



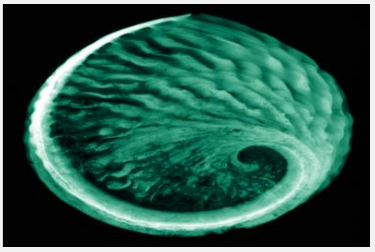

Capco 青山發電有限公司 Castle Peak Power Company Limited

港燈 HK Electric

推動永續未來 Powering for Sustainability

HKLTL

Hong Kong Offshore LNG Terminal Project

Water Quality Monitoring Report for First Year of Operation of the LNG Terminal – July to September 2023

16 October 2023

Project No.: 0505354

The business of sustainability

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16 October 2023

Hong Kong Offshore LNG Terminal Project

Water Quality Monitoring Report for First Year of Operation of the LNG Terminal – July to September 2023

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Managing Partner

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Kowloon
Hong Kong

Hong Kong Offshore LNG Terminal
Environmental Certification Sheet
FEP-01/558/2018/A, FEP-02/558/2018/A and FEP-03/558/2018/B

Reference Document/Plan

Document/~~Plan~~ to be Certified/ Verified:	Water Quality Monitoring Report for First Year of Operation of the LNG Terminal – July to September 2023
Date of Report:	16 October 2023
Date prepared by ET:	16 October 2023
Date received by IEC:	16 October 2023

Reference EP Requirement

EP Condition:	Condition No. 5.1 of FEP-01/558/2018/A, FEP-02/558/2018/A & FEP-03/558/2018/B

The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the Updated EM&A Manual.

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of FEP-01/558/2018/A, FEP-02/558/2018/A & FEP-03/558/2018/B.

Mr Raymond Chow,
Environmental Team Leader:  Date: 16 October 2023

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of FEP-01/558/2018/A, FEP-02/558/2018/A & FEP-03/558/2018/B.

Ms Lydia Chak,
Independent Environmental Checker:  Date: 20 October 2023

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EXECUTIVE SUMMARY

To support the increased use of natural gas in Hong Kong from 2020 onwards, Castle Peak Power Company Limited (CAPCO) and The Hongkong Electric Co., Ltd. (HK Electric) have identified that the development of an offshore liquefied natural gas (LNG) receiving terminal in Hong Kong using Floating Storage and Regasification Unit (FSRU) technology ('the Project') presents a viable additional gas supply option that will provide energy security through access to competitive gas supplies from world markets. The Project involves the construction and operation of an offshore LNG import facility to be located in the southern waters of Hong Kong, a double berth jetty, and subsea pipelines that connect to the gas receiving stations (GRS) at the Black Point Power Station (BPPS) and the Lamma Power Station (LPS). The Project commenced operation on 3 July 2023. In accordance with the *Updated EM&A Manual* of the Project, operation phase water quality monitoring is undertaken during the first year of operation for the Project. This is the water quality monitoring report presenting the operation phase water quality monitoring carried out between July and September 2023.

During the reporting period, operation phase water quality monitoring was conducted at three monitoring locations once per week for 13 sessions between 6 July and 26 September 2023. There were no Project-related Action and Limit Level exceedances for the operation phase water quality monitoring in the reporting period. Overall, deterioration of water quality and indirect impacts at water and ecological sensitive receivers were not detected. The operation of the Project did not result in unacceptable water quality impacts to the nearby water and ecological sensitive receivers, which aligns with the EIA study predictions.

There were no environmental complaints, notification of summons and successful prosecutions recorded for the operation of the Project in the reporting period.

The monitoring activities conducted in the reporting period have been reviewed and are considered effective. As such, no change to the monitoring methodology is recommended. Based on the EM&A findings for the reporting period, the environmental performance for the operation of the Project is generally in line with the EIA predictions and considered acceptable.

1. INTRODUCTION

1.1 Background

To support the increased use of natural gas in Hong Kong from 2020 onwards, Castle Peak Power Company Limited (CAPCO) and The Hongkong Electric Co., Ltd. (HK Electric) have identified that the development of an offshore liquefied natural gas (LNG) receiving terminal in Hong Kong using Floating Storage and Regasification Unit (FSRU) technology ('the Project') presents a viable additional gas supply option that will provide energy security through access to competitive gas supplies from world markets. The Project involves the construction and operation of an offshore LNG import facility to be located in the southern waters of Hong Kong, a double berth jetty, and subsea pipelines that connect to the gas receiving stations (GRS) at the Black Point Power Station (BPPS) and the Lamma Power Station (LPS).

The Environmental Impact Assessment (EIA) Report for the Project was submitted to the Environmental Protection Department (EPD) of the HKSAR Government in May 2018. The EIA Report (EIAO Register No. AEIAR-218/2018) was approved by EPD and the associated Environmental Permit (EP) (EP-558/2018) was issued in October 2018.

An application for Further Environmental Permits (FEPs) were made on 24 December 2019 to demarcate the works between the different parties. The following FEPs were issued on 17 January 2020 and the EP under EP-558/2018 was surrendered on 5 March 2020.

- the double berth jetty at LNG Terminal under the Hong Kong LNG Terminal Limited (HKLTL), joint venture between CAPCO and HK Electric (FEP-01/558/2018/A) [(a)] – construction commenced on 27 November 2020;
- the subsea gas pipeline for the BPPS and the associated GRS in the BPPS under CAPCO (FEP-03/558/2018/B) [(b)] – construction commenced on 23 September 2020; and
- the subsea gas pipeline for the LPS and the associated GRS in the LPS under HK Electric (FEP-02/558/2018/A) [(c)] – construction commenced on 13 December 2020.

The location of these components is shown in ***Figure 1.1***.

The Project commenced operation on 3 July 2023. This is the quarterly report for the operation phase water quality monitoring for the LNG Terminal which summarises the key monitoring results for the reporting period of July to September 2023 in accordance with the *Updated EM&A Manual* of the Project.

1.2 Structure of the Report

The remainder of the report is structured as follows:

- ***Section 2*** details the monitoring locations, monitoring methodology, QA/QC requirements, and the monitoring results;
- ***Section 3*** provides the conclusion of this operation phase water quality monitoring.

(a) Application for variation of an environmental permit for FEP-01/558/2018 was undertaken and the latest FEP (FEP-01/558/2018/A) was issued on 6 November 2020.

(b) Application for variation of an environmental permit for FEP-03/558/2018/A was undertaken and the latest FEP (FEP-03/558/2018/B) was issued on 25 August 2021.

(c) Application for variation of an environmental permit for FEP-02/558/2018 was undertaken and the latest FEP (FEP-02/558/2018/A) was issued on 22 December 2020.

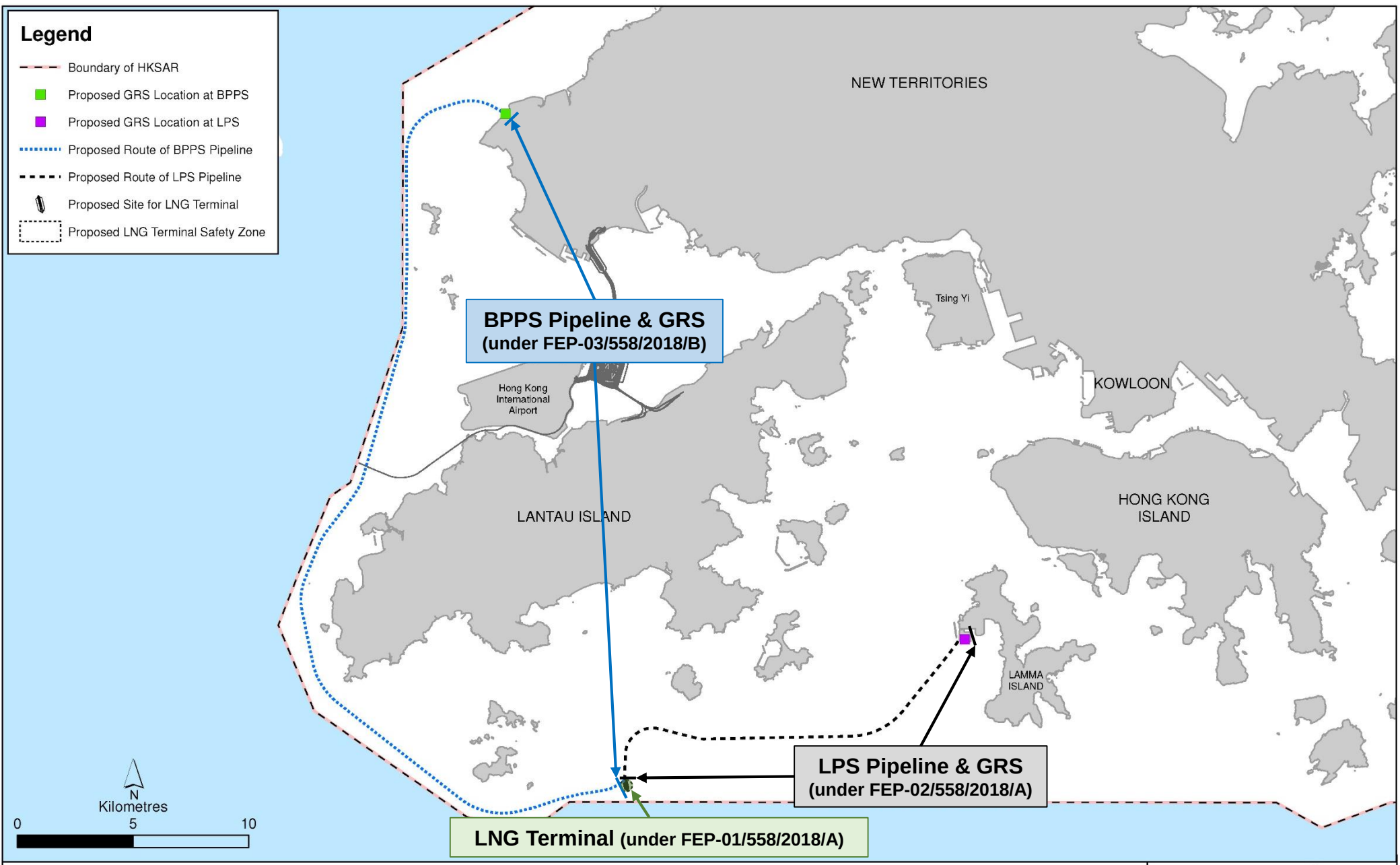

Figure 1.1

Indicative Location of Key Project Components

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Date: August 2021

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2. OPERATION PHASE WATER QUALITY MONITORING

In accordance with the *Updated EM&A Manual* of the Project, operation phase water quality monitoring would be conducted once a week for one year after operation of the LNG Terminal. Details of the operation phase water quality monitoring under this Project are presented in the following sections.

2.1 Monitoring Locations

Operation phase water quality monitoring was conducted at 3 monitoring stations around the LNG Terminal, comprising 1 sensitive receiver station, 1 ebb-tide control station and 1 flood-tide control station. The locations of the monitoring stations are presented in ***Figure 2.1***. The coordinates and description of monitoring stations are summarised in ***Table 2.1***.

Table 2.1 Location of Water Quality Monitoring Stations

Station	Easting	Northing	Description
IM6	814073	802029	Boundary of South Lantau Marine Park
E2	813367	808213	Control Station for Ebb Tide
F3	815032	801161	Control Station for Flood Tide

2.2 Monitoring Methodology

2.2.1 Monitoring Parameters and Frequency

The parameters that have been selected for measurement *in situ* and in the laboratory are those that were either determined in the EIA to be those with the highest potential to be affected by the Project or are a standard check on water quality conditions. ***Table 2.2*** summarises the monitoring parameters, monitoring period and frequencies of the water quality monitoring. The measurement of monitoring parameters followed the standard methods and detection limit requirements as stated in *Table 5.2* of the *Updated EM&A Manual*.

Table 2.2 Water Quality Monitoring Parameters and Frequency

Monitoring Station	Parameters	Depth	Frequency and Replication
Sensitive Receiver Station IM6 Control Stations Ebb tide - E2 Flood tide - F3	• Dissolved Oxygen (DO) (mg/L) • Dissolved Oxygen Saturation (DOS) (%) • Temperature (°C) • pH • Turbidity (NTU) • Salinity (ppt) • Water depth (m) • Total Residual Chlorine (TRC) (mg/L) • Suspended Solid (SS) (mg/L) • Total Inorganic Nitrogen (TIN) (mg/L) • 5-day Biochemical Oxygen Demand (BOD_5) (mg/L)	• Three water depths: 1 m below sea surface, mid-depth and 1 m above seabed. • If the water depth is less than 3 m, mid-depth sampling only. • If water depth less than 6 m, mid-depth would be omitted.	• First year of operation water quality monitoring: one day per week, at mid-flood and mid-ebb tides, for one year upon the commencement of operation of the LNG Terminal. The interval between two sets of monitoring shall not be less than 36 hours. • Two replicates of *in-situ* measurements and water samples at each depth at each station.

In addition to the water quality parameters, other relevant data were also measured and recorded in Water Quality Monitoring Logs, including the location of the monitoring stations, water depth, time,

weather conditions, sea conditions, tidal state, current direction and velocity, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

2.2.2 Monitoring Equipment

Table 2.3 summarises the equipment used in the monitoring works. All the monitoring equipment complied with the requirements as set out in the *Updated EM&A Manual*.

Table 2.3 Water Quality Monitoring Equipment

Equipment	Brand and Model
Water Sampling Equipment	SBE 32 Carousel Water Sampler
Positioning Device	C-Nav GcGPS Positioning System NovAtel PwrPak7D
Water Depth Gauge	Knudsen 320M Kongsberg EA440
Equipment for Dissolved Oxygen, Temperature, Turbidity, pH and Salinity measurements	YSI 6820, S/N: MPP46, MPP22, MPP57 (Note 1)
Total Residual Chlorine	Hanna Instruments (Model HI761)
Equipment for Current Velocity and Direction measurements	Workhorse Sentinel ADCP, Self-contained 600 and 1,200 kHz

Note 1: MPP46 was deployed for the monitoring conducted between 6 and 25 July 2023; MPP57 was deployed for the monitoring conducted between 31 July and 28 August 2023; MPP22 was deployed for the monitoring conducted between 9 and 26 September 2023.

2.2.3 Operational/ Analytical Procedures

At each monitoring station, two consecutive measurements of DO level, DO Saturation, Temperature, Turbidity, Salinity and pH were taken at each sampling depth. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded, and further readings were taken. Two water samples were collected for laboratory analysis of SS, TIN and BOD_5. Following sample collection, water samples were stored in high density polythene bottles (1L) with no preservatives added, packed in ice (cooled to 4°C without being frozen) and kept in dark during both on-site temporary storage and transfer to the testing laboratory. The samples were delivered to the laboratory as soon as possible and the laboratory determination works started within 24 hours after collection of the water samples.

The testing of SS, TIN and BOD_5 for all monitoring stations was conducted by a Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory, ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066). Comprehensive quality assurance and control procedures were in place in order to ensure quality and consistency in results.

2.2.4 Action and Limit Levels for Marine Water Quality Monitoring

The Action and Limit Levels for operation phase water quality monitoring have been established with reference to *Table 5.5 of the Updated EM&A Manual*. Action and Limit Levels of key assessment parameters for operation phase marine water quality monitoring are summarised in ***Table 2.4*** which have been agreed with EPD.

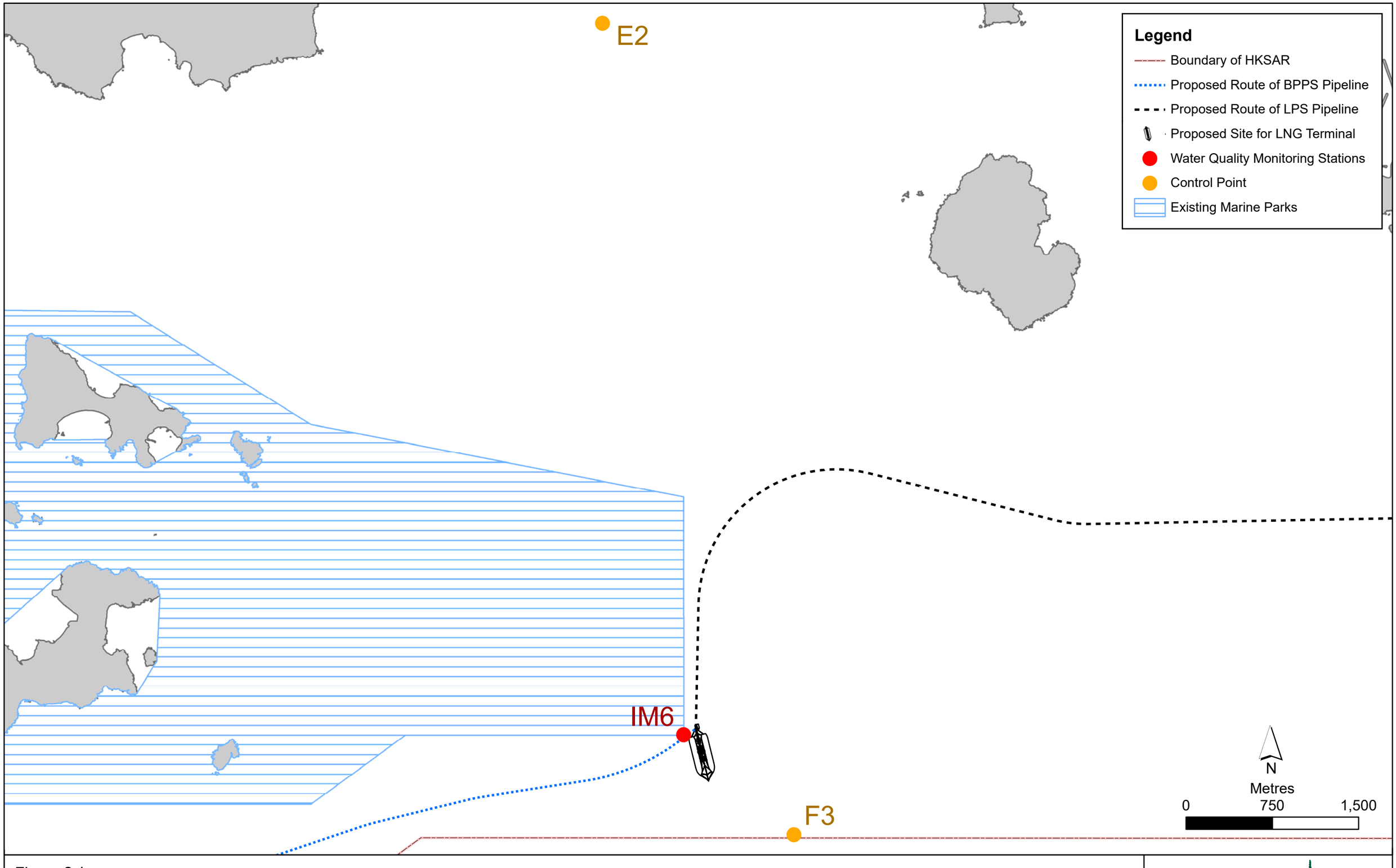

Figure 2.1

Water Quality Monitoring Locations

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Date: 24/4/2020

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Table 2.4 Action and Limit Levels for Operation Phase Water Quality Monitoring

Parameter	Action Level	Limit Level
First-year Operation Phase Water Quality Monitoring		
DO in mg L^{-1} [a]	Surface and Middle 4.0 mg L^{-1} Bottom 2.2 mg L^{-1}	Surface and Middle 3.0 mg L^{-1} Bottom 1.5 mg L^{-1}
Water Temperature in °C (Depth-averaged [b]) [c]	± 1.5 °C of baseline data, and ± 1.5 °C of the relevant control station's water temperature at the same tide of the same day	± 2.0 °C of baseline data, and ± 2.0 °C of the relevant control station's water temperature at the same tide of the same day
Turbidity in NTU (Depth-averaged [b]) [c]	18.3 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	30.8 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L^{-1} (Depth-averaged [b]) [c]	17.5 mg L^{-1}, and 120% of the relevant control station's SS at the same tide of the same day	29.5 mg L^{-1}, and 130% of the relevant control station's SS at the same tide of the same day
TIN in mg L^{-1} (Depth-averaged [b]) [c]	0.5 mg L^{-1}, and 120% of the relevant control station's TIN at the same tide of the same day	0.8 mg L^{-1}, and 130% of the relevant control station's TIN at the same tide of the same day
BOD_5 in mg L^{-1} (Depth-averaged [b]) [c]	1.9 mg L^{-1}, and 120% of the relevant control station's BOD5 at the same tide of the same day	2.8 mg L^{-1}, and 130% of the relevant control station's BOD5 at the same tide of the same day
TRC in mg L^{-1} (Depth-averaged [b]) [c]	0.02 mg L^{-1}	0.02 mg L^{-1}

Notes:
a. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
b. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
c. For water temperature, salinity, SS, turbidity, BOD_5, TIN and TRC, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

The Event and Action Plan for operation phase water quality monitoring is provided in ***Table 2.5***.

