

Alpha Resources, Inc.

Certificate Of Analysis

AR 951
CARBON STEEL CHIP STANDARD
LOT # 11525590

% CARBON
MEAN = 0.150
ONE SIGMA = 0.004
TWO SIGMA = 0.008
RANGE = 0.142 - 0.158

% SULFUR
MEAN = 0.0252
ONE SIGMA = 0.0016
TWO SIGMA = 0.0032
RANGE = 0.0220 - 0.0284

PPM NITROGEN
MEAN= 111 PPM
ONE SIGMA= 5 PPM
TWO SIGMA= 10 PPM
RANGE= 101 - 121 PPM

Method of Analysis is ASTM E 1019-02

Primary Standards Employed:

NIST	SRM 15h, 50c, 73c, 133b, 293, 343a, 345a, 367, 368, 1754
BCS	238/2, 265, 456/1
JSS	GS 2c

Notes:

The mean analytical values were derived by a number of data sets utilizing various 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 September, 2002

