



CHALLENGES WITH WATER

Traditional filtration and chemical treatment methods require high concentrations of raw material, leading to high operational costs and lower process efficiency.

The challenges the industry is currently facing:

- Increased **regulatory** pressure to **reduce emissions**.
- The need to minimize **water consumption**.
- Maximizing **asset utilization**.
- Reducing overall **operation costs**.

OUR SOLUTIONS

NanoWaterTech (NWT) is an innovative energy transition company that implements groundbreaking, easy-to-deploy, and cost-effective technology for industrial water treatment. Coupled with our technical expertise, we optimally service customers resulting in process efficiency improvements, reductions in greenhouse gas emissions, and operational cost savings.

BENEFITS & EASE OF ADOPTION



6X operational cost reduction directly impacting **chemical savings, asset performance, and operating expenses**.



Uptime increase resulting in **\$2.2M** of additional revenue is generated annually for every 10k bbl/day produced.



5% reduction in NG consumption leading to upwards of 100 k MT reduction in CO2E

Industry-standard designs coupled with our patented nano-materials **minimize integration risks and process changes**.



Industry leading expertise with the ability to service and support operations for optimal integration results.



PRODUCT OVERVIEW

1

NanoFilters

Modified walnut shell filters to increase removal in upwards of **30% of Total Organic Carbon, Silica, and Hardness** from the produced water.

2

NanoFlocculants

Accelerated settling and dewatering of tailings by **2X with 450 ppm injection of NanoFlocculant** compared to **3000 ppm of commercial alternative**. Our product removes the use of gypsum for settling during tailings treatment.

3

NanoSorbcats

Nanoparticles modified sorbent and catalyst for treatment and removal of stable compounds in water explicitly designed for Oil spill removal.

INDUSTRY USE CASES



Hydraulic Fracturing

- Reduced freshwater demand by **30%**
- Increased recyclability by **50%**
- Reduced operational cost for water management by **3X**



Steam Assisted Gravity Drainage

- Total Organic Carbon reduction of **40%**
- Silica reduction of **35%**
- Reduced total hardness in produced water by **35%**



Tailing ponds (Third Party Study)

- Increased suspended particle settling by **59%**.
- Increased floc density by **35%**
- **5X** reduction in turbidity of water released

