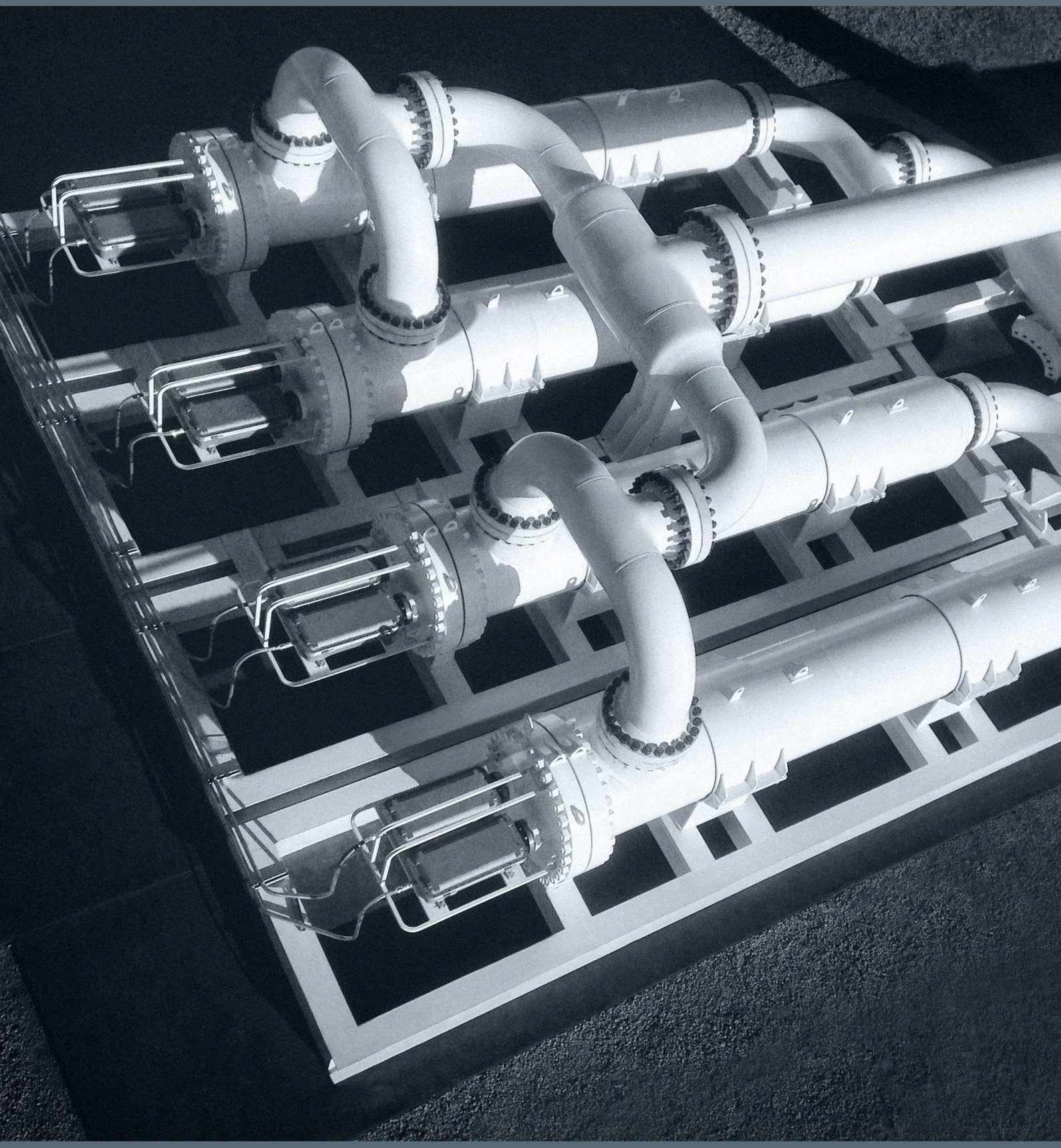
QSENERGY

COMPANY OVERVIEW
JUNE 2023



AOT VISCOSITY REDUCTION SYSTEM

APPLIED OIL TECHNOLOGY

Improving Efficiency of Midstream Operations

QS Energy, Inc. supplies the Energy Industry with patented technology dedicated to the improvement, or even transformation, of Midstream Operations. Developed at Temple University and held under a global exclusive agreement, the revolutionary AOT has been scaled up and proven globally in its addressing of midstream constraints.

