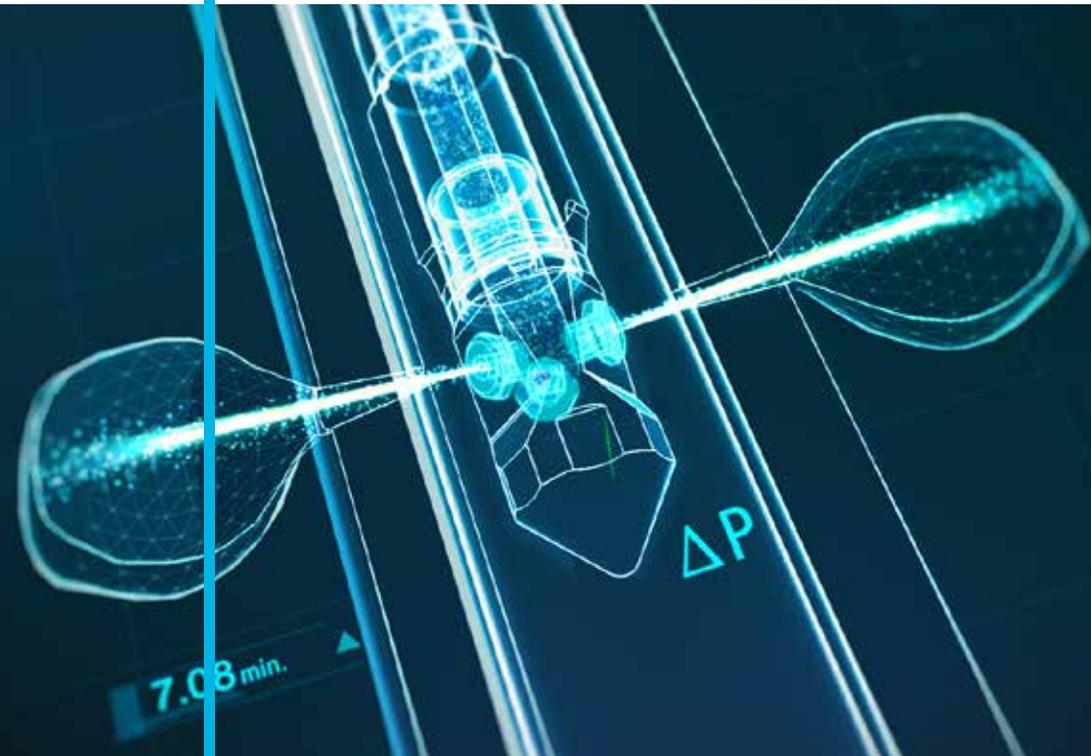


# CIRCA Pro simulation software for complex coiled tubing applications

Optimize job designs for advanced analysis and operations



**CIRCA™ Pro simulation software** for complex coiled tubing applications provides tubing force analysis and modeling for wellbore hydraulics, solids transport, and optimal well cleaning. It features modeling capabilities that help ensure success in coiled tubing intervention operations where solids are present in the wellbore

An effective wellbore cleanout is dependent on many factors, including

particle size, bottomhole pressure, fluid density and viscosity, pump rates, run and pull rates, deviation, and so on. CIRCA Pro software provides field-proven modeling that accounts for these parameters and more, delivering the industry's most accurate predictions for advanced cleanouts. Concentric coiled tubing operations enable effective solids and wellbore fluids removal from ultra-low-pressure reservoirs and extra-large completion profiles.

## Applications

- Coiled tubing well intervention and drilling
- Tubing force analysis and wellbore hydraulics modeling
- Advanced cleanout operations
- Concentric coiled tubing interventions
- H<sub>2</sub>S analysis
- Abrasive perforating

