Case Study
All Metal Motor

Frac Port Milling with Cardium Crude Oil

Case Study No. 4001

DETAILS:

Location:	**Drayton Valley, AB Canada**
Formation:	**Pembina**
Casing Size:	**4 1/2" 11.6#**
Conveyance:	**2" Coiled Tubing**
Operation Depth:	**2588m (8,491')**
Well Orientation:	**Horizontal**
Fluid	**Cardium Crude and Xylene**
Operation Type:	**Milling Frac Ports**
Tools Used:	**2.87" OD 4.7 Stage All Metal Motor**

RESULTS:

The customer planned to mill out a 10 stage frac port system using Cardium Crude Oil and then placed 10m^3 (63bbls) of Xylene across the lateral section. Due to the harsh fluids, a standard elastomeric power section would not be suitable for this operation. Thru Tubing Solutions' **All Metal Motor** was the perfect solution for this milling operation; with no elastomer in the power section, fluid composition and bottom hole temperature do not affect the performance or longevity of the motor. All 10 frac ports were milled successfully with an average mill time of 32 minutes. TTS' **All Metal Motor** allowed the customer to carry out the milling operation as planned and eliminate additional trips in hole.

HIGHLIGHTS

- No Elastomer
- No Fluid Restriction
- Reliable Performance
- Exclusive Innovative Design