

**SOUTH DAKOTA
DEPARTMENT OF PUBLIC SAFETY**

**Office of Weights and Measures
Metrology Lab**

Lab: 1500 N Garfield – E. Truck Bypass Phone: 605-773-3170
Office: 118 West Capitol Avenue Phone: 605-773-3697

REPORT OF CALIBRATION

**LAB TEST NUMBER: MP3395
DATE OF REPORT: 10/29/2015
DATE RECEIVED: 10/26/2015
DATE OF TEST: 10/27-28/2015**

**Submitted By: K- Scale
Contact: Kevin Baumgartner
Mailing Address: 1701 W Madison
City, State, Zip: Sioux Falls, SD 57104
Phone: 605-334-8003
S/A Number: 90**

Standards Submitted:

1 -WEIGHT CARTS	3 -AVOIRDUPOIS WEIGHT KITS
28 -1000 LB TEST WEIGHTS	3 -METRIC WEIGHT KITS
49 -50 LB TEST WEIGHTS	
36 -25 LB TEST WEIGHTS	

Uncertainty Statement: The combined standard uncertainty includes the standard uncertainty reported for the standard, the standard uncertainty for the measurement process, and a component of uncertainty to account for any observed deviations from values that are less than surveillance limits. The combined standard uncertainty is multiplied by a coverage factor k to provide 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 ISO/IEC Guide to the Expression of Uncertainty in Measurement. The expanded uncertainty is not to be confused with a tolerance limit for the user during application. All established Uncertainties are less than 1/3 applicable Class "F" tolerances.

Traceability statement:

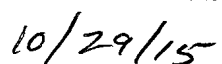
The Standards of the SD Metrology Laboratory are traceable to the International System of Units (SI) through the National Institute of Standards and Technology. The laboratory test number identified above is the unique report number to be used in referencing measurement traceability for artifacts identified in this report only.

The artifacts submitted for calibration have been examined by the State of South Dakota and found to be appropriate for the intended use and to be accurate within Class "F" Tolerances as established by the National Institute of Standards and Technology-Weights and Measures Division. Test methods are in accordance with NIST Handbook 145 and NIST IR 6969 and/or NIST IR 7383.

This document does not represent or imply endorsement by NIST Office of Weights and Measures, NMI, or any agency of the State and/or national governments. The reported test values relate only to the observations made at the time and conditions of the test. This report may not be reproduced, except in full without the written approval of this laboratory. The client must not use this document to claim product endorsement by this laboratory.


Ron Peterson, Metrologist




Date

SOUTH DAKOTA WEIGHTS AND MEASURES / METROLOGY LAB

Lab: 1500 N. Garfield-E. Truck Bypass Phone: 605-773-3170

Office: 118 West Capitol Avenue Phone: 605-773-3697

Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Manufacturer:	Dunbar Mfg Div	Condition of Cart:	GOOD
Serial Number:	11111885	Temperature (c):	20.0
Test Method Used:	SOP 33/ Double Sub.	Humidity:	40.0%
Nominal (lb):	3000	Pressure (mm/Hg):	710.9
Tolerance (lb):	1.00		

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory.

As Found (lb)	As Left (lb)	Uncertainty-lb. (K=2)
2.21	-0.14	0.15

The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid levels were adjusted as close as possible to the full/reference marks. Liquid levels must be maintained as close to reference levels as possible during use. Any maintenance, repairs or damage to weight cart or its components will likely result in an out-of-tolerance condition; therefore, maintenance or replacement of components such as batteries, tires, filters, etc. will require calibration of the weight cart prior to subsequent use.

The above weight cart was compared with standards of the State of South Dakota, which are traceable the National Institute of Standards and Technology(NIST) Weights and Measures Division and have known values. The assigned test number provides documented evidence for measurement traceability.


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10/29/2015

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 Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	1000 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.9
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	44.9
Equipment Used:	Russell Balance/ Vaisala PTU301	Pressure (mm/Hg):	710.4

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 1000 lb and/or 500 lb Working Standards.

