

# Case Study: Coal Chemical Wastewater ZLD

- 2<sup>nd</sup> Pass RO Reject
- Flow Rate: 84 m<sup>3</sup>/hr

OsmoZLD™

• Recovery Rate: > 85%  
• Crystals: 1.32m<sup>3</sup>/hr

Item	Project	Unit	Specs
1	pH		7.0~8.5
2	TSS	mg/L	≤ 10
3	Turbidity	NTU	≤ 5
4	BOD <sub>5</sub>	mg/L	≤ 5
5	COD <sub>Cr</sub>	mg/L	≤25
6	Iron	mg/L	≤ 0.5
7	Mn	mg/L	≤ 0.2
8	Cl <sup>-</sup> mg/L ≤100		
9	Hardness (CaCO <sub>3</sub> )	mg/L	≤200
10	Methyl Alkalinity (CaCO <sub>3</sub> )	mg/L	≤ 200
12	NH <sub>3</sub> /NH <sub>4</sub>	mg/L	≤ 3
13	Total P	mg/L	≤1
14	TDS	mg/L	≤500

Item	Constituents	Original Data Design	Actual Current Data	Unit	Notes
1	K <sup>+</sup>	120	80	mg/l	
2	Na <sup>+</sup>	6500	3880	mg/l	
3	Ca <sup>2+</sup>	70	51	mg/l	
4	Mg <sup>2+</sup>	100	20	mg/l	
5	NH <sub>4</sub> <sup>+</sup>	12	16.7	mg/l	
6	Cl <sup>-</sup>	5600	5226.4	mg/l	
7	SO <sub>4</sub> <sup>2-</sup>	5000	5146.9	mg/L	
8	HCO <sub>3</sub> <sup>-</sup>	335	37.2	mg/l	
9	Total hardness	350 (最高 700)	216	mg/L	CaCO <sub>3</sub>
10	Carbonate	300	5.14	mg/L	CaCO <sub>3</sub>
11	Total alkalinity	300	37.2	mg/L	CaCO <sub>3</sub>
12	TDS	18000		mg/L	
13	Conductivity		22400	μs/cm	
14	TSS	5		mg/L	
15	SiO <sub>2</sub>	50	132	mg/L	Active Silica
16	COD <sub>Cr</sub>	300	392	mg/L	
17	PH	6-9	5.46		

