



Dave Heineman  
Governor

# State of Nebraska

DEPARTMENT OF AGRICULTURE  
GREGORY A. IBACH  
Director

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524

## CERTIFICATION FOR STANDARDS OF MEASUREMENT

Agency: Food Safety & Consumer Protection  
Area 15

Date: 3/29/2012  
Agency ID: 15  
NE Cert No: 20120043  
P.O. No:

Submitted By: Kent McConnell

Electronic Copy Page 1

Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
5 gal	05-40547-01	1	VL	A
5 gal	05-40547-02	1	VL	A
5 gal	05-40547-03	1	VL	A
5 gal	39423-A	1	VL	A
5 gal	39423-D	1	VL	A
2 lb	3A11	1	F	A
2 lb	3A11	2	F	A
2 lb	3A11	3	F	A
2 lb	3A11	4	F	A
2 lb	3A11	5	F	A
2 lb	3A11	6	F	A
2 lb	3A11	7	F	A
2 lb	3A11	8	F	A
2 lb	3A11	9	F	A
2 lb	3A11	10	F	A
2 lb	3A11	11	F	A
2 lb	3A11	12	F	A
2 lb	3A11	13	F	A
2 lb	3A11	14	F	A
1 lb	3A11	15	F	A
1 lb	3A11	16	F	A
8 oz	3A11	17	F	A
4 oz	3A11	18	F	A
2 oz	3A11	19	F	A
1 oz	3A11	20	F	A

Department of Agriculture, 301 Centennial Mall South  
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Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
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Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
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Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
(402) 471-2351  
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Bureau of Dairies & Foods  
P.O. Box 95064  
Lincoln, NE 68509-5064  
(402) 471-2536  
FAX: (402) 471-2759

Bureau of Plant Industry  
P.O. Box 94956  
Lincoln, NE 68509-4756  
(402) 471-2394  
FAX: (402) 471-6892

Weights and Measures  
P.O. Box 94757  
Lincoln, NE 68509-4757  
(402) 471-4292  
FAX: (402) 471-2759

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
0.5 oz	3A11	21	F	A
0.25 oz	3A11	22	F	A
0.125 oz	3A11	23	F	A
0.0625 oz	3A11	24	F	A
0.0625 oz*	3A11	25	F	A
0.3 lb	3A11	26	F	A
0.2 lb	3A11	27	F	A
0.1 lb	3A11	28	F	A
0.05 lb	3A11	29	F	A
0.03 lb	3A11	30	F	A
0.02 lb	3A11	31	F	A
0.01 lb	3A11	32	F	A
0.005 lb	3A11	33	F	A
0.003 lb	3A11	34	F	A
0.002 lb	3A11	35	F	A
0.001 lb	3A11	36	F	A
0.001 lb*	3A11	37	F	A
2 lb	9-OPI-5	1	F	A
2 lb	9-OPI-5	2	F	A
2 lb	9-OPI-5	3	F	A
1 lb	9-OPI-5	4	F	A
8 oz	9-OPI-5	5	F	A
4 oz	9-OPI-5	6	F	A
2 oz	9-OPI-5	7	F	A
1 oz	9-OPI-5	8	F	A
0.5 oz	9-OPI-5	9	F	A
0.25 oz	9-OPI-5	10	F	A
0.125 oz	9-OPI-5	11	F	A
0.0625 oz	9-OPI-5	12	F	A
0.0625 oz*	9-OPI-5	13	F	A
2 kg	K5	1	4	A
2 kg	K6	1	4	A
0.2 lb	N-99-C	1	F	A
0.2 lb*	N-99-C	2	F	A
0.1 lb	N-99-C	3	F	A
0.05 lb	N-99-C	4	F	A

