



**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**

<b>Name of Company</b> Northwest Scale, Inc.	<b>Email Address</b> info@northwestscale.com	<b>Application Date</b> 03/21/2016	
<b>Mailing Address</b> 2210 Main Ave E, Ste 2A	<b>City</b> West Fargo	<b>State</b> ND	<b>Zip Code</b> 58078-2221
<b>Telephone Number</b> 701-298-9527	<b>Cell Phone Number</b> (Jim) 701-238-6929	<b>Fax Number</b> 701-356-9520	

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: <u>400,000 lbs</u> <input type="checkbox"/> 5. Belt <input checked="" 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 checked="" type="checkbox"/> 9. Other: Please List:  Floor Scale Forklift Scales Grain Dockage Scales Gram Scales (Class III)	<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)
e.g. 1001	e.g. John Doe	e.g. Scales - 2, 3, 6, 8; e.g. Liquid - 1, 2, 6
1396	James P. Jacobs	Scales - 1, 2, 3, 4, 6, 7, 9
1398	Steven P. Cusey	Scales - 1, 2, 3, 4, 6, 7, 9
1606	Joel M. Bommersbach	Scales - 1, 2, 3, 4, 6, 7, 9
1637	Ryan S. Jacobs	Scales - 1, 2, 3, 4, 6, 7, 9

Continued on Page 2

Application for Registration as a Registered Service Company  
Page 2



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

(2) 2,500 lb Power Dollies	
(6) 2,500 lb Cast Slab Weights	
(4) 500 lb Cast Block Weights	
(80) 50 lb Cast Hand Weights	
(2) 25 lb Cast Hand Weights	
(1) 30 lb Weight Kit with Fractions	
(1) 30 lb Weight Kit with Decimals	
(2) 4,100 g Satin Weight Kits	

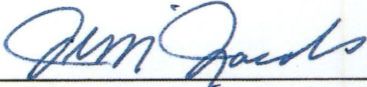
Additional Application Items (initial where appropriate):

Standardized Test Report	<input checked="" type="checkbox"/> Copy enclosed <input type="checkbox"/> No change in report filed previously
Tested and Approved Sticker	<input checked="" type="checkbox"/> Copy enclosed <input 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 Jim Jacobs, President, 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.

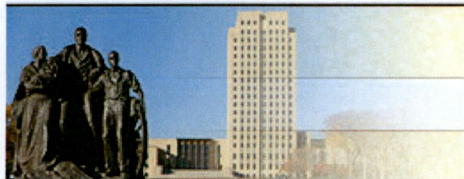
  
\_\_\_\_\_  
Signature

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 Government



# SECRETARY OF STATE NORTH DAKOTA



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## NORTHWEST SCALE, INC.

### Corporation Details

**System ID:** 13370500      **Phone:** (701) 298-9527  
**Type:** BUSINESS CORPORATION  
**Status:** Active & Good Standing  
**Original File Date:** 03/13/1998      **Effective Date:** 03/13/1998  
**State of Origin:** North Dakota

### Nature of Business

SALES, SERVICE & INSTALLATION OF SCALES & SCALE ACCESSORIES

### Principal Office

2210 MAIN AVE E STE 2A WEST FARGO, ND 58078-2221

### Registered Agent

**TIFFANY JACOBS**  
4422 30TH AVE S APT 107  
FARGO, ND 58104-8436  
Established Date: Jul 24, 2010

### Authorized Shares

Class	Number	Par Value
	50000.000000	\$1.000000

### 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.

[2015](#) (generates a forms-fillable pdf in a new pop-up window)

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Northwest Scale, Inc.'s Crimped Lead Wire Seal:



Northwest Scale, Inc.'s Tested & Approved Sticker:

**Northwest Scale, Inc.**

2210 East Main Avenue, Suite 2A  
West Fargo, ND 58078

**Sales / Service**

1-800-854-5885 • 701-298-9527

**Serviced & Calibrated**

Jim  Ryan  Steve  Joel

JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP	OCT	NOV	DEC
15	16	17	18	19	20





