



Receipt Date: May 3, 2016
Cal. Date: May 9, 2016
Report Date: May 9, 2016

Report No.: 335911
Serial No.: 01-50437
Barcode: 202751

Calibration Certificate

NORTHERN PETROLEUM & REPAIR
1406 19TH ST S
MOORHEAD, MN 56560
Contact: Trev Peterson
Phone: 218-443-8573
PO Number: None
SOP: 19
Technician ID: 19

Item(s) Submitted: 5 Gallon Measure
Manufacturer: Seraphin
Material: Mild Steel
Type: Measure
Condition: Good
Temperature: 21.5 °C
Pressure: 732.6 mmHg
Relative Humidity: 38.9 %
Standard H₂O Temp.: 18.8 °C
Artifact H₂O Temp.: 18.8 °C

Nominal Volume (gal)		Calibrated		<i>k</i>	U (in ³) CCE (°F)	
		Volume (gal)	Error (in ³)			
5	As Found	4.9995	-0.11	2.06	0.24	0.0000186
	As Left	4.9995	-0.11			

Neck Calibration: No neck calibration was performed at this time.

This prover has been calibrated as a "to contain after wet down" vessel with a pour time of 30 seconds followed by a drain time of 10 seconds after cessation of full flow.

The prover listed above has been compared by volumetric transfer methods to the standards of the State of Minnesota using water as the calibration medium. The standards are traceable to the SI through NIST. Statistical process control charts indicate standards are currently in control. All gauges were sealed in place.

All tolerances and specifications were evaluated according to NIST Handbook 105-3 (2010). Uncertainty calculations contain the components in NIST SOP 19 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (*k*) calculated at the approximate 95.45 % confidence level. Results apply to item identified in this report only.

CCE is the cubical coefficient of thermal expansion, and the reference temperature is 60 °F

Erik Alfvin

Metrologist

Reviewed by:

Mark Nicollet

Quality Manager