## Features and benefits

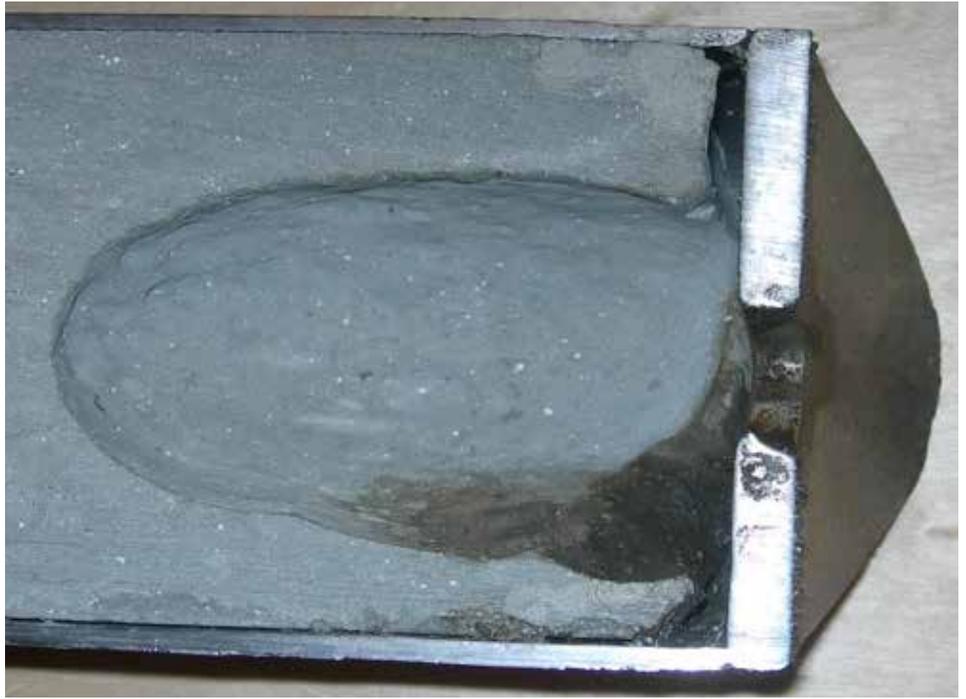
- Advanced job modeling
  - Delivers industry leading solids transport analysis
  - Provides advanced application modules in addition to those available in CIRCA Complete software
  - Helps service providers work up to the edges of the operating envelope in challenging coiled tubing operations
- Flow and tubing force analysis
  - Enables safe, efficient, predictable operations
- Specialized application modules
  - Includes all standard modules included in CIRCA Complete software
  - Offers switchable jetting tool analysis
  - Includes complete concentric coiled tubing modeling

CIRCA Pro software optimizes time on location by providing accurate job design, simulation, tool setup, and safe operating guidelines. It also models jetting and vacuuming functions for optimal flow management downhole. Using concentric coiled tubing eliminates the need for nitrogen, reducing logistics problems and reducing cleanout costs.

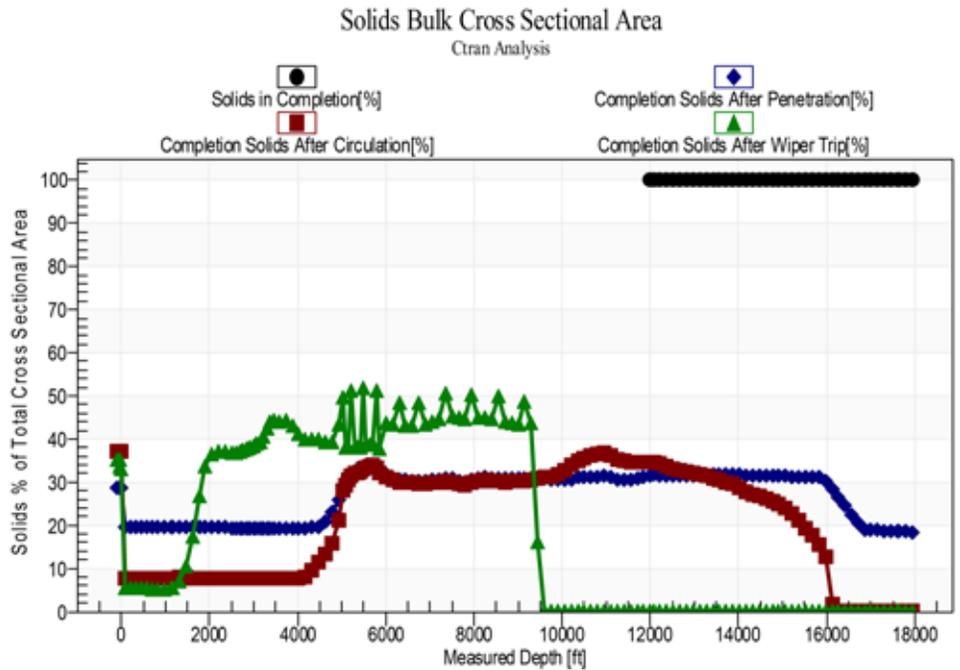
The abrasive perforating module analyzes perforation geometries while considering tool configuration, pump time and rates, slurry concentration, and well configuration. The resulting model provides pressures, rates, and other guiding parameters that will generate optimal tool pressure drop for effective perforations.

CIRCA Pro software helps coiled tubing operators determine H<sub>2</sub>S partial pressure conditions downhole. It also determines whether H<sub>2</sub>S inhibitor is required—and at what volumes—for given coiled tubing materials and well conditions.

CIRCA Pro software is constantly updated based on feedback from the field. Just like the CIRCA Complete package, it is developed by Baker Hughes, a GE company (BHGE), a leading coiled tubing service provider for use by other coiled tubing experts. It is the software that BHGE field personnel and engineering rely on to deliver complex coiled tubing interventions.



CIRCA Pro delivers accurate abrasive perforating models, built on years of testing and real-world data.



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