



Capco 青山發電有限公司
Castle Peak Power Co. Ltd.

Installation of Additional Gas-fired Generation Unit (CCGT Unit No.2)

Baseline Water Quality Monitoring Report

18 August 2023

Project No.: 0554663

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18 August 2023

Installation of Additional Gas-fired Generation Unit (CCGT Unit No.2)

Baseline Water Quality Monitoring Report



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Installation of Additional Gas-fired Generation Unit at the Black Point Power Station (CCGT Unit No. 2)
Environmental Certification Sheet
EP-507/2016/D and FEP-04/507/2016/D

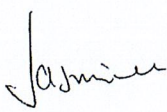
Reference Document/Plan

Document/Plan to be Certified/ Verified:	Baseline Water Quality Monitoring Report
Date of Report:	18 August 2023
Date prepared by ET:	18 August 2023
Date received by IEC:	


Reference EM&A Manual/ EP Requirement

EM&A Manual:	Sections 6.3.1 and 15
Content:	<i>Baseline Water Quality Monitoring Report</i>
The ET shall be responsible for undertaking the baseline monitoring and submitting the results within 10 working days from the completion of the baseline monitoring work.	
Types of reports that the ET Leader will prepare and submit include baseline monitoring report, monthly EM&A reports, quarterly EM&A summary reports, annual/final EM&A review reports, and water quality monitoring report for the first-year of additional CCGT commissioning.	

ET Certification

I hereby certify that the above referenced document/plan complies with the above referenced condition of EP-507/2016/D and FEP-04/507/2016/D.	
Dr Jasmine Ng, Environmental Team Leader:	Date: 18 August 2023
	

IEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced condition of EP-507/2016/D and FEP-04/507/2016/D.	
Mr Thomas Chan, Independent Environmental Checker:	Date: 25/08/23
	

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EXECUTIVE SUMMARY

An Environmental Permit (EP-507/2016/C) (EP) for CCGT Unit No. 2 has been issued in April 2020. The EP has been varied and a varied EP (EP-507/2016/D) was issued on 21 December 2021.

The purpose of this Baseline Water Quality Monitoring Report is to present the results of the baseline water quality prior to the commencement of operation of the CCGT Unit No. 2 in accordance with the Updated Environmental Monitoring and Audit (EM&A) Manual and determine Action and Limit levels during the operation of the Project accordingly.

Baseline water quality monitoring was conducted at six stations during the baseline monitoring period from 3 July 2023 to 31 July 2023. Statistical analysis was conducted for the baseline water quality monitoring data. No observable pollution source was recorded at the monitoring stations and the baseline monitoring results are thus considered representative of the ambient water quality levels. Action and Limit Levels were established for DO, Temperature, Turbidity and TRC based on the baseline monitoring results.

1. INTRODUCTION AND PROJECT BACKGROUND

1.1 Background

CLP Power Hong Kong Limited (CLP) and Castle Peak Power Company Limited (CAPCO) are responsible for providing a safe, highly reliable and clean supply of electricity to over 80% of Hong Kong's population at reasonable cost. Within Hong Kong, CLP operates three power stations, namely the Castle Peak Power Station (CPPS), Black Point Power Station (BPPS) and Penny's Bay Power Station (PBPS), all owned by CAPCO, a joint venture between CLP and China Southern Power Grid Company Limited, in which CLP holds a 70% interest.

To support the HKSAR Government's objective of improving air quality and environmental performance in Hong Kong, and consistent with the HKSAR Government's medium-term strategy of increasing the use of natural gas for local power generation, and reducing carbon intensity of local electricity generation, CAPCO propose to install one additional gas-fired generation unit (up to 600MW) at the BPPS to both increase local gas-fired electricity generating capacity and accommodate growth in electricity demand. The proposed additional gas-fired generation unit will adopt combined cycle gas turbine (CCGT) configuration using natural gas as the primary fuel. Such configuration is aimed at reducing emissions as compared with coal-fired generation, thereby providing a relatively clean source of electricity for Hong Kong. The construction and operation of this additional gas-fired generation unit (CCGT Unit No.2) is hereafter referred to as "the Project". The location for the Project is within the existing boundaries of the BPPS site. The location plan of key Project components is shown in **Figure 1.1**.

An Environmental Impact Assessment (EIA) Report of the Additional Gas-fired Generation Units Project (Register No. AEIAR-197/2016) was approved in June 2016. An Environmental Permit (EP-507/2016/C) (EP) for CCGT Unit No. 2 had been issued in April 2020. The EP had been varied and a varied EP (EP-507/2016/D) was issued on 21 December 2021.

1.2 Purpose of the Baseline Water Quality Monitoring Report

The purpose of this *Baseline Water Quality Monitoring Report* is to present the results of the baseline water quality prior to the commencement of operation of CCGT Unit No. 2 in accordance with the Updated Environmental Monitoring and Audit (EM&A) Manual and determine Action and Limit Levels during its operation accordingly.

1.3 Structure of the Baseline Water Quality Monitoring Report

Section 1: Introduction and Project Background

It provides the project background and purpose of this Report.

Section 2: Monitoring Requirements

It details the monitoring requirements specified in the Updated EM&A Manual, including monitoring locations and methodology.

Section 3: Baseline Water Quality Monitoring Results

It summaries the results and findings of the baseline water quality monitoring exercise, discusses details on influencing factors.

Section 4: Action and Limit Levels

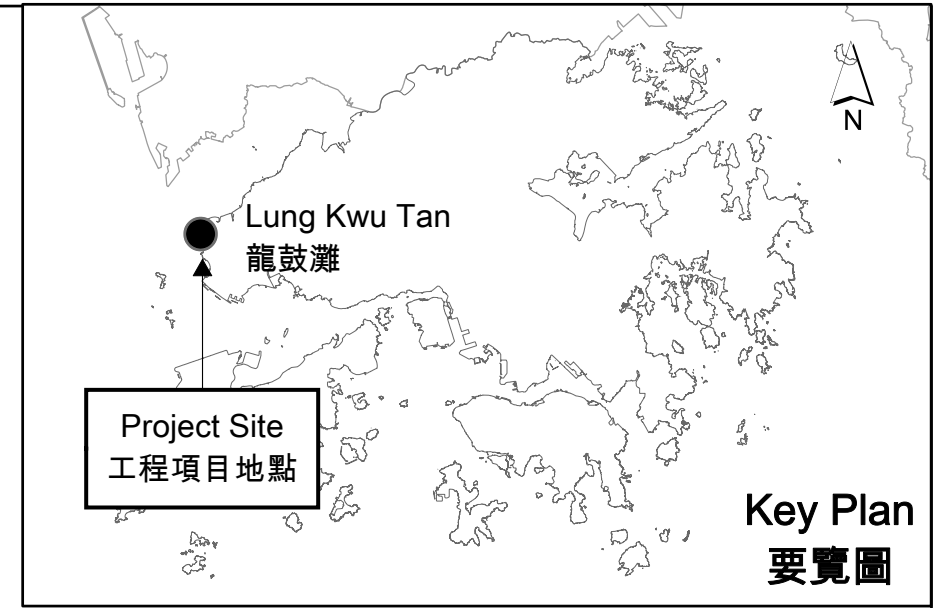
It determines the Action and Limit Levels based on the monitoring results.

Section 5: Event and Action Plan

It stipulates the Event and Action Plan for this Project.

Legend 圖例

- Indicative Location
位置
- CCGT Unit No.2**
2號聯合循環燃氣渦輪發電機組
- Cooling Water Intake Facility
冷卻水進水設施
- Cooling Water Discharge Facility
冷卻水排放設施
- Cooling Tower
冷卻塔
- 400kV Cable Connection to Substation
400kV電纜與變電站的連接
- ⊕ Stack Location
煙囪位置



Black Point Power Station
龍鼓灘發電廠

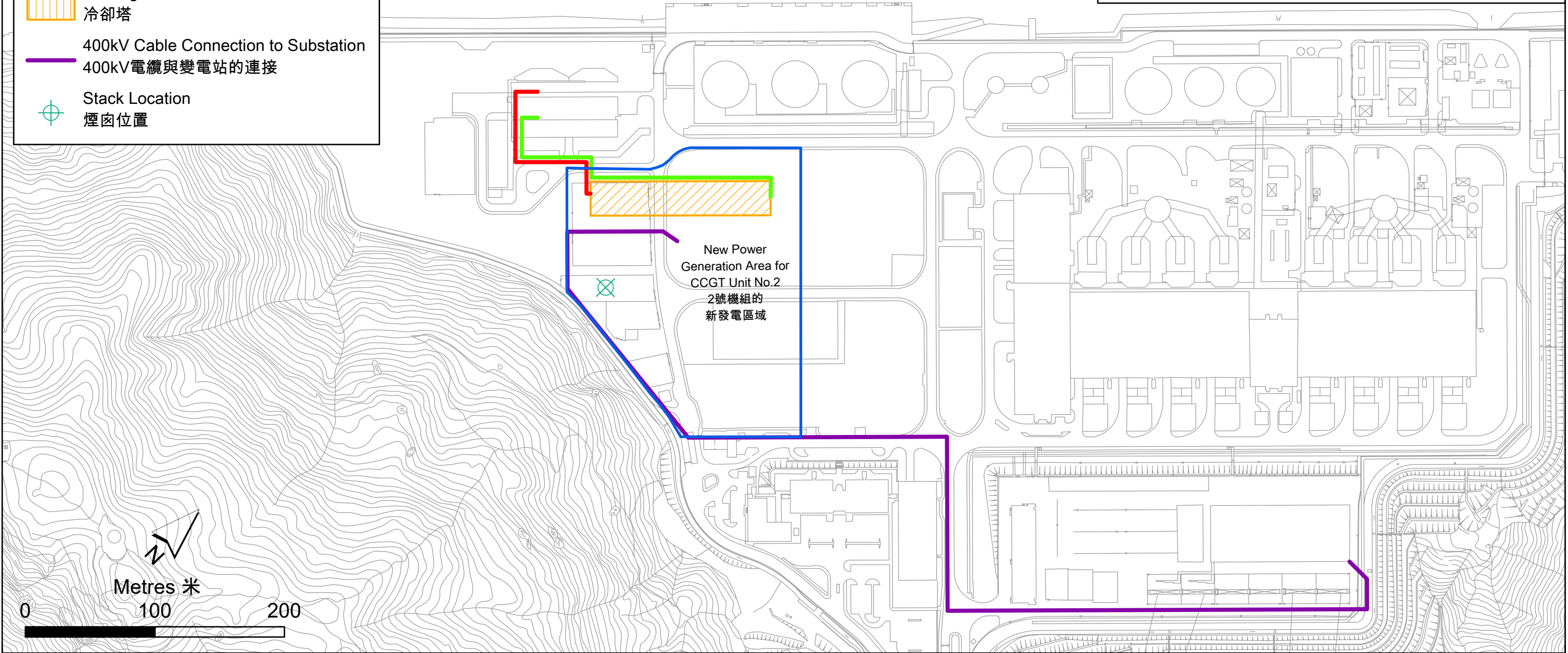


Figure 1.1
圖 1.1

Indicative Location of Key Project Components for CCGT Unit No.2
2號聯合循環燃氣渦輪發電機組主要工程項目組成部份的位置圖

Section 6: Conclusion

It concludes the baseline water quality monitoring exercise.

