



**APPLICATION FOR REGISTRATION AS A REGISTERED SERVICE COMPANY**

Public Service Commission  
SFN 51277 (2/2014)



TYPE OR PRINT - AN INCOMPLETE OR ILLEGIBLE APPLICATION WILL BE REJECTED

Name of Company <i>Fairbanks Scales</i>	Email Address <i>rplouderback@fairbanks.com</i>	Application Date <i>10/20/14</i>	
Mailing Address <i>2500 Cleveland Ave N.</i>	City <i>St. Paul</i>	State <i>MN</i>	Zip Code <i>55113</i>
Telephone Number <i>651-631-9287</i>	Cell Phone Number <i>651-283-3437</i>	Fax Number <i>651-631-2547</i>	

Select below all device types your company will certify:

Scales (include maximum capacity, if applicable)	Liquid (include maximum flow rate, if applicable)
<input checked="" type="checkbox"/> 1. Rail <input checked="" type="checkbox"/> 2. Truck <input checked="" type="checkbox"/> 3. Livestock <input checked="" type="checkbox"/> 4. Hopper: Max. Capacity: _____ <input type="checkbox"/> 5. Belt <input type="checkbox"/> 6. Over 30 lbs.: Max. Capacity: _____ <input checked="" type="checkbox"/> 7. 30 lbs. or less <input type="checkbox"/> 8. Class II (indicate on your calibration report which weight kit is Class II certified) <input type="checkbox"/> 9. Other: Please List:	<input type="checkbox"/> 1. Retail Fuel (less than 20 gal. per minute) <input type="checkbox"/> 2. High Flow Retail Fuel (20 gal. per minute or greater) <input type="checkbox"/> 3. Vehicle Tank: Max. Flow Rate: _____ <input type="checkbox"/> 4. Stationary Bulk (fuel or oil): Max. Flow Rate: _____ <input type="checkbox"/> 5. LPG <input type="checkbox"/> 6. Stationary LPG <input type="checkbox"/> 7. Fertilizer: Max. Flow Rate: _____ <input type="checkbox"/> 8. Chemical <input type="checkbox"/> 9. Anhydrous <input type="checkbox"/> 10. Loading Rack <input type="checkbox"/> 11. Other: Please List:

List below all persons employed by your company as a North Dakota Registered Service Person and the device types they are registered to certify (attach a separate sheet to list additional employees):

Permit No.	Employee	Device Types Registered to Certify (list using device type numbers from above)
<i>e.g. 1001</i>	<i>e.g. John Doe</i>	<i>e.g. Scales - 2, 3, 6, 8; e.g. Liquid - 1, 2, 6</i>
<i>1743</i>	<i>Dean Spilde</i>	<i>Scales - 1, 2, 3, 4, 7</i>
<i>1744</i>	<i>Scott Wolf</i>	<i>Scales - 1, 2, 3, 4, 7</i>



List below all field standards (attach current calibration reports):

1-5000# Test Cart	1-3000# Test Cart
16-1000# Test Weights	18-1000# Test Weights
40-25# Test Weights	20-50# Test Weights
1-30# Test Kit	1-25# Test Weight
1-Metric Test Kit	1-10kg Test Weight
	1-30lb Test Kit
	1-Metric Test Kit

Additional Application Items (initial where appropriate):

Standardized Test Report	<input checked="" type="checkbox"/> Copy enclosed <input type="checkbox"/> No change in report filed previously
Tested and Approved Sticker	<input type="checkbox"/> Copy enclosed <input checked="" type="checkbox"/> No change in sticker filed previously
Photocopy of Crimped Lead Wire Seal	<input checked="" type="checkbox"/> Copy enclosed <input type="checkbox"/> No change in crimped lead wire seal filed previously

Public Company Listing:

Include my company information on your registered service company list for public contact.  
 Yes     No

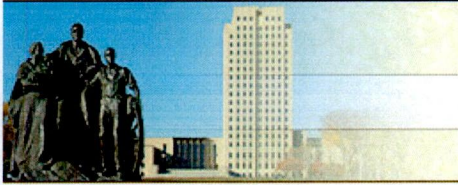
I am Row Louderback, and have authority to represent this company.  
 By signing this application, I declare that I have examined this form and accompanying documentation, and to the best of my knowledge and belief, the facts stated and documentation provided is true, correct, and complete.

Signature

Send Completed Application and Related Documents To:

Public Service Commission  
 600 E Boulevard Ave Dept 408  
 Bismarck ND 58505-0480  
 Telephone: (701) 328-2400  
 Fax: (701) 328-2410

North Dakota

nd.gov Official Portal for  
North Dakota State GovernmentNorth Dakota  
LEGISLATURE

# SECRETARY OF STATE NORTH DAKOTA

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## FAIRBANKS SCALES INC.

### Corporation Details

**System ID:** 2987100 **Phone:** (816) 471-0231  
**Type:** FOREIGN BUSINESS CORPORATION  
**Status:** Active & Good Standing  
**Original File Date:** 03/31/1988 **Effective Date:** 03/31/1988  
**State of Origin:** Kansas

### Nature of Business

SALES AND SERVICE OF SCALES AND RELATED EQUIPMENT

### Principal Office

821 LOCUST ST KANSAS CITY, MO 64106-1908

### Registered Agent

**CORPORATION SERVICE COMPANY**  
1501 N 12TH ST STE 1  
BISMARCK, ND 585012713  
Established Date: Mar 01, 2010

### Generate an Annual Report To File

To Generate a Annual Report form to be filed with the Secretary of State, select the appropriate year of the report you intend to file. This report does not contain details of a report previously filed with the Secretary of State. The annual report years reflected are an indication of the various report forms available in this site and is not an indication that an entity needs to file reports for all years. Missing years indicate that the forms for the missing year have not yet been deployed to the website, or have already been removed, and can be obtained by contacting the Secretary of State.

