



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: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

Date: 2/23/2011  
Agency ID: 25  
NE Cert No: 20110027  
P.O. No:

Submitted By: Doug Moore

Electronic Copy Page 1

Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
5 gal	0233	1	VL	A
5 gal	0234	1	VL	A
5 gal	0235	1	VL	A
4 kg	4	1	4	A
5 gal	43872	1	VL	A
5 gal	4393-5-H	1	VL	A
2 lb	7A1	1	F	A
2 lb	7A1	2	F	A
2 lb	7A1	3	F	A
2 lb	7A1	4	F	A
2 lb	7A1	5	F	A
2 lb	7A1	6	F	A
2 lb	7A1	7	F	A
2 lb	7A1	8	F	A
2 lb	7A1	9	F	A
2 lb	7A1	10	F	A
2 lb	7A1	11	F	A
2 lb	7A1	12	F	A
2 lb	7A1	13	F	A
2 lb	7A1	14	F	A
1 lb	7A1	15	F	A
1 lb	7A1	16	F	A
8 oz	7A1	17	F	A
4 oz	7A1	18	F	A
2 oz	7A1	19	F	A

Department of Agriculture, 301 Centennial Mall South  
Web Site: [www.agr.ne.gov](http://www.agr.ne.gov)

Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
FAX: (402) 471-6876

Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
(402) 471-2176  
FAX: (402) 471-0091

Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
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FAX: (402) 471-6893

Bureau of Dairies & Foods  
P.O. Box 95064  
Lincoln, NE 68509-5064  
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Bureau of Plant Industry  
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Weights and Measures  
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(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>
1 oz	7A1	20	F	A
0.5 oz	7A1	21	F	A
0.25 oz	7A1	22	F	A
0.125 oz	7A1	23	F	A
0.0625 oz	7A1	24	F	A
0.0625 oz*	7A1	25	F	A
0.3 lb	7A1	26	F	A
0.2 lb	7A1	27	F	A
0.1 lb	7A1	28	F	A
0.05 lb	7A1	29	F	A
0.03 lb	7A1	30	F	A
0.02 lb	7A1	31	F	A
0.01 lb	7A1	32	F	A
0.005 lb	7A1	33	F	A
0.003 lb	7A1	34	F	A
0.002 lb	7A1	35	F	A
0.001 lb	7A1	36	F	A
0.001 lb*	7A1	37	F	A
1000 lb	A-2	1	F	A
1000 lb	A-5	1	F	A
1000 lb	B-1	1	F	A
1000 lb	BA-14	1	F	A
25 lb	D32	1	F	A
25 lb	D33	1	F	A
25 lb	D35	1	F	A
25 lb	D36	1	F	A
25 lb	D37	1	F	A
25 lb	D39	1	F	A
2 kg	K3	1	F	A
1000 lb	OA10	1	F	A
1000 lb	OA13	1	F	A
1000 lb	OA14	1	F	A
1000 lb	OA16	1	F	A
1000 lb	OA17	1	F	A
1000 lb	OA18	1	F	A
1000 lb	OA19	1	F	A

