# Certificate of Analysis

**Samarium**
**AA Standard**

**Catalog Number: IAA-262**
**Lot Number: T00618**
**Lot Issue Date: 05/28/2014**
**Expiration Date: 06/30/2021**

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentrations were verified by our ISO 17025 accredited laboratory to be within ± 2.5%, when compared to calibration standards independently prepared using NIST SRM(s). The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

| Analyte | True Value | | | | Analytical Method | NIST SRM |
|---|---|---|---|---|---|---|
| samarium | 1000 | ± | 5 | µg/mL | ICP / ICP-MS | 3147a |

Matrix: 1% nitric acid in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megohm double deionized water, calibrated Class A glassware & meticulously cleaned bottles in the manufacturing of ULTRAgrade standards. Balances used in the manufacturing of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.

**-Density of Solution (measured at 20.00°C ± 0.05°C): 1.0053 g/mL**

ACCREDITED

ISO 17025:2005
Accredited
A2LA
Cert. No. 0851.01

ISO 9001:2000
Registered
TUV USA, Inc.
Cert. No. 06-1004

William J. Leary
Quality Assurance Manager