

**AR 649  
TITANIUM STANDARD  
LOT # 010901**

**PPM OXYGEN  
MEAN = 810  
ONE SIGMA = 40  
TWO SIGMA = 80  
RANGE = 730 - 890**

**PPM NITROGEN  
MEAN = 119  
ONE SIGMA = 12  
TWO SIGMA = 24  
RANGE = 95 - 143**

**PPM HYDROGEN  
MEAN = 200  
ONE SIGMA = 7  
TWO SIGMA = 14  
RANGE = 186 - 214**

The certified values were determined by the inert gas fusion techniques only.  
Instruments used were:  
LECO TC-436, LECO RH-404, LECO TC-136, NRC 917, LECO RO-416DR

The following Primary Standards were used for calibration.

Gas Dose  
NIST SRM 352c, 353, 357  
China NCS 57003  
Belgium BCR CRM 24, 276

Notes

The mean values reported are derived from a number of data sets using the instruments listed above.

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

K.E. Dyer at Alpha Resources performed the statistical analysis, overall direction, and coordination of the analytical measurements leading to certification.

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, 2001

