Certificate of Analysis

Custom Standard

Catalog Number: CICM-240

Lot Number: CS-6182

Lot Issue Date: 12/20/2018

Expiration Date: 01/31/2022

This Reference Material (RM) 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
aluminum	20.0	±	0.1	µg/mL	ICP / ICP-OES	3101a
antimony	20.0	±	0.1	µg/mL	ICP / ICP-OES	3102a
arsenic	20.0	±	0.1	µg/mL	ICP / ICP-OES	3103a
barium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3104a
beryllium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3105a
boron	20.0	±	0.1	µg/mL	ICP / ICP-OES	3107
cadmium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3108
calcium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3109a
chromium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3112a
cobalt	20.0	±	0.1	µg/mL	ICP / ICP-OES	3113
copper	20.0	±	0.1	µg/mL	ICP / ICP-OES	3114
iron	20.0	±	0.1	µg/mL	ICP / ICP-OES	3126a
lead	20.0	±	0.1	µg/mL	ICP / ICP-OES	3128
lithium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3129a
magnesium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3131a
manganese	20.0	±	0.1	µg/mL	ICP / ICP-OES	3132
molybednum	20.0	±	0.1	µg/mL	ICP / ICP-OES	3134
nickel	20.0	±	0.1	µg/mL	ICP / ICP-OES	3136
phosphorus	100.2	±	0.5	µg/mL	ICP / ICP-OES	3139a
potassium	100.0	±	0.5	µg/mL	ICP / ICP-OES	3141a
selenium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3149
silicon	100.1	±	0.5	µg/mL	ICP / ICP-OES	3150
* silver	5.00	±	0.03	µg/mL	ICP / ICP-OES	3151
sodium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3152a
strontium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3153a
thallium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3158
tin	20.0	±	0.1	µg/mL	ICP / ICP-OES	3161a
* vanadium	20.0	±	0.1	µg/mL	ICP / ICP-OES	3165
zinc	20.0	±	0.1	µg/mL	ICP / ICP-OES	3168a

Matrix: 2% nitric acid, trace hydrofluoric acid, and trace tartaric acid 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 GUIDE 34 REFERENCE MATERIAL PRODUCER

ISO Guide 34 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

ISO17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 **www.agilent.com/quality**

250 Smith Street North Kingstown, Rhode Island 02852 **www.agilent.com/quality**