

# Alpha Resources, Inc.

## Certificate Of Analysis

AR 318  
CHILLED CAST IRON STANDARD  
LOT # 042099

**% CARBON**  
MEAN = 3.08  
ONE SIGMA = 0.03  
TWO SIGMA = 0.06  
RANGE = 3.02 – 3.14

**% SULFUR**  
MEAN = 0.037  
ONE SIGMA = 0.002  
TWO SIGMA = 0.004  
RANGE = 0.033 – 0.041

Method of Analysis is ASTM E 1019-00

### Primary Standards Employed:

NIST	SRM 4k, 7f, 107c, 122i, 122f
BAM	228-1
IRSID	FB-12
CKD	227, 230
NCS	HC56005

### Notes:

The certified mean values were derived by a number of data sets provided by various laboratories over different days by separate analysts utilizing ASTM approved instruments.

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

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 standard was produced in accordance to Guide 34. Alpha Resources has become accredited under the ISO Guide 34:2009 for RMP and holds a ISO 17025 accreditation. Refer to certificate and scope of accreditation for details.

Certified August, 2000



Kent Dyer - Technical Manager