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
Pierre SD 57501

REPORT OF CALIBRATION

LAB TEST NUMBER: MP3691
DATE OF REPORT: 01/31/2017
DATE RECEIVED: 01/30/2017
DATE OF TEST: 01/31/2017

Submitted By: Prairie Scale Systems INC (Unit 950)
Contact: Cooper Anderson
Mailing Address: 7805 112th Ave S PO Box 69
City, State, Zip: Horace, ND 58047
Phone: 701-281-9373
S/A Number: 131

Standards Submitted:

2 - 4000 lb carts
8 - 1000 lb weights
2 - 1000 lb baskets
40 - 50 lb weights
2 - kits

Uncertainty Statement: The combined standard uncertainty includes the standard uncertainty reported for the standard and the standard uncertainty for the measurement process. 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 1995 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.

Traceability statement:
The Standards of the SD Metrology Laboratory used for comparison 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.

This document does not represent or imply endorsement by NIST Office of Weights and Measures 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

01/31/17
Date

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Manufacturer:	PSS	**Condition of Cart:**	GOOD
Serial Number:	PSS-13-C1-4k	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	4000	**Pressure (mm/Hg):**	714.7
Tolerance (lb):	1.25		

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As Found (lb)	As Left (lb)	Uncertainty-lb. ($k=$)
1.80	-0.15	0.29

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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. The assigned test number provides documented evidence for measurement traceability.

Ron Peterson, Metrologist

01/31/2017
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Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Manufacturer:	PSS	**Condition of Cart:**	GOOD
Serial Number:	PSS-13-C2-4k	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	2000	**Pressure (mm/Hg):**	714.7
Tolerance (lb):	0.50		

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=)
1.83	0.16	0.20

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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

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Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	1000 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	713.7
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	49.8
Equipment Used:	Russell Balance/ Vaisala PTU301	**Pressure (mm/Hg):**	21.1

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertaintles.

A weight with an "As Found" and "As Left" correction was adjusted.

Nominal	Serial Number	Correction As Found		Correction As Left		Tolerance	Uncertainty	k
1000 lb	1k-11	-0.096 lb	-43.7 g	0.000 lb	-0.1 g	45 g	5.9 g	2.04
1000 lb	1k-12	-0.108 lb	-48.9 g	0.000 lb	0.0 g	45 g	5.9 g	2.04
1000 lb	1k-13	0.004 lb	1.7 g	0.004 lb	1.7 g	45 g	5.9 g	2.04
1000 lb	1k-14	-0.022 lb	-9.9 g	-0.022 lb	-9.9 g	45 g	5.9 g	2.04
1000 lb	1k-15	0.007 lb	3.2 g	0.007 lb	3.2 g	45 g	5.9 g	2.04
1000 lb	1k-16	-0.035 lb	-15.8 g	-0.035 lb	-15.8 g	45 g	5.9 g	2.04
1000 lb	1k-17	-0.073 lb	-33.2 g	-0.001 lb	-0.4 g	45 g	5.9 g	2.04
1000 lb	1k-18	-0.075 lb	-34.1 g	0.001 lb	0.5 g	45 g	5.9 g	2.04
1000 lb	PSS-13-B1-1k	-0.810 lb	-367.4 g	0.002 lb	0.9 g	45 g	5.9 g	2.04
1000 lb	PSS-13-B2-1k	-0.692 lb	-313.7 g	0.004 lb	1.6 g	45 g	5.9 g	2.04

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WEIGHTS & MEASURES
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Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	53.7%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	713.3

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

Standards Used: SD Lab Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	040	1796 mg	51 mg	2300 mg	283 mg	2.04
50 lb	041	1551 mg	1551 mg	2300 mg	283 mg	2.04
50 lb	043	436 mg	436 mg	2300 mg	283 mg	2.04
50 lb	045	2606 mg	-44 mg	2300 mg	283 mg	2.04
50 lb	046	-549 mg	-549 mg	2300 mg	283 mg	2.04
50 lb	047	1631 mg	21 mg	2300 mg	283 mg	2.04
50 lb	048	5541 mg	426 mg	2300 mg	283 mg	2.04
50 lb	049	396 mg	396 mg	2300 mg	283 mg	2.04
50 lb	050	1937 mg	-14 mg	2300 mg	283 mg	2.04
50 lb	051	2311 mg	121 mg	2300 mg	283 mg	2.04
50 lb	052	956 mg	956 mg	2300 mg	283 mg	2.04
50 lb	053	596 mg	596 mg	2300 mg	283 mg	2.04
50 lb	054	1061 mg	1061 mg	2300 mg	283 mg	2.04
50 lb	055	561 mg	561 mg	2300 mg	283 mg	2.04
50 lb	056	1481 mg	1481 mg	2300 mg	283 mg	2.04
50 lb	057	3521 mg	71 mg	2300 mg	283 mg	2.04
50 lb	059	1326 mg	1326 mg	2300 mg	283 mg	2.04
50 lb	060	566 mg	566 mg	2300 mg	283 mg	2.04
50 lb	061	91 mg	91 mg	2300 mg	283 mg	2.04
50 lb	062	-1149 mg	-1149 mg	2300 mg	283 mg	2.04