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory

Nominal	Serial Number	Correction As Found		Correction As Left		Tolerance	Uncertainty	k
1000 lb	1	0.009 lb	3.9 g			45 g	6.8 g	2.05
1000 lb	2	-0.023 lb	-10.5 g			45 g	6.8 g	2.05
1000 lb	3	-0.068 lb	-30.8 g	0.002 lb	0.8 g	45 g	6.8 g	2.05
1000 lb	4	-0.071 lb	-32.2 g	0.001 lb	0.4 g	45 g	6.8 g	2.05
1000 lb	5	-0.032 lb	-14.3 g			45 g	6.8 g	2.05
1000 lb	6	-0.029 lb	-13.4 g			45 g	6.8 g	2.05
1000 lb	7	-0.033 lb	-14.8 g			45 g	6.8 g	2.05
1000 lb	8	0.015 lb	6.9 g			45 g	6.8 g	2.05
1000 lb	9	-0.020 lb	-9.0 g			45 g	6.8 g	2.05
1000 lb	10	-0.031 lb	-13.9 g			45 g	6.8 g	2.05
1000 lb	11	0.037 lb	16.7 g			45 g	6.8 g	2.05
1000 lb	12	0.035 lb	15.9 g			45 g	6.8 g	2.05
1000 lb	13	0.004 lb	1.6 g			45 g	6.8 g	2.05
1000 lb	14	-0.062 lb	-28.1 g	0.002 lb	0.9 g	45 g	6.8 g	2.05
1000 lb	15	-0.058 lb	-26.5 g	-0.002 lb	-0.8 g	45 g	6.8 g	2.05
1000 lb	16	-0.057 lb	-25.7 g	0.004 lb	1.6 g	45 g	6.8 g	2.05
1000 lb	17	-0.015 lb	-6.8 g			45 g	6.8 g	2.05
1000 lb	18	-0.016 lb	-7.1 g			45 g	6.8 g	2.05
1000 lb	19	-0.045 lb	-20.5 g			45 g	6.8 g	2.05
1000 lb	20	0.538 lb	244.2 g	-0.001 lb	-0.6 g	45 g	6.8 g	2.05

Note: SN 20 had water in the cavity. Cavity was dried and lead shot was removed and replaced.


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Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	1000 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.9
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	44.9
Equipment Used:	Russell Balance/ Vaisala PTU301	Pressure (mm/Hg):	710.4

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 1000 lb and/or 500 lb Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
1000 lb	21	0.049 lb	22.1 g	45 g	6.8 g	2.05
1000 lb	23	-0.028 lb	-12.7 g	45 g	6.8 g	2.05
1000 lb	24	-0.002 lb	-0.9 g	45 g	6.8 g	2.05
1000 lb	25	0.027 lb	12.2 g	45 g	6.8 g	2.05
1000 lb	26	-0.029 lb	-12.9 g	45 g	6.8 g	2.05
1000 lb	122	0.052 lb	23.7 g	45 g	6.8 g	2.05
1000 lb	55UU	0.044 lb	19.9 g	45 g	6.8 g	2.05
1000 lb	R17	-0.024 lb	-10.7 g	45 g	6.8 g	2.05


