

Compact ETP for KAR Refinery in Erbil, Iraq

A containerized solution



WABAG has realised a compact refinery ETP for the KAR Refinery in Erbil Iraq.

New and more stringent environmental standards demanded for an environmental-friendly wastewater treatment and disposal.

WABAG has designed a compact ETP which was manufactured and pre-assembled and as containerized plant delivered at site where the commissioning was completed.

To meet the specific conditions of the effluents - a temperature of 70°C and an extremely high

sulphur content – a multi-stage process including cooling tower was employed.

Features

- Compact solution
- Capacity: 2,400 m³/d
- Multi-stage treatment



Client
Unirecycling SRL

Type of contract
EPC

Award of contract
March 2013

Commissioning
June 2014

Capacity
2,400 m³/d

Raw water
Crude oil processing effluents

Technology
Multi-stage treatment

Main Components/Process Steps

The following process design was employed for the treatment of effluents emanating from Crude Oil processing:

- Oil separators (CPI)
- DAF (Dissolved Air Flotation)
- Cooling tower
- Activated sludge treatment
- Lamella separators

| Parameter | Units | Limits |
|-------------------------|-------|--------|
| TSS | mg/l | 30 |
| THC | mg/l | 5 |
| COD | mg/l | 150 |
| BOD | mg/l | 30 |
| NH ₄ -N | mg/l | 5 |
| TP | mg/l | - |
| H ₂ S (as S) | mg/l | 1 |
| Phenols | mg/l | 0.2 |

