Case Study / Energy

# Excavator

## A family-owned construction company noticed an elevated amount of lead in their diesel engine excavator.

Before there was further damage or it became necessary to stop the equipment without further information, the construction company used ALS' oil analysis for predictive maintenance. Possible risks without predictive maintenance include:

- Catastrophic failure
- Loss of production
- Reduced resale value

## Analysis

ALS has decades of experience delivering equipment reliability services that keep businesses on the right path. These services include equipment failure analysis, initial asset review, predictive analytics, and trend data analysis.

Through routine oil analysis of their diesel engine from a Kobelco model SK260-10 excavator, ALS discovered:

- High levels of lead (Pb) and other wear metals
- Low oil viscosity

## Diagnosis

Through proper use of oil analysis and data interpretation, an elevated trend in the bearing metals (lead) enabled the customer to detect a failing main bearing in the excavator before it became a catastrophic failure.

## Solution

The customer consulted with ALS regarding the elevated lead levels flagged on the reports and decided to take action. After repair, the excavator was returned to operation.

## Result

In this case, by using ALS oil analysis and diagnosis as a proactive maintenance tool, the construction company prevented a catestrophic failure and saved over $29,000 to replace the engine.

**$29,000**
**EST. COST SAVINGS**

Based on the maintenance/downtime cost to mitigate the causal factor vs the cost of not performing the oil analysis and potential catastrophic failure of the diesel engine.

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