[2014](#) (generates a forms-fillable pdf in a new pop-up window)

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Receipt Date: October 29, 2014  
Test Date: October 30, 2014  
Report Date: November 1, 2014

State Test No.: 333312  
Set Serial No.: 031811K  
Bar Code: 202171

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: 5000 lb Weight Cart  
Manufacturer: Kanawha  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 21.2°C  
Pressure: 739.4 mmHg  
Relative Humidity: 45. %

Nominal Value	Serial No.	Correction (g)		NIST HB105-8 Tol		Unc. (g) (k=2)
		As Found	As Left	As Found	As Left	
5000 lb	031811K	-200	-200	Meets	Meets	60.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Nicollet

Quality Manager

Reviewed by:

Kari Anderson

Metrologist



Receipt Date: October 29, 2014  
Test Date: October 30, 2014  
Report Date: October 30, 2014

State Test No.: 333311  
Set Serial No.: 614-26 to 41  
Bar Code: 200739

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Cube Weights  
Manufacturer: Western Iron Works  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 21.1°C  
Pressure: 739.4 mmHg  
Relative Humidity: 45. %

Nominal Value	Serial No.	Correction (g)		NIST HB105-1 Class		Unc. (g) (k=2)
		As Found	As Left	As Found	As Left	
1000 lb	614-26	5	5	F	F	5
1000 lb	614-27	6	6	F	F	5
1000 lb	614-28	14	14	F	F	5
1000 lb	614-29	0	0	F	F	5
1000 lb	614-30	-9	-9	F	F	5
1000 lb	614-31	25	25	F	F	5
1000 lb	614-32	0	0	F	F	5
1000 lb	614-33	29	29	F	F	5
1000 lb	614-34	13	13	F	F	5
1000 lb	614-35	-24	-24	F	F	5
1000 lb	614-36	-12	-12	F	F	5
1000 lb	614-37	16	16	F	F	5
1000 lb	614-38	4	4	F	F	5
1000 lb	614-39	6	6	F	F	5
1000 lb	614-40	0	0	F	F	5
1000 lb	614-41	-20	-20	F	F	5

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Kari Anderson

*Kari Anderson*

Metrologist





Receipt Date: October 29, 2014  
Test Date: November 3, 2014  
Report Date: November 3, 2014

State Test No.: 333313  
Set Serial No.: 614-900 to 939  
Bar Code: 200740

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.4°C  
Pressure: 731.5 mmHg  
Relative Humidity: 46. %

Nominal Value		Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
			As Found	As Left	As Found	As Left	
25	lb	614-900	-1270	70	*	F	75
25	lb	614-901	-960	-960	F	F	75
25	lb	614-902	-1640	320	*	F	75
25	lb	614-903	200	230	F	F	75
25	lb	614-904	-1420	200	*	F	75
25	lb	614-905	-1330	220	*	F	75
25	lb	614-906	-1050	210	*	F	75
25	lb	614-907	-1500	430	*	F	75
25	lb	614-908	-1420	80	*	F	75
25	lb	614-909	-410	-410	F	F	75
25	lb	614-910	-2020	60	*	F	75
25	lb	614-911	-1230	990	*	F	75
25	lb	614-912	1630	20	*	F	75
25	lb	614-913	-1090	50	*	F	75
25	lb	614-914	-820	-820	F	F	75
25	lb	614-915	-1580	80	*	F	75
25	lb	614-916	-1070	60	*	F	75
25	lb	614-917	-300	-300	F	F	75
25	lb	614-918	-1760	930	*	F	75
25	lb	614-919	-1900	250	*	F	75
25	lb	614-920	-50	-50	F	F	75
25	lb	614-921	-300	860	F	F	75
25	lb	614-922	-2070	30	*	F	75
25	lb	614-923	1150	280	*	F	75
25	lb	614-924	-590	-590	F	F	75
25	lb	614-925	-1370	60	*	F	75
25	lb	614-926	-1840	640	*	F	75
25	lb	614-927	1810	220	*	F	75
25	lb	614-928	-960	-960	F	F	75
25	lb	614-929	150	150	F	F	75

\*Weight(s) as found exceed NIST HB105-1 Class F Tolerance.



Receipt Date: October 29, 2014  
Test Date: November 3, 2014  
Report Date: November 3, 2014

Continued,  
State Test No.: 333313  
Set Serial No.: 614-900 to 939  
Bar Code: 200740

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.4°C  
Pressure: 731.5 mmHg  
Relative Humidity: 46. %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
			As Found	As Left	As Found	As Left	
25	lb	614-930	-1800	830	*	F	75
25	lb	614-931	-510	-510	F	F	75
25	lb	614-932	-2470	460	*	F	75
25	lb	614-933	-430	260	F	F	75
25	lb	614-934	-1200	260	*	F	75
25	lb	614-935	370	370	F	F	75
25	lb	614-936	-2860	410	*	F	75
25	lb	614-937	-3520	490	*	F	75
25	lb	614-938	-650	-650	F	F	75
25	lb	614-939	-1760	500	*	F	75

\* Weight(s) as found exceed NIST HB105-1 Class F Tolerance.