Table 2.5 Event and Action Plan for Operation Phase Water Quality Monitoring

Event	Action			
	ET	**IEC**	**Contractor(s)**	**Project Proponents**
Action Level being exceeded by one sampling day	1. Repeat *in-situ* measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and Project Proponents.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice.	1. Confirm receipt of notification of exceedance in writing.
Action Level being exceeded by two or more consecutive sampling days	1. Repeat *in-situ* measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and Project Proponents; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented.

Event	Action			
	ET	**IEC**	**Contractor(s)**	**Project Proponents**
Limit Level being exceeded by one sampling day	1. Repeat *in situ* measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s), Project Proponents and EPD; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented; 4. Request Contractor(s) to critically review the working methods.
Limit Level being exceeded by two or more consecutive sampling days	1. Repeat *in situ* measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s), Project Proponents and EPD; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures; 6. As directed by Project Proponents, slow down or stop all or part of the marine construction works until no exceedance of Limit Level.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented; 4. Request Contractor(s) to critically review the working methods; 5. Consider and instruct, if necessary, the Contractor(s) to slow down or to stop all or part of the marine construction works until no exceedance of Limit Level.

2.3 QA/QC Requirements

2.3.1 Calibration of In-situ Instruments

In situ monitoring equipment for the measurement of DO, Temperature, Turbidity, pH and Salinity was checked, calibrated and certified by a laboratory accredited under HOKLAS before use, while the test kit for TRC was checked against the calibration check set provided by the manufacturer before commencement of monitoring. Copies of the calibration certificates for the measuring equipment for DO, Temperature, Turbidity, pH and Salinity are attached in ***Annex A***. The *in situ* monitoring equipment for the measurement of DO, Temperature, Turbidity, pH and Salinity was subsequently re-calibrated every three months throughout the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibrations for dissolved oxygen meter were carried out before commencement of monitoring and after completion of all measurements each day.

On-site calibration of field equipment followed the "Guide to On-Site Test Methods for the Analysis of Waters", BS 1427: 2009. Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also made available to ensure monitoring could proceed uninterrupted even when equipment is under maintenance, calibration etc.

2.3.2 Decontamination Procedures

Water sampling equipment used during the course of the monitoring was decontaminated by manual washing and rinsed with clean seawater/distilled water after each sampling event. All disposable equipment was discarded after sampling.

2.3.3 Sampling Management and Supervision

All sampling bottles were labelled with the sample ID (including the indication of sampling station and tidal stage e.g. IM6_ME_S_R1), laboratory number and sampling date. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

2.3.4 Quality Control Measures for Sample Testing

The samples testing was performed by ALS Technichem (HK) Pty Ltd. The following quality control programme was performed by the laboratory for every batch of 20 samples:

- One method blank; and
- One set of quality control (QC) samples (including method QC and sample duplicate).

2.4 Operation Phase Water Quality Monitoring Results

Operation phase water quality monitoring was conducted at three monitoring locations once per week for 13 sessions between 6 July and 26 September 2023. The detailed monitoring schedule is shown in ***Annex B***. The monitoring results with weather and sea conditions at each monitoring day are shown in ***Annex C***. Graphical presentation of water quality monitoring results is given in ***Annex D***. During the monitoring sessions, the major activity on site was the operation of the LNG Terminal and no observable pollution source was recorded at the monitoring stations. No other external factors (e.g. surface runoff from nearby landmass, adverse weather) were identified that might affect water quality at the monitoring stations during the monitoring period.

An action Level exceedance was recorded for operation phase water quality monitoring in the reporting period. Investigation on the exceedances was conducted and summarised in ***Table 2.6***.

Table 2.6 Details of Exceedances for Operation Phase Water Quality Monitoring

Date	Tide	Parameter	Monitoring Station	Level of Exceedance	Investigation
28 August 2023	Mid-ebb	Depth-averaged water temperature	IM6	Action	Discharge of cooled seawater for the operation of the regasification system was undertaken on 28 August 2023. According to the information provided by HKLTL and the operator, the flow rate of the cooled seawater discharge was 5,000 m^3/hr and the water temperature of the cooled seawater dropped by < 9^oC at the point of discharge. The cooled seawater discharge complied with the requirements as stated in the licence under the Water Pollution Control Ordinance. Stratification of water column was observed (lower water temperature, lower dissolved oxygen and higher salinity at bottom waters) which is typical in wet season of Hong Kong waters. The water quality monitoring conducted for the mid-flood tide in the afternoon of the same day recorded similar depth-averaged water temperatures at locations IM6 and F3 (ranged 25.5-25.8 ^oC) and there was no action or limit level exceedance during mid-flood tide. This indicates that the action level exceedance of water temperature at location IM6 during mid-ebb tide was likely caused by natural stratification of the water column in wet season. As such, the exceedance in water temperature is unlikely due to the operation of the Project.

Based on the investigation results above, the exceedance was not Project-related. Nevertheless, HKLTL and the operator were reminded to ensure mitigation measures for water quality impacts as set out in the Updated EM&A Manual are fully and properly implemented. In addition, the discharge of effluent shall follow the requirements as stated in the licence under the Water Pollution Control Ordinance.

Overall, deterioration of water quality and indirect impacts at water and ecological sensitive receivers were not detected. The operation of the Project did not result in unacceptable water quality impacts to the nearby water and ecological sensitive receivers, which aligns with the EIA study predictions.

2.5 Summary of Exceedances of the Environmental Quality Performance Limit

There were no Project related Action and Limit Level exceedances for operation phase water quality monitoring in the reporting period.

2.6 Summary of Environmental Complaints, Notification of Summons and Successful Prosecutions

There were no environmental complaints, notification of summons and successful prosecutions recorded for the operation of the Project in the reporting period.

3. CONCLUSION

This is the quarterly report for the operation phase water quality monitoring for the LNG Terminal which summarises the key monitoring results for the reporting period of July to September 2023 in accordance with the *Updated EM&A Manual* of the Project.

Operation phase water quality monitoring was conducted at three monitoring locations once per week for 13 sessions between 6 July and 26 September 2023. There were no Project related Action and Limit Level exceedances for operation phase water quality monitoring in the reporting period. Overall, deterioration of water quality and indirect impacts at water and ecological sensitive receivers were not detected. The operation of the Project did not result in unacceptable water quality impacts to the nearby water and ecological sensitive receivers, which aligns with the EIA study predictions.

There were no environmental complaints, notification of summons and successful prosecutions recorded for the operation of the Project in the reporting period.

The monitoring activities conducted in the reporting period have been reviewed and are considered effective. As such, no change to the monitoring methodology is recommended. Based on the EM&A findings for the reporting period, the environmental performance for the operation of the Project is generally in line with the EIA predictions and considered acceptable.

ANNEX A

CALIBRATION CERTIFICATES

ALS Technichem (HK) Pty Ltd
11/F., Chung Shun Knitting Centre,
1 - 3 Wing Yip Street,
Kwai Chung, N.T., Hong Kong
T: +852 2610 1044
F: +852 2610 2021
www.alsglobal.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	JOHNNY HO	**WORK ORDER:**	HK2316957
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	**SUB-BATCH:**	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	05-May-2023
		DATE OF ISSUE:	08-May-2023

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.:	[14A1010573]/ [MPP46]
Date of Calibration:	05-May-2023

GENERAL COMMENTS

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

Mr Chan Siu Ming, Vico
Assistant Laboratory Manager
Environmental

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2316957

SUB-BATCH: 0
DATE OF ISSUE: 08-May-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [14A1010573]/ [MPP46]
Date of Calibration: 05-May-2023 Date of Next Calibration: 05-August-2023

PARAMETERS:

Dissolved Oxygen **Method Ref: APHA (23rd edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.84	2.72	-0.12
4.58	4.55	-0.03
7.17	7.17	+0.00
	Tolerance Limit (mg/L)	±0.20

pH Value **Method Ref: APHA (23rd edition), 4500H: B**

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.91	-0.09
7.0	7.13	+0.13
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.

Mr Chan Siu Ming, Vico
Assistant Laboratory Manager
Environmental

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2316957

SUB-BATCH: 0
DATE OF ISSUE: 08-May-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [14A1010573]/ [MPP46]
Date of Calibration: 05-May-2023 Date of Next Calibration: 05-August-2023

PARAMETERS:

Turbidity **Method Ref: APHA (23rd edition), 2130B**

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.0	+0.0
40	40.6	+1.5
80	79.8	-0.3
	Tolerance Limit (%)	±10.0

Salinity **Method Ref: APHA (23rd edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.01	--
10	10.02	+0.2
20	19.64	-1.8
30	29.78	-0.7
	Tolerance Limit (%)	±10.0

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

Mr Chan Siu Ming, Vico
Assistant Laboratory Manager
Environmental

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2316957

SUB-BATCH: 0
DATE OF ISSUE: 08-May-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [14A1010573]/ [MPP46]
Date of Calibration: 05-May-2023 Date of Next Calibration: 05-August-2023

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)
10.1	10.18	+0.1
23.1	22.22	-0.9
38.4	37.70	-0.7
	Tolerance Limit (°C)	±2.0

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

Mr Chan Siu Ming, Vico
Assistant Laboratory Manager
Environmental

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www.alsglobal.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	JOHNNY HO	**WORK ORDER:**	HK2329342
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	**SUB-BATCH:**	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	25-Jul-2023
		DATE OF ISSUE:	26-Jul-2023

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.:	[07H100241]/ [MPP22]
Date of Calibration:	25-July-2023

GENERAL COMMENTS

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2329342

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [07H100241]/ [MPP22]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

PARAMETERS:

Dissolved Oxygen **Method Ref: APHA (23rd edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.96	2.80	-0.16
5.49	5.43	-0.06
7.18	7.19	+0.01
	Tolerance Limit (mg/L)	±0.20

pH Value **Method Ref: APHA (23rd edition), 4500H: B**

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.91	-0.09
7.0	6.99	-0.01
10.0	9.89	-0.11
	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: HK2329342

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [07H100241]/ [MPP22]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

PARAMETERS:

Turbidity **Method Ref: APHA (23rd edition), 2130B**

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.3	+7.5
40	40.7	+1.8
80	81.4	+1.8
400	N/A	N/A
800	N/A	N/A
	Tolerance Limit (%)	±10.0

Salinity **Method Ref: APHA (23rd edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.73	-2.7
20	19.46	-2.7
30	29.65	-1.2
	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: HK2329342

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [07H100241]/ [MPP22]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

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)
11.9	12.01	+0.1
20.7	19.75	-0.9
39.5	38.79	-0.7
	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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	JOHNNY HO	**WORK ORDER:**	HK2329350
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	**SUB-BATCH:**	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	25-Jul-2023
		DATE OF ISSUE:	26-Jul-2023

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.:	[16L100580]/ [MPP57]
Date of Calibration:	25-July-2023

GENERAL COMMENTS

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2329350

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

PARAMETERS:

Dissolved Oxygen **Method Ref: APHA (23rd edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.45	2.47	+0.02
5.64	5.63	-0.01
7.17	7.25	+0.08
	Tolerance Limit (mg/L)	±0.20

pH Value **Method Ref: APHA (23rd edition), 4500H: B**

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.93	-0.07
7.0	6.95	-0.05
10.0	9.91	-0.09
	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: HK2329350

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

PARAMETERS:

Turbidity **Method Ref: APHA (23rd edition), 2130B**

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.1	+2.5
40	41.8	+4.5
80	84.2	+5.3
400	N/A	N/A
800	N/A	N/A
	Tolerance Limit (%)	±10.0

Salinity **Method Ref: APHA (23rd edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.78	-2.2
20	19.33	-3.4
30	29.64	-1.2
	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: HK2329350

SUB-BATCH: 0
DATE OF ISSUE: 26-Jul-2023
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [16L100580]/ [MPP57]
Date of Calibration: 25-July-2023 Date of Next Calibration: 25-October-2023

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)
11.9	12.66	+0.8
20.7	19.68	-1.0
39.5	38.68	-0.8
	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

ANNEX B

MONITORING SCHEDULE

Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project

Operation Phase Water Quality Monitoring (July 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1/Jul
2/Jul	3/Jul	4/Jul	5/Jul	6/Jul	7/Jul	8/Jul
				Operation Phase Water Quality Monitoring ebb tide 13:34 - 15:34 flood tide 06:30 - 08:30		
9/Jul	10/Jul	11/Jul	12/Jul	13/Jul	14/Jul	15/Jul
		Operation Phase Water Quality Monitoring ebb tide 18:09 - 20:09 flood tide 12:22 - 14:22				
16/Jul	17/Jul	18/Jul	19/Jul	20/Jul	21/Jul	22/Jul
						Operation Phase Water Quality Monitoring ebb tide 13:59 - 15:59 flood tide 07:05 - 09:05
23/Jul	24/Jul	25/Jul	26/Jul	27/Jul	28/Jul	29/Jul
		Operation Phase Water Quality Monitoring ebb tide 15:36 - 17:36 flood tide 09:18 - 11:18				
30/Jul	31/Jul					
	Operation Phase Water Quality Monitoring ebb tide 09:59 - 11:59 flood tide 17:46 - 19:46					

Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project

Operation Phase Water Quality Monitoring (August 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1/Aug	2/Aug	3/Aug	4/Aug	5/Aug
6/Aug	7/Aug	8/Aug	9/Aug	10/Aug	11/Aug	12/Aug
			Operation Phase Water Quality Monitoring ebb tide 17:21 - 19:21 flood tide 12:15 - 14:15			
13/Aug	14/Aug	15/Aug	16/Aug	17/Aug	18/Aug	19/Aug
	Operation Phase Water Quality Monitoring ebb tide 10:27 - 12:27 flood tide 17:53 - 19:53					
20/Aug	21/Aug	22/Aug	23/Aug	24/Aug	25/Aug	26/Aug
		Operation Phase Water Quality Monitoring ebb tide 14:35 - 16:35 flood tide 08:27 - 10:27				
27/Aug	28/Aug	29/Aug	30/Aug	31/Aug		
	Operation Phase Water Quality Monitoring ebb tide 08:57 - 10:57 flood tide 16:53 - 18:53					

Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Operation Phase Water Quality Monitoring (September 2023)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1/Sep	2/Sep
3/Sep	4/Sep	5/Sep	6/Sep	7/Sep	8/Sep	9/Sep
						Operation Phase Water Quality Monitoring ebb tide 07:43 - 09:43 flood tide 20:19 - 22:19
10/Sep	11/Sep	12/Sep	13/Sep	14/Sep	15/Sep	16/Sep
	Operation Phase Water Quality Monitoring ebb tide 09:26 - 11:26 flood tide 17:02 - 19:02					
17/Sep	18/Sep	19/Sep	20/Sep	21/Sep	22/Sep	23/Sep
			Operation Phase Water Quality Monitoring ebb tide 14:23 - 16:23 flood tide 08:38 - 10:38			
24/Sep	25/Sep	26/Sep	27/Sep	28/Sep	29/Sep	30/Sep
		Operation Phase Water Quality Monitoring ebb tide 08:38 - 10:38 flood tide 16:19 - 18:19				

