WWTP - SHYMKENT, KAZAKHSTAN



>80% SLUDGE ELIMINATION, ODOUR ELIMINATION, AND 80% COST REDUCTION





After the implementation of the Ydro Process® the following targets were achieved:

- Elimination of excess sludge by more than 80%
- Costs associated with sludge treatment and disposal have decreased by more than 80%
- Elimination of odours. H2S decreased at the measuring points from 32 mg/m3 to 5mg/m3, and to 0.5mg/m3
- Effluent parameters reduced to acceptable levels
- Results achieved within 12 weeks, with significant improvements within 6 weeks.

| Case Study | SHYMKENT W.W.T.P. | | |
|-----------------------|-----------------------------------|--|--|
| Location | Kazakhstan | | |
| Target | Sludge Elimination, Odour Control | | |
| Population Equivalent | 1.000.000 | | |
| Flowrate | 150 000 m³/day | | |
| Treated wastewater | Municipal | | |
| Project Initiation | 04/01/2024 | | |

| Parameter | Units | Input during application (Average) | Output during application (Average) | Sludge Production Before Application (Average) tn /day | • • • | Reduction |
|--------------------|-------|------------------------------------|--|--|-------|-------------------|
| COD | mg/l | 415 | 40 | | | |
| BOD7 | mg/l | 205 | 22 | 1400 | 280 | > 80 % |
| TN | mg/l | 42.88 | 25.60 | | | |
| TP | mg/l | 7.60 | 1.20 | 1400 | 200 | > 00 70 |
| SS | mg/l | 262 | 26 | | | |
| NO ₃ -N | mg/l | 0.54 | 18 | | | |
| NH4-N | mg/l | 42 | 6,70 | | | |