

Agricultural Laboratory
 6531 SE Forbes Ave, Suite B
 Topeka, Kansas 66619
 (785) 296-7020



Office of the Secretary
 900 SW Jackson, Room 456
 Topeka, Kansas 66612
 (785) 296-3556

Jackie McClaskey, Secretary

Governor Sam Brownback

Expires on: 3/21/2017

Kansas Metrology Laboratory Report Number: K15271_RF1
Calibration Report

Submitted on: 3/21/2016

Submitted by: Nebraska Department Of Agriculture Food Safety & Consumer Protection
 301 Centennial Mall South
 Lincoln, NE 68509

Item(s)		
Tested	Adjusted	Rejected
1	0	0

Quantity	Nominal Volume	Type
1	100 gal	RF Prover, "To Deliver"

The calibration of items is performed according to NISTIR 7383, SOP 19 Volume Transfer. Tolerances are applied from NISTHB 105-3. The volume applies when a 10 second drain is observed for 5 gallon hand held test measures. For 5 gallon bottom drop test measures and provers a 30 second drain applies. The drain time starts when the cessation of the main flow is observed.

Nominal Volume	Serial Number	Material	Cubical Coefficient of Expansion (/°F)	Volume as Found @ 60 °F	Tolerance ±	Expanded Uncertainty (U), (k=2.02), ±	Volume as Left @ 60 °F	Adjusted/ In Tolerance/ Rejected
100 gal	7861642	Stainless Steel	0.0000265	99.990 gal	0.050 gal	0.014 gal	99.990 gal	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

1 m³=1 000 L=264.1720 gal

Temperature Correction

Item	Temperature °F	in ³
Temperature Correction for 100 gal Stainless Steel Prover (CCE= 0.0000265/°F)	-20	-49.0
	-15	-45.9
	-10	-42.9
	-5	-39.8
	0	-36.7
	5	-33.7
	10	-30.6
	15	-27.5
	20	-24.5
	25	-21.4
	30	-18.4
	35	-15.3
	40	-12.2
	45	-9.2
	50	-6.1
	55	-3.1
	60	0.0
	65	3.1
	70	6.1
	75	9.2
	80	12.2
85	15.3	
90	18.4	
95	21.4	
100	24.5	
105	27.5	
110	30.6	
115	33.7	
120	36.7	

CCE = Coefficient of Cubical Expansion

Expires on: 3/21/2017

Kansas Metrology Laboratory Report Number: K15271_RF1

Uncertainty Statement:

The combined standard uncertainty includes the standard uncertainty reported for the standards, the standard uncertainty for the measurement process, the standard uncertainty for the water density equation (Metrologia Tanaka, et al), the standard uncertainty for any uncorrected errors associated with temperature correction (applies to length and volume values only), the standard uncertainty for reading the meniscus (when applicable), the standard uncertainty for viscosity, and a component of uncertainty to account for any observed deviations from NIST (The National Institute of Standards and Technology) values that are less than surveillance limits. The combined standard uncertainty is multiplied by the coverage factor (k-value) reported to give an expanded uncertainty, which defines an interval having a level of confidence of 95.45 percent. The k-value reported is based on the effective degrees of freedom as outlined in JCGM 100:2008 section G.4. The expanded uncertainty presented in this report is consistent with the 1993 ISO Guide to the Expression of Uncertainty in Measurement and follows NISTIR 6969, SOP 29. The expanded uncertainty is not to be confused with a tolerance limit for the user during application.

Traceability Statement:

The Kansas Metrology Laboratory Standards are traceable to the SI through 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 laboratory test number identified above is the unique report number to be used in referencing measurement traceability for artifacts identified in this report only.

Condition of Item(s) Submitted for Testing:

Minor wear.

Treatment of Item(s) before Testing:

Item(s) were tested as found.

Water Temperature at Time of Test:

49.80 °F

Documentary Standards:

-NIST Handbook 105-3 (2010)

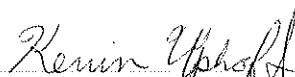
-NISTIR 7383 (2013), SOP 19

Environmental Conditions:

Temperature:	19.76 °C
Barometric Pressure:	731.51 mmHg
Relative Humidity:	28.5 %

Test Date: 3/21/2016

Due Date: 3/21/2017 -Per state statute K.S.A. 83-304(a).


