pipettes.com™
A TRANSCAT® Company

ISO-Accredited Calibration
Service Documentation

Service Information	
Service Date	25/Feb/2015
Certificate ID #	02252015-X99992X
Test Technician	YY
Next Due Date	25/May/2015

Client Information	
Company	Pipettes.com A Transcat Company
Address	77 Main Street
	Hopkinton, MA 01748
Phone	5084357301

Client Instrument	
Manufacturer	GILSON
Model	Pipetman P-100
Serial #	X99992X
ID/User	Sample

Laboratory Test Conditions	
Temperature (19-24 °C)	21
Relative Humidity (45-75%)	51
Bar. Pressure (kPa)	101.2
Water Den. (gm/ml)	0.9969
Density Correction (z-factor)	1.0031
Water Conductivity (μ S)	1.59
Evaporation Rate (mg)	0.002

Laboratory Test Equipment	
Test Balance Serial #	1-1119423483
Test Balance Model	#1-MX5
Test Balance Readability (mg)	0.001
Test Balance NIST Cert. Date	24/Oct/2014
Test Balance NIST Cert Due Date	31/Oct/2015

Replacement Parts

- [x] O-Ring
- [x] Seal
- [ ] Friction Ring
- [ ] Shaft/Nozzle
- [ ] Plunger button
- [ ] Plunger Button Cap
- [ ] Battery
- [ ] Shaft/Nozzle Filter(s)
- [ ] Tip Ejector
- [ ] Multi-Channel Tipcone
- [ ] Housing Screw
- [ ] Other (see Comments)
- [ ] Calibration mechanism was adjusted

As Found Data			
Test Volumes (μL)	10	50	100
1	10.00	49.82	99.80
2	10.05	49.79	99.76
3	10.02	49.86	99.71
4	10.03	49.80	99.77
5	10.04	49.85	99.74
6	10.01	49.82	99.80
7	10.05	49.83	99.82
8	10.03	49.86	99.69
9	10.02	49.82	99.68
10	10.06	49.88	99.74
Mean (mg)	10.03	49.83	99.75
Density Corr.	1.0031	1.0031	1.0031
Mean (ul)	10.06	49.98	100.06
Accuracy (% Dev)	0.60	-0.04	0.06
Inaccuracy Tolerance	3.5%	0.8%	0.8%
Precision (CV%)	0.19	0.06	0.05
Imprecision Tolerance	1.0%	0.24%	0.15%
Test Uncertainty (± uL / ±%)	0.018 / 0.18%	0.035 / 0.07%	0.127 / 0.13%
Test Result	PASS	PASS	PASS

As Left Data			
Test Volumes (μL)	10	50	100
1	10.02	49.78	99.74
2	10.00	49.85	99.78
3	10.02	49.82	99.72
4	10.03	49.79	99.83
5	10.00	49.77	99.76
6	10.03	49.84	99.74
7	9.98	49.81	99.81
8	10.02	49.77	99.73
9	10.01	49.79	99.76
10	10.03	49.82	99.71
Mean (mg)	10.01	49.80	99.76
Density Corr.	1.0031	1.0031	1.0031
Mean (ul)	10.04	49.95	100.07
Accuracy (% Dev)	0.40	-0.10	0.07
Inaccuracy Tolerance	3.5%	0.8%	0.8%
Precision (CV%)	0.17	0.06	0.04
Imprecision Tolerance	1.0%	0.24%	0.15%
Test Uncertainty (± uL / ±%)	0.018 / 0.18%	0.035 / 0.07%	0.127 / 0.13%
Test Result	PASS	PASS	PASS

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PJLA Calibration
ISO/IEC 17025:2005
Accreditation# 60948

Quality Control Authorization	
QC Reviewer	XX
QC Date	25/Feb/2015
Signature	MJA
	Mike Anema, Lab Manager

The calibration results published in this certificate were obtained gravimetrically using Grade 3 purified water, equipment manufacturer or validated substitute tips, and ISO8655 compliant test equipment that are traceable to NIST and through NIST to the International System of Units (SI). TTE certifies that the above measuring device meets or exceeds all measurement tolerances, unless otherwise noted. TTE prohibits the reproduction of this document, except in its entirety.

PASS grade denotes that tolerances have been met according to OEM specifications. When accounting for measurement uncertainty, results may be outside of reported tolerance limits. The risk for reporting a false PASS result is calculated to be < 2%. The reported expanded uncertainty value uses a coverage factor k=2 to a coverage probability of approximately 95%.

Certificate ID

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Procedure Referenced: PipettesCS0113.1 V2.23

Comments

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