

Alpha Resources, Inc.

Certificate Of Analysis

AR 650
TITANIUM STANDARD
LOT # 8606025

PPM OXYGEN
MEAN = 891
ONE SIGMA = 22
TWO SIGMA = 44
RANGE = 847 - 935

PPM NITROGEN
MEAN = 91
ONE SIGMA = 11
TWO SIGMA = 22
RANGE = 69 - 113

PPM HYDROGEN
MEAN= 60 PPM
ONE SIGMA= 3 PPM
TWO SIGMA= 6 PPM
RANGE= 54 - 66 PPM

Method of Analysis is ASTM E 1409, E 1447, E 1937

Primary Standards Employed:
GAS DOSE

NIST 352c, 352b
NCS NS57001, NS57003, NS57004
BCR 276

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. 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.

The material used in production of this standard was sampled in accordance with ARI 032. The samples for round robin testing were selected in accordance with ARI 014. The above values relate only to the material used to produce this standard.

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.

Alpha Resources is an ISO/IEC 17025 accredited laboratory. For more information concerning our scope of accreditation contact Alpha Resources.

Certified September, 2004



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