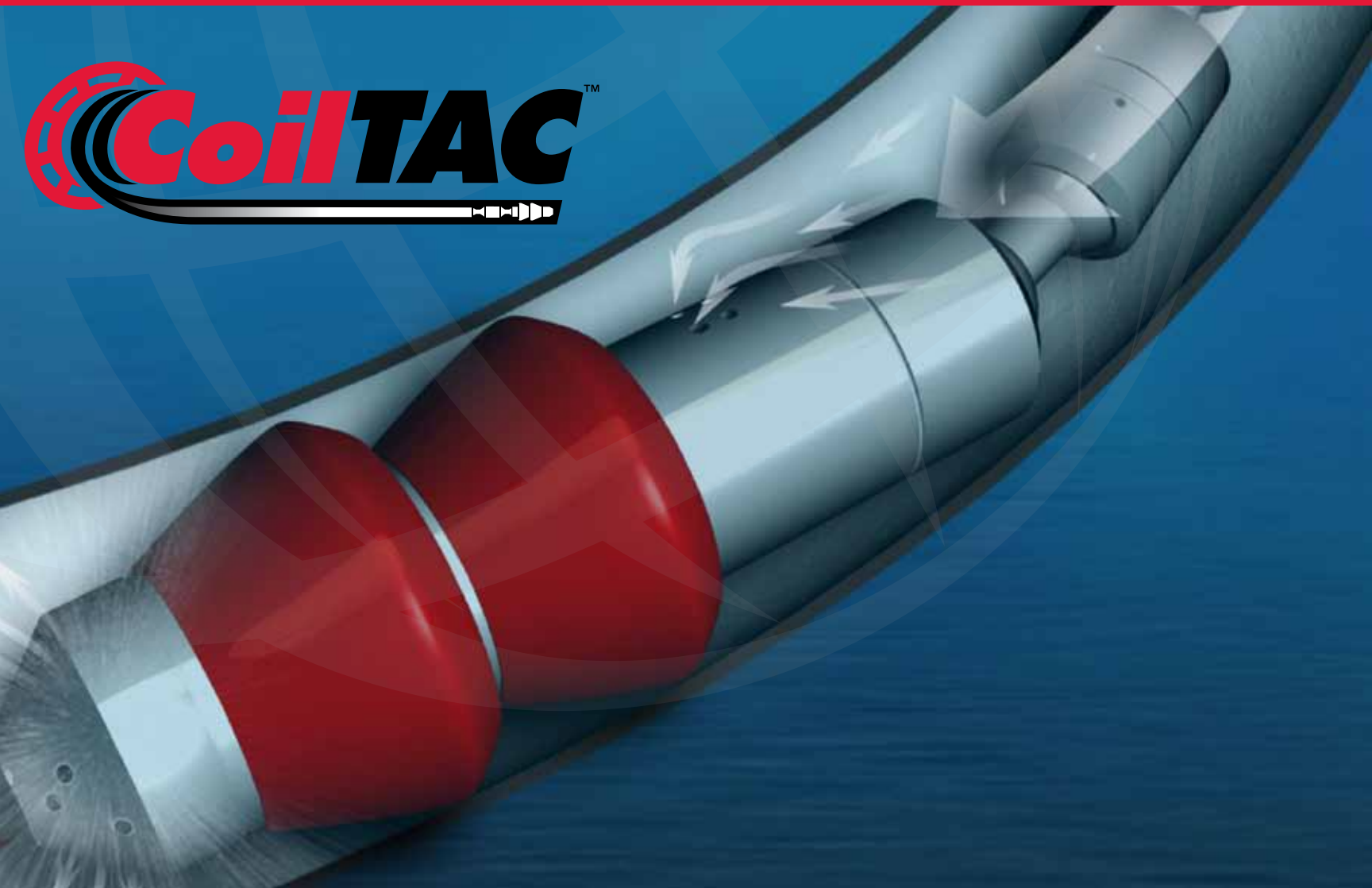


Your Flow Assurance Solution



**CoilTAC**<sup>TM</sup>





## CoilTAC™ Sets World Record

Superior Energy Services' New CoilTAC Thruster has set a world record for the longest single continuous subsea pipeline intervention at 19,356'.

CoilTAC's record remediation took place on the Olympic Challenger. One end of the 4 1/2" flowline was brought to the surface and retrieved through the vessels working tooling moonpool. The CoilTAC thruster was then used with coiled tubing unit and thermal pumping unit to clean out sand, scale and asphaltenes in the pipeline.

## Extended Reach Coiled Tubing for Pipeline Remediation

### Eliminate Blockage Guesswork

When production is restricted or halted due to pipeline blockage, revenue losses are immediate. Previous technologies to remove blockages required cutting the line, sometimes more than once, to clean short intervals. These intervals were usually no greater than 5,000 feet.

If your pipeline is 40,000 feet long in 1,500 feet of water, now is not the time to guess where to make the first cut. Superior Energy Services takes the guess work out of pipeline intervention with the CoilTAC™ extended reach Thruster system.