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Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	53.7%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	713.3

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

Standards Used: SD Lab Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	063	2691 mg	-14 mg	2300 mg	283 mg	2.04
50 lb	073	1876 mg	66 mg	2300 mg	283 mg	2.04
50 lb	077	2406 mg	26 mg	2300 mg	283 mg	2.04
50 lb	17873-1	-1404 mg	-1404 mg	2300 mg	283 mg	2.04
50 lb	17875-1	1501 mg	1501 mg	2300 mg	283 mg	2.04
50 lb	17876-1	27 mg	27 mg	2300 mg	283 mg	2.04
50 lb	17877-1	2181 mg	26 mg	2300 mg	283 mg	2.04
50 lb	17877-1	146 mg	146 mg	2300 mg	283 mg	2.04
50 lb	17878-1	-649 mg	-649 mg	2300 mg	283 mg	2.04
50 lb	17879-1	-1364 mg	-1364 mg	2300 mg	283 mg	2.04
50 lb	17880-1	-159 mg	-159 mg	2300 mg	283 mg	2.04
50 lb	17881-1	-2354 mg	-44 mg	2300 mg	283 mg	2.04
50 lb	17882-1	-734 mg	-734 mg	2300 mg	283 mg	2.04
50 lb	17883-1	-1399 mg	-1399 mg	2300 mg	283 mg	2.04
50 lb	17885-1	791 mg	791 mg	2300 mg	283 mg	2.04
50 lb	17886-1	-309 mg	-309 mg	2300 mg	283 mg	2.04
50 lb	17887-1	-2059 mg	56 mg	2300 mg	283 mg	2.04
50 lb	17889-1	511 mg	511 mg	2300 mg	283 mg	2.04
50 lb	17890-1	-714 mg	-714 mg	2300 mg	283 mg	2.04
50 lb	17891-1	-869 mg	-869 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/31/2017
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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:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	19 piece avoirdupois kit	**Condition of Weights:**	GOOD
	SN 5FXO	**Temperature (c):**	21.1
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	49.3
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	713.7

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
Standards Used: SD Lab Working Standards.
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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	*k*
5 lb	A	71 mg	71 mg	230 mg	28 mg	2.04
5 lb	B	63 mg	63 mg	230 mg	28 mg	2.04
5 lb	C	111 mg	111 mg	230 mg	28 mg	2.04
5 lb	D	70 mg	70 mg	230 mg	28 mg	2.04
5 lb	E	61 mg	61 mg	230 mg	28 mg	2.04
1 lb	A	24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
1 lb	B	24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
1 lb	C	24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
1 lb	D	24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
1 lb	E	24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
8 oz		20.1 mg	20.1 mg	45 mg	5.6 mg	2.04
4 oz		7.6 mg	7.6 mg	23 mg	2.8 mg	2.05
2 oz		4.1 mg	4.1 mg	11 mg	1.3 mg	2.05
1 oz		2.31 mg	2.31 mg	5.4 mg	0.66 mg	2.04
1/2 oz		0.56 mg	0.56 mg	2.8 mg	0.34 mg	2.04
0.2 oz		0.68 mg	0.68 mg	1.6 mg	0.14 mg	2.05
0.2 oz		0.50 mg	0.50 mg	1.6 mg	0.14 mg	2.04
0.1 oz		0.38 mg	0.38 mg	1.3 mg	0.14 mg	2.04
0.05 oz		0.20 mg	0.20 mg	1.0 mg	0.14 mg	2.04

Ron Peterson, Metrologist

01/31/2017
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WEIGHTS & MEASURES
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Metrology Lab

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Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (Unit 950)	**Report Number:**	MP3691
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	20 piece metric kit	**Condition of Weights:**	GOOD
	SN H95	**Temperature (c):**	21.1
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	49.3
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	713.7

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
Standards Used: SD Lab Working Standards.
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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
1 kg		41 mg	41 mg	100 mg	12 mg	2.05
500 g		37.7 mg	37.7 mg	70 mg	8.6 mg	2.05
200 g		17.0 mg	17.0 mg	40 mg	5.0 mg	2.05
200 g		13.8 mg	13.8 mg	40 mg	5.0 mg	2.05
100 g		4.4 mg	4.4 mg	20 mg	2.4 mg	2.05
50 g		1.5 mg	1.5 mg	10 mg	1.2 mg	2.05
20 g		1.64 mg	1.64 mg	4 mg	0.49 mg	2.04
20 g	.	0.91 mg	0.91 mg	4 mg	0.49 mg	2.04
10 g		-0.06 mg	-0.06 mg	2 mg	0.25 mg	2.04
5 g		0.48 mg	0.48 mg	1.5 mg	0.39 mg	2.05
2 g		0.42 mg	0.42 mg	1.1 mg	0.14 mg	2.05
2 g	.	0.36 mg	0.36 mg	1.1 mg	0.14 mg	2.05
1 g		0.37 mg	0.37 mg	0.9 mg	0.12 mg	2.05
500 mg		0.39 mg	0.39 mg	0.72 mg	0.09 mg	2.05
200 mg		0.22 mg	0.22 mg	0.54 mg	0.08 mg	2.05
200 mg	.	0.27 mg	0.27 mg	0.54 mg	0.08 mg	2.05
100 mg		0.17 mg	0.17 mg	0.43 mg	0.07 mg	2.16

