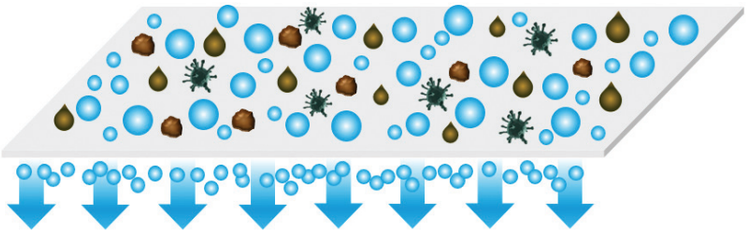
## CASE STUDY: PRODUCED WATER TREATMENT

Water scarcity and stricter discharge regulations are critical issues at the forefront of today's oil & gas industry. Fresh water is a critical resource needed for unconventional oil & gas exploration and is an important factor for future growth. In light of ongoing water issues, oil & gas producers have taken on new sustainability goals that place greater emphasis on water conservation and reuse.

*i*Sep™ UF membranes help oil producers achieve their sustainability goals by providing highly effective and cost efficient treatment of produced and flow back waters. The high oil and solids tolerance of *i*Sep membranes enables oil & gas producers to reuse produced and flow back waters, preserving valuable fresh water resources while reducing disposal costs.



*i*Sep UF membranes act as a distinct barrier layer that does not allow oil, suspended solids, or bacteria to pass through. Effluent quality remains the same, even when drastic changes in feed water occur.

## BENEFITS of *i*Sep MEMBRANES

*i*Sep membranes operate directly downstream of primary oil removal steps in produced and flow back water treatment systems. The high quality effluent can be directly reused, discharged, or sent to reverse osmosis (RO) for further treatment.

+ **Removes >99% oil, TSS, bacteria**
+ **Oil compatibility up to 300 mg/l**
+ **Reduce disposal costs**
+ **Reduce fresh water use**

TRISEP
The Specialty Membrane Company

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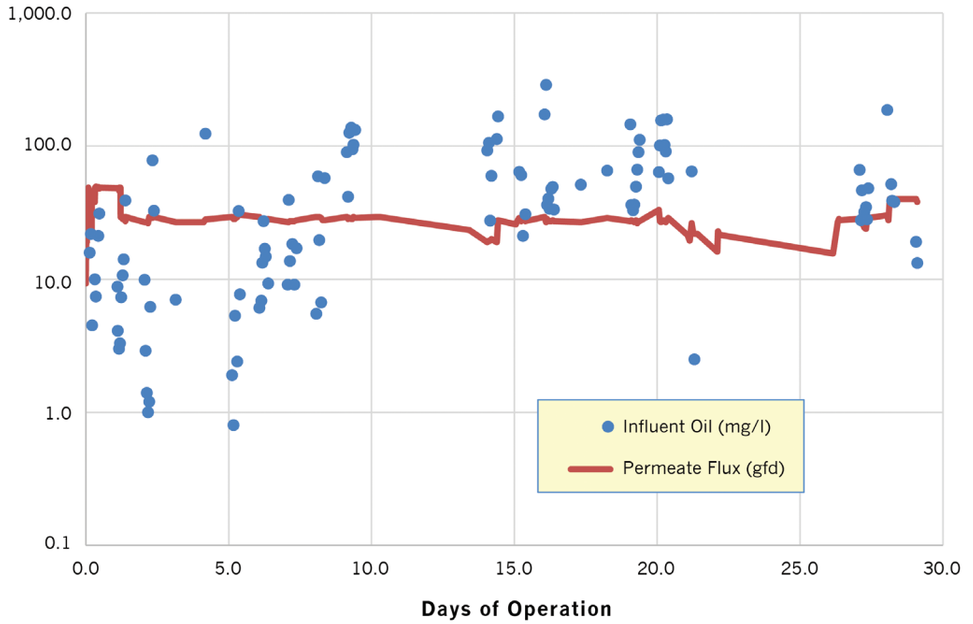


### Feed Water Capabilities

| | |
|---|---|
| Oil & Grease | Up to 300 mg/l |
| Turbidity | Up to 1,000 NTU |
| Suspended Solids | Up to 1,000 mg/l |

### Typical Treatment Results

| | |
|---|---|
| Oil & Grease | <1.0 mg/l |
| Turbidity | <0.1 NTU |
| Suspended Solids | <1.0 mg/l |
| Silt Density Index | <2.0 |
| Bacteria | Non-detect |
| Power Consumption | <0.01 kW-hr per bbl |
| Chemical Consumption | <$0.01 per bbl |

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**TriSep Corporation**

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