



Receipt Date: July 16, 2018
 Cal. Date: July 18, 2018
 Report Date: July 18, 2018

Report No.: 339659
 Set Serial No.: 5J2X
 Barcode: 202552

Calibration Certificate

HAWKEYE STATE SCALE
 5040 BLAIRS FOREST WAY NE
 CEDAR RAPIDS, IA 52402
 Contact: DUANE SYTSMA
 Phone: 319-364-4173
 PO Number: NONE
 Procedure: NIST SOP 8
 Technician ID: 20

Item(s) Submitted: 30 lb Weight Kit
 Manufacturer: RICE LAKE
 Weight Type: I & II
 Equipment ID: None
 Condition: Good
 Temperature: 19.2 °C
 Pressure: 738.8 mmHg
 Relative Humidity: 46.8 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb	A	55	55	F	F	2.03	11
10 lb	B	54	54	F	F	2.03	11
5 lb		65.3	65.3	F	F	2.03	5.7
1 lb	A	8.3	8.3	F	F	2.03	1.2
1 lb	B	7.9	7.9	F	F	2.03	1.2
1 lb	C	16.0	16.0	F	F	2.03	1.2
1 lb	D	16.7	16.7	F	F	2.03	1.2
1 lb	E	16.4	16.4	F	F	2.03	1.2
4 oz		5.54	5.54	F	F	2.00	0.33
4 . oz		5.76	5.76	F	F	2.00	0.33
4 .. oz		6.00	6.00	F	F	2.00	0.33
1 oz		1.39	1.39	F	F	2.00	0.11
1 . oz		1.68	1.68	F	F	2.00	0.11
1 .. oz		1.65	1.65	F	F	2.00	0.11
1/2 oz		1.188	1.188	F	F	2.00	0.082
1/2 . oz		1.109	1.109	F	F	2.00	0.082
1/4 oz		0.627	0.627	F	F	2.00	0.051
1/4 . oz		0.509	0.509	F	F	2.00	0.051

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/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using 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), including coverage factors (k) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Anna Pierce

Metrologist

Reviewed by:

Pete Whebbe

Metrologist