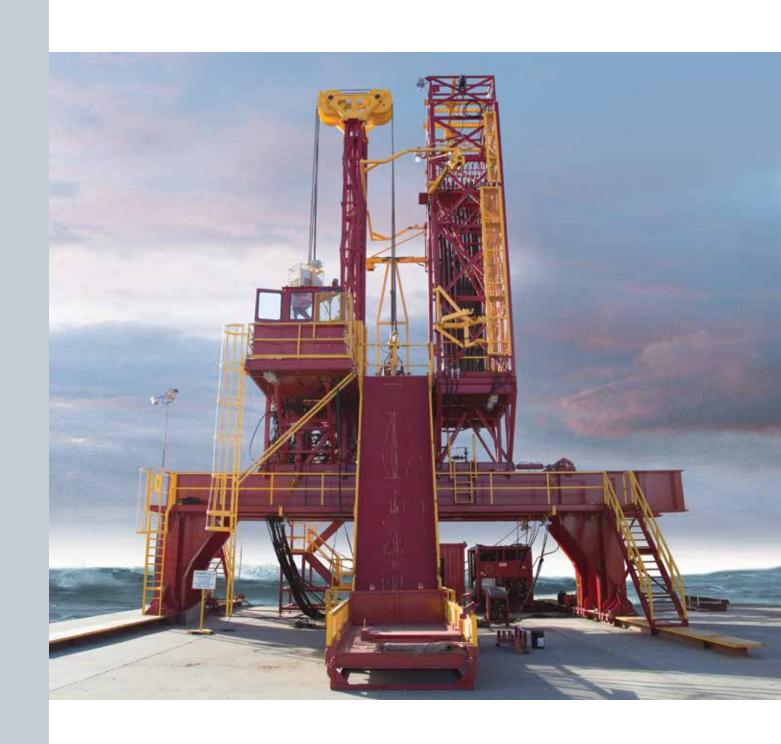


Rig-Free® Intervention and Abandonment Technology

Changing the economics of mature fields





Weatherford makes it economically feasible to prolong production and offset abandonment costs in mature fields.

We can help you increase the economic viability of aging wells while gathering vital intelligence so we can perform safe and effective abandonment when the time comes. Weatherford has three major industry exclusives that make it all possible:

- Rig-Free technology that replaces costly mobile and workover rigs.
- Widest range of product lines for complete single-source efficiency.
- Global team of specialists dedicated to intervention and abandonment.

This combination of Weatherford exclusives extends production and maximizes returns while maintaining well integrity.

Making the Right Decisions

In the sunset years of your assets, you face many important decisions dealing with declining production and decisions about whether or not the time for abandonment has come. Weatherford provides consultation on mature wells with assessment of revitalization potential. This includes design, engineering, and recommendations on how to proceed—on closed-in wells or wells not producing to full capacity because of blockage, sand, scale, debris, or other obstructions.

Our well abandonment services ensure well integrity from late-stage to final abandonment. Superior operational safety and cost efficiency are ensured by our dedicated abandonment teams, proprietary technologies, and single-source capabilities.



Replace costly jackup and workover rigs and snubbing units with Weatherford proprietary Rig-Free pulling and jacking units.

Save valuable rig time just eliminate the rig

You can do it all

Rig-Free pulling and jacking units can stay in place from start to finish, performing all of your intervention and abandonment tasks and then some:

- Slot recovery
- Rig-up and repair
- Tubing change-out
- Tubular cutting and milling
- Pulling and laying down production casing
- Plugging and abandoning
- Whipstock and plug setting
- Section milling
- Internal casing running and tubing patches

- Downhole electric pump running and retrieval
- Wireline and slickline diagnostics
- Cementing
- Pumping
- Fishing
- Re-entry
- Recompletion
- Coiled tubing operational support

Rig-Free Heavy-Duty Pulling and Jacking Unit

Weatherford makes it economically feasible to prolong production and offset abandonment costs in mature fields.

This compact and powerful unit handles tubulars and conductors with ease and can be placed where there are no existing derrick systems.

The Rig-Free hydraulically powered telescoping mast sits directly above the well center. It has a pulling capacity of 220,000 lb (99,790 kg) in 60-ft increments. The mast incorporates a power swivel for rotating pipe and equipment.

The Rig-Free work floor has an integrated jacking system with a capacity of up to 600,000 lb (272,155 kg) in 6-ft increments and accepts up to 36-in. conductors.

Total racking capacity is 10,000 ft of 3 1/2-in. drillpipe.

