



Perenco

Comprehensive investigation on refinery equipment

Perenco consulted Cetim in order to understand the root causes of damage to the dome of a crude oil distillation tower. In three months, Cetim's experts were able to identify the problems, recommend material changes and review the welding procedures.



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vealed a stress corrosion problem and the experts made recommendations for rebuilding the dome in another steel grade. "Besides switching to a steel grade that is more resistant to the corrosive materials that we handle, Cetim helped us to completely revise our long-term repair strategy. Drawing on Cetim's strong expertise, we were able to quickly understand what was wrong with the tower and start over on a firm footing".

OUR CUSTOMER

Corporate name
Perenco

Workforce
6,000 people

Business activity
Since it was founded by Hubert Perredo in 1975, Perenco has diversified its operations over the years and is now Europe's leading independent oil and gas company. It produces 460,000 barrels of oil per day through onshore and offshore drilling, production and development operations in 14 countries.

Perenco has been operating the Xan oilfield in the north of Guatemala since 2001. The approximately 7,000 barrels extracted there per day represent almost 90% of the nation's oil production. The crude oil is transferred by pipeline to the La Libertad refinery where it is processed in a large distillation tower in order to produce the fuel oil for Xan and asphalt for the Central America road infrastructure market. However, for some time now, the sixty-metre high dome of the distillation tower has been experiencing regular material leakage, resulting in production halts for repairs, welding and maintenance. "Any shutdown of the distillation tower is costly," explained

Marlon Ayala Matus, Group Assets Integrity Manager at Perenco. "That is why we decided to send a material sample to Cetim for analysis and diagnosis. Cetim, a known and trusted partner, is a world-renowned comprehensive testing centre."

Numerous analyses

To meet the customer's demand as rapidly as possible, several teams of experts set to work analysing the part with regard to corrosion, the materials and the welds (morphological analysis of the damage, microfractographic examinations with scanning electron microscope, metallographic examinations, Vickers hardness measurements, chemical analyses, etc.). The tests re-

Cetim's asset

Cetim's experts can leverage on their multi-disciplinary teams to provide a thorough analysis of the customer's needs and a quick solution