The AOT is a viscosity reduction system for Midstream operators worldwide. It has been scrupulously engineered for integration into pipelines and pumping stations - effecting programs that will improve pipeline capacity, reduce diluent needs and reduce power consumption in the transportation of hydrocarbons.

This is an advanced application within a solid-state system that uses the difference in dielectric properties of particles compared to their suspending fluid to agglomerate particles and reduce viscosity. High strength electrical fields are applied to the hydrocarbons in a very specific manner to cause the nanostructure of the particulates in the oil to occupy a smaller volume fraction and also thereby reducing particle interactions which causes a reduction in viscosity - a change which facilitates the lowering of pipeline pressures and the raising of flow-rates in constrained pipelines.

Over many years of research and experiment, the QS Energy project has always represented a unique and powerful combination of fundamental science and generative design - as now finally deployed in midstream pumping stations, the new epicenters of a clean energy efficient system which delivers improved flow rate and reduced CO_2 emissions within cost effective management.

Since its inception or invention, the axiomatic brilliance and simplicity of the AOT concept has never failed to attract the attention and support across this most conservative industry - but one always expressing both the hope and the need of a radical new application to meet the necessities and economies of a changing world.

QS Energy is ready to discuss how the AOT can bring value to clients. Assessing a new application starts with testing oil samples for viscosity reduction. From there, QS Energy will work with client engineers to configure a unit to maximize desired client benefits. Subsequently, our team at QS Energy collaborates closely with client engineers to customize the unit's configuration, aiming to optimize the desired benefits for each individual client.