Submitted By: Doug Moore

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
1000 lb	OA3	1	F	A
1000 lb	OA4	1	F	A
1000 lb	OA5	1	F	A
1000 lb	OA6	1	F	A
1000 lb	OA8	1	F	A
1000 lb	OPI-A1	1	F	A
1000 lb	OPI-A11	1	F	A
1000 lb	OPI-A12	1	F	A
1000 lb	OPI-A2	1	F	A
1000 lb	OPI-A7	1	F	A
50 lb	OPI-C17	1	F	A
50 lb	OPI-C23	1	F	A
50 lb	OPI-C24	1	F	A
50 lb	OPI-C32	1	F	A
50 lb	OPI-C36	1	F	A
50 lb	OPI-C39	1	F	A
50 lb	OPI-C49	1	F	A
50 lb	OPI-C7	1	F	A
50 lb	OPI-C8	1	F	A
50 lb	OPI-C9	1	F	A
50 lb	SF-C21	1	F	A
25 lb	WM25-33	1	F	A
25 lb	WM25-39	1	F	A
25 lb	WM25-48	1	F	A
25 lb	WM25-49	1	F	A
25 lb	WM25-80	1	F	A
25 lb	WM25-81	1	F	A
25 lb	WM25-82	1	F	A
25 lb	WM25-83	1	F	A
25 lb	WM25-84	1	F	A
25 lb	WM25-85	1	F	A
25 lb	WM25-86	1	F	A
25 lb	WM25-87	1	F	A
1 kg	WM-2-89-6	1	F	A
500 g	WM-2-89-6	2	F	A
200 g	WM-2-89-6	3	F	A
200 g*	WM-2-89-6	4	F	A
100 g	WM-2-89-6	5	F	A
50 g	WM-2-89-6	6	F	A
20 g	WM-2-89-6	7	F	A
20 g*	WM-2-89-6	8	F	A
10 g	WM-2-89-6	9	F	A

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
5 g	WM-2-89-6	10	F	A
2 g	WM-2-89-6	11	F	A
2 g*	WM-2-89-6	12	F	A
1 g	WM-2-89-6	13	F	A
500 mg	WM-2-89-6	14	F	A
200 mg	WM-2-89-6	15	F	A
200 mg*	WM-2-89-6	16	F	A
100 mg	WM-2-89-6	17	F	A
50 lb	WM-41	1	F	A
50 lb	WM50-40	1	F	A
50 lb	WM50-70	1	F	A
10 lb	WM-6C98	1	F	A
5 lb	WM-6C98	2	F	A
2 lb	WM-6C98	3	F	A
2 lb*	WM-6C98	4	F	A
1 lb	WM-6C98	5	F	A
0.5 lb	WM-6C98	6	F	A
0.2 lb	WM-6C98	7	F	A
0.2 lb*	WM-6C98	8	F	A
0.1 lb	WM-6C98	9	F	A
0.05 lb	WM-6C98	10	F	A
0.02 lb	WM-6C98	11	F	A
0.02 lb*	WM-6C98	12	F	A
0.01 lb	WM-6C98	13	F	A
0.005 lb	WM-6C98	14	F	A
0.002 lb	WM-6C98	15	F	A
0.002 lb*	WM-6C98	16	F	A
0.001 lb	WM-6C98	17	F	A
50 lb	WM-C-A13	1	F	A
50 lb	WM-C-A14	1	F	A
50 lb	WM-C-A15	1	F	A
50 lb	WM-C-A17	1	F	A
50 lb	WM-C-A18	1	F	A
50 lb	WM-C-A20	1	F	A
300 g	WM-G89-8	1	4	A
200 g	WM-G89-8	2	4	A
100 g	WM-G89-8	3	4	A
50 g	WM-G89-8	4	4	A
30 g	WM-G89-8	5	4	A
20 g	WM-G89-8	6	4	A
10 g	WM-G89-8	7	4	A
5 g	WM-G89-8	8	4	A

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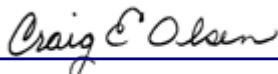
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Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
3 g	WM-G89-8	9	4	A
2 g	WM-G89-8	10	4	A
1 g	WM-G89-8	11	4	A
500 mg	WM-G89-8	12	4	A
200 mg	WM-G89-8	13	4	A
200 mg*	WM-G89-8	14	4	A
100 mg	WM-G89-8	15	4	A
50 mg	WM-G89-8	16	4	A
20 mg	WM-G89-8	17	4	A
20 mg*	WM-G89-8	18	4	A
10 mg	WM-G89-8	19	4	A
5 mg	WM-G89-8	20	4	A
2 mg	WM-G89-8	21	4	A
2 mg*	WM-G89-8	22	4	A
1 mg	WM-G89-8	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: 25  
Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

