Confirm casing, cement, and barrier integrity any time you run pipe in the well

CICM (casing integrity and cement mapping services)

Casing, cement, and barrier integrity is critical across the well lifecycle to maintain safety, improve efficiency, and increase well productivity. Whether driven by local regulations or operational best practices, there is a growing need for cased-hole well integrity evaluation. However, in some operations—especially during completion, intervention, and abandonment—you're limited in how you can gather integrity data, leading to excess rig time and costs. In today's environment with rig time savings being more critical than ever, that economic challenge is amplified when it comes to offshore, high-dollar assets.

Get the data real time, any time

Baker Hughes offers the industry's only cased-hole, pipe-conveyed ultrasonic casing and cement evaluation service. This means, you no longer have to make dedicated logging runs to obtain the needed measurements to confirm well integrity. With CICM (casing integrity and cement mapping services), you can get this data any time you run pipe in the well.

Leveraging our CICM services, you can avoid the excess time it takes to rig up and run a logging tool, substantially reducing the cost required to get the data you need. This also eliminates additional personnel to perform the job, cutting spend associated with lodging, day rates, travel, etc. And, you get the added benefit of obtaining multiple integrity measurements with one tool, in a single run.

By gathering the data during the actual operation, rather than a separate trip, you can make real-time, actionable decisions as the job is happening. For example, during a casing exit operation, you can now detect cement and barrier integrity, identify casing joints, and orient the whipstock all in the same trip. This also helps avoid common depth discrepancies between wireline and pipe readings, which is particularly a challenge in deviated, deep wells.

How it works

The pipe-deployed CICM tool is run down hole as part of the standard BHA. Utilizing three radially-arrayed ultrasonic transducers, we evaluate properties of the pulse echo waveform to derive measurements such as casing inside diameter (ID), casing thickness, casing collar locations, and annular

Applications

- Slot recovery
- Whipstock casing exits
- Cut and pull operations
- Wellbore cleanouts
- Well abandonment
- And more

Benefits

- Collect casing and cement integrity measurements any time you run drill pipe in the well
- Reduce cost and rig time required to obtain well integrity data
- Eliminate the need for a dedicated wireline run
- Retrieve data in real time to make actionable decisions
- Reduce HSE risks
- Cost-effectively meet regulatory requirements

impedance. With the ability to rotate the drill string, we can provide a full 360 degree image of the caliper, thickness, and annular impedance. We can also obtain gyroscope, accelerometer, and magnetometer readings to perform orientation services, enabling real-time orientation in all types of well deviations.

Contact your local Baker Hughes representative to learn how our CICM services can deliver a cost-effective solution for your well integrity needs by obtaining the needed measurements any time you run pipe in the well.

CICM services deliver valuable well integrity measurements across the well lifecycle any time you run pipe down hole. Applications include but are not limited to the following:

Slot recovery/casing exits

- Evaluate reusability of casing above kickoff point
- Accurately locate casing collars and stabilizers to avoid milling through them
- Identify presence of cement to improve milling performance
- Verify well barriers in real time
- Orient the whipstock

Cut and pull/well abandonment

- Obtain casing annular measurements to confirm what is behind the casing and optimize cut location
- Avoid multiple cut and pull attempts
- Verify well barriers in real time
- Evaluate free pipe
- Confirm cement integrity

Additional completion operations

- Confirm cement integrity during liner cementing
- Provide hook hanger imaging for multilaterals
- Verify casing cleaning before running in completion equipment
- Optimize downhole isolation placement
- Identify casing eccentricity to orient perforation and cutting to avoid outer casing damage

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