MANAGEMENT TEAM AND BOARD OF DIRECTORS

Cecil Bond Kyte
Chairman, CEO and CFO

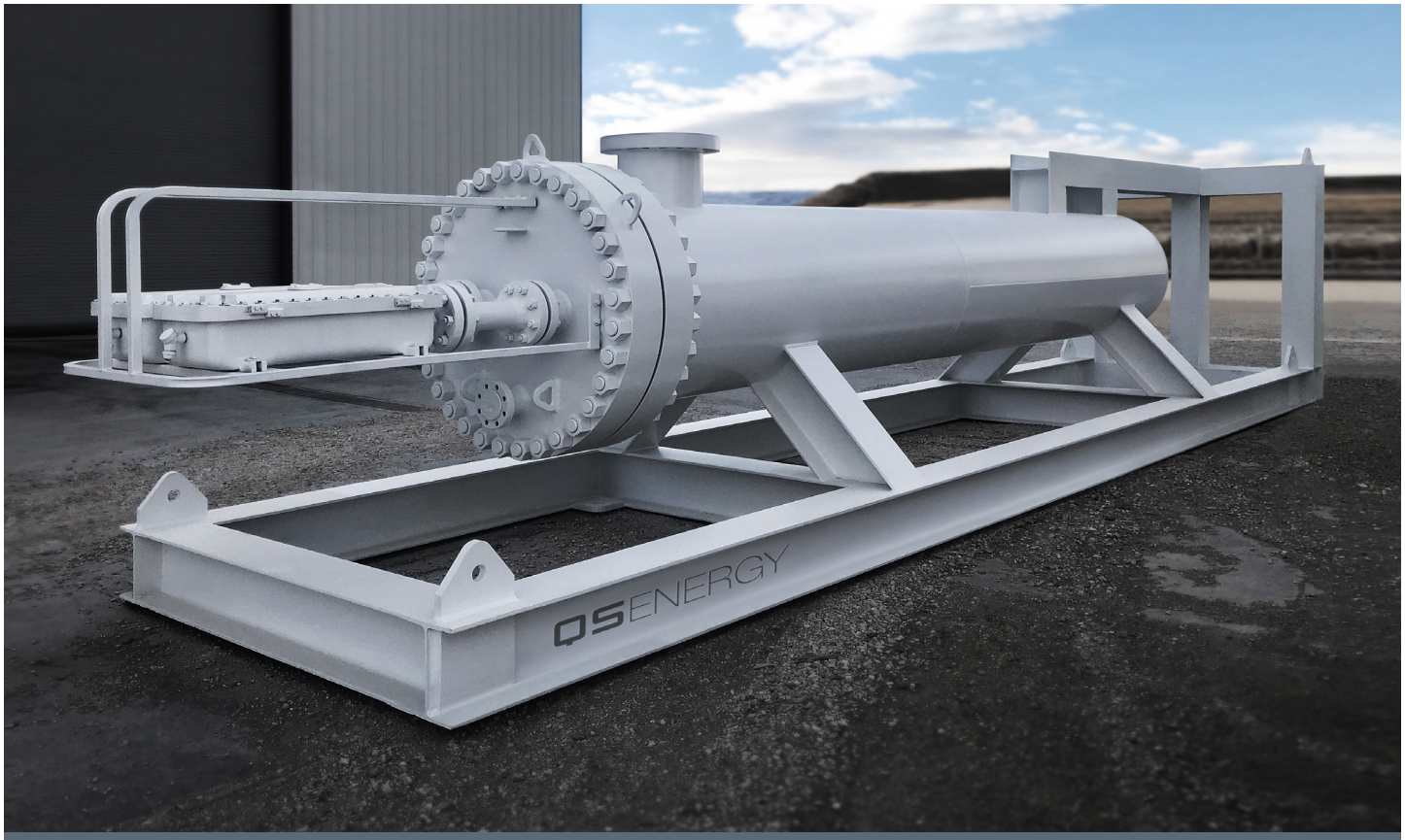
Since his return as CEO in April 2021 both QS Energy and the AOT have been meticulously redesigned and rebuilt piece by piece. Thanks to his exceptional financial and tactical dedication, including a strategy to underpromise and overdeliver, AOT has bloomed into a world class testament to Mr Kyte's vision. With his guidance and tenacity, the best possible team was brought together: QS Energy, Temple University and Dr Christopher Gallagher.

Don Dickson
Lead Board Member

As Project Manager at Kinder Morgan CO_2 Co., Don Dickson consolidated over 25 years of distinguished service there in all capacities: Rockies Mountain Express and Midcontinent Express 42" pipeline projects followed from CEO of Advanced Pipeline Services, Director of Operations at Tetra Resources and Senior Engineer at Halliburton Services. QS Energy's best respected source of technical expertise and field experience.

Eric Bunting
Board Member

Of the many Directors who have invested in QS Energy over the years, the most conspicuous in recent times has been Eric Bunting, both a doctor and an entrepreneur active in Surgical Centers, marketing startups in conjunction of artificial intelligence. Over and above his significant investment in QS Energy, the width of Dr Bunting's contributions and the depth of his business experience have been greatly valued.



AOT

Solid state turn-key technology using a high volt / low amp electric field to reduce crude oil viscosity. Operates inline, unattended, with full remote monitoring and control.

How AOT Works

When with absolute precision and control the AOT programmes a high strength electric field to change the electrorheology of hydrocarbons - this is the culmination of years of research conducted at Temple University and of extensive multi-generational design development by QS Energy.