NE Cert No: 20110027  
Date: 2/23/2011  
P.O. No:  
Observer: CEO

Form No.: NE04LF7-R00

Submitted By: Doug Moore

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Page 1 of 2

Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
300 g	WM-G89-8	1	300.00373029	300.00281178	0.00014956	CC1201 / 1 kg	300gd
200 g	WM-G89-8	2	200.00417776	200.00356541	0.00014876	CC1201 / 1 kg	200gd
100 g	WM-G89-8	3	100.00084945	100.00054327	0.00006764	AT106_100G	100grl
50 g	WM-G89-8	4	50.00076171	50.00060863	0.00004616	AT106_100G	50grl
30 g	WM-G89-8	5	30.00055562	30.00046377	0.00003999	AT106_100G	30grl
20 g	WM-G89-8	6	20.00053586	20.00047463	0.00003508	AT106_100G	20grl
10 g	WM-G89-8	7	10.00019820	10.00016758	0.00001787	AT106_10G	10grl
5 g	WM-G89-8	8	5.00032960	5.00031429	0.00000721	CCE6_5G	5grl
3 g	WM-G89-8	9	3.00026480	3.00025561	0.00000632	CCE6_5G	3grl
2 g	WM-G89-8	10	2.00004781	2.00004169	0.00000632	CCE6_5G	2grl
1 g	WM-G89-8	11	1.00003748	1.00003442	0.00000607	CCE6_5G	1grl
500 mg	WM-G89-8	12	0.50000956	0.50000803	0.00000562	CCE6_5G	500mgrl
200 mg	WM-G89-8	13	0.19999377	0.19999315	0.00000545	CCE6_5G	200mgrl
200 mg*	WM-G89-8	14	0.19997112	0.19997051	0.00000545	CCE6_5G	200mgrl
100 mg	WM-G89-8	15	0.09996335	0.09996304	0.00000542	CCE6_5G	100mgrl
50 mg	WM-G89-8	16	0.05000132	0.05000116	0.00000541	CCE6_5G	50mgrl
20 mg	WM-G89-8	17	0.02003761	0.02003171	0.00000540	CCE6_5G	20mgrl
20 mg*	WM-G89-8	18	0.02002856	0.02002266	0.00000540	CCE6_5G	20mgrl
10 mg	WM-G89-8	19	0.00998981	0.00998687	0.00000540	CCE6_5G	10mgrl
5 mg	WM-G89-8	20	0.00500124	0.00499976	0.00000540	CCE6_5G	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  
Lincoln, NE 68524  
(402) 471-2087

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

Agency ID: 25  
Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
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NE Cert No: 20110027  
Date: 2/23/2011  
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-G89-8	21	0.00200205	0.00200146	0.00000540	CCE6_5G	2mgrl
2 mg*	WM-G89-8	22	0.00200275	0.00200216	0.00000540	CCE6_5G	2mgrl
1 mg	WM-G89-8	23	0.00100996	0.00100966	0.00000540	CCE6_5G	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: 25  
Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