ANNEX C

OPERATION PHASE WATER QUALITY MONITORING RESULTS

Water Quality Monitoring Data Log Sheet **Date: 2023/07/06**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Cloudy	Calm	14:12	9.2	S	0.15	90	28.5	28.5	26.9	25.8	25.8	8.3	8.3	130.7	131.3	8.8	8.8	6.4	2.3	2.3	4.1	<0.001	0.001	0.002	7.1	6.9	7.5	0.40	0.41	0.37	2.4	2.5	1.6
							0.15	90	28.5			25.8		8.3		131.8		8.9			2.3			0.001			6.6			0.41			2.5		
						M	0.21	157	26.6	26.7		28.6	28.5	8.0	8.0	57.0	58.1	3.9	4.0		2.7	2.7		<0.001	<0.001		4.4	4.6		0.43	0.43		1.2	1.3	
							0.21	157	26.8			28.3		8.0		59.1		4.0			2.7			<0.001			4.8			0.42			1.3		
						B	0.37	37	25.5	25.4		31.6	31.7	7.9	7.9	36.0	35.3	2.5	2.4	2.4	7.2	7.3		<0.001	0.003		10.7	11.0		0.29	0.29		<1.0	<1.0	
							0.39	85	25.4			31.7		7.9		34.5		2.4			7.4			0.005			11.2			0.29			<1.0		
	IM6	Cloudy	Calm	13:37	17.1	S	0.33	121	28.6	28.6	26.0	23.3	23.3	8.2	8.2	118.5	118.9	8.1	8.1	6.0	2.6	2.6	4.8	<0.001	<0.001	0.001	4.2	4.4	6.8	0.62	0.62	0.32	2.1	2.0	1.3
							0.65	75	28.6			23.3		8.2		119.3		8.1			2.6			<0.001			4.5			0.62			1.8		
						M	0.42	212	25.4	25.4		31.3	31.3	8.0	8.0	57.5	57.1	4.0	3.9		2.1	2.1		<0.001	<0.001		2.7	2.8		0.27	0.27		<1.0	<1.0	
							0.42	212	25.4			31.2		8.0		56.7		3.9			2.0			<0.001			2.9			0.26			<1.0		
						B	0.62	76	24.0	24.0		33.7	33.7	8.0	8.0	62.3	61.6	4.3	4.3	4.3	9.7	9.6		<0.001	0.001		13.5	13.3		0.08	0.08		<1.0	<1.0	
							0.62	76	24.0			33.7		8.0		60.9		4.2			9.5			0.001			13.1			0.08			<1.0		
Mid-Flood	F3	Cloudy	Calm	08:11	18.8	S	0.49	276	27.7	27.7	25.8	23.2	23.2	8.1	8.1	82.1	82.6	5.7	5.7	4.9	2.8	2.8	4.8	<0.001	<0.001	0.001	5.0	4.8	7.3	0.76	0.74	0.33	<1.0	<1.0	1.1
							0.54	244	27.8			23.3		8.1		83.1		5.7			2.8			<0.001			4.5			0.71			<1.0		
						M	0.54	248	25.6	25.6		31.6	31.7	8.1	8.1	62.1	61.3	4.2	4.2		2.0	1.9		<0.001	<0.001		2.8	2.9		0.17	0.17		1.6	1.3	
							0.54	248	25.7			31.7		8.1		60.4		4.1			1.8			<0.001			3.0			0.17			1.0		
						B	0.58	3	24.1	24.1		33.8	33.8	8.1	8.1	61.2	61.1	4.2	4.2	4.2	9.8	9.7		<0.001	0.002		14.0	14.2		0.07	0.07		<1.0	<1.0	
							0.58	3	24.1			33.8		8.1		60.9		4.2			9.6			0.002			14.4			0.07			<1.0		
	IM6	Cloudy	Calm	07:57	17.2	S	0.54	199	27.6	27.6	25.7	24.4	24.7	8.1	8.1	77.3	79.3	5.3	5.4	4.8	2.1	2.2	4.3	<0.001	<0.001	<0.001	5.5	5.8	6.7	0.65	0.64	0.31	1.1	1.1	1.0
							0.38	251	27.6			25.0		8.1		81.2		5.6			2.2			<0.001			6.1			0.62			1.1		
						M	0.71	325	25.1	25.2		31.8	31.7	8.0	8.0	60.6	60.6	4.2	4.2		2.4	2.3		<0.001	<0.001		3.7	3.5		0.22	0.22		<1.0	<1.0	
							0.16	227	25.2			31.6		8.0		60.6		4.2			2.1			<0.001			3.2			0.21			<1.0		
						B	0.54	4	24.2	24.2		33.6	33.6	8.0	8.0	60.8	60.5	4.2	4.2	4.2	9.1	8.5		<0.001	<0.001		11.2	10.9		0.08	0.08		<1.0	<1.0	
							0.36	340	24.2			33.6		8.0		60.1		4.2			7.9			<0.001			10.6			0.08			<1.0		

Remark: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/07/11**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Calm	18:42	9.0	S	0.14	210	28.6	28.5	27.2	26.8	26.8	8.6	8.6	190.3	193.5	12.7	12.9	10.0	1.6	1.5	1.5	<0.001	<0.001	<0.001	6.6	6.2	6.3	0.19	0.19	0.23	3.1	3.3	2.3
							0.17	152	28.5			26.8		8.6		196.6		13.1			1.4			<0.001			5.7			0.19			3.5		
						M	0.28	79	27.1	27.1		28.5	28.5	8.3	8.3	103.4	104.5	7.0	7.1		1.5	1.5		<0.001	<0.001		5.6	6.1		0.25	0.25		2.1	2.0	
							0.28	48	27.1			28.6		8.3		105.5		7.2			1.5			<0.001			6.5			0.24			1.9		
						B	0.18	68	26.0	26.0		30.1	30.1	8.0	8.0	62.0	61.4	4.2	4.2	4.2	1.4	1.5		<0.001	<0.001		6.6	6.8		0.24	0.24		1.6	1.6	
							0.18	68	26.1			30.1		8.0		60.8		4.2			1.5			<0.001			7.0			0.24			1.6		
	IM6	Fine	Calm	18:10	16.0	S	0.31	63	29.4	29.4	25.8	23.9	23.9	8.7	8.7	199.9	205.3	13.4	13.8	8.8	2.0	2.1	2.8	<0.001	<0.001	0.001	5.8	5.9	5.3	0.36	0.37	0.20	4.2	4.3	2.2
							0.31	63	29.4			23.9		8.7		210.6		14.1			2.1			<0.001			6.0			0.37			4.4		
						M	0.23	75	24.6	24.9		32.1	31.7	8.0	8.0	53.2	55.9	3.7	3.9		1.3	1.3		<0.001	0.001		2.9	3.0		0.16	0.16		1.3	1.2	
							0.23	75	25.1			31.2		8.0		58.5		4.0			1.2			0.001			3.0			0.16			1.0		
						B	0.26	255	23.2	23.2		33.9	33.9	8.0	8.0	61.3	57.8	4.3	4.1	4.1	4.8	5.1		<0.001	<0.001		6.7	7.1		0.08	0.08		<1.0	<1.0	
							0.17	352	23.2			33.9		8.0		54.2		3.8			5.3			<0.001			7.4			0.08			<1.0		
Mid-Flood	F3	Fine	Calm	12:37	18.0	S	0.06	83	28.8	28.8	25.2	24.3	24.4	8.7	8.7	186.5	190.6	12.6	12.9	8.2	2.1	2.2	3.5	<0.001	<0.001	<0.001	7.4	7.6	6.6	0.33	0.33	0.16	3.0	3.0	1.7
							0.06	83	28.8			24.5		8.7		194.7		13.1			2.2			<0.001			7.8			0.33			2.9		
						M	0.30	282	23.7	23.7		33.4	33.4	8.0	8.0	51.0	50.9	3.6	3.6		2.0	1.9		<0.001	<0.001		4.1	4.1		0.10	0.09		<1.0	<1.0	
							0.24	216	23.7			33.5		8.0		50.8		3.6			1.8			<0.001			4.0			0.08			<1.0		
						B	0.29	282	23.2	23.2		34.0	34.0	8.0	8.0	56.4	54.3	4.0	3.8	3.8	6.1	6.5		<0.001	<0.001		8.3	8.1		0.06	0.06		<1.0	<1.0	
							0.29	282	23.2			34.0		8.0		52.2		3.7			6.8			<0.001			7.9			0.06			<1.0		
	IM6	Fine	Calm	12:24	16.3	S	0.69	145	28.9	28.9	25.6	24.9	24.9	8.5	8.5	155.8	159.9	10.5	10.7	7.3	2.0	2.0	3.1	<0.001	0.003	0.002	6.7	6.9	6.6	0.35	0.35	0.18	2.6	2.5	1.5
							0.69	145	29.0			24.8		8.5		164.0		11.0			2.0			0.004			7.1			0.34			2.4		
						M	0.34	353	24.6	24.7		32.2	32.0	8.0	8.0	57.6	56.9	4.0	3.9		1.5	1.5		<0.001	<0.001		4.3	4.4		0.14	0.14		<1.0	<1.0	
							0.34	353	24.8			31.9		8.0		56.2		3.9			1.4			<0.001			4.5			0.14			<1.0		
						B	0.11	38	23.3	23.3		33.9	33.9	8.0	8.0	59.0	56.6	4.1	4.0	4.0	5.5	5.8		<0.001	<0.001		8.2	8.5		0.06	0.06		<1.0	<1.0	
							0.07	326	23.3			33.9		8.0		54.1		3.8			6.0			<0.001			8.8			0.06			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/07/22**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Cloudy	Calm	14:33	9.5	S	0.41	92	29.5	29.5	28.4	30.1	30.1	8.7	8.7	238.3	237.8	15.4	15.4	12.0	1.0	1.0	4.3	<0.001	<0.001	<0.001	5.3	5.3	8.4	<0.02	<0.02	0.06	2.6	2.7	1.6
							0.39	108	29.5			30.0		8.7		237.2		15.3			1.0			<0.001			5.3			<0.02			2.7		
						M	0.33	89	28.2	28.2		31.0	31.0	8.4	8.4	129.2	132.3	8.5	8.7		2.3	2.2		<0.001	<0.001		6.2	6.4		0.03	0.03		1.3	1.2	
							0.09	1	28.2			31.0		8.4		135.3		8.9			2.0			<0.001			6.6			0.03			1.0		
						B	0.21	352	27.5	27.5		31.8	31.8	8.2	8.2	84.2	83.3	5.6	5.5	5.5	9.9	9.7		<0.001	<0.001		13.2	13.4		0.15	0.14		<1.0	<1.0	
							0.21	352	27.5			31.8		8.2		82.4		5.5			9.5			<0.001			13.6			0.13			<1.0		
	IM6	Cloudy	Calm	14:01	17.0	S	0.14	102	29.4	29.5	27.8	29.6	29.6	8.5	8.5	198.2	196.5	12.9	12.7	9.2	0.8	0.9	2.4	<0.001	<0.001	<0.001	4.4	4.6	5.7	0.02	0.03	0.05	2.2	2.2	1.4
							0.42	197	29.5			29.5		8.5		194.8		12.6			0.9			<0.001			4.7			0.03			2.2		
						M	0.43	72	27.1	27.1		32.3	32.3	8.2	8.2	84.1	83.8	5.6	5.6		0.7	0.8		<0.001	<0.001		5.5	5.3		0.07	0.07		<1.0	<1.0	
							0.34	163	27.1			32.4		8.2		83.5		5.5			0.8			<0.001			5.1			0.07			<1.0		
						B	0.31	276	26.9	26.9		33.2	33.2	8.1	8.1	79.2	78.3	5.3	5.2	5.2	5.4	5.5		<0.001	<0.001		7.3	7.1		0.04	0.04		<1.0	<1.0	
							0.31	276	26.9			33.2		8.1		77.4		5.1			5.6			<0.001			6.9			0.04			<1.0		
Mid-Flood	F3	Cloudy	Calm	07:39	17.0	S	0.43	345	28.9	28.9	27.7	28.5	28.6	8.5	8.5	153.8	155.4	10.1	10.2	7.9	1.3	1.3	1.9	<0.001	<0.001	<0.001	4.1	4.3	5.4	0.04	0.12	0.06	1.1	1.1	1.2
							0.46	341	29.0			28.8		8.5		156.9		10.3			1.2			<0.001			4.4			0.20			1.1		
						M	0.32	102	27.2	27.3		32.6	32.6	8.2	8.2	84.9	85.5	5.6	5.7		1.0	1.0		<0.001	<0.001		5.6	5.4		<0.02	<0.02		1.5	1.4	
							0.27	30	27.3			32.5		8.2		86.1		5.7			0.9			<0.001			5.2			<0.02			1.3		
						B	0.46	283	26.9	26.9		33.2	33.2	8.2	8.2	78.2	78.0	5.2	5.2	5.2	3.6	3.5		<0.001	<0.001		6.4	6.6		0.04	0.04		<1.0	<1.0	
							0.46	283	26.9			33.2		8.2		77.7		5.2			3.4			<0.001			6.8			0.04			<1.0		
	IM6	Cloudy	Calm	07:25	15.0	S	0.31	26	28.7	28.7	27.7	27.8	27.8	8.3	8.3	123.2	123.2	8.2	8.2	7.0	1.5	1.6	4.9	<0.001	<0.001	0.002	5.1	5.2	8.8	0.28	0.29	0.14	<1.0	<1.0	<1.0
							0.29	261	28.7			27.8		8.3		123.1		8.2			1.6			<0.001			5.3			0.30			<1.0		
						M	0.58	351	27.4	27.4		32.4	32.4	8.2	8.2	87.7	89.0	5.8	5.9		1.6	1.6		<0.001	<0.001		6.7	6.4		0.06	0.07		<1.0	<1.0	
							0.28	351	27.4			32.3		8.2		90.2		6.0			1.6			<0.001			6.1			0.07			<1.0		
						B	0.30	218	26.9	26.9		33.2	33.2	8.2	8.2	75.6	75.4	5.0	5.0	5.0	11.8	11.6		<0.001	0.003		14.4	14.7		0.05	0.05		<1.0	<1.0	
							0.10	27	26.9			33.2		8.2		75.2		5.0			11.4			0.004			15.0			0.05			<1.0		

Remark: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/07/25**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Calm	16:09	9.1	S	0.18	10	30.9	30.9	29.4	28.2	28.2	8.7	8.7	197.7	197.0	12.6	12.6	12.8	0.7	0.7	2.1	<0.001	<0.001	0.002	3.3	3.2	4.9	0.09	0.09	0.08	2.0	2.1	1.8
							0.22	105	30.9			28.2		8.7		196.3		12.5			0.6			<0.001			3.0			0.09			2.1		
						M	0.13	42	29.7	29.8		29.7	29.6	8.7	8.7	188.3	201.5	12.2	13.0		0.6	0.7		<0.001	0.004		3.8	4.0		0.02	0.02		2.4	2.3	
							0.13	57	30.0			29.5		8.7		214.7		13.8			0.7			0.007			4.1			0.02			2.2		
						B	0.48	81	27.5	27.5		32.1	32.1	8.0	8.0	85.1	69.1	5.6	4.6	4.6	4.7	4.9		<0.001	<0.001		7.7	7.5		0.15	0.14		1.0	1.2	
							0.48	81	27.5			32.1		8.0		53.1		3.5			5.1			<0.001			7.2			0.12			1.3		
	IM6	Fine	Calm	15:36	17.0	S	0.25	98	31.4	31.4	28.5	26.3	26.3	8.7	8.7	192.4	192.1	12.3	12.3	9.1	0.0	0.0	3.5	<0.001	<0.001	<0.001	2.1	2.2	5.9	0.20	0.19	0.10	2.6	2.5	1.7
							0.25	98	31.4			26.3		8.7		191.7		12.3			0.0			<0.001			2.3			0.17			2.4		
						M	0.14	33	27.5	27.5		32.0	32.0	8.2	8.2	88.1	89.6	5.8	5.9		0.7	0.8		<0.001	<0.001		2.7	2.6		0.04	0.04		1.3	1.5	
							0.20	85	27.5			32.0		8.2		91.1		6.0			0.8			<0.001			2.4			0.04			1.6		
						B	0.23	101	26.7	26.7		33.5	33.5	8.1	8.1	58.3	58.4	3.9	3.9	3.9	9.8	9.7		<0.001	<0.001		13.1	13.1		0.07	0.07		1.0	1.1	
							0.24	69	26.7			33.5		8.1		58.4		3.9			9.6			<0.001			13.0			0.07			1.1		
Mid-Flood	F3	Fine	Calm	09:40	18.0	S	0.22	188	29.8	29.8	27.8	26.7	26.6	8.7	8.7	183.6	184.2	12.0	12.1	8.4	0.9	1.0	3.0	<0.001	<0.001	<0.001	3.2	3.0	4.9	0.19	0.19	0.10	1.3	1.4	1.1
							0.22	188	29.8			26.5		8.7		184.8		12.1			1.0			<0.001			2.8			0.18			1.4		
						M	0.26	94	27.0	27.0		32.7	32.7	8.2	8.2	70.3	70.4	4.7	4.7		1.1	1.1		<0.001	<0.001		3.7	3.9		0.06	0.06		<1.0	<1.0	
							0.18	262	27.0			32.7		8.2		70.5		4.7			1.0			<0.001			4.0			0.05			<1.0		
						B	0.08	231	26.6	26.6		33.4	33.4	8.1	8.1	60.8	60.0	4.0	4.0	4.0	6.6	7.0		<0.001	<0.001		7.8	8.0		0.06	0.06		<1.0	<1.0	
							0.08	231	26.6			33.4		8.1		59.1		3.9			7.3			<0.001			8.1			0.06			<1.0		
	IM6	Fine	Calm	09:20	17.2	S	0.36	83	29.9	29.9	27.9	26.7	26.6	8.7	8.7	172.3	180.1	11.3	11.8	8.5	0.6	0.6	3.4	<0.001	0.004	0.003	4.0	4.2	7.0	0.18	0.18	0.09	1.7	1.7	1.2
							0.36	83	29.9			26.6		8.7		187.9		12.3			0.6			0.006			4.3			0.18			1.6		
						M	0.35	5	27.3	27.2		32.1	32.3	8.2	8.2	80.9	77.8	5.4	5.2		1.1	1.2		<0.001	0.001		4.6	4.8		0.05	0.05		<1.0	<1.0	
							0.15	327	27.1			32.5		8.2		74.6		5.0			1.2			0.001			5.0			0.05			<1.0		
						B	0.19	334	26.7	26.7		33.3	33.3	8.1	8.1	65.6	63.2	4.4	4.2	4.2	8.1	8.3		<0.001	0.004		12.2	12.0		0.05	0.05		<1.0	<1.0	
							0.32	139	26.7			33.3		8.1		60.8		4.0			8.5			0.006			11.8			0.05			<1.0		

