



## Application Notes

### Crude Oil Metering



Project Name:  
Hebron Topsides Project

Location:  
350km south east of St. John's, Newfoundland,  
Canada

EPC Contractor/Consultants:  
Worley Parsons Canada Services Ltd

End User:  
Exxon Mobil Canada Properties

### Scope of Application

A fiscal metering, proving and analyser package consisting of 30" inlet/outlet headers with 30" flanged inlet/outlet connection and 3 x 16" 50% meter runs with a bi-directional meter prover, upstream mixing, sampling and analysis system and metering control system.





## Applicable Standards

API MPMS Chp. 4.1: Proving Systems, Section 1 - Introduction

API MPMS Chp. 4.2: Proving Systems, Section 2 - Displacement Provers

API MPMS Chp. 5.8: Metering, Section 8 - Measurement of Liquid Hydrocarbons by Ultrasonic Flow Meters Using Transit Time Technology

API MPMS Chp. 8: Sampling

CSA C22: Canadian Electrical Codes

## Main Equipment

- 3 x 50% 16" ANSI 300# streams with 3 x 16" 600# ultrasonic flow meters
- 3 x 16" 300# RF FB electrically actuated ball valves
- 7 x 16" 300# RF electrically actuated high integrity twinseal valves
- 4 x 16" 300# wafer type air-actuated flow balancing valves
- 20" 300# RF prover protection strainer
- 1 x 16" 300# hydraulically actuated twinseal 4-way valve and power pack
- Differential pressure transmitters (FF Protocol)
- Temperature and pressure transmitters, 4-20mA output
- 4 x ¾" 600# x 1" 300# RF thermal relief valves
- Small bore valves for drain and vent connection, transmitters and gauge isolation
- 30" prover with 36" launch and receive chambers
- Flow computing system, includes flow computers
- Sampling and analysing package with Jetmix samplers

