

## **CALIBRATION CERTIFICATE**

Certificate Number: F00G8H6GKP-0 Order Number: 222-414



Houston Forensic Science Center Customer

Callan Hundl 500 Jefferson St Location 500 Jefferson St

Serial Number 342782374

Houston, TX 77002-7300

VWR SIGNATURE 1000-5000 WITH TIP EJECTOR Model Jul.2021

**Next Service** Service Plan

Onsite: Single Channel PM, 3x5 AR

Pipette Tip

Over All Condition: Good Inspection

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

As left-Passed Steven Murray 05.Apr.2021

Start | End Start | End Conditions Humidity 68.95 % | 68.95 % Air Temperature 17.74 °C | 17.74 °C Air Pressure

Z-Factor 1.0024 µl/mg 0 mg **Water Temperature** 17.74 °C | 17.74 °C Evaporation

Balance B442140901Next Cal. (31.Jul.2021)Readability (0.0001 g) **Climate Monitor** 

BP (QN400005684)Next Cal. (31.Dec.2021) | Humidity - 200017918 (200017918)Next Cal. (10.Jan.2022) | Specification Type Custom

Temperature - 200017918 (200017918)Next Cal. (10.Jan.2022)

Test Volume	Weighings							
(μl)	1	2	3	4	5			
1000 µl	1003.2 mg	997.1 mg	1001.0 mg	995.9 mg	1001.7 mg			
2500 μΙ	2487.2 mg	2487.2 mg	2465.5 mg	2466.3 mg	2474.8 mg			
5000 μl	4974.9 mg	4973.5 mg	4978.6 mg	4953.0 mg	4977.3 mg			

1019.98 hPa | 1019.98 hPa

## Results

Equipment

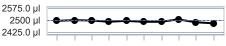
Test	Mean	Mean Systematic Error				Random Error				Expanded	
Volume	Volume	Error	Limit	Error	Limit	Error	Limit	Error	Limit	Uncertainty	Status
(µI)	(μI)	(µI)	(+/- µl)	(%)	(+/- %)	(µI)	(μl)	(CV%)	(%)	(μI)	
1000	1002.2	2.18	30.0	0.2179	3.00	3.13	30.0	0.3128	3.00	9.4 µl (k=2.21)	Passed
2500	2482	-17.86	75.0	-0.7143	3.00	10.71	75.0	0.4314	3.00	32 µl (k=2.87)	Passed
5000	4983	-16.61	150	-0.3322	3.00	10.54	150	0.2114	3.00	31 µl (k=2.87)	Passed

## As left History



Syst. Error Rand, Error

01/19 04/1907/1911/19 01/2004/20 07/2010/2001/21 04/21 



Syst. Error Rand, Error

01/19 04/1907/1911/19 01/2004/20 07/2010/2001/21 04/21 

5150 ul 5000 µl 4850 µl



Customer Supplied

Syst. Error Rand, Error







Authorized Signatory, Steven Murray 05.Apr.2021