Remark: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/07/31**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Rough	13:01	8.2	S	0.39	199	29.6	29.6	28.5	26.2	26.2	8.3	8.3	116.1	117.2	7.7	7.7	6.1	0.8	0.8	4.5	<0.001	<0.001	<0.001	2.8	2.7	6.6	0.34	0.34	0.25	<1.0	<1.0	<1.0
							0.10	283	29.6			26.2		8.3		118.3		7.8			0.7			<0.001			2.6			0.34			<1.0		
						M	0.56	121	28.2	28.1		30.3	30.4	8.0	8.0	68.6	66.9	4.5	4.4		4.9	5.1		<0.001	<0.001		6.8	6.9		0.21	0.21		<1.0	<1.0	
							0.56	121	28.1			30.5		8.0		65.1		4.3			5.3			<0.001			7.0			0.21			<1.0		
						B	0.17	224	27.8	27.8		31.2	31.2	7.9	7.9	56.2	56.3	3.7	3.7	3.7	7.7	7.7		<0.001	<0.001		10.4	10.3		0.19	0.19		<1.0	<1.0	
							0.64	99	27.9			31.2		8.0		56.4		3.7			7.7			<0.001			10.1			0.19			<1.0		
	IM6	Fine	Rough	13:32	15.0	S	0.37	199	29.6	29.6	28.0	26.3	26.3	8.3	8.3	114.8	115.5	7.6	7.6	5.6	0.6	0.7	3.6	<0.001	<0.001	<0.001	2.7	3.0	5.4	0.32	0.31	0.21	1.0	1.0	1.0
							0.37	199	29.6			26.4		8.3		116.2		7.7			0.7			<0.001			3.2			0.30			1.0		
						M	0.05	51	27.4	27.4		31.7	31.7	8.0	8.0	53.9	53.9	3.6	3.6		4.0	4.1		<0.001	<0.001		6.1	6.3		0.16	0.16		<1.0	<1.0	
							0.65	164	27.4			31.7		8.0		53.9		3.6			4.2			<0.001			6.4			0.16			<1.0		
						B	0.25	304	26.9	26.9		32.5	32.5	8.0	8.0	43.6	43.3	2.9	2.9	2.9	6.0	5.9		<0.001	<0.001		6.9	7.1		0.15	0.15		<1.0	<1.0	
							0.39	15	27.0			32.5		8.0		42.9		2.9			5.8			<0.001			7.3			0.14			<1.0		
Mid-Flood	F3	Fine	Rough	18:05	16.7	S	0.47	349	29.8	29.8	27.9	26.2	26.2	8.4	8.4	119.0	119.7	7.8	7.9	5.9	0.5	0.5	5.2	<0.001	<0.001	<0.001	2.5	2.7	7.4	0.33	0.33	0.21	1.2	1.2	1.1
							0.28	20	29.8			26.3		8.4		120.4		7.9			0.5			<0.001			2.8			0.33			1.2		
						M	0.36	231	27.7	27.8		31.3	31.0	8.0	8.0	57.2	58.6	3.8	3.9		3.9	3.7		<0.001	<0.001		5.0	4.8		0.19	0.20		<1.0	<1.0	
							0.13	338	27.9			30.6		8.0		59.9		4.0			3.5			<0.001			4.6			0.20			<1.0		
						B	0.55	310	26.2	26.2		33.3	33.3	7.9	7.9	45.0	44.7	3.0	3.0	3.0	11.2	11.3		<0.001	<0.001		14.9	14.7		0.11	0.11		<1.0	<1.0	
							0.04	123	26.2			33.3		7.9		44.4		3.0			11.4			<0.001			14.4			0.10			<1.0		
	IM6	Fine	Rough	17:50	15.4	S	0.40	9	29.4	29.2	27.8	27.2	27.7	8.3	8.3	110.9	106.7	7.3	7.0	5.4	1.2	1.3	7.8	<0.001	<0.001	0.003	2.8	2.8	6.1	0.29	0.30	0.22	1.3	1.4	1.1
							0.40	9	29.0			28.1		8.2		102.5		6.8			1.3			<0.001			2.8			0.30			1.5		
						M	0.46	106	27.8	27.8		30.7	30.8	8.0	8.0	56.3	56.3	3.7	3.7		5.3	5.4		<0.001	<0.001		7.6	7.5		0.21	0.21		<1.0	<1.0	
							0.12	271	27.8			30.8		8.0		56.3		3.7			5.5			<0.001			7.3			0.20			<1.0		
						B	0.37	333	26.5	26.5		33.0	33.0	7.9	7.9	40.1	39.8	2.7	2.7	2.7	16.8	16.7		<0.001	0.006		8.3	8.1		0.14	0.15		<1.0	<1.0	
							0.56	163	26.5			33.0		7.9		39.4		2.6			16.5			0.011			7.9			0.15			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/08/09**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Cloudy	Calm	17:50	8.9	S	0.30	122	30.0	30.0	28.6	28.8	28.8	8.4	8.4	172.6	173.4	11.1	11.2	9.2	0.7	0.7	1.5	<0.001	<0.001	<0.001	4.2	4.0	4.6	0.10	0.10	0.13	2.0	1.8	1.4
							0.18	32	30.0			28.8		8.4		174.2		11.2			0.6			<0.001			3.8			0.10			1.6		
						M	0.41	322	28.6	28.7		30.1	30.1	8.2	8.2	109.4	111.2	7.2	7.3		1.0	1.0		<0.001			4.4	4.6		0.14	0.14		1.3	1.4	
							0.07	290	28.7			30.0		8.2		113.0		7.4			1.0			<0.001			4.8			0.14			1.4		
						B	0.06	168	27.2	27.1		32.1	32.4	8.0	8.0	65.4	61.0	4.3	4.0	4.0	2.8	3.0		<0.001	<0.001		5.4	5.3		0.14	0.14		<1.0	<1.0	
							0.52	49	26.9			32.6		8.0		56.5		3.8			3.1			<0.001			5.1			0.14			<1.0		
	IM6	Cloudy	Calm	17:20	16.2	S	0.09	245	30.0	30.0	27.3	28.1	28.1	8.4	8.4	169.7	170.4	11.0	11.0	7.8	0.5	0.5	4.8	<0.001	0.004	0.002	3.4	3.6	8.2	0.16	0.16	0.10	2.4	2.2	1.4
							0.09	245	30.1			28.1		8.4		171.1		11.1			0.5			0.007			3.8			0.16			1.9		
						M	0.28	325	26.1	26.1		33.6	33.6	8.0	8.0	68.5	68.6	4.6	4.6		2.8	2.6		<0.001	0.001		4.2	4.4		0.09	0.09		<1.0	<1.0	
							0.56	33	26.1			33.6		8.0		68.6		4.6			2.4			0.001			4.5			0.08			<1.0		
						B	0.62	44	25.7	25.7		33.8	33.8	8.0	8.0	69.1	69.4	4.7	4.7	4.7	11.2	11.2		<0.001	<0.001		16.3	16.6		0.06	0.06		<1.0	<1.0	
							0.62	44	25.7			33.8		8.0		69.7		4.7			11.1			<0.001			16.8			0.06			<1.0		
Mid-Flood	F3	Cloudy	Calm	12:27	17.6	S	0.31	10	29.2	29.3	27.1	27.8	27.7	8.2	8.2	123.4	124.6	8.1	8.2	6.0	0.7	0.7	4.3	<0.001	<0.001	<0.001	3.1	3.3	7.5	0.28	0.28	0.15	1.0	1.1	1.0
							0.38	26	29.3			27.7		8.3		125.7		8.3			0.6			<0.001			3.5			0.28			1.2		
						M	0.37	216	26.6	26.5		33.3	33.3	8.0	8.0	57.8	58.7	3.9	3.9		1.8	1.7		<0.001	<0.001		5.1	4.9		0.11	0.11		<1.0	<1.0	
							0.76	248	26.5			33.4		8.0		59.5		4.0			1.6			<0.001			4.6			0.11			<1.0		
						B	0.46	320	25.7	25.7		33.8	33.8	8.1	8.1	69.2	69.1	4.7	4.7	4.7	10.8	10.5		<0.001	<0.001		14.4	14.2		0.05	0.05		<1.0	<1.0	
							0.46	320	25.7			33.8		8.1		69.0		4.7			10.2			<0.001			14.0			0.05			<1.0		
	IM6	Cloudy	Calm	12:15	16.2	S	0.21	355	28.6	28.8	26.9	29.2	28.4	8.1	8.1	95.3	98.1	6.3	6.5	5.5	0.5	0.5	3.9	<0.001	<0.001	<0.001	3.4	3.3	6.7	0.30	0.30	0.15	1.0	1.0	1.0
							0.21	355	29.0			27.7		8.2		100.9		6.7			0.5			<0.001			3.2			0.30			1.0		
						M	1.16	164	26.2	26.2		33.5	33.5	8.0	8.0	66.7	66.6	4.5	4.5		2.9	2.9		<0.001	<0.001		4.4	4.3		0.09	0.10		<1.0	<1.0	
							0.34	6	26.2			33.5		8.0		66.4		4.5			2.8			<0.001			4.2			0.10			<1.0		
						B	0.76	35	25.8	25.8		33.7	33.7	8.0	8.0	66.6	66.5	4.5	4.5	4.5	8.5	8.4		<0.001	<0.001		12.2	12.5		0.05	0.06		<1.0	<1.0	
							0.26	102	25.8			33.7		8.0		66.3		4.5			8.3			<0.001			12.8			0.06			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/08/14**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Cloudy	Calm	10:44	9.0	S	0.46	50	28.3	28.3	27.4	27.4	27.4	8.3	8.3	120.7	121.1	8.1	8.1	6.8	1.0	1.0	1.4	<0.001	<0.001	<0.001	2.7	2.9	4.2	0.33	0.33	0.21	<1.0	<1.0	<1.0
							0.46	50	28.3			27.4		8.3		121.4		8.1			0.9			<0.001			3.1			0.33			<1.0		
						M	0.10	290	27.2	27.2		30.6	30.6	8.1	8.1	82.9	83.2	5.5	5.6		0.7	0.7		<0.001	<0.001		4.1	4.4		0.18	0.18		<1.0	<1.0	
							0.10	290	27.3			30.5		8.1		83.4		5.6			0.7			<0.001			4.6			0.18			<1.0		
						B	0.23	120	26.6	26.6		32.6	32.7	7.9	7.9	45.1	44.3	3.0	3.0	3.0	2.4	2.5		<0.001	<0.001		5.2	5.4		0.12	0.13		<1.0	<1.0	
							0.43	37	26.5			32.7		7.9		43.5		2.9			2.5			<0.001			5.5			0.13			<1.0		
	IM6	Cloudy	Calm	11:15	17.2	S	0.36	202	28.6	28.6	26.4	26.4	26.4	8.3	8.3	116.9	117.6	7.8	7.9	6.3	0.7	0.7	3.7	<0.001	<0.001	<0.001	3.0	2.9	6.5	0.39	0.39	0.18	<1.0	<1.0	<1.0
							0.26	129	28.6			26.5		8.3		118.2		7.9			0.7			<0.001			2.8			0.39			<1.0		
						M	0.52	155	26.5	26.6		32.9	32.9	8.1	8.1	71.8	72.2	4.8	4.8		0.5	0.5		<0.001	<0.001		3.6	3.4		0.09	0.10		<1.0	<1.0	
							0.52	155	26.6			32.9		8.1		72.5		4.8			0.5			<0.001			3.2			0.10			<1.0		
						B	0.72	81	24.9	24.9		33.9	33.9	8.0	8.0	63.2	62.9	4.3	4.3	4.3	9.5	9.9		<0.001	<0.001		13.5	13.3		0.06	0.06		<1.0	<1.0	
							0.59	32	24.9			33.9		8.0		62.6		4.3			10.3			<0.001			13.1			0.06			<1.0		
Mid-Flood	F3	Cloudy	Calm	18:05	17.5	S	0.64	329	28.5	28.5	27.2	27.2	27.2	8.3	8.3	125.1	126.2	8.3	8.4	6.3	0.6	0.6	4.2	<0.001	<0.001	<0.001	3.0	2.9	6.3	0.35	0.35	0.17	<1.0	<1.0	1.0
							0.41	349	28.5			27.2		8.3		127.2		8.5			0.6			<0.001			2.8			0.35			<1.0		
						M	0.63	259	26.2	26.1		33.1	33.1	8.0	8.0	61.9	61.9	4.2	4.2		2.6	2.7		<0.001	<0.001		3.8	4.1		0.11	0.11		1.0	1.1	
							0.50	256	26.0			33.2		8.0		61.9		4.2			2.8			<0.001			4.3			0.10			1.2		
						B	0.42	255	24.8	24.8		33.8	33.8	8.0	8.0	65.3	65.2	4.5	4.5	4.5	8.8	9.4		<0.001	<0.001		12.2	12.0		0.06	0.06		<1.0	<1.0	
							0.40	158	24.8			33.8		8.0		65.0		4.5			9.9			<0.001			11.8			0.06			<1.0		
	IM6	Cloudy	Calm	17:54	16.1	S	0.55	290	28.1	28.1	28.6	28.6	28.6	8.2	8.2	112.6	113.2	7.5	7.5	6.0	0.6	0.6	5.6	<0.001	<0.001	0.001	3.1	3.3	10.5	0.29	0.29	0.14	<1.0	<1.0	<1.0
							0.55	290	28.1			28.6		8.2		113.7		7.6			0.6			<0.001			3.5			0.29			<1.0		
						M	1.27	206	25.4	25.4	26.2	33.4	33.4	8.0	8.0	65.4	65.4	4.4	4.4		6.3	6.0		<0.001	<0.001		9.8	10.0		0.08	0.08		<1.0	<1.0	
							0.67	51	25.5			33.4		8.0		65.3		4.4			5.6			<0.001			10.1			0.07			<1.0		
						B	0.58	216	25.1	25.1		33.7	33.7	8.0	8.0	64.0	63.9	4.4	4.4	4.4	10.8	10.4		<0.001	0.002		18.6	18.3		0.06	0.06		<1.0	<1.0	
							0.58	216	25.1			33.7		8.0		63.8		4.4			9.9			0.002			18.0			0.06			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/08/22**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Calm	15:15	9.0	S	0.33	193	28.0	28.0	26.9	30.1	30.1	8.3	8.3	139.7	144.8	9.3	9.6	7.5	1.7	1.7	2.8	<0.001	<0.001	0.002	4.0	4.2	5.1	0.13	0.13	0.16	2.2	2.2	1.4
							0.33	193	28.0			30.0		8.4		149.9		9.9			1.6			<0.001			4.4			0.13			2.2		
						M	0.27	190	26.5	26.5		31.0	31.0	8.1	8.1	79.2	78.9	5.4	5.3		2.7	2.7		<0.001	<0.001		5.1	5.0		0.20	0.20		<1.0	<1.0	
							0.27	190	26.5			31.0		8.1		78.5		5.3			2.6			<0.001			4.8			0.19			<1.0		
						B	0.64	125	26.3	26.3		31.4	31.4	8.0	8.0	70.2	67.3	4.8	4.6	4.6	3.9	4.0		<0.001	0.005		6.0	6.2		0.16	0.17		<1.0	<1.0	
							0.31	31	26.3			31.4		8.0		64.4		4.4			4.1			0.009			6.4			0.17			<1.0		
	IM6	Fine	Calm	14:38	16.0	S	0.26	83	30.2	29.8	26.6	28.6	28.8	8.3	8.4	154.9	160.5	10.0	10.4	8.0	1.6	1.6	2.7	<0.001	<0.001	<0.001	3.6	3.8	5.2	0.23	0.24	0.16	2.5	2.5	1.5
							0.29	124	29.3			28.9		8.4		166.0		10.8			1.5			<0.001			4.0			0.24			2.4		
						M	0.57	80	26.0	26.0		32.1	32.0	8.1	8.1	81.8	82.4	5.5	5.6		0.9	0.9		<0.001	<0.001		5.0	5.2		0.13	0.13		<1.0	<1.0	
							0.57	80	26.1			32.0		8.1		83.0		5.6			0.9			<0.001			5.4			0.13			<1.0		
						B	0.68	32	23.9	23.9		33.8	33.8	8.0	8.0	61.1	60.3	4.2	4.2	4.2	5.2	5.6		<0.001	<0.001		6.8	6.6		0.10	0.10		<1.0	<1.0	
							0.68	32	23.9			33.8		8.0		59.5		4.1			5.9			<0.001			6.4			0.10			<1.0		
Mid-Flood	F3	Fine	Calm	08:50	17.6	S	0.48	333	27.5	27.5	25.7	29.4	29.4	8.3	8.3	125.0	125.5	8.4	8.4	6.9	0.9	1.0	3.2	<0.001	<0.001	<0.001	4.2	4.4	7.9	0.18	0.18	0.12	<1.0	<1.0	<1.0
							0.32	270	27.5			29.4		8.3		126.0		8.4			1.0			<0.001			4.6			0.17			<1.0		
						M	0.22	268	25.6	25.6		33.0	33.1	8.1	8.1	80.9	80.7	5.5	5.5		0.1	0.1		<0.001	<0.001		5.0	5.2		0.06	0.07		<1.0	<1.0	
							0.34	187	25.6			33.1		8.1		80.5		5.5			0.1			<0.001			5.3			0.07			<1.0		
						B	0.19	330	23.8	23.8		33.8	33.7	8.0	8.0	58.3	57.6	4.1	4.0	4.0	7.9	8.4		<0.001	<0.001		14.3	14.1		0.10	0.11		<1.0	<1.0	
							0.19	330	23.8			33.7		8.0		56.8		4.0			8.9			<0.001			13.9			0.11			<1.0		
	IM6	Fine	Calm	08:34	16.0	S	0.46	303	27.6	27.6	25.7	28.3	28.2	8.2	8.2	106.1	106.8	7.2	7.2	6.0	2.8	2.7	4.0	<0.001	0.004	0.002	4.5	4.7	6.4	0.38	0.36	0.20	<1.0	<1.0	<1.0
							0.46	303	27.6			28.2		8.2		107.5		7.2			2.6			0.007			4.8			0.34			<1.0		
						M	0.21	281	25.6	25.5		32.4	32.4	8.0	8.0	69.8	70.0	4.8	4.8		3.0	2.9		<0.001	<0.001		5.6	5.4		0.14	0.14		<1.0	<1.0	
							0.21	281	25.5			32.4		8.0		70.2		4.8			2.8			<0.001			5.2			0.14			<1.0		
						B	0.51	334	24.0	24.0		33.8	33.8	8.0	8.0	60.0	59.2	4.2	4.1	4.1	6.1	6.5		<0.001	<0.001		8.8	9.0		0.09	0.10		<1.0	<1.0	
							0.51	334	24.0			33.8		8.0		58.3		4.1			6.9			<0.001			9.2			0.10			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/08/28**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Calm	09:38	8.3	S	0.36	130	28.8	28.8	27.5	23.7	23.7	8.4	8.4	132.9	132.7	9.0	9.0	7.6	0.4	0.4	0.8	<0.001	<0.001	<0.001	2.2	2.2	2.0	0.47	0.47	0.30	1.3	1.2	1.1
							0.36	130	28.8			23.6		8.4		132.4		9.0			0.4			<0.001			2.1			0.46			1.1		
						M	0.17	29	27.3	27.3		30.2	30.2	8.1	8.1	91.3	93.3	6.1	6.2		1.0	1.1		<0.001	<0.001		2.1	2.1		0.20	0.20		1.1	1.1	
							0.46	13	27.3			30.2		8.1		95.3		6.4			1.1			<0.001			2.0			0.19			1.0		
						B	0.28	63	26.4	26.4		31.1	31.1	8.0	8.0	70.5	68.6	4.8	4.6	4.6	1.0	1.1		<0.001	<0.001		1.6	1.8		0.23	0.23		1.2	1.2	
							0.44	15	26.4			31.2		8.0		66.7		4.5			1.1			<0.001			1.9			0.22			1.1		
	IM6	Fine	Calm	09:05	16.0	S	0.22	79	28.5	28.5	25.9	23.7	23.9	8.4	8.4	125.0	125.2	8.5	8.5	6.6	0.9	0.9	1.9	<0.001	<0.001	<0.001	2.6	2.5	2.5	0.53	0.53	0.29	1.0	1.1	1.0
							0.51	172	28.4			24.1		8.3		125.3		8.5			0.8			<0.001			2.4			0.52			1.1		
						M	0.22	64	25.8	25.8		31.6	31.5	8.0	8.0	66.8	67.5	4.6	4.6		0.4	0.4		<0.001	<0.001		1.1	1.2		0.18	0.18		<1.0	<1.0	
							0.22	64	25.8			31.5		8.0		68.1		4.6			0.4			<0.001			1.2			0.17			<1.0		
						B	0.27	113	23.4	23.4		33.8	33.8	7.9	7.9	46.7	46.1	3.3	3.2	3.2	4.5	4.6		<0.001	<0.001		1.5	3.9		0.18	0.16		<1.0	<1.0	
							0.20	55	23.4			33.8		7.9		45.4		3.2			4.6			<0.001			6.2			0.14			<1.0		
Mid-Flood	F3	Fine	Calm	17:08	17.2	S	0.33	306	27.9	27.9	25.8	27.2	27.3	8.4	8.4	135.2	136.4	9.1	9.2	7.1	0.7	0.7	2.9	<0.001	0.012	0.005	2.1	2.2	4.2	0.31	0.33	0.22	1.3	1.2	1.1
							0.32	302	27.9			27.3		8.4		137.5		9.3			0.7			0.023			2.3			0.35			1.0		
						M	0.15	108	26.3	26.3		30.9	30.8	8.1	8.1	74.2	74.4	5.0	5.0		1.0	1.0		<0.001	<0.001		1.2	1.4		0.20	0.21		1.2	1.2	
							0.84	23	26.3			30.8		8.1		74.5		5.1			1.0			<0.001			1.5			0.21			1.1		
						B	0.32	2	23.2	23.2		33.9	33.9	7.9	7.9	45.8	45.2	3.2	3.2	3.2	6.8	6.9		<0.001	<0.001		8.9	9.1		0.13	0.14		<1.0	<1.0	
							0.38	329	23.2			33.9		7.9		44.5		3.1			7.0			<0.001			9.3			0.14			<1.0		
	IM6	Fine	Calm	16:54	16.0	S	0.80	255	27.7	27.7	25.5	27.0	27.4	8.3	8.3	116.7	115.8	7.9	7.8	6.0	1.1	1.1	3.3	<0.001	<0.001	<0.001	1.8	1.8	4.4	0.38	0.38	0.23	1.3	1.4	1.1
							0.49	286	27.6			27.8		8.3		114.8		7.8			1.1			<0.001			1.8			0.37			1.4		
						M	0.18	223	25.3	25.3		32.0	32.0	8.0	8.0	58.7	59.9	4.0	4.1		1.5	1.5		<0.001	<0.001		2.5	2.4		0.19	0.19		<1.0	<1.0	
							0.18	223	25.3			31.9		8.0		61.0		4.2			1.4			<0.001			2.3			0.18			<1.0		
						B	0.22	246	23.4	23.4		33.8	33.8	7.9	7.9	44.9	44.3	3.2	3.1	3.1	7.2	7.5		<0.001	<0.001		8.9	9.0		0.13	0.13		<1.0	<1.0	
							0.51	333	23.4			33.7		7.9		43.7		3.1			7.7			<0.001			9.1			0.13			<1.0		

