



Weights & Measures Metrology Laboratory  
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*new case*

Receipt Date: December 19, 2011  
 Test Date: December 21, 2011  
 Report Date: December 21, 2011

State Test No.: 328673  
 Set Serial No.: None

*now SN# HSS 2P*

## Calibration Report

HAWKEYE STATE SCALE  
 5040 BLAIRS FOREST WAY NE  
 CEDAR RAPIDS, IOWA 52402  
 Contact: JOHN FISHBECK  
 Phone: 319-364-4173  
 PO Number: none  
 SOP: 12  
 Technician ID: 02

Item(s) Submitted: Satin ss 30 lb kit with fractions  
 Manufacturer: Rice Lake  
 ASTM E617 Type: I & II  
 Equipment ID#: None  
 Condition: Good  
 Temperature: 19.9°C  
 Pressure: 734. mmHg  
 Relative Humidity: 45. %

| Nominal Value | Serial No. | Correction (mg) |         | NIST HB105-1 Class |         | Unc. (mg) (k=2) |
|---------------|------------|-----------------|---------|--------------------|---------|-----------------|
|               |            | As Found        | As Left | As Found           | As Left |                 |
| 10 lb         | --         | 131.            | 131.    | F                  | F       | 13.             |
| 10 lb         | 2          | 25.             | 25.     | F                  | F       | 13.             |
| 5 lb          | --         | 91.             | 91.     | F                  | F       | 9.              |
| 1 lb          | --         | 24.             | 24.     | F                  | F       | 4.2             |
| 1 . lb        | --         | 26.             | 26.     | F                  | F       | 4.2             |
| 1 .. lb       | --         | 22.             | 22.     | F                  | F       | 4.2             |
| 1 :: lb       | --         | 24.             | 24.     | F                  | F       | 4.2             |
| 1 ::: lb      | --         | 32.             | 32.     | F                  | F       | 4.2             |
| 4 oz          | --         | 8.47            | 8.47    | F                  | F       | 0.061           |
| 4 . oz        | --         | 3.66            | 3.66    | F                  | F       | 0.061           |
| 4 .. oz       | --         | 6.05            | 6.05    | F                  | F       | 0.061           |
| 1 oz          | --         | 1.83            | 1.83    | F                  | F       | 0.06            |
| 1 . oz        | --         | 2.63            | 2.63    | F                  | F       | 0.06            |
| 1 .. oz       | --         | 0.85            | 0.85    | F                  | F       | 0.06            |
| 1/2 oz        | --         | 0.23            | 0.23    | F                  | F       | 0.06            |
| 1/2 . oz      | --         | 0.78            | 0.78    | F                  | F       | 0.06            |
| 1/4 oz        | --         | 0.28            | 0.28    | F                  | F       | 0.06            |
| 1/4 . oz      | --         | 0.83            | 0.83    | F                  | F       | 0.06            |

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 National Institute of Standards and Technology (NIST) through NIST Test Number 822/277846-09 and/or 822/263029-00. 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.

Bruce Adams  
  
 Metrologist

Reviewed by:  
 Nils Fleming  
  
 Approved Signatory