NE Cert No: 20110027  
Date: 2/23/2011  
P.O. No:  
Observer: CEO

Submitted By: Doug Moore

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
4	1	0	4 kg	CC10000S-5 kg	4kg	0.0529082 g	0.08 g	0.0007766 g	A
7A1	1	0	2 lb	CC1201-lb	NSL-2-1	-0.0150181 g	0.091 g	0.0005150 g	A
7A1	2	0	2 lb	CC1201-lb	NSL-2-1	-0.0265181 g	0.091 g	0.0005150 g	A
7A1	3	0	2 lb	CC1201-lb	NSL-2-1	-0.0270181 g	0.091 g	0.0005150 g	A
7A1	4	0	2 lb	CC1201-lb	NSL-2-1	0.0034819 g	0.091 g	0.0005150 g	A
7A1	5	0	2 lb	CC1201-lb	NSL-2-1	-0.0333181 g	0.091 g	0.0005150 g	A
7A1	6	0	2 lb	CC1201-lb	NSL-2-1	-0.0443181 g	0.091 g	0.0005150 g	A
7A1	7	0	2 lb	CC1201-lb	NSL-2-1	-0.0426181 g	0.091 g	0.0005150 g	A
7A1	8	0	2 lb	CC1201-lb	NSL-2-1	-0.0534181 g	0.091 g	0.0005150 g	A
7A1	9	0	2 lb	CC1201-lb	NSL-2-1	-0.0073181 g	0.091 g	0.0005150 g	A
7A1	10	0	2 lb	CC1201-lb	NSL-2-1	-0.0028181 g	0.091 g	0.0005150 g	A
7A1	11	0	2 lb	CC1201-lb	NSL-2-1	-0.0377181 g	0.091 g	0.0005150 g	A
7A1	12	0	2 lb	CC1201-lb	NSL-2-1	-0.0058181 g	0.091 g	0.0005150 g	A
7A1	13	0	2 lb	CC1201-lb	NSL-2-1	-0.0484181 g	0.091 g	0.0005150 g	A
7A1	14	0	2 lb	CC1201-lb	NSL-2-1	-0.0536181 g	0.091 g	0.0005150 g	A
7A1	15	0	1 lb	CC1201-lb	NSL-1-1	-0.0076241 g	0.07 g	0.0004635 g	A
7A1	16	0	1 lb	CC1201-lb	NSL-1-1	-0.0051241 g	0.07 g	0.0004635 g	A
7A1	17	0	8 oz	CC1201-lb	NSL-8-1	-0.0078265 g	0.045 g	0.0004521 g	A
7A1	18	0	4 oz	CC1201-lb	NSL-Z	-0.0051040 g	0.023 g	0.0004384 g	A
7A1	19	0	2 oz	AT106-lb	NSL-Y	0.0042042 g	0.011 g	0.0000536 g	A
7A1	20	0	1 oz	AT106-lb	2A9-1oz	0.0018109 g	0.0054 g	0.0003655 g	A
7A1	21	0	0.5 oz	AT106-lb	2A9-1.2oz	0.0006989 g	0.0028 g	0.0003654 g	A
7A1	22	0	0.25 oz	AT106-lb	2A9-1.4oz	-0.0000045 g	0.0017 g	0.0000437 g	A
7A1	23	0	0.125 oz	UMT5/6-lb	2A9-1.8oz	-0.0006337 g	0.0013 g	0.0000085 g	A
7A1	24	0	0.0625 oz	UMT5/6-lb	2A9-1.16oz	0.0003451 g	0.0011 g	0.0000084 g	A
7A1	25	0	0.0625 oz*	UMT5/6-lb	2A9-1.16oz	-0.0001965 g	0.0011 g	0.0000084 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.**