When used as a set these weights meet NIST HB105-1 Class F Tolerance.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Niqollet

*Mark Niqollet*  
Quality Manager

Reviewed by:

Kari Anderson

*Kari Anderson*  
Metrologist



Receipt Date: October 29, 2014  
Test Date: November 3, 2014  
Report Date: November 3, 2014

State Test No.: 333314  
Set Serial No.: 614-706  
Bar Code: 200741

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: 30 lb kit w/fractions & decimals  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.7°C  
Pressure: 732.4 mmHg  
Relative Humidity: 46. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
5 lb		13.	13.	F	F	10.
5 . lb		9.	9.	F	F	10.
5 .. lb		18.	18.	F	F	10.
5 ... lb		7.	7.	F	F	10.
5 .... lb		21.	21.	F	F	10.
1 lb		14.	14.	F	F	6.
1 . lb		18.	18.	F	F	6.
1 .. lb		11.	11.	F	F	6.
1 ... lb		18.	18.	F	F	6.
1 .... lb		16.	16.	F	F	6.
0.2 lb		1.75	1.75	F	F	0.07
0.2 . lb		3.16	3.16	F	F	0.07
0.1 lb		3.06	3.06	F	F	0.07
0.05 lb		0.7	0.7	F	F	0.07
0.02 lb		-0.48	-0.48	F	F	0.07
0.02 . lb		0.45	0.45	F	F	0.07
0.01 lb		0.65	0.65	F	F	0.07
0.005 lb		0.69	0.69	F	F	0.07
0.002 lb		0.04	0.04	F	F	0.07
0.002 . lb		0.13	0.13	F	F	0.07
0.001 lb		-0.01	-0.01	F	F	0.07



Receipt Date: October 29, 2014  
Test Date: November 3, 2014  
Report Date: November 3, 2014

Continued,  
State Test No.: 333314  
Set Serial No.: 614-706  
Bar Code: 200741

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: 30 lb kit w/fractions & decimals  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.7°C  
Pressure: 732.4 mmHg  
Relative Humidity: 46. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
8 oz		25.	25.	F	F	6.
4 oz		8.06	8.06	F	F	0.07
2 oz		2.7	2.7	F	F	0.07
1 oz		1.6	1.6	F	F	0.07
1/2 oz		0.74	0.74	F	F	0.07
1/4 oz		1.06	1.06	F	F	0.07
1/16 oz		0.8	0.8	F	F	0.07
1/32 oz		0.16	0.16	F	F	0.07
1/32 oz		0.46	0.46	F	F	0.07
1/32 . oz		-0.04	-0.04	F	F	0.07

When used as a set these weights meet NIST HB105-1 Class F Tolerance.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Heidi Jones  
*Heidi Jones*  
Laboratory Administrator

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: October 29, 2014  
Test Date: October 31, 2014  
Report Date: October 31, 2014

State Test No.: 333315  
Set Serial No.: 614-808  
Bar Code: 200738

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 9

Item(s) Submitted: Metric weight kit  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.5°C  
Pressure: 750.2 mmHg  
Relative Humidity: 49. %

Nominal Value	Serial No.	Correction (mg)		ASTM E617 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
5000	g	229.	229.	6	6	25.
2000	g	71.	71.	5	5	10.
2000	g	86.	86.	5	5	10.
1000	g	47.	47.	6	6	6.
500	g	21.2	21.2	5	5	4.6
200	g	8.	8.	5	5	1.
200	g	11.	11.	5	5	1.
100	g	-6.07	-6.07	5	5	0.45
50	g	2.34	2.34	5	5	0.25
20	g	0.77	0.77	5	5	0.25
20	g	1.9	1.9	5	5	0.25
10	g	0.16	0.16	4	4	0.12
5	g	0.68	0.68	5	5	0.1
2	g	0.24	0.24	5	5	0.07
2	g	0.57	0.57	5	5	0.07
1	g	0.43	0.43	6	6	0.07

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Heidi Jones  
*Heidi Jones*  
Laboratory Administrator

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: October 29, 2014  
Test Date: November 3, 2014  
Report Date: November 3, 2014

State Test No.: 333316  
Set Serial No.: Kanawha  
Bar Code: 200514

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: Fuel substitution weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.4°C  
Pressure: 731.6 mmHg  
Relative Humidity: 47. %

Kit contents:

Nominal Value	Quantity
8 oz	9

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These Standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculation methods conform to NIST Technical Note 1297. Actual uncertainties will be provided upon request. Results apply to items identified in this report only.

Heidi Jones

Laboratory Administrator

Reviewed by:

Mark Nicollet

Quality Manager



Receipt Date: December 2, 2014  
Test Date: December 5, 2014  
Report Date: December 5, 2014

State Test No.: 333507  
Set Serial No.: NONE  
Barcode: 202156

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113  
Contact: RON LOUDERBACK  
Phone: 651-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: Fuel sub. weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.3°C  
Pressure: 740.9 mmHg  
Relative Humidity: 47. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
8 oz		21.	21.	F	F	1.
8 oz		20.	20.	F	F	1.
8 oz		25.	25.	F	F	1.
8 oz		28.	28.	F	F	1.
8 oz		20.	20.	F	F	1.
8 oz		21.	21.	F	F	1.
8 oz		20.	20.	F	F	1.
8 oz		24.	24.	F	F	1.
8 oz		17.	17.	F	F	1.

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Heidi Jones  
*Heidi Jones*  
Laboratory Administrator

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: December 2, 2014  
Test Date: December 4, 2014  
Report Date: December 8, 2014

State Test No.: 333505  
Set Serial No.: 100512 K  
Barcode: 202170

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 651-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

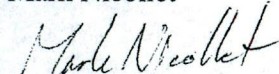
Item(s) Submitted: 3000 lb Weight Cart  
Manufacturer: Kanawha  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.6°C  
Pressure: 739.4 mmHg  
Relative Humidity: 42. %

Nominal Value	Serial No.	Correction (g)		NIST HB105-8 Tol		Unc. (g) (k=2)
		As Found	As Left	As Found	As Left	
3000 lb	100512 K	520	300	*	Meets	60

\* Weight Cart as found exceeds NIST HB 105-8 tolerance.