Remarkable mobility

Along with all of its heavy-duty capability, this Rig-Free unit can skid from well to well in an hour or so even with both racks full of pipe. This saves significant amounts of costly time and greatly enhances safety by not having to lay down pipe. For added safety, BOP can skid right along with the unit. Simply disconnect the BOP from the wellhead and secure it in the undercarriage of the unit. You are always in compliance with regulatory requirements.





Introducing the Rig-Free™ Light-Duty Pulling and Jacking Unit

Our new light-duty unit is actually no lightweight. The Rig-Free light-duty unit can pull 35,000 lb (13,607 kg) and has a jacking capacity of 1,000,000 lb (453,592 kg).

This unit shares most of the attributes and systems of its bigger counterpart, such as power swivels and seamless changeover from mast-assisted to jacking operations. It is ideal for conductor pulling and many other intervention and abandonment tasks, especially in situations where space is at a premium and where platform structural strength is low.

Weatherford intervention and abandonment specialists can help you choose the Rig-Free unit best suited to your applications.



Introducing the Rig-Free™ Work Deck

The Rig-Free work deck rounds out our Rig-Free portfolio. Designed for well abandonment services, the work deck has an integrated 2-ton jib crane. It has a very small footprint, which makes it ideal for small or satellite platforms. It can be placed directly on a platform deck or deployed as a cantilever system. This work deck minimizes crew sizes.

Saved

\$6.7M in operating costs

The Weatherfored Rig-Free pulling and jacking unit provided complete intervention and P&A services on 10 live, producing wells on a hurricane-damaged platform leaning 15 degrees in the Gulf of Mexico. Completing the work 2 months ahead of schedule saved the operator \$6.7 million in operating costs.

Well abandonment services saved **108 days valued at \$10.8M**

The dedicated Weatherford well abandonment crew used a Rig-Free pulling and jacking unit to kill and plug 10 wells, moving from well to well in an average of just 1 hour. The project was completed 108 days ahead of time and \$10.8 million under budget.

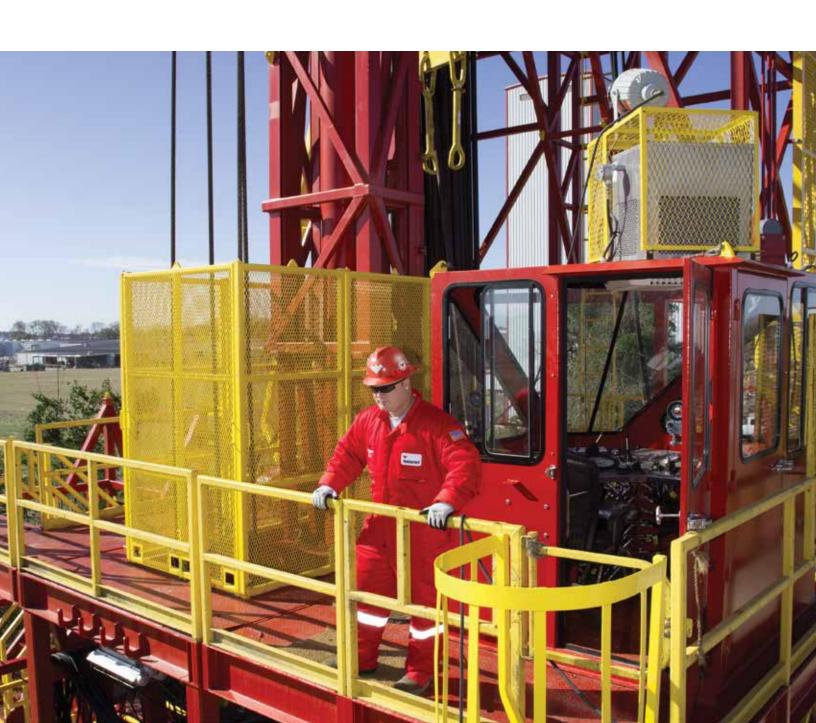
Restored productionand avoided abandonment

Degraded and clogged chrome tubing had caused declining production, which created economic liability. Severe space constraints and platform downgrading made intervention via workover rig or snubbing unit virtually impossible. Crane-based operations were deemed too slow and hazardous. Abandonment appeared to be the only option.

The small footprint and modular design of the compact Weatherford Rig-Free heavy-duty pulling and jacking unit enabled our crew to perform completely integrated interventions services to restore production and avoid abandonment.



There are an estimated 20,000 idle wells and counting worldwide. Complicating the situation in the Gulf of Mexico are regulations mandating that if a well has not been productive for 3 or more years, the operating company must put forward a plan that includes a timeframe and methodology for abandonment. To avoid expensive operations that permanently shut down production from a well, operators need late-stage interventions that enable recompleting idle or marginal wells to resume or continue production.



For more information, contact us at **wellabandonment@weatherford.com** or call your authorized Weatherford representative.



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