The application of the high strength electric field, vitally, both finds and transforms the nano structure of the fluid particles in order to decrease the hydrocarbon viscosity by causing particulate matter such as paraffin crystals and asphaltene and other particles to agglomerate into prolate spheroids - thus reducing their surface to volume ratio and the total number of particles in the fluid.

The AOT controls particle growth by aligning the electric field in the direction of flow - with the maximum effect delivered for the customer. Particle agglomeration reduces the interaction of particle in the fluid thereby lowering the bulk viscosity.

Dr. Rongjia Tao, of Temple University's Physics Department and a leading expert in the study of electrorheological fluids and magnetorheological suspensions, is co-developer of the proprietary AOT viscosity reduction technology and has supervised laboratory testing of hundreds of petroleum samples, ranging from heavy bitumen to superlight condensates, in order to prove its efficacy.

The Science Behind AOT

The AOT science, in its beauty and simplicity, has been applied to lower fat in chocolate production, decrease human blood pressure and reduce viscosity in world pipelines. By exposing oil to electric fields, an electric dipole is induced on all particles. Consequently these particles, otherwise not charged, become attracted to each other and form agglomerations as they migrate towards one another. To maximize the efficiency of the process when treating oil in the AOT, high strength electric field must be used to ensure it can occur fast enough. This phenomenon has been observed through computer simulations of microcrystalline waxes and measurements using small angle neutron scattering to examine particles in crude oil.

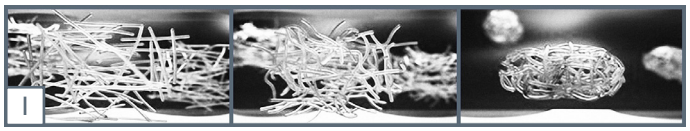


Figure 1: Molecular simulation of a solution of microcrystalline waxes in a hydrocarbon under a high strength electric field over time.

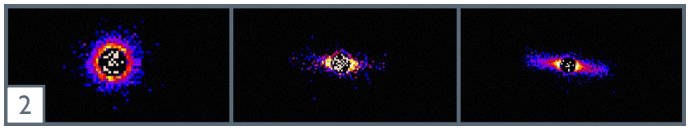


Figure 2: NIST Center for Neutron Research measurements of crude oil over time under a high strength electric field.

AOT Benefits

By significantly reducing viscosity, Applied Oil Technology (AOT) delivers a variety of measurable operational efficiencies:

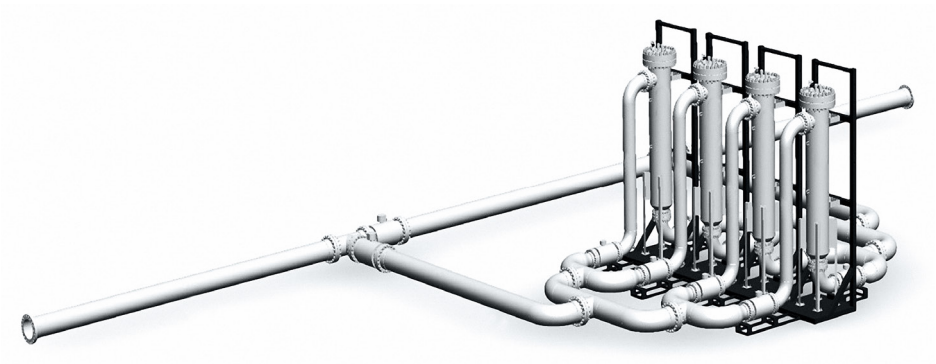
- Boosts maximum flow rates.
- Lowers operating pressures.
- Eliminates or minimizes bottlenecks.
- Reduces pump station power consumption and CO_2 emissions.
- 100% solid-state construction for maximum uptime with minimal maintenance.
- Provides opportunity for carbon credit and carbon tax benefits through decreased emissions and improved energy efficiencies.

