

# **Weatherford®**

## **REAL RESULTS**

## CTD<sup>®</sup> Motors and MillSmart<sup>™</sup> 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<sup>™</sup> 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).

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



Husky Energy Inc.

**Operation**Nipple milling

**Location** 08-21-042-17W5

**Depth** 13,015 ft (3,967 m)

H<sub>2</sub>S 12.8%

CO<sub>2</sub> 6.61%

**Tubing Size** 2-7/8 in. (73 mm)

### Products/Services

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

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.

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