Remark: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/09/09**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Rainy	Moderate	08:09	9.6	S	0.46	186	26.2	26.2	26.2	30.1	30.1	8.1	8.1	96.5	96.5	6.6	6.6	6.6	1.0	1.1	5.3	<0.001	<0.001	0.001	2.1	2.1	2.8	0.23	0.23	0.20	<1.0	<1.0	<1.0
							0.46	186	26.2			30.2		8.1		96.5		6.6			1.1			<0.001			2.0			0.22			<1.0		
						M	0.29	20	26.2	26.2		30.3	30.2	8.1	8.1	95.6	95.9	6.5	6.5		1.3	1.2		<0.001	0.001		2.1	2.0		0.21	0.21		<1.0	<1.0	
							0.11	241	26.2			30.2		8.1		96.1		6.6			1.1			0.001			1.8			0.20			<1.0		
						B	0.48	122	26.2	26.2		31.0	30.9	8.1	8.1	92.1	92.3	6.3	6.3		14.5	13.8		<0.001	<0.001		5.4	4.5		0.17	0.18		<1.0	<1.0	
							0.48	122	26.2			30.9		8.1		92.4		6.3			13.0			<0.001			3.6			0.18			<1.0		
	IM6	Rainy	Moderate	08:42	17.0	S	0.05	172	26.2	26.2	25.8	30.5	30.5	8.2	8.2	94.3	94.9	6.4	6.5	6.1	0.7	0.8	5.8	<0.001	<0.001	<0.001	1.4	1.4	6.9	0.19	0.19	0.18	<1.0	<1.0	<1.0
							0.38	216	26.2			30.5		8.2		95.5		6.5			0.8			<0.001			1.4			0.19			<1.0		
						M	0.49	357	26.0	26.0		32.4	32.4	8.2	8.2	84.4	85.6	5.7	5.8		1.8	1.7		<0.001	<0.001		2.4	2.4		0.13	0.13		<1.0	<1.0	
							0.62	158	26.0			32.3		8.2		86.8		5.9			1.5			<0.001			2.4			0.12			<1.0		
						B	0.10	354	25.3	25.3		33.4	33.4	8.0	8.0	66.3	64.4	4.5	4.4	4.4	13.9	14.9		<0.001	<0.001		19.2	16.9		0.22	0.22		<1.0	<1.0	
							0.10	354	25.3			33.5		8.0		62.4		4.3			15.9			<0.001			14.5			0.22			<1.0		
Mid-Flood	F3	Rainy	Moderate	20:33	16.0	S	0.61	307	26.1	26.1	25.9	30.7	30.6	8.2	8.2	98.8	98.9	6.7	6.7	6.5	0.4	0.4	2.6	<0.001	<0.001	<0.001	1.2	1.3	1.8	0.16	0.16	0.12	<1.0	<1.0	<1.0
							0.65	278	26.1			30.6		8.2		98.9		6.7			0.4			<0.001			1.4			0.15			<1.0		
						M	0.16	340	26.1	26.1		32.7	32.7	8.2	8.2	92.1	94.3	6.2	6.3		0.5	0.5		<0.001	<0.001		1.2	1.1		0.06	0.06		<1.0	<1.0	
							0.16	340	26.1			32.7		8.2		96.4		6.5			0.4			<0.001			<1.0			0.06			<1.0		
						B	0.29	303	25.4	25.4		33.5	33.5	8.0	8.0	73.7	73.8	5.0	5.0	5.0	7.6	6.9		<0.001	<0.001		2.9	3.1		0.15	0.16		<1.0	<1.0	
							0.35	303	25.5			33.5		8.0		73.8		5.0			6.1			<0.001			3.3			0.16			<1.0		
	IM6	Rainy	Moderate	20:19	15.0	S	0.23	153	26.1	26.0	25.7	30.9	30.9	8.1	8.1	92.7	93.6	6.3	6.4	5.8	1.5	1.5	6.2	<0.001	<0.001	<0.001	2.3	2.4	8.5	0.16	0.17	0.17	<1.0	<1.0	<1.0
							0.23	153	26.0			30.9		8.1		94.4		6.4			1.5			<0.001			2.4			0.17			<1.0		
						M	0.46	329	25.8	25.8		32.4	32.2	8.1	8.1	76.8	78.1	5.2	5.3		6.4	6.1		<0.001	<0.001		8.3	8.7		0.16	0.16		<1.0	<1.0	
							0.46	329	25.8			32.0		8.1		79.3		5.4			5.7			<0.001			9.0			0.16			<1.0		
						B	0.35	342	25.4	25.4		33.4	33.4	8.0	8.0	74.3	73.0	5.1	5.0	5.0	11.0	10.9		<0.001	<0.001		13.8	14.4		0.18	0.18		<1.0	<1.0	
							0.35	342	25.4			33.4		8.0		71.7		4.9			10.8			<0.001			15.0			0.17			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/09/11**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Cloudy	Moderate	10:18	9.4	S	0.34	337	26.1	26.1	26.1	29.4	29.4	8.1	8.1	93.5	94.8	6.4	6.5	6.1	0.3	0.3	1.9	<0.001	<0.001	0.002	3.2	3.4	4.4	0.22	0.23	0.18	<1.0	<1.0	<1.0
							0.38	81	26.1			29.4		8.1		96.1		6.6			0.3			<0.001			3.5			0.23			<1.0		
						M	0.04	17	26.0	26.0		31.0	31.0	8.0	8.0	82.7	82.3	5.6	5.6		2.7	2.6		<0.001	0.002		4.9	4.7		0.22	0.23		<1.0	<1.0	
							0.51	148	26.0			30.9		8.0		81.8		5.6			2.5			0.003			4.4			0.23			<1.0		
						B	0.10	311	26.1	26.1		32.5	32.5	8.1	8.1	92.5	92.1	6.2	6.2	6.2	2.5	2.7		<0.001	0.003		5.4	5.2		0.09	0.09		<1.0	<1.0	
							0.13	344	26.1			32.5		8.1		91.6		6.2			2.8			0.004			5.0			0.08			<1.0		
	IM6	Cloudy	Moderate	09:45	17.6	S	0.54	154	26.0	26.0	26.1	30.8	30.8	8.1	8.1	90.7	90.6	6.2	6.2	6.1	0.3	0.3	4.4	<0.001	0.001	0.001	2.8	3.1	7.3	0.28	0.28	0.14	<1.0	<1.0	<1.0
							0.10	5	26.0			30.8		8.1		90.5		6.2			0.3			0.001			3.4			0.28			<1.0		
						M	0.35	142	26.0	26.0		32.9	32.9	8.1	8.1	90.4	90.4	6.1	6.1		1.6	1.5		<0.001	<0.001		4.6	4.8		0.08	0.08		<1.0	<1.0	
							0.48	36	26.0			32.9		8.1		90.4		6.1			1.4			<0.001			5.0			0.08			<1.0		
						B	1.17	116	26.1	26.1		33.5	33.5	8.1	8.1	91.2	91.1	6.1	6.1	6.1	11.9	11.4		<0.001	<0.001		13.9	14.1		0.05	0.05		<1.0	<1.0	
							1.17	116	26.1			33.5		8.1		91.0		6.1			10.8			<0.001			14.2			0.04			<1.0		
Mid-Flood	F3	Rainy	Rough	17:15	17.1	S	0.51	261	26.3	26.3	26.1	30.3	30.3	8.1	8.1	95.6	96.4	6.5	6.6	6.3	0.4	0.4	3.8	<0.001	<0.001	<0.001	2.2	2.4	5.7	0.22	0.21	0.14	<1.0	<1.0	<1.0
							0.17	290	26.3			30.3		8.1		97.1		6.6			0.4			<0.001			2.5			0.20			<1.0		
						M	0.11	48	26.0	26.0		31.8	31.6	8.1	8.1	87.9	88.4	6.0	6.0		1.3	1.2		<0.001	<0.001		3.6	3.7		0.15	0.16		<1.0	<1.0	
							0.31	251	26.0			31.3		8.1		88.8		6.0			1.1			<0.001			3.8			0.16			<1.0		
						B	0.68	302	26.1	26.1		33.3	33.3	8.1	8.1	88.4	88.3	5.9	5.9	5.9	10.5	9.8		<0.001	<0.001		11.2	11.0		0.07	0.07		<1.0	<1.0	
							0.48	341	26.1			33.3		8.1		88.1		5.9			9.1			<0.001			10.8			0.06			<1.0		
	IM6	Rainy	Rough	17:01	16.1	S	0.45	78	26.3	26.3	26.1	28.3	28.3	8.1	8.1	95.1	95.5	6.6	6.6	6.4	1.0	1.1	6.4	<0.001	<0.001	<0.001	4.3	4.2	10.7	0.36	0.36	0.23	<1.0	<1.0	<1.0
							0.45	78	26.3			28.4		8.1		95.8		6.6			1.1			<0.001			4.1			0.36			<1.0		
						M	0.79	193	26.1	26.1		30.5	30.5	8.1	8.1	90.8	91.2	6.2	6.2		1.0	1.1		<0.001	<0.001		5.4	5.2		0.22	0.23		<1.0	<1.0	
							0.79	193	26.1			30.5		8.1		91.6		6.2			1.2			<0.001			4.9			0.23			<1.0		
						B	0.69	170	26.0	26.0		32.6	32.6	8.1	8.1	90.6	89.7	6.1	6.1	6.1	16.8	17.1		<0.001	<0.001		23.7	22.9		0.09	0.10		<1.0	<1.0	
							0.69	170	26.0			32.7		8.1		88.8		6.0			17.4			<0.001			22.0			0.11			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/09/20**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Calm	14:58	9.1	S	0.30	36	29.6	29.5	28.2	27.4	27.5	8.5	8.5	167.0	169.7	10.9	11.1	9.8	2.9	2.7	5.3	<0.001	<0.001	<0.001	5.9	5.8	9.5	0.28	0.28	0.24	1.5	1.7	1.3
							0.06	145	29.5			27.5		8.5		172.4		11.3			2.5			<0.001			5.6			0.27			1.9		
						M	0.54	348	27.8	27.8		29.0	29.0	8.3	8.3	124.8	127.7	8.3	8.5		3.5	3.5		<0.001	<0.001		7.9	8.1		0.22	0.21		1.1	1.1	
							0.43	346	27.8			29.0		8.3		130.6		8.7			3.5			<0.001			8.3			0.20			1.0		
						B	0.58	320	27.2	27.2		30.8	30.8	8.1	8.1	90.1	88.7	6.0	5.9	5.9	10.0	9.8		<0.001	<0.001		14.5	14.7		0.23	0.23		<1.0	<1.0	
							0.58	320	27.2			30.8		8.1		87.3		5.8			9.5			<0.001			14.9			0.22			<1.0		
	IM6	Fine	Calm	14:26	16.8	S	0.32	357	28.9	28.9	27.3	25.7	25.7	8.5	8.5	144.6	150.6	9.7	10.1	7.9	2.9	2.9	3.8	<0.001	<0.001	<0.001	4.4	4.6	5.5	0.36	0.35	0.18	2.1	2.1	1.4
							0.32	357	28.9			25.7		8.5		156.6		10.5			2.9			<0.001			4.8			0.34			2.0		
						M	0.03	109	26.6	26.6		32.3	32.3	8.2	8.2	86.6	86.8	5.8	5.8		3.1	3.1		<0.001	<0.001		5.5	5.4		0.12	0.11		<1.0	<1.0	
							0.15	349	26.6			32.3		8.2		86.9		5.8			3.1			<0.001			5.2			0.10			<1.0		
						B	0.26	101	26.4	26.4		33.1	33.1	8.1	8.1	79.2	79.1	5.3	5.3	5.3	5.5	5.3		<0.001	<0.001		6.8	6.6		0.07	0.08		<1.0	<1.0	
							0.17	214	26.4			33.1		8.1		79.0		5.3			5.1			<0.001			6.4			0.09			<1.0		
Mid-Flood	F3	Fine	Calm	09:10	18.0	S	0.16	261	28.0	28.0	27.0	26.9	27.0	8.4	8.4	124.9	127.9	8.4	8.6	7.1	2.4	2.4	3.8	<0.001	<0.001	0.001	4.6	4.5	6.4	0.35	0.36	0.19	<1.0	<1.0	<1.0
							0.16	261	28.0			27.0		8.4		130.8		8.8			2.4			<0.001			4.3			0.37			<1.0		
						M	0.12	202	26.6	26.6		32.2	32.3	8.2	8.2	83.9	83.8	5.6	5.6		2.3	2.3		<0.001	0.002		5.2	5.4		0.14	0.13		<1.0	<1.0	
							0.37	260	26.6			32.4		8.2		83.6		5.6			2.3			0.003			5.6			0.11			<1.0		
						B	0.31	296	26.4	26.4		33.2	33.2	8.2	8.2	81.6	80.9	5.5	5.4	5.4	6.6	6.7		<0.001	<0.001		9.5	9.3		0.08	0.08		<1.0	<1.0	
							0.31	296	26.4			33.2		8.2		80.2		5.4			6.8			<0.001			9.1			0.08			<1.0		
	IM6	Fine	Calm	08:40	16.4	S	0.35	315	28.2	28.1	27.2	25.8	25.8	8.5	8.5	127.2	130.4	8.6	8.8	7.6	2.1	2.1	5.5	<0.001	0.002	0.001	4.7	4.6	7.9	0.39	0.40	0.24	<1.0	<1.0	<1.0
							0.35	315	28.1			25.8		8.5		133.6		9.0			2.1			0.002			4.4			0.41			<1.0		
						M	0.08	220	27.1	27.1		30.7	30.7	8.2	8.2	94.5	94.3	6.3	6.3		3.9	3.9		<0.001	<0.001		5.3	5.4		0.19	0.21		<1.0	<1.0	
							0.53	183	27.1			30.8		8.2		94.1		6.3			3.9			<0.001			5.5			0.22			<1.0		
						B	0.26	327	26.5	26.5		32.9	32.9	8.2	8.2	83.9	82.3	5.6	5.5	5.5	11.0	10.5		<0.001	<0.001		13.9	13.7		0.12	0.11		<1.0	<1.0	
							0.56	334	26.5			32.9		8.2		80.6		5.4			10.0			<0.001			13.4			0.09			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