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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
7A1	26	0	0.3 lb	CC1201-lb	NSL-WK1	-0.0006100 g	0.027 g	0.0004432 g	A
7A1	27	0	0.2 lb	AT106-lb	NSL-WK2	0.0013199 g	0.018 g	0.0000569 g	A
7A1	28	0	0.1 lb	AT106-lb	NSL-WK3	-0.0046723 g	0.0091 g	0.0000498 g	A
7A1	29	0	0.05 lb	AT106-lb	NSL-WK4	-0.0008349 g	0.0045 g	0.0000481 g	A
7A1	30	0	0.03 lb	AT106-lb	NSL-WK5	-0.0019127 g	0.0027 g	0.0000429 g	A
7A1	31	0	0.02 lb	AT106-lb	NSL-WK6	-0.0009446 g	0.0018 g	0.0000445 g	A
7A1	32	0	0.01 lb	UMT5/6-lb	NSL-WK7	0.0009444 g	0.0015 g	0.0000098 g	A
7A1	33	0	0.005 lb	UMT5/6-lb	NSL-WK8	0.0002307 g	0.0012 g	0.0000085 g	A
7A1	34	0	0.003 lb	UMT5/6-lb	NSL-WK9	-0.0003999 g	0.00099 g	0.0000081 g	A
7A1	35	0	0.002 lb	UMT5/6-lb	NSL-WK10	0.0003135 g	0.00087 g	0.0000074 g	A
7A1	36	0	0.001 lb	UMT5/6-lb	NSL-WK11	0.0002297 g	0.0007 g	0.0000073 g	A
7A1	37	0	0.001 lb*	UMT5/6-lb	NSL-WK11	0.0002736 g	0.0007 g	0.0000073 g	A
A-2	1	0	1000 lb	KC500-1	C24	-21.4925817 g	45 g	3.0011243 g	A
A-5	1	0	1000 lb	KC500-1	C24	47.6074183 g	45 g	3.0011243 g	R
A-5	1	1	1000 lb	KC500-1	C24	6.8074183 g	45 g	3.0011243 g	A
B-1	1	0	1000 lb	KC500-1	C24	-9.1925817 g	45 g	3.0011243 g	A
BA-14	1	0	1000 lb	KC500-1	C24	-34.3925817 g	45 g	3.0011243 g	A
D32	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.9118098 g	1.1 g	0.0354518 g	A
D33	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.3568098 g	1.1 g	0.0354518 g	R
D33	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.5668098 g	1.1 g	0.0354518 g	A
D35	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1368098 g	1.1 g	0.0354518 g	R
D35	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.3868098 g	1.1 g	0.0354518 g	A
D36	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5418098 g	1.1 g	0.0354518 g	A
D37	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1168098 g	1.1 g	0.0354518 g	R
D37	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.2818098 g	1.1 g	0.0354518 g	A
D39	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.9968098 g	1.1 g	0.0354518 g	A
K3	1	0	2 kg	CC10000S-2 kg	2kgd	-0.0027774 g	0.2 g	0.0012239 g	A
OA10	1	0	1000 lb	KC500-1	C24	-40.4925817 g	45 g	3.0011243 g	A
OA10	1	1	1000 lb	KC500-1	C24	23.6074183 g	45 g	3.0011243 g	A
OA13	1	0	1000 lb	KC500-1	C24	22.3074183 g	45 g	3.0011243 g	A
OA14	1	0	1000 lb	KC500-1	C24	34.7074183 g	45 g	3.0011243 g	A
OA16	1	0	1000 lb	KC500-1	C24	-35.1925817 g	45 g	3.0011243 g	A
OA17	1	0	1000 lb	KC500-1	C24	17.1074183 g	45 g	3.0011243 g	A

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Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
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NE Cert No: 20110027

Date: 2/23/2011

P.O. No:

