

Certificate ID: **H55933****Certificate of Calibration**

Quality Calibrations Inc.

**Device Details**

Device ID: 278-009
Serial Number: U11223
Description: Thermo Finn F1 5000
Method: ISO Single Channel
Test Plan: ISO 5000 ul sc 500-5000
Operator: Beverly Heiberger

Customer: Sample Customer

Contact: Contact
Location: Street
Address: City State

27 Sabal Drive
Punta Gorda FL 33950

Phone: 877-747-3883

Status: Passed**Next Due: 30-Nov-2024****Interval: 12 months****Environmental Factors**

Air Temperature: 19.00 °C
Barometric Pressure: 30.4 inHg
Relative Humidity: 51 %
Liquid Density: 0.99841
Air Density: 0.00122
Z Factor: 1.00267

Calibration Date: 01-Nov-2023**Calibration Type: Pipette Calibration**

Comment:

N/A

Measurement Standards

Device ID	Description	Serial Number	Next Calibration
1114341829	Mettler AT201	1114341829	30-Apr-2024
221461525	Digital Barometer	221461525	19-Apr-2024
Thermometer BH B623	Thermometer - Enviro Safe	B623	28-Jun-2026

Maintenance

☒ PM SERVICE ☐ Replaced Friction Ring ☐ Replaced Piston ☐ Replaced Shaft ☐ Supplemental Parts

As Calibrated

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)				
5000.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5
Ch 1	4997.65	4.22	3.78	0.047	0.800	0.084	0.300	Passed	4996.40	5004.73	4995.85	4993.60	4997.69
2500.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5
Ch 1	2498.46	2.11	1.90	0.062	1.600	0.084	0.600	Passed	2499.76	2497.65	2500.66	2495.24	2498.98
500.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5
Ch 1	499.91	0.26	0.37	0.018	8.000	0.052	3.000	Passed	499.66	500.10	500.24	499.88	499.66

As Found

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)				
5000.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5
Ch 1	4988.00	12.38	11.08	0.240	0.800	0.248	0.300	Passed	5000.31	4994.80	4993.19	4969.03	4982.67
2500.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5
Ch 1	2492.90	9.81	8.78	0.284	1.600	0.394	0.600	Passed	2499.66	2494.30	2499.46	2495.18	2475.89
500.0 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5
Ch 1	495.31	1.95	1.76	0.937	8.000	0.394	3.000	Passed	492.31	494.82	495.47	496.54	497.42

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.



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

ISO 17025:2017 Certified Certificate AC 1347

Completed by: Beverly Heiberger

Date: November 1, 2023

Reviewed by: Nicole Simpson

Date: November 4, 2023

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