Kevin Uphoff, Metrologist

3/23/2016



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Jackie McClaskey, Secretary

Governor Sam Brownback

Expires on: 3/21/2017

Kansas Metrology Laboratory Report Number: K15271_RF2
Calibration Report

Submitted on: 3/21/2016

Submitted by: Nebraska Department Of Agriculture Food Safety & Consumer Protection
 301 Centennial Mall South
 Lincoln, NE 68509

Item(s)		
Tested	Adjusted	Rejected
1	0	0

Quantity	Nominal Volume	Type
1	100 gal	RF Prover, "To Deliver"

The calibration of items is performed according to NISTIR 7383, SOP 19 Volume Transfer. Tolerances are applied from NISTHB 105-3. The volume applies when a 10 second drain is observed for 5 gallon hand held test measures. For 5 gallon bottom drop test measures and provers a 30 second drain applies. The drain time starts when the cessation of the main flow is observed.

Nominal Volume	Serial Number	Material	Cubical Coefficient of Expansion (/°F)	Volume as Found @ 60 °F	Tolerance ±	Expanded Uncertainty (U), (k=2.02), ±	Volume as Left @ 60 °F	Adjusted/ In Tolerance/ Rejected
100 gal	888231102	Stainless Steel	0.0000265	99.982 gal	0.050 gal	0.014 gal	99.982 gal	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

1 m³=1 000 L=264.1720 gal

Temperature Correction

Item	Temperature °F	in ³
Temperature Correction for 100 gal Stainless Steel Prover (CCE= 0.0000265/°F)	-20	-49.0
	-15	-45.9
	-10	-42.9
	-5	-39.8
	0	-36.7
	5	-33.7
	10	-30.6
	15	-27.5
	20	-24.5
	25	-21.4
	30	-18.4
	35	-15.3
	40	-12.2
	45	-9.2
	50	-6.1
	55	-3.1
	60	0.0
	65	3.1
	70	6.1
	75	9.2
	80	12.2
85	15.3	
90	18.4	
95	21.4	
100	24.5	
105	27.5	
110	30.6	
115	33.7	
120	36.7	

CCE = Coefficient of Cubical Expansion

Expires on: 3/21/2017

Kansas Metrology Laboratory

Report Number: K15271_RF2

Uncertainty Statement:

The combined standard uncertainty includes the standard uncertainty reported for the standards, the standard uncertainty for the measurement process, the standard uncertainty for the water density equation (Metrologia Tanaka, et al), the standard uncertainty for any uncorrected errors associated with temperature correction (applies to length and volume values only), the standard uncertainty for reading the meniscus (when applicable), the standard uncertainty for viscosity, and a component of uncertainty to account for any observed deviations from NIST(The National Institute of Standards and Technology) values that are less than surveillance limits. The combined standard uncertainty is multiplied by the coverage factor (k-value) reported to give an expanded uncertainty, which defines an interval having a level of confidence of 95.45 percent. The k-value reported is based on the effective degrees of freedom as outlined in JCGM 100:2008 section G.4. The expanded uncertainty presented in this report is consistent with the 1993 ISO Guide to the Expression of Uncertainty in Measurement and follows NISTIR 6969, SOP 29. The expanded uncertainty is not to be confused with a tolerance limit for the user during application.

Traceability Statement:

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Condition of Item(s) Submitted for Testing:

Minor wear.

Treatment of Item(s) before Testing:

Item(s) were tested as found.

Water Temperature at Time of Test:

50.34 °F

Documentary Standards:

- NIST Handbook 105-3 (2010)
- NISTIR 7383 (2013), SOP 19

Environmental Conditions:

Temperature:	19.11 °C
Barometric Pressure:	730.81 mmHg
Relative Humidity:	29.7 %

Test Date: 3/21/2016

Due Date: 3/21/2017 -Per state statute K.S.A. 83-304(a).