Observer: CEO

Submitted By: Doug Moore

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
OA18	1	0	1000 lb	KC500-1	C24	35.9074183 g	45 g	3.0011243 g	A
OA19	1	0	1000 lb	KC500-1	C24	-36.5925817 g	45 g	3.0011243 g	A
OA3	1	0	1000 lb	KC500-1	C24	-23.9925817 g	45 g	3.0011243 g	A
OA4	1	0	1000 lb	KC500-1	C24	-5.7925817 g	45 g	3.0011243 g	A
OA5	1	0	1000 lb	KC500-1	C24	-23.1925817 g	45 g	3.0011243 g	A
OA6	1	0	1000 lb	KC500-1	C24	1.6074183 g	45 g	3.0011243 g	A
OA8	1	0	1000 lb	KC500-1	C24	-1.1925817 g	45 g	3.0011243 g	A
OPI-A1	1	0	1000 lb	KC500-1	C24	-4.5925817 g	45 g	3.0011243 g	A
OPI-A11	1	0	1000 lb	KC500-1	C24	-29.8925817 g	45 g	3.0011243 g	A
OPI-A12	1	0	1000 lb	KC500-1	C24	-24.5925817 g	45 g	3.0011243 g	A
OPI-A2	1	0	1000 lb	KC500-1	C24	-22.8925817 g	45 g	3.0011243 g	A
OPI-A7	1	0	1000 lb	KC500-1	C24	-25.6925817 g	45 g	3.0011243 g	A
OPI-C17	1	0	50 lb	KA30-3_50lb	NSL-50-1	0.2351509 g	2.3 g	0.0537009 g	A
OPI-C23	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.0898491 g	2.3 g	0.0537009 g	R
OPI-C23	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.2948491 g	2.3 g	0.0537009 g	A
OPI-C24	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.2298491 g	2.3 g	0.0537009 g	A
OPI-C32	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.2898491 g	2.3 g	0.0537009 g	A
OPI-C36	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.5398491 g	2.3 g	0.0537009 g	A
OPI-C39	1	0	50 lb	KA30-3_50lb	NSL-50-1	-2.2998491 g	2.3 g	0.0537009 g	A
OPI-C39	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.4348491 g	2.3 g	0.0537009 g	A
OPI-C49	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.9998491 g	2.3 g	0.0537009 g	A
OPI-C7	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.9848491 g	2.3 g	0.0537009 g	A
OPI-C8	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.6548491 g	2.3 g	0.0537009 g	A
OPI-C9	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.8848491 g	2.3 g	0.0537009 g	A
SF-C21	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.0048491 g	2.3 g	0.0537009 g	A
WM25-33	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.1618098 g	1.1 g	0.0354518 g	A
WM25-39	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.5731902 g	1.1 g	0.0354518 g	A
WM25-48	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.0381902 g	1.1 g	0.0354518 g	A
WM25-49	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.2218098 g	1.1 g	0.0354518 g	A
WM25-80	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.0568098 g	1.1 g	0.0354518 g	A
WM25-81	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.0118098 g	1.1 g	0.0354518 g	A
WM25-82	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1981902 g	1.1 g	0.0354518 g	A
WM25-83	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5818098 g	1.1 g	0.0354518 g	A

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
WM25-84	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1381902 g	1.1 g	0.0354518 g	A
WM25-85	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4868098 g	1.1 g	0.0354518 g	A
WM25-86	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.0018098 g	1.1 g	0.0354518 g	A
WM25-87	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.6068098 g	1.1 g	0.0354518 g	A
WM-2-89-6	1	0	1 kg	CC1201-kg	1kgd	0.0450716 g	0.1 g	0.0002912 g	A
WM-2-89-6	2	0	500 g	CC1201-kg	500gd	0.0491294 g	0.07 g	0.0002856 g	A
WM-2-89-6	3	0	200 g	CC1201-kg	200gd	0.0043214 g	0.04 g	0.0002840 g	A
WM-2-89-6	4	0	200 g*	CC1201-kg	200gd	0.0007214 g	0.04 g	0.0002840 g	A
WM-2-89-6	5	0	100 g	AT106-gm	100gv	0.0021915 g	0.02 g	0.0000329 g	A
WM-2-89-6	6	0	50 g	AT106-gm	50gv	-0.0015162 g	0.01 g	0.0000290 g	A
WM-2-89-6	7	0	20 g	AT106-gm	20gv	0.0031266 g	0.004 g	0.0000277 g	A
WM-2-89-6	8	0	20 g*	AT106-gm	20gv	0.0010536 g	0.004 g	0.0000277 g	A
WM-2-89-6	9	0	10 g	AT106-gm	10gv	0.0007812 g	0.002 g	0.0000277 g	A
WM-2-89-6	10	0	5 g	UMT5/6-gm	5gv	-0.0008817 g	0.0015 g	0.0000050 g	A
WM-2-89-6	11	0	2 g	UMT5/6-gm	2gv	0.0002058 g	0.0011 g	0.0000040 g	A
WM-2-89-6	12	0	2 g*	UMT5/6-gm	2gv	0.0000022 g	0.0011 g	0.0000040 g	A
WM-2-89-6	13	0	1 g	UMT5/6-gm	1gv	0.0003942 g	0.0009 g	0.0000039 g	A
WM-2-89-6	14	0	500 mg	UMT5/6-gm	500mgv	0.0003383 g	0.00072 g	0.0000038 g	A
WM-2-89-6	15	0	200 mg	UMT5/6-gm	200mgv	0.0003466 g	0.00054 g	0.0000038 g	A
WM-2-89-6	16	0	200 mg*	UMT5/6-gm	200mgv	0.0003391 g	0.00054 g	0.0000038 g	A
WM-2-89-6	17	0	100 mg	UMT5/6-gm	100mgv	0.0002483 g	0.00043 g	0.0000038 g	A
WM-41	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.2598491 g	2.3 g	0.0537009 g	R
WM-41	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.2598491 g	2.3 g	0.0537009 g	A
WM50-40	1	0	50 lb	KA30-3_50lb	NSL-50-1	-3.0648491 g	2.3 g	0.0537009 g	R
WM50-40	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.3298491 g	2.3 g	0.0537009 g	A
WM50-70	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.6998491 g	2.3 g	0.0537009 g	A
WM-6C98	1	0	10 lb	CC10000S-10 lb	NEBR-STD-10	0.1603326 g	0.45 g	0.0018514 g	A
WM-6C98	2	0	5 lb	CC10000S-5 lb	NSL-5-1	0.0757703 g	0.23 g	0.0017510 g	A
WM-6C98	3	0	2 lb	CC1201-lb	NSL-2-1	0.0400819 g	0.091 g	0.0005150 g	A
WM-6C98	4	0	2 lb*	CC1201-lb	NSL-2-1	0.0479819 g	0.091 g	0.0005150 g	A
WM-6C98	5	0	1 lb	CC1201-lb	NSL-1-1	0.0295759 g	0.07 g	0.0004635 g	A
WM-6C98	6	0	0.5 lb	CC1201-lb	NSL-8-1	0.0276735 g	0.045 g	0.0004521 g	A
WM-6C98	7	0	0.2 lb	AT106-lb	NSL-WK2	0.0085299 g	0.018 g	0.0000569 g	A