2. Monitoring Requirements

In accordance with the *Updated EM&A Manual* of the Project, baseline water quality monitoring was conducted three times per week for at least four weeks at six monitoring stations to establish the ambient conditions prior to the commencement of the operation for CCGT Unit No. 2 and to demonstrate the suitability of the proposed control monitoring stations. According to the agreed monitoring schedule with the Independent Environmental Checker (IEC) and EPD, baseline water quality monitoring was conducted from 3 July 2023 to 31 July 2023. The baseline conditions were established by measuring relevant water quality parameters at the designated monitoring stations for the Project, including control stations at mid-ebb and mid-flood tides. Further details of the baseline water quality monitoring under this Project are presented in the following sections.

2.1 Monitoring Locations

The water quality monitoring locations for baseline water quality monitoring are shown in **Figure 2.1** and detailed in *Table 2.1*. The proposed alternative locations in the Updated EM&A Manual, i.e., SR3A, SR5A, SR7, SR14A, CEA and CF, have been adopted.

Table 2.1 Location of Water Quality Monitoring Stations

Station	Easting	Northing	Description
SR3A	810972	831758	Ha Pak Nai
SR5A	808758	829294	Lung Kwu Sheung Tan
SR7	806218	827940	Northeastern corner of the Sha Chau and Lung Kwu Chau Marine Park
SR14A	809733	832515	Oyster production area
CEA	810937	834358	Control station for ebb tide
CF	806912	826205	Control station for flood tide

2.2 Monitoring Methodology

2.2.1 Monitoring Equipment

Table 2.2 summarises the equipment used in the baseline monitoring works. All of the monitoring equipment complied with the requirements as set out in the *Updated EM&A Manual*. Copies of the calibration certificates for the measuring equipment for Dissolved Oxygen (DO), Temperature, Turbidity, pH, Salinity and TRC are attached in *Appendix A*.

Table 2.2 Water Quality Monitoring Equipment

Equipment	Brand and Model
Water Sampling Equipment	Wildlife Supply Company Horizontal Alpha™ Bottles
Positioning Device	GARMIN 20X personal navigator
Water Depth Gauge	Xyorca (Model XY-453)
Measuring Equipment for DO, Temperature, Turbidity, pH and Salinity	YSI ProDSS
Measuring Equipment for Current Velocity and Direction	Sontek Riversurveyor / Hydrosurveyor
Measuring Equipment for Total Residual Chlorine (TRC)	Hanna Instruments (Model HI761)

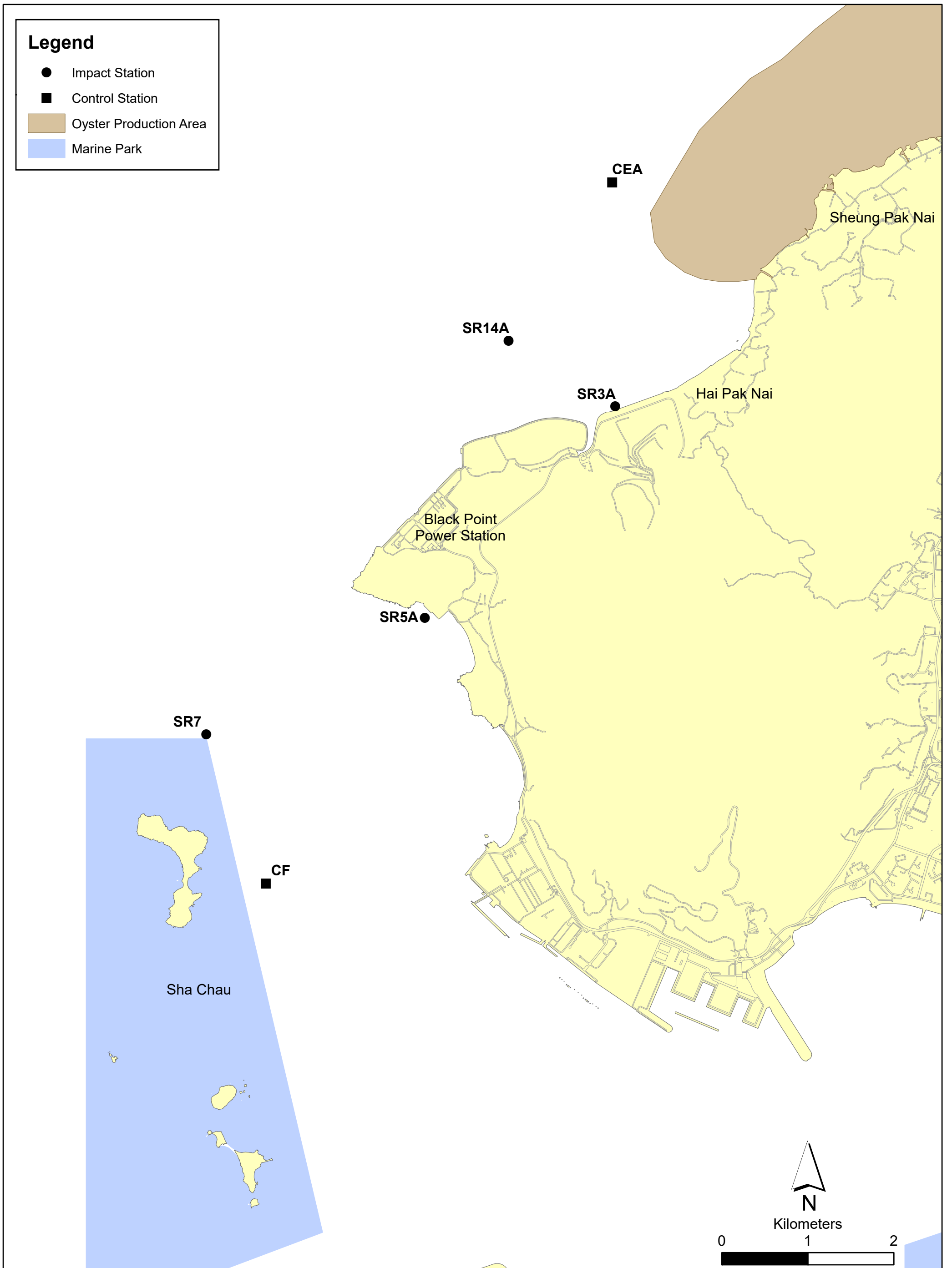


Figure 2.1

Water Quality Monitoring Station

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Environmental
Resources
Management



2.2.2 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. The monitoring parameters and monitoring period and frequencies of the water quality monitoring are listed in Table 2.3.

Table 2.3 Water Quality Monitoring Parameters and Frequency

Monitoring Station	Parameters	Depth	Frequency and Replication
Impact Stations SR3A, SR5A, SR7, SR14A	<ul style="list-style-type: none"> ■ Dissolved Oxygen (DO) (mg/L) ■ Dissolved Oxygen Saturation (DOS) (%) ■ Temperature (°C) 	<ul style="list-style-type: none"> ■ 3 water depths: 1m below sea surface, mid-depth and 1m above seabed. ■ If the water depth is less than 3m, only mid-depth sampling is required. 	<ul style="list-style-type: none"> ■ Baseline Monitoring: 3 days per week, at mid-flood and mid-ebb tides, for at least 4 weeks prior to the commencement of the Project operation.
Control Stations CEA, CF	<ul style="list-style-type: none"> ■ pH ■ Turbidity (NTU) ■ Salinity (ppt) ■ Water depth (m) ■ Total Residual Chlorine (TRC) (mg/L)¹ 	<ul style="list-style-type: none"> ■ If water depth is less than 6m, mid-depth sampling may be omitted. 	<ul style="list-style-type: none"> ■ 2 replicates <i>in situ</i> 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.

2.2.3 Operational/ Analytical Procedures

At each sampling depth, two consecutive measurements of DO level, DO Saturation, Temperature, Turbidity, Salinity, pH and TRC were taken. No sampling for laboratory analysis was conducted.

2.3 QA/QC Requirements

2.3.1 Calibration of In-situ Instruments

All *in situ* monitoring equipment for the measurement of temperature, dissolved oxygen, turbidity, pH and salinity were checked, calibrated and certified by a laboratory accredited under HOKLAS before use. The test kit for TRC was checked against the calibration check set provided by the manufacturer before commencement of monitoring. The *in situ* monitoring equipment for the measurement of temperature, dissolved oxygen, turbidity, pH and salinity was subsequently re-calibrated every three months throughout the baseline water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration 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 programme was decontaminated by manual washing and rinsed clean seawater/distilled water after each sampling event. All disposable equipment was discarded after sampling.

