

Certificate of Analysis

Custom Standard**Catalog Number: ICUS-2663****Lot Number: CM-3782****Lot Issue Date: 07/14/2015****Expiration Date: 08/31/2017**

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
calcium	1.00	±	0.01	mg/L	ICP / ICP-MS	3109a
lithium	20.0	±	0.1	mg/L	ICP / ICP-MS	3129a
lanthanum	20.0	±	0.1	mg/L	ICP / ICP-MS	3127a
sodium	20.0	±	0.1	mg/L	ICP / ICP-MS	3152a
arsenic	20.0	±	0.1	mg/L	ICP / ICP-MS	3103a
scandium	20.0	±	0.1	mg/L	ICP / ICP-MS	3148a
nickel	20.0	±	0.1	mg/L	ICP / ICP-MS	3136
molybdenum	20.0	±	0.1	mg/L	ICP / ICP-MS	3134
manganese	20.0	±	0.1	mg/L	ICP / ICP-MS	3132
potassium	100.1	±	0.5	mg/L	ICP / ICP-MS	3141a
sulfur	100.1	±	0.5	mg/L	ICP / ICP-MS	3154
phosphorus	100.1	±	0.5	mg/L	ICP / ICP-MS	3139a

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 ULTRA grade 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.