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## Case Study :: RMC in Middle East

Date : February 18, 2015

### CUSTOMER SUCCESS STORY :: RMC IN THE MIDDLE EAST



**Customer leverages an active SSA to resolve a problem on an offshore vessel where the critical machinery was monitored by GE's Remote Monitoring Center (RMC).**

**Two offshore vessels in Sub-Saharan Africa's deep waters are monitored by GE's Bently Nevada RMC in the Middle East as part of a Supporting Service Agreement (SSA).**

#### PROBLEM

During a routine daily machinery audit, it was observed that the bearing metal temperatures of a critical MP gas compressor were running higher than normal. When the RMC diagnostic engineer compared the suspect bearing temperatures with those of an identical machine, it was observed that the bearing temperatures of the other unit were stable and 10°C to 15°C lower.

No abnormalities were observed in the vibration behavior of the MP gas compressor. A SSA Web Portal case was immediately opened with a recommendation for the customer to verify the bearing temperature levels and check the lubricating oil for any irregularities.

#### SOLUTION

Upon removing coupling guards and inspecting the lube oil supply and return pipework, it was observed that the oil smelt burnt and degraded. All of the pipe internals appeared discolored and varnished with a golden-brown color. Upon closer review of maintenance records, it was found that the lube oil had not been changed since the plant first started operation. The lube oil

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was immediately replaced and flushed, and bearing temperatures were then confirmed to return to normal levels.

## **PAYBACK**

If the customer had continued operation with the degraded lube oil, further deterioration to the unit would have been unavoidable, potentially costing millions in forced outage losses. GE's proactive remote monitoring of the customer's offshore assets led to higher machinery availability and reduced maintenance costs. GE's System 1\* monitoring and diagnostic applications provided the broad insight needed, including dynamic vibration data and static lube oil trends, to quickly provide a recommendation that made a key difference to the customer.

## **BENEFITS**

- **Avoided cost of travel:** By leveraging RMC support, the customer avoided the costs of having a diagnostic engineer travel to the offshore location.
- **Optimized performance:** The customer avoided additional machine degradation by following GE's recommendation and replacing the oil.
- **Reduced unplanned downtime:** Had it not been for the accurate diagnosis by the RMC engineer, the customer could have experienced costly unplanned downtime.
- **Accurate and immediate diagnosis:** The customer's use of GE's RMC support in conjunction with an active SSA ensured accurate and immediate diagnosis of the problem.

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