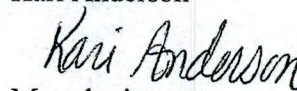
The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Nicollet

  
Quality Manager

Reviewed by:

Kari Anderson

  
Metrologist



Receipt Date: December 2, 2014  
Test Date: December 4, 2014  
Report Date: December 8, 2014

State Test No.: 333504  
Set Serial No.: 614-51 to 68  
Barcode: 201271

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 651-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Cube Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.6°C  
Pressure: 739.4 mmHg  
Relative Humidity: 42. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
1000 lb	614-51	-18	-18	F	F	5
1000 lb	614-52	-13	-13	F	F	5
1000 lb	614-53	-23	-23	F	F	5
1000 lb	614-54	-31	-31	F	F	5
1000 lb	614-55	-31	-31	F	F	5
1000 lb	614-56	-31	-31	F	F	5
1000 lb	614-57	0	0	F	F	5
1000 lb	614-58	-7	-7	F	F	5
1000 lb	614-59	-38	-38	F	F	5
1000 lb	614-60	-30	-30	F	F	5
1000 lb	614-61	-19	-19	F	F	5
1000 lb	614-62	-12	-12	F	F	5
1000 lb	614-63	-31	-31	F	F	5
1000 lb	614-64	-35	-35	F	F	5
1000 lb	614-65	-27	-27	F	F	5
1000 lb	614-66	-13	-13	F	F	5
1000 lb	614-67	-37	-37	F	F	5
1000 lb	614-68	-23	-23	F	F	5

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:  
Kari Anderson

Page 1 of 1

Metrologist



NYLAP LAB CODE 105003-0

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Receipt Date: November 12, 2014  
Test Date: November 18, 2014  
Report Date: November 21, 2014

State Test No.: 333391  
Set Serial No.: 614 Series  
Barcode: 200653

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Cast Cubes  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.8°C  
Pressure: 735. mmHg  
Relative Humidity: 43. %

Nominal Value	Serial No.	Correction (g)		NIST HB105-1 Class		Unc. (g) (k=2)
		As Found	As Left	As Found	As Left	
500 lb	614-201	-0.7	-0.7	F	F	1.1
500 lb	614-203	-2.7	-2.7	F	F	1.1
500 lb	614-210	-10.0	-10.0	F	F	1.1
500 lb	614-221	-6.0	-6.0	F	F	1.1

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Kari Anderson  
*Kari Anderson*  
Metrologist

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: November 12, 2014  
Test Date: November 13, 2014  
Report Date: November 21, 2014

State Test No.: 333387  
Set Serial No.: 614 Series; None  
Barcode: 200716

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Avdp. Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.9°C  
Pressure: 745.2 mmHg  
Relative Humidity: 48. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
25 lb	None	-780	-780	F	F	75
50 lb	614 451	-770	-770	F	F	110
50 lb	614 452	-3560	260	*	F	110
50 lb	614 453	-2380	460	*	F	110
50 lb	614 456	-3480	880	*	F	110
50 lb	614 457	-2210	350	*	F	110
50 lb	614 463	-3470	110	*	F	110
50 lb	614 464	-2140	50	F	F	110
50 lb	614 465	-250	-250	F	F	110
50 lb	614 466	-3550	140	*	F	110
50 lb	614 471	-1470	-1470	F	F	110
50 lb	614 472	-1030	-1030	F	F	110
50 lb	614 473	-210	-210	F	F	110
50 lb	614 474	-540	-540	F	F	110
50 lb	614 475	-2040	-2040	F	F	110
50 lb	614 477	-880	-880	F	F	110
50 lb	614 478	-440	-440	F	F	110
50 lb	614 479	-1050	-1050	F	F	110

\* Weight(s) as found exceed NIST HB105-1 Class F Tolerance.



Receipt Date: November 12, 2014  
Test Date: November 13, 2014  
Report Date: November 21, 2014

Continued,  
State Test No.: 333387  
Set Serial No.: 614 Series; None  
Barcode: 200716

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Avdp. Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.9°C  
Pressure: 745.2 mmHg  
Relative Humidity: 48. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
50 lb	614 481	-860	-860	F	F	110
50 lb	614 485	-550	-550	F	F	110
50 lb	614 487	-1050	-1050	F	F	110
50 lb	614 488	650	650	F	F	110
50 lb	614 490	-440	-440	F	F	110
50 lb	614 493	900	900	F	F	110
50 lb	614 495	-600	-600	F	F	110
50 lb	614 496	-2130	130	F	F	110
50 lb	614 498	-710	-710	F	F	110

When used as a set these weights meet NIST HB105-1 Class F Tolerance.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Kari Anderson  
*Kari Anderson*  
Metrologist

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: November 12, 2014  
Test Date: November 13, 2014  
Amended Date: December 3, 2014

State Test No.: 333387a  
Set Serial No.: 614 Series; None  
Barcode: 200716

**Amended Calibration Report** (amendment to report #333387)

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Avdp. Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.9°C  
Pressure: 745.2 mmHg  
Relative Humidity: 48. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
25 lb	None	-780	-780	F	F	75
50 lb	614 451	-770	-770	F	F	110
50 lb	614 452	-3560	260	*	F	110
50 lb	614 453	-2380	460	*	F	110
50 lb	614 456	-3480	880	*	F	110
50 lb	614 457	-2210	350	*	F	110
50 lb	614 460	-3550	140	*	F	110
50 lb	614 463	-3470	110	*	F	110
50 lb	614 464	-2140	50	F	F	110
50 lb	614 465	-250	-250	F	F	110
50 lb	614 471	-1470	-1470	F	F	110
50 lb	614 472	-1030	-1030	F	F	110
50 lb	614 473	-210	-210	F	F	110
50 lb	614 474	-540	-540	F	F	110
50 lb	614 475	-2040	-2040	F	F	110
50 lb	614 477	-880	-880	F	F	110
50 lb	614 478	-440	-440	F	F	110
50 lb	614 479	-1050	-1050	F	F	110

\* Weight(s) as found exceed NIST HB105-1 Class F Tolerance.