Water Quality Monitoring Data Log Sheet **Date: 2023/09/26**

Tide	Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)			Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Total Residual Chlorine (mg/L)			Suspended Solids (mg/L)			Total Inorganic Nitrogen (mg/L)			5-day Biochemical Oxygen Demand (mg/L)		
									Value	Average	DA	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
Mid-Ebb	E2	Fine	Moderate	09:12	9.3	S	0.52	357	28.7	28.7	28.3	29.3	29.3	8.4	8.4	102.2	103.0	6.7	6.8	6.5	1.0	1.0	4.2	<0.001	<0.001	<0.001	3.1	3.0	6.8	0.18	0.18	0.16	<1.0	<1.0	<1.0
							0.52	357	28.7			29.3		8.4		103.7		6.8			1.0			<0.001			2.8			0.18			<1.0		
						M	0.20	74	28.4	28.5		29.8	29.7	8.3	8.3	90.7	93.4	6.0	6.2		2.1	1.8		<0.001	<0.001		5.5	5.3		0.18	0.18		<1.0	<1.0	
							0.76	119	28.5			29.6		8.3		96.1		6.3			1.4			<0.001			5.0			0.18			<1.0		
						B	0.41	120	27.9	27.9		31.8	31.8	8.2	8.2	86.0	84.1	5.7	5.5	5.5	9.2	10.0		<0.001	<0.001		11.9	12.1		0.13	0.13		<1.0	<1.0	
							0.35	46	27.9			31.8		8.2		82.1		5.4			10.7			<0.001			12.3			0.12			<1.0		
	IM6	Fine	Moderate	08:39	17.2	S	0.32	267	28.2	28.2	28.1	30.9	30.9	8.3	8.3	102.8	103.1	6.8	6.8	6.6	0.1	0.1	2.4	<0.001	<0.001	<0.001	1.9	1.8	4.0	0.11	0.12	0.08	<1.0	<1.0	<1.0
							0.32	267	28.3			30.8		8.3		103.4		6.8			0.1			<0.001			1.6			0.12			<1.0		
						M	0.20	0	28.2	28.2		32.2	32.2	8.3	8.3	99.1	99.5	6.5	6.5		0.7	0.8		<0.001	<0.001		2.2	2.3		0.04	0.04		<1.0	<1.0	
							0.03	33	28.2			32.2		8.3		99.9		6.5			0.8			<0.001			2.4			0.03			<1.0		
						B	1.06	131	28.0	28.0		32.3	32.3	8.2	8.2	92.1	89.7	6.0	5.9	5.9	5.4	6.5		<0.001	<0.001		8.0	7.8		0.08	0.07		<1.0	<1.0	
							0.59	146	27.9			32.4		8.2		87.2		5.7			7.5			<0.001			7.6			0.06			<1.0		
Mid-Flood	F3	Fine	Rough	16:33	17.2	S	0.47	271	28.9	28.9	28.5	30.2	30.2	8.4	8.4	112.1	113.0	7.3	7.4	7.1	0.7	0.7	3.5	<0.001	<0.001	0.002	2.3	2.4	3.9	0.11	0.11	0.07	<1.0	<1.0	<1.0
							0.33	302	28.9			30.2		8.4		113.8		7.4			0.6			<0.001			2.5			0.11			<1.0		
						M	0.45	318	28.4	28.4		31.5	31.4	8.3	8.3	100.8	103.6	6.6	6.8		1.9	1.9		<0.001	0.002		3.5	3.3		0.06	0.06		<1.0	<1.0	
							0.40	193	28.4			31.4		8.3		106.3		6.9			1.9			0.003			3.1			0.06			<1.0		
						B	0.70	294	28.2	28.2		32.4	32.4	8.3	8.3	99.9	99.5	6.5	6.5	6.5	7.7	7.9		<0.001	0.002		5.8	6.0		0.03	0.04		<1.0	<1.0	
							0.70	294	28.2			32.4		8.3		99.0		6.5			8.1			0.003			6.2			0.05			<1.0		
	IM6	Fine	Rough	16:20	16.0	S	0.29	113	28.7	28.7	28.4	30.2	30.2	8.4	8.4	105.3	106.7	6.9	7.0	6.7	1.0	1.0	6.2	<0.001	<0.001	0.001	2.6	2.8	9.1	0.11	0.11	0.07	<1.0	<1.0	<1.0
							0.19	308	28.7			30.2		8.4		108.0		7.1			0.9			<0.001			2.9			0.11			<1.0		
						M	0.81	206	28.3	28.3		32.0	32.0	8.3	8.3	98.5	98.6	6.4	6.4		5.0	4.8		<0.001	0.001		6.9	7.2		0.06	0.06		<1.0	<1.0	
							0.51	248	28.3			32.0		8.3		98.6		6.4			4.5			0.001			7.4			0.06			<1.0		
						B	0.58	224	28.3	28.3		32.2	32.2	8.3	8.3	99.6	99.1	6.5	6.5	6.5	13.8	12.9		<0.001	<0.001		17.5	17.2		0.04	0.05		<1.0	<1.0	
							0.58	224	28.3			32.2		8.3		98.6		6.4			11.9			<0.001			16.8			0.05			<1.0		

Remark: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

*** S: 1 m below the sea surface; M: mid-depth; B: 1 m above the seabed

ANNEX D

GRAPHICAL PRESENTATION OF OPERATION PHASE WATER QUALITY MONITORING RESULTS

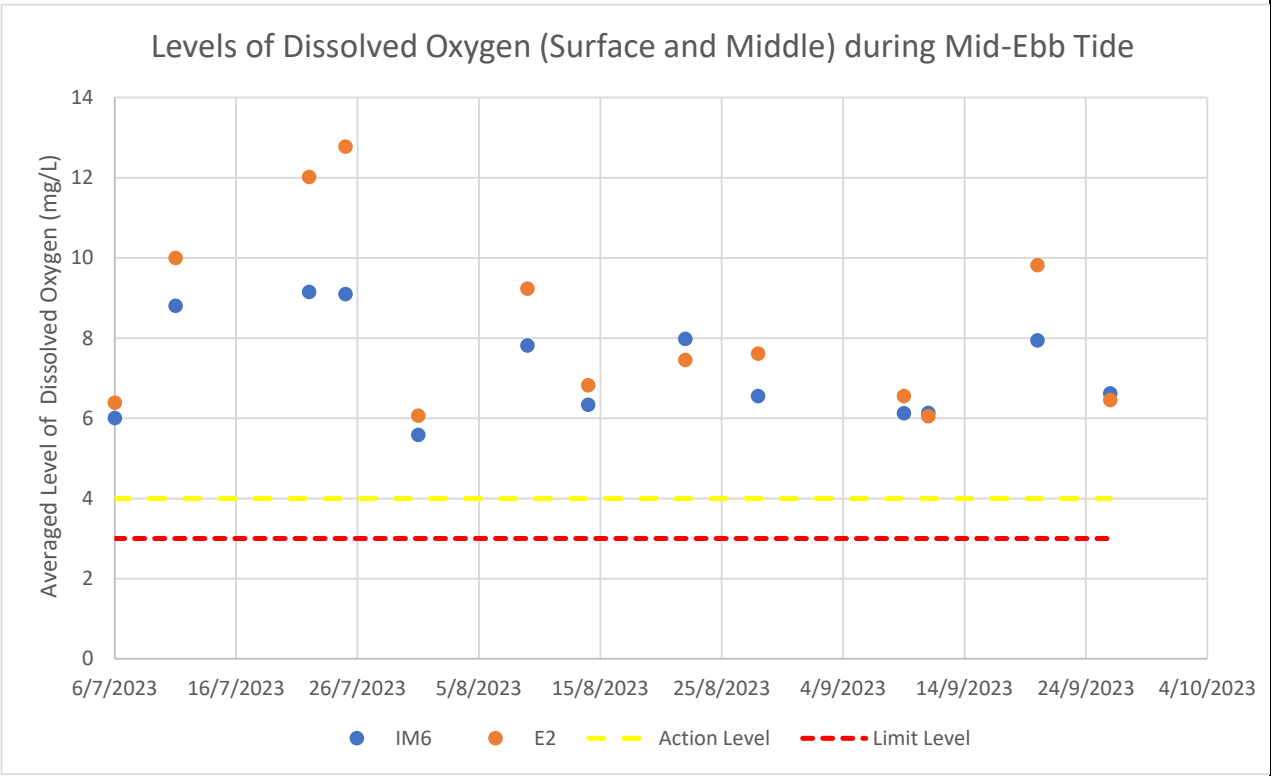

Figure 1: Levels of Dissolved Oxygen (Surface and Middle) during mid-ebb tide between July and September 2023

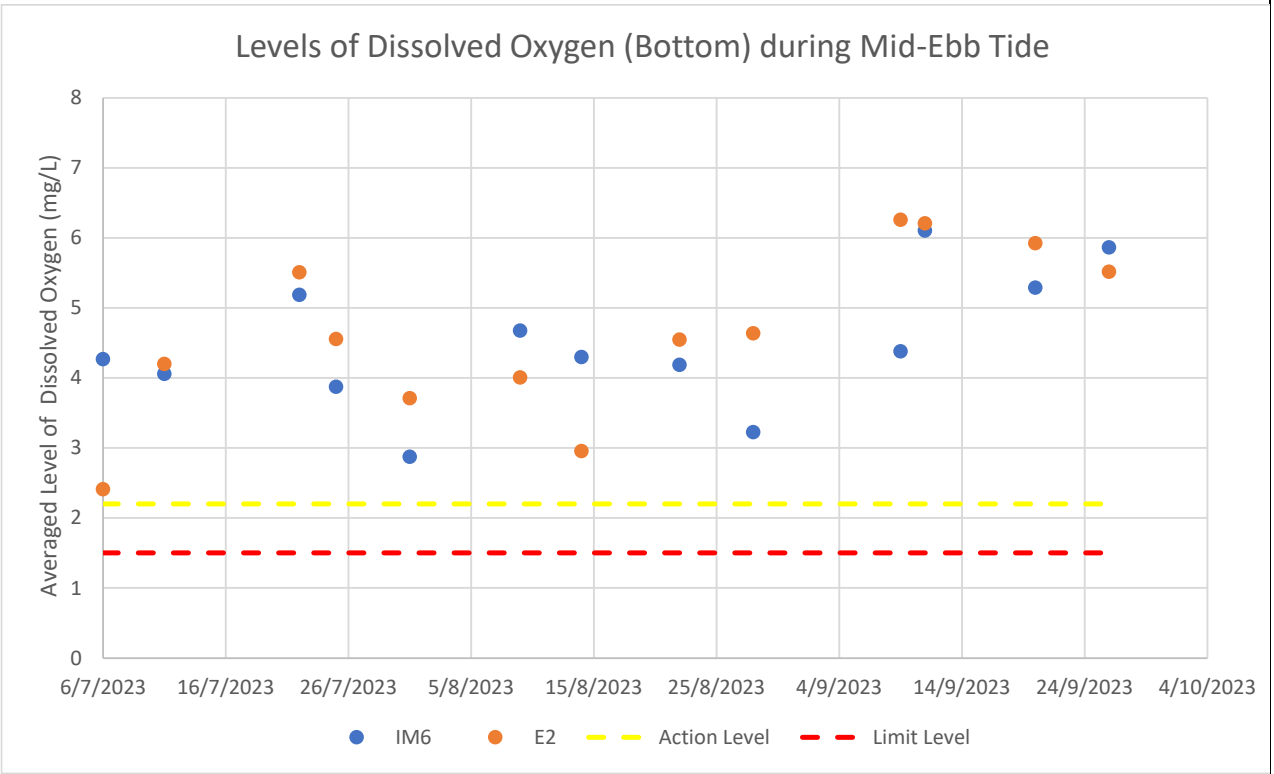

Figure 2: Levels of Dissolved Oxygen (Bottom) during mid-ebb tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

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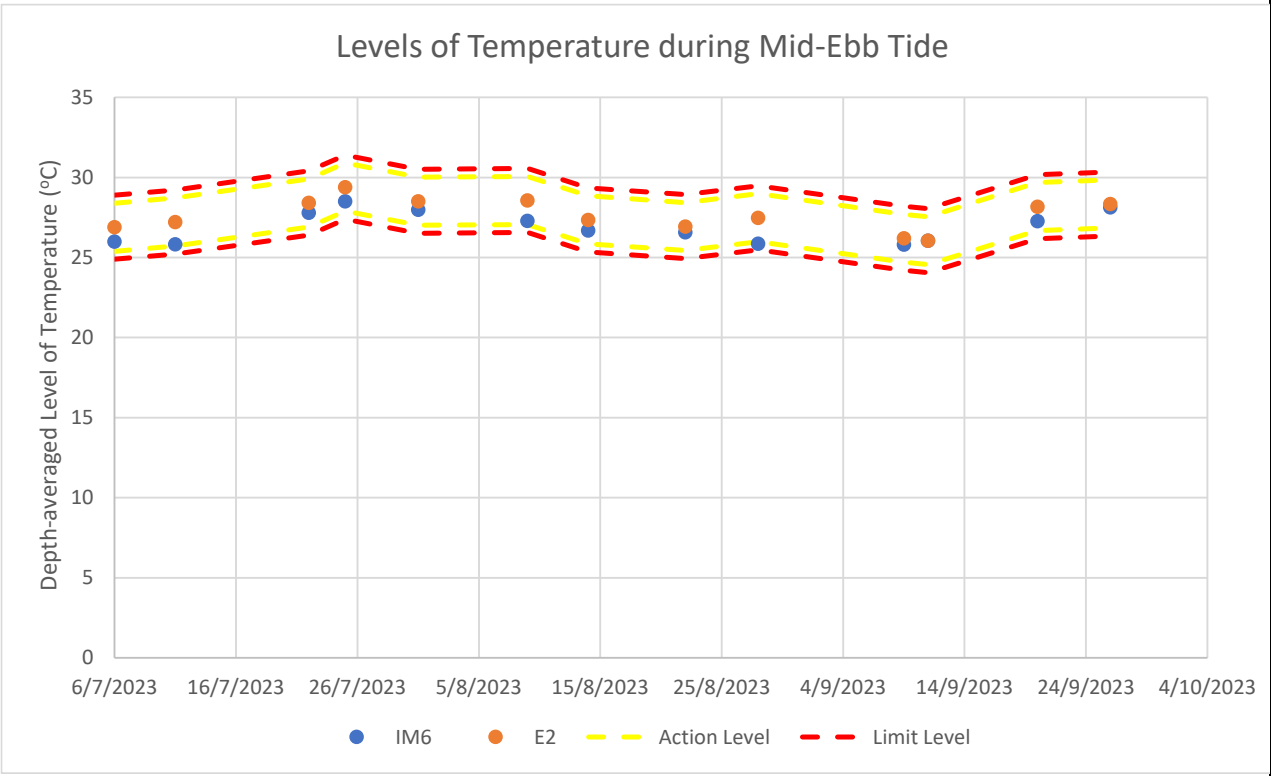

Figure 3: Levels of Temperature during mid-ebb tide between July and September 2023

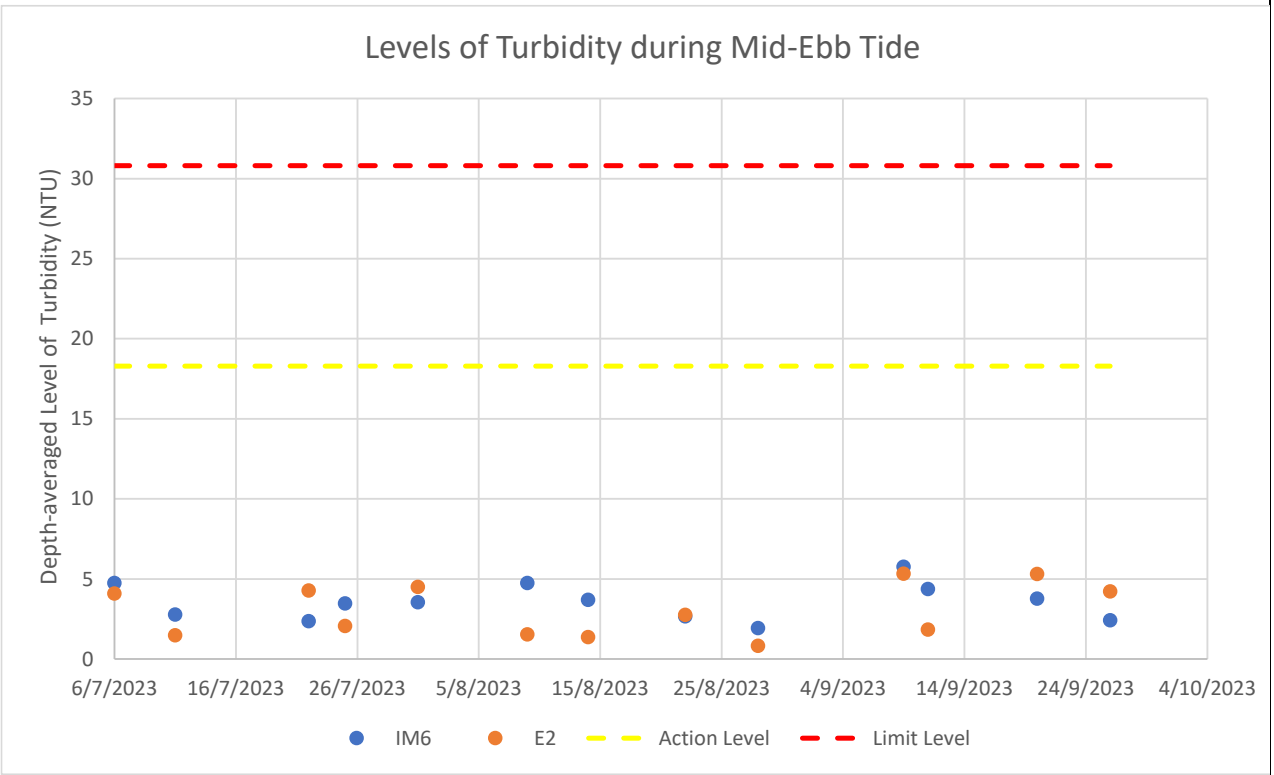

Figure 4: Levels of Turbidity during mid-ebb tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