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Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	50 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.4
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	Pressure (mm/Hg):	708.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 50 lb and/or 25 lb Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	1	-1184 mg		2300 mg	284 mg	2.05
50 lb	2	-1849 mg	86 mg	2300 mg	284 mg	2.05
50 lb	3	-1704 mg	121 mg	2300 mg	284 mg	2.05
50 lb	4	141 mg		2300 mg	284 mg	2.05
50 lb	5	-329 mg		2300 mg	284 mg	2.05
50 lb	6	-1509 mg		2300 mg	284 mg	2.05
50 lb	7	-3709 mg	-34 mg	2300 mg	284 mg	2.05
50 lb	8	-4079 mg	-19 mg	2300 mg	284 mg	2.05
50 lb	10	-3454 mg	31 mg	2300 mg	284 mg	2.05
50 lb	11	-1984 mg	-9 mg	2300 mg	284 mg	2.05
50 lb	13	-919 mg		2300 mg	284 mg	2.05
50 lb	14	-1529 mg		2300 mg	284 mg	2.05
50 lb	15	-2289 mg	96 mg	2300 mg	284 mg	2.05
50 lb	16	-1169 mg		2300 mg	284 mg	2.05
50 lb	17	-1089 mg		2300 mg	284 mg	2.05
50 lb	18	-999 mg		2300 mg	284 mg	2.05
50 lb	19	621 mg		2300 mg	284 mg	2.05
50 lb	20	-714 mg		2300 mg	284 mg	2.05
50 lb	21	-1659 mg	136 mg	2300 mg	284 mg	2.05
50 lb	22	-1234 mg		2300 mg	284 mg	2.05
50 lb	24	-2844 mg	101 mg	2300 mg	284 mg	2.05
50 lb	25	-94 mg		2300 mg	284 mg	2.05
50 lb	26	-2594 mg	981 mg	2300 mg	284 mg	2.05
50 lb	27	-354 mg		2300 mg	284 mg	2.05
50 lb	28	-1074 mg		2300 mg	284 mg	2.05


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 Office: 118 West Capitol Avenue Phone: 605-773-3697
 Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	50 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.4
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	Pressure (mm/Hg):	708.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 50 lb and/or 25 lb Working Standards.

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	29	-309 mg		2300 mg	284 mg	2.05
50 lb	31	-734 mg		2300 mg	284 mg	2.05
50 lb	32	-979 mg		2300 mg	284 mg	2.05
50 lb	33	-399 mg		2300 mg	284 mg	2.05
50 lb	34	1036 mg		2300 mg	284 mg	2.05
50 lb	36	-1284 mg		2300 mg	284 mg	2.05
50 lb	38	-1484 mg		2300 mg	284 mg	2.05
50 lb	39	-844 mg		2300 mg	284 mg	2.05
50 lb	40	-124 mg		2300 mg	284 mg	2.05
50 lb	41	-1174 mg		2300 mg	284 mg	2.05
50 lb	45	-149 mg		2300 mg	284 mg	2.05
50 lb	47	-519 mg		2300 mg	284 mg	2.05
50 lb	48	-999 mg		2300 mg	284 mg	2.05
50 lb	50	-69 mg		2300 mg	284 mg	2.05
50 lb	51	-2574 mg	REJECT	2300 mg	284 mg	2.05
50 lb	52	-1329 mg		2300 mg	284 mg	2.05
50 lb	53	-1739 mg	16 mg	2300 mg	284 mg	2.05
50 lb	96	-1659 mg	11 mg	2300 mg	284 mg	2.05
50 lb	97	421 mg		2300 mg	284 mg	2.05
50 lb	98	46 mg		2300 mg	284 mg	2.05
50 lb	99	-1369 mg		2300 mg	284 mg	2.05
50 lb	321	-1639 mg	-4 mg	2300 mg	284 mg	2.05
50 lb	333	-14 mg		2300 mg	284 mg	2.05
50 lb	KS-C44	-1089 mg		2300 mg	284 mg	2.05

Note: SN 51 was rejected for broken shoulder in seal area.