Kevin Uphoff, Metrologist

3/23/2016



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Jackie McClaskey, Secretary

Governor Sam Brownback

Expires on: 3/23/2017

Kansas Metrology Laboratory Calibration Report

Report Number: K15271

Submitted on: 3/21/2016

Submitted by: Nebraska Department Of Agriculture Food Safety & Consumer Protection
 301 Centennial Mall South
 Lincoln, NE 68509

Item(s)

Tested	Adjusted	Rejected
1	0	0

Quantity	Nominal Volume	Type
1	107 gal	LPG Prover "To Deliver"

The calibration of items is performed according to NISTIR 7383, SOP 21 Volume Transfer. Tolerances are applied from NISTHB 105-4. The volume applies when a 30 second drain is observed. The drain time starts when the level of the liquid is observed in the lower sight glass and continues while the level is bled down to zero. The level of the liquid shall be at zero and the valve closed at the end of the 30 seconds.

Drain Characteristics

Time	Applied Pressure psig	Method
11 min 21 s	0	Gravity

The time listed above is the total drain time which includes the 30 second drain time to the bottom zero.

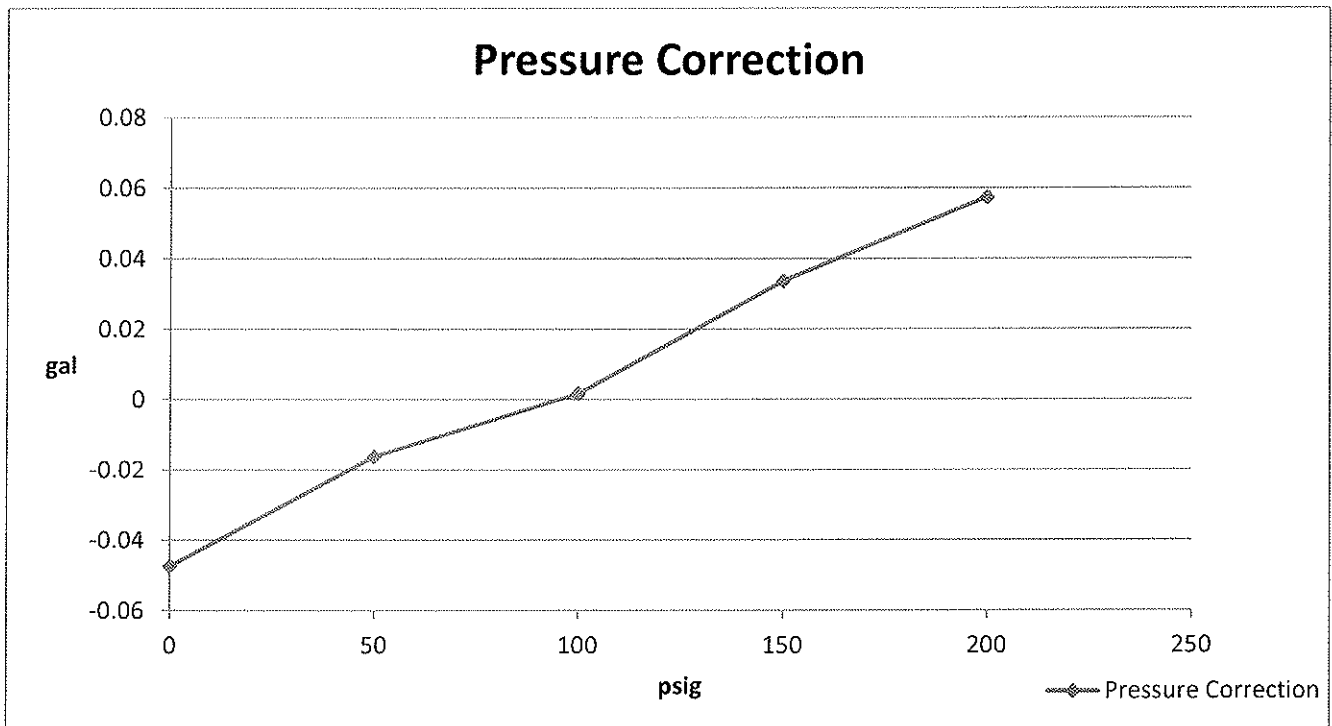
Nominal Volume	Serial Number	Material	Cubical Coefficient of Expansion (/°F)	Volume as Found @ 60 °F & 100 psig	Tolerance ±	Expanded Uncertainty (U), (k=2.05), ±	Volume as Left @ 60 °F & 100 psig	Adjusted/ In Tolerance/ Rejected
107 gal	3104	Low Carbon Steel Pressure Vessel	0.000016	106.825 gal	0.214 gal	0.013 gal	106.825 gal	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

