

Calibration Date: 6/30/2021

**Certificate of Calibration
of Volume Transfer**

Certificate Number: 2021-096-1

Items Submitted:

Quantity	Nominal Volume	Manufacturer	Type
2	100 gal	Brownie	Bottom Drain Prover

Submitted By: FSCP Area 35
3721 West Cuming St.
Lincoln, NE 68524

POC: Mike Boehler
402-471-3422
michael.boehler@nebraska.gov

Test Results

Nominal Volume	Serial Number	Material	Cubical Coefficient of Expansion (1/°F)	As Found Volume Delivered @ 60 °F	As left Volume Delivered @ 60 °F	Uncertainty (U)	(k)
100 gal	7861642	SS	0.0000265	99.990 gal	99.990 gal	0.012 gal	2.01
100 gal	888231102	SS	0.0000265	99.964 gal	99.995 gal	0.012 gal	2.01

The data in this report only applies to those items specifically listed on this report.

Volume delivered at 60°F after a 30 second pour and 10 second drain for test measures. For provers a 30 second drain time would apply.

Conversion Factors:

1 gal = 231 in³
1 gal = 3.785 412 E-03 m³

Traceability Statement:

The artifact(s) described in this report have been compared to the Standards of the State of Nebraska. The Standards of the State of Nebraska are traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The calibration number for this report is the only unique calibration number to be used in referencing measurement traceability for the artifact(s) described in this report.

Uncertainty Statement:

The combined standard uncertainty includes uncertainties reported for the standard, uncertainties associated with the measurement process, uncertainties for any observed deviations from reference values which are less than surveillance limits and the standard uncertainty for any uncorrected errors. The combined standard uncertainty is multiplied by a coverage factor (k), to give the expanded uncertainty, which defines an interval with a 95.45 percent level of confidence. The expanded uncertainty presented in this report is consistent with the Guide to the Expression of Uncertainty in Measurement (2008, revised 2012). Some components of the calibration can be evaluated through a Type A evaluation, or the method of evaluation of uncertainty by the statistical analysis (standard deviation) from the observations taken.

Pertinent Information:

The artifact(s) listed above have been found and/or left within the maximum permissible error for the specification stated above, except as noted. An artifact is considered in-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and uncertainty exceed 95% of the maximum permissible error. All of the tolerances and specifications were evaluated according to NIST HB 105-3 (2010).

Condition of Item(s) Submitted for Calibration:

Good

Laboratory Reference Standard Used:

100 gal NE 44158

Treatment of Item(s) before Calibration:

Tested as Found

Procedure Used:

NISTIR 7383, SOP 19 (2019)

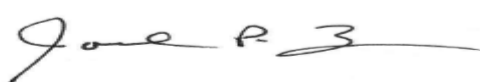
Environmental conditions at time of calibration:

Temp °C	22.8	Humidity %	47.4
Pressure mmHg	732.54		

Water temperature at time of calibration:

64.02 °F

Date Submitted: 6/28/2021



E-signature is copy only

7/7/2021

Joel P. Lavicky, Metrologist

Issue Date:

This document does not represent or imply endorsement by the State of Nebraska, the Nebraska Standards Laboratory or NIST. This document may not be reproduced, except in full, without the written permission of the Nebraska Standards Laboratory