# REMEDIATION REUSE RECYCLE

A new source of water.





Aqua-Eo Ltd. (AquaEo) is a developer and operator of industrial wastewater treatment plants. Our goal is to cost-effectively solve significant wastewater challenges for industry and environment, offering a safer, greener alternative.

We design, fabricate, and commission equipment for new projects. AquaEo also provides services for troubleshooting existing problems with already in-place systems.

AquaEo's mobile systems are highly flexible and can be scaled to treat varying flow rates and contaminates. These systems are designed to treat industrial wastewaters to meet or exceed regulatory and operational requirements for surface discharge or aquatic release.

## **OUR SERVICES**

**Produced Water** 

**Fracturing Flow Back** 

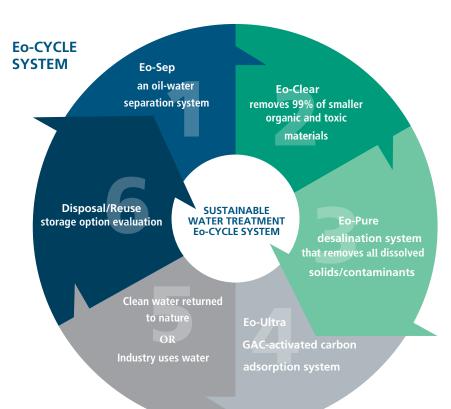
**Source Water** 

**Environmental Spills and Releases** 

**Industrial Wastewaters** 

**Engineering** 

Consulting



## **Eo-CYCLE APPLICATIONS**

Water treated using the Eo-Cycle System meets or exceeds guidelines for aquatic release, surface discharge, and other applications such as:

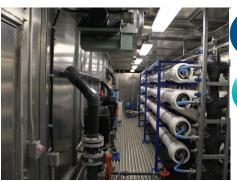
- Processed or produced water
- Frac water returns
- Leachate pond
- Boiler feed water
- Drilling operations
- Environmental spill response
- Tailings ponds



treatment requirements to a standard suitable for release back into the environment.











## **Eo-SEP** The Centre Piece

Eo-Sep is an oil-water separation system that can treat water at

1 cubic meter per minute. This system uses AquaEo's formulated chemicals and bubble technology to breack emulsion surface tension and flocculate to separate oil from water.

The unit is capable of filtering the water down to 1 micron and less than 10 ppm of hydrocarbon.

The Eo-Sep unit allows oil and gas companies to start using their own produced water to fulfill production needs and is the first step of the Eo-Cycle System.



Eo-Clear is a media-based treatment capable of cleaning water to less than 1 micron absolute at a rate of 1 cubic meter per minute.

This unit will remove 99% of bacteria, viruses, organics, low amounts of hydrocarbon, and particulates including colloids and silt.

As part of the Eo-Cycle System, this unit plays a key role in pre-treating water for our Eo-Pure unit. It also has many standalone applications.

## **Eo-PURE & Eo-Ultra**

Eo-Pure is a mobile reverse osmosis system that treats water at 1 cubic meter per minute with a 50-92% return.

This unit will remove dissolved solids to 500 ppm or lower, meeting or exceeding guidelines for surface discharge.

The final stage of the Eo-Cycle System is the Eo-Ultra unit. It enables the return of wastewater back to nature or reintroduction into the production stream for reuse.



## MOBILE, ACCESSIBLE AND COST-EFFECTIVE

Aqua-Eo Ltd. is mobilized quickly to begin the Eo-Cycle System process. Units are custom-designed and scalable to meet any water cleaning needs.

Access to fresh water or disposing it can be a challenge and the Aqua-Eo system opens new avenues for customers such as:

- Recycle frac water
- Cleanse produced water from battery sites and facilities
- Use sewage lagoon water from neighbouring towns and municipalities
- Use storm water surface run-off

Cost savings up to 70% can be realized with our Eo-Cycle System.

# **ENVIRONMENTAL BENEFITS**

Our system offers the following advantages:

- Major reduction in environmental footprint
- Minimal ground disturbance
- Treat industrial wastewaters to meet or exceed regulatory guidelines

## TREATMENT SUMMARY

Unit Treatability %

Contaminant	Influent	Eo-Sep	Eo-Clear	Eo-Pure	Eo-Ultra
Hydrocarbon-Extract/Emuls (mg/L)	30,000	<10	<5	<1	<0.0001
Hydrocarbons-Volatile (mg/L)	5,000	<100	≤80	<1	<0.0001
Total Suspended Solids (mg/L)	30,000	≤150	<50	0	0
Suspended Solids Particle Size (µm)	≈ 200	≤20	0.01	<0.0001	-
Total Dissolved Solids Processable (mg/L)-%	300,000	>20%	≈10	-	-
Total Dissolved Solids Desalinate-able (mg/L)	80,000	>20%	>5%	<300	-
Chemical Oxygen Demand (mg/L)-%	15,000	150	≈20%	<20	<15
Biological Oxygen Demand (mg/L)-%	8,000	70	≈15%	<15	<10

## **PARTNERS**









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