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 Office: 118 West Capitol Avenue Phone: 605-773-3697
 Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted:	25 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.4
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	Pressure (mm/Hg):	708.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 50 lb and/or 25 lb Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
25 lb	1	-1118 mg	-28 mg	1100 mg	138 mg	2.07
25 lb	2	647 mg		1100 mg	138 mg	2.07
25 lb	1PJ1	217 mg		1100 mg	138 mg	2.07
25 lb	1PJ9	-518 mg		1100 mg	138 mg	2.07
25 lb	1PJA	-53 mg		1100 mg	138 mg	2.07
25 lb	1PJB	157 mg		1100 mg	138 mg	2.07
25 lb	1PJD	-533 mg		1100 mg	138 mg	2.07
25 lb	1PJE	-188 mg		1100 mg	138 mg	2.07
25 lb	1PJF	37 mg		1100 mg	138 mg	2.07
25 lb	1PJG	-1428 mg	-38 mg	1100 mg	138 mg	2.07
25 lb	1PJH	87 mg		1100 mg	138 mg	2.07
25 lb	1PJJ	-298 mg		1100 mg	138 mg	2.07
25 lb	1PJN	22 mg		1100 mg	138 mg	2.07
25 lb	1PJP	-333 mg		1100 mg	138 mg	2.07
25 lb	1PJQ	-408 mg		1100 mg	138 mg	2.07
25 lb	1PJS	417 mg		1100 mg	138 mg	2.07
25 lb	1PJT	702 mg		1100 mg	138 mg	2.07
25 lb	1PJW	-908 mg	-3 mg	1100 mg	138 mg	2.07
25 lb	1PJX	587 mg		1100 mg	138 mg	2.07
25 lb	1PK1	1037 mg	-38 mg	1100 mg	138 mg	2.07
25 lb	1PK2	-118 mg		1100 mg	138 mg	2.07
25 lb	1PK6	-693 mg		1100 mg	138 mg	2.07
25 lb	1PK7	-143 mg		1100 mg	138 mg	2.07
25 lb	1PK8	-433 mg		1100 mg	138 mg	2.07
25 lb	1PK9	-93 mg		1100 mg	138 mg	2.07


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 Office: 118 West Capitol Avenue Phone: 605-773-3697
 Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	25 lb and 10 lb test weights	Condition of Weights:	GOOD
Manufacturer:	various	Temperature (c):	21.4
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	Pressure (mm/Hg):	708.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.

Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab 50 lb and/or 25 lb Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
25 lb	1PKD	987 mg	22 mg	1100 mg	138 mg	2.07
25 lb	1PKF	1737 mg	-23 mg	1100 mg	138 mg	2.07
25 lb	1PKG	-468 mg		1100 mg	138 mg	2.07
25 lb	1PKH	-203 mg		1100 mg	138 mg	2.07
25 lb	1PKJ	452 mg		1100 mg	138 mg	2.07
25 lb	1PKL	-1223 mg	92 mg	1100 mg	138 mg	2.07
25 lb	1PKM	-238 mg		1100 mg	138 mg	2.07
25 lb	1PKO	-293 mg		1100 mg	138 mg	2.07
25 lb	1PKS	1057 mg	62 mg	1100 mg	138 mg	2.07
25 lb	1PKZ	-408 mg		1100 mg	138 mg	2.07
25 lb	KS-D2	-593 mg		1100 mg	138 mg	2.07
10 lb	58	-28 mg		450 mg	55 mg	2.06


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Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	081500B	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.
 Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab Working Standards.

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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
10 lb	KS	-115 mg		450 mg	55 mg	2.06
10 lb	KS1	-135 mg		450 mg	55 mg	2.06
5 lb		28 mg		230 mg	28 mg	2.05
1 lb	KS2	1.2 mg		70 mg	8.5 mg	2.05
1 lb	KS3	8.2 mg		70 mg	8.5 mg	2.05
1 lb	KS5	17.2 mg		70 mg	8.5 mg	2.05
4 oz	KS1	7.7 mg		23 mg	2.8 mg	2.06
4 oz	KS2	10.9 mg		23 mg	2.8 mg	2.06
4 oz	KS3	0.5 mg		23 mg	2.8 mg	2.06
1 oz	1	1.30 mg		5.4 mg	0.66 mg	2.05
1 oz	3	1.82 mg		5.4 mg	0.66 mg	2.05
1/2 oz	.	0.22 mg		2.8 mg	0.34 mg	2.05
1/4 oz	.	0.02 mg		1.7 mg	0.21 mg	2.05