3. BASELINE WATER QUALITY MONITORING RESULTS

3.1 Monitoring Results

Baseline water quality monitoring was conducted as per the requirements outlined in *Section 2*. The detailed monitoring schedule is shown in **Appendix B**. Owing to Typhoon Signal No.8, the monitoring on 17 July 2023 was rescheduled, and the baseline monitoring was thus postponed to 31 July 2023 for completion. The monitoring results with weather and sea conditions on each monitoring day are shown in **Appendix C**. Graphical presentation of water quality at the monitoring stations is given in **Appendix D**.

From the baseline water quality monitoring exercise covering a total of 12 days, water quality data including dissolved oxygen, turbidity, water temperature and total residual chlorine were collected.

A total of 288 records were collected for bottom depth dissolved oxygen, ranging from 3.1 mg/L to 8.6 mg/L and with an average of 4.8 mg/L.

A total of 478 records of dissolved oxygen were collected for the two water depths representing the rest of the water column, ranging from 3.6 mg/L to 11.9 mg/L and with an average of 6.1 mg/L ⁽¹⁾.

A total of 766 records of turbidity were collected for all three water depths of the water column, ranging from 0.3 NTU to 29.2 NTU and with an average of 6.4 NTU.

A total of 766 records of water temperature were collected for all three water depths of the water column, ranging from 24.9°C to 32.2°C and with an average of 28.3°C.

A total of 766 records of total residual chlorine were collected for all three water depths of the water column, ranging from 0.000 mg/L to 0.038 mg/L and with an average of 0.007 mg/L.

No marine construction works were observed in the vicinity of all monitoring stations during the baseline monitoring period. The baseline monitoring results are thus considered representative of the ambient water quality of the Project area.

Mean, standard deviation and range of data ⁽²⁾ at each station as well as at control and impact stations as a whole is provided below in *Table 3.1*. As shown, while variation in data is observed across different stations, the overall average and variation of control and impact stations are quite similar, and the differences are small.

⁽¹⁾ This is calculated from the arithmetic mean of the average of the remaining water column. This also applies to the case of water temperature and total residual chlorine, which are calculated from the arithmetic mean of the water column average.

⁽²⁾ The mean, range and standard deviation are calculated from raw data, regardless of depth and replicates.

Table 3.1 Comparison of Mean Values of Water Quality Parameters at Control and Impact Stations

Stations	Water Temperature (°C)		Dissolved Oxygen – Surface and Mid-depth (mg/L)		Dissolved Oxygen – Bottom (mg/L)		Turbidity (NTU)		Total Residual Chlorine (mg/L)	
	Mid-Ebb	Mid-Flood	Mid-Ebb	Mid-Flood	Mid-Ebb	Mid-Flood	Mid-Ebb	Mid-Flood	Mid-Ebb	Mid-Flood
CEA	28.8±1.0 (26.7-31.1)	29.0±1.6 (26.2-31.9)	6.4±1.6 (4.3-9.9)	7.0±2.3 (4.3-11.3)	4.7±0.8 (3.2-5.6)	5.3±1.3 (3.7-8.6)	7.0±4.0 (0.9-16.0)	7.2±3.8 (2.0-14.9)	0.008±0.004 (0.000-0.016)	0.009±0.005 (0.000-0.022)
CF	27.7±1.3 (25.0-30.7)	27.9±1.2 (25.9-30.5)	5.9±1.6 (4.0-10.3)	6.0±1.9 (3.7-11.9)	4.4±0.6 (3.4-5.3)	4.6±0.7 (3.5-6.2)	5.8±5.1 (0.7-23.8)	4.9±3.4 (1.2-12.9)	0.007±0.005 (0.000-0.028)	0.008±0.007 (0.000-0.034)
SR3A	28.7±1.4 (26.2-32.2)	28.7±1.6 (25.8-31.7)	5.8±1.2 (4.0-9.0)	6.1±1.7 (3.8-10.3)	4.5±0.8 (3.4-5.7)	4.8±0.6 (3.5-5.7)	8.3±3.5 (2.2-16.1)	8.6±4.2 (1.2-16.1)	0.007±0.005 (0.000-0.020)	0.008±0.007 (0.000-0.038)
SR5A	28.4±1.0 (25.8-30.6)	28.5±1.1 (26.0-31.2)	6.2±1.4 (4.3-9.7)	6.4±1.9 (3.8-10.3)	5.0±0.5 (4.2-5.5)	5.1±0.9 (3.5-7.3)	4.9±2.8 (1.5-15.8)	5.6±3.3 (1.5-16.7)	0.006±0.004 (0.000-0.017)	0.007±0.005 (0.000-0.027)
SR7	27.8±1.3 (25.2-30.6)	27.5±1.4 (24.9-30.6)	5.9±1.5 (3.8-10.1)	5.8±1.7 (3.6-9.8)	4.4±0.6 (3.4-5.1)	4.3±0.7 (3.1-5.2)	6.4±5.4 (0.3-29.2)	6.1±5.9 (1.1-29.1)	0.008±0.004 (0.001-0.017)	0.009±0.006 (0.000-0.029)
SR14A	29.0±1.2 (26.8-31.6)	28.6±1.8 (25.1-31.5)	6.7±1.8 (4.5-9.8)	6.5±1.8 (4.2-10.2)	5.0±1.1 (3.1-7.4)	5.3±1.1 (3.8-8.0)	5.9±3.3 (0.4-14.9)	6.2±3.5 (1.4-13.3)	0.006±0.004 (0.000-0.017)	0.007±0.004 (0.000-0.016)
All Control	28.2±1.4 (25.0-31.9)		6.2±1.9 (3.7-11.9)		4.8±0.9 (3.2-8.6)		6.1±4.3 (0.7-23.8)		0.008±0.006 (0.000-0.034)	
All Impact	28.4±1.4 (24.9-32.2)		6.1±1.6 (3.6-10.3)		4.8±0.9 (3.1-8.0)		6.6±4.3 (0.3-29.2)		0.007±0.005 (0.000-0.038)	

Note: Average value ± standard deviation and the range of values (in bracket) are presented in each cell.

4. ACTION AND LIMIT LEVELS

The water quality monitoring results indicated there were natural fluctuations in the marine environment. Impact water quality monitoring data will be evaluated against Action and Limit Levels determined using baseline data to determine water quality compliance. Action and Limit Levels of key assessment parameters for baseline water quality monitoring including DO, and Turbidity are determined in accordance with requirements set out in the *Updated EM&A Manual* which are summarised in *Table 4.1*. The calculated Action and Limit Levels are shown in *Table 4.2*.

Table 4.1 Action and Limit Levels for Impact Water Quality Monitoring

Parameter	Action Level	Limit Level
DO in mgL ⁻¹ ^a	<u>Surface and Middle</u> 5 th -ile of baseline data for surface and middle layer	<u>Surface and Middle</u> 4 mg L ⁻¹ or 1%ile of baseline for surface and middle layers
	<u>Bottom</u> 5 th -ile of baseline data for bottom layers	<u>Bottom</u> 2 mg L ⁻¹ or 1%ile of baseline for surface and middle layers
Water temperature in °C (Depth-averaged ^b) ^c	±1.5 °C of the relevant control station's water temperature at the same tide of the same monitoring event.	±2.0 °C of the relevant control station's water temperature at the same tide of the same monitoring event.
Turbidity in NTU (Depth-averaged ^b) ^c	95 th -ile of baseline data, or 20% exceedance of value at any impact station compared with corresponding data from control station	99 th -ile of baseline data, or 30% exceedance of value at any impact station compared with corresponding data from control station
TRC in mgL ⁻¹ (Depth-averaged ^b) ^c	0.02 mg L ⁻¹	0.02 mg L ⁻¹

Notes:

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

Table 4.2 Calculated Action and Limit Levels for Impact Water Quality Monitoring

Parameter	Action Level	Limit Level
DO in mgL ⁻¹ ^a	<u>Surface and Middle</u> 4.1 mg L ⁻¹	<u>Surface and Middle</u> 4 mg L ⁻¹
	<u>Bottom</u> 3.5 mg L ⁻¹	<u>Bottom</u> 2 mg L ⁻¹
Water temperature in °C (Depth-averaged ^b) ^c	±1.5 °C of the relevant control station's water temperature at the same tide of the same monitoring event.	±2.0 °C of the relevant control station's water temperature at the same tide of the same monitoring event.
Turbidity in NTU (Depth-averaged ^b) ^c	12.7 NTU, or 20% exceedance of value at any impact station compared with corresponding data from control station	14.2 NTU, or 30% exceedance of value at any impact station compared with corresponding data from control station

INSTALLATION OF ADDITIONAL GAS-FIRED GENERATION UNIT
(CCGT UNIT NO.2) AT THE BLACK POINT POWER STATION

Baseline Water Quality Monitoring Report

Parameter	Action Level	Limit Level
TRC in mgL ⁻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, turbidity and TRC, salinity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
-

5. EVENT AND ACTION PLAN

Should noncompliance of the criteria for water quality occur, action in accordance with the Event and Action Plan presented in *Table 5.1* below shall be carried out and review works would be conducted.

Table 5.1 Event and Action Plan for Water Quality Monitoring

Event	Action ET	IEC	Contractor(s)	CAPCO
Action Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> 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 CAPCO. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing.
Action Level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> 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 CAPCO; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise CAPCO accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 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 CAPCO within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 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.

INSTALLATION OF ADDITIONAL GAS-FIRED GENERATION UNIT
(CCGT UNIT NO.2) AT THE BLACK POINT POWER STATION

Baseline Water Quality Monitoring Report

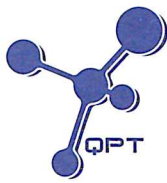
Event	Action			
	ET	IEC	Contractor(s)	CAPCO
Limit Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and CAPCO; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise CAPCO accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 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 CAPCO within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> 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 CAPCO; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise CAPCO accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 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 CAPCO within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 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. Adjust chlorine dosing of the CCGT units.

6. CONCLUSION

In accordance with the *Updated EM&A Manual* of the Project, baseline monitoring was undertaken prior to commencement of the operation phase monitoring for the CCGT Unit No.2.

