Appendix E

Calibration Certificates of Monitoring Equipments



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

Report No.

AI090154

Date of Issue

02 October 2019

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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI ProDSS (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

16H104233

Date of Received

Sep 27, 2019

Sep 27, 2019

Date of Calibration Date of Next Calibration(a)

Dec 26, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H+ B

Dissolved Oxygen Conductivity at 25°C APHA 21e 4500-O G APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity

APHA 21e 2130 B

Temperature

Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance(e)(pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.06	0.05	Satisfactory

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.0	0.0	Satisfactory
22.0	22.1	0.1	Satisfactory
42.0	42.2	0.2	Satisfactory

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

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Remark(s): -

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form 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 referenced to YSI product specifications.



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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.75	-0.03	Satisfactory
3.69	3.98	0.29	Satisfactory
5.77	5.4	-0.37	Satisfactory
7.68	7.82	0.14	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	138.9	-5.45	Satisfactory
0.01	1412	1380	-2.27	Satisfactory
0.1	12890	12834	-0.43	Satisfactory
0.5	58670	57663	-1.72	Satisfactory
1.0	111900	109858	-1.82	Satisfactory

Tolerance limit of conductivity should be less than ±10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.16	1.60	Satisfactory
20	20.38	1.90	Satisfactory
30	30.47	1.57	Satisfactory

Tolerance limit of salinity should be less than ±10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.11		Satisfactory
10	9.89	-1.1	Satisfactory
20	19.82	-0.9	Satisfactory
100	97.25	-2.8	Satisfactory
800	780.16	-2.5	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

[&]quot;Displayed Reading" presents the figures 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 form relevant international standards.



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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI ProDSS (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

17H105557

Date of Received

Sep 27, 2019

Date of Calibration

Sep 27, 2019

Date of Next Calibration^(a)

Dec 26, 2019

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H⁺ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity

APHA 21e 2130 B

Temperature

Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.05	0.05	Satisfactory
7.42	7.41	-0.01	Satisfactory
10.01	10.11	0.10	Satisfactory

Tolerance of pH should be less than ± 0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10.0	10.0	0.0	Satisfactory
22.0	22.1	0.1	Satisfactory
42.0	42.1	0.1	Satisfactory

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

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Remark(s): -

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(b) 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.

(e) The "Tolerance Limit" mentioned is referenced to YSI product specifications.



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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.78	0.72	-0.06	Satisfactory
3.69	4.01	0.32	Satisfactory
5.77	5.38	-0.39	Satisfactory
7.68	7.80	0.12	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	138.2	-5.92	Satisfactory
0.01	1412	1394	-1.27	Satisfactory
0.1	12890	12855	-0.27	Satisfactory
0.5	58670	57582	-1.85	Satisfactory
1.0	111900	109780	-1.89	Satisfactory

Tolerance limit of conductivity should be less than ± 10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.08	0.80	Satisfactory
20	20.41	2.05	Satisfactory
30	30.52	1.73	Satisfactory

Tolerance limit of salinity should be less than ± 10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.10		Satisfactory
10	9.94	-0.6	Satisfactory
20	19.86	-0.7	Satisfactory
100	97.43	-2.6	Satisfactory
800	779.37	-2.6	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

Remark(s): -

relevant international standards.

[~] END OF REPORT ~

⁽B) "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
(B) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No.

AI100183

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30 October 2019

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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI 6920V2 (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

00019CB2

Date of Received

Oct 28, 2019

Oct 28, 2019

Date of Calibration

Date of Next Calibration(a)

Jan 27, 2020

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H+ B

Dissolved Oxygen Conductivity at 25°C APHA 21e 4500-O G APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity Temperature APHA 21e 2130 B Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance(e)(pH Unit)	Results
4.00	3.95	-0.05	Satisfactory
7.42	7.36	-0.06	Satisfactory
10.01	9.93	-0.08	Satisfactory

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
25.0	24.9	-0.1	Satisfactory
35.0	34.9	-0.1	Satisfactory

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

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Remark(s): -

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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 referenced to YSI product specifications.



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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
1.04	0.80	-0.24	Satisfactory
4.10	4.34	0.24	Satisfactory
5,92	5.94	0.02	Satisfactory
7.81	8.07	0.26	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	140.0	-4.70	Satisfactory
0.01	1412	1394	-1.27	Satisfactory
0.1	12890	12780	-0.85	Satisfactory
0.5	58670	57927	-1.27	Satisfactory
1.0	111900	110880	-0.91	Satisfactory

Tolerance limit of conductivity should be less than ± 10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.90	-1.00	Satisfactory
20	19.88	-0.60	Satisfactory
30	29.89	-0.37	Satisfactory

Tolerance limit of salinity should be less than ±10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.20	in mil	Satisfactory
10	9.98	-0.2	Satisfactory
20	19.88	-0.6	Satisfactory
100	100.20	0.2	Satisfactory
800	798.82	-0.1	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

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AI100182

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PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI 6920V2 (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

0001C6A7

Date of Received

Oct 28, 2019

Date of Calibration

Oct 28, 2019

Date of Next Calibration(a)

Jan 27, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H+ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity

APHA 21e 2130 B

Temperature

Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.07	0.07	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.05	0.04	Satisfactory

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature

Reading of Ref. thermometer	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
25.0	25.0	0.0	Satisfactory
35.0	35.0	0.0	Satisfactory

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

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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
1.04	0.90	-0.14	Satisfactory
4.10	4.40	0.3	Satisfactory
5.92	6.00	0.08	Satisfactory
7.81	8.10	0.29	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.50 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	156	6.19	Satisfactory
0.01	1412	1384	-1.98	Satisfactory
0.1	12890	12810	-0.62	Satisfactory
0.5	58670	57991	-1.16	Satisfactory
1.0	111900	110844	-0.94	Satisfactory

Tolerance limit of conductivity should be less than ± 10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.08	0.80	Satisfactory
20	20.07	0.35	Satisfactory
30	30.1	0.33	Satisfactory

Tolerance limit of salinity should be less than ± 10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.50	. mi 400	Satisfactory
10	10.02	0.2	Satisfactory
20	20.47	2.3	Satisfactory
100	100.16	0.2	Satisfactory
800	798.93	-0.1	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

Remark(s): -

relevant international standards.

[~] END OF REPORT ~

⁽b) "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
(c) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form