

# Alpha Resources, Inc. Certificate Of Analysis

AR-1651

OXYGEN & NITROGEN PIN STANDARD

LOT # 314364398

**PPM OXYGEN**  
**MEAN = 64**  
**ONE SIGMA = 4**  
**TWO SIGMA = 8**  
**RANGE = 56 - 71**

**PPM NITROGEN**  
**MEAN = 213**  
**ONE SIGMA = 4**  
**TWO SIGMA = 8**  
**RANGE = 205 - 220**

Method of Analysis  
ASTM E 1019 (Inert Gas Fusion)  
(Latest revision)

One or more of the following Standard Reference Materials employed were:

NIST SRM 1093, 153a, 1099  
JSS GS-1c, 2c

Notes:

The mean analytical values were derived from a number of data sets provided by ASTM approved instruments.

The precision value is based on 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.

Certified April, 1998