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01/31/2017
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Lab: 1500 N Garfield – E. Truck Bypass Phone: 605-773-3170
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REPORT OF CALIBRATION

LAB TEST NUMBER: MP3688
DATE OF REPORT: 01/24/2017
DATE RECEIVED: 01/23/2017
DATE OF TEST: 01/24/2017

Submitted By: Prairie Scale Systems INC (TK 739)
Contact: Cooper Anderson
Mailing Address: 7805 112th Ave S PO Box 69
City, State, Zip: Horace, ND 58047
Phone: 701-281-9373
S/A Number: 131

Standards Submitted:

- 1 - 20 lb weight
- 1 - metric kit
- 1 - avoirdupois kit
- 40 - 50 lb weights
- 8 - 1000 lb weights
- 2 - 1000 lb baskets
- 2 - 4000 lb carts

Uncertainty Statement: The combined standard uncertainty includes the standard uncertainty reported for the standard and the standard uncertainty for the measurement process. 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 1995 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.

Traceability statement:
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Ron E Peterson
Ron Peterson, Metrologist

01/24/17
Date

South Dakota Department of Public Safety
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Office: 118 West Capitol Avenue Phone: 605-773-3697
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Manufacturer:	Prairie Scales	**Condition of Cart:**	GOOD
Serial Number:	PSS-16-C1-4k	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	4000	**Pressure (mm/Hg):**	709.3
Tolerance (lb):	1.25		

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As Found (lb)	As Left (lb)	Uncertainty-lb. (k=)
3.02	-0.16	0.29

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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. The assigned test number provides documented evidence for measurement traceability.

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01/24/2017
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Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Manufacturer:	Prairie Scales	**Condition of Cart:**	GOOD
Serial Number:	PSS-16-C2-4k	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	4000	**Pressure (mm/Hg):**	709.3
Tolerance (lb):	1.25		

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=)
2.49	-0.03	0.29

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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. The assigned test number provides documented evidence for measurement traceability.

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Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	1000 lb weights and baskets	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	52.4
Equipment Used:	Russell Balance/ Vaisala PTU301	**Pressure (mm/Hg):**	708.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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	1K-19	-0.605 lb	-274.2 g	0.002 lb	1.0 g	45 g	5.9 g	2.04
1000 lb	1K-20	-0.857 lb	-388.5 g	0.000 lb	-0.2 g	45 g	5.9 g	2.04
1000 lb	1K-21	-0.800 lb	-362.9 g	0.002 lb	0.7 g	45 g	5.9 g	2.04
1000 lb	1K-22	-0.427 lb	-193.5 g	0.004 lb	1.6 g	45 g	5.9 g	2.04
1000 lb	1K-23	-0.351 lb	-159.3 g	0.003 lb	1.6 g	45 g	5.9 g	2.04
1000 lb	1K-24	-0.724 lb	-328.2 g	0.005 lb	2.3 g	45 g	5.9 g	2.04
1000 lb	1K-25	-0.361 lb	-163.9 g	0.001 lb	0.3 g	45 g	5.9 g	2.04
1000 lb	1K-26	-0.332 lb	-150.7 g	0.001 lb	0.2 g	45 g	5.9 g	2.04
1000 lb	PSS-16-B1-1k	0.157 lb	71.2 g	0.067 lb	30.4 g	45 g	5.9 g	2.04
1000 lb	PSS-16-B1-2k	-0.026 lb	-11.9 g	-0.026 lb	-11.9 g	45 g	5.9 g	2.04

