Compact™ Well Shuttle Impulse

Providing duplex communication with the memory string through mud pulsing, while keeping full well control in the absence of wireline

Applications

- High-angle and horizontal wells
- Difficult hole conditions that preclude other conveyance options
- High-dogleg-severity wells
- Logging operations that require continuous circulation and pipe rotation
- Logging operations that require full well control
- Logging long intervals in one pass
- Small-footprint operations (no room for wireline unit)

Features and Benefits

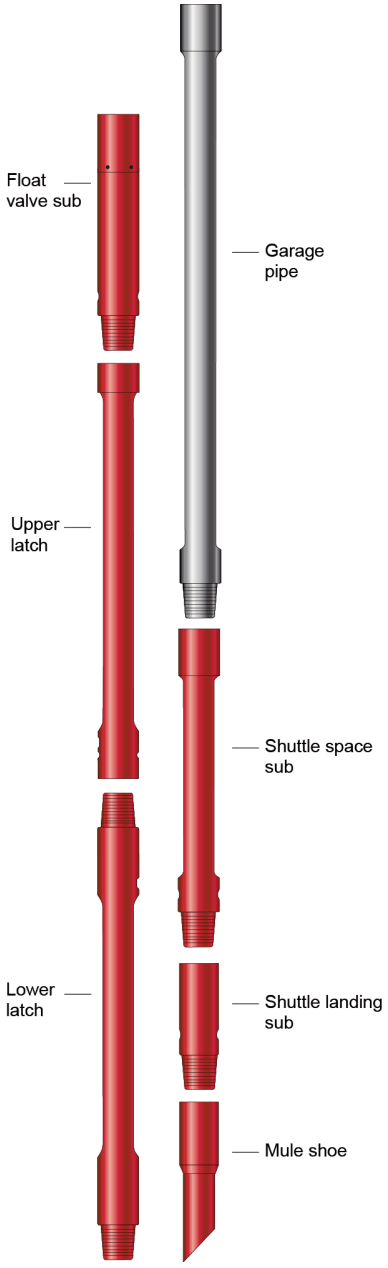
- Allows faster, safer, and more reliable conveyance of logging tools than wireline pipe-conveyed logging
- Reduces risk in areas where hole conditions are a concern
- Can be run on any size drillpipe for operational flexibility
- Provides two-way communication for pressure testing with the Compact Formation Tester
- Enables logging long, extended-reach horizontal wells in one trip, which avoids the need of multiple latch pipe conveyed logging
- Provides full well control capability during operation due to the absence of a wireline

Tool Description

The Weatherford Compact well shuttle (CWS) transports Compact tools inside drillpipe, where they are fully protected from the borehole environment. It requires no wireline, thus mud can be circulated and pipe can be rotated when desired. When the tool string reaches total depth, the release mechanism is activated and the Compact tools are pumped into the open hole landing off in a no-go arrangement. Log data is acquired in memory mode as the pipe is tripped out of the hole and is downloaded after the tools are recovered at surface. The Impulse Shuttle can communicate with surface, allowing tool function checks throughout the operation.

The Shuttle Impulse represents a technological advancement from the Messenger Shuttle. Both shuttles have the same features, but the Impulse also provides reduced logging tool deployment times, options for deployment with coiled tubing, and communication with the tool string using electromechanical pressure pulse systems.

The pulse sequence can be controlled manually by varying the mud pump rate or by using a computer-controlled Shuttle Commander Valve.



The CWS Impulse system safely allows openhole logging data acquisition in high-angle wells and difficult hole conditions.

Weatherford®

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Specifications

System	CWS-C 475	CWS-E 350
Recommended hole size	> 6 in. (> 152 mm)	4.13 to 6 in. (105 to 152 mm)
Thread type	3.5 in. (88.9 mm) IF NC38	3.5 in. (88.9 mm) IF TSWP
Recommended makeup torque	7,200 ft/lb	850 ft/lb
Maximum flow rate (tools inside pipe	5 bbl/min	5 bbl/min
Maximum flow rate (tools landed)	5 bbl/min	5 bbl/min
Maximum rotation rate (tools inside pipe)	60 rpm	60 rpm
Maximum rotation rate (tools landed)	30 rpm	30 rpm