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### Challenge

- Oxidation deposits.
- High bearing temperatures.
- Extend the life of a 9-years in-service lube oil.

### Solution

- ESP (Electrophysical Separation Process) filtration unit combined with DECON flushing treatment.



### OVERVIEW:

The next planned shutdown to perform an oil change was more than 12 months away and the life of the oil required extension as reported to Ocean Team Qatar by one of chemical customer. An in-depth analysis of the lube oil, in-service for 9 years, revealed high levels of Varnish Potential (MPC levels).

The customer added Fluitec DECON Solvancer® Technology to the in-service fluid along with connecting Fluitec VITA ESP III Unit to remove the present varnish, control the deposits and prevent future varnish formation in the lube oil system of the compressor.

A steady decrease in the varnish potential was identified bringing the MPC values well under the acceptable limits along with the bearing temperature remaining constant.

### CHALLENGE:

Oxidation deposits and high bearing temperatures.

A major Chemical company in Qatar requested the support from Ocean Team Qatar to control the high bearing temperatures and extend the life of the oil (Mobil DTE Light) until next shutdown of one of their Mitsubishi compressors, 16000Liters. As per historical information the Varnish potential (soft contamination) analysed in the lube oil sample on tri-monthly basis, by ASTM D7843, was stable however with high level (>30) and the bearing temperatures were increasing.

### SOLUTION:

The ESP (Electrophysical Separation Process) unit was hooked up to the reservoir to remove the soluble and insoluble oil degradation by-products present. 3% DECON Solvancer® was added to the lube oil reservoir to control the deposits and prevent future varnish formation.

### RESULT:

The MPC values were reduced to acceptable level in four (4) days and maintained under very low levels. Bearing temperatures have been maintained stable allowing the system to operate without any possibility of bearing failure in the following months after disconnect the ESP system.

### Result

- A clean 9-years in-service fluid and stable bearing temperatures.

