



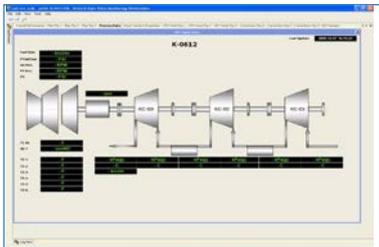
Success Story

COMPASS 6000™ HELPS GIVE PDO THE COMPETITIVE EDGE

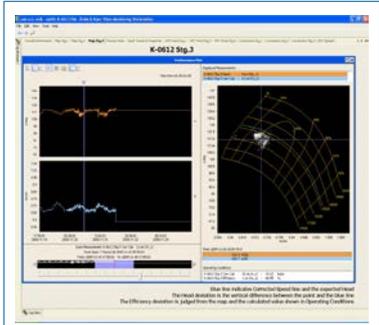
Gas-Lift Compressors Require Uptime

Petroleum Development of Oman (PDO), which accounts for 80% of Oman's crude oil production and nearly all of its natural gas, uses secondary oil recovery techniques to enhance crude oil production at the Yibal (B, C), Natih, Saih Rawl (oil producing station) and Qarn Alam oil fields. Brüel & Kjær Vibro was selected for monitoring the gas re-injection and steam injection compressor trains back in 1999 to ensure uptime and optimize efficiency. They are still being monitored with Compass!

In addition to these machines, the four 30 MW compressors at the Saih Rawl main gas compression station are also monitored by Compass, as are the three trains at the Oman LNG plant at Qalhat, which are connected to the compressor station via a 352 km pipeline



Overview of the compressor process values



Flow on the 3rd stage of the compressor

MACHINE/INDUSTRY/PROCESS

Machines	5 motor-driven and 3 gas turbine driven gas re-injection centrifugal compressors, 1 reciprocating gas re-injection compressor and an assortment of critical pumps, other compressors and auxiliary machines.
Company/Process	Machines located at PDO's oil field sites for secondary oil recovery using associated gas reinjection and steam injection.
Monitoring System	Compass 6000™
Monitoring Strategy	Safety, condition and performance monitoring. One site includes a Compass 6000 condition and performance monitoring system as a piggy-back installation on an existing, competitive safety system.

BENEFITS

There are tight operating margins at PDO with little tolerance for downtime. The complex oil field geology requires more wells to be drilled for a relatively low production. 70% of the production is water that has to be treated and separated, and the oil quality itself is substandard, making the oil production costs high. The integrated condition and performance monitoring capability of Compass provides reliable, early fault detection and it is flexible enough to be used at all operating duty cycles and for varying gas properties. A comprehensive long-term service agreement ensures the monitoring system is optimally used to its fullest capacity.

CONTACT

Michael Hastings

Brüel & Kjær Vibro A/S
Skodsborgvej 207
2850 Naerum
Denmark

Phone: +45 7741 2500
Fax: +45 4580 2937

oilandgas@bkvibro.com
www.bkvibro.com