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	55.1%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	708.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	66A2	16 mg	16 mg	2300 mg	283 mg	2.04
50 lb	66A6	-139 mg	-139 mg	2300 mg	283 mg	2.04
50 lb	66A7	1641 mg	26 mg	2300 mg	283 mg	2.04
50 lb	66A8	1541 mg	1541 mg	2300 mg	283 mg	2.04
50 lb	66A9	1186 mg	1186 mg	2300 mg	283 mg	2.04
50 lb	66A9	2391 mg	236 mg	2300 mg	283 mg	2.04
50 lb	66AA	226 mg	226 mg	2300 mg	283 mg	2.04
50 lb	66AB	1771 mg	26 mg	2300 mg	283 mg	2.04
50 lb	66AC	611 mg	611 mg	2300 mg	283 mg	2.04
50 lb	66AD	106 mg	106 mg	2300 mg	283 mg	2.04
50 lb	66AE	1526 mg	1526 mg	2300 mg	283 mg	2.04
50 lb	66AF	1251 mg	1251 mg	2300 mg	283 mg	2.04
50 lb	66AG	1551 mg	-29 mg	2300 mg	283 mg	2.04
50 lb	66AH	661 mg	661 mg	2300 mg	283 mg	2.04
50 lb	66AK	1506 mg	1506 mg	2300 mg	283 mg	2.04
50 lb	66AL	2311 mg	-49 mg	2300 mg	283 mg	2.04
50 lb	66AM	236 mg	236 mg	2300 mg	283 mg	2.04
50 lb	66AN	-64 mg	-64 mg	2300 mg	283 mg	2.04
50 lb	66AP	1216 mg	1216 mg	2300 mg	283 mg	2.04
50 lb	66AQ	531 mg	531 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	55.1%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	708.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	66AR	306 mg	306 mg	2300 mg	283 mg	2.04
50 lb	66AS	56 mg	56 mg	2300 mg	283 mg	2.04
50 lb	66AT	796 mg	796 mg	2300 mg	283 mg	2.04
50 lb	66AV	1526 mg	1526 mg	2300 mg	283 mg	2.04
50 lb	66AV	-1129 mg	-1129 mg	2300 mg	283 mg	2.04
50 lb	66AW	1496 mg	1496 mg	2300 mg	283 mg	2.04
50 lb	66AX	626 mg	626 mg	2300 mg	283 mg	2.04
50 lb	66AY	-29 mg	-29 mg	2300 mg	283 mg	2.04
50 lb	66B1	-2589 mg	26 mg	2300 mg	283 mg	2.04
50 lb	66B2	-21069 mg	276 mg	2300 mg	283 mg	2.04
50 lb	66B3	406 mg	406 mg	2300 mg	283 mg	2.04
50 lb	66B4	2191 mg	56 mg	2300 mg	283 mg	2.04
50 lb	66B5	371 mg	371 mg	2300 mg	283 mg	2.04
50 lb	66B6	-1099 mg	-1099 mg	2300 mg	283 mg	2.04
50 lb	66B7	-1264 mg	-1264 mg	2300 mg	283 mg	2.04
50 lb	66B8	636 mg	636 mg	2300 mg	283 mg	2.04
50 lb	66BA	-169 mg	-169 mg	2300 mg	283 mg	2.04
50 lb	66BB	-569 mg	-569 mg	2300 mg	283 mg	2.04
50 lb	66BC	1961 mg	21 mg	2300 mg	283 mg	2.04
50 lb	66BO	1941 mg	-29 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	20 lb weight	**Condition of Weights:**	GOOD
		Temperature (c):	20.8
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	55.1%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	708.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	*k*
20 lb	66AR	210 mg	210 mg	910 mg	120 mg	2.05

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	22 piece avoirdupois kit	**Condition of Weights:**	NEW
	SN 739	**Temperature (c):**	20.6
Test Method Used:	SOP 8/ MODIFIED SUB. Jun 2015	**Humidity:**	51.4
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	708.9

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	*k*
5 lb		72 mg	72 mg	230 mg	28 mg	2.04
5 lb		75 mg	75 mg	230 mg	28 mg	2.04
5 lb		76 mg	76 mg	230 mg	28 mg	2.04
5 lb		73 mg	73 mg	230 mg	28 mg	2.04
5 lb		79 mg	79 mg	230 mg	28 mg	2.04
1 lb		24.6 mg	24.6 mg	70 mg	8.5 mg	2.04
1 lb		28.6 mg	28.6 mg	70 mg	8.5 mg	2.04
1 lb		12.6 mg	12.6 mg	70 mg	8.5 mg	2.04
1 lb		19.6 mg	19.6 mg	70 mg	8.5 mg	2.04
1 lb		21.6 mg	21.6 mg	70 mg	8.5 mg	2.04
0.5 lb		14.1 mg	14.1 mg	45 mg	5.6 mg	2.04
0.2 lb		-1.6 mg	-1.6 mg	18 mg	2.3 mg	2.05
0.2 lb		-14.5 mg	-14.5 mg	18 mg	2.3 mg	2.05
0.1 lb		2.6 mg	2.6 mg	9.1 mg	1.1 mg	2.05
0.05 lb		1.46 mg	1.46 mg	4.5 mg	0.55 mg	2.05
0.02 lb		0.14 mg	0.14 mg	1.8 mg	0.22 mg	2.05
0.02 lb		0.59 mg	0.59 mg	1.8 mg	0.22 mg	2.05
0.01 lb		0.67 mg	0.67 mg	1.5 mg	0.19 mg	2.05
0.005 lb		0.49 mg	0.49 mg	1.2 mg	0.19 mg	2.05
0.002 lb		0.07 mg	0.07 mg	0.87 mg	0.11 mg	2.05
0.002 lb		0.12 mg	0.12 mg	0.87 mg	0.11 mg	2.05
0.001 lb		0.20 mg	0.20 mg	0.7 mg	0.10 mg	2.05

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 739)	**Report Number:**	MP3688
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/23/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/24/17
Artifacts Submitted	14 piece metric kit	**Condition of Weights:**	NEW
	SN 739	**Temperature (c):**	20.6
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	51.4
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	708.9