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City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	081500C	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.
 Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
5 lb	9	32 mg		230 mg	28 mg	2.05
2 lb	5	12 mg		91 mg	11 mg	2.06
2 lb	6	31 mg		91 mg	11 mg	2.06
1 lb	4	13.2 mg		70 mg	8.5 mg	2.05
8 oz	3	4.8 mg		45 mg	5.5 mg	2.05
0.2 lb	1	8.6 mg		18 mg	2.2 mg	2.06
0.2 lb	2	8.3 mg		18 mg	2.2 mg	2.06
0.1 lb		8.5 mg		9.1 mg	1.1 mg	2.06
0.05 lb		2.36 mg		4.5 mg	0.55 mg	2.06
0.02 lb		1.43 mg		1.8 mg	0.22 mg	2.06
0.02 lb		0.86 mg		1.8 mg	0.22 mg	2.06
0.005 lb		0.78 mg		1.2 mg	0.18 mg	2.06
0.002 lb		0.45 mg		0.87 mg	0.11 mg	2.06
0.002 lb		0.61 mg		0.87 mg	0.11 mg	2.06
0.001 lb		-0.01 mg		0.7 mg	0.10 mg	2.06



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Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	081910A	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46.4
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.
 Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Lab Working Standards.

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
10 lb		125 mg		450 mg	55 mg	2.06
10 lb		133 mg		450 mg	55 mg	2.06
5 lb		83 mg		230 mg	28 mg	2.05
2 lb		34 mg		91 mg	11 mg	2.06
2 lb		29 mg		91 mg	11 mg	2.06
1 lb		10.2 mg		70 mg	8.5 mg	2.05
8 oz		11.8 mg		45 mg	5.5 mg	2.05
0.2 lb		0.6 mg		18 mg	2.2 mg	2.06
0.2 lb		3.3 mg		18 mg	2.2 mg	2.06
0.1 lb		3.1 mg		9.1 mg	1.1 mg	2.06
0.05 lb		1.44 mg		4.5 mg	0.55 mg	2.06
0.02 lb		0.50 mg		1.8 mg	0.22 mg	2.06
0.02 lb		0.48 mg		1.8 mg	0.22 mg	2.06
0.005 lb		0.48 mg		1.2 mg	0.18 mg	2.06
0.002 lb		0.17 mg		0.87 mg	0.11 mg	2.06
0.002 lb		0.25 mg		0.87 mg	0.11 mg	2.06
0.001 lb		0.44 mg		0.7 mg	0.10 mg	2.06


 Ron Peterson, Metrologist

10/29/2015
Date of Report

SOUTH DAKOTA WEIGHTS AND MEASURES / METROLOGY LAB

Lab: 1500 N. Garfield-E. Truck Bypass Phone: 605-773-3170

Office: 118 West Capitol Avenue Phone: 605-773-3697

Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	Kit 20BD	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46%
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.
 Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Working Standards.

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
5 kg		130 mg		500 mg	61 mg	2.07
2 kg		83 mg		200 mg	24 mg	2.06
2 kg		90 mg		200 mg	24 mg	2.06
1 kg		53 mg		100 mg	12 mg	2.06
500 g		25.5 mg		70 mg	8.6 mg	2.06
200 g		17.6 mg		40 mg	5.0 mg	2.06
200 g		16.6 mg		40 mg	5.0 mg	2.06
100 g		9.0 mg		20 mg	2.4 mg	2.06
50 g		2.8 mg		10 mg	1.2 mg	2.06
20 g		1.02 mg		4 mg	0.49 mg	2.05
20 g		0.69 mg		4 mg	0.49 mg	2.05
10 g		0.64 mg		2 mg	0.25 mg	2.05
5 g		0.18 mg		1.5 mg	0.39 mg	2.06
2 g		0.45 mg		1.1 mg	0.14 mg	2.06
2 g		0.34 mg		1.1 mg	0.14 mg	2.06