1 m³=1 000 L=264.1720 gal

Pressure Correction

Applied Pressure psig	Pressure Correction (gal)	Volume as Left @ 60 °F (gal)
0	-0.047	106.783
50	-0.016	106.814
100	0.002	106.832
150	0.034	106.864
200	0.057	106.888



Temperature Correction

Item	Temperature °F	gal
Temperature Correction for 107 gal Low Carbon Steel Pressure Vessel Prover (CCE= 0.000016/°F)	-20	-0.137
	-15	-0.128
	-10	-0.120
	-5	-0.111
	0	-0.103
	5	-0.094
	10	-0.086
	15	-0.077
	20	-0.068
	25	-0.060
	30	-0.051
	35	-0.043
	40	-0.034
	45	-0.026
	50	-0.017
	55	-0.009
	60	0.000
	65	0.009
	70	0.017
	75	0.026
	80	0.034
85	0.043	
90	0.051	
95	0.060	
100	0.068	
105	0.077	
110	0.086	
115	0.094	
120	0.103	

CCE = Coefficient of Cubical Expansion

Uncertainty Statement:

The combined standard uncertainty includes the standard uncertainty reported for the standards, the standard uncertainty for the measurement process, the standard uncertainty for the water density equation (Metrologia Tanaka, et al), the standard uncertainty for any uncorrected errors associated with temperature correction (applies to length and volume values only), the standard uncertainty for reading the meniscus (when applicable), the standard uncertainty for viscosity, the standard uncertainty of the pressure gauge, and a component of uncertainty to account for any observed deviations from NIST(The National Institute of Standards and Technology) values that are less than surveillance limits. The combined standard uncertainty is multiplied by the coverage factor (k-value) reported to give an expanded uncertainty, which defines an interval having a level of confidence of 95.45 percent. The k-value reported is based on the effective degrees of freedom as outlined in JCGM 100:2008 section G.4. The expanded uncertainty presented in this report is consistent with the 1993 ISO Guide to the Expression of Uncertainty in Measurement and follows NISTIR 6969, SOP 29. The expanded uncertainty is not to be confused with a tolerance limit for the user during application.

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Condition of Item(s) Submitted for Testing:

Minor wear.

Treatment of Item(s) before Testing:

Item(s) were tested as found.

Water Temperature at Time of Test:

58.08 °F

Documentary Standards:

- NIST Handbook 105-4 (2010)
- NISTIR 7383 (2013), SOP 21

Environmental Conditions:

Temperature	22.91 °C
Barometric Pressure	719.31 mmHg
Relative Humidity	48.1 %

Test Date: 3/23/2016

Due Date: 3/23/2017 -Per state statute K.S.A. 83-304(a).


Kevin Uphoff, Metrologist 3/23/2016



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Jackie McClaskey, Secretary

Governor Sam Brownback

Expires on: 3/3/2017

Kansas Metrology Laboratory Calibration Report

Report Number: K15251

Submitted by:

Nebraska Department Of Agriculture
Food Safety & Consumer Protection
301 Centennial Mall South
Lincoln, NE 68509

Submitted on: 2/29/2016

Item(s)

Tested	Adjusted	Rejected
84	21	1

Quantity	Nominal Mass	Type
21	1 000 lb	Weight(s)
20	50 lb	Weight(s)
8	25 lb	Weight(s)
1	2 kg	Weight(s)
18	5 lb, 1 lb 8 oz to 1/4 oz	Weight Kit
16	5 kg to 100 mg	Weight Kit