Baseline water quality monitoring was conducted at six stations during the baseline monitoring period from 3 July 2023 to 31 July 2023. Statistical analysis was conducted for the baseline water quality monitoring data. No observable pollution source was recorded at the monitoring stations and the baseline monitoring results are thus considered representative of the ambient water quality levels. Action and Limit Levels were established for DO, Temperature, Turbidity and TRC based on the baseline monitoring results.

APPENDIX A EQUIPMENT CALIBRATION CERTIFICATES



專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060025
Date of Issue : 06 June 2023
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : S/N: 16H104233
Date of Received : 02 June 2023
Date of Calibration : 02 June 2023
Date of Next Calibration : 01 September 2023
Request No. : D-BC060025

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H ⁺
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.07	0.07	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.09	0.08	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	25.0	0.0	Satisfactory
45	45.0	0.0	Satisfactory

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

(3) Salinity

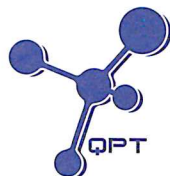
Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.09	0.90	Satisfactory
20	20.38	1.90	Satisfactory
30	30.33	1.10	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED
SIGNATORY:

LEE Chun-ning
Assistant Manager (Chemical Testing)



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060025
Date of Issue : 06 June 2023
Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.12	7.15	0.03	Satisfactory
4.61	4.39	-0.22	Satisfactory
1.57	1.27	-0.30	Satisfactory
0.16	0.56	0.40	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	9.84	-1.60	Satisfactory
20	20.11	0.50	Satisfactory
100	107.60	7.60	Satisfactory
800	798.22	-0.20	Satisfactory

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

(6) Conductivity

Expected Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Display Reading	Tolerance (%)	Result
146.9	148.7	1.23	Satisfactory
1412	1491	5.59	Satisfactory
12890	12677	-1.65	Satisfactory
58670	59440	1.31	Satisfactory
111900	113112	1.08	Satisfactory

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

Remark(s)

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

--- END OF REPORT ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060026
Date of Issue : 06 June 2023
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : S/N: 21K101468
Date of Received : 02 June 2023
Date of Calibration : 02 June 2023
Date of Next Calibration : 01 September 2023
Request No. : D-BC060026

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H ⁺
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.07	0.07	Satisfactory
7.42	7.52	0.10	Satisfactory
10.01	10.11	0.10	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	25.0	0.0	Satisfactory
45	45.0	0.0	Satisfactory

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


(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.10	1.00	Satisfactory
20	20.26	1.30	Satisfactory
30	30.29	0.97	Satisfactory

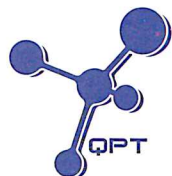
Tolerance of Salinity should be less than ± 10.0 (%)

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AUTHORIZED
SIGNATORY:



LEE Chun-ning
Assistant Manager (Chemical Testing)



專業化驗有限公司
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060026
Date of Issue : 06 June 2023
Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.12	7.10	-0.02	Satisfactory
4.61	4.35	-0.26	Satisfactory
1.57	1.24	-0.33	Satisfactory
0.16	0.54	0.38	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	9.91	-0.90	Satisfactory
20	20.09	0.40	Satisfactory
100	105.37	5.40	Satisfactory
800	799.11	-0.10	Satisfactory

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

(6) Conductivity

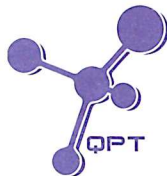
Expected Reading ($\mu\text{S/cm at } 25^\circ\text{C}$)	Display Reading	Tolerance (%)	Result
146.9	147.9	0.68	Satisfactory
1412	1499	6.16	Satisfactory
12890	13208	2.47	Satisfactory
58670	59326	1.12	Satisfactory
111900	112987	0.97	Satisfactory

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

Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
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--- END OF REPORT ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060094
Date of Issue : 27 June 2023
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 15M100005
Date of Received : 23 June 2023
Date of Calibration : 23 June 2023
Date of Next Calibration : 22 September 2023
Request No. : D-BC060094

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H ⁺
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.04	0.04	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	9.98	-0.03	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	24.9	-0.1	Satisfactory
45	45.1	0.1	Satisfactory

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


(3) Salinity

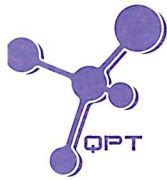
Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.18	1.80	Satisfactory
20	20.42	2.10	Satisfactory
30	30.20	0.67	Satisfactory

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

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AUTHORIZED
SIGNATORY:


LEE Chun-ting
Assistant Manager (Chemical Testing)



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060094

Date of Issue : 27 June 2023

Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.29	7.41	0.12	Satisfactory
6.12	6.02	-0.10	Satisfactory
5.48	5.71	0.23	Satisfactory
2.72	2.38	-0.34	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	9.88	-1.20	Satisfactory
20	20.21	1.10	Satisfactory
100	97.34	-2.70	Satisfactory
800	781.97	-2.30	Satisfactory

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

(6) Conductivity

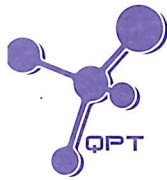
Expected Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Display Reading	Tolerance (%)	Result
146.9	151.4	3.06	Satisfactory
1412	1288	-8.78	Satisfactory
12890	12793	-0.75	Satisfactory
58670	59287	1.05	Satisfactory
111900	112186	0.26	Satisfactory

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

Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated is checked with independent reference material and results compared against a calibrated secondary source.
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--- END OF REPORT ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060095
Date of Issue : 27 June 2023
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.
Flat 2207, Yu Fun House Yu Chui Court, Shatin
New Territories (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17E100747
Date of Received : 23 June 2023
Date of Calibration : 23 June 2023
Date of Next Calibration : 22 September 2023
Request No. : D-BC060095

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H ⁺
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.09	0.09	Satisfactory
7.42	7.51	0.09	Satisfactory
10.01	9.93	-0.08	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	25.0	0.0	Satisfactory
45	45.1	0.1	Satisfactory

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


(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.20	2.00	Satisfactory
20	20.37	1.85	Satisfactory
30	30.19	0.63	Satisfactory

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

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AUTHORIZED
SIGNATORY:


LEE Chun-ning
Assistant Manager (Chemical Testing)



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060095

Date of Issue : 27 June 2023

Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.29	7.44	0.15	Satisfactory
6.12	5.94	-0.18	Satisfactory
5.48	5.75	0.27	Satisfactory
2.72	2.40	-0.32	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	10.18	1.80	Satisfactory
20	19.89	-0.50	Satisfactory
100	96.82	-3.20	Satisfactory
800	782.43	-2.20	Satisfactory

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

(6) Conductivity

Expected Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Display Reading	Tolerance (%)	Result
146.9	150.1	2.18	Satisfactory
1412	1346	-4.67	Satisfactory
12890	13216	2.53	Satisfactory
58670	59463	1.35	Satisfactory
111900	112485	0.52	Satisfactory

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

Remark(s)

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

--- END OF REPORT ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: THOMAS WONG
CLIENT: ENOVATIVE ENVIRONMENTAL SERVICE LTD
ADDRESS: ROOM 23, 6/F, BLOCK C,
GOLDFIELD INDUSTRIAL CENTRE,
1 SUI WO ROAD, FOTAN, SHATIN, N.T.

WORK ORDER: HK2324639
SUB-BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 21-Jun-2023
DATE OF ISSUE: 04-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 validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type: Chlorine Meter
Service Nature: Performance Check
Scope: Total Residual Chlorine
Brand Name/ Model No.: [HANNA]/ [HI 761]
Serial No./ Equipment No.: [04470021101]/ [N/A]
Date of Calibration: 30-June-2023

GENERAL COMMENTS

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2324639
SUB-BATCH: 0
DATE OF ISSUE: 04-Jul-2023
CLIENT: ENOVATIVE ENVIRONMENTAL SERVICE LTD

Equipment Type: Chlorine Meter
Brand Name/ Model No.: [HANNA]/ [HI 761]
Serial No./ Equipment No.: [04470021101]/ [N/A]
Date of Calibration: 30-June-2023

PARAMETERS:

Total Residual Chlorine

Method Ref: APHA (23rd edition), 4500Cl: G

Solution Used	Expected (ppb)	Displayed Reading (ppb)
Sea Water	0	0
200	200 ± 20	217

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

A handwritten signature in blue ink, appearing to read 'Iris'.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

APPENDIX B BASELINE MONITORING SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1-Jul	2-Jul
ebb tide 11:07 - 14:37 flood tide 3:49 - 7:19		ebb tide 12:44 - 16:14 flood tide 5:27 - 8:57		ebb tide 14:21 - 17:51 flood tide 7:15 - 10:45		
3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul
ebb tide 5:09 - 8:39 flood tide 10:44 - 14:14		ebb tide 7:25 - 10:55 flood tide 13:44 - 17:14		ebb tide 9:12 - 12:42 flood tide 16:32 - 20:02		
10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul
		ebb tide 12:26 - 15:56 flood tide 5:08 - 8:38		ebb tide 13:32 - 17:02 flood tide 6:26 - 9:56		
17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul
ebb tide 15:05 - 17:50 flood tide 8:30 - 12:00		ebb tide 5:50 - 8:33 flood tide 10:56 - 14:26		ebb tide 7:24 - 10:54 flood tide 14:51 - 18:21		
24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul
ebb tide 10:04 - 13:34 flood tide 2:37 - 6:07					CCGT Baseline Schedule	
31-Jul						

Remarks:

Owing to Typhoon Signal No.8, the monitoring on 17 July 2023 was rescheduled, and the monitoring was thus postponed to 31 July 2023 for completion.