Receipt Date: March 14, 2016  
Test Date: March 15, 2016  
Report Date: March 15, 2016

State Test No.: 335680  
Set Serial No.: 11 & 22  
Barcode: 201586

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Two 2500 lb Weight Carts  
Manufacturer: Anderson  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 20.5 °C  
Pressure: 726.4 mmHg  
Relative Humidity: 52.7 %

Nominal Value	Serial No.	Correction (g)		NIST HB105-8 Tolerance		Uncertainty (g) (k = 2)
		As Found	As Left	As Found	As Left	
2500 lb	11	850	15	*	Meets	60.
2500 lb	22	450	68	*	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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-8 (2003). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Heidi Jones

*Heidi Jones*  
Laboratory Administrator



Receipt Date: March 14, 2016  
Test Date: March 15, 2016  
Report Date: March 15, 2016

State Test No.: 335679  
Set Serial No.: OV2X to Z, OV30 to 32  
Barcode: 201585

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078

Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Slab Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 20.5 °C  
Pressure: 726.4 mmHg  
Relative Humidity: 52.7 %

Nominal Value	lb	Serial No.	Correction (g)		NIST HB105-1 Class		Uncertainty (g) (k = 2)
			As Found	As Left	As Found	As Left	
2500	lb	OV2X	52.0	52.0	F	F	8.6
2500	lb	OV2Y	40.0	40.0	F	F	8.6
2500	lb	OV2Z	58.0	58.0	F	F	8.6
2500	lb	OV30	5.0	5.0	F	F	8.6
2500	lb	OV31	28.0	28.0	F	F	8.6
2500	lb	OV32	49.0	49.0	F	F	8.6

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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

Mark Nicollet

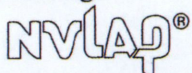
*Mark Nicollet*  
Quality Manager

Reviewed by:

Heidi Jones

*Heidi Jones*

Laboratory Administrator





Receipt Date: March 14, 2016  
Test Date: March 15, 2016  
Report Date: March 15, 2016

State Test No.: 335683  
Set Serial No.: 7 to 10  
Barcode: 201588

## Calibration Report

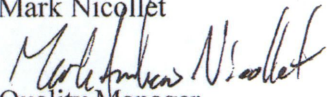
NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Cube Weights  
Manufacturer: PUC  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.2 °C  
Pressure: 726.9 mmHg  
Relative Humidity: 52.8 %

Nominal Value	Serial No.	Correction (g)		NIST HB105-1 Class		Uncertainty (g) (k = 2)
		As Found	As Left	As Found	As Left	
500 lb	7	-1.0	-1.0	F	F	1.6
500 lb	8	2.2	2.2	F	F	1.6
500 lb	9	9.8	9.8	F	F	1.6
500 lb	10	-6.6	-6.6	F	F	1.6

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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

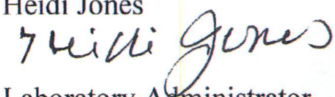
Mark Nicollet



Quality Manager

Reviewed by:

