

# Alpha Resources, Inc. Certificate Of Analysis

AR 886

CARBON STEEL PIN STANDARD

LOT # 1070B97

**% CARBON**  
MEAN = 0.678  
ONE SIGMA = 0.005  
TWO SIGMA = 0.010  
RANGE = 0.668 – 0.688

**% SULFUR**  
MEAN = 0.0155  
ONE SIGMA = 0.0011  
TWO SIGMA = 0.0022  
RANGE = 0.0134 – 0.0174

Method of Analysis is Combustion IR Detection  
ASTM E 1019 (Latest Revision)

**Standards Employed:**

NIST	SRM 13g, 14d, 10f, 50c, 367, 363
BAM	079-1, 035-1, 227-1
JSS	151-9

**Notes:**

The mean analytical values were derived by a number of data sets obtained over different days by different analysts using ASTM approved instruments.

The precision values represent the standard deviation, two times the standard deviation, and complete range of analysis.

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.

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

Certified November, 1997

