



National Association for Proficiency Testing

A Non-Profit Organization Dedicated to Excellence in Metrology and Test Measurement

PRELIMINARY REPORT: NAPT-MASS-101

This Preliminary Report documents the results for the ILC/PT listed below, covering all data presented to NAPT for evaluation by your organization. For tests with an established history, a Final Report will be issued after the 30 day review period expires. The Final Report will include a graphical representation of participants' values compared to the artifact mean and the values reported by the other participants.

Preliminary Results Reported To: **Digital Measurement Metrology Inc**
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Date Of Preliminary Report: April 17, 2003
Date Of Participation in ILC/PT: April 16, 2003

ILC/PT NAME: NAPT-MASS-101
100 g to 1 g weight set
Discipline: Physical/Mechanical: Mass/Source
Artifact Type: Mass
Manufacturer: Troemner
Model Number:
Serial Number: 21417

Data analysis of your reported values indicates that your organization performed **9 out of 9 measurements satisfactorily**. If any data reported in this Preliminary Report is incorrect or if you would like to submit any revisions/corrections of your reported data, please contact us within 30 days

All NAPT programs are conducted in accordance with ISO/IEC Guide 43-1 and ILAC G13:2000 requirements for proficiency testing providers. Please contact NAPT with any questions regarding this Preliminary Report.

Preliminary analysis of the data your organization submitted to NAPT is shown below. Reported values are compared against the reference value only. In the Final Report, your reported values will also be analyzed against the values reported by other participants enrolled in this ILC/PT.

Measurement Description	Reported Value Reference Value	Reported Uncertainty Reference Uncertainty	En	S/U	I/W/O
Mass					
100 g - 1) 100 g	100.00040 g 100.00037	0.00037 0.00002	0.08	S	W
50 g - 2) 50 g	49.99988 g 50.00017	0.00034 0.00001	0.86	S	W
20 g - 3) 20 g (without dot)	20.00004 g 20.00009	0.00011 0.00001	0.5	S	W
20 g - 4) 20 g (with dot)	20.00002 g 20.00007	0.00013 0.00001	0.4	S	W
10 g - 5) 10 g	10.000012 g 10.000022	0.00013 0.000005	0.07	S	W
5 g - 6) 5 g	5.000010 g 5.000022	0.00013 0.000003	0.09	S	W
2 g - 7) 2 g (without dot)	1.999988 g 2.000025	0.00013 0.000002	0.27	S	W
2 g - 8) 2 g (with dot)	2.000041 g 2.000039	0.00013 0.000002	0.02	S	W
1 g - 9) 1 g	1.000014 g 1.000029	0.00013 0.000002	0.11	S	W

NOTES:

1. Values may be rounded. Rounding does not affect data analysis and is for reporting purposes only
2. All uncertainties are at (or normalized to) K=2 (coverage factor associated with a 2-sigma, 95%, normal distribution)
3. $En = (\text{participant's reported value} - \text{reference value}) / \text{SQRT}(\text{participant's reported uncertainty}^2 + \text{reference uncertainty}^2)$
4. S/U: S (Satisfactory) = participant's computed En is within range of ± 1 ; U (Unsatisfactory) = participant's computed En is outside range of ± 1
5. I/W/O: I (In Range) = participant's reported value falls in artifact uncertainty interval (reference value \pm reference uncertainty); W (Within Range) = participant's uncertainty interval (reported value \pm reported uncertainty) overlaps artifact uncertainty interval; O (Out of Range) = participant's uncertainty interval is outside artifact uncertainty interval