 Ron Peterson, Metrologist

10/29/2015
 Date of Report

SOUTH DAKOTA WEIGHTS AND MEASURES / METROLOGY LAB

Lab: 1500 N. Garfield-E. Truck Bypass Phone: 605-773-3170
 Office: 118 West Capitol Avenue Phone: 605-773-3697
 Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	Kit O1AY	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46%
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.
 Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.
 Standards Used: SD Working Standards.
 The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
2 kg		94 mg		200 mg	24 mg	2.06
1 kg		43 mg		100 mg	12 mg	2.06
500 g		34 mg		70 mg	9 mg	2.06
200 g		16 mg		40 mg	5 mg	2.06
200 g		15.5 mg		40 mg	5.0 mg	2.06
100 g		7.2 mg		20 mg	2.4 mg	2.06
50 g		3.3 mg		10 mg	1.2 mg	2.06
20 g		1.12 mg		4 mg	0.49 mg	2.05
20 g		1.02 mg		4 mg	0.49 mg	2.05
5 g		0.40 mg		1.5 mg	0.39 mg	2.06
2 g		0.15 mg		1.1 mg	0.14 mg	2.06
2 g		0.31 mg		1.1 mg	0.14 mg	2.06
1 g		-0.55 mg		0.9 mg	0.12 mg	2.06



 Ron Peterson, Metrologist

10/29/2015

 Date of Report

SOUTH DAKOTA WEIGHTS AND MEASURES / METROLOGY LAB

Lab: 1500 N. Garfield-E. Truck Bypass Phone: 605-773-3170

Office: 118 West Capitol Avenue Phone: 605-773-3697

Pierre, SD 57501

Submitted by:	K- Scale	Report Number:	MP3395
Mailing Address:	1701 W Madison	Date Received:	10/26/15
City, State, Zip:	Sioux Falls, SD 57104	Date tested:	10/27-28/2015
Artifacts Submitted	Kit 080602B	Condition of Weights:	GOOD
Manufacturer:	Rice Lake	Temperature (c):	21.6
Test Method Used:	SOP 8/ MODIFIED SUB	Humidity:	46%
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	Pressure (mm/Hg):	710.8

Treatment of artifacts prior to testing: Thermal equilibrium time/conditions were obtained by placing the artifacts in the lab overnight.


Compliance Statement: These weights and associated uncertainties were evaluated against NIST Handbook 105-1 NIST Class F tolerances and the weights were within tolerance at the time of calibration.

Standards Used: SD Working Standards.

The values reported below relate only to those observations made at the time and conditions of the test. This test report, so numbered, may not be reproduced, except in full, without approval of the laboratory.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
2 kg	1	89 mg		200 mg	24 mg	2.06
2 kg	2	89 mg		200 mg	24 mg	2.06
2 kg	3	77 mg		200 mg	24 mg	2.06
2 kg	4	88 mg		200 mg	24 mg	2.06
2 kg	5	72.5 mg		200 mg	24.3 mg	2.06
1 kg		42.1 mg		100 mg	12.2 mg	2.06
500 g	1	33.5 mg		70 mg	8.6 mg	2.06
500 g	2	31.5 mg		70 mg	8.6 mg	2.06
500 g	3	16.5 mg		70 mg	8.6 mg	2.06
500 g		31.48 mg		70 mg	8.61 mg	2.06
500 g		31.48 mg		70 mg	8.61 mg	2.06
200 g		12.83 mg		40 mg	4.99 mg	2.06
200 g		10.68 mg		40 mg	4.99 mg	2.06
100 g		1.92 mg		20 mg	2.43 mg	2.06
50 g		4.18 mg		10 mg	1.21 mg	2.06
20 g		1.16 mg		4 mg	0.49 mg	2.05
20 g		1.84 mg		4 mg	0.49 mg	2.05
10 g		0.89 mg		2 mg	0.25 mg	2.05
5 g		0.86 mg		1.5 mg	0.39 mg	2.06
2 g		0.50 mg		1.1 mg	0.14 mg	2.06
2 g		-0.01 mg		1.1 mg	0.14 mg	2.06
1 g		-0.44 mg		0.9 mg	0.12 mg	2.06

End of Report


 Ron Peterson, Metrologist

10/29/2015

Date of Report