SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

BIO-TECH LAB SERVICES, LLC
3909 Turf Court North
Mount Airy, MD 21771
James Collins Phone: 410 474 2773

CALIBRATION

Valid To: October 31, 2025 Certificate Number: 5476.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1, 5]:

I. Chemical

Parameter/Equipment	Range	CMC[2, 4, 6] (±)	Comments
CO_2 – Measure[3]	(1 to 20) % CO_2	0.79 % CO_2	Vaisala GMP221
pH Meters[3]	(4, 7, 10) pH	0.03 pH	Reference pH solutions
O_2 – Measure	(0 to 30) % O_2	0.15 % O_2	Forensics FD-600

II. Mechanical

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Balances & Scales[3]	(0 to 5000) g	0.01 g	Class 1 weight set
Pressure Measuring Equipment[3]			
Pneumatic	(0.25 to 25) psi	0.058 psi	Ashcroft ATE-100

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Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
RPM – Measure[3]	(1 to 190 000) RPM	0.012 % RPM	Monarch PLT200

III. Fluid Quantities

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Piston Operated Volumetric Apparatus – Pipettes	(0.1 to 10) µL (10 to 100) µL (100 to 10 000) µL	8.7 % 8.4 % 9.7 %	Mettler Toledo XP26CP

IV. Thermodynamics

Parameter/Equipment	Range	CMC[2, 4, 6] (±)	Comments
Relative Humidity[3] – Measure	(20 to 80) %	1.3 % RH	Vaisala M170/HMP76
Temperature[3] – Measure	(-100 to 100) °C (-199 to -101) °C	0.92 °C 0.72 °C	Fluke 754, thermocouple type T Fluke 1524, RTD

V. Time & Frequency

Parameter/Equipment	Range	CMC[2] (±)	Comments
Stopwatches & Timers[3]	Up to 23 hr	0.79 s	Digital stopwatch

[1] This laboratory offers commercial calibration service and field calibration service.

[2] Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

[3] Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the Calibration and Measurement Capability Uncertainty (CMC) found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the uncertainty introduced by the item being calibrated, (e.g., resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

[4] In the statement of CMC, the value is defined as the percentage of reading, unless otherwise noted.

[5] This scope meets A2LA's *P112 Flexible Scope Policy*.

[6] The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

Accredited Laboratory

A2LA has accredited

BIO-TECH LAB SERVICES, LLC

Mount Airy, MD

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 8th day of August 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5476.01
Valid to October 31, 2025

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.