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 Observer: CEO

Submitted By: Doug Moore

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
WM-6C98	8	0	0.2 lb*	AT106-lb	NSL-WK2	0.0088539 g	0.018 g	0.0000569 g	A
WM-6C98	9	0	0.1 lb	AT106-lb	NSL-WK3	0.0043397 g	0.0091 g	0.0000498 g	A
WM-6C98	10	0	0.05 lb	AT106-lb	NSL-WK4	0.0022541 g	0.0045 g	0.0000481 g	A
WM-6C98	11	0	0.02 lb	AT106-lb	NSL-WK6	0.0007034 g	0.0018 g	0.0000445 g	A
WM-6C98	12	0	0.02 lb*	AT106-lb	NSL-WK6	0.0007904 g	0.0018 g	0.0000445 g	A
WM-6C98	13	0	0.01 lb	UMT5/6-lb	NSL-WK7	0.0007546 g	0.0015 g	0.0000098 g	A
WM-6C98	14	0	0.005 lb	UMT5/6-lb	NSL-WK8	0.0004636 g	0.0012 g	0.0000085 g	A
WM-6C98	15	0	0.002 lb	UMT5/6-lb	NSL-WK10	-0.0000537 g	0.00087 g	0.0000074 g	A
WM-6C98	16	0	0.002 lb*	UMT5/6-lb	NSL-WK10	0.0003838 g	0.00087 g	0.0000074 g	A
WM-6C98	17	0	0.001 lb	UMT5/6-lb	NSL-WK11	0.0001177 g	0.0007 g	0.0000073 g	A
WM-C-A13	1	0	50 lb	KA30-3_50lb	NSL-50-1	0.4251509 g	2.3 g	0.0537009 g	A
WM-C-A14	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.9298491 g	2.3 g	0.0537009 g	A
WM-C-A15	1	0	50 lb	KA30-3_50lb	NSL-50-1	-1.0548491 g	2.3 g	0.0537009 g	A
WM-C-A17	1	0	50 lb	KA30-3_50lb	NSL-50-1	-0.6298491 g	2.3 g	0.0537009 g	A
WM-C-A18	1	0	50 lb	KA30-3_50lb	NSL-50-1	-2.2248491 g	2.3 g	0.0537009 g	A
WM-C-A18	1	1	50 lb	KA30-3_50lb	NSL-50-1	-0.0198491 g	2.3 g	0.0537009 g	A
WM-C-A20	1	0	50 lb	KA30-3_50lb	NSL-50-1	-2.0348491 g	2.3 g	0.0537009 g	A