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
0.02 lb	N-99-C	5	F	A
0.02 lb*	N-99-C	6	F	A
0.01 lb	N-99-C	7	F	A
0.005 lb	N-99-C	8	F	A
0.002 lb	N-99-C	9	F	A
0.002 lb*	N-99-C	10	F	A
0.001 lb	N-99-C	11	F	A
25 lb	WM25-100	1	F	A
25 lb	WM25-101	1	F	A
25 lb	WM25-102	1	F	A
25 lb	WM25-103	1	F	A
25 lb	WM25-28	1	F	A
25 lb	WM25-38	1	F	A
25 lb	WM25-45	1	F	A
25 lb	WM25-55	1	F	A
25 lb	WM25-56	1	F	A
25 lb	WM25-57	1	F	A
25 lb	WM25-58	1	F	A
25 lb	WM25-59	1	F	A
25 lb	WM25-75	1	F	A
25 lb	WM25-76	1	F	A
25 lb	WM25-77	1	F	A
25 lb	WM25-78	1	F	A
25 lb	WM25-79	1	F	A
25 lb	WM25-96	1	F	A
25 lb	WM25-97	1	F	A
25 lb	WM25-98	1	F	A
300 g	WM-G89-10	1	4	A
200 g	WM-G89-10	2	4	A
100 g	WM-G89-10	3	4	A
50 g	WM-G89-10	4	4	A
30 g	WM-G89-10	5	4	A
20 g	WM-G89-10	6	4	A
10 g	WM-G89-10	7	4	A
5 g	WM-G89-10	8	4	A
3 g	WM-G89-10	9	4	A
2 g	WM-G89-10	10	4	A
1 g	WM-G89-10	11	4	A
500 mg	WM-G89-10	12	4	A
200 mg	WM-G89-10	13	4	A
200 mg*	WM-G89-10	14	4	A
100 mg	WM-G89-10	15	4	A

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Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
50 mg	WM-G89-10	16	4	A
20 mg	WM-G89-10	17	4	A
20 mg*	WM-G89-10	18	4	A
10 mg	WM-G89-10	19	4	A
5 mg	WM-G89-10	20	4	A
2 mg	WM-G89-10	21	4	A
2 mg*	WM-G89-10	22	4	A
1 mg	WM-G89-10	23	4	A

These field standards have been compared with our reference standards and found to be within the tolerances for their class, or condemned, as prescribed by the National Institute of Standards and Technology. These field standards also meet the required specifications.

The reference standards used are traceable to the National Institute of Standards and Technology (NIST). Our traceability is maintained through control charts, regional inter-comparisons and periodic recertifications. This certificate is issued by the Nebraska Department of Agriculture / Division of Weights and Measures. Reproduction of this certificate must include the entire document (including all attached papers).

- See 'Test Results' attached  
 See report/letter attached

  
\_\_\_\_\_  
Craig E. Olsen  
Nebraska State Metrologist

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 4 - Double Substitution - Summary Of Test Results**

