



DIVISION

PROCESS WATER TREATMENT

PROJECT NAME

LUCIUS

OWNER

ANADARKO

ABOUT THIS PROJECT: AMINE MAKEUP WATER SYSTEM

AMINE MAKEUP WATER

PROJECT FACTS

The Lucius project was approved by Anadarko and partners in 2011 and achieved first oil in 2015. It consists of a Spar platform with a 23,000 ton hull installed in 7,100' of water. H2O supplied the potable watermaker and pressure set for both Lucius and its sister platform Heidelberg.

CHALLENGE

After production began it was necessary to add a means of generating 2,000 gallons of high purity water from seawater for the amine system. H2O was awarded three packages to supply this needed water. A two pass desalination system generating product water with a total dissolved solids (TDS) content below 5.0 mg/l (ppm), a storage tank and a polishing and transfer skid.

SOLUTION

H2O supplied a 2-pass reverse osmosis watermaker that reduced the TDS from 36,000 mg/l to less than 300 mg/l in the first pass and a second membrane array to further reduce the TDS from 300 mg/l to below 5.0 mg/l. The unit has copper nickel low pressure plumbing and super duplex high pressure plumbing. Water is stored in a fabricated steel tank with special linings and is then transferred to the process via 2 X 100% multistage centrifugal pumps. The water is filtered for particulates and pass through a totalizing turbine flow transmitter prior to transfer. H2O's engineering team worked with Wood Group Mustang engineering to fully design, test and document the packages prior to delivery.

RESULT

Anadarko now has a reliable means of generating, storing and transferring the needed high purity water directly from seawater without the need to reduce their potable water supply. H2O delivered the custom project in only 18 weeks from order.