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	*k*
1 kg		21 mg	21 mg	100 mg	12 mg	2.05
1 kg		17 mg	17 mg	100 mg	12 mg	2.05
500 g		19 mg	19 mg	70 mg	9 mg	2.05
200 g		16.9 mg	16.9 mg	40 mg	5.0 mg	2.05
200 g		7.4 mg	7.4 mg	40 mg	5.0 mg	2.05
100 g		3.6 mg	3.6 mg	20 mg	2.4 mg	2.05
50 g		2.7 mg	2.7 mg	10 mg	1.2 mg	2.05
20 g		1.08 mg	1.08 mg	4 mg	0.49 mg	2.04
20 g		1.05 mg	1.05 mg	4 mg	0.49 mg	2.04
10 g		0.64 mg	0.64 mg	2 mg	0.25 mg	2.04
5 g		0.46 mg	0.46 mg	1.5 mg	0.39 mg	2.05
2 g		0.41 mg	0.41 mg	1.1 mg	0.14 mg	2.05
2 g		0.46 mg	0.46 mg	1.1 mg	0.14 mg	2.05
1 g		0.17 mg	0.17 mg	0.9 mg	0.12 mg	2.05

End of Report

Ron Peterson, Metrologist

01/24/2017
Date of Report

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
Pierre SD 57501

REPORT OF CALIBRATION

LAB TEST NUMBER: MP3690
DATE OF REPORT: 01/31/2017
DATE RECEIVED: 01/30/2017
DATE OF TEST: 01/31/2017

Submitted By: Prairie Scale Systems INC (Shop)
Contact: Cooper Anderson
Mailing Address: 7805 112th Ave S PO Box 69
City, State, Zip: Horace, ND 58047
Phone: 701-281-9373
S/A Number: 131

Standards Submitted:

20 - 50 lb weights
1 - 20 lb weight
1 Metric kit

Uncertainty Statement: The combined standard uncertainty includes the standard uncertainty reported for the standard and the standard uncertainty for the measurement process. 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 1995 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.

Traceability statement:
The Standards of the SD Metrology Laboratory used for comparison 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.

This document does not represent or imply endorsement by NIST Office of Weights and Measures 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 E Peterson
Ron Peterson, Metrologist

01/31/17
Date

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (Shop)	**Report Number:**	MP3690
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.9
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	53.9%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	713.2

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	*k*
50 lb	015	3781 mg	41 mg	2300 mg	283 mg	2.04
50 lb	042	2256 mg	-29 mg	2300 mg	283 mg	2.04
50 lb	044	511 mg	511 mg	2300 mg	283 mg	2.04
50 lb	064	1216 mg	1216 mg	2300 mg	283 mg	2.04
50 lb	065	2261 mg	81 mg	2300 mg	283 mg	2.04
50 lb	066	1846 mg	-4 mg	2300 mg	283 mg	2.04
50 lb	067	1456 mg	1456 mg	2300 mg	283 mg	2.04
50 lb	068	2191 mg	101 mg	2300 mg	283 mg	2.04
50 lb	069	2891 mg	291 mg	2300 mg	283 mg	2.04
50 lb	070	2006 mg	-39 mg	2300 mg	283 mg	2.04
50 lb	071	2436 mg	-29 mg	2300 mg	283 mg	2.04
50 lb	072	2476 mg	21 mg	2300 mg	283 mg	2.04
50 lb	074	2436 mg	-34 mg	2300 mg	283 mg	2.04
50 lb	075	1946 mg	151 mg	2300 mg	283 mg	2.04
50 lb	076	2346 mg	36 mg	2300 mg	283 mg	2.04
50 lb	078	3131 mg	36 mg	2300 mg	283 mg	2.04
50 lb	080	2456 mg	46 mg	2300 mg	283 mg	2.04
50 lb	17886-1	831 mg	831 mg	2300 mg	283 mg	2.04
50 lb	66A1	3441 mg	41 mg	2300 mg	283 mg	2.04
50 lb	66AJ	3181 mg	-9 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/31/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (Shop)	**Report Number:**	MP3690
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	20 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.9
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	53.9%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	713.2

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	*k*
20 lb	17905-1	-565 mg	-565 mg	910 mg	225 mg	2.05

Ron Peterson, Metrologist

01/31/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (Shop)	**Report Number:**	MP3690
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/30/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/31/17
Artifacts Submitted	21 piece metric kit	**Condition of Weights:**	GOOD
	SN 5FWZ	**Temperature (c):**	21.1
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	49.3
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	713.7

