

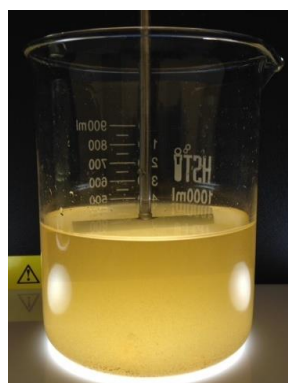
### Water Re-use with PeroxyMAX™ Selective Clarification

BluOX™ treatment is an advanced oxidation & rapid-coagulation process designed to enable the separation of contaminants in highly impaired oil field water.

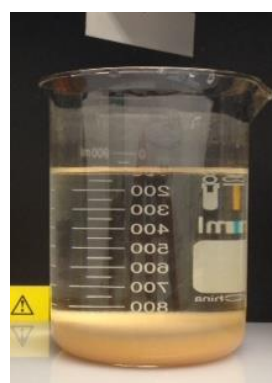
The BluOX™ treatment process is tunable enabling economic treatment of all water types. The engine behind the BluOX™ process is PeroxyMAX™, a proprietary, highly active and selective oxidant synthesized on-site, on-demand from safe feed stocks.

### Permian flowback with high levels of stabilizers, contaminants

Parameter	Untreated	BluOX™ Treated
pH	6.18	8
ORP (mV vs SHE)	366	275
Alkalinity (mg/L, CaCO <sub>3</sub> )	190	--
Aluminum (mg/L)	<0.2 (BDL)	--
Barium (mg/L)	4.86	3.13
Boron (mg/L)	46.6	31.3
Calcium (mg/L)	3460	2230
Iron, total (mg/L)	27.7	0.079
Magnesium (mg/L)	573	188
Chloride (mg/L)	76,600	68,400
Silicon (mg/L)	15.8	0.534
Sodium (mg/L)	46,000	43,500
Strontium (mg/L)	907	721
Sulfate (mg/L)	220	170
TSS (mg/L)	303	0
Oil & Grease (mg/L)	21.8	ND
Bacteria		5 log reduction



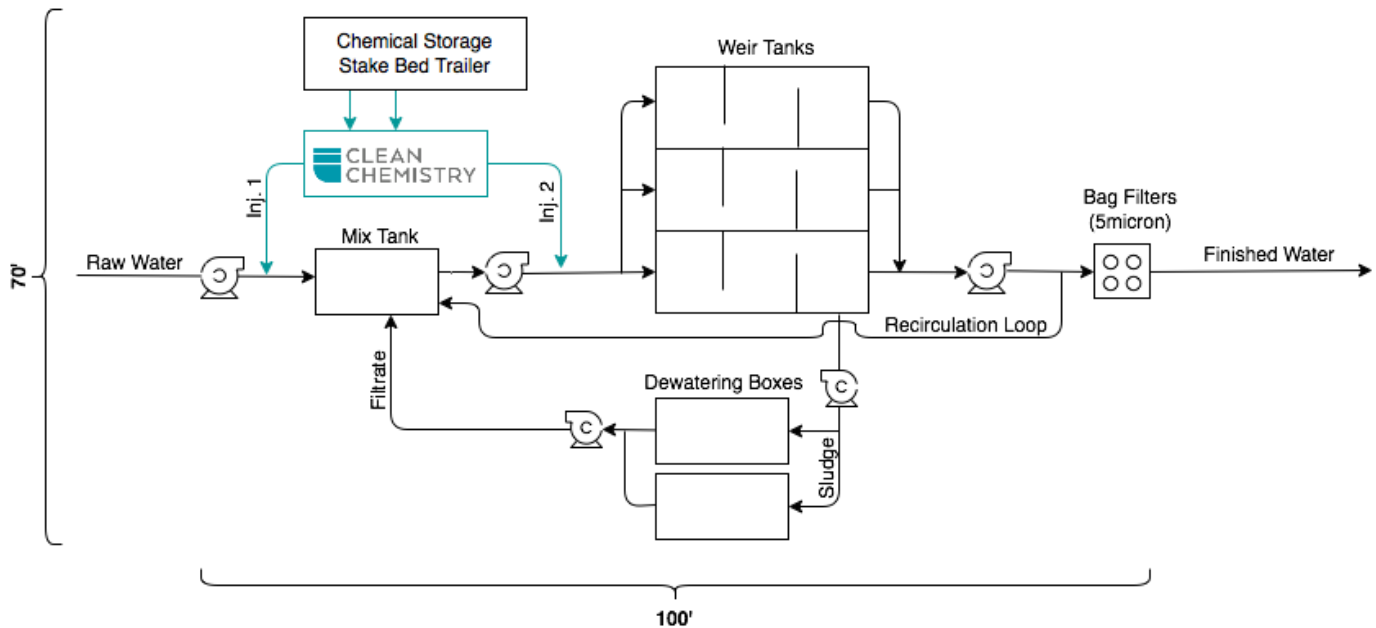
Untreated



Treated



Clean Chemistry developed PeroxyMAX™ and the BluOX™ process to provide oil and gas operators a simple dose and mix liquid chemistry for advanced oxidation and rapid coagulation for water re-use. After treatment, contaminant separation can be performed with simple bag filters. For waters with higher solids, clarifiers such as weir tanks are used.



### PeroxyMAX™ Selective Clarification for Re-Use

- Advanced oxidation + rapid coag
- Simple, fast, low-cost, safe
- Less equipment, smaller footprint
- Tunable - treat all source waters economically

[www.cleanchemi.com](http://www.cleanchemi.com)