Agency ID: 15  
Agency: Food Safety & Consumer Protection  
Area 15  
, -

NE Cert No: 20120043  
Date: 3/29/2012  
P.O. No:  
Observer: CEO

Form No.: NE04LF7-R00

Submitted By: Kent McConnell

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Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
300 g	WM-G89-10	1	300.00284670	300.00192819	0.00014956	CC1201 / 1 kg	300gd
200 g	WM-G89-10	2	200.00268364	200.00207130	0.00014876	CC1201 / 1 kg	200gd
100 g	WM-G89-10	3	100.00145996	100.00115379	0.00006137	AT106_100G	100grl
50 g	WM-G89-10	4	50.00097615	50.00082306	0.00003825	AT106_50G	50grl
30 g	WM-G89-10	5	30.00039705	30.00030520	0.00003053	AT106_50G	30grl
20 g	WM-G89-10	6	20.00021303	20.00015180	0.00002187	AT106_20G	20grl
10 g	WM-G89-10	7	10.00031456	10.00028394	0.00001808	AT106_10G	10grl
5 g	WM-G89-10	8	5.00023823	5.00022293	0.00000721	CCE6_5G	5grl
3 g	WM-G89-10	9	3.00028493	3.00027574	0.00000632	CCE6_5G	3grl
2 g	WM-G89-10	10	2.00010311	2.00009699	0.00000632	CCE6_5G	2grl
1 g	WM-G89-10	11	1.00002260	1.00001954	0.00000355	CCE6_1G	1grl
500 mg	WM-G89-10	12	0.50003735	0.50003582	0.00000271	CCE6_1G	500mgrl
200 mg	WM-G89-10	13	0.19996916	0.19996855	0.00000235	CCE6_1G	200mgrl
200 mg*	WM-G89-10	14	0.19997426	0.19997365	0.00000235	CCE6_1G	200mgrl
100 mg	WM-G89-10	15	0.09993469	0.09993438	0.00000209	CCE6_100MG	100mgrl
50 mg	WM-G89-10	16	0.04999501	0.04999486	0.00000208	CCE6_100MG	50mgrl
20 mg	WM-G89-10	17	0.02003443	0.02002853	0.00000205	CCE6_100MG	20mgrl
20 mg*	WM-G89-10	18	0.02003163	0.02002573	0.00000205	CCE6_100MG	20mgrl
10 mg	WM-G89-10	19	0.01000072	0.00999778	0.00000205	CCE6_10MG	10mgrl
5 mg	WM-G89-10	20	0.00500877	0.00500730	0.00000204	CCE6_10MG	5mgrl

*Due to handling, storage and/or environmental factors, the reported values are valid only while test items are within our control. No calibration periods or intervals are given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

*True Mass is the mass value in a vacuum. Conventional Mass is the mass value in a normal air environment. All values are "as found" unless stated differently in an attachment to the certification.*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

Nebraska Standards Laboratory  
3721 West Cuming Street  
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**SOP 4 - Double Substitution - Summary Of Test Results**

Agency ID: 15  
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Area 15  
, -

NE Cert No: 20120043  
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P.O. No:  
Observer: CEO

Form No.: NE04LF7-R00

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Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
2 mg	WM-G89-10	21	0.00200874	0.00200814	0.00000204	CCE6_10MG	2mgrl
2 mg*	WM-G89-10	22	0.00200104	0.00200045	0.00000204	CCE6_10MG	2mgrl
1 mg	WM-G89-10	23	0.00100485	0.00100456	0.00000203	CCE6_10MG	1mgrl

*Due to handling, storage and/or environmental factors, the reported values are valid only while test items are within our control. No calibration periods or intervals are given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

*True Mass is the mass value in a vacuum. Conventional Mass is the mass value in a normal air environment. All values are "as found" unless stated differently in an attachment to the certification.*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