Receipt Date: November 12, 2014  
Test Date: November 13, 2014  
Amended Date: December 3, 2014

Continued,  
State Test No.: 333387a  
Set Serial No.: 614 Series; None  
Barcode: 200716

## Amended Calibration Report (amendment to report #333387)

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Avdp. Cast Handle Weights  
Manufacturer: Fairbanks  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.9°C  
Pressure: 745.2 mmHg  
Relative Humidity: 48. %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
			As Found	As Left	As Found	As Left	
50	lb	614 481	-860	-860	F	F	110
50	lb	614 485	-550	-550	F	F	110
50	lb	614 487	-1050	-1050	F	F	110
50	lb	614 488	650	650	F	F	110
50	lb	614 490	-440	-440	F	F	110
50	lb	614 493	900	900	F	F	110
50	lb	614 495	-600	-600	F	F	110
50	lb	614 496	-2130	130	F	F	110
50	lb	614 498	-710	-710	F	F	110

When used as a set these weights meet NIST HB105-1 Class F Tolerance.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Kari Anderson

*Kari Anderson*  
Metrologist

Reviewed by:

Mark Nicollet

*Mark Nicollet*  
Quality Manager



Receipt Date: November 13, 2014  
Test Date: November 13, 2014  
Report Date: November 21, 2014

State Test No.: 333390  
Set Serial No.: 614 Series  
Barcode: 200658

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Assorted  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.7°C  
Pressure: 745.2 mmHg  
Relative Humidity: 43. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
25 lb	614 346	720	720	F	F	75
50 lb	614 355	-890	-890	F	F	110
50 lb	614 361	-3000	390	*	F	110
50 lb	614 357	1080	1080	F	F	110
50 lb	614 366	930	930	F	F	110
50 lb	614 502	550	550	F	F	110
50 lb	614 501	-510	-510	F	F	110
50 lb	614 370	-1130	-1130	F	F	110
50 lb	614 359	-2340	300	*	F	110
50 lb	614 508	-450	-450	F	F	110
50 lb	614 506	-740	-740	F	F	110
50 lb	614 367	880	880	F	F	110
50 lb	614 503	-2410	890	*	F	110
50 lb	614 353	-1410	-1410	F	F	110
50 lb	614 369	-4190	30	*	F	110

\* Weight(s) as found exceed NIST HB 105-1 Class F tolerance.

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Kari Anderson  
*Kari Anderson*  
Metrologist

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager



Receipt Date: November 12, 2014  
Test Date: November 18, 2014  
Report Date: November 19, 2014

State Test No.: 333385  
Set Serial No.: 614-723  
Barcode: 017434

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: 30 lb Kit w/ Decimals & Fractions  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.1°C  
Pressure: 733.8 mmHg  
Relative Humidity: 48. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
5 lb		37	37	F	F	10
5 . lb		-4	-4	F	F	10
5 ... lb		51	51	F	F	10
5 :: lb		9	9	F	F	10
5 ::. lb		41	41	F	F	10
1 . lb		8.7	8.7	F	F	6.0
1 .. lb		10.3	10.3	F	F	6.0
1 ... lb		5.4	5.4	F	F	6.0
1 :: lb		2.8	2.8	F	F	6.0
1 ::. lb		13.7	13.7	F	F	6.0
8 oz		-1.6	-1.6	F	F	6.0
4 oz		6.76	6.76	F	F	0.07
2 oz		3.10	3.10	F	F	0.07
1 oz		2.53	2.53	F	F	0.07
1/2 oz		1.34	1.34	F	F	0.07
1/4 oz		0.637	0.637	F	F	0.07
1/16 oz		0.436	0.436	F	F	0.07
1/32 oz		0.325	0.325	F	F	0.07



Receipt Date: November 12, 2014  
Test Date: November 18, 2014  
Report Date: November 19, 2014

Continued,  
State Test No.: 333385  
Set Serial No.: 614-723  
Barcode: 017434

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: 30 lb Kit w/ Decimals & Fractions  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.1°C  
Pressure: 733.8 mmHg  
Relative Humidity: 48. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
0.2 . lb		1.61	1.61	F	F	0.07
0.2 .. lb		1.75	1.75	F	F	0.07
0.1 . lb		1.34	1.34	F	F	0.07
0.05 . lb		0.41	0.41	F	F	0.07
0.02 . lb		0.176	0.176	F	F	0.07
0.02 .. lb		0.023	0.023	F	F	0.07
0.01 . lb		0.123	0.123	F	F	0.07
0.005 . lb		0.804	0.804	F	F	0.07
0.002 . lb		0.536	0.536	F	F	0.07
0.002 .. lb		0.327	0.327	F	F	0.07
0.001 . lb		0.092	0.092	F	F	0.07

When used as a set these weights meet NIST HB105-1 Class F Tolerance.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Heidi Jones

Laboratory Administrator



Receipt Date: November 12, 2014  
Test Date: November 18, 2014  
Report Date: November 21, 2014

State Test No.: 333386  
Set Serial No.: 614-86 Series  
Barcode: 202419

## Calibration Report

FAIRBANKS  
2500 CLEVELAND AVENUE NORTH  
ROSEVILLE, MN 55113-2728  
Contact: RON LOUDERBACK  
Phone: 615-815-9000  
PO Number: NONE  
SOP: 12  
Technician ID: 13

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 18.5°C  
Pressure: 737.8 mmHg  
Relative Humidity: 39. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
25000 g	614-864	420	420	F	F	140
25000 g	614-863	3630	1580	*	F	140
25000 g	614-862	620	620	F	F	140

\* Weight(s) as found exceed NIST HB 105-1 Class F tolerance.

