Alpha Resources, Inc. Certificate Of Analysis

AR 315 CAST IRON SHOT STANDARD LOT # G55

% CARBON MEAN = 3.09 ONE SIGMA = 0.04 TWO SIGMA = 0.08 RANGE = 3.00 - 3.18 % SULFUR
MEAN = 0.111
ONE SIGMA = 0.005
TWO SIGMA = 0.010
RANGE = 0.100 - 0.121

Method of Analysis is combustion / IR Detection ASTM E 1019-00 (Latest Revision)

Primary Standards Employed were:

NIST SRM 107c, 4k, 122f CZECH CRM 215, 227 Japan JSS 111-12 France CRM FB-12

Notes:

The mean analytical values were statistically derived using a number of data sets provided by separate instruments over a number of days.

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

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 January, 2001

Kent Dyer - Technical Manager