Total Water Management
Aquatech Energy Services (AES) is a global leader, and has been for over 30 years in providing services on a turnkey basis to the unconventional shale and conventional oil and natural gas industry to manage, treat for beneficial reuse, and dispose drilling, flowback, and produced water.

AES provides disinfection services using a multitude of biocides and disinfectants to treat source water and produced water for sulfate reducing bacteria, reduction of hydrogen sulfide, and prevention of biofilm formation within oil and water tank batteries. Our services include treatment of source, flowback, and produced water for metals like iron and manganese, reduction of hardness bearing compounds such as barium, calcium, magnesium, and reduction of sulfate.

AES treatment processes are based on technology from Aquatech International with business options ranging from short term to long term contracts operating at well pads using mobile treatment units or at central facilities using fixed modular treatment units, all delivered by a highly skilled, safety compliant and experienced team.

Our business models range from design build own (DBO), build own operate (BOO), service maintenance contracts, equipment leasing, training and remote monitoring. We operate multiple merchant central water treatment facilities serving oil and natural gas producers to treat and dispose wastewater from exploration and production activities.

Total Water Management For Oil & Gas Producers

- More Than 30 Years Experience Serving The Oil & Gas Industry
- Design Engineering
- Centralized Treatment
- Mobile Treatment
- Logistics & Data Management
Clean Consistent Water
Aquatech understands how vital water is to your day-to-day operations and the need for a reliable clean water flow that enables your greatest operational uptime.

Aquatech solutions ensure a consistent water composition, with minimal undesired contamination. This enables predictable production characteristics such as consistent hydro fracturing and minimal down-hole scaling. In addition, treatment with MoVap® produces water with a TDS less than 500 ppm, thereby assuring a positive effect on the environment and local community.
The demands of field operations on equipment and personnel require a high level of continued dedication, experience, and engineering. AES delivers reliability on all of these fronts to ensure that water management and treatment enable gas production to proceed rapidly and efficiently.

The AES Team has extensive field experience, much of it in the challenging conditions of the Marcellus Shale play. This experience brings a total understanding of our client’s operations and the ability to be responsive 24/7/365.
Sustainable Water Solutions From Pad-To-Pad

Site conditions change from region to region, site to site, well pad to well pad. AES offers many combinations of treatment solutions that can be customized to the need of the situation.

Aquatech provides unconventional gas producers with synergistic mobile/modular technologies that treat and recycle hydraulic fracturing flowback at the wellhead.

The MoSuite system produces a reusable and sustainable water source for multiple well pads and reduces the volume of fresh water required for shale gas exploration.

MoTreat
Mobile pre-treatment system for removal of suspended solids (TSS) with options to also treat for hardness, bacteria, and select precipitation of metals.

MoVap
Mobile distillation system for removal of dissolved solids (TDS) to produce ultra-clean water for recycling, reuse or disposal, and reduction of wastewater volume.

Additional Mobile Options
Mobile filter press, generator, and frac tanks are also available to support your water management efforts.
AES Project Profile
Jal, New Mexico
Delaware Basin, China Draw

BACKGROUND
The Delaware Basin is a geologic depositional and structural basin in West Texas and Southern New Mexico, famous for holding large oil fields and for a fossilized reef exposed at the surface. It is part of the larger Permian Basin, itself contained within the Mid-Continent oil province.

PROJECT REQUIREMENT
Provide on the fly treatment to flowback and produced water for removal of oil, iron, and suspended solids. Provide disinfection and residual disinfectant to allow treated water to be recycled and reused for hydraulic fracturing.

SCOPE OF WORK
Aquatech Energy Services (AES) provided a turnkey solution which includes permitting, treatment equipment and system set up, chemicals for treatment, plant operation, onsite water testing, byproduct solid sludge disposal, and salt water tank battery management.

AES SOLUTION
AES employed one set of MoSuite™ Mobile Treatment Units rated at 6,000 barrels per day and a mobile laboratory for onsite testing of feed and treated water for process control and treated water quality compliance.

The MoSuite™ Unit was setup next to the salt water tank battery. The treatment process included separating and recovering the oil using a gun barrel tank and gravity settling water in the 500 barrel vertical tanks. The water, after removing and recovering the free oil, was dosed with oxidant and its pH was adjusted to allow the oxidant to react with the iron constituents present in the water. The chemical reaction was allowed to be completed within the chemical reaction unit.

The chemically treated water was clarified through a coagulation and flocculation process, followed by enhanced area settling, to remove suspended solids and chemical precipitates formed during the iron oxidation process. The pH of the clarified water was adjusted as required. A disinfectant was added to sufficiently disinfect the water during storage prior to reuse of the treated water in hydraulic fracturing. The precipitates settled in the clarifier were further compacted into a solid cake using a filter press. The solid cake collected in a sludge bin to be disposed offsite to a permitted landfill.