APPENDIX C BASELINE MONITORING RESULTS

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)						
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Surface	1	1	1.0	0.50	231	29.20	28.50	7.71	7.74	16.79	19.04	64.3	59.7	4.49	4.49	5.2	9.6	0.010	0.009						
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Surface	1	2	1.0	0.50	231	29.20		7.71		16.79		64.2		4.48		5.1		0.010							
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Middle	2	1																							
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Middle	2	2																							
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Bottom	3	1	3.2			27.80		7.76		21.29		55.1		3.84		14.1		0.008							
CCGT	2023/07/03	Mid-Ebb	CEA	Sunny	Calm	11:29	11:33	4.2	Bottom	3	2	3.2			27.80		7.77		21.29		55.1		3.84		14.1		0.007							
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Surface	1	1	1.0	1.88	173	28.80	27.40	7.80	7.81	16.56	22.53	74.2	60.0	5.22	4.59	4.5	13.7	0.014	0.011						
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Surface	1	2	1.0	1.88	173	28.70		7.80		16.69		74.0		5.22		4.6		0.012							
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Middle	2	1	7.3			27.10		7.82		22.68		56.6		3.97		12.2		0.008							
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Middle	2	2	7.3			27.00		7.82		22.78		56.3		3.95		13.3		0.009							
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Bottom	3	1	13.6			26.40		7.82		28.23		49.4		3.40		23.7		0.010							
CCGT	2023/07/03	Mid-Ebb	CF	Sunny	Moderate	13:28	13:32	14.6	Bottom	3	2	13.6			26.40		7.81		28.22		49.6		3.41		23.8		0.010							
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Surface	1	1	1.0	0.20	243	29.70	28.48	7.70	7.73	16.50	20.25	66.0	59.5	4.58	4.36	10.5	13.2	0.013	0.012						
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Surface	1	2	1.0	0.20	243	29.70		7.70		16.50		66.0		4.58		10.5		0.008							
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Middle	2	1	3.7			28.40		7.75		19.13		59.2		4.14		13.0		0.016							
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Middle	2	2	3.7			28.30		7.75		19.19		59.2		4.15		13.0		0.020							
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Bottom	3	1	6.3			27.40		7.75		25.06		53.4		3.67		16.0		0.008							
CCGT	2023/07/03	Mid-Ebb	SR3A	Sunny	Moderate	12:24	12:28	7.3	Bottom	3	2	6.3			27.40		7.75		25.11		53.4		3.67		16.1		0.008							
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Surface	1	1	1.0	0.46	158	29.40	28.43	7.80	7.79	18.15	19.83	76.3	68.0	5.28	4.91	4.3	6.6	0.006	0.005						
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Surface	1	2	1.0	0.46	158	29.40		7.80		18.16		76.1		5.26		4.7		0.005							
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Middle	2	1	3.7			28.00		7.79		20.15		64.9		4.54		6.6		0.005							
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Middle	2	2	3.7			28.00		7.79		20.11		65.0		4.55		6.7		0.005							
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Bottom	3	1	6.3			27.90		7.78		21.18		62.8		4.38		8.7		0.003							
CCGT	2023/07/03	Mid-Ebb	SR5A	Sunny	Moderate	12:53	12:55	7.3	Bottom	3	2	6.3			27.90		7.78		21.21		62.9		4.38		9.0		0.004							
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Surface	1	1	1.0	1.73	170	28.80	27.60	7.79	7.79	15.65	21.68	72.9	59.0	5.16	4.48	3.8	15.6	0.012	0.011						
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Surface	1	2	1.0	1.73	170	28.80		7.79		15.65		72.9		5.16		3.8		0.009							
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Middle	2	1	7.8			27.30		7.79		22.74		54.4		3.80		14.3		0.016							
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Middle	2	2	7.8			27.30		7.79		22.75		54.3		3.80		14.6		0.012							
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Bottom	3	1	14.6			26.70		7.79		26.63		49.7		3.43		29.2		0.007							
CCGT	2023/07/03	Mid-Ebb	SR7	Sunny	Moderate	13:16	13:20	15.6	Bottom	3	2	14.6			26.70		7.79		26.67		49.8		3.43		27.8		0.008							
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Surface	1	1	1.0	0.91	220	29.20	28.50	7.73	7.74	17.33	20.10	64.9	60.5	4.52	4.52	4.8	6.6	0.012	0.008						
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Surface	1	2	1.0	0.91	220	29.20		7.73		17.32		64.9		4.52		5.0		0.008							
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Middle	2	1																							
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Middle	2	2																							
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Bottom	3	1	3.8			27.80		7.75		22.86		56.0		3.88		8.2		0.005							
CCGT	2023/07/03	Mid-Ebb	SR14A	Sunny	Calm	11:55	11:58	4.8	Bottom	3	2	3.8			27.80		7.75		22.87		56.2		3.89		8.6		0.005							
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Surface	1	1	1.0	0.46	47	27.00	26.93	7.75	7.78	18.19	20.44	61.3	56.7	4.39	4.38	4.2	8.2	0.013	0.015						
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Surface	1	2	1.0	0.46	47	27.10		7.75		18.19		61.2		4.37		4.2		0.008							
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Middle	2	1																							
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Middle	2	2																							
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Bottom	3	1	3.2			26.80		7.80		22.69		52.1		3.65		12.1		0.022							
CCGT	2023/07/03	Mid-Flood	CEA	Fine	Calm	6:34	6:36	4.2	Bottom	3	2	3.2			26.80		7.81		22.69		52.1		3.65		12.2		0.015							
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Surface	1	1	1.0	0.06	264	27.90	27.37	7.80	7.81	17.44	22.02	66.6	56.8	4.71	4.18	4.4	6.7	0.013	0.010						
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Surface	1	2	1.0	0.06	264	27.90		7.80		17.45		66.4		4.70		4.5		0.007							
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Middle	2	1	8.1			27.40		7.81		22.64		52.7		3.65		4.3		0.012							
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Middle	2	2	8.1			27.40		7.81		22.65		52.9		3.66		4.3		0.013							
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Bottom	3	1	15.1			26.80		7.81		25.97		50.9		3.50		11.2		0.006							
CCGT	2023/07/03	Mid-Flood	CF	Fine	Moderate	5:00	5:03	16.1	Bottom	3	2	15.1			26.80		7.81		25.97		51.0		3.50		11.4		0.008							
CCGT	2023/07/03	Mid-Flood	SR3A	Fine	Moderate	6:05	6:08	7.0	Surface	1	1	1.0	0.21	65	26.90	26.37	7.74	7.77	17.90	21.65	63.0	56.5	4.52	4.27	10.5	12.5	0.012	0.009						
CCGT	2023/07/03	Mid-Flood	SR3A	Fine	Moderate	6:05	6:08	7.0	Surface	1	2	1.0	0.21	65	26.90		7.74		17.90		63.0		4.52		10.5		0.009							
CCGT	2023/07/03	Mid-Flood	SR3A	Fine	Moderate	6:05	6:08	7.0	Middle	2	1	3.5			26.40		7.79		20.53		56.2		4.01		11.0		0.009							
CCGT	2023/07/03	Mid-Flood	SR3A	Fine	Moderate	6:05	6:08	7.0	Middle	2	2	3.5			26.40		7.79		20.59		56.2		4.01		11.1		0.005							
CCGT	2023/07/03	Mid-Flood	SR3A	Fine	Moderate	6:05	6:08	7.0	Bottom	3	1	6.0			25.80		7.79		26.46		50.4		3.51		16									