Heidi Jones



Laboratory Administrator



Receipt Date: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

State Test No.: 335682  
Set Serial No.: NSI 41 to 80  
Barcode: 201587

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 20.2 °C  
Pressure: 727.2 mmHg  
Relative Humidity: 49.9 %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
			As Found	As Left	As Found	As Left	
50	lb	NSI 41	-950	-950	F	F	120
50	lb	NSI 42	870	870	F	F	120
50	lb	NSI 43	590	590	F	F	120
50	lb	NSI 44	1370	1370	F	F	120
50	lb	NSI 45	1240	1240	F	F	120
50	lb	NSI 46	1030	1030	F	F	120
50	lb	NSI 47	-1890	-1890	F	F	120
50	lb	NSI 48	770	770	F	F	120
50	lb	NSI 49	-10	-10	F	F	120
50	lb	NSI 50	30	30	F	F	120
50	lb	NSI 51	600	600	F	F	120
50	lb	NSI 52	260	260	F	F	120
50	lb	NSI 53	-220	-220	F	F	120
50	lb	NSI 54	170	170	F	F	120
50	lb	NSI 55	-3760	30	*	F	120
50	lb	NSI 56	580	580	F	F	120
50	lb	NSI 57	-220	-220	F	F	120
50	lb	NSI 58	250	250	F	F	120
50	lb	NSI 59	-1690	-1690	F	F	120
50	lb	NSI 60	-3730	280	*	F	120
50	lb	NSI 61	-2370	50	*	F	120
50	lb	NSI 62	930	930	F	F	120
50	lb	NSI 63	320	320	F	F	120
50	lb	NSI 64	-2630	60	*	F	120
50	lb	NSI 65	1460	1460	F	F	120
50	lb	NSI 66	1240	1240	F	F	120
50	lb	NSI 67	1230	1230	F	F	120
50	lb	NSI 68	-4130	390	*	F	120
50	lb	NSI 69	1320	1320	F	F	120
50	lb	NSI 70	-2130	60	F	F	120

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



Receipt Date: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

Continued,  
State Test No.: 335682  
Set Serial No.: NSI 41 to 80  
Barcode: 201587

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 20.2°C  
Pressure: 727.2 mmHg  
Relative Humidity: 49.9 %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
			As Found	As Left	As Found	As Left	
50	lb	NSI 71	-200	-200	F	F	120
50	lb	NSI 72	2120	1810	F	F	120
50	lb	NSI 73	760	760	F	F	120
50	lb	NSI 74	-2890	350	*	F	120
50	lb	NSI 75	-1320	-1320	F	F	120
50	lb	NSI 76	1270	1270	F	F	120
50	lb	NSI 77	810	810	F	F	120
50	lb	NSI 78	330	330	F	F	120
50	lb	NSI 79	3460	1670	*	F	120
50	lb	NSI 80	3490	1860	*	F	120

\* Weight(s) as found exceed 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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Heidi Jones

*Heidi Jones*

Laboratory Administrator



Receipt Date: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

State Test No.: 335681  
Set Serial No.: NSI 1 to 40  
Barcode: 201589

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 19.8 °C  
Pressure: 727.1 mmHg  
Relative Humidity: 52.2 %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
			As Found	As Left	As Found	As Left	
50	lb	NSI 01	-320	-320	F	F	120
50	lb	NSI 02	1390	1390	F	F	120
50	lb	NSI 03	-2460	230	*	F	120
50	lb	NSI 04	1480	1480	F	F	120
50	lb	NSI 05	2770	140	*	F	120
50	lb	NSI 06	2150	1290	F	F	120
50	lb	NSI 07	-900	-900	F	F	120
50	lb	NSI 08	-490	-490	F	F	120
50	lb	NSI 09	-200	-200	F	F	120
50	lb	NSI 10	580	580	F	F	120
50	lb	NSI 11	-1370	-1370	F	F	120
50	lb	NSI 12	-30	-30	F	F	120
50	lb	NSI 13	-1690	-1690	F	F	120
50	lb	NSI 14	-700	-700	F	F	120
50	lb	NSI 15	-1150	-1150	F	F	120
50	lb	NSI 16	1460	1460	F	F	120
50	lb	NSI 17	180	180	F	F	120
50	lb	NSI 18	290	290	F	F	120
50	lb	NSI 19	270	270	F	F	120
50	lb	NSI 20	-350	-350	F	F	120
50	lb	NSI 21	-300	-300	F	F	120
50	lb	NSI 22	1220	1220	F	F	120
50	lb	NSI 23	-200	-200	F	F	120
50	lb	NSI 24	-1170	-1170	F	F	120
50	lb	NSI 25	1580	1580	F	F	120
50	lb	NSI 26	410	410	F	F	120
50	lb	NSI 27	-1900	-1900	F	F	120
50	lb	NSI 28	-1710	-1710	F	F	120
50	lb	NSI 29	1210	1210	F	F	120
50	lb	NSI 30	660	660	F	F	120

