



Weatherford®

REAL RESULTS

CTD® Motors and MillSmartSM Technology Leave Completion Undisturbed and Save Husky Energy \$400,000

Objectives

- Mill out approximately 4 in. (102 mm) of an L-80 4140 steel crossover sub with a restrictive 2-in. (50.8-mm) ID, located below a production packer, to allow access to the lower portion of the well.

Results

- Weatherford's *ClearCut* step mill, powered by a *CTD* motor and dressed with *CustomCut*TM carbide inserts, was used to mill out the crossover sub to a 2.3-in. (58.4-mm) ID in just 9 hr (milling time).
- Use of the *CustomCut* inserts preserved the gauge of the milling assembly, and all tools passed post-job inspection and redress criteria.
- The *CTD* motor provided the industry-leading performance needed for this heavy milling job.
- Use of tools made of high-alloy INCONEL[®] prevented damage to, and failures of, the motor and the bottomhole assembly in the harsh sour environment.

Value to Client

- Milling was successfully completed, without complications. The ability to leave a complex and expensive completion in place and work through tubing saved the operator Cdn\$400,000 (about US\$333,330).

CustomCut inserts are a product of Weatherford's *MillSmart* technology, an engineered approach to performance milling that incorporates materials and designs based on a complete system process.

INCONEL is a registered trademark of the Special Metals Corporation group of companies.

The *ClearCut*TM step mill is designed to optimize penetration rates and longevity when used in conjunction with Weatherford's line of high-performance drilling motors.



Client

Husky Energy Inc.

Operation

Nipple milling

Location

08-21-042-17W5

Depth

13,015 ft (3,967 m)

H₂S

12.8%

CO₂

6.61%

Tubing Size

2-7/8 in. (73 mm)

Products/Services

- Thru-tubing services
- *CTD* motor
- *ClearCut* step mill
- *CustomCut* inserts