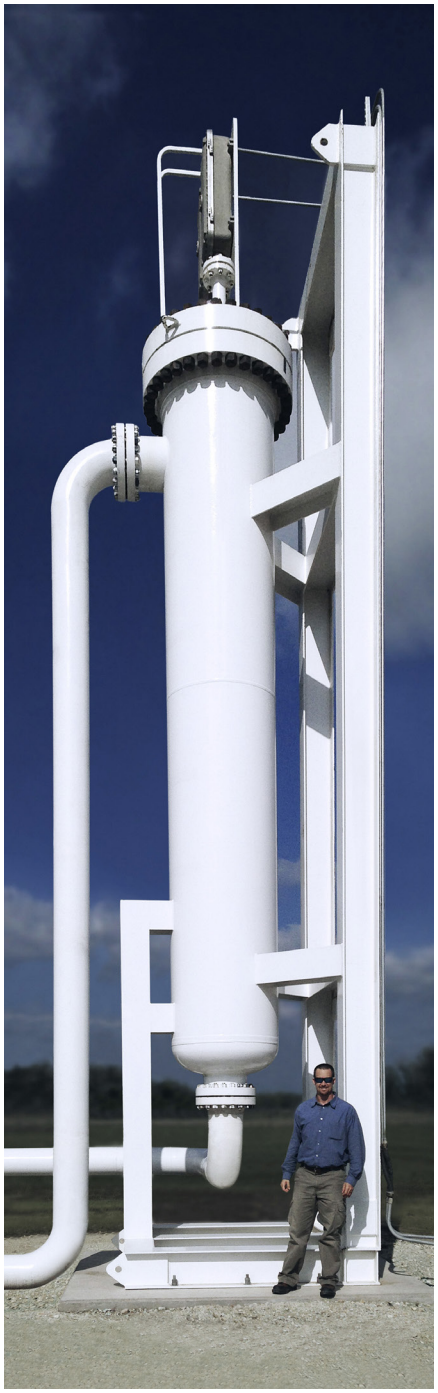
Laboratory results have established dramatic reductions in viscosity for crude oils. Medium to heavy crude oils have consistently shown a 50% decrease, while Heavy crude oils demonstrated approximately 40%. In the case of waxy crude oils, remarkable improvements of over 60% have been documented. Hydrocarbons with low levels of particulates, such as diesel, exhibit lower improvements of less than 5%.

Modular Design, Configurable to Customer Specifications

Each AOT vessel occupies a footprint of 65 ft^2 and has a height of 33 ft, weighing approximately 20 tons excluding headers. These units have a processing capacity of up to 4,000 bbl/hr and can be used in parallel for larger applications. The AOT system consists of an ASME-rated pressure vessel, accompanied by a range of proprietary components that apply a precisely controlled electrical field to the petroleum flow.

The scalability of the AOT allows for its adaptation to various installation requirements, including upstream production facilities, large-scale midstream pipelines, mobile transportation and gathering systems.





AOT AT A GLANCE

1. QS Energy's Applied Oil Technology (AOT) significantly reduces viscosity.
2. AOT seamlessly integrates with pipelines at existing pump stations.
3. Each standard AOT vessel is 33 ft x 8 ft x 8 ft and weighs approximately 20 tons, excluding headers.
4. Each standard AOT unit is designed to process up to 7,500 bbl/hr.
5. AOTs can be installed in parallel to meet the requirements of high-capacity pipeline operations.
6. Additional sizes are available, offering capacities up to 25,000 bbl/hr.

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Sector: INDUSTRIAL

Industry: INDUSTRIAL EQUIPMENT & COMPONENTS

Category: POLLUTION CONTROL

For further information about QS Energy, Inc., visit www.qsenergy.com, to read our SEC filings **click here**

and to subscribe to Email Alerts to receive Company news and shareholder updates **click here**.

Safe Harbor Statement

Some of the statements in this release may constitute forward-looking statements under federal securities laws.

To read our complete cautionary forward-looking statement **click here**.