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





Receipt Date: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

Continued,  
State Test No.: 335681  
Set Serial No.: NSI 1 to 40  
Barcode: 201589

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: Joel Bommersbach  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 07

Item(s) Submitted: Cast Handle Weights  
Manufacturer: Rice Lake  
ASTM E617 Type: II  
Equipment ID#: None  
Condition: Excellent  
Temperature: 19.8°C  
Pressure: 727.1 mmHg  
Relative Humidity: 52.2 %

Nominal Value	lb	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
			As Found	As Left	As Found	As Left	
50	lb	NSI 31	-100	-100	F	F	120
50	lb	NSI 32	-780	-780	F	F	120
50	lb	NSI 33	-400	-400	F	F	120
50	lb	NSI 34	440	440	F	F	120
50	lb	NSI 35	610	610	F	F	120
50	lb	NSI 36	240	240	F	F	120
50	lb	NSI 37	2070	570	F	F	120
50	lb	NSI 38	-3630	250	*	F	120
50	lb	NSI 39	-50	-50	F	F	120
50	lb	NSI 40	1480	1480	F	F	120
25	lb		40	40	F	F	67
25	lb		280	280	F	F	67

\* Weight(s) as found exceed 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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Heidi Jones

*Heidi Jones*  
Laboratory Administrator



Receipt Date: March 14, 2016  
Test Date: March 15, 2016  
Report Date: March 16, 2016

State Test No.: 335675  
Set Serial No.: OF44  
Barcode: 017730

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: JIM JACOBS  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: 30 lb kit w/ ounces  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.9 °C  
Pressure: 726.2 mmHg  
Relative Humidity: 53.6 %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
		As Found	As Left	As Found	As Left	
10 lb		73	73	F	F	15
10 lb		183	183	F	F	15
5 lb		78	78	F	F	12
1 lb		19.4	19.4	F	F	2.8
1 lb		1.5	1.5	F	F	2.8
1 lb		14.8	14.8	F	F	2.8
1 lb		30.5	30.5	F	F	2.8
1 lb		17.5	17.5	F	F	2.8
4 oz		-3.75	-3.75	F	F	0.60
4 oz		-5.55	-5.55	F	F	0.60
4 oz		-8.33	-8.33	F	F	0.60
1 oz		1.83	1.83	F	F	0.30
1 oz		2.24	2.24	F	F	0.30
1 oz		0.89	0.89	F	F	0.30
1/2 oz		0.19	0.19	F	F	0.24
1/2 oz		1.39	1.39	F	F	0.24
1/4 oz		0.69	0.69	F	F	0.12
1/4 oz		-0.13	-0.13	F	F	0.12

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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). 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: March 14, 2016  
Test Date: March 15, 2016  
Report Date: March 16, 2016

State Test No.: 335677  
Set Serial No.: 1HZV  
Barcode: 200328

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: JIM JACOBS  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 9

Item(s) Submitted: 30 lb kit w/ decimals  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.9 °C  
Pressure: 726.2 mmHg  
Relative Humidity: 53.6 %

Nominal Value	Serial No.	Correction (mg)		ASTM E617 Class		Uncertainty (mg) (k = 2)
		As Found	As Left	As Found	As Left	
10 lb		180	180	6	6	15
10 lb		149	149	6	6	15
5 lb		95	95	6	6	12
2 lb		36.6	36.6	6	6	4.8
2 lb		36.3	36.3	6	6	4.8
1 lb		18.6	18.6	6	6	2.8
0.5 lb		9.7	9.7	5	5	2.3
0.2 lb		5.64	5.64	6	6	0.37
0.2 lb		3.78	3.78	5	5	0.37
0.1 lb		4.23	4.23	6	6	0.30
0.05 lb		1.81	1.81	5	5	0.30
0.02 lb		0.19	0.19	4	4	0.16
0.02 lb		0.73	0.73	5	5	0.16
0.01 lb		0.62	0.62	5	5	0.12
0.005 lb		0.16	0.16	5	5	0.10
0.002 lb		0.420	0.420	6	6	0.066
0.002 lb		0.140	0.140	5	5	0.066
0.001 lb		-0.050	-0.050	4	4	0.057

