CASE STUDY

Latin America Operations Avoids $141,000 in Downtime and Equipment Cost Using AI Predictive Monitoring

Challenge

A non-Nabors drilling rig in Latin America faced critical risks due to undetected top drive equipment failures. The top drive blower motor was in poor condition, and the lubrication system was malfunctioning, increasing the risk of overheating, equipment failure, and potential fires.

Solution

By deploying KCF SMARTdiagnostics™ through RigCLOUD®, real-time vibration and temperature monitoring provided early warnings of equipment issues:

- The blower motor was identified as critical, preventing a potential shutdown and costly top drive replacement.
- A lube pump failure led to high oil temperatures. After replacing the pump, operating temperatures dropped by 70°F, preventing further damage and reducing fire risk.

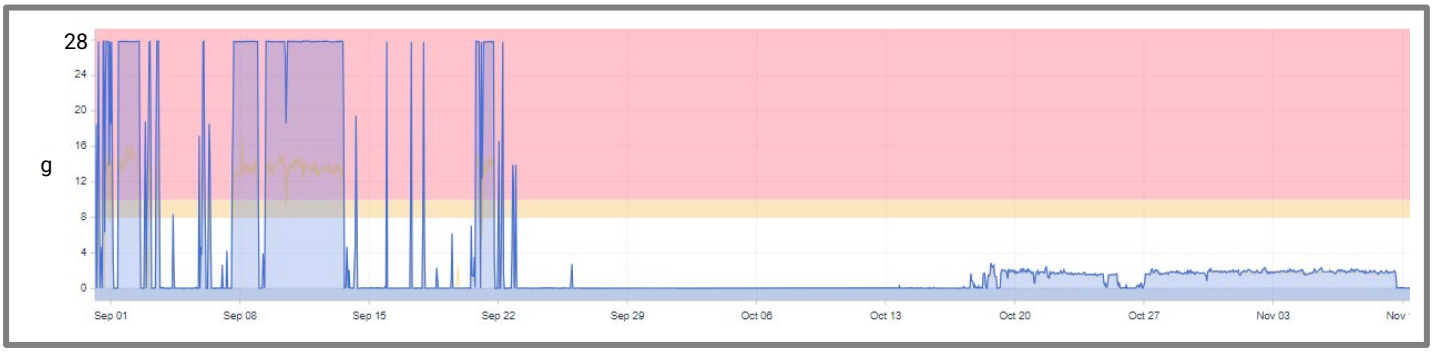
Results

- **Avoided $141,000** in downtime and equipment failure across three days
- Reduced **downtime** and improved **operational efficiency**
- **Extended asset life** with AI-driven predictive maintenance

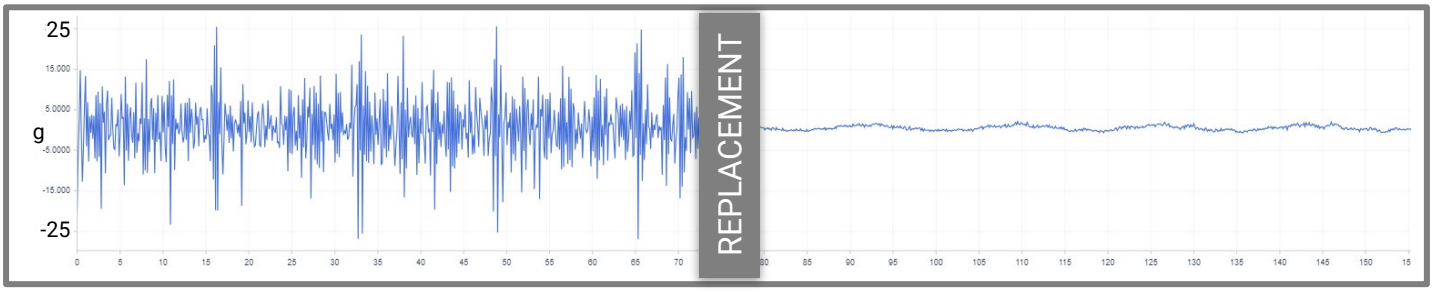
Results Continued

Top Drive Blower Motor

VIBRATION TREND

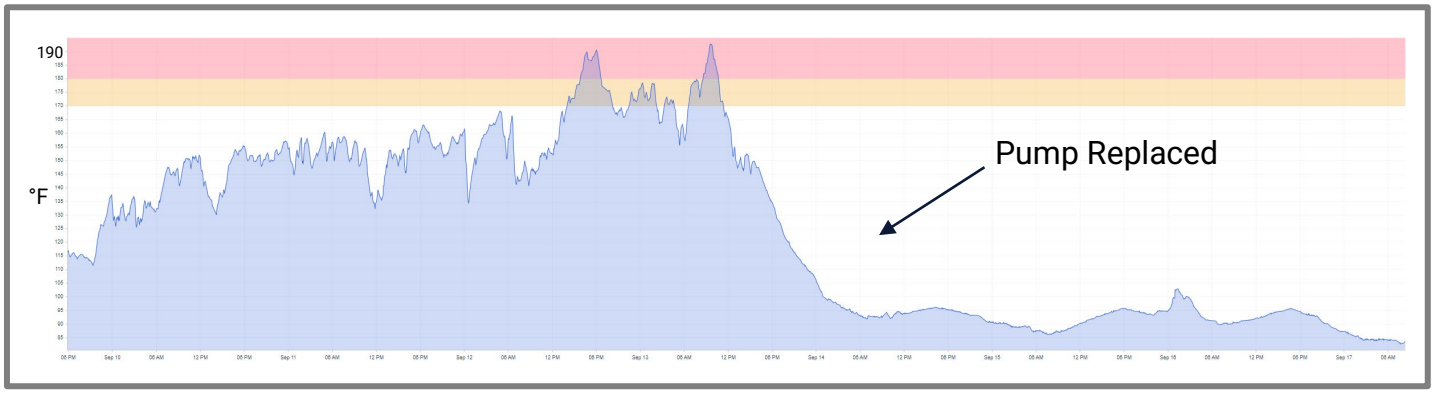


BEFORE & AFTER



Top Drive Blower Gearbox Lube Pump

TEMPERATURE TREND



Conclusion

By integrating predictive monitoring with KCF SMARTdiagnostics™ and RigCLOUD®, drilling rigs can proactively detect failures, reduce costs and enhance safety, maximizing uptime and operational performance.