

Certificate of Analysis

CLP ICP Calibration Verification Standard #3

Catalog Number: ICM-433

Lot Number: CL-5040

Lot Issue Date: 12/09/2014

Expiration Date: 01/31/2018

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO Guide 34 / ISO 17025 accredited laboratory, and 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	
arsenic	500.6	±	2.5	µg/mL	ICP / ICP-MS	3103a
cadmium	250.2	±	1.3	µg/mL	ICP / ICP-MS	3108
lead	500.8	±	2.5	µg/mL	ICP / ICP-MS	3128
selenium	500.8	±	2.5	µg/mL	ICP / ICP-MS	3149
thallium	500.0	±	2.5	µg/mL	ICP / ICP-MS	3158

Matrix: 5% nitric acid in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megaohm double deionized water, calibrated Class A glassware, and 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.



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