**Nebraska Standards Laboratory**  
**3721 West Cuming Street**  
**Lincoln, NE 68524**  
**(402) 471-2087**

**SOP 8 - Modified Substitution Test Results**

*Form No.: NE04LF9-R00*

Agency ID: 15  
 Agency: Food Safety & Consumer Protection  
 Area 15  
 , -

NE Cert No: 20120043  
 Date: 3/29/2012  
 P.O. No:  
 Observer: CEO

Submitted By: Kent McConnell

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
3A11	1	0	2 lb	CC1201_2 lb	NSL-2-1	0.0009043 g	0.091 g	0.0022576 g	A
3A11	2	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0035957 g	0.091 g	0.0022576 g	A
3A11	3	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0382957 g	0.091 g	0.0022576 g	A
3A11	4	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0618957 g	0.091 g	0.0022576 g	A
3A11	5	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0457957 g	0.091 g	0.0022576 g	A
3A11	6	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0594957 g	0.091 g	0.0022576 g	A
3A11	7	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0485957 g	0.091 g	0.0022576 g	A
3A11	8	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0483957 g	0.091 g	0.0022576 g	A
3A11	9	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0523957 g	0.091 g	0.0022576 g	A
3A11	10	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0374957 g	0.091 g	0.0022576 g	A
3A11	11	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0505957 g	0.091 g	0.0022576 g	A
3A11	12	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0564957 g	0.091 g	0.0022576 g	A
3A11	13	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0457957 g	0.091 g	0.0022576 g	A
3A11	14	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0306957 g	0.091 g	0.0022576 g	A
3A11	15	0	1 lb	CC1201_1 lb	NSL-1-1	-0.0174727 g	0.07 g	0.0004510 g	A
3A11	16	0	1 lb	CC1201_1 lb	NSL-1-1	-0.0390727 g	0.07 g	0.0004510 g	A
3A11	17	0	8 oz	CC1201_8 oz	NSL-8-1	-0.0040671 g	0.045 g	0.0003594 g	A
3A11	18	0	4 oz	CC1201_8 oz	NSL-Z	-0.0012040 g	0.023 g	0.0003420 g	A
3A11	19	0	2 oz	AT106_0.05 lb	NSL-Y	-0.0037588 g	0.011 g	0.0000390 g	A
3A11	20	0	1 oz	AT106_0.05 lb	2A9-1oz	-0.0049621 g	0.0054 g	0.0003636 g	A
3A11	21	0	0.5 oz	AT106_0.05 lb	2A9-1.2oz	-0.0015891 g	0.0028 g	0.0003635 g	A
3A11	22	0	0.25 oz	AT106_0.05 lb	2A9-1.4oz	-0.0005675 g	0.0017 g	0.0000237 g	A
3A11	23	0	0.125 oz	CCE6_0.01 lb	2A9-1.8oz	-0.0011715 g	0.0013 g	0.0000092 g	A
3A11	24	0	0.0625 oz	CCE6_0.01 lb	2A9-1.16oz	0.0007116 g	0.0011 g	0.0000092 g	A
3A11	25	0	0.0625 oz*	CCE6_0.01 lb	2A9-1.16oz	0.0003180 g	0.0011 g	0.0000092 g	A
3A11	26	0	0.3 lb	CC1201_8 oz	NSL-WK1	-0.0071100 g	0.027 g	0.0003482 g	A

**Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error**

**The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.**

**"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.**

Agency ID: 15  
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 Area 15

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 Observer: CEO

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
3A11	27	0	0.2 lb	AT106_0.2 lb	NSL-WK2	-0.0047091 g	0.018 g	0.0000666 g	A
3A11	28	0	0.1 lb	AT106_0.2 lb	NSL-WK3	-0.0063193 g	0.0091 g	0.0000606 g	A
3A11	29	0	0.05 lb	AT106_0.05 lb	NSL-WK4	0.0000481 g	0.0045 g	0.0000311 g	A
3A11	30	0	0.03 lb	AT106_0.05 lb	NSL-WK5	-0.0009917 g	0.0027 g	0.0000221 g	A
3A11	31	0	0.02 lb	AT106_0.05 lb	NSL-WK6	0.0011034 g	0.0018 g	0.0000251 g	A
3A11	32	0	0.01 lb	CCE6_0.01 lb	NSL-WK7	0.0013097 g	0.0015 g	0.0000105 g	A
3A11	33	0	0.005 lb	CCE6_0.01 lb	NSL-WK8	0.0002760 g	0.0012 g	0.0000092 g	A
3A11	34	0	0.003 lb	CCE6_0.01 lb	NSL-WK9	-0.0003979 g	0.00099 g	0.0000088 g	A
3A11	35	0	0.002 lb	CCE6_0.01 lb	NSL-WK10	0.0005885 g	0.00087 g	0.0000082 g	A
3A11	36	0	0.001 lb	CCE6_0.01 lb	NSL-WK11	-0.0005062 g	0.0007 g	0.0000081 g	A
3A11	37	0	0.001 lb*	CCE6_0.01 lb	NSL-WK11	0.0003752 g	0.0007 g	0.0000081 g	A
9-OPI-5	1	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0650957 g	0.091 g	0.0022576 g	A
9-OPI-5	2	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0532957 g	0.091 g	0.0022576 g	A
9-OPI-5	3	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0106957 g	0.091 g	0.0022576 g	A
9-OPI-5	4	0	1 lb	CC1201_1 lb	NSL-1-1	-0.0028727 g	0.07 g	0.0004510 g	A
9-OPI-5	5	0	8 oz	CC1201_8 oz	NSL-8-1	-0.0108671 g	0.045 g	0.0003594 g	A
9-OPI-5	6	0	4 oz	CC1201_8 oz	NSL-Z	0.0017960 g	0.023 g	0.0003420 g	A
9-OPI-5	7	0	2 oz	AT106_0.05 lb	NSL-Y	-0.0006228 g	0.011 g	0.0000390 g	A
9-OPI-5	8	0	1 oz	AT106_0.05 lb	2A9-1oz	0.0003629 g	0.0054 g	0.0003636 g	A
9-OPI-5	9	0	0.5 oz	AT106_0.05 lb	2A9-1.2oz	0.0014029 g	0.0028 g	0.0003635 g	A
9-OPI-5	10	0	0.25 oz	AT106_0.05 lb	2A9-1.4oz	0.0002365 g	0.0017 g	0.0000237 g	A
9-OPI-5	11	0	0.125 oz	AT106_0.05 lb	2A9-1.8oz	-0.0007890 g	0.0013 g	0.0000184 g	A
9-OPI-5	12	0	0.0625 oz	AT106_0.05 lb	2A9-1.16oz	-0.0002161 g	0.0011 g	0.0000183 g	A
9-OPI-5	13	0	0.0625 oz*	AT106_0.05 lb	2A9-1.16oz	-0.0000127 g	0.0011 g	0.0000183 g	A
K5	1	0	2 kg	CC10000S_2kg	2kgd	0.0024226 g	0.04 g	0.0010723 g	A
K6	1	0	2 kg	CC10000S_2kg	2kgd	0.0065226 g	0.04 g	0.0010723 g	A
N-99-C	1	0	0.2 lb	AT106_0.2 lb	NSL-WK2	0.0087489 g	0.018 g	0.0000666 g	A
N-99-C	2	0	0.2 lb*	AT106_0.2 lb	NSL-WK2	0.0081369 g	0.018 g	0.0000666 g	A
N-99-C	3	0	0.1 lb	AT106_0.2 lb	NSL-WK3	0.0037697 g	0.0091 g	0.0000606 g	A
N-99-C	4	0	0.05 lb	AT106_0.05 lb	NSL-WK4	0.0012341 g	0.0045 g	0.0000311 g	A
N-99-C	5	0	0.02 lb	AT106_0.05 lb	NSL-WK6	-0.0003876 g	0.0018 g	0.0000251 g	A
N-99-C	6	0	0.02 lb*	AT106_0.05 lb	NSL-WK6	0.0002144 g	0.0018 g	0.0000251 g	A
N-99-C	7	0	0.01 lb	CCE6_0.01 lb	NSL-WK7	-0.0001486 g	0.0015 g	0.0000105 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
N-99-C	8	0	0.005 lb	CCE6_0.01 lb	NSL-WK8	0.0004665 g	0.0012 g	0.0000092 g	A
N-99-C	9	0	0.002 lb	CCE6_0.01 lb	NSL-WK10	0.0000733 g	0.00087 g	0.0000082 g	A
N-99-C	10	0	0.002 lb*	CCE6_0.01 lb	NSL-WK10	0.0001183 g	0.00087 g	0.0000082 g	A
N-99-C	11	0	0.001 lb	CCE6_0.01 lb	NSL-WK11	0.0000067 g	0.0007 g	0.0000081 g	A
WM25-100	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8768098 g	1.1 g	0.0343044 g	A
WM25-101	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4068098 g	1.1 g	0.0343044 g	A
WM25-102	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8168098 g	1.1 g	0.0343044 g	A
WM25-103	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5118098 g	1.1 g	0.0343044 g	A
WM25-28	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.0731902 g	1.1 g	0.0343044 g	A
WM25-38	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.0731902 g	1.1 g	0.0343044 g	A
WM25-45	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.3368098 g	1.1 g	0.0343044 g	A
WM25-55	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.0318098 g	1.1 g	0.0343044 g	A
WM25-56	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.8931902 g	1.1 g	0.0343044 g	A
WM25-57	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6031902 g	1.1 g	0.0343044 g	A
WM25-58	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6981902 g	1.1 g	0.0343044 g	A
WM25-59	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.8131902 g	1.1 g	0.0343044 g	A
WM25-75	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.2231902 g	1.1 g	0.0343044 g	A
WM25-76	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.7331902 g	1.1 g	0.0343044 g	A
WM25-77	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.0518098 g	1.1 g	0.0343044 g	A
WM25-78	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.8081902 g	1.1 g	0.0343044 g	A
WM25-79	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6681902 g	1.1 g	0.0343044 g	A
WM25-96	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.6418098 g	1.1 g	0.0343044 g	A
WM25-97	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1168098 g	1.1 g	0.0343044 g	R
WM25-97	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.3918098 g	1.1 g	0.0343044 g	A
WM25-98	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8118098 g	1.1 g	0.0343044 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 15

