



# Protection from the inside

Complete solutions that are applied throughout its value chain

#### SITUATION

During the last quarter of 2011, one of the pipelines of the satellite oil platform "Caan-A", located in the Gulf of Mexico, presented serious problems due to the acceleration of internal corrosion.

Due to the time that this deposit has been exploited, the extracted oil contains high percentages of water, a condition that corrodes the interior of the transport pipelines more quickly; corrosion levels were so high that they contravened the "NRF-005-PEMEX-2009" standard, which establishes limits of no more than 2 megapascals.

Since 2005, Quimica Apollo had begun to dose the corrosion inhibitor «PRI-42» in said pipeline, however, with the percentages of water that the crude oil presented during the last months (approximately 60%), the need arose to use a new product that would attend to this change in composition.

It was essential to control the corrosion rate, since if this indicator was not lowered, the integrity of the pipeline would be compromised, considerably reducing its useful life and not complying with current regulations.

## SOLUTION

Apollo conducted a series of studies to determine the new product to use. The «PRI-32» was elected, a corrosion inhibitor for crude oils with a high percentage of water.

However, the investigation showed that while it was necessary to change the product, the problem was that the inhibitor dosing system had to be upgraded to a higher capacity one. Due to this, the installation of a system of electric pumps powered by solar panels was suggested to increase the dose, since the previous devices only reached 15 parts per million.

The new system, installed in early 2012, allowed corrosion control at an inhibitor dose of 30 ppm. This produced a decrease in the corrosion rate, which reached levels well below what the current standard requires. Apollo offered the formulation and dosage of the chemicals that, when combined with green technology, allowed to ensure the integrity and reliability of the hydrocarbon transportation system.

If you would like our experts to design a specific solution for your pipeline integrity and corrosion problems, please contact our sales representatives and find out what Apollo can do for your process.



# EXPERIENCE

### 54

assigned collaborators

95%

less corrosion

**1,380 KM** of treated marine lines

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