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)						
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged		
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Surface	1	1	1.0	0.47	234	28.20	28.10	8.20	8.23	14.90	15.25	73.0	71.7	5.24	5.24	4.9	8.7	0.012	0.010						
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Surface	1	2	1.0	0.47	234	28.20		8.20		14.90		73.0		5.24		4.9		0.012							
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Middle	2	1																							
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Middle	2	2																							
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Bottom	3	1	4.3			28.00		8.26		15.59		70.3		5.05		12.5		0.009							
CCGT	2023/07/05	Mid-Ebb	CEA	Sunny	Rough	12:49	12:52	5.3	Bottom	3	2	4.3			28.00		8.26		15.59		70.5		5.06		12.4		0.008							
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Surface	1	1	1.0	1.44	175	27.30	26.85	8.06	8.09	18.58	20.80	72.6	64.1	5.19	4.87	8.5	12.7	0.016	0.011						
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Surface	1	2	1.0	1.44	175	27.30		8.06		18.55		72.7		5.19		8.4		0.015							
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Middle	2	1	8.5			27.20		8.08		19.43		63.8		4.55		15.3		0.009							
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Middle	2	2	8.5			27.20		8.08		19.43		63.8		4.54		15.3		0.009							
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Bottom	3	1	15.9			26.10		8.12		24.33		55.6		3.93		14.3		0.007							
CCGT	2023/07/05	Mid-Ebb	CF	Sunny	Rough	14:16	14:20	16.9	Bottom	3	2	15.9			26.00		8.11		24.46		55.8		3.94		14.4		0.007							
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Surface	1	1	1.0	0.22	249	28.20	27.80	8.24	8.30	16.41	17.76	80.4	73.9	5.73	5.58	3.0	6.1	0.012	0.012						
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Surface	1	2	1.0	0.22	249	28.20		8.24		16.41		80.4		5.73		3.0		0.011							
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Middle	2	1	4.1			28.10		8.31		16.96		76.4		5.43		3.3		0.019							
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Middle	2	2	4.1			28.10		8.31		16.96		76.3		5.43		3.3		0.020							
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Bottom	3	1	7.2			27.10		8.35		19.92		64.9		4.62		11.8		0.006							
CCGT	2023/07/05	Mid-Ebb	SR3A	Sunny	Moderate	13:17	13:21	8.2	Bottom	3	2	7.2			27.10		8.35		19.92		65.1		4.63		11.9		0.006							
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Surface	1	1	1.0	0.56	158	28.50	27.93	8.05	8.07	15.74	16.57	84.7	78.6	6.02	5.67	2.0	3.9	0.008	0.005						
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Surface	1	2	1.0	0.56	158	28.50		8.05		15.74		84.6		6.02		2.0		0.007							
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Middle	2	1	3.8			27.70		8.06		16.72		74.2		5.32		4.4		0.005							
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Middle	2	2	3.8			27.70		8.07		16.69		74.4		5.33		4.3		0.005							
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Bottom	3	1	6.6			27.60		8.09		17.28		76.9		5.51		5.2		0.003							
CCGT	2023/07/05	Mid-Ebb	SR5A	Sunny	Moderate	13:43	13:44	7.6	Bottom	3	2	6.6			27.60		8.09		17.27		76.9		5.51		5.2		0.003							
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Surface	1	1	1.0	1.32	168	27.80	27.05	8.01	8.09	18.09	20.34	73.3	63.9	5.20	4.91	9.9	12.7	0.013	0.012						
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Surface	1	2	1.0	1.32	168	27.80		8.01		18.09		73.3		5.20		9.9		0.012							
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Middle	2	1	9.3			27.30		8.07		18.98		64.6		4.61		10.9		0.014							
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Middle	2	2	9.3			27.20		8.07		18.94		64.5		4.61		10.9		0.014							
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Bottom	3	1	17.5			26.10		8.20		23.95		53.7		3.80		17.3		0.009							
CCGT	2023/07/05	Mid-Ebb	SR7	Sunny	Rough	14:01	14:05	18.5	Bottom	3	2	17.5			26.10		8.20		23.97		53.9		3.81		17.4		0.009							
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Surface	1	1	1.0	0.62	226	28.20	28.10	8.05	8.08	14.91	15.22	72.2	70.8	5.19	5.19	4.9	7.2	0.013	0.010						
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Surface	1	2	1.0	0.62	226	28.20		8.05		14.91		72.2		5.19		4.9		0.011							
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Middle	2	1																							
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Middle	2	2																							
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Bottom	3	1	4.1			28.00		8.11		15.52		69.3		4.97		9.6		0.007							
CCGT	2023/07/05	Mid-Ebb	SR14A	Sunny	Rough	13:07	13:10	5.1	Bottom	3	2	4.1			28.00		8.11		15.52		69.3		4.98		9.6		0.007							
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Surface	1	1	1.0	0.41	46	28.10	27.95	8.16	8.18	15.44	15.77	73.2	71.9	5.25	5.25	8.2	11.5	0.014	0.011						
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Surface	1	2	1.0	0.41	46	28.00		8.17		15.48		73.2		5.25		8.2		0.014							
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Middle	2	1																							
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Middle	2	2																							
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Bottom	3	1	3.3			27.80		8.19		16.06		70.4		5.05		14.9		0.009							
CCGT	2023/07/05	Mid-Flood	CEA	Fine	Rough	7:27	7:32	4.3	Bottom	3	2	3.3			27.90		8.20		16.08		70.8		5.08		14.9		0.008							
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Surface	1	1	1.0	0.46	179	27.30	27.20	7.94	7.99	17.55	18.44	66.7	66.6	4.79	4.80	7.6	10.4	0.016	0.010						
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Surface	1	2	1.0	0.46	179	27.30		7.95		17.56		66.7		4.79		7.5		0.015							
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Middle	2	1	7.7			27.30		7.99		17.97		66.9		4.80		11.0		0.010							
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Middle	2	2	7.7			27.30		7.99		17.96		67.0		4.80		10.8		0.009							
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Bottom	3	1	14.3			27.00		8.02		19.81		66.2		4.72		12.8		0.004							
CCGT	2023/07/05	Mid-Flood	CF	Fine	Rough	5:51	5:54	15.3	Bottom	3	2	14.3			27.00		8.02		19.79		66.3		4.73		12.9		0.004							
CCGT	2023/07/05	Mid-Flood	SR3A	Fine	Moderate	6:56	7:01	6.8	Surface	1	1	1.0	0.24	53	28.50	27.62	8.22	8.27	16.86	18.71	75.0	68.0	5.30	5.03	8.8	11.6	0.010	0.011						
CCGT	2023/07/05	Mid-Flood	SR3A	Fine	Moderate	6:56	7:01	6.8	Surface	1	2	1.0	0.24	53	28.30		8.23		17.02		74.8		5.29		8.8		0.010							
CCGT	2023/07/05	Mid-Flood	SR3A	Fine	Moderate	6:56	7:01	6.8	Middle	2	1	3.4			27.50		8.28		18.01		66.8		4.77		12.5		0.018							
CCGT	2023/07/05	Mid-Flood	SR3A	Fine	Moderate	6:56	7:01	6.8	Middle	2	2	3.4			27.40		8.29		18.04		66.7		4.77		12.5		0.017							
CCGT	2023/07/05	Mid-Flood	SR3A	Fine	Moderate	6:56	7:01	6.8	Bottom	3	1	5.8			27.00		8.30		21.18		62.3		4.41		13.5		0.006							

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Surface	1	1	1.0	0.47	233	28.90		8.53		15.17		79.2		5.61		8.8		0.011	
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Surface	1	2	1.0	0.47	233	28.90		8.54		15.17		79.1		5.61		8.8		0.010	
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Middle	2	1																	
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Middle	2	2																	
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Bottom	3	1	4.6			28.30		8.65		15.76		72.7		5.19		16.0		0.006	
CCGT	2023/07/07	Mid-Ebb	CEA	Sunny	Rough	14:25	14:28	5.6	Bottom	3	2	4.6			28.30		8.65		15.77		72.7		5.19		16.0		0.006	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Surface	1	1	1.0	1.48	176	28.00		8.07		18.95		78.0		5.49		9.4		0.011	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Surface	1	2	1.0	1.48	176	28.00		8.07		18.96		77.9		5.49		9.5		0.010	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Middle	2	1	8.2			27.80		8.13		19.09		74.5		5.26		9.9		0.008	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Middle	2	2	8.2			27.80		8.13		19.09		74.4		5.25		9.9		0.008	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Bottom	3	1	15.3			25.90		8.22		25.79		59.6		4.19		11.2		0.004	
CCGT	2023/07/07	Mid-Ebb	CF	Sunny	Rough	16:04	16:09	16.3	Bottom	3	2	15.3			25.90		8.22		25.80		59.9		4.21		11.3		0.003	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Surface	1	1	1.0	0.24	242	28.70		8.07		17.90		81.5		5.71		5.6		0.017	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Surface	1	2	1.0	0.24	242	28.70		8.07		17.90		81.5		5.71		5.6		0.016	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Middle	2	1	3.6			28.40		8.09		18.51		77.6		5.44		7.5		0.011	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Middle	2	2	3.6			28.40		8.10		18.48		77.5		5.43		7.4		0.013	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Bottom	3	1	6.1			27.60		8.13		20.39		67.8		4.77		8.3		0.007	
CCGT	2023/07/07	Mid-Ebb	SR3A	Sunny	Moderate	14:57	15:01	7.1	Bottom	3	2	6.1			27.60		8.13		20.29		67.9		4.78		8.4		0.006	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Surface	1	1	1.0	0.27	163	28.90		8.10		16.55		91.0		6.39		2.8		0.010	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Surface	1	2	1.0	0.27	163	28.90		8.10		16.55		90.8		6.38		2.8		0.009	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Middle	2	1	3.7			28.80		8.10		16.64		88.2		6.21		3.1		0.007	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Middle	2	2	3.7			28.80		8.10		16.64		87.8		6.17		3.1		0.007	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Bottom	3	1	6.3			28.10		8.08		18.43		75.6		5.33		6.1		0.004	
CCGT	2023/07/07	Mid-Ebb	SR5A	Sunny	Rough	15:34	15:38	7.3	Bottom	3	2	6.3			28.10		8.08		18.44		75.7		5.34		6.1		0.004	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Surface	1	1	1.0	1.47	166	28.60		8.10		17.80		86.3		6.06		6.0		0.013	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Surface	1	2	1.0	1.47	166	28.60		8.11		17.81		86.2		6.06		6.0		0.010	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Middle	2	1	9.1			27.70		8.23		18.81		69.8		4.94		7.8		0.008	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Middle	2	2	9.1			27.70		8.24		18.82		69.5		4.92		7.9		0.007	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Bottom	3	1	17.1			25.90		8.31		25.42		56.9		4.01		8.6		0.003	
CCGT	2023/07/07	Mid-Ebb	SR7	Sunny	Rough	15:53	15:57	18.1	Bottom	3	2	17.1			25.90		8.31		25.48		57.0		4.01		8.8		0.002	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Surface	1	1	1.0	0.46	223	28.60		8.15		18.00		81.8		5.74		6.0		0.009	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Surface	1	2	1.0	0.46	223	28.60		8.15		17.99		81.8		5.74		6.0		0.008	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Middle	2	1																	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Middle	2	2																	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Bottom	3	1	4.2			28.40		8.20		18.69		76.0		5.39		8.0		0.004	
CCGT	2023/07/07	Mid-Ebb	SR14A	Sunny	Rough	14:41	14:45	5.2	Bottom	3	2	4.2			28.40		8.20		18.69		76.0		5.39		8.0		0.003	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Surface	1	1	1.0	0.55	43	28.60		8.54		14.95		81.0		5.77		9.3		0.014	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Surface	1	2	1.0	0.55	43	28.60		8.54		14.96		80.9		5.77		9.4		0.013	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Middle	2	1																	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Middle	2	2																	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Bottom	3	1	3.7			28.40		8.60		15.47		76.0		5.43		14.2		0.006	
CCGT	2023/07/07	Mid-Flood	CEA	Sunny	Moderate	9:47	9:51	4.7	Bottom	3	2	3.7			28.40		8.61		15.46		76.2		5.44		14.3		0.005	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Surface	1	1	1.0	0.39	182	28.70		8.03		15.22		85.7		6.09		3.3		0.015	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Surface	1	2	1.0	0.39	182	28.70		8.03		15.23		85.6		6.08		3.3		0.014	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Middle	2	1	8.0			27.80		8.07		18.94		68.2		4.82		3.9		0.009	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Middle	2	2	8.0			27.80		8.07		18.94		68.2		4.82		3.9		0.009	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Bottom	3	1	14.9			27.30		8.13		20.11		65.2		4.61		5.7		0.005	
CCGT	2023/07/07	Mid-Flood	CF	Sunny	Moderate	8:08	8:12	15.9	Bottom	3	2	14.9			27.30		8.13		20.13		65.0		4.60		5.7		0.004	
CCGT	2023/07/07	Mid-Flood	SR3A	Sunny	Moderate	9:17	9:21	6.6	Surface	1	1	1.0	0.19	50	29.00		8.53		16.16		81.7		5.74		8.4		0.011	
CCGT	2023/07/07	Mid-Flood	SR3A	Sunny	Moderate	9:17	9:21	6.6	Surface	1	2	1.0	0.1															

