



# CALIBRATION CERTIFICATE

Certificate Number: G00G8RBSY3-0

Order Number: 222-586

**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** Jul.2023

**Service Plan** Onsite: Single Channel PM, 3x5 AR

**Inspection** Over All Condition: Good

**Preventive Maintenance:** Piston cleaned and re-greased

**Adjustment:** No-Adjustment made

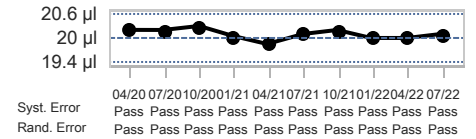
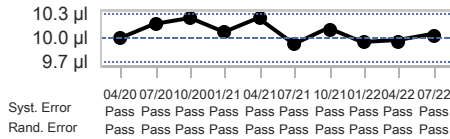
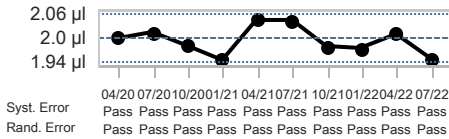
**As left-Passed** Steven Murray 01.Jul.2022

<b>Conditions</b>	<b>Humidity</b> 58.07 %   58.07 %	<b>Air Temperature</b> 20.23 °C   20.23 °C	<b>Z-Factor</b> 1.0029 µl/mg
	<b>Air Pressure</b> 1013.20 hPa   1013.20 hPa	<b>Water Temperature</b> 20.23 °C   20.23 °C	<b>Evaporation</b> 0 mg
<b>Equipment</b>	<b>Balance</b> C132316237Next Cal. (30.Nov.2022)Readability (0.00001 g)		<b>Pipette Tip</b> Customer Supplied
	<b>Climate Monitor</b> BP (QN400005684)Next Cal. (31.Dec.2022)   Humidity - 122594359 (122594359)Next Cal. (31.Aug.2022)   Temperature - 122594359 (122594359)Next Cal. (31.Aug.2022)		<b>Specification Type</b> Custom

Test Volume (µl)	Weighings				
	1	2	3	4	5
2.0 µl	1.94 mg	1.97 mg	1.93 mg	1.90 mg	1.95 mg
10.0 µl	9.89 mg	10.04 mg	10.00 mg	10.02 mg	10.04 mg
20 µl	19.94 mg	20.04 mg	20.04 mg	20.01 mg	20.00 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	1.944	-0.056	0.06	-2.819	3	0.026	0.06	1.336	3	0.073 µl (k=2.52)	Passed
10.0	10.03	0.027	0.3	0.2699	3	0.063	0.3	0.6262	3	0.18 µl (k=2.87)	Passed
20	20.06	0.064	0.6	0.3201	3	0.041	0.6	0.2049	3	0.12 µl (k=2.87)	Passed

## As left History



Authorized Signatory, Steven Murray

01.Jul.2022

**METTLER TOLEDO**  
ACCREDITED LABORATORY  
7500 Edgewater Drive  
Oakland, CA 94621

This calibration covered by this certificate is in accordance with ISO 8655-6:2002 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