### Impacting the Future of Pipeline Construction

The CoilTAC™ Thruster is designed for cleanout operations in pipelines with an inside diameter of 3 inches and greater and to distances in excess of 40,000 feet. The CoilTAC™ Thruster is capable of removing paraffin, hydrate plugs, asphaltenes, scale and other blockages to the full ID of the pipeline.

CoilTAC™ operations can be performed from liftboats, deepwater vessels, platforms or land. The cost of pipeline cleanout operations can be reduced significantly due to the ability of the CoilTAC™ Thruster to clean long intervals of pipeline from a single point – even through a bend radius as small as 5D.

The CoilTAC™ system provides a jetting action ahead of the Thruster while applying thrust force as it moves down the pipeline. This ability to simultaneously thrust and jet ahead of the tool with treatment chemicals applied directly to the pipeline obstruction allows the thruster system to clean further than conventional coiled tubing applications. While CoilTAC™ helps provide flow assurance in existing pipelines, this unique technology could also impact future pipeline construction design by extending the reach of subsea tiebacks.

### Case History 1

<b>Pipeline ID:</b> 3.624"	<b>Working Pressure:</b> 9,360 PSI	<b>Pipeline Length:</b> 34,000'
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**Situation:** The pipeline was completely plugged with what was thought to be paraffin or wax.

**Solution:** The CoilTAC™ system, coiled tubing and a thermal unit were mobilized to the location via a dynamically placed vessel. The company attempted a conventional run with water and achieved a distance of 6139'. The CoilTAC™ Thruster was installed using heated diesel and chemical and was cleaned to a distance to 19,356', beating our own world record of 19,275'.

**CoiTAC™ Advantage:** The extended reach of the CoilTAC™ system resulted in complete remediation of the pipeline at a substantial savings to the customer.

### Case History 2

<b>Pipeline Id:</b> 3.826"	<b>Working Pressure:</b> 6,000 PSI	<b>Pipeline Length:</b> 77,443'	<b>Water Depth:</b> 1,177'
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**Situation:** The pipeline was completely plugged with what was thought to be paraffin.

**Solution:** The CoilTAC™ System, Coiled Tubing and a Thermal Unit were mobilized to the location from Oceanering's DP-2 MSV Ocean Intervention II. On site, the pipeline was brought to surface and retrieved through the vessel's working tooling moonpool. The Thruster was engaged and jetted to a distance of 14,800', achieving an average washing speed of 10' per minute during the operations. Samples from the line included sand, scale and a paraffin with 43% asphaltenes. The CoilTAC™ system successfully cleared the entire line, returning it to full production.

**CoiTAC™ Advantage:** 14,800' is a world record for the longest single continuous pipeline intervention and proves that the CoilTAC™ technology is capable of achieving distances far beyond the reach of conventional coiled tubing.

### Case History 3

<b>Pipeline Id:</b> 6.065"	<b>Working Pressure:</b> 1,440 PSI	<b>Pipeline Length:</b> 15,000'+	<b>Water Depth:</b> 140'
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**Situation:** A sales pipeline from a production platform was transferring 500 BOPD via a LACT system when the line began to plug. The customer attempted to clear the line with pressure and chemicals. This procedure increased the pressure on the line.

**Solution:** The CoilTAC™ System, Coiled Tubing and a Thermal Unit were mobilized to the platform. Using heated crude oil and paraffin solvent, the Thruster jetted to a distance of 4,500' crude oil was replaced with fresh diesel. The Thruster then jetted to a total distance of 9,188' at which point the line was cleared and communication re-established. The Thruster reversed out of the line and the platform was returned to full production.

**CoiTAC™ Advantage:** Production has been restored and is capable of transferring 1,000 BOPD. The sales line transfer pressure was reduced from 900 psi to 400 psi.

### Case History 4

<b>Pipeline Id:</b> 3.00"	<b>Working Pressure:</b> 6,105 PSI	<b>Pipeline Length:</b> 1,524'	<b>Water Depth:</b> 520'
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**Situation:** The pipeline was completely plugged and in order to abandon this facility the line had to be either cleaned out or removed per MMS specifications.

**Solution:** The CoilTAC™ System, Coiled Tubing and a Thermal Unit were mobilized to the location via a dynamically placed vessel. The company attempted a conventional run with water and achieved a distance of 1,300' before switching to diesel and chemical. They were able to advance to 5,300' before helical buckling ceased their forward motion. The line was tested and found to still be plugged. The CoilTAC™ Thruster was installed and the line was cleaned to a distance of 10,000'.

**CoiTAC™ Advantage:** The extended reach of the CoilTAC™ System resulted in complete remediation of this pipeline and allowed the line to be abandoned in place per MMS specifications and at a substantial savings to the operator.





**Warrior Energy Services**

105 Bercegeay Road  
Broussard, LA 70518  
Phone: 337-714-2100  
Toll Free: 888-642-2645  
Fax: 337-714-2112

**Superior Energy Services**

Corporate Headquarters  
601 Poydras Street, Suite 2400  
New Orleans, LA 70130  
Phone: 504-587-7374  
Fax: 504-362-1818

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