Agency: Food Safety & Consumer Protection  
Area 15

Form No.: NE03LF12-R00

NE Cert No: 20120043

Date: 3/29/2012

P.O. No:

Submitted By: Kent McConnell

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Serial #: 05-40547-01  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	53.6 °F	0.999497	0 in3

**Test Measure Information**

Water Temperature: 53.6 °F  
Water Density: 0.999497 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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**SOP 19 - Volume Transfer Test Results**

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Serial #: 05-40547-01  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	50.8 °F	0.999659	0 in3

**Test Measure Information**

Water Temperature: 50.8 °F  
Water Density: 0.999659 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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Date: 3/29/2012

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Submitted By: Kent McConnell

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Serial #: 05-40547-02  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	55.5 °F	0.999369	0 in3

**Test Measure Information**

Water Temperature: 55.5 °F  
Water Density: 0.999369 g/cm<sup>3</sup>  
Scale Reading: -0.25 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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Serial #: 05-40547-02  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	51.7 °F	0.999610	0 in3

**Test Measure Information**

Water Temperature: 51.7 °F  
Water Density: 0.999610 g/cm<sup>3</sup>  
Scale Reading: -0.25 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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**SOP 19 - Volume Transfer Test Results**

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Serial #: 05-40547-03  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	53.2 °F	0.999522	0 in3

**Test Measure Information**

Water Temperature: 53.2 °F  
Water Density: 0.999522 g/cm<sup>3</sup>  
Scale Reading: -0.25 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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Serial #: 05-40547-03  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	51.6 °F	0.999616	0 in3

**Test Measure Information**

Water Temperature: 51.6 °F  
Water Density: 0.999616 g/cm<sup>3</sup>  
Scale Reading: -0.25 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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Serial #: 39423-A  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	51.1 °F	0.999643	0 in3

**Test Measure Information**

Water Temperature: 51.1 °F  
Water Density: 0.999643 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*



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Serial #: 39423-A  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	50.9 °F	0.999653	0 in3

**Test Measure Information**

Water Temperature: 50.9 °F  
Water Density: 0.999653 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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Serial #: 39423-D  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	54.8 °F	0.999418	0 in3

**Test Measure Information**

Water Temperature: 54.8 °F  
Water Density: 0.999418 g/cm<sup>3</sup>  
Scale Reading: 0.2 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9982 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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**SOP 19 - Volume Transfer Test Results**

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Serial #: 39423-D  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	51.6 °F	0.999616	0 in3

**Test Measure Information**

Water Temperature: 51.6 °F  
Water Density: 0.999616 g/cm<sup>3</sup>  
Scale Reading: 0.2 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9982 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

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**SOP 19 - Volume Transfer Test Results**

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Serial #: 39423-D  
Retest #: 2  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	51.6 °F	0.999616	0 in3

**Test Measure Information**

Water Temperature: 51.6 °F  
Water Density: 0.999616 g/cm<sup>3</sup>  
Scale Reading: -0.25 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*