

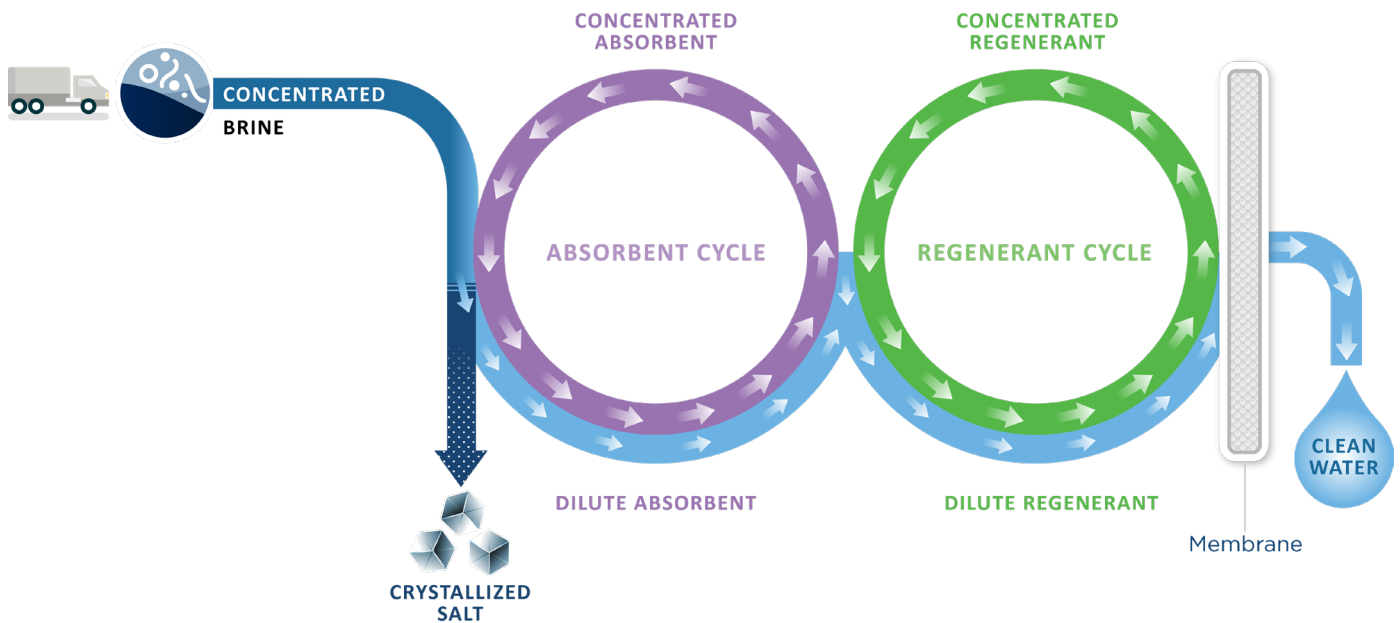
NON-THERMAL HYPERSALINE BRINE MANAGEMENT

THE COMPANY

Aquafortus Technologies Limited has developed and patented a non-thermal, continuous and regenerable hypersaline brine treatment technology, known as the ABX™. The ABX™ crystallizes out all the salts from high-salinity brines and recovers up to 98% of the water at 75% less energy.

BENEFITS OF THE ABX™

- ✓ Reduce OPEX and CAPEX
- ✓ Recovers up to 98% water
- ✓ Brine mining and resource recovery
- ✓ Improve ESG and CSR ratings
- ✓ Can precipitate out all salts found in O&G water and mine tailings



HOW OUR HYPERSALINE BRINE TREATMENT TECHNOLOGY WORKS

Aquafortus' ABX™ technology is a novel liquid-to-liquid crystallizer that promotes the formation of salt crystals via a proprietary direct contact crystallization process.

The ABX™ works by a two-stage solvent exchange process with the Aquafortus Absorbent acting as a transfer medium for water. When a brine contacts the Aquafortus

Absorbent, salts from the brine instantly crystallize out. The Aquafortus Regenerant regenerates the Aquafortus Absorbent for continuous reuse in the system.

The ABX™ is the only known continuous and regenerable process that can wholly replace energy intensive thermal evaporation technologies.

Industries that will benefit from the Aquafortus technology

OIL & GAS



- Halve volumes for disposal-well injection by increasing salt-loading into disposal brine.
- Beneficial reuse of produced water by recovering 98% of the fresh water.
- Reduces Scope 1 emissions relating to produced water management.
- Lower CAPEX and OPEX than thermal evaporation technologies.
- Competitively priced against disposal wells.

MINE TAILINGS MANAGEMENT



- Can treat mine tailings with complex compositions, acidity and toxicity.
- Recovers 98% of the water for reuse, which is vital for mine operations in arid areas where water is scarce and costly.
- Lower CAPEX than constructing tailings dams and evaporation ponds.
- Can eliminate the need for tailings dams by treating the tailings and mitigating the environmental risks attached.

BRINE MINING - RESOURCE RECOVERY



- Brine sources such as mine tailings, produced water and seawater contain large amounts of valuable salts.
- High-value salts such as lithium and magnesium can be 'mined' from various brine sources.
- Aquafortus is able to selectively precipitate the valuable salts instantaneously.
- Valuable salts are a by-product of wastewater treatment and would be an added value in the process.