

CASE STUDY



**water
treatment
services**

project: Clarification of Turbid Dam Water
product: WTS 8-23
industry: Agriculture
location: Far West Queensland

background

A remote cattle station in the Gulf Country of Northwest Queensland relies on two dams - one in active operation with another serving as backup. The dams capture rainwater, which is low in dissolved salts, but high in suspended solids due to the clay soils.

The station was having reliability issues with their water treatment equipment, due to inadequate solids settling using their existing chemical products. Without this dam water, which is used for laundry and irrigation, they need to use very hard bore water which is very high in salts. High hardness water is bad for laundry purposes as it produces a scum and also scales up the water piping and hot water systems, thus the station wanted to avoid using the bore.

Station management engaged WTS to develop & deploy a reliable solution to improve the quality of the dam water feeding the treatment plant to secure quality water for the station.

approach

WTS took several water samples to the laboratory and employed a standard Jar Test methodology to assess the efficacy of different WTS products. We simulated real-world conditions to ensure a comprehensive evaluation. The confirmation of product effectiveness found in the jar test results was rigorously evaluated through a combination of lab work and on-site simulations.

WTS solutions

The results indicated the WTS-8-23 coagulant had remarkable capability for solid-liquid separation in samples from both dams in both laboratory and on-site testing.

WTS was able to deliver the chemical solution with an optimal dosing regimen to the client.

results and benefits

Clarity. Suspended solids dropped from the water

Security. Reliable water supply thanks to improved feed water and equipment reliability.

Longevity. Water treatment equipment no longer clogged up by excessive suspended solids.

Bespoke. Situation-specific chemistry and dosing program for optimal efficacy-cost balance.

Technical Support. Expert advice and consultation with all parties throughout the process by WTS.

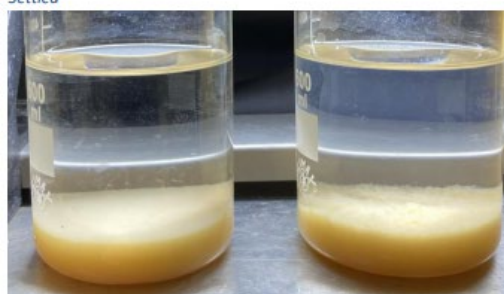
Dam#1: Standard Jar test



Floc formation



Settled



WTS 8-23 appeared to be the more effective coagulant, producing a visually clearer solution with lower turbidity and total suspended solids.