



Catch of the week



Contaminated Seal Fluid at an Oil and Gas Facility

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What did the SmartSignal software find?

On March 28th, the Proficy SmartSignal solution identified a drop in the drive end seal supply pressure for a pump at an oil and gas facility. Pressures were expected to remain around 62 BARG but were dropping to 54 BARG. The Availability & Performance Center sent a high priority notification to the client. This client is taking advantage of a joint monitoring solution between the GE MCS Bently Nevada and the GE Intelligent Platforms Availability & Performance Center teams. This issue was discussed with Bently and the client on the weekly call.

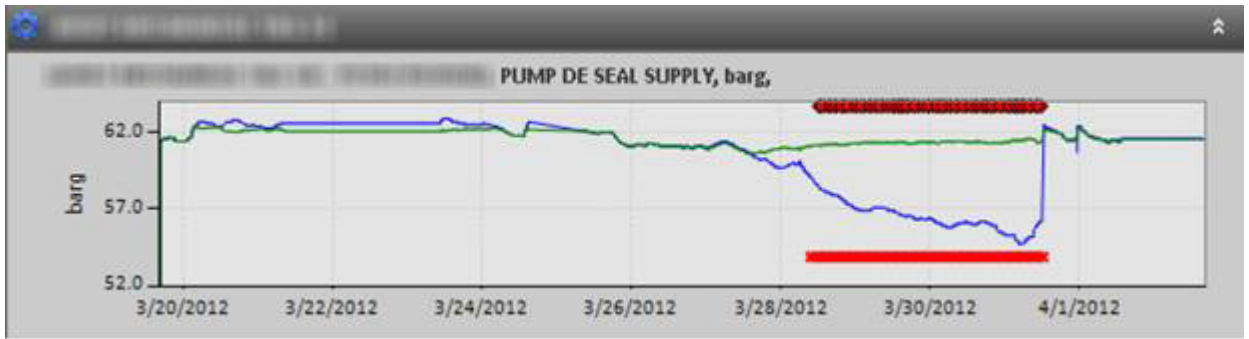
What was the underlying cause?

A very similar seal supply issue occurred in mid-February on a sister pump whose seals were fed by the same seal system that supplied seal fluid to this pump. After the notification in February, the client found a seal filter that was clogged and replaced the filter for the first pump. After the second notification, the client investigated and found a clogged seal filter on this second pump. Because this appeared to be a recurring condition, the client suspected that there was a seal system condition affecting multiple pumps. The client sampled the common seal fluid that supplied both pumps and found that the seal supply fluid was contaminated. The client believes that either they received a bad batch of seal fluid or that the seal fluid storage tank is corroded and releasing contamination into the seal fluid.

What was the value to the client?

This particular notification helped the client replace a clogged filter and prevent damage to a pump's seals. This is valuable to the client because a plugged filter, or contaminated seal fluid, can allow debris to enter into the seals, causing sudden seal failure for a pump. In addition, the joint collaboration between the client, the Availability & Performance Center, and the GE MCS Bently Nevada teams helped to identify a seal system issue that was affecting many pumps at the facility and allowed the client to correct a condition that was potentially damaging or endangering the seals for several pumps.

Who found it? Lonnie McCollum and John Thibodeaux



Screenshot depicting decreases in actual seal supply pressures (blue) versus expected seal supply pressures (green).