



CALIBRATION CERTIFICATE

Certificate Number: H00G83AUNF-0

Order Number: 222-766

RAININ
Pipetting 360°

Customer Houston Forensic Science Center
Jennifer O'Callaghan
500 Jefferson St
Houston, TX 77002-7300

Location 500 Jefferson St

Serial Number 042733438

Model VWR HIGH PERFORMANCE PIPETTOR 20 µl

Next Service 31.Oct.2024

Service Plan Onsite: Single Channel PM, 3x5 AR

Inspection Over All Condition: Good

Preventive Maintenance: Piston cleaned and re-greased
Adjustment: No-Adjustment made

As left-Passed Steven Murray 30.Oct.2023

Conditions Humidity 48.4 % | 48.9 % **Air Temperature** 20.0 °C | 19.7 °C
Air Pressure 1012.0 hPa | 1012.1 hPa **Water Temperature** 20.0 °C | 19.7 °C

Equipment Balance C132316237Next Cal. (30.Nov.2023)Readability (0.00001 g)

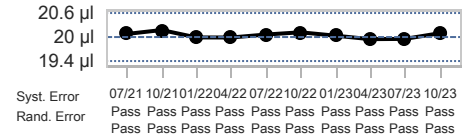
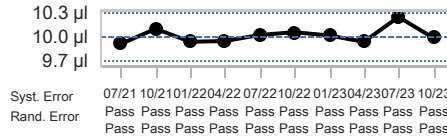
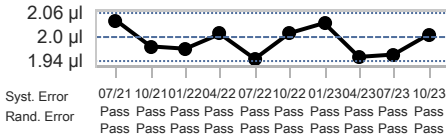
Climate Monitor Bar. pressure abs. air pressure (2112149)Next Cal. (01.Dec.2023) | Humidity (2112149)Next Cal. (01.Dec.2023) | Temp (2112149)Next Cal. (01.Dec.2023)

Z-Factor 1.0029 µl/mg
Evaporation 0 mg
Specification Type Custom
Pipette Tip Customer Supplied

Test Volume (µl)	Weighings				
	1	2	3	4	5
2.0 µl	1.95 mg	2.03 mg	2.02 mg	2.02 mg	1.98 mg
10.0 µl	10.08 mg	9.91 mg	10.08 mg	9.88 mg	9.85 mg
20 µl	19.86 mg	20.21 mg	19.80 mg	20.15 mg	20.17 mg

Test Volume (µl)	Mean Volume (µl)	Systematic Error				Random Error				Expanded Uncertainty (µl)	Status
		Error (µl)	Limit (+/- µl)	Error (%)	Limit (+/- %)	Error (µl)	Limit (µl)	Error (CV%)	Limit (%)		
2.0	2.006	0.006	0.06	0.2900	3	0.034	0.06	1.696	3	0.098 µl (k=2.52)	Passed
10.0	9.99	-0.011	0.3	-0.1112	3	0.112	0.3	1.120	3	0.33 µl (k=2.87)	Passed
20	20.10	0.096	0.6	0.4806	3	0.193	0.6	0.9596	3	0.56 µl (k=2.87)	Passed

As left History



Authorized Signatory, Steven Murray
30.Oct.2023

METTLER TOLEDO
ACCREDITED LABORATORY
7500 Edgewater Drive
Oakland, CA 94621

This calibration covered by this certificate is in accordance with ISO 8655-7:2022 and PS-125. Its measurements are traceable to SI through N.I.S.T. This laboratory has been accredited by A2LA for the requirements of ISO/IEC 17025:2017. The reported expanded uncertainty of measurement (U) is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95 %. Statement of compliance does not include the measurement of uncertainty. Mettler-Toledo Rainin LLC grants permission to reproduce this document in full only. ©2020 Mettler-Toledo Rainin, LLC