PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Utah Water Research Laboratory

1600 Canyon Road, 8200 Old Main Hill, Logan, UT 84322

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Electrical, Mechanical, and Time & Frequency Calibration

(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Tracy Szerszen
President

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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
June 12, 2021	July 17, 2025	September 30, 2027
Revision Date:	*Accreditation No.:*	*Certificate No.:*
October 26, 2026	111012	L25-549-R1

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.pjlabs.com

Certificate of Accreditation: Supplement

Utah Water Research Laboratory

1600 Canyon Road, 8200 Old Main Hill, Logan, UT 84322
Contact Name: Michael Johnson Phone: 435-797-3176

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	EXPANDED MEASUREMENT UNCERTAINTY (±) [1]	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	FLEX CODE	LOCATION OF ACTIVITY
Mechanical	Equipment to Measure Liquid Flow Rate	1 000 GPM to 25 000 GPM	0.1 % of Reading	250K Tank Scale System	UWRL-WTANK UWRL-FMCP	F1, F3	F
Mechanical	Equipment to Measure Liquid Flow Rate	100 GPM to 1 000 GPM	0.07 % of Reading	25 K Tank Scale System	UWRL-WTANK UWRL-FMCP	F1, F3	F
Mechanical	Equipment to Measure Liquid Flow Rate	1 GPM to 100 GPM	0.13 % of Reading	1K Tank Scale System	UWRL-WTANK UWRL-FMCP	F1, F3	F
Mechanical	Equipment to Measure Liquid Flow Rate	Up to 100 000 GPM	0.26 % of Reading	Rosemount Transmitters Fluke 87 DMM Master Venturi / Magnetic Flow Meters	UWRL-FMCP	F1, F3	F
Mechanical	Equipment to Measure Pressure	> 0 to 300 psi	0.03 % of Reading	Ametek Deadweight Testers	UWRL-DWTEST	F1, F3	F
Mechanical	Equipment to Measure Differential Pressure	> 0 to 300 psi	0.11 % of Reading	Rosemount Transmitters	UWRL-PRESS	F1, F3	F
Electrical	Equipment to Measure DC Voltage	Up to 5 V	0.096 % of Reading	Multimeter Fluke 87V	UWRL-ELEC	F1, F3	F
Electrical	Equipment to Measure DC Current	Up to 20 mA	0.68 % of Reading	Multimeter Fluke 87V	UWRL-ELEC	F1, F3	F
Time & Frequency	Equipment to Measure Frequency	1 Hz to 10 000 Hz	0.03 % of Reading	Multimeter Fluke 87V	UWRL-ELEC	F1, F3	F
Time & Frequency	Equipment to Measure Time	Up to 24 hrs	0.6 sec/day	Stopwatch	UWRL-TIME	F1, F3	F

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Accreditation is granted to the facility to perform the following conformity assessment activities:

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically 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 laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.

3. Location of activity:

Location Code	Location
F	Conformity assessment activity is performed at the CABs fixed facility

4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.

5. Flex Codes
   F0: When no flexibility is identified. There are no changes to items calibrated, characteristics identified or versions of methods except for updating to the most recent version of a standard method after verification.
   F1: The laboratory has the capability to introduce a new instrument, quantity, or gauge for an accredited calibration method.
   F2: The laboratory has the capability to introduce the newest revision of an accredited authoritative standard method (with no modifications) identified on the scope
   F3: The laboratory has the capability to introduce a new revision of an accredited non-standard method using the same technology or technique identified on the scope
   F4: The laboratory has the capability to introduce a validated method that is equivalent to an accredited method (using the same Calibration Equipment or Reference Standards identified on the scope for the same parameter, component, or analyte identified on the line item of the scope.