

CASE STUDY

Eliminating Downtime and Costs Associated with Flushing for Gas Turbines in the O&G Industry

Fluitec's Boost VR and ESP contribute to no unplanned shutdown of gas turbines

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TOTAL SAVED

\$128K ANNUALLY

CLIENT: Major Natural Gas Supplier

COUNTRY: USA

APPLICATION: Solar Gas Turbines

COST SAVINGS: \$128,000 per year

OIL SAVINGS: 10,000 gallons / 37,855 liters of oil

SOLUTION: Boost VR & ESP

PROBLEM

A major natural gas supplier with various locations across the US wanted to change the oil in 10 of their Solar Turbine gas packages. However, in each of these systems, the oil was badly degraded with low antioxidant levels and elevated varnish potentials. If a new batch of oil was simply placed in the system, all of the varnish deposits would still exist and cause accelerated degradation to the new oil. This could lead to unexpected downtime and the use of mechanical flushing which would require the systems to be taken offline.

SOLUTION

Analyses were conducted for each unit and individual treat rates of Fluitec's **Boost VR** were recommended. Due to the nature of degradation experienced by some units, it was necessary to install Fluitec's **ESP** unit to assist in the cleaning of the oil.

RESULTS

Approximately 1-3 months before the scheduled change out of oil, Boost VR was added to the system at the prescribed rates and the ESP units were attached accordingly.



The following was noticed across the units:

- MPC level dropped from 47 to 7 within 7 weeks (with two charges of Boost VR and the ESP unit) on Solar Turbine Taurus 70 at Site 1
- MPC level dropped from 50 to 5 within 7 weeks (with two charges of Boost VR and the ESP unit) on Solar Turbine Mars 100 at Site 2
- MPC levels dropped from the range of 43-70 to a range of 5-20 within 7 weeks (the ESP unit was placed on the unit with the MPC of 70) on Solar Turbines Taurus 60s & 70 at Site 3
- MPC levels dropped from the range of 58-63 to a range of 5-7 within 7 weeks (ESP units were placed on the units with the MPCs of 58 & 63) on Solar Turbines Mars 100s & Titan 130 at Site 4
- MPC levels dropped from the range of 50 to 5 within 7 weeks (with two charges of Boost VR were used on these units to accelerate the process) on Solar Turbine Mars 100s at Site 5

