

Appendix F Water Quality Equipment Calibration Certificate



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
 Email: info@qualityprotest.com; Website: www.qualityprotest.com
 Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB070028
Date of Issue : 13 July 2022
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
 Unit E, 12/F, Ford Glory Plaza 37-39 Wing
 Hong Street, Cheung Sha Wan
 Kowloon (HK) Hong Kong
 Attn :

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
 Manufacturer : YSI (a xylem brand)
 Serial Number : 22C106561
 Date of Received : 08 July 2022
 Date of Calibration : 11 July 2022
 Date of Next Calibration : 10 October 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Test Parameter</u>	<u>Reference Method</u>
Turbidity	APHA 21e 2130B
Dissolved oxygen	APHA 21e 4500 O
pH value	APHA 21e 4500 H+
Salinity	APHA 21e 2520B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure

PART D - CALIBRATION RESULT

(1) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.13	--	Satisfactory
10	9.91	-0.90	Satisfactory
20	19.52	-2.40	Satisfactory
100	96.50	-3.50	Satisfactory
800	783.45	-2.10	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

(2) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.71	7.67	-0.04	Satisfactory
4.57	4.88	0.31	Satisfactory
2.73	2.67	-0.06	Satisfactory
0.05	0.26	0.21	Satisfactory

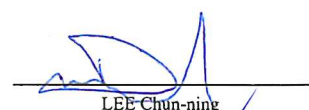
Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

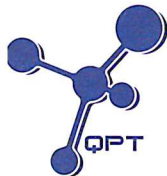
(3) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
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 Assistant Manager (Chemical Testing)



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Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	3.97	-0.03	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.07	0.06	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(4) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.72	-2.80	Satisfactory
20	20.35	1.75	Satisfactory
30	31.26	4.20	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Temperature

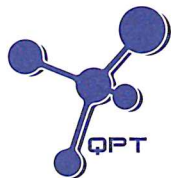
Reading of Ref. thermometer ($^{\circ}\text{C}$)	Display Reading ($^{\circ}\text{C}$)	Tolerance	Result
16.0	15.8	-0.2	Satisfactory
26.0	25.7	-0.3	Satisfactory
32.1	32.0	-0.1	Satisfactory

Tolerance of Temperature should be less than ± 2.0 ($^{\circ}\text{C}$)

Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB060031
Date of Issue : 17 June 2022
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit E, 12/F, Ford Glory Plaza 37-39 Wing
Hong Street, Cheung Sha Wan
Kowloon (HK) Hong Kong
Attn :

PART B - SAMPLE INFORMATION

Name of Equipment : HORIBA U-53
Manufacturer : HORIBA
Serial Number : NEKVM2XU
Date of Received : 15 June 2022
Date of Calibration : 15 June 2022
Date of Next Calibration : 14 September 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
Turbidity	APHA 21e 2130B
Dissolved oxygen	APHA 21e 4500 O
pH value	APHA 21e 4500 H+
Salinity	APHA 21e 2520B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.00	--	Satisfactory
10	10.70	7.0	Satisfactory
20	21.00	5.0	Satisfactory
100	109.00	9.0	Satisfactory
800	796.00	-0.5	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

(2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE	RESULT
8.17	8.20	0.03	Satisfactory
5.58	5.50	-0.08	Satisfactory
3.53	3.30	-0.23	Satisfactory
0.08	0.00	-0.08	Satisfactory


Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

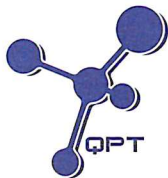
(3) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
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Test Report No. : R-BB060031

Date of Issue : 17 June 2022

Page No. : 2 of 2

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.00	0.00	Satisfactory
7.42	7.42	0.00	Satisfactory
10.01	10.16	0.15	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(4) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.04	-9.60	Satisfactory
20	18.93	-5.35	Satisfactory
30	29.25	-2.50	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE	RESULT
16.0	16.07	0.07	Satisfactory
24.0	23.99	-0.01	Satisfactory
34.0	33.73	-0.27	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

Remark(s)

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB050023
 Date of Issue : 13 May 2022
 Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
 Unit E, 12/F, Ford Glory Plaza 37-39 Wing
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 Attn :

PART B - SAMPLE INFORMATION

Name of Equipment : HORIBA U-53
 Manufacturer : HORIBA
 Serial Number : PPHNOMXY
 Date of Received : 06 May 2022
 Date of Calibration : 12 May 2022
 Date of Next Calibration : 11 August 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
Turbidity	APHA 21e 2130B
Dissolved oxygen	APHA 21e 4500 O
pH value	APHA 21e 4500 H+
Salinity	APHA 21e 2520B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0	--	Satisfactory
10	11.0	10.0	Satisfactory
20	20.13	0.6	Satisfactory
100	99.9	-0.1	Satisfactory
800	808	1.0	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

(2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.02	7.99	-0.03	Satisfactory
5.16	5.43	0.27	Satisfactory
3.74	4.21	0.47	Satisfactory
0.94	1.40	0.46	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(3) pH value

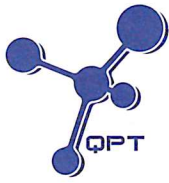
TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
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TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	3.99	-0.01	Satisfactory
7.42	7.28	-0.14	Satisfactory
10.01	9.95	-0.06	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(4) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	10.26	2.60	Satisfactory
20	21.35	6.75	Satisfactory
30	32.54	8.47	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

(5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
17.0	17.11	0.11	Satisfactory
24.0	23.99	-0.01	Satisfactory
34.0	33.84	-0.16	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)

Remark(s)

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