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Food Safety & Consumer Protection

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
1000 lb	B10	453561.7 g	45 g	6.1 g	453561.7 g	In Tolerance
1000 lb	B12	453431.7 g	45 g	6.1 g	453596.8 g	<i>Adjusted</i>
1000 lb	B13	453518.0 g	45 g	6.1 g	453593.8 g	<i>Adjusted</i>
1000 lb	B14	453512.1 g	45 g	6.1 g	453465.3 g	<i>Rejected</i>
1000 lb	B17	453511.0 g	45 g	6.1 g	453592.7 g	<i>Adjusted</i>
1000 lb	B18	453534.9 g	45 g	6.1 g	453594.1 g	<i>Adjusted</i>
1000 lb	B19	453628.3 g	45 g	6.1 g	453628.3 g	In Tolerance
1000 lb	B2	453550.1 g	45 g	6.1 g	453593.3 g	<i>Adjusted</i>
1000 lb	B20	453536.1 g	45 g	6.1 g	453597.0 g	<i>Adjusted</i>
1000 lb	B21	453528.2 g	45 g	6.1 g	453592.8 g	<i>Adjusted</i>
1000 lb	B22	453551.5 g	45 g	6.1 g	453593.0 g	<i>Adjusted</i>
1000 lb	B23	453527.2 g	45 g	6.1 g	453596.7 g	<i>Adjusted</i>
1000 lb	B3	453532.8 g	45 g	6.1 g	453592.6 g	<i>Adjusted</i>
1000 lb	B4	453541.2 g	45 g	6.1 g	453593.3 g	<i>Adjusted</i>
1000 lb	B5	453547.6 g	45 g	6.1 g	453595.0 g	<i>Adjusted</i>
1000 lb	B6	453555.6 g	45 g	6.1 g	453555.6 g	In Tolerance
1000 lb	B7	453577.0 g	45 g	6.1 g	453577.0 g	In Tolerance
1000 lb	B8	453568.6 g	45 g	6.1 g	453568.6 g	In Tolerance
1000 lb	B9	453529.2 g	45 g	6.1 g	453594.7 g	<i>Adjusted</i>
1000 lb	C-20	453489.3 g	45 g	6.1 g	453595.6 g	<i>Adjusted</i>
1000 lb	OA20	453562.4 g	45 g	6.1 g	453562.4 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb

28.349523125 g = 1 oz

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
50 lb	A50-1	22680.33 g	2.3 g	0.32 g	22680.33 g	In Tolerance
50 lb	A50-11	22680.62 g	2.3 g	0.32 g	22680.62 g	In Tolerance
50 lb	A50-4	22681.08 g	2.3 g	0.32 g	22681.08 g	In Tolerance
50 lb	B-C-1	22681.22 g	2.3 g	0.32 g	22681.22 g	In Tolerance
50 lb	B-C-10	22681.13 g	2.3 g	0.32 g	22681.13 g	In Tolerance
50 lb	B-C-11	22678.80 g	2.3 g	0.32 g	22678.80 g	In Tolerance
50 lb	B-C-12	22680.37 g	2.3 g	0.32 g	22680.37 g	In Tolerance
50 lb	B-C-2	22678.88 g	2.3 g	0.32 g	22678.88 g	In Tolerance
50 lb	B-C-3	22678.41 g	2.3 g	0.32 g	22678.41 g	In Tolerance
50 lb	B-C-4	22679.02 g	2.3 g	0.32 g	22679.02 g	In Tolerance
50 lb	B-C-5	22677.98 g	2.3 g	0.32 g	22677.98 g	In Tolerance
50 lb	B-C-6	22679.44 g	2.3 g	0.32 g	22679.44 g	In Tolerance
50 lb	B-C-7	22677.22 g	2.3 g	0.32 g	22679.13 g	Adjusted
50 lb	B-C-8	22681.50 g	2.3 g	0.32 g	22681.50 g	In Tolerance
50 lb	B-C-9	22682.58 g	2.3 g	0.32 g	22679.89 g	Adjusted
50 lb	WM50-12	22678.49 g	2.3 g	0.32 g	22678.49 g	In Tolerance
50 lb	WM50-16	22681.23 g	2.3 g	0.32 g	22681.23 g	In Tolerance
50 lb	WM50-52	22361.59 g	2.3 g	0.32 g	22679.93 g	Adjusted
50 lb	WM50-53	22678.94 g	2.3 g	0.32 g	22678.94 g	In Tolerance
50 lb	WM50-7	22677.66 g	2.3 g	0.32 g	22677.66 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb

28.349523125 g = 1 oz

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
25 lb	WM-D15	11339.32 g	1.1 g	0.17 g	11339.32 g	In Tolerance
25 lb	WM-D23	11338.73 g	1.1 g	0.17 g	11339.81 g	Adjusted
25 lb	WM-D24	11339.39 g	1.1 g	0.17 g	11339.39 g	In Tolerance
25 lb	WM-D25	11338.46 g	1.1 g	0.17 g	11339.84 g	Adjusted
25 lb	WM-D26	11339.95 g	1.1 g	0.17 g	11339.95 g	In Tolerance
25 lb	WM-D28	11338.67 g	1.1 g	0.17 g	11340.30 g	Adjusted
25 lb	WM-D29	11339.14 g	1.1 g	0.17 g	11339.14 g	In Tolerance
25 lb	WM-D44	11339.43 g	1.1 g	0.17 g	11339.43 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb

28.349523125 g = 1 oz

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm (NIST Class F)	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
5 lb	WM-2B86 1	2267.952 g	0.23 g	0.027 g	2267.952 g	In Tolerance
5 lb	WM-2B86 2	2267.984 g	0.23 g	0.027 g	2267.984 g	In Tolerance
5 lb	WM-2B86 3	2267.914 g	0.23 g	0.027 g	2267.914 g	In Tolerance
5 lb	WM-2B86 4	2267.952 g	0.23 g	0.027 g	2267.952 g	In Tolerance
5 lb	WM-2B86 5	2267.988 g	0.23 g	0.027 g	2267.988 g	In Tolerance
1 lb	WM-2B86 6	453.5889 g	0.070 g	0.0084 g	453.5889 g	In Tolerance
1 lb	WM-2B86 7	453.5649 g	0.070 g	0.0084 g	453.5649 g	In Tolerance
1 lb	WM-2B86 8	453.5929 g	0.070 g	0.0084 g	453.5929 g	In Tolerance
1 lb	WM-2B86 9	453.5639 g	0.070 g	0.0084 g	453.5639 g	In Tolerance
1 lb	WM-2B86 10	453.6059 g	0.070 g	0.0084 g	453.6059 g	In Tolerance
8 oz	WM-2B86 11	226.7915 g	0.045 g	0.0053 g	226.7915 g	In Tolerance
4 oz	WM-2B86 13	113.4121 g	0.023 g	0.0028 g	113.4121 g	In Tolerance
4 oz	WM-2B86	113.3791 g	0.023 g	0.0028 g	113.3791 g	In Tolerance
2 oz	WM-2B86 15	56.7088 g	0.011 g	0.0013 g	56.7020 g	Adjusted
1 oz	WM-2B86 16	28.34916 g	0.0054 g	0.00065 g	28.34916 g	In Tolerance
1/2 oz	WM-2B86	14.17459 g	0.0028 g	0.00033 g	14.17459 g	In Tolerance
1/4 oz	WM-2B86	7.08722 g	0.0017 g	0.00020 g	7.08722 g	In Tolerance
1/8 oz	WM-2B86	3.54380 g	0.0013 g	0.00016 g	3.54380 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb
28.349523125 g = 1 oz

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm (NIST Class F)	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
2 kg	K2	1999.921 g	0.20 g	0.024 g	1999.921 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb
28.349523125 g = 1 oz

The calibration of items is performed according to NISTIR 6969, SOP 8. Tolerances are applied from NISTHB 105-1.

