

NLB Water

Containerized Unit

Commissioned in 2022

O&G Wastewater with Lime Softening

400,000 GPD

Influent: 1,000 ppm TSS

Concentrate up to 150,000 ppm

16 V10XL PermaFlux™ Modules



Challenge:

Customer was looking to standardize their proprietary pretreatment for high salinity wastewater (120,000 – 130,000 NaCl) and pair it with a liquid-solid separation step. The final goal was to create a containerized system that could be moved from site to site with minimal effort.

The customer tested multiple UF and MF membranes and all had issues with clogging, space, sustainable flux, and energy use.

PermaFlux™ UF Membrane Solution:

Thetis was awarded the contract after a successful pilot. Sixteen V10XL PermaFlux™ modules (two loops of 8) were retrofitted into module slots of an existing UF unit whose modules were not able to meet the required performance.

Raw water is treated with a proprietary lime-softening step to precipitate the dissolved solids. This stream, now containing about 1,000 ppm of suspended solids, then enters the PermaFlux™ system. The stream is concentrated up to 150,000 ppm of suspended solids by passing through a loop of PermaFlux™ modules multiple times. The permeate from PermaFlux™ contains no detectable suspended solids.

Contact Thetis Today!

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