

## Containerized Sludge Treatment for Al Fileyah WWTP - RAKWA, Ras Al Khaimah, UAE



### Secondary Sludge Dewatering System at Al Fileyah Wastewater Treatment Plant

Al Fileyah WWTP is a 40,000 CMD wastewater treatment plant owned by Ras Al Kaimah Wastewater Agency (RAKWA), which is one of four agencies that form the Public Service Department of the Government of Ras Al Khaimah.

The Main Plant consists of two lines for the sludge production. One being activate sludge (Primary and Secondary) and the other digested sludge. For the activated sludge line, RAKWA required a permanent dewatering solution with minimum civil work due to limited space.



### MENA-Water Solution

Considering the project requirements, MENA-Water proposed a permanent containerized plug and play packaged plant using HUBER's Q-Press 800.2 system. This technology provided the best performance with the lowest operational costs and solved the space limitation problem. To meet the guaranteed parameters, MENA-Water also designed a balancing tank within the plant to ensure a consistent sludge feed into HUBER Q-Press 800.2 system and enhance the performance output.

The containerized sludge dewatering plant was specially built in a 40ft ISO sized container and operates with a capacity of 30 m<sup>3</sup>/hr as per the project requirements. This HUBER Q-Press 800.2 system is the first of its kind in Middle East region installed as a containerized package plant version.

As scheduled, MENA-Water successfully completed the design, engineering, supply, installation, testing, commissioning and handed over the plant to the Client producing the desired output.

#### SLUDGE PLANT CAPACITY: 30 m<sup>3</sup>/h

##### Sludge Characteristics

Current Sludge Capacity	: 400 m <sup>3</sup> /day
Sludge Characteristics	: 0.56% – 1.2%
% Future Total Sludge Production	: 700 m <sup>3</sup> /day
Sludge Cake Dryness	: > 20%
Solids Capture Rate	: >95%



Q-Press 800.2 Containerized Permanent Installation



Dewatered sludge