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup>. The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Kari Anderson  
*Kari Anderson*  
Metrologist

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager

Scott



Receipt Date: November 12, 2014  
 Test Date: November 12, 2014  
 Report Date: November 18, 2014

State Test No.: 333384  
 Set Serial No.: None  
 Barcode: 017426

## Calibration Report

FAIRBANKS  
 2500 CLEVELAND AVENUE NORTH  
 ROSEVILLE, MN 55113-2728  
 Contact: RON LOUDERBACK  
 Phone: 615-815-9000  
 PO Number: NONE  
 SOP: 12  
 Technician ID: 07

Item(s) Submitted: Satin Metric Weight Kit  
 Manufacturer: Rice Lake  
 ASTM E617 Type: I & II  
 Equipment ID#: None  
 Condition: Good  
 Temperature: 19.9°C  
 Pressure: 736. mmHg  
 Relative Humidity: 45. %

Kit contents:

Nominal Value	Quantity
5 kg	1
2 kg	2
1 kg	1
500 to 100 g	4
50 to 10 g	4
5 to 1 g	4
500 to 5 mg	6

When used as a set these weights meet NIST HB 105-1 class F tolerances.

The items listed above have been compared to the Standards of the State of Minnesota which are currently in control. These Standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. Uncertainty calculation methods conform to NIST Technical Note 1297. Actual uncertainties will be provided upon request. Results apply to items identified in this report only.

Mark Nicollet  
  
 Quality Manager

Reviewed by:  
 Kari Anderson  
  
 Metrologist

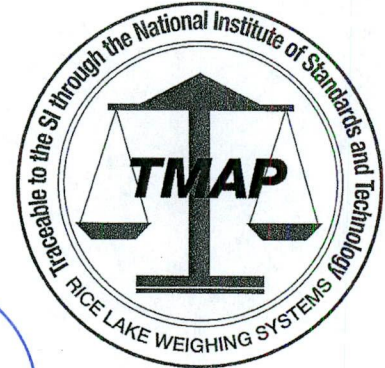
# Traceable Calibration CERTIFICATE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025 Accredited

Contractor: **Fairbanks Scales**  
 2500 Cleveland Ave N Ste C-N  
 St Paul, MN 55113 2728

Purchase Order #: 20146047  
 Client: **Fairbanks Scales**  
 Address: 2500 Cleveland Ave N Ste C-N

City & State: Saint Paul, MN 55113 2728  
 Date Received: 27 OCT 2014  
 Date Calibrated: 30 OCT 2014 to 03 NOV 2014  
 Temperature Range: 20.20 to 20.85 °C  
 Pressure Range: 726.0 to 733.4 mmHg  
 Relative Humidity Range: 49 to 53 %  
 Air Density: 1.1413 to 1.1532 mg/cm<sup>3</sup>  
 Traceable Report #: 2215714A  
 NIST Certificate #: 681/280058-10, 684/284451-14  
 Tested By: 19, 22  
 Procedure: Modified Substitution (WI05-0023)



Primary Standard Calibration Date: 02/11/11, 11/26/13 Due: 02/11/15, 11/24/17  
 Description of Weights: 0.001 lb to 0.005 lb Aluminum Weights & 0.01 lb to 0.2 lb, 1/32 oz to 5 lb Satin Finish Weights, NIST Class "F", S/N 5X5Y  
 Although there are two NIST numbers, one or both may apply.

Nominal Value	Id.	Conventional Mass Corr.		Unc. K=2 (mg)	Tol. (mg)	Balance Used	Standard Set Used Calibrated/due MM-DD-YY/MM-DD-YY	Assumed Density (g/cm <sup>3</sup> )
		As Found (mg)	As Left (mg)					
0.001 lb		0.07	0.07	0.13	0.70	638Q	D564Q 10-17-14/04-17-15	2.70
0.002 lb		0.15	0.15	0.14	0.87	638Q	D564Q 10-17-14/04-17-15	2.70
0.002 lb		0.28	0.28	0.14	0.87	638Q	D564Q 10-17-14/04-17-15	2.70
0.005 lb		0.14	0.14	0.17	1.17	638Q	D564Q 10-17-14/04-17-15	2.70
0.01 lb		0.35	0.35	0.19	1.5	638Q	D564Q 10-17-14/04-17-15	7.84
0.02 lb		0.26	0.26	0.24	1.8	638Q	D564Q 10-17-14/04-17-15	7.84
0.02 lb		0.35	0.35	0.24	1.8	638Q	D564Q 10-17-14/04-17-15	7.84
0.05 lb		1.37	1.37	0.42	4.5	1221Q	D564Q 10-17-14/04-17-15	7.84
0.1 lb		2.32	2.32	0.43	9.1	1221Q	D564Q 10-17-14/04-17-15	7.84
0.2 lb		1.95	1.95	0.61	18	1221Q	D564Q 10-17-14/04-17-15	7.84
0.2 lb		4.55	4.55	0.61	18	1221Q	D564Q 10-17-14/04-17-15	7.84
1/32 oz		0.23	0.23	0.15	0.87	638Q	D564Q 10-17-14/04-17-15	7.84
1/32 oz		0.15	0.15	0.15	0.87	638Q	D564Q 10-17-14/04-17-15	7.84
1/16 oz		0.41	0.41	0.17	1.1	638Q	D564Q 10-17-14/04-17-15	7.84
1/8 oz		0.55	0.55	0.19	1.3	638Q	D564Q 10-17-14/04-17-15	7.84
1/4 oz		0.32	0.32	0.23	1.7	638Q	D564Q 10-17-14/04-17-15	7.84
1/2 oz		0.86	0.86	0.33	2.8	1221Q	D564Q 10-17-14/04-17-15	7.84
1 oz		2.05	2.05	0.43	5.4	1221Q	D564Q 10-17-14/04-17-15	7.84
2 oz		2.96	2.96	0.51	11	1221Q	D564Q 10-17-14/04-17-15	7.84
4 oz		7.39	7.39	0.74	23	1221Q	D564Q 10-17-14/04-17-15	7.84
8 oz		16.0	16.0	4.4	45	859Q	1095Q 10-17-14/04-17-15	7.84

