

AR-1649

NITROGEN PIN STANDARD

LOT # 4989

PPM NITROGEN

MEAN = 23

ONE SIGMA = 2

TWO SIGMA = 4

RANGE = 19 - 27

Method of Analysis is inert gas fusion
ASTM E 1019
(Latest revision)

Notes:

The mean value reported is from a number of data sets acquired over different days by different analysts utilizing ASTM E 1019 approved instruments.

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

Standard Reference Materials employed were:
NIST SRM 1090, 153a
SKF SRM 50-1, 200s-1, 201s-1, 301s-1

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

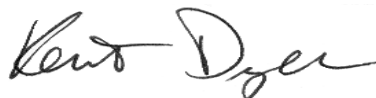
The overall direction and coordination of the analytical measurements leading to certification were performed by K.E. Dyer at Alpha Resources.

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.

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.

This Certificate was revised in May of 2002 to fit our current format.

Certified May, 2002

A handwritten signature in black ink, appearing to read "Kent Dyer", is located in the bottom right corner of the document.