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## **Bardsir Rolling Mill Project – Reuse (WCP)**

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### **Project Aim:**

Reuse one of the most challenging industrial waste water close to the incredible ecosystem of Earth's hottest spot (i.e. Lut Desert). Covering all industrial water demands of a 500,000 ton rolling mill plant by tacking advantage from state of the art water and waste water technologies employed by Absun Palayesh Co.

### **Owner / Client / Consultant:**

Bardsir Rolling Mill Complex / Sirjan Jahan Steel Company (SJSCO) / Canymes Company (Iran) - PEREET (India)

### **Location / Completion Year / Duration:**

Bardsir - Kerman Province – Iran / 2017 / 8 month

### **Contract Type:**

EPC

### **Represented Solution in This Project:**

#### **Main Solution:**

- ◆ Industrial Wastewater Reuse

#### **Supplementary Solutions:**

- ◆ Building and Infrastructure / Civil works, including: buildings, shed and land escapes
- ◆ Hydraulic Structure /Concrete reservoir, basins and thickeners
- ◆ Cooling Tower /6 Unit Direct & Indirect
- ◆ Pump Station /1 State of the art Pump Station with 30 Pump in 5 different type
- ◆ Electrical and Instrument /all LV, MV & MCC Panel, done by Absun Madar CO.

#### **Complementary Services:**

- ◆ O&M Operation and Maintenance
- ◆ Procurement / Directly from 8 different country including 15 International Company
- ◆ Laboratory Testing Services / close to 30 time sampling for more than 25 Parameters

### **Employed Process and Technology:**

- ◆ Scale Pit / Capacity: 400 m<sup>3</sup>
- ◆ Settling basin + Flocculation unit / Capacity: 2785 m<sup>3</sup>
- ◆ Self-Cleaning Filter / Capacity: 3140 m<sup>3</sup>/hr.
- ◆ Direct Circuit Cooling Tower / Capacity: 2280 m<sup>3</sup>/hr.
- ◆ Indirect Circuit Cooling Tower / Capacity: 456 m<sup>3</sup>/hr.
- ◆ Cooling Tower's Basin / Capacity: 800+270 m<sup>3</sup>
- ◆ Sludge Dewatering / Gravitational and Mechanical



**Fluid Characteristic:**

	Influent	Effluent
		Ind. Wastewater
Capacity	48,000 m <sup>3</sup> /day	48,000 m <sup>3</sup> /day
Concentration of solids (iron scale)	1500 mg/L	< 0.5 mg/L
Oil (not emulsion) & grease	10-15 mg/L	< 1 mg/L
TSS	-	< 30 mg/L
T	43-48 C°	35 C°

**Block Flow Diagram:**