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Prepared By:

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 Unless otherwise noted, weights tested meet the requirements of Class noted on description.



Page 1 of 2 pages

Dated 03 NOV 2014

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*Dan Demers*  
 Dan Demers Metrologist



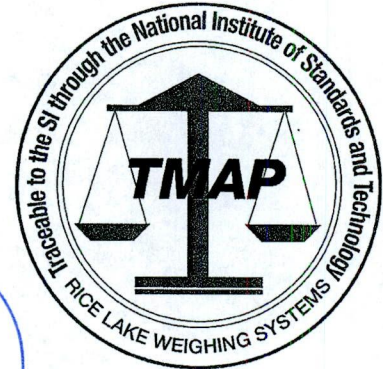
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PN 64784 2/14

# Traceable Calibration CERTIFICATE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025 Accredited

Purchase Order #: 20146047  
 Client: **Fairbanks Scales**  
 Address: 2500 Cleveland Ave N Ste C-N  
  
 City & State: Saint Paul, MN 55113 2728  
 Date Received: 27 OCT 2014  
 Date Calibrated: 30 OCT 2014 to 03 NOV 2014  
 Temperature Range: 20.20 to 20.85 °C  
 Pressure Range: 726.0 to 733.4 mmHg  
 Relative Humidity Range: 49 to 53 %  
 Air Density: 1.1413 to 1.1532 mg/cm<sup>3</sup>  
 Traceable Report #: 2215714A  
 NIST Certificate #: 681/280058-10, 684/284451-14  
 Although there are two NIST numbers, one or both may apply.



Nominal Value	Id.	Conventional Mass Corr.		Unc. K=2 (mg)	Tol. (mg)	Balance Used	Standard Set Used		Assumed Density (g/cm <sup>3</sup> )
		As Found (mg)	As Left (mg)				Calibrated/	due	
							MM-DD-YY/MM-DD-YY		
1 lb	A	17.5	17.5	7.2	70	859Q	D564Q	10-17-14/04-17-15	7.84
1 lb	B	16.1	16.1	7.2	70	859Q	D564Q	10-17-14/04-17-15	7.84
1 lb	C	15.6	15.6	7.2	70	859Q	D564Q	10-17-14/04-17-15	7.84
1 lb	D	20.2	20.2	7.2	70	859Q	D564Q	10-17-14/04-17-15	7.84
1 lb	E	21.8	21.8	7.2	70	859Q	D564Q	10-17-14/04-17-15	7.84
5 lb	A	96	96	16	227	859Q	D564Q	10-17-14/04-17-15	7.84
5 lb	B	24	24	16	227	859Q	D564Q	10-17-14/04-17-15	7.84
5 lb	C	29	29	16	227	859Q	D564Q	10-17-14/04-17-15	7.84
5 lb	D	76	76	16	227	859Q	D564Q	10-17-14/04-17-15	7.84
5 lb	E	42	42	16	227	859Q	D564Q	10-17-14/04-17-15	7.84

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Dated 03 NOV 2014

Dan Demers Metrologist



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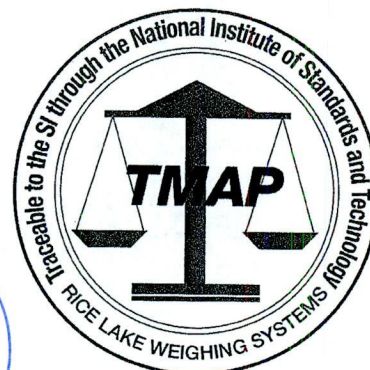
# Traceable Calibration CERTIFICATE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025 Accredited

**Contractor:** Fairbanks Scales  
2500 Cleveland Ave N Ste C-N  
St Paul, MN 55113 2728

**Purchase Order #:** 20146047  
**Client:** Fairbanks Scales  
**Address:** 2500 Cleveland Ave N Ste C-N

**City & State:** Saint Paul, MN 55113 2728  
**Date Received:** 27 OCT 2014  
**Date Calibrated:** 30 OCT 2014 to 03 NOV 2014  
**Temperature Range:** 20.42 to 21.98 °C  
**Pressure Range:** 726.0 to 733.4 mmHg  
**Relative Humidity Range:** 47 to 53 %  
**Air Density:** 1.1398 to 1.1537 mg/cm<sup>3</sup>  
**Traceable Report #:** 2215714  
**NIST Certificate #:** 681/280058-10, 684/284451-14  
**Tested By:** 12, 19, 22  
**Procedure:** Modified Substitution (WI05-0023)



**Primary Standard Calibration Date:** 02/11/11, 11/26/13 **Due:** 02/11/15, 11/24/17  
**Description of Weights:** 10 mg to 5 kg Satin Finish Kit, NIST Class "F", S/N 5X5X  
Although there are two NIST numbers, one or both may apply.