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
5 kg	A	139 mg	139 mg	500 mg	61 mg	2.06
5 kg	B	127 mg	127 mg	500 mg	61 mg	2.06
2 kg	A	74 mg	74 mg	200 mg	24 mg	2.05
2 kg	B	97 mg	97 mg	200 mg	24 mg	2.05
1 kg		41 mg	41 mg	100 mg	12 mg	2.05
500 g	A	23.7 mg	23.7 mg	70 mg	8.6 mg	2.05
500 g	B	20.7 mg	20.7 mg	70 mg	8.6 mg	2.05
500 g	C	21.7 mg	21.7 mg	70 mg	8.6 mg	2.05
500 g	D	25.7 mg	25.7 mg	70 mg	8.6 mg	2.05
500 g	E	21.7 mg	21.7 mg	70 mg	8.6 mg	2.05
200 g		14.7 mg	14.7 mg	40 mg	5.0 mg	2.05
200 g	.	5.7 mg	5.7 mg	40 mg	5.0 mg	2.05
100 g		7.5 mg	7.5 mg	20 mg	2.4 mg	2.05
50 g		4.4 mg	4.4 mg	10 mg	1.2 mg	2.05
20 g		1.85 mg	1.85 mg	4 mg	0.49 mg	2.04
20 g	.	1.61 mg	1.61 mg	4 mg	0.49 mg	2.04
10 g		-0.32 mg	-0.32 mg	2 mg	0.25 mg	2.04
5 g		0.68 mg	0.68 mg	1.5 mg	0.39 mg	2.05
2 g		0.53 mg	0.53 mg	1.1 mg	0.14 mg	2.05
2 g	.	0.57 mg	0.57 mg	1.1 mg	0.14 mg	2.05
1 g		0.39 mg	0.39 mg	0.90 mg	0.12 mg	2.05

End of Report

Ron Peterson, Metrologist

01/31/2017
Date of Report

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
Pierre SD 57501

REPORT OF CALIBRATION

RECEIVED
FEB - 2 2017
ND Public Service Commission

LAB TEST NUMBER: MP3682
DATE OF REPORT: 01/11/2017
DATE RECEIVED: 01/09/2017
DATE OF TEST: 01/10-11/2017

Submitted By: Prairie Scale Systems INC (TK 369)
Contact: Cooper Anderson
Mailing Address: 7805 112th Ave S PO Box 69
City, State, Zip: Horace, ND 58047
Phone: 701-281-9373
S/A Number: 131

Standards Submitted:

8 - 1000 lb weights	2 - weight kits
2 - 1000 lb baskets	40 - 50 lb weights
2 - 4000 lb carts	1 - 20 lb weight

Uncertainty Statement: The combined standard uncertainty includes the standard uncertainty reported for the standard and the standard uncertainty for the measurement process. 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 1995 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.

Traceability statement:
The Standards of the SD Metrology Laboratory used for comparison 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.

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Ron Peterson, Metrologist

01/11/17
Date

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/11/17
Manufacturer:	Unknown	**Condition of Cart:**	GOOD
Serial Number:	PSS-95-C1-4K	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	4000	**Pressure (mm/Hg):**	712.6
Tolerance (lb):	1.25		

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=)
1.84	-0.09	0.29

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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. The assigned test number provides documented evidence for measurement traceability.

Ron Peterson, Metrologist

01/11/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/11/17
Manufacturer:	Unknown	**Condition of Cart:**	GOOD
Serial Number:	PSS-95-C2-4K	**Temperature (c):**	20.0
Test Method Used:	SOP 33 Calibrations of Weight Carts, Jan 2016	**Humidity:**	40.0%
Nominal (lb):	4000	**Pressure (mm/Hg):**	712.6
Tolerance (lb):	1.25		

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As Found (lb)	As Left (lb)	Uncertainty-lb. ($k=$)
0.95	-0.06	0.29

The weight cart was allowed to come to environmental equilibrium in the laboratory prior to calibration. The weight cart was adjusted, as needed and noted above, as close as possible to zero error. All fluid 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.

Test equipment used include recently calibrated weights and a Sartorius PR 6246/33 load cell.

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. The assigned test number provides documented evidence for measurement traceability.

Ron Peterson, Metrologist

01/11/2017
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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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	1000 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	712.1
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	53.3
Equipment Used:	Russell Balance/ Vaisala PTU301	**Pressure (mm/Hg):**	21.1

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

A weight with an "As Found" and "As Left" correction was adjusted.

Nominal	Serial Number	Correction As Found		Correction As Left		Tolerance	Uncertainty	k
1000 lb	1K-03	-0.284 lb	-128.9 g	0.001 lb	0.3 g	45 g	5.9 g	2.04
1000 lb	1K-04	-0.279 lb	-126.5 g	0.002 lb	0.9 g	45 g	5.9 g	2.04
1000 lb	1k-05	-0.226 lb	-102.4 g	-0.001 lb	-0.6 g	45 g	5.9 g	2.04
1000 lb	1k-06	-0.207 lb	-93.7 g	0.003 lb	1.3 g	45 g	5.9 g	2.04
1000 lb	1k-07	-0.256 lb	-116.3 g	-0.001 lb	-0.3 g	45 g	5.9 g	2.04
1000 lb	1k-08	-0.228 lb	-103.5 g	0.000 lb	0.0 g	45 g	5.9 g	2.04
1000 lb	1k-09	-0.186 lb	-84.3 g	0.001 lb	0.5 g	45 g	5.9 g	2.04
1000 lb	1k-10	-0.254 lb	-115.1 g	0.001 lb	0.5 g	45 g	5.9 g	2.04
1000 lb	PSS-11-1995	-0.932 lb	-422.6 g	0.000 lb	-0.2 g	45 g	5.9 g	2.04
1000 lb	PSS-22-1995	-0.668 lb	-303.0 g	0.001 lb	0.3 g	45 g	5.9 g	2.04

