

# Alpha Resources, Inc.

## Certificate Of Analysis

AR 869  
STAINLESS STEEL RING STANDARD  
LOT # 708917409

% CARBON  
MEAN = 0.019  
ONE SIGMA = 0.002  
TWO SIGMA = 0.004  
RANGE = 0.017 to 0.022

% SULFUR  
MEAN = 0.014  
ONE SIGMA = 0.001  
TWO SIGMA = 0.002  
RANGE = 0.012 to 0.015

Method of Analysis is ASTM E 1019-08, and ARI 033

### Primary Standards Employed:

NIST	SRM 345a, 2159, 55b, 2166, 55d, 125b, 121d
BAM	238-1, 284-2, 227-1, 297-1
JSS	155-14
NCS	HC24502, NS11010

### Notes:

The mean analytical values were derived by a number of data sets (n=80). The precision values represent the standard deviation, two times the standard deviation (k=2, 95% confidence), and complete range of analysis. When necessary, professional judgment is applied toward consideration of data and statistical information. The statistical analysis and the overall direction and coordination of the analytical measurements leading to certification were performed by K.E. Dyer at Alpha Resources.

The material used in production of this standard was sampled in accordance with ARI 032. The samples for round robin testing were selected in accordance with ARI 014. The above values relate only to the material used to produce this standard.

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Alpha Resources be liable for incidental or consequential damages.

This is a Certified Reference Material (CRM), and is traceable to the above-mentioned standards. For good laboratory practice it is recommended that all standards be verified prior to use.

This calibration standard is accredited and meets the requirements of ISO/IEC 17025 as verified by the ANSI-ASQ National Accreditation board. Alpha Resources is an ISO/IEC 17025 accredited laboratory. For more information concerning our scope of accreditation contact Alpha Resources.

This standard was produced in accordance to Guide 34 at the time of certification. These same methods for producing reference materials have now been reviewed by an accreditation body. As of February 2015 our facility has become accredited under the ISO Guide 34:2009 for RMP issued by ANSI-ASQ National Accreditation Board, certificate AR1920.

Certified August 24, 2009



Kent Dyer - Technical Manager