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

**SOP 19 - Volume Transfer Test Results**

Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

Form No.: NE03LF12-R00

NE Cert No: 20110027

Date: 2/23/2011

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Submitted By: Doug Moore

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Serial #: 0233  
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	46.9 °F	0.999831	0 in3

**Test Measure Information**

Water Temperature: 46.9 °F  
Water Density: 0.999831 g/cm<sup>3</sup>  
Scale Reading: -1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0034 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.  
Accepted/Rejected: R

Nebraska Standards Laboratory  
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Serial #: 0233  
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	46.9 °F	0.999831	0 in3

**Test Measure Information**

Water Temperature: 46.9 °F  
Water Density: 0.999831 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

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Serial #: 0233  
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	44 °F	0.999916	0 in3

**Test Measure Information**

Water Temperature: 44 °F  
Water Density: 0.999916 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

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Serial #: 0234  
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	44.2 °F	0.999911	0 in3

**Test Measure Information**

Water Temperature: 44.2 °F  
Water Density: 0.999911 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



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Serial #: 0234  
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	44 °F	0.999916	0 in3

**Test Measure Information**

Water Temperature: 44 °F  
Water Density: 0.999916 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

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Serial #: 0235  
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	47.5 °F	0.999808	0 in3

**Test Measure Information**

Water Temperature: 47.5 °F  
Water Density: 0.999808 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

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Serial #: 0235  
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	44.3 °F	0.999909	0 in3

**Test Measure Information**

Water Temperature: 44.3 °F  
Water Density: 0.999909 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

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Serial #: 43872  
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	47.6 °F	0.999805	0 in3

**Test Measure Information**

Water Temperature: 47.6 °F  
Water Density: 0.999805 g/cm<sup>3</sup>  
Scale Reading: 0 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9991 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.  
Accepted/Rejected: A

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

**SOP 19 - Volume Transfer Test Results**

Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

Form No.: NE03LF12-R00

NE Cert No: 20110027

Date: 2/23/2011

P.O. No:

Submitted By: Doug Moore

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Serial #: 43872  
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	47.6 °F	0.999805	0 in3

**Test Measure Information**

Water Temperature: 47.6 °F  
Water Density: 0.999805 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

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

**SOP 19 - Volume Transfer Test Results**

Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
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Form No.: NE03LF12-R00

NE Cert No: 20110027

Date: 2/23/2011

P.O. No:

Submitted By: Doug Moore

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Serial #: 43872  
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	45.1 °F	0.999888	0 in3

**Test Measure Information**

Water Temperature: 45.1 °F  
Water Density: 0.999888 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

Nebraska Standards Laboratory  
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Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
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NE Cert No: 20110027

Date: 2/23/2011

P.O. No:

Submitted By: Doug Moore

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Serial #: 4393-5-H  
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	43.6 °F	0.999925	0 in3

**Test Measure Information**

Water Temperature: 43.6 °F  
Water Density: 0.999925 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

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

**SOP 19 - Volume Transfer Test Results**

Agency ID: 25

Agency: Dept of Ag. - Weights & Measures  
601 6th Street  
Gothenburg, NE 69138-

Form No.: NE03LF12-R00

NE Cert No: 20110027

Date: 2/23/2011

P.O. No:

Submitted By: Doug Moore

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Serial #: 4393-5-H  
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	43.8 °F	0.999921	0 in3

**Test Measure Information**

Water Temperature: 43.8 °F  
Water Density: 0.999921 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