

Annex F1

Calibration Certificates for  
Surface Water Quality  
Monitoring Equipment



## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	<b>BEN TAM</b>	WORK ORDER:	<b>HK2237607</b>
CLIENT:	<b>ACTION-UNITED ENVIRONMENTAL SERVICES &amp; CONSULTING</b>		
ADDRESS:	<b>RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T.</b>	SUB-BATCH:	<b>0</b>
		LABORATORY:	<b>HONG KONG</b>
		DATE RECEIVED:	<b>22-Sep-2022</b>
		DATE OF ISSUE:	<b>28-Sep-2022</b>

### SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional DSS]
Serial No./ Equipment No.:	[17B102764/17B100758]/ [EQW019]
Date of Calibration:	27-September-2022

### GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Ms. Lin Wai Yu, Iris  
Assistant Manager - Inorganics

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



**WORK ORDER:** HK2237607  
**SUB-BATCH:** 0  
**DATE OF ISSUE:** 28-Sep-2022  
**CLIENT:** ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

**Equipment Type:** Multifunctional Meter  
**Brand Name/ Model No.:** [YSI]/ [Professional DSS]  
**Serial No./ Equipment No.:** [17B102764/17B100758]/ [EQW019]  
**Date of Calibration:** 27-September-2022      **Date of Next Calibration:** 27-December-2022

**PARAMETERS:**

Conductivity      Method Ref: APHA (21st edition), 2510B

Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)
146.9	154.1	+4.9
6667	7043	+5.6
12890	13282	+3.0
58670	60170	+2.6
Tolerance Limit (%)		±10.0

Dissolved Oxygen      Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.90	3.86	-0.04
6.19	6.09	-0.10
7.76	7.78	+0.02
Tolerance Limit (mg/L)		±0.20

pH Value      Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.20	+0.20
7.0	7.20	+0.20
10.0	9.95	-0.05
Tolerance Limit (pH unit)		±0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

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 Assistant Manager - Inorganics

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**Equipment Type:** Multifunctional Meter  
**Brand Name/ Model No.:** [YSI]/ [Professional DSS]  
**Serial No./ Equipment No.:** [17B102764/17B100758]/ [EQW019]  
**Date of Calibration:** 27-September-2022      **Date of Next Calibration:** 27-December-2022

**PARAMETERS:**

**Turbidity**      Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	-0.12	--
4	3.86	-3.5
40	37.35	-6.6
80	77.12	-3.6
400	371.05	-7.2
800	728.04	-9.0
	<b>Tolerance Limit (%)</b>	<b>±10.0</b>

**Salinity**      Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.67	+6.7
20	20.56	+2.8
30	31.12	+3.7
	<b>Tolerance Limit (%)</b>	<b>±10.0</b>

**Remark:** "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

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WORK ORDER: HK2237607  
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CLIENT: ACTION-UNITED ENVIRONMENTAL SERVICES & CONSULTING

Equipment Type: Multifunctional Meter  
Brand Name/ Model No.: [YSI]/ [Professional DSS]  
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Date of Calibration: 27-September-2022 Date of Next Calibration: 27-December-2022

## PARAMETERS:

Temperature Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
7.0	6.7	-0.3
23.0	22.4	-0.6
43.5	42.7	-0.8
	Tolerance Limit (°C)	±2.0

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