Terminals Tank Farm & Evaporation Ponds ETP

Produced Water from Oil & Gas Fracking

The oil and gas fracking is a widely used process which also is creating some by-products in produced water to be stored and cleaned. This needs treatment of bottom sediment and water dewatered from crude oil tanks, accumulating in evaporation ponds.

This drained water shows high salinity and needs reduction on the BOD values and other contaminants to comply with the marine discharge limits, such as COD, TOC, heavy metals and Ammonia.

Waste Water Treatment

To treat this special water with capacity of 250 m³/d, a dedicated cutting edge treatment plant including several specific treatment steps is necessary.

Scope and Realization

In 2017 MENA-Water took the challenge to develop an ETP including the complete design, construction and commissioning for a client in KSA. As scheduled the plant was built and successfully put into operation.

For quick realization and full flexibility the complete plant was implemented as containerized package plant. It is fully controlled by PLC and remote monitoring allows to observe the plant from control center. Now the effluent water can be disposed safely into marine water.

Equipment

- Chemical neutralization and coagulation
- Free oil separator / Precipitator
- Electrocoagulation
- Secondary coagulation / flocculation
- Dissolved Air Flotation
- Biological striping and clarification
- Multiple filtration processes
- Advanced UV Oxidation
- Ultrafiltration
- Field Instruments
- MCC Panel / PLC / HMI

Feed

Result

FRACKING WASTEWATER TREATMENT
250 m³/day