

**Customer:** Mesa Laboratories, Inc.  
Lakewood, CO  
**Description:** PRT  
**Model:** 5628  
**Serial Number:** 3457  
**Unit ID:** TE10828

**Certificate Number:** 110385  
**Calibration Date:** 18 APR 2017  
**Calibration Due:** 18 APR 2018  
**Ambient Temperature:** 20 to 27°C  
**Ambient Humidity:** 30 to 50%RH  
**Barcode:** C008130

Calibration of this instrument is accredited to ISO/IEC 17025:2005 and is traceable to the International System of Units through NIST or other National Measurement Institutes. The reported expanded uncertainty used a coverage factor of k=2 for a level of confidence equal to approximately 95%. The results stated relate only to the item calibrated.

If this Certificate of Calibration is reproduced, it must be duplicated in full, unless permission for the publication of an approved abstract is obtained in writing from Masy BioServices.

This Certificate of Calibration shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

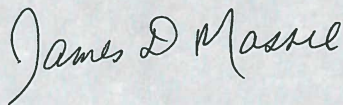
This Certificate of Calibration is not valid unless appropriately signed.

**As Found Condition:**  
In tolerance.

**Action Taken:**  
Calibrated.

**As Left Condition:**  
In tolerance.

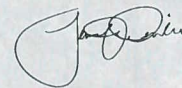
**Performed by:**



Digitally signed by James  
Massie, Calibration Technician

Reason: I attest to the accuracy  
and integrity of this document  
Date: 2017.04.19 09:25:27  
-04'00'

**Approved by:**



Digitally signed by  
Jennifer Weinbeck,  
Quality Associate I  
Reason: I am  
approving this  
document  
Date: 2017.04.19  
14:17:25 -04'00'

PRT Loop-Comparison (Rev 0)

# Calibration Measurement Results

**Work Instruction:** Thermometer PRT Loop Calibration (Rev 0)  
**Comments:** None.

**Certificate Number:** 110385

## Measurement Results

\* Asterisk denotes an Out of Tolerance measurement.

Nominal	As Found Measurement Results				As Left Measurement Results				Expanded Uncertainty
	Standard	UUT	Error	MPE (Tolerance)	Standard	UUT	Error	MPE (Tolerance)	
420°C	417.815	417.812	-0.003	±0.025	417.815	417.812	-0.003	±0.025	0.0060°C
232°C	231.590	231.589	-0.001	±0.025	231.590	231.589	-0.001	±0.025	0.0045°C
157°C	156.520	156.520	0.000	±0.025	156.520	156.520	0.000	±0.025	0.0039°C
0°C	0.010	0.008	-0.002	±0.025	0.010	0.008	-0.002	±0.025	0.0017°C
-39°C	-38.705	-38.707	-0.002	±0.025	-38.705	-38.707	-0.002	±0.025	0.0026°C
-196°C	-195.615	-195.618	-0.003	±0.025	-195.615	-195.618	-0.003	±0.025	0.0027°C

## Configuration and Coefficient Details

Thermometer Information		Coefficient	As Found	As Left
<b>Model:</b>	1502	R0	25.6573	25.6573
<b>Serial Number:</b>	B64076	A	-1.356243E-04	-1.356243E-04
<b>Unit ID:</b>	TE10827	B	5.559385E-05	5.559385E-05
<b>Channel:</b>	1	C	-2.137715E-05	-2.137715E-05
		A4	-8.539244E-06	-8.539244E-06
		B4	2.282068E-05	2.282068E-05

## Measurement Standards Used

MSI	Description	Serial Number	Calibration Due
5739	Super Thermometer	A17148	07 DEC 2017
3580	Resistor, Standard	1100605	31 MAR 2018
4816	SPRT	0548	12 JUL 2017
8247	SPRT	0832	03 AUG 2017
8787	Water Triple-Point Cell	C-G2063	NCR
8327	RadioLogger	0215-00845	30 APR 2017

This calibration is based on the information contained in NIST Technical Note 1265, "Guidelines for Realizing the International Temperature Scale of 1990 (ITS-90)" section 4.6. The comparison standards used were calibrated in accordance with ITS-90 and are traceable to SI.

~ End of Report ~