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

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.4
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	54.6%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	709.0

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

Standards Used: SD Lab Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	079	-14499 mg	641 mg	2300 mg	283 mg	2.04
50 lb	17832-1	-17814 mg	111 mg	2300 mg	283 mg	2.04
50 lb	17833-1	-33299 mg	196 mg	2300 mg	283 mg	2.04
50 lb	17834-1	-26359 mg	261 mg	2300 mg	283 mg	2.04
50 lb	17835-1	-20024 mg	26 mg	2300 mg	283 mg	2.04
50 lb	17836-1	-20274 mg	71 mg	2300 mg	283 mg	2.04
50 lb	17838-1	-28329 mg	1 mg	2300 mg	283 mg	2.04
50 lb	17839-1	-16204 mg	-4 mg	2300 mg	283 mg	2.04
50 lb	17840-1	-17199 mg	-34 mg	2300 mg	283 mg	2.04
50 lb	17841-1	-30374 mg	-19 mg	2300 mg	283 mg	2.04
50 lb	17842-1	-21479 mg	491 mg	2300 mg	283 mg	2.04
50 lb	17843-1	-25489 mg	61 mg	2300 mg	283 mg	2.04
50 lb	17844-1	-19259 mg	-4 mg	2300 mg	283 mg	2.04
50 lb	17845-1	-19764 mg	36 mg	2300 mg	283 mg	2.04
50 lb	17846-1	-26164 mg	16 mg	2300 mg	283 mg	2.04
50 lb	17847-1	-32514 mg	51 mg	2300 mg	283 mg	2.04
50 lb	17848-1	-20389 mg	41 mg	2300 mg	283 mg	2.04
50 lb	17849-1	-27939 mg	381 mg	2300 mg	283 mg	2.04
50 lb	17850-1	-18079 mg	-4 mg	2300 mg	283 mg	2.04
50 lb	17851-1	-14499 mg	971 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/11/2017
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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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	50 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.4
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	54.6%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	709.0

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

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. These weights were not screened for magnetism and effects of magnetism is not included in the uncertainties.

Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	k
50 lb	17852-1	-30204 mg	-54 mg	2300 mg	283 mg	2.04
50 lb	17853-1	-21849 mg	36 mg	2300 mg	283 mg	2.04
50 lb	17854-1	-20274 mg	26 mg	2300 mg	283 mg	2.04
50 lb	17855-1	-17959 mg	-54 mg	2300 mg	283 mg	2.04
50 lb	17856-1	-31214 mg	-49 mg	2300 mg	283 mg	2.04
50 lb	17857-1	-30564 mg	-29 mg	2300 mg	283 mg	2.04
50 lb	17858-1	-20509 mg	-9 mg	2300 mg	283 mg	2.04
50 lb	17859-1	-15769 mg	6 mg	2300 mg	283 mg	2.04
50 lb	17860-1	-29014 mg	-14 mg	2300 mg	283 mg	2.04
50 lb	17861-1	-19184 mg	466 mg	2300 mg	283 mg	2.04
50 lb	17862-1	-28274 mg	1 mg	2300 mg	283 mg	2.04
50 lb	17863-1	-22684 mg	96 mg	2300 mg	283 mg	2.04
50 lb	17864-1	-20034 mg	-9 mg	2300 mg	283 mg	2.04
50 lb	17865-1	-32379 mg	-59 mg	2300 mg	283 mg	2.04
50 lb	17866-1	-19464 mg	21 mg	2300 mg	283 mg	2.04
50 lb	17867-1	-18164 mg	-24 mg	2300 mg	283 mg	2.04
50 lb	17869-1	-20364 mg	76 mg	2300 mg	283 mg	2.04
50 lb	17870-1	-38909 mg	331 mg	2300 mg	283 mg	2.04
50 lb	17871-1	-18064 mg	6 mg	2300 mg	283 mg	2.04
50 lb	17884-1	-18129 mg	11 mg	2300 mg	283 mg	2.04

Ron Peterson, Metrologist

01/11/2017
Date of Report

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
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	20 lb weights	**Condition of Weights:**	GOOD
		Temperature (c):	20.4
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	54.6%
Equipment Used:	Mettler KA-30/ Vaisala PTU301	**Pressure (mm/Hg):**	709.0

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.

Standards Used: SD Lab Working Standards.