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. All of the tolerances and specifications were evaluated according to ASTM E617 (2013). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). 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: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

State Test No.: 335678  
Set Serial No.: 1HZW  
Barcode: 200329

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078  
Contact: JIM JACOBS  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: Metric weight kit  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.8 °C  
Pressure: 727.4 mmHg  
Relative Humidity: 46.2 %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
		As Found	As Left	As Found	As Left	
2000 g		88.1	88.1	F	F	12.0
1000 g		43.1	43.1	F	F	7.1
500 g		31.1	31.1	F	F	4.0
200 g		9.2	9.2	F	F	1.2
200 g		14.8	14.8	F	F	1.2
100 g		8.94	8.94	F	F	0.60
50 g		4.49	4.49	F	F	0.36
20 g		1.27	1.27	F	F	0.30
20 g		0.76	0.76	F	F	0.30
10 g		0.88	0.88	F	F	0.24
5 g		0.31	0.31	F	F	0.16
2 g		0.69	0.69	F	F	0.10
2 g		0.48	0.48	F	F	0.10
1 g		0.61	0.61	F	F	0.074

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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). 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: March 14, 2016  
Test Date: March 16, 2016  
Report Date: March 16, 2016

State Test No.: 335676  
Set Serial No.: OFBA  
Barcode: 017731

## Calibration Report

NORTHWEST SCALE, INC.  
2210 EAST MAIN AVE UNIT 2A  
WEST FARGO, ND 58078

Contact: JIM JACOBS  
Phone: 701-298-9527  
PO Number: NONE  
SOP: 12  
Technician ID: 09

Item(s) Submitted: Metric weight kit  
Manufacturer: Rice Lake  
ASTM E617 Type: I & II  
Equipment ID#: None  
Condition: Good  
Temperature: 20.8 °C  
Pressure: 727.4 mmHg  
Relative Humidity: 46.2 %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Uncertainty (mg) (k = 2)
		As Found	As Left	As Found	As Left	
2000 g		94.2	94.2	F	F	12.0
1000 g		41.2	41.2	F	F	7.1
500 g		31.4	31.4	F	F	4.0
200 g		12.9	12.9	F	F	1.2
200 g		9.6	9.6	F	F	1.2
100 g		6.04	6.04	F	F	0.60
50 g		0.81	0.81	F	F	0.36
20 g		1.45	1.45	F	F	0.30
20 g		1.23	1.23	F	F	0.30
10 g		1.16	1.16	F	F	0.24
5 g		0.29	0.29	F	F	0.16
2 g		0.66	0.66	F	F	0.10
2 g		-0.04	-0.04	F	F	0.10
1 g		0.28	0.28	F	F	0.074

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. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008). Results apply to items identified in this report only.

Heidi Jones  
*Heidi Jones*  
Laboratory Administrator

Reviewed by:  
Mark Nicollet  
*Mark Nicollet*  
Quality Manager

# 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.

### Scope

<b>Mass Echelon II</b>	<b>Weight Carts</b>	<b>Volume Gravimetric, I</b>
50 kg to 1 mg	10 000 lb to 2000 lb	20 L to 10 ml
1000 lb to 0.001 lb	Wheel Load Weighers	100 gal to 0.25 qt
4 oz to 0.03125 oz	20 000 lb to 2000 lb	<b>Volume Transfer, II</b>
<b>Mass Echelon III</b>	Railroad Test Cars	1500 gal to 5 gal
50 kg to 1 mg	110 000 lb to 80 000 lb	100 gal to 25 gal LPG
5000 lb to 0.001 lb		
4 oz to 0.03125 oz		



2016 to 2017

  
Carol T. Hockert, Chief  
NIST Office of Weights and Measures  
Effective Dates: 2016-01-01 to 2017-12-31