Nominal Value	Id.	Conventional Mass Corr.		Unc. K=2 (mg)	Tol. (mg)	Balance Used	Standard Set Used Calibrated/du MM-DD-YY/MM-DD-YY	Assumed Density (g/cm <sup>3</sup> )
		As Found (mg)	As Left (mg)					
10 mg		0.0268	<b>0.0268</b>	0.0075	0.21	676Q	K594Q 08-06-14/02-06-15	7.95
20 mg		0.1228	<b>0.1228</b>	0.0078	0.26	676Q	K594Q 08-06-14/02-06-15	7.95
20 mg		0.0564	<b>0.0564</b>	0.0078	0.26	676Q	K594Q 08-06-14/02-06-15	7.95
50 mg		0.1239	<b>0.1239</b>	0.0070	0.35	676Q	K594Q 08-06-14/02-06-15	7.95
100 mg		0.1334	<b>0.1334</b>	0.0071	0.43	676Q	K594Q 08-06-14/02-06-15	7.95
200 mg		0.1626	<b>0.1626</b>	0.0069	0.54	676Q	K594Q 08-06-14/02-06-15	7.95
200 mg		0.2688	<b>0.2688</b>	0.0069	0.54	676Q	K594Q 08-06-14/02-06-15	7.95
500 mg		0.291	<b>0.291</b>	0.014	0.72	676Q	K594Q 08-06-14/02-06-15	7.95
1 g		0.20	<b>0.20</b>	0.14	0.90	638Q	D563Q 09-26-14/03-26-15	7.84
2 g		0.38	<b>0.38</b>	0.18	1.12	638Q	D563Q 09-26-14/03-26-15	7.84
2 g		0.17	<b>0.17</b>	0.17	1.12	638Q	D563Q 09-26-14/03-26-15	7.84
5 g		0.47	<b>0.47</b>	0.20	1.5	638Q	D563Q 09-26-14/03-26-15	7.84
10 g		0.42	<b>0.42</b>	0.26	2.0	638Q	D563Q 09-26-14/03-26-15	7.84
20 g		0.99	<b>0.99</b>	0.38	4.0	1221Q	D563Q 09-26-14/03-26-15	7.84
20 g		0.28	<b>0.28</b>	0.38	4.0	1221Q	D563Q 09-26-14/03-26-15	7.84
50 g		3.20	<b>3.20</b>	0.46	10	1221Q	D563Q 09-26-14/03-26-15	7.84
100 g		1.87	<b>1.87</b>	0.68	20	1221Q	D563Q 09-26-14/03-26-15	7.84
200 g		10.2	<b>10.2</b>	1.3	40	1221Q	D563Q 09-26-14/03-26-15	7.84
200 g		9.2	<b>9.2</b>	1.3	40	1221Q	D563Q 09-26-14/03-26-15	7.84
500 g		21.7	<b>21.7</b>	6.6	70	859Q	D563Q 09-26-14/03-26-15	7.84
1 kg		36.7	<b>36.7</b>	6.9	100	859Q	D563Q 09-26-14/03-26-15	7.84

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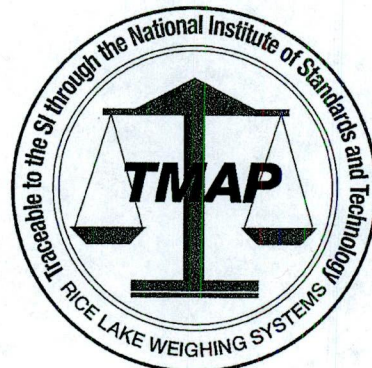


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**Traceable Report #:** 2215714  
**NIST Certificate #:** 681/280058-10, 684/284451-14



Although there are two NIST numbers, one or both may apply.

Nominal Value	Id.	Conventional Mass Corr.		Unc. K=2 (mg)	Tol. (mg)	Balance Used	Standard Set Used Calibrated/due MM-DD-YY/MM-DD-YY	Assumed Density (g/cm <sup>3</sup> )
		As Found (mg)	As Left (mg)					
2 kg		67	67	12	200	859Q	D563Q 09-26-14/03-26-15	7.84
2 kg		65	65	12	200	859Q	D563Q 09-26-14/03-26-15	7.84
5 kg		151	151	30	500	859Q	D563Q 09-26-14/03-26-15	7.84

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Prepared By:

**RICE LAKE**  
WEIGHING SYSTEMS  
"to be the best by every measure"

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**NVLAP**  
NVLAP Lab Code 105001-0

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PN 64784 2/14

# United States Department of Commerce National Institute of Standards and Technology

Certificate of Metrological Traceability For:

## Minnesota

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

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



2014

### Scope

#### Mass Echelon I

30 kg to 1 mg

#### Mass Echelon II

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

#### Mass Echelon III

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

#### Weight Carts

10 000 lb to 2000 lb

#### Wheel Load Weighers

20000 lb to 2000 lb

#### Railroad Test Cars

110 000 lb to 80 000 lb

#### Volume Gravimetric, I

20 L to 1 mL  
100 gal to 0.25 qt

#### Volume Transfer, II

1500 gal to 5 gal  
100 gal to 25 gal LPG

A handwritten signature in blue ink, reading "Carol T. Hockert".

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

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



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