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Nominal	Serial Number	Correction As Found	Correction As Left	Tolerance	Uncertainty	*k*
20 lb	17904-1	-970 mg	-40 mg	910 mg	120 mg	2.05

Ron Peterson, Metrologist

01/11/2017
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Office: 118 West Capitol Avenue Phone: 605-773-3697
Pierre SD 57501

Submitted by:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	21 piece avoirdupois kit	**Condition of Weights:**	GOOD
		Temperature (c):	20.5
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	54
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	707.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
Standards Used: SD Lab Working Standards.
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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	*k*
5 lb	1	52 mg	52 mg	230 mg	28 mg	2.04
5 lb	2	33 mg	33 mg	230 mg	28 mg	2.04
5 lb	3	42 mg	42 mg	230 mg	28 mg	2.04
5 lb	4	41 mg	41 mg	230 mg	28 mg	2.04
5 lb	5	53 mg	53 mg	230 mg	28 mg	2.04
1 lb	6	19.6 mg	19.6 mg	70 mg	8.5 mg	2.04
1 lb	7	21.6 mg	21.6 mg	70 mg	8.5 mg	2.04
1 lb	8	14.6 mg	14.6 mg	70 mg	8.5 mg	2.04
1 lb	9	14.6 mg	14.6 mg	70 mg	8.5 mg	2.04
1 lb	10	8.6 mg	8.6 mg	70 mg	8.5 mg	2.04
0.5 lb	11	9.1 mg	9.1 mg	45 mg	5.6 mg	2.04
0.2 lb		2.6 mg	2.6 mg	18 mg	2.3 mg	2.05
0.2 lb	.	8.6 mg	8.6 mg	18 mg	2.3 mg	2.05
0.1 lb		1.6 mg	1.6 mg	9.1 mg	1.1 mg	2.05
0.05 lb		1.68 mg	1.68 mg	4.5 mg	0.55 mg	2.05
0.02 lb		-0.56 mg	-0.56 mg	1.8 mg	0.22 mg	2.05
0.02 lb	.	-0.15 mg	-0.15 mg	1.8 mg	0.22 mg	2.05
0.01 lb		0.57 mg	0.57 mg	1.5 mg	0.19 mg	2.05
0.005 lb		0.68 mg	0.68 mg	1.2 mg	0.19 mg	2.05
0.002 lb		0.38 mg	0.38 mg	0.87 mg	0.11 mg	2.05
0.001 lb		0.50 mg	0.50 mg	0.7 mg	0.10 mg	2.05

Ron Peterson, Metrologist

01/11/2017
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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:	Prairie Scale Systems INC (TK 369)	**Report Number:**	MP3682
Mailing Address:	7805 112th Ave S PO Box 69	**Date Received:**	01/09/17
City, State, Zip:	Horace, ND 58047	**Date tested:**	01/10-11/2017
Artifacts Submitted	18 piece metric kit	**Condition of Weights:**	GOOD
		Temperature (c):	20.5
Test Method Used:	SOP 8/ MODIFIED SUB, Jun 2015	**Humidity:**	54
Equipment Used:	Mettler AX 205 DR/ Mettler PR503/ Vaisala PTU301	**Pressure (mm/Hg):**	707.8

Treatment of artifacts prior to testing: Thermal equilibrium was obtained by placing the artifacts in the lab overnight.
Standards Used: SD Lab Working Standards.
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Nominal	Identifier	Correction As Found	Correction As Left	Tolerance Class F	Uncertainty	k
1 kg	1	15.500 mg	1.5 mg	100 mg	12.1 mg	2.05
1 kg	2	19.500 mg	1.5 mg	100 mg	12.1 mg	2.05
200 g		6.540 mg	0.4 mg	40 mg	5.0 mg	2.05
200 g	1	12.170 mg	0.4 mg	40 mg	5.0 mg	2.05
100 g	2	7.370 mg	0.1 mg	20 mg	2.4 mg	2.05
50 g		4.969 mg	0.0 mg	10 mg	1.2 mg	2.05
20 g		1.568 mg	0.0 mg	4 mg	0.5 mg	2.04
20 g	.	1.478 mg	0.0 mg	4 mg	0.5 mg	2.04
10 g		1.388 mg	0.0 mg	2 mg	0.2 mg	2.04
5 g		0.433 mg	0.0 mg	1.5 mg	0.4 mg	2.05
2 g		0.739 mg	0.0 mg	1.1 mg	0.1 mg	2.05
2 g		0.379 mg	0.0 mg	1.1 mg	0.1 mg	2.05
1 g		0.774 mg	0.0 mg	0.9 mg	0.1 mg	2.05
500 mg		0.343 mg	0.0 mg	0.72 mg	0.1 mg	2.05
200 mg		0.237 mg	0.0 mg	0.54 mg	0.1 mg	2.05
200 mg	.	0.061 mg	0.0 mg	0.54 mg	0.1 mg	2.05
100 mg		0.227 mg	0.0 mg	0.43 mg	0.1 mg	2.16

Ron Peterson, Metrologist

01/11/2017
Date of Report

United States Department of Commerce

National Institute of Standards and Technology

Certificate of Metrological Traceability For:

South Dakota

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.

2017

Scope

Mass Echelon III

30 kg to 100 mg

1000 lb to 0.001 lb

8 oz to 0.03125 oz

Weight Carts

4000 lb to 2000 lb

Volume Transfer, II

5 gal

Georgia L. Harris, Acting Chief
NIST Office of Weights and Measures

Effective Dates: 2017-01-01 to 2017-12-31

(Rev.: March 2013)