

ANNEX H

CALIBRATION CERTIFICATES FOR MARINE WATER QUALITY MONITORING EQUIPMENT



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	LAM MEI SHING	WORK ORDER:	HK2231140
CLIENT:	EGS (ASIA) LTD	SUB- BATCH:	0
ADDRESS:	2/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING ROAD, NORTH POINT, HONG KONG	LABORATORY:	HONG KONG
		DATE RECEIVED:	09-Aug-2022
		DATE OF ISSUE:	10-Aug-2022

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:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [6820 V2-M]
Serial No./ Equipment No.:	[09H101347]/ [MPP37]
Date of Calibration:	09-August-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This report superseded any previous report(s) with same work order number.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: HK2231140

SUB- BATCH: 0

DATE OF ISSUE: 10-Aug-2022

CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter

Brand Name/
Model No.: [YSI]/ [6820 V2-M]

Serial No./
Equipment No.: [09H101347]/ [MPP37]

Date of Calibration: 09-August-2022

Date of Next Calibration:

09-November-2022

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.89	2.88	-0.01
5.68	5.56	-0.12
7.27	7.18	-0.09
	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	4.16	+0.16
7.0	7.16	+0.16
10.0	9.97	-0.03
	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.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2231140
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820 V2-M]
Serial No./ Equipment No.: [09H101347]/ [MPP37]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.1	+2.5
40	39.3	-1.8
80	81.0	+1.3
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.41	-5.9
20	18.81	-6.0
30	27.93	-6.9
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2231140
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CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820 V2-M]
Serial No./ Equipment No.: [09H101347]/ [MPP37]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-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)
9.5	9.62	+0.1
20.3	20.45	+0.1
39.6	39.99	+0.4
	Tolerance Limit (°C)	±2.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: LAM MEI SHING
CLIENT: EGS (ASIA) LTD
ADDRESS: 2/F., NORTH POINT INDUSTRIAL BUILDING,
499 KING ROAD,
NORTH POINT, HONG KONG

WORK ORDER: HK2231168
SUB- BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 09-Aug-2022
DATE OF ISSUE: 10-Aug-2022

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: Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100579]/ [MPP56]
Date of Calibration: 09-August-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: HK2231168
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100579]/ [MPP56]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.95	2.83	-0.12
5.36	5.32	-0.04
7.22	7.28	+0.06
	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	4.14	+0.14
7.0	7.17	+0.17
10.0	10.02	+0.02
	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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WORK ORDER: HK2231168
SUB-BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100579]/ [MPP56]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.7	-7.5
40	39.4	-1.5
80	78.8	-1.5
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.40	-6.0
20	18.84	-5.8
30	27.89	-7.0
	Tolerance Limit (%)	±10.0

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

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2231168
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100579]/ [MPP56]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-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)
8.2	7.91	-0.3
20.7	20.44	-0.3
41.4	40.80	-0.6
	Tolerance Limit (°C)	±2.0

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



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: LAM MEI SHING
CLIENT: EGS (ASIA) LTD
ADDRESS: 2/F., NORTH POINT INDUSTRIAL BUILDING,
499 KING ROAD,
NORTH POINT, HONG KONG

WORK ORDER: HK2231172
SUB- BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 09-Aug-2022
DATE OF ISSUE: 10-Aug-2022

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: Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.: [YSI]/ [6820 V2-M]
Serial No./ Equipment No.: [14A101573]/ [MPP46]
Date of Calibration: 09-August-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: HK2231172
SUB-BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820 V2-M]
Serial No./ Equipment No.: [14A101573]/ [MPP46]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.70	2.71	+0.01
5.00	4.94	-0.06
7.09	7.01	-0.08
	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	4.15	+0.15
7.0	7.18	+0.18
10.0	10.03	+0.03
	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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WORK ORDER: HK2231172
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CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: [YSI]/ [6820 V2-M]
Serial No./
Equipment No.: [14A101573]/ [MPP46]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.9	-2.5
40	41.9	+4.8
80	81.1	+1.4
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.38	-6.2
20	18.80	-6.0
30	27.94	-6.9
	Tolerance Limit (%)	±10.0

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: HK2231172
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820 V2-M]
Serial No./ Equipment No.: [14A101573]/ [MPP46]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-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)
7.5	7.33	-0.2
20.8	20.46	-0.3
41.2	40.94	-0.3
	Tolerance Limit (°C)	±2.0

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



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: LAM MEI SHING
CLIENT: EGS (ASIA) LTD
ADDRESS: 2/F., NORTH POINT INDUSTRIAL BUILDING,
499 KING ROAD,
NORTH POINT, HONG KONG

WORK ORDER: HK2231176
SUB- BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 09-Aug-2022
DATE OF ISSUE: 10-Aug-2022

SPECIFIC COMMENTS

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Equipment Type: Multifunctional Meter
Service Nature: Performance Check
Scope: Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 09-August-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: HK2231176
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6920 V2-2]
Serial No./ Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.42	2.50	+0.08
5.44	5.43	-0.01
7.10	7.07	-0.03
	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	4.12	+0.12
7.0	7.17	+0.17
10.0	10.01	+0.01
	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.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2231176
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DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: [YSI]/ [6920 V2-2]
Serial No./
Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-2022

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.9	-2.5
40	42.3	+5.7
80	79.8	-0.3
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.37	-6.3
20	18.83	-5.9
30	27.92	-6.9
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

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WORK ORDER: HK2231176
SUB- BATCH: 0
DATE OF ISSUE: 10-Aug-2022
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: [YSI]/ [6920 V2-2]
Serial No./
Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 09-August-2022

Date of Next Calibration: 09-November-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)
9.3	9.01	-0.3
21.1	20.42	-0.7
40.7	40.25	-0.5
	Tolerance Limit (°C)	±2.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics