# Alpha Resources, Inc. Certificate Of Analysis

#### **AR 309**

## NODULAR IRON STANDARD

## LOT # 032800

% CARBON MEAN = 3.70 ONE SIGMA = 0.04 TWO SIGMA = 0.08 RANGE = 3.62 - 3.78 % SULFUR
MEAN = 0.013
ONE SIGMA = 0.001
TWO SIGMA = 0.002
RANGE = 0.011 - 0.015

Method of Analysis is ASTM E 1019 (Latest Revision)

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

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

# Primary Standards Employed were:

NIST	4k, 122f, 338
French (CTIF)	488-1
Japan JSS	110-7

#### Notes:

The statistical analysis of the certification was performed by K.E. Dyer at Alpha Resources.

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.

Certified July, 2000

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