

Company News

SWRO PRETREATMENT TESTS COMPLETED

akvolution Technologies—which will be rebranded as ‘akvola Technologies’ on 1 March—reports that it has successfully completed two pilot tests of its technology for two different applications: one for SWRO pretreatment and the second for oilfield produced water. Lucas León, the company’s co-founder and head of business development, told *WDR* that the results of the eight-month seawater pilot test have led to scheduling a 100 m³/d (26,420 GPD) SWRO pilot test in the UAE to be conducted with a local partner in Q2 2015.

The Berlin-based startup has developed a proprietary ceramic flotation-filtration technology developed at the Technical University of Berlin. According to León, “The 15 m³/d [4,000 GPD] seawater pilot test was conducted with a fully automated akvoFloat unit at a marine aquarium. At 27°C and a 27,000 mg/L TDS, the aquarium seawater resembled tropical seawater, except that it was more rich in nutrients and marine life by-products.

“The tests show that our integrated system could effectively recycle the saline aquarium wastewater and reduce its phosphate level from 6-8 mg/L to less than 1 mg/L, and turbidity from approximately 3 NTU to less than 0.1 NTU, making it substantially more effective, and about 20 percent more compact, than the conventional sedimentation/filtration system currently installed.”

In the second series of trials, the company tested produced water obtained from an onshore well in Germany, which had an initial oil concentration of over 200 mg/L and a TSS of 40 mg/L. León said that the pilot tests demonstrated removal efficiencies of up to 99.6 percent, with oil and TSS concentrations reduced to less than 1 mg/L.

“We are currently looking for pilot sites and partners for long-term, and larger-scale tests for both SWRO and produced water applications,” said León.