

**AR 661**

**OXYGEN & NITROGEN PIN STANDARD**

**LOT # AAC99**

**PPM OXYGEN**  
**MEAN = 6**  
**ONE SIGMA = 2**  
**TWO SIGMA = 4**  
**RANGE = 2 - 10**

**PPM NITROGEN**  
**MEAN = 308**  
**ONE SIGMA = 19**  
**TWO SIGMA = 38**  
**RANGE = 270 - 346**

Method of analysis is ASTM E 1019  
(Latest revision)

The following Primary Standards were used for calibration:

NIST	73c, 1095, 1099
German	079-1, 285-1
Belgium	BCS 318a

Notes:

The mean values reported were derived from a number of data sets utilizing ASTM approved instruments.

The precision values are based on the standard deviation, two times the standard deviation, and complete range of analyses.

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 was performed by K.E. Dyer at Alpha Resources. On November 15, 2002 this certificate was revised to reflect a corrected nitrogen range.

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 should be verified, prior to use, against a primary standard material provided by a governing agency such as N.I.S.T., when available.

Certified March, 2000