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Surface	1	1	1.0	0.19	222	29.10		8.26		15.19		89.8		6.30		0.9		0.006	
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Surface	1	2	1.0	0.19	222	29.00		8.26		15.21		89.7		6.30		1.1		0.006	
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Middle	2	1																	
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Middle	2	2																	
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Bottom	3	1	3.2			28.40		8.12		16.92		77.3		5.44		3.6		0.002	
CCGT	2023/07/10	Mid-Ebb	CEA	Sunny	Calm	8:09	8:13	4.2	Bottom	3	2	3.2			28.40		8.11		16.95		77.3		5.44		3.7		0.008	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Surface	1	1	1.0	0.59	169	28.40		8.05		17.13		90.6		6.40		2.5		0.002	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Surface	1	2	1.0	0.59	169	28.40		8.05		17.21		90.4		6.39		2.6		0.003	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Middle	2	1	7.5			27.10		8.07		23.15		69.3		4.84		3.6		0.005	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Middle	2	2	7.5			27.10		8.07		23.12		69.3		4.85		3.7		0.007	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Bottom	3	1	14.0			26.10		8.05		26.08		60.9		4.26		8.7		0.002	
CCGT	2023/07/10	Mid-Ebb	CF	Sunny	Moderate	6:03	6:07	15.0	Bottom	3	2	14.0			26.10		8.05		26.07		61.2		4.28		8.0		0.012	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Surface	1	1	1.0	0.08	225	29.10		8.28		15.11		87.2		6.12		6.0		0.002	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Surface	1	2	1.0	0.08	225	29.10		8.28		15.11		87.2		6.12		6.0		0.012	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Middle	2	1	3.4			28.10		8.51		17.82		70.4		4.94		11.5		0.007	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Middle	2	2	3.4			28.10		8.52		17.89		70.3		4.94		11.7		0.009	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Bottom	3	1	5.7			27.20		8.15		20.60		64.8		4.56		10.7		0.006	
CCGT	2023/07/10	Mid-Ebb	SR3A	Sunny	Moderate	7:05	7:09	6.7	Bottom	3	2	5.7			27.20		8.15		20.59		64.9		4.56		10.7		0.006	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Surface	1	1	1.0	0.05	100	28.80		8.19		15.16		87.1		6.18		3.9		0.003	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Surface	1	2	1.0	0.05	100	28.80		8.18		15.46		85.9		6.09		4.3		0.004	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Middle	2	1	3.1			28.40		8.16		19.24		79.3		5.53		4.9		0.008	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Middle	2	2	3.1			28.40		8.16		19.34		79.2		5.53		5.1		0.001	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Bottom	3	1	5.2			28.30		8.14		20.80		79.2		5.49		6.3		0.011	
CCGT	2023/07/10	Mid-Ebb	SR5A	Sunny	Moderate	6:33	6:36	6.2	Bottom	3	2	5.2			28.30		8.14		20.86		79.2		5.50		6.5		0.007	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Surface	1	1	1.0	0.51	158	29.00		8.09		15.59		91.4		6.46		2.1		0.002	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Surface	1	2	1.0	0.51	158	28.90		8.09		15.64		91.2		6.46		2.2		0.005	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Middle	2	1	8.5			27.80		8.13		21.77		70.9		4.94		3.2		0.001	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Middle	2	2	8.5			27.80		8.13		21.78		70.6		4.92		3.2		0.009	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Bottom	3	1	16.0			25.80		8.07		26.85		57.0		3.99		9.1		0.012	
CCGT	2023/07/10	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:16	17.0	Bottom	3	2	16.0			25.80		8.07		26.86		57.0		3.99		9.3		0.006	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Surface	1	1	1.0	0.41	221	28.80		8.24		14.99		95.2		6.72		0.4		0.007	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Surface	1	2	1.0	0.41	221	28.80		8.24		15.00		95.0		6.71		0.5		0.004	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Middle	2	1																	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Middle	2	2																	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Bottom	3	1	3.8			28.20		8.08		19.06		74.4		5.20		10.9		0.011	
CCGT	2023/07/10	Mid-Ebb	SR14A	Sunny	Calm	7:37	7:41	4.8	Bottom	3	2	3.8			28.20		8.07		19.05		74.9		5.22		11.0		0.006	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Surface	1	1	1.0	0.44	50	30.30		8.26		14.39		95.0		6.61		2.1		0.011	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Surface	1	2	1.0	0.44	50	30.20		8.26		14.41		94.9		6.61		2.3		0.014	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Middle	2	1																	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Middle	2	2																	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Bottom	3	1	3.0			29.60		8.12		16.12		82.5		5.74		4.8		0.008	
CCGT	2023/07/10	Mid-Flood	CEA	Sunny	Calm	13:01	13:05	4.0	Bottom	3	2	3.0			29.60		8.11		16.15		82.5		5.74		4.9		0.011	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Surface	1	1	1.0	0.42	181	29.00		7.90		14.21		91.4		6.49		2.6		0.000	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Surface	1	2	1.0	0.42	181	29.00		7.92		14.74		91.1		6.45		2.6		0.006	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Middle	2	1	7.4			26.60		8.17		24.77		63.8		4.46		3.6		0.018	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Middle	2	2	7.4			26.50		8.18		24.90		63.8		4.46		4.4		0.000	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Bottom	3	1	13.7			26.10		8.20		26.16		57.6		4.03		11.9		0.000	
CCGT	2023/07/10	Mid-Flood	CF	Sunny	Moderate	11:06	11:09	14.7	Bottom	3	2	13.7			26.10		8.20		26.17		57.6		4.03		11.6		0.000	
CCGT	2023/07/10	Mid-Flood	SR3A	Sunny	Moderate	12:26	12:30	6.7	Surface	1	1	1.0	0.11	78	30.30		8.28		14.31		92.4		6.43		7.2		0.005	
CCGT	2023/07/10	Mid-Flood	SR3A	Sunny	Moderate	12:26	12:30	6.7	Surface	1	2	1.0	0.11	78	30.30													

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Surface	1	1	1.0	0.56	222	31.10		8.27		13.50		91.4		6.30		6.2		0.010	
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Surface	1	2	1.0	0.56	222	31.10		8.27		13.50		91.0		6.27		6.2		0.009	
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Middle	2	1										68.7				8.7		0.006	
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Middle	2	2																	
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Bottom	3	1	3.1			28.90		8.18		19.34		46.1		3.19		11.3		0.002	
CCGT	2023/07/12	Mid-Ebb	CEA	Sunny	Moderate	9:33	9:37	4.1	Bottom	3	2	3.1			28.90		8.18		19.33		46.2		3.20		11.2		0.003	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Surface	1	1	1.0	0.66	170	29.40		8.28		14.46		114.9		8.11		2.0		0.002	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Surface	1	2	1.0	0.66	170	29.40		8.28		14.46		114.8		8.10		2.0		0.002	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Middle	2	1	8.0			25.80		8.24		27.60		63.7		4.43		4.0		0.013	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Middle	2	2	8.0			25.80		8.24		27.60		63.7		4.44		4.0		0.011	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Bottom	3	1	14.9			26.00		8.22		28.22		69.2		4.79		4.7		0.004	
CCGT	2023/07/12	Mid-Ebb	CF	Sunny	Moderate	8:02	8:07	15.9	Bottom	3	2	14.9			26.00		8.22		28.24		69.4		4.80		4.7		0.002	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Surface	1	1	1.0	0.18	234	31.20		8.27		13.50		96.0		6.61		5.2		0.000	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Surface	1	2	1.0	0.18	234	31.20		8.27		13.50		96.0		6.61		5.2		0.000	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Middle	2	1	3.4			31.10		8.26		13.51		89.2		6.15		7.3		0.010	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Middle	2	2	3.4			31.10		8.27		13.51		88.3		6.09		7.4		0.009	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Bottom	3	1	5.7			28.90		8.15		19.05		50.5		3.50		12.1		0.006	
CCGT	2023/07/12	Mid-Ebb	SR3A	Sunny	Moderate	9:06	9:09	6.7	Bottom	3	2	5.7			28.90		8.16		19.08		50.4		3.49		12.0		0.006	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Surface	1	1	1.0	0.26	140	29.40		8.33		14.50		117.0		8.26		2.1		0.012	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Surface	1	2	1.0	0.26	140	29.40		8.33		14.51		116.8		8.24		2.1		0.011	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Middle	2	1	3.8			27.50		8.16		22.35		76.6		5.34		3.8		0.009	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Middle	2	2	3.8			27.50		8.16		22.36		76.5		5.34		3.8		0.008	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Bottom	3	1	6.6			26.60		8.17		26.61		71.1		4.91		4.8		0.004	
CCGT	2023/07/12	Mid-Ebb	SR5A	Sunny	Moderate	8:37	8:41	7.6	Bottom	3	2	6.6			26.60		8.17		26.62		71.1		4.91		4.8		0.002	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Surface	1	1	1.0	0.71	162	29.40		8.20		14.49		116.6		8.23		2.2		0.008	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Surface	1	2	1.0	0.71	162	29.40		8.20		14.49		116.4		8.22		2.2		0.008	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Middle	2	1	9.1			26.10		8.26		26.88		65.2		4.53		3.8		0.015	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Middle	2	2	9.1			26.10		8.26		26.87		65.2		4.53		3.8		0.014	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Bottom	3	1	17.2			26.40		8.25		27.75		71.0		4.89		5.0		0.005	
CCGT	2023/07/12	Mid-Ebb	SR7	Sunny	Moderate	8:18	8:22	18.2	Bottom	3	2	17.2			26.40		8.25		27.76		71.2		4.90		5.0		0.003	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Surface	1	1	1.0	0.37	220	31.20		8.23		13.50		95.8		6.59		5.3		0.008	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Surface	1	2	1.0	0.37	220	31.20		8.23		13.50		95.7		6.58		5.3		0.009	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Middle	2	1										70.3				10.0		0.006	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Middle	2	2																	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Bottom	3	1	2.9			28.80		8.21		19.38		44.7		3.10		14.7		0.003	
CCGT	2023/07/12	Mid-Ebb	SR14A	Sunny	Moderate	9:18	9:22	3.9	Bottom	3	2	2.9			28.80		8.21		19.37		44.8		3.11		14.9		0.002	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Surface	1	1	1.0	0.13	54	31.20		8.19		13.50		99.3		6.84		5.2		0.009	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Surface	1	2	1.0	0.13	54	31.20		8.19		13.51		99.2		6.83		5.2		0.008	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Middle	2	1										76.2				7.3		0.009	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Middle	2	2																	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Bottom	3	1	3.4			29.10		8.08		18.71		53.0		3.67		9.4		0.010	
CCGT	2023/07/12	Mid-Flood	CEA	Sunny	Moderate	13:47	13:51	4.4	Bottom	3	2	3.4			29.10		8.08		18.71		53.1		3.68		9.4		0.009	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Surface	1	1	1.0	0.14	200	29.50		8.20		17.58		121.0		8.38		2.1		0.000	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Surface	1	2	1.0	0.14	200	29.50		8.20		17.58		120.9		8.37		2.1		0.000	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Middle	2	1	8.2			28.20		8.14		21.58		111.7		7.73		2.0		0.005	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Middle	2	2	8.2			28.20		8.14		21.58		111.1		7.69		2.0		0.004	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Bottom	3	1	15.4			26.40		8.16		25.68		68.8		4.79		1.9		0.000	
CCGT	2023/07/12	Mid-Flood	CF	Sunny	Moderate	15:28	15:33	16.4	Bottom	3	2	15.4			26.40		8.16		25.68		68.9		4.80		1.9		0.003	
CCGT	2023/07/12	Mid-Flood	SR3A	Sunny	Moderate	14:20	14:23	7.4	Surface	1	1	1.0	0.16	83	31.50		8.18		14.38		99.5		6.76		8.1		0.004	
CCGT	2023/07/12	Mid-Flood	SR3A	Sunny	Moderate	14:20	14:23	7.4	Surface	1																		

