



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

BioTek Services, Inc.

5310 South Laburnum Avenue, Henrico, VA 23231

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Laboratory and Field Calibration of Pipettes, Dilutors, Bottle-Top Dispensers, Repeaters, Syringes, Laboratory Balances, Scales, Temperature Devices, and Temperature Measurement
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

June 12, 2010

Issue Date:

September 23, 2020

Expiration Date:

November 30, 2022

Accreditation No:

64303

Certificate No:

L20-567

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com



Certificate of Accreditation: Supplement

BioTek Services, Inc.

5310 South Laburnum Avenue, Henrico, VA 23231
 Contact Name: Lori Moore Phone: 804-222-5833

Accreditation is granted to the facility to perform the following calibrations:

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Pipettes, Dilutors, Dispensers, Repeaters, and Syringes ^{FO}	0.2 μ L to 0.5 μ L	0.02 μ L	Analytical Balances Class 1 weights BTS-SOP-002
	0.5 μ L to 1 μ L	0.04 μ L	
	1 μ L to 2.5 μ L	0.038 μ L	
	2.5 μ L to 5 μ L	0.039 μ L	
	5 μ L to 10 μ L	0.047 μ L	
	10 μ L to 20 μ L	0.049 μ L	
	20 μ L to 50 μ L	0.049 μ L	
	50 μ L to 100 μ L	0.18 μ L	
	100 μ L to 200 μ L	0.24 μ L	
	200 μ L to 500 μ L	1.5 μ L	
	500 μ L to 1 000 μ L	1.7 μ L	
	1 000 μ L to 2 500 μ L	4.4 μ L	
	2 500 μ L to 5 000 μ L	8 μ L	
	5 000 μ L to 10 000 μ L	20 μ L	
10 000 μ L to 50 000 μ L	56 μ L		
50 000 μ L to 10 0000 μ L	77 μ L		

Mass, Force, and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Balances ^O	1 mg to 5 g	$(1.00 \times 10^{-4} + 5.54 \times 10^{-6} \text{ Wt}) \text{ g}$	Class 1 Weights BTS-SOP-003
	5 g to 62 g	$(1.00 \times 10^{-4} + 3.42 \times 10^{-6} \text{ Wt}) \text{ g}$	
	62 g to 205 g	$(2.00 \times 10^{-4} + 2.55 \times 10^{-6} \text{ Wt}) \text{ g}$	
	205 g to 300 g	$(1.16 \times 10^{-2} + 1.68 \times 10^{-7} \text{ Wt}) \text{ g}$	
	300 g to 3 000 g	$(1.13 \times 10^{-2} + 1.06 \times 10^{-6} \text{ Wt}) \text{ g}$	
	3 000 g to 5 000 g	$(9.10 \times 10^{-3} + 1.80 \times 10^{-6} \text{ Wt}) \text{ g}$	
Bench Scales ^O	0.02 lb to 0.06 lb	$(1.00 \times 10^{-4} + 1.20 \times 10^{-4} \text{ Wt}) \text{ lb}$	Class F Weights NIST HB44 BTS-SOP-003
	0.06 lb to 0.25 lb	$(2.00 \times 10^{-4} + 7.03 \times 10^{-5} \text{ Wt}) \text{ lb}$	
	0.25 lb to 0.5 lb	$(1.00 \times 10^{-4} + 1.33 \times 10^{-4} \text{ Wt}) \text{ lb}$	
	0.5 lb to 1 lb	$(1.20 \times 10^{-3} + 1.60 \times 10^{-5} \text{ Wt}) \text{ lb}$	
	1 lb to 5 lb	$(1.20 \times 10^{-3} + 3.16 \times 10^{-5} \text{ Wt}) \text{ lb}$	
	5 lb to 25 lb	$(1.15 \times 10^{-2} + 1.60 \times 10^{-5} \text{ Wt}) \text{ lb}$	
25 lb to 50 lb	$(1.09 \times 10^{-2} + 4.26 \times 10^{-5} \text{ Wt}) \text{ lb}$		



Certificate of Accreditation: Supplement

BioTek Services, Inc.

5310 South Laburnum Avenue, Henrico, VA 23231
Contact Name: Lori Moore Phone: 804-222-5833

Accreditation is granted to the facility to perform the following calibrations:

Mass, Force, and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Floor Scales ^O	50 lb to 200 lb	$(1.15 \times 10^{-1} + 1.47 \times 10^{-5} \text{ Wt}) \text{ lb}$	Class F Weights NIST HB44 BTS-SOP-003
	200 lb to 3 000 lb	$(5.77 \times 10^{-1} + 2.53 \times 10^{-6} \text{ Wt}) \text{ lb}$	
	3 000 lb to 40 000 lb	$(4.47 \times 10^{-1} + 5.26 \times 10^{-5} \text{ Wt}) \text{ lb}$	

Thermodynamic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Temperature Measurement ^{FO}	-80 °C to -30 °C	0.07 °C	Fluke 1529 Chub E-4 Hart Scientific 5615 SPRT ASTM E1-14, (2020) ASTM E77-14et, Fluke 1560 Black Stack BTS-SOP-006 BTS-SOP-007 BTS-SOP-013 BTS-SOP-014 BTS-SOP-016
	-30 °C to 0 °C	0.056 °C	
	0 °C to 35 °C	0.057 °C	
	35 °C to 100 °C	0.057 °C	
	100 °C to 125 °C	0.057 °C	
	125 °C to 350 °C	0.13 °C	

Time & Frequency

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Centrifuge Rate of Rotation ^{FO}	500 rpm to 2 200 rpm	4 rpm	Optical Tachometer BTS-SOP-012
	2 200 rpm to 5 000 rpm	8 rpm	
Stop Watch/Timer ^{FO}	60 s to 120 s	$2.2 \times 10^{-2} \text{ s/d}$	Helmut Klein (TM 4500) BTS-SOP-008

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represent the smallest measurement uncertainties attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is expressed at a confidence level of 95 % using a coverage factor *k* (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations. Example: Outside Micrometer^O would mean that the laboratory performs this calibration onsite at the customer's location.



Certificate of Accreditation: Supplement

BioTek Services, Inc.

5310 South Laburnum Avenue, Henrico, VA 23231
Contact Name: Lori Moore Phone: 804-222-5833

Accreditation is granted to the facility to perform the following calibrations:

3. The presence of a superscript FO means that the laboratory performs calibration of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this calibration at its fixed location and onsite at its customer locations.
4. When calibrations are performed at customer locations the resulting measurement uncertainty associated with the calibration will typically be larger than the CMC stated on this scope of accreditation. This is due in large part to variation of environmental conditions at customer facilities, the effects of transport on any standards or equipment taken to customer sites and the resolution and repeatability unique to the device being calibrated.
5. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.

