Certificate of Analysis
ISO 17034

ICP Calibration Standard

Catalog Number: ICM-104
Lot Number: 0006510390
Lot Issue Date: 12/27/2019
Expiration Date: 01/31/2023

This Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / 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
aluminum	500.6	±	2.5	µg/mL	ICP / ICP-OES	3101a
arsenic	100.0	±	0.5	µg/mL	ICP / ICP-OES	3103a
beryllium	100.0	±	0.5	µg/mL	ICP / ICP-OES	3105a
cadmium	25.0	±	0.1	µg/mL	ICP / ICP-OES	3108
chromium	100.1	±	0.5	µg/mL	ICP / ICP-OES	3112a
cobalt	100.1	±	0.5	µg/mL	ICP / ICP-OES	3113
copper	100.0	±	0.5	µg/mL	ICP / ICP-OES	3114
iron	100.2	±	0.5	µg/mL	ICP / ICP-OES	3126a
lead	100.1	±	0.5	µg/mL	ICP / ICP-OES	3128
manganese	100.1	±	0.5	µg/mL	ICP / ICP-OES	3132
* mercury	5.01	±	0.03	µg/mL	ICP / ICP-OES	3133
nickel	100.1	±	0.5	µg/mL	ICP / ICP-OES	3136
selenium	25.0	±	0.1	µg/mL	ICP / ICP-OES	3149
* vanadium	250.2	±	1.3	µg/mL	ICP / ICP-OES	3165
zinc	100.1	±	0.5	µg/mL	ICP / ICP-OES	3168a

Matrix: 2% nitric acid, and trace hydrofluoric acids, in low TOC water (< 50 ppb)

** light sensitive*

Agilent uses purified acids, 18 megaohm double deionized water, calibrated Class A glassware, and meticulously cleaned bottles in the manufacturing of these 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.

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert No. AT-1937