

# AQUALAB® TDL IQ/OQ

## Installation/Operational Qualification

### Benchtop Water Activity Meters for Volatile Samples

#### 1.1 Equipment identification

Fill out this section after unpacking the AQUALAB 4 instrument and corresponding accessories.

**Manufacturer** METER Group, Inc. USA

**Model**

**Serial Number**

#### Company Information

**Company**

**Department**

**Room**

**Contact**

**Calibration SOP**

**Calibration Frequency**

## 2. Installation Qualification (IQ)

Installation of AQUALAB® TDL includes placing the instrument on a level surface in a location where the temperature remains fairly stable. This location should be well away from any air conditioners, heaters, vents, open windows, outside doors, or other items that may cause rapid temperature fluctuation. After finding a good location for the TDL, plug the power cord to the back of the unit and standard AC outlet. The ON/OFF switch is located on the lower right corner of the AQUALAB meter's back panel.

- The AQUALAB® TDL is properly installed at the facility

**Qualified by:**  
**Signature**

**Name/Title**

**Date**

**Initials**

### 3. Operational Qualification (OQ)

The TDL instrument utilizes a tunable diode laser to determine water activity. The performance of the laser is verified by measuring specially prepared calibration standards that have a specific molality and water activity. Performance Verification Standards in four water activity levels are used for qualification: 0.250, 0.500, 0.760, 1.000 aw. The TDL will read each standard with  $\pm 0.005$  aw of the stated value. To measure the water activity of the standards follow the instructions in the User's Manual for taking a reading.

Standard @ 25 °C	Lot	$a_w \pm 0.005$	Tunable Diode Laser °C
13.41m LiCl	0.250	_____	_____
	0.250	_____	_____
8.57m LiCl	0.500	_____	_____
	0.500	_____	_____
6.0m NaCl	0.760	_____	_____
	0.760	_____	_____
Steam Distilled H <sub>2</sub> O	1.000	_____	_____
	1.000	_____	_____

AQUALAB meter measured Verification Standards within specification  Yes  No  
 Qualification met the vendor acceptance criteria  Yes  No

**Complete the following if "No" has been checked, otherwise enter "N/A"**

Explanation of why acceptance criteria was not met

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Action Plan to meet acceptance criteria

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Check after completion of Action Plan**

Qualification meet's vendor's acceptance criteria after completion of action plan  Yes  No

Notes & remarks from checking contents.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature

\_\_\_\_\_

Name/Title

\_\_\_\_\_

Date

\_\_\_\_\_

Initials

\_\_\_\_\_