Nominal Mass	Serial Number	Conventional Mass as Found	Tolerance \pm (NIST Class F)	Expanded Uncertainty (U), (k=2), \pm	Conventional Mass as Left	Adjusted/ In Tolerance/ Rejected
1 kg	WM-2-89-3	1000.050 g	0.10 g	0.012 g	1000.050 g	In Tolerance
500 g	WM-2-89-3	500.0391 g	0.070 g	0.0084 g	500.0391 g	In Tolerance
200 g	WM-2-89-3	200.0220 g	0.040 g	0.0048 g	200.0220 g	In Tolerance
200 g	WM-2-89-3 •	200.0203 g	0.040 g	0.0048 g	200.0203 g	In Tolerance
100 g	WM-2-89-3	99.9983 g	0.020 g	0.0024 g	99.9983 g	In Tolerance
50 g	WM-2-89-3	50.0062 g	0.010 g	0.0012 g	50.0062 g	In Tolerance
20 g	WM-2-89-3	20.00017 g	0.0040 g	0.00047 g	20.00017 g	In Tolerance
20 g	WM-2-89-3 •	19.99922 g	0.0040 g	0.00047 g	19.99922 g	In Tolerance
10 g	WM-2-89-3	10.00092 g	0.0020 g	0.00024 g	10.00092 g	In Tolerance
5 g	WM-2-89-3	4.99955 g	0.0015 g	0.00018 g	4.99955 g	In Tolerance
2 g	WM-2-89-3 •	2.00058 g	0.0011 g	0.00014 g	2.00058 g	In Tolerance
1 g	WM-2-89-3	1.00048 g	0.00090 g	0.00011 g	1.00048 g	In Tolerance
500 mg	WM-2-89-3	0.500482 g	0.00072 g	0.000096 g	0.500482 g	In Tolerance
200 mg	WM-2-89-3	0.200288 g	0.00054 g	0.000078 g	0.200288 g	In Tolerance
200 mg	WM-2-89-3 •	0.200298 g	0.00054 g	0.000078 g	0.200298 g	In Tolerance
100 mg	WM-2-89-3	0.099926 g	0.00043 g	0.000067 g	0.099926 g	In Tolerance

The data in the above table of this report only applies to those items specifically listed on this report.

453.59237 g = 1 lb
28.349523125 g = 1 oz

Uncertainty Statement:

The combined standard uncertainty includes the standard uncertainty reported for the standard, the standard uncertainty for the measurement process, the standard uncertainty for any uncorrected errors associated with buoyancy corrections (applies to mass values only), the standard uncertainty for any uncorrected errors associated with temperature correction (applies to length and volume values only), and a component of uncertainty to account for any observed deviations from NIST (The National Institute of Standards and Technology) values that are less than surveillance limits. The combined standard uncertainty is multiplied by a coverage factor of 2 to give an expanded uncertainty, which defines an interval having a level of confidence of approximately 95 percent. The expanded uncertainty presented in this report is consistent with the 1993 ISO Guide to the Expression of Uncertainty in Measurement and follows NISTIR 6969, SOP 29. The expanded uncertainty is not to be confused with a tolerance limit for the user during application.

Traceability Statement:

The Kansas Metrology Laboratory Standards are traceable to the SI through 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 laboratory test number identified above is the unique report number to be used in referencing measurement traceability for artifacts identified in this report only.

Condition of Item(s) Submitted for Testing:

Minor wear.

Treatment of Item(s) before Testing:

Item(s) were tested as found.

Documentary Standards:

NIST Handbook 105 Series
NISTIR 6969: SOP 8, SOP 4, and/or SOP 7
OR
ASTM E 617-13 or OIML R 111-1 2004(E)

Environmental Conditions:

Temperature: 20.9 °C
Barometric Pressure: 735.14 mmHg
Relative Humidity: 44.5 %

Test Date: 3/3/2016

Due Date: 3/3/2017 -Per state statute K.S.A. 83-304(a).

Keith Arkenberg , Metrologist

3/3/2016



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