MINNESOTA
DEPARTMENT OF
COMMERCE

Weights & Measures Metrology Laboratory
14305 Southcross Drive #150
Burnsville, MN 55306-7008
651.539.1555 FAX 651.539.1553

Receipt Date:	July 9, 2014	State Test No.:	332781
Test Date:	July 10, 2014	Serial No.:	42495
Report Date:	July 10, 2014	Bar Code:	202544

Calibration Report

CHS PIPELINES & TERMINALS
HIGHWAYS 2 & 52 WEST
MINOT, ND 58702
Contact: BOB FOGARTY
Phone: 701-852-1666
PO Number: None
SOP: 33
Technician ID: 08

Item(s) Submitted: 1000 Gallon Prover
Manufacturer: Brown Steel Tank
Material: ms
Description: Dry Bottom
Condition: Good
Temperature: 26.°C
Pressure: 738.4 mmHg
Relative Humidity: 45. %

Nominal Volume		Volume (gallons)	Error (in^3)	Uncertainty (in^3)	Coefficient of Expansion(/°F)
1000 gal	As Found	1000.03	6	28	0.0000186
	As Left	1000.03	6	28	

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

This prover has been calibrated as a "to contain after wet down" vessel with a drain time of 30 seconds after cessation of flow and at a reference temperature of 60°F.

The prover listed above has been compared by volumetric transfer methods to the standards of the State of Minnesota. 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.

The reported uncertainty conforms to NIST Technical Note 1297. The confidence interval is 95%.

Results apply to item identified in this report only.

Nils Fleming
Technical Manager

Reviewed by:
Mark Nicollet
Quality Manager

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Calibration report

Cenex Pipeline, LLC

United States Department of Commerce

National Institute of Standards and Technology

Certificate of Metrological Traceability For:

Minnesota

This laboratory has demonstrated evidence of an unbroken chain of metrological traceability of its standards to the international system of units (SI), documented measurement uncertainties, uses documented measurement procedures, successfully completed training and proficiency tests, documented calibration intervals, submitted a quality management system, and demonstrated suitable measurement assurance for the Scope listed on this certificate.

The Office of Weights and Measures Program assesses laboratories to NIST Handbook 143 - Program Handbook for State Weights and Measures Laboratories and ISO/IEC 17025:2005.

2014

Scope

Mass Echelon I

30 kg to 1 mg

Mass Echelon II

50 kg to 1 mg
1000 lb to 0.001 lb
4 oz to 0.03125 oz

Mass Echelon III

50 kg to 1 mg
5000 lb to 0.001 lb
8 oz to 0.03125 oz

Weight Carts
10 000 lb to 2000 lb

Wheel Load Weighers
20000 lb to 2000 lb

Railroad Test Cars
110 000 lb to 80 000 lb

Volume Gravimetric, I

20 L to 1 mL
100 gal to 0.25 qt

Volume Transfer, II

1500 gal to 5 gal
100 gal to 25 gal LPG

Carol T. Hockert, Chief
NIST Office of Weights and Measures

Effective Dates: 2014-01-01 to 2014-12-31

(Rev.: March 2013)