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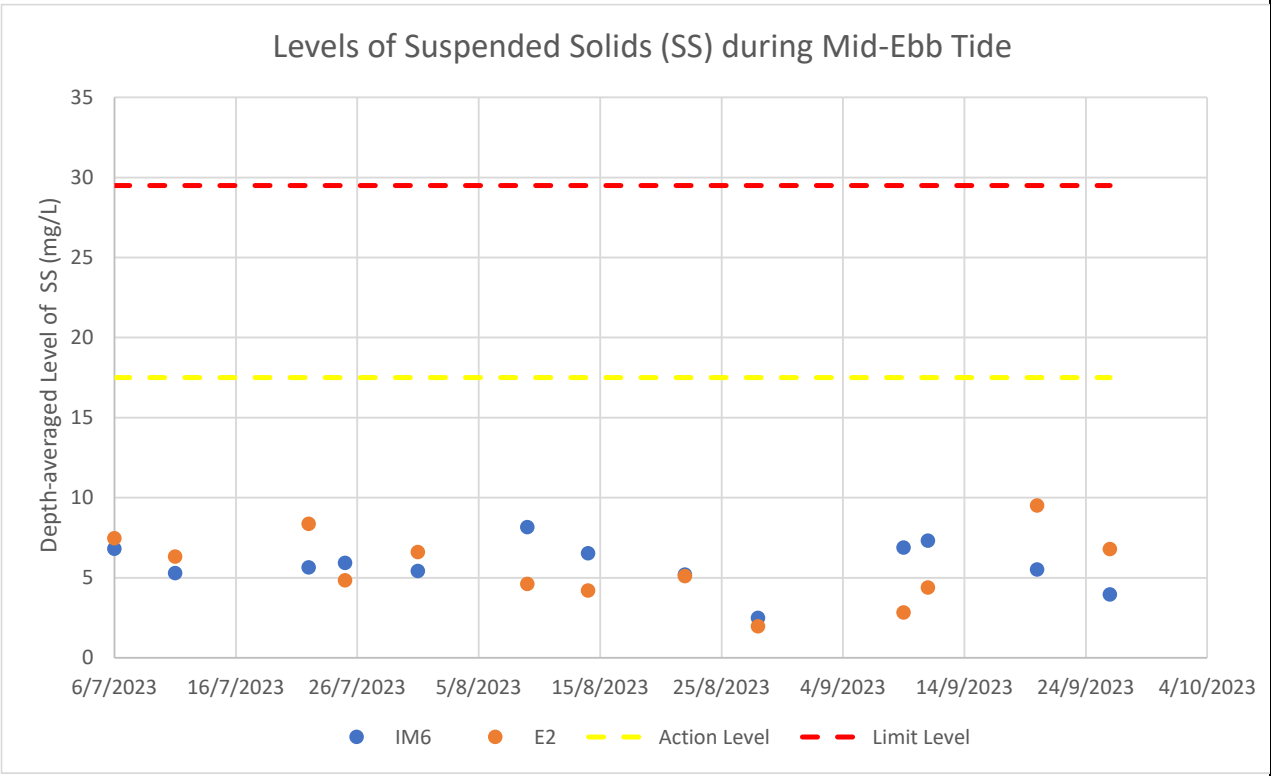

Figure 5: Levels of Suspended Solids during mid-ebb tide between July and September 2023

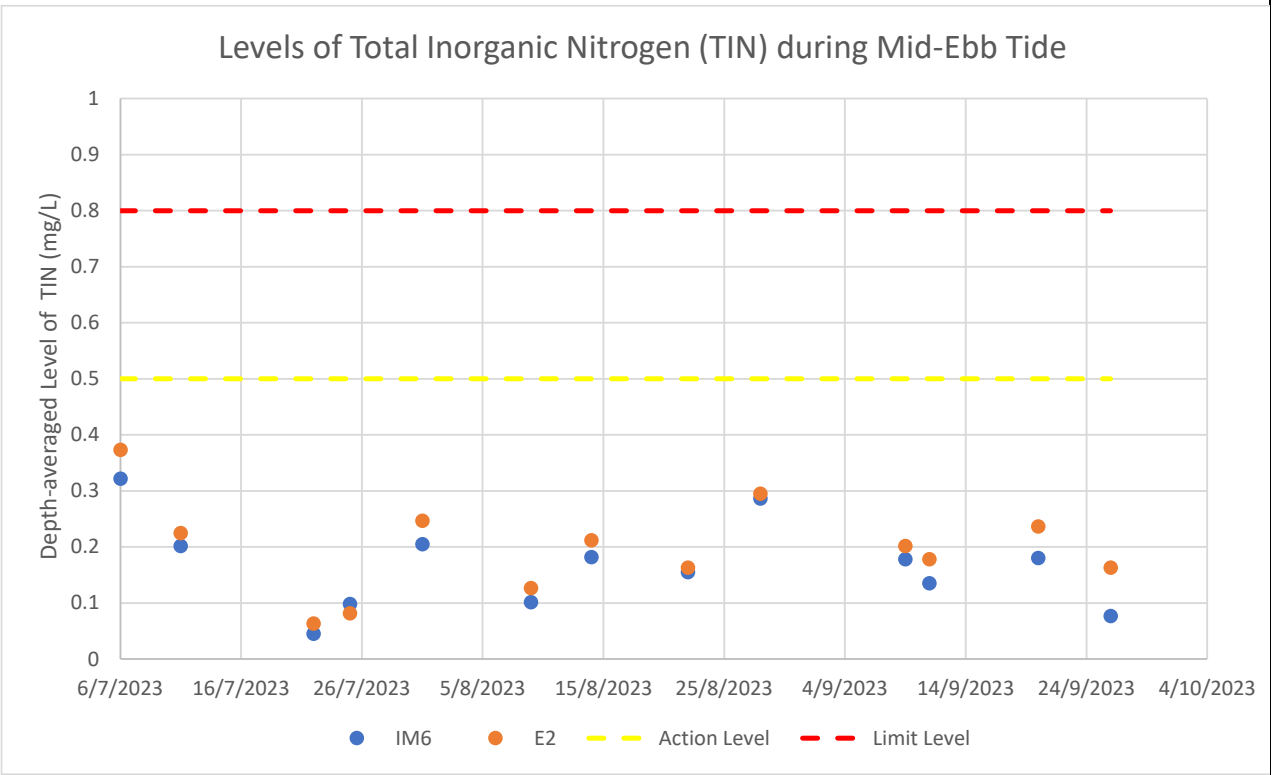

Figure 6: Levels of Total Inorganic Nitrogen during mid-ebb tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

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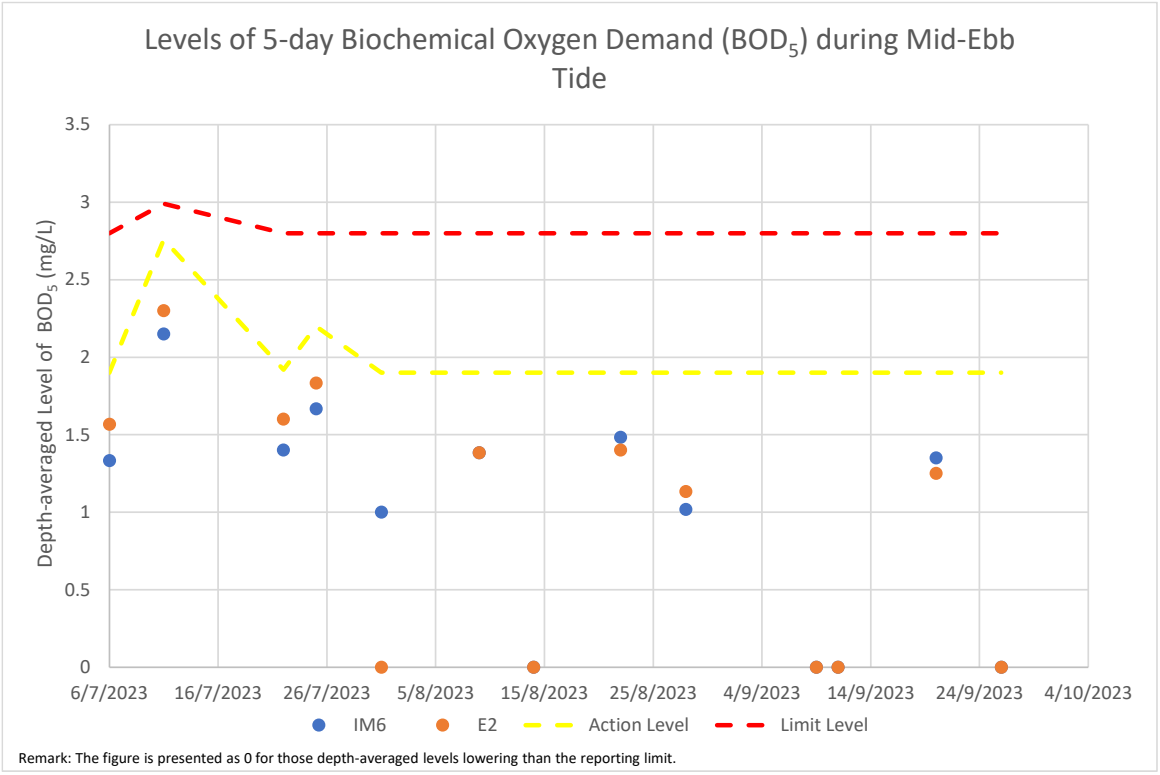

Figure 7: Levels of 5-day Biochemical Oxygen Demand during mid-ebb tide between July and September 2023

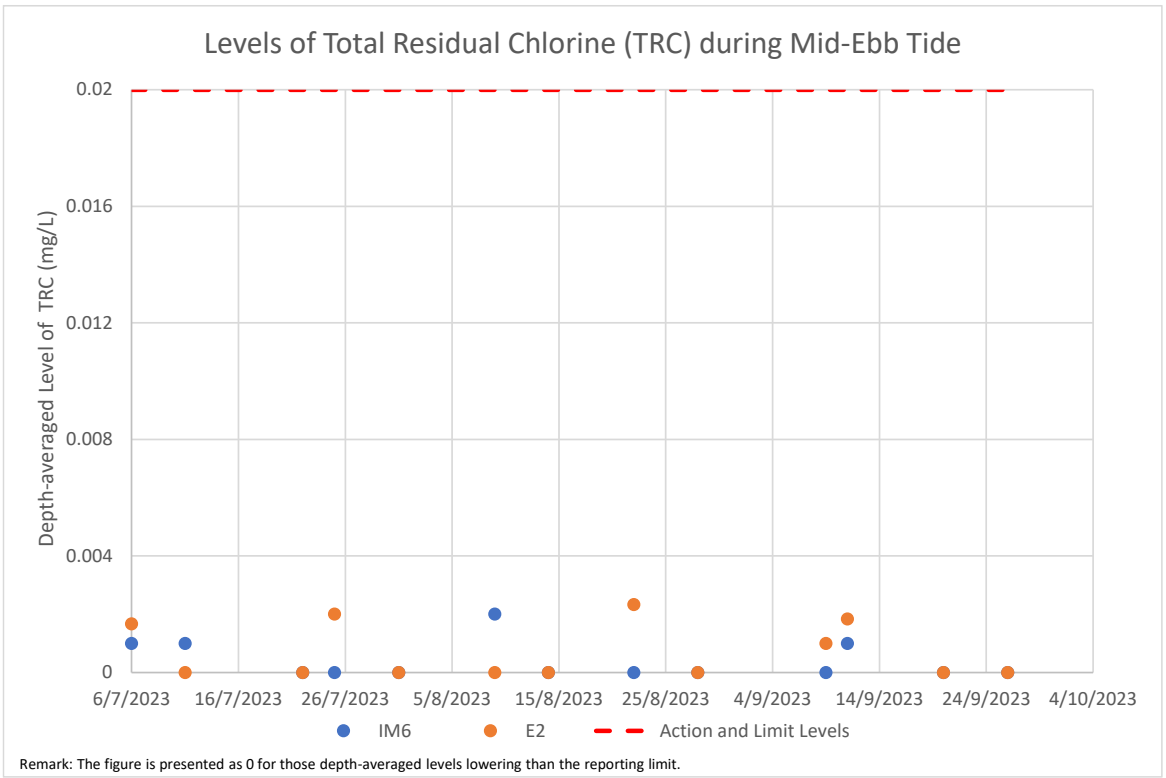

Figure 8: Levels of Total Residual Chlorine during mid-ebb tide between July and September 2023

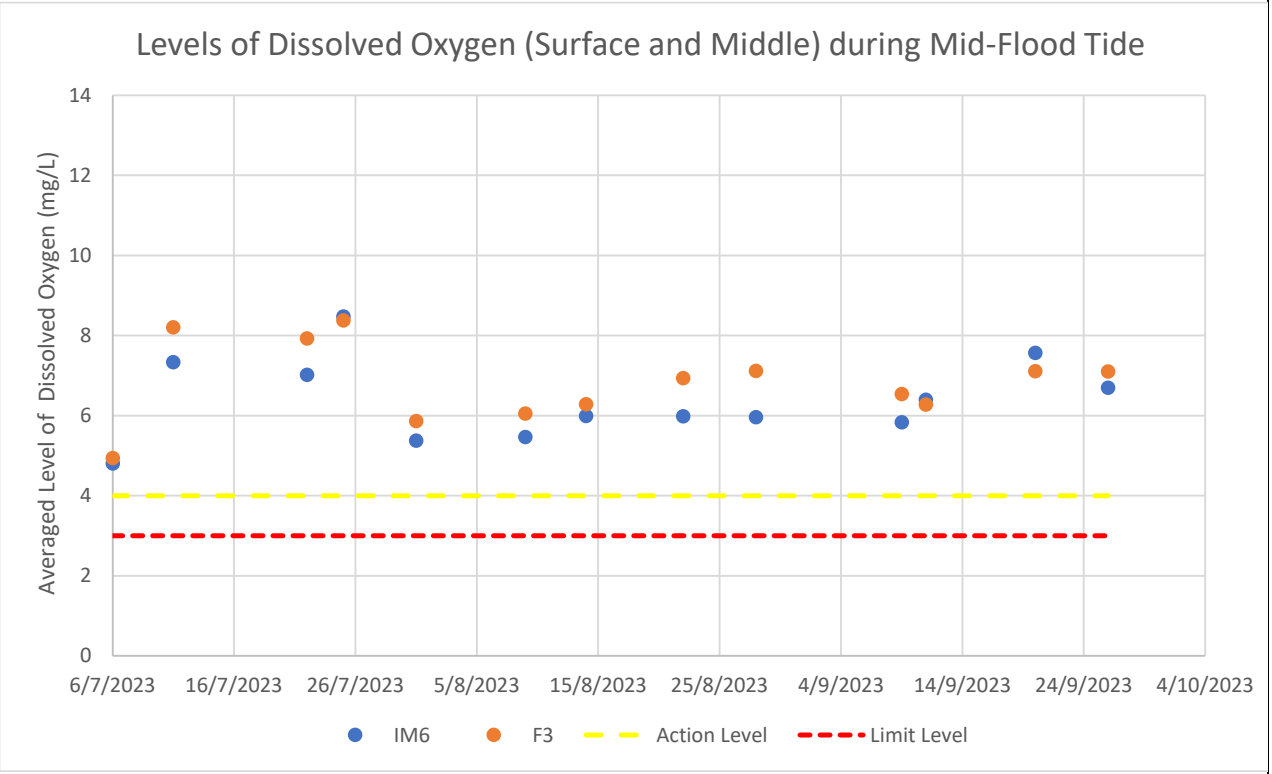

Figure 9: Levels of Dissolved Oxygen (Surface and Middle) during mid-flood tide between July and September 2023

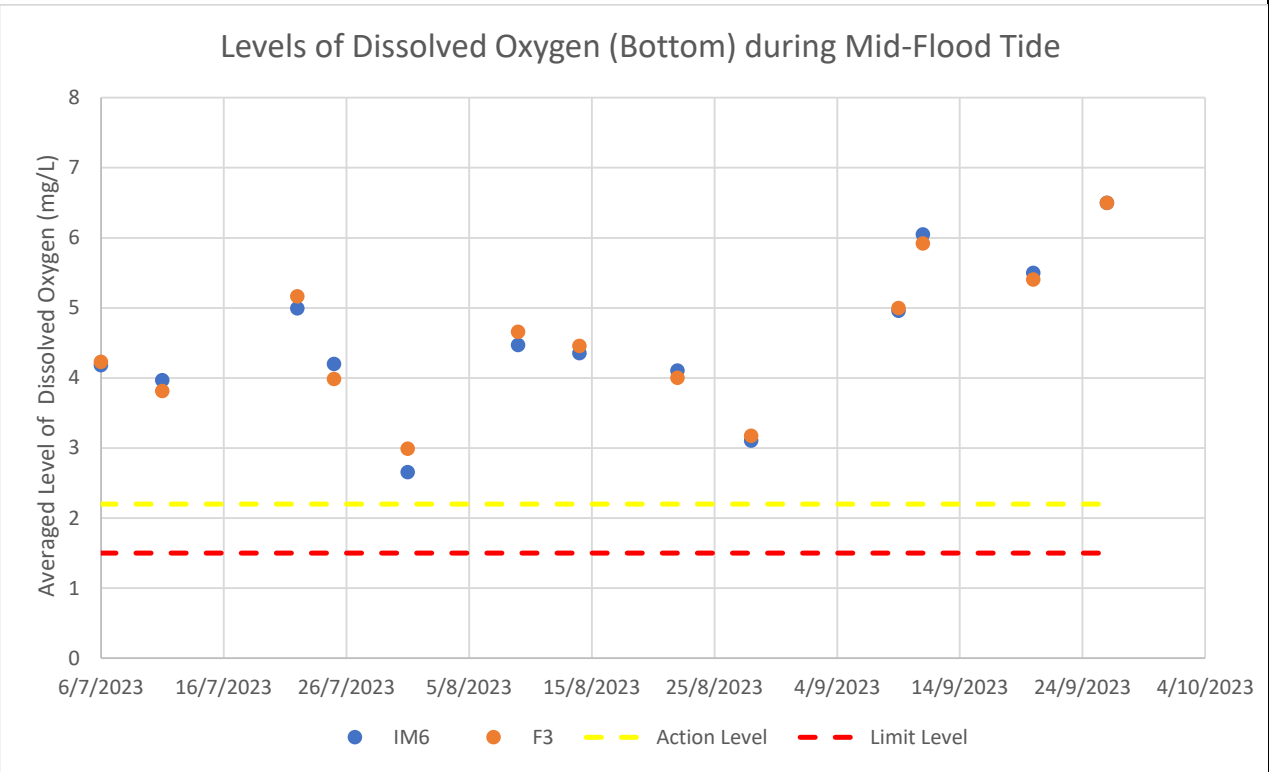

Figure 10: Levels of Dissolved Oxygen (Bottom) during mid-flood tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

