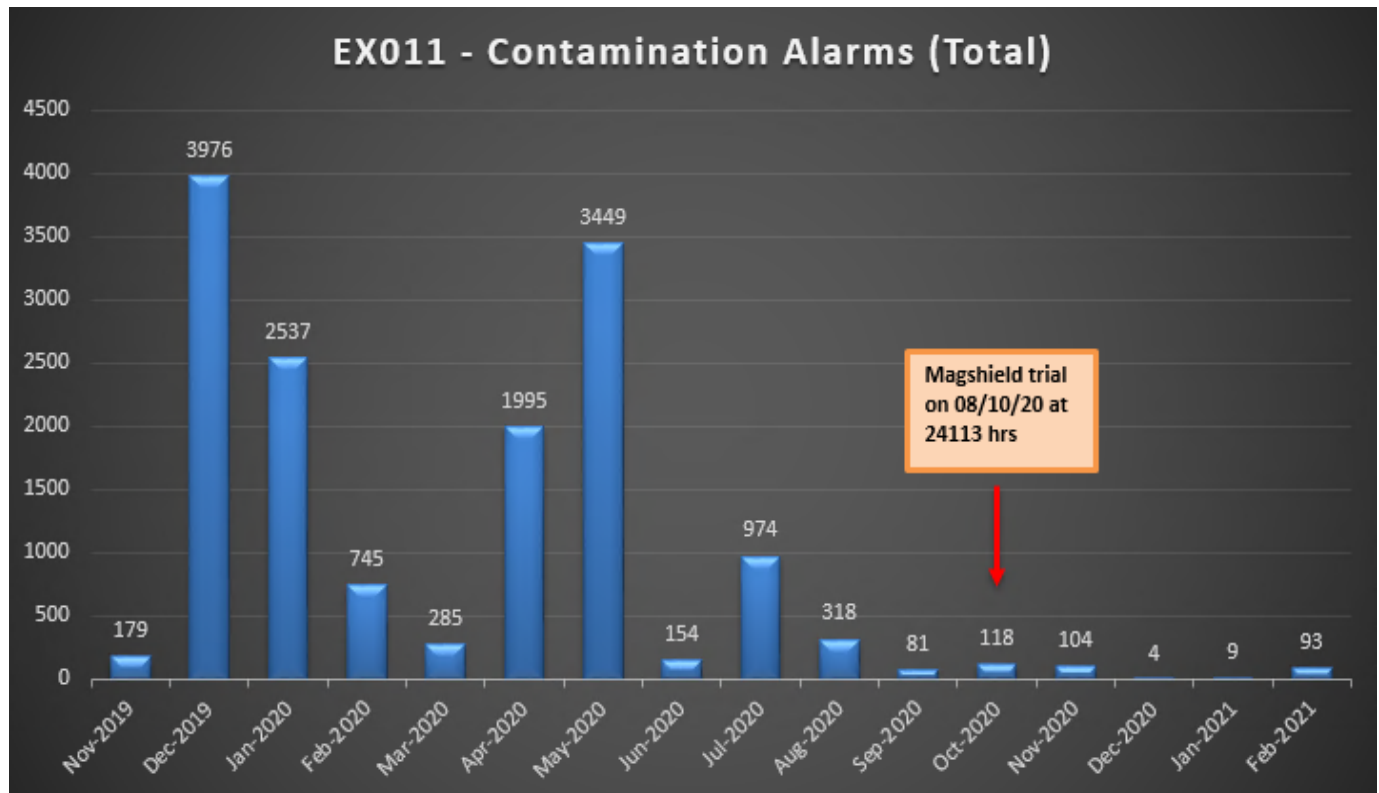
The operator installed BAY6 Solutions' Mag-Shield magnetic filter solution into the main hydraulic tank. Iron contamination generated during normal operation, and post-failure residual contamination are captured and prevented from recirculating. Accurate oil analysis and diagnostic trending remains intact, but generally at a lower baseline reference.

**BAY6 Solutions Mag-Shield filtration system installed in the main hydraulic tank of the Hitachi EX8000 excavator. These Mag-Shields were inspected immediately post number 15 and number 16 pump failures.**



## The Results

In November, a few weeks after installing Mag-Shields, the machine suffered failures in numbers 15 and 16 pumps. No follow-on hydraulic failures were reported (a common occurrence) after this event because Mag-Shields prevented recirculation of residual contamination. Not only did the number of contamination alarms decrease, but they became localized to the area where they are generated, making it easier to pinpoint issues. Based on these results, this customer is fitting Mag-Shields into their entire excavator fleet.



The EX8000 results are very similar to what has been experienced with other models and makes of excavators equipped with Mag-Shields.