

Certificate ID: **ISO 10 MC****Device Details**

Device ID: QE21597
Serial Number: QE21597
Description: GILSON NEO 20 x 8 MC
Method: ISO MULTI CHANNEL 10 SAMPLES
Test Plan: MC 20 ul 8CH
Operator: Mike Beavers

Environmental Factors

Air Temperature: 21.00 °C
Barometric Pressure: 30.2 inHg
Relative Humidity: 46 %
Liquid Density: 0.99800
Air Density: 0.00121
Z Factor: 1.00307

Certificate of Calibration

Customer: ABC SCIENTIFIC
Contact: DR SMITH
Location: 200 MAIN STREET
Address: WASHINGTON DC 20032

20814

Calibration Date: 05-Jun-2023**Calibration Type:** Pipette Calibration

Quality Calibrations Inc.



27 Sabal Drive
Punta Gorda FL 33950
Phone: 877-747-3883

Status: Passed
Next Due: 31-Dec-2023
Interval: 6 months

Comment: NO ADJUSTMENT NECESSARY

Measurement Standards

Device ID	Description	Serial Number	Next Calibration
1118311229	Mettler AG 245	1118311229	30-Jun-2024
221461525	Digital Barometer	221461525	30-Apr-2024
THERMOMETER PRS	Enviro-Safe	PRS-T1	31-Mar-2025

As Found

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
20.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	20.01	0.05	0.44	0.066	2.000	0.236	1.000	Passed	20.05	19.93	19.96	19.98	19.99	20.03	20.01	20.06	20.08	20.03
Ch 2	20.02	0.03	0.44	0.116	2.000	0.160	1.000	Passed	20.05	20.01	19.97	20.00	20.03	19.99	20.01	20.06	20.07	20.03
Ch 3	19.98	0.05	0.43	0.109	2.000	0.244	1.000	Passed	20.02	20.08	19.99	19.97	19.96	19.93	19.91	19.96	19.95	20.00
Ch 4	20.04	0.03	0.44	0.197	2.000	0.151	1.000	Passed	20.03	20.05	20.06	20.09	19.99	20.05	20.02	20.06	20.03	20.00
Ch 5	20.01	0.03	0.43	0.036	2.000	0.161	1.000	Passed	19.98	19.99	20.03	20.04	20.06	20.02	20.01	20.00	19.96	19.97
Ch 6	20.02	0.03	0.43	0.086	2.000	0.132	1.000	Passed	20.00	19.98	20.05	20.00	20.04	20.03	20.02	20.01	20.05	19.98
Ch 7	20.04	0.04	0.44	0.192	2.000	0.195	1.000	Passed	20.05	20.08	20.10	20.06	19.97	20.01	20.00	20.05	20.03	20.02
Ch 8	20.03	0.03	0.44	0.147	2.000	0.172	1.000	Passed	20.07	20.06	20.08	20.01	20.00	19.99	19.98	20.04	20.02	20.03

Statement of Traceability

This certificate has been issued in accordance with QCI SOP QACCRED and ISO 8655-2 Specifications. This statement certifies that this calibration has been performed with instruments and standards traceable to SI units through NIST or equivalent National Metrology Institute. This certificate shall not be reproduced except in full, without written approval of the laboratory. These results relate only to item calibrated and the results apply to sample as received. QCI uses a simple acceptance approach to the TUR. Customer is to determine if the TUR Accuracy ratio (accuracy over uncertainty) is acceptable.

Completed by: Mike Beavers**Date:** June 5, 2023**Reviewed by:** Nicole Simpson**Date:** June 17, 2023

Certificate ID: QE21597



Measurement
Uncertainties are
determined using the
factor of k=2 at a 95%
confidence level.

ISO 17025:2017 Certified Certificate AC 1347

As Found

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
10.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	10.02	0.03	0.44	0.237	4.000	0.327	2.000	Passed	10.01	10.05	9.98	10.06	10.07	9.97	10.01	10.02	10.04	10.02
Ch 2	10.01	0.03	0.44	0.137	4.000	0.299	2.000	Passed	9.99	9.98	10.00	9.97	10.00	10.02	10.03	10.06	10.03	10.05
Ch 3	10.00	0.02	0.43	0.016	4.000	0.192	2.000	Passed	10.03	10.00	10.02	9.99	9.98	10.00	10.02	9.97	9.99	10.01
Ch 4	10.02	0.03	0.44	0.167	4.000	0.288	2.000	Passed	10.02	10.03	10.05	9.97	10.00	9.98	10.02	10.06	10.03	10.00
Ch 5	10.00	0.02	0.43	0.016	4.000	0.219	2.000	Passed	9.98	9.97	10.02	10.04	10.00	9.99	10.02	10.01	9.98	10.00
Ch 6	10.01	0.02	0.43	0.096	4.000	0.224	2.000	Passed	10.01	10.02	9.98	9.99	10.01	10.03	10.05	9.98	10.00	10.02
Ch 7	10.00	0.02	0.43	0.023	4.000	0.232	2.000	Passed	10.01	9.99	9.98	9.97	10.02	10.04	10.03	10.01	9.99	9.98
Ch 8	10.01	0.02	0.43	0.106	4.000	0.222	2.000	Passed	9.97	10.00	10.02	10.03	10.05	10.01	9.99	10.00	10.01	10.02
2.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5	6	7	8	9	10
Ch 1	1.99	0.02	0.43	0.436	20.000	1.098	10.000	Passed	2.03	1.99	1.98	2.00	2.01	2.02	1.96	1.97	2.00	1.99
Ch 2	1.97	0.02	0.43	1.599	20.000	1.244	10.000	Passed	1.96	1.95	2.00	1.97	2.01	2.00	1.96	1.98	1.95	1.94
Ch 3	1.98	0.03	0.43	1.198	20.000	1.416	10.000	Passed	1.97	2.00	1.99	2.01	2.02	1.96	1.93	1.98	1.95	1.99
Ch 4	2.00	0.02	0.43	0.106	20.000	0.921	10.000	Passed	2.00	2.01	2.03	1.99	1.97	2.00	2.03	2.01	2.00	2.02
Ch 5	1.99	0.02	0.43	0.445	20.000	1.042	10.000	Passed	1.99	1.98	1.96	1.99	2.00	2.01	2.03	2.02	1.98	1.99
Ch 6	1.98	0.03	0.43	0.947	20.000	1.291	10.000	Passed	1.96	2.00	1.99	1.98	2.00	2.03	2.01	1.97	1.96	1.95
Ch 7	1.99	0.02	0.43	0.546	20.000	0.891	10.000	Passed	1.99	2.00	2.01	2.02	1.99	2.00	1.97	1.96	2.00	1.99
Ch 8	2.00	0.01	0.43	0.194	20.000	0.749	10.000	Passed	2.01	2.02	1.99	1.98	2.00	2.01	2.02	1.98	2.00	1.99

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