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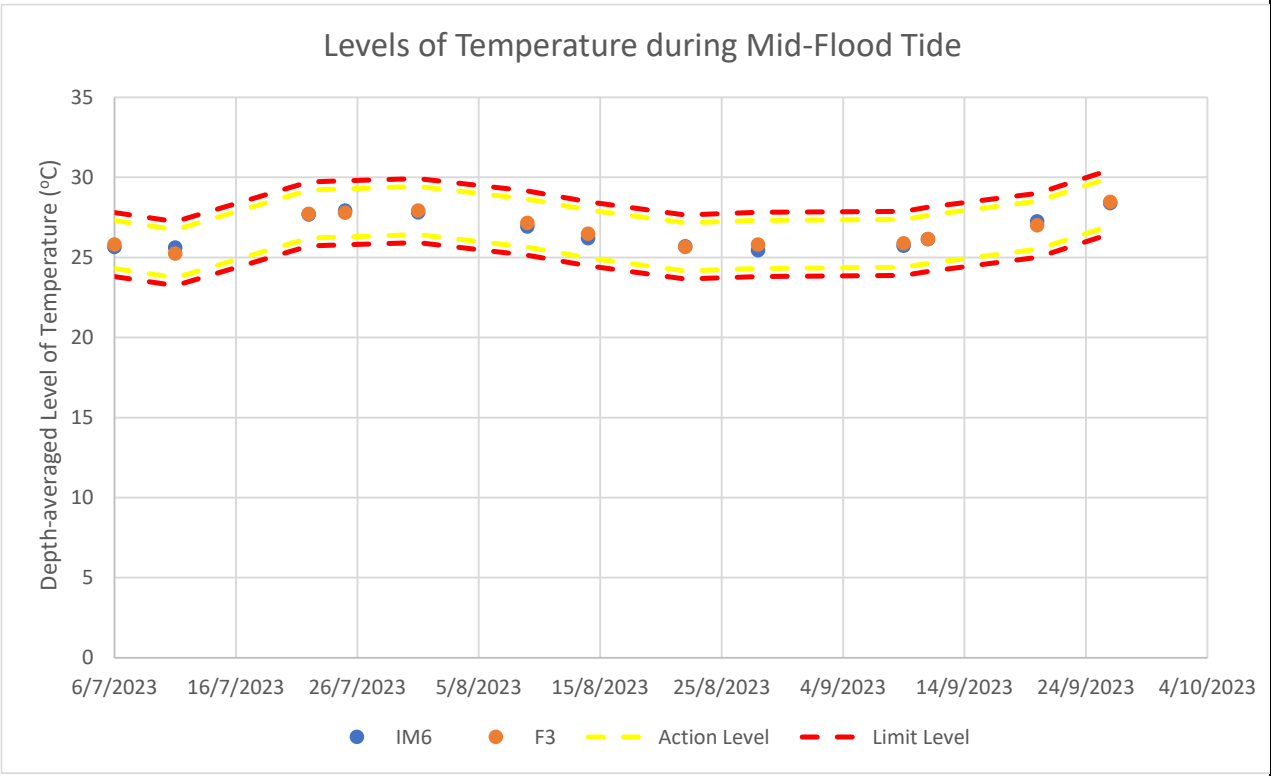

Figure 11: Levels of Temperature during mid-flood tide between July and September 2023

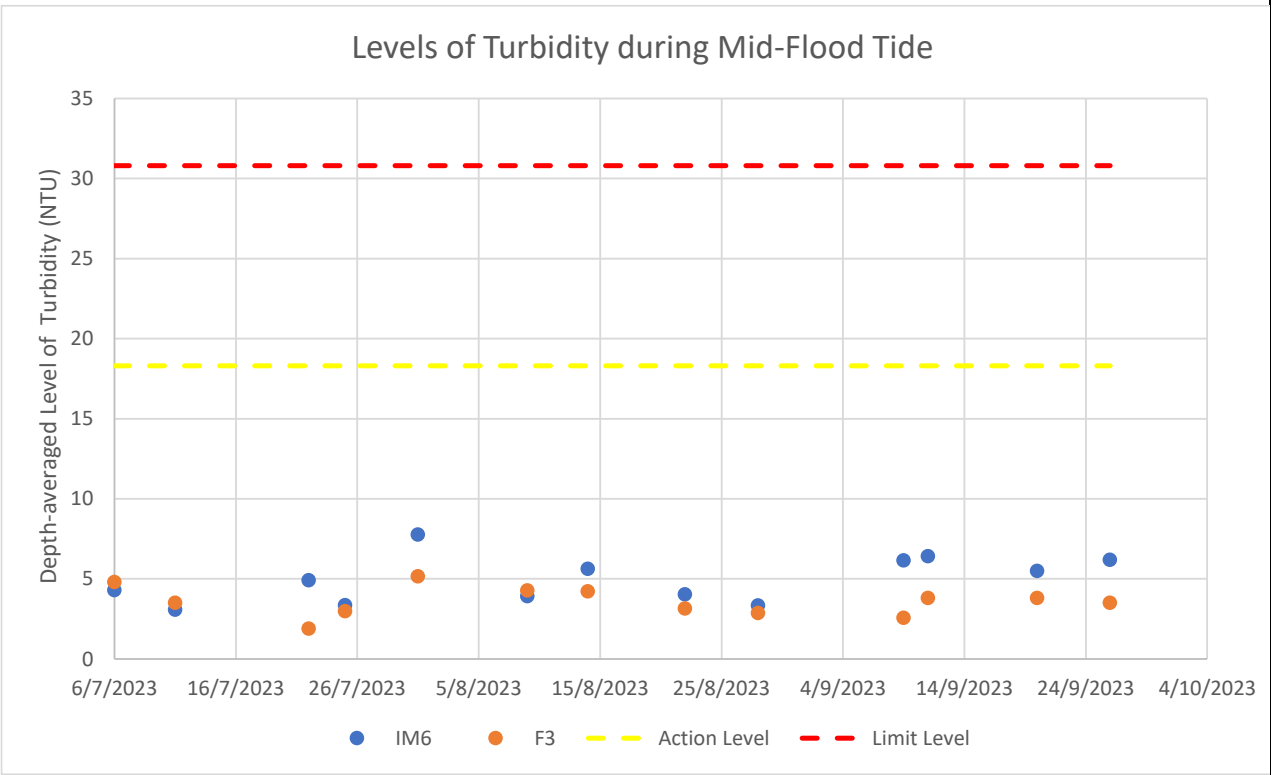

Figure 12: Levels of Turbidity during mid-flood tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

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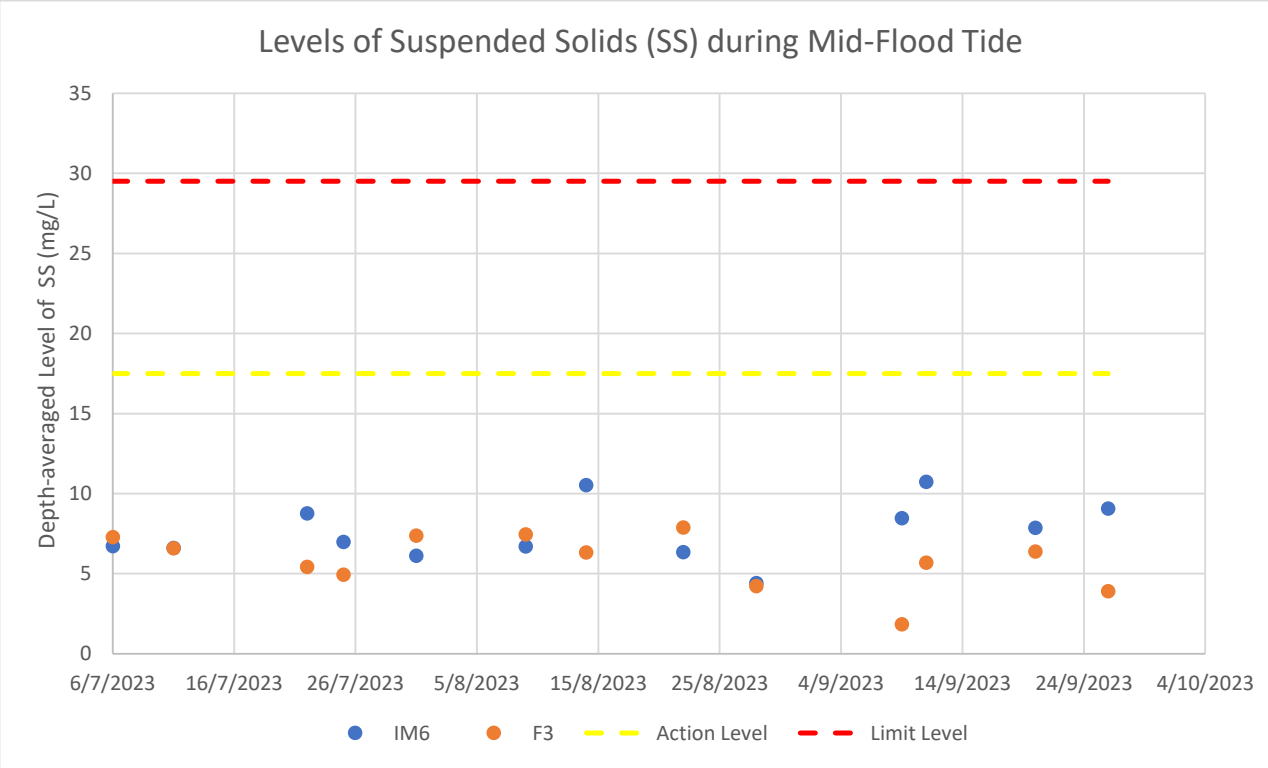

Figure 13: Levels of Suspended Solids during mid-flood tide between July and September 2023

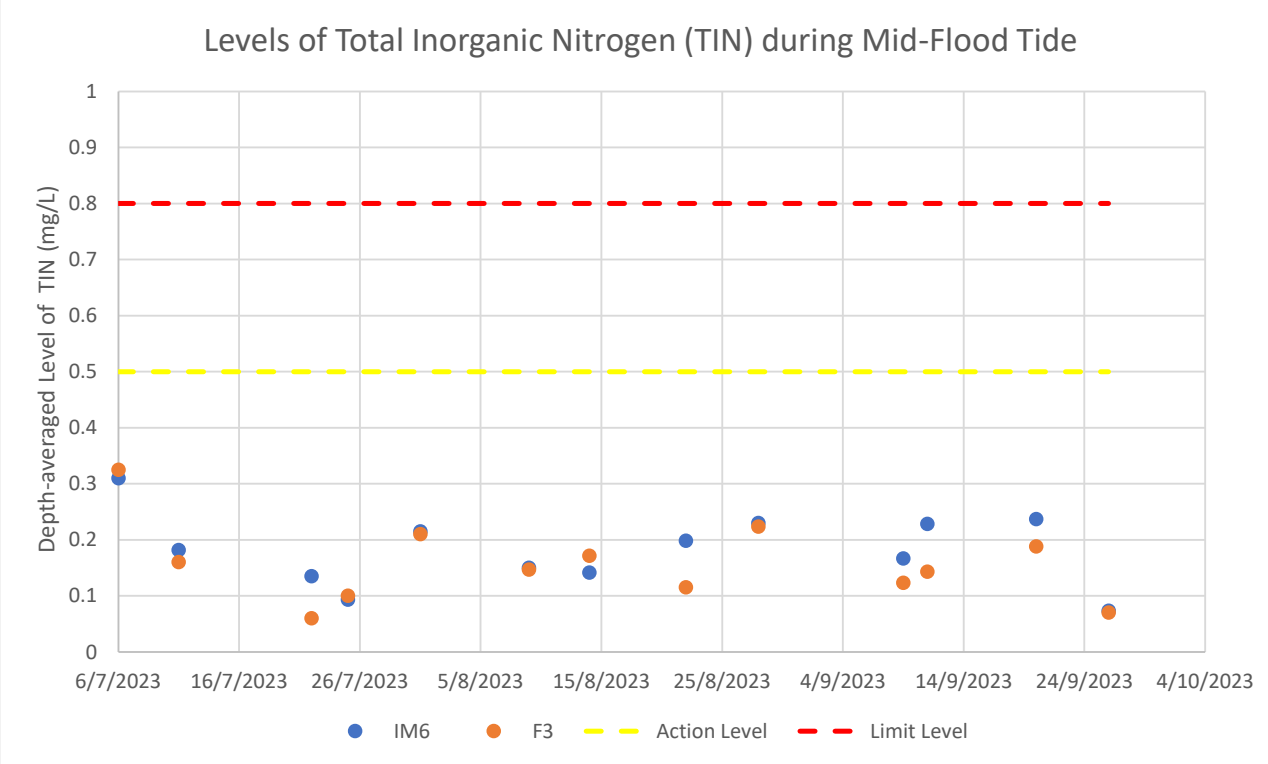

Figure 14: Levels of Total Inorganic Nitrogen during mid-flood tide between July and September 2023

Source: \\HKHKGDC02\Data\Hong Kong\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\15 Operation WQ

Date: October 2023

Environmental Resources Management

ERM

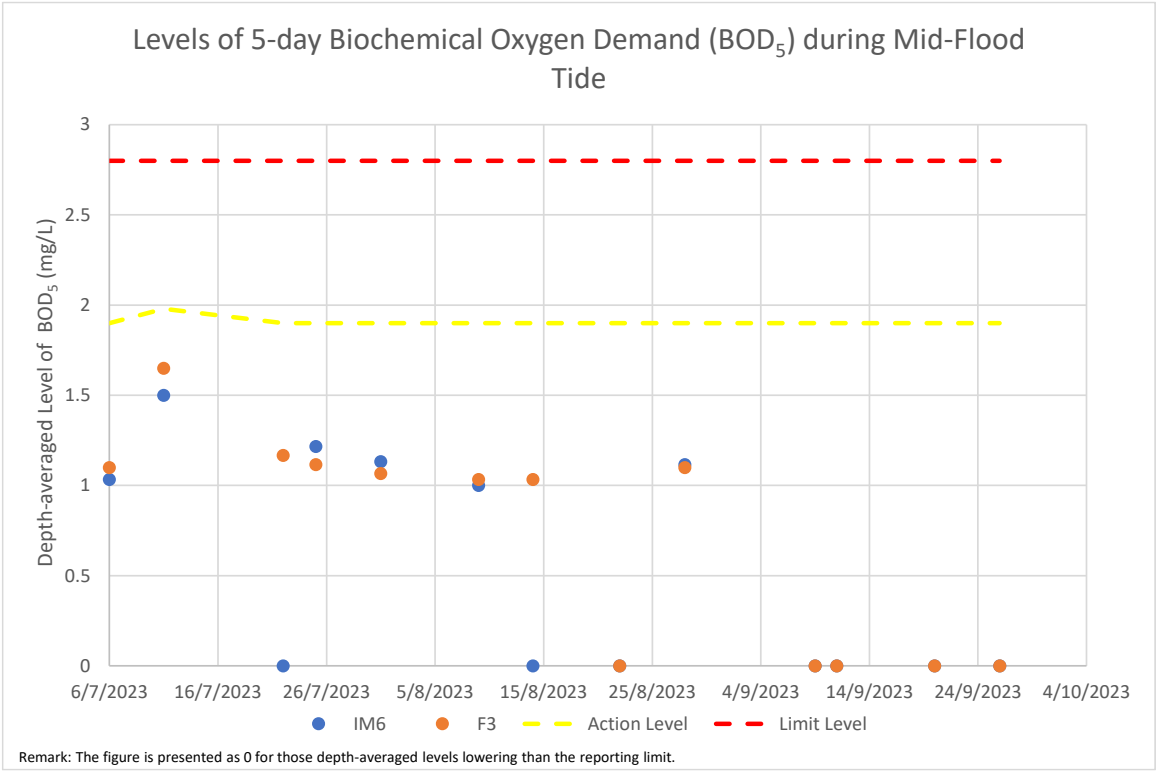

Figure 15: Levels of 5-day Biochemical Oxygen Demand during mid-flood tide between July and September 2023

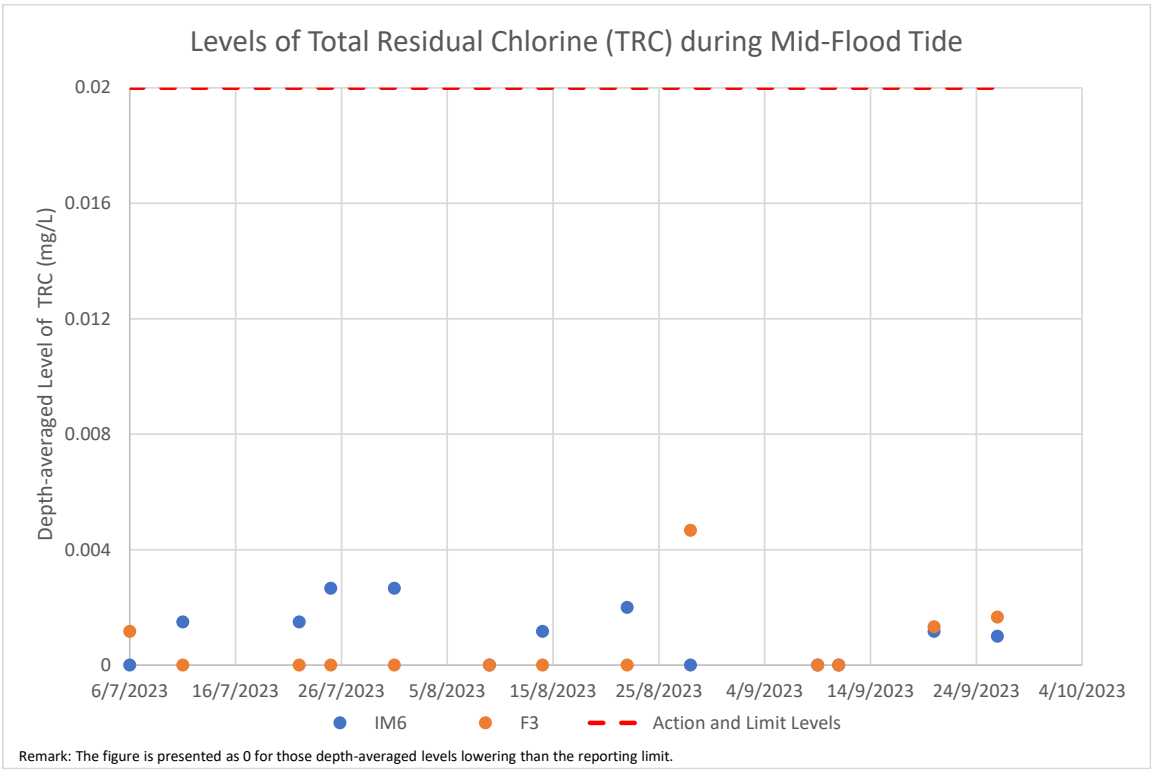

Figure 16: Levels of Total Residual Chlorine during mid-flood tide between July and September 2023