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Surface	1	1	1.0	0.50	226	30.20		8.19		16.89		119.5		8.20		5.8		0.015	
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Surface	1	2	1.0	0.50	226	30.20		8.19		16.89		119.5		8.20		5.8		0.014	
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Middle	2	1										96.6				4.7			
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Middle	2	2										96.6				4.7			
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Bottom	3	1	4.2			28.20		8.15		21.87		73.6		5.08		3.6		0.009	
CCGT	2023/07/14	Mid-Ebb	CEA	Sunny	Moderate	12:17	12:20	5.2	Bottom	3	2	4.2			28.20		8.15		21.87		73.6		5.09		3.6		0.008	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Surface	1	1	1.0	1.48	176	29.20		8.01		16.34		146.7		10.27		2.7		0.008	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Surface	1	2	1.0	1.48	176	29.20		8.01		16.33		146.8		10.28		2.7		0.006	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Middle	2	1	8.5			26.40		8.07		25.82		80.3		5.59		0.7		0.004	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Middle	2	2	8.5			26.50		8.07		25.78		80.2		5.58		0.7		0.004	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Bottom	3	1	15.9			25.00		8.06		29.01		62.8		4.40		1.2		0.002	
CCGT	2023/07/14	Mid-Ebb	CF	Sunny	Moderate	10:40	10:44	16.9	Bottom	3	2	15.9			25.00		8.07		29.01		62.8		4.40		1.2		0.002	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Surface	1	1	1.0	0.10	224	31.80		8.26		14.61		133.1		9.01		9.9		0.005	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Surface	1	2	1.0	0.10	224	31.80		8.27		14.61		132.8		8.99		7.69		0.004	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Middle	2	1	3.7			29.50		8.02		18.83		92.7		6.37		7.7		0.006	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Middle	2	2	3.7			29.50		8.03		18.83		92.6		6.37		7.8		0.006	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Bottom	3	1	6.3			26.20		8.04		26.66		63.2		4.40		9.0		0.002	
CCGT	2023/07/14	Mid-Ebb	SR3A	Sunny	Moderate	11:49	11:52	7.3	Bottom	3	2	6.3			26.20		8.04		26.66		63.4		4.40		9.1		0.002	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Surface	1	1	1.0	0.31	168	29.10		8.36		19.21		139.7		9.65		1.9		0.003	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Surface	1	2	1.0	0.31	168	29.10		8.36		19.13		139.7		9.64		1.9		0.002	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Middle	2	1	3.6			27.40		8.29		24.01		84.3		5.83		4.6		0.004	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Middle	2	2	3.6			27.40		8.30		24.01		84.4		5.84		4.6		0.004	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Bottom	3	1	6.1			26.80		8.36		25.57		74.1		5.14		9.0		0.008	
CCGT	2023/07/14	Mid-Ebb	SR5A	Sunny	Moderate	11:17	11:20	7.1	Bottom	3	2	6.1			26.80		8.36		25.58		74.2		5.14		9.0		0.005	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Surface	1	1	1.0	1.43	164	29.40		8.38		15.00		143.7		10.11		1.9		0.010	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Surface	1	2	1.0	1.43	164	29.30		8.38		15.03		142.9		10.06		2.0		0.011	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Middle	2	1	9.4			27.00		8.18		24.62		91.2		6.34		0.3		0.008	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Middle	2	2	9.4			27.00		8.19		24.63		91.2		6.34		0.3		0.008	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Bottom	3	1	17.8			25.20		7.94		28.67		64.0		4.48		1.1		0.003	
CCGT	2023/07/14	Mid-Ebb	SR7	Sunny	Moderate	10:57	11:01	18.8	Bottom	3	2	17.8			25.20		7.94		28.68		64.0		4.48		1.1		0.002	
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Surface	1	1	1.0	0.88	222	31.30		8.25		15.36		138.9		9.44		3.0		0.012	
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Surface	1	2	1.0	0.88	222	31.30		8.25		15.38		138.0		9.39		3.1		0.011	
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Middle	2	1										123.1				3.9			
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Middle	2	2										123.1				3.9			
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Bottom	3	1	3.9			30.00		8.16		18.13		107.8		7.38		4.7		0.004	
CCGT	2023/07/14	Mid-Ebb	SR14A	Sunny	Moderate	12:03	12:05	4.9	Bottom	3	2	3.9			30.00		8.16		18.13		107.7		7.37		4.7		0.003	
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Surface	1	1	1.0	0.37	38	31.10		8.30		14.24		164.3		11.29		3.8		0.007	
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Surface	1	2	1.0	0.37	38	31.00		8.30		14.27		163.8		11.26		4.0		0.006	
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Middle	2	1										144.8				4.2			
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Middle	2	2										144.8				4.2			
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Bottom	3	1	3.7			28.20		8.21		21.79		125.4		8.61		4.5		0.002	
CCGT	2023/07/14	Mid-Flood	CEA	Sunny	Rough	16:39	16:42	4.7	Bottom	3	2	3.7			28.20		8.21		21.79		125.5		8.62		4.4		0.002	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Surface	1	1	1.0	0.20	330	30.10		8.41		15.26		171.9		11.93		2.4		0.009	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Surface	1	2	1.0	0.20	330	30.10		8.43		15.22		171.4		11.90		2.3		0.007	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Middle	2	1	7.6			27.80		8.17		22.18		101.2		7.03		2.0		0.004	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Middle	2	2	7.6			27.80		8.17		22.26		101.1		7.02		2.0		0.004	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Bottom	3	1	14.2			26.90		8.08		23.55		87.8		6.15		2.1		0.000	
CCGT	2023/07/14	Mid-Flood	CF	Sunny	Rough	18:14	18:19	15.2	Bottom	3	2	14.2			26.80		8.08		23.58		87.5		6.13		2.2		0.002	
CCGT	2023/07/14	Mid-Flood	SR3A	Sunny	Moderate	17:09	17:12	6.7	Surface	1	1	1.0	0.16	65	30.70		8.34		16.11		150.3		10.28		1.2		0.007	

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Surface	1	1	1.0	0.59	229	27.20		7.75		22.98		80.4		5.61		3.1		0.015	
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Surface	1	2	1.0	0.59	229	27.20		7.75		22.98		80.4		5.61		3.1		0.014	
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Middle	2	1						7.77				80.6		5.61		4.1			0.012
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Middle	2	2						7.77				80.6		5.64		5.1			0.009
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Bottom	3	1	3.4			26.70		7.78		24.42		80.8		5.64		5.1			0.008
CCGT	2023/07/19	Mid-Ebb	CEA	Sunny	Rough	13:39	13:42	4.4	Bottom	3	2	3.4			26.70		7.78		24.39		80.8		5.64		5.1			0.008
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Surface	1	1	1.0	1.40	174	27.00		7.73		23.26		82.7		5.78		1.1			0.008
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Surface	1	2	1.0	1.40	174	27.00		7.74		23.26		82.6		5.78		1.1			0.006
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Middle	2	1	6.8			26.70		7.75		24.11		78.6		5.50		1.9			0.004
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Middle	2	2	6.8			26.60		7.75		24.15		78.4		5.49		1.9			0.004
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Bottom	3	1	12.6			26.20		7.75		26.03		76.3		5.33		2.6			0.002
CCGT	2023/07/19	Mid-Ebb	CF	Sunny	Rough	15:14	15:19	13.6	Bottom	3	2	12.6			26.20		7.75		26.05		76.4		5.34		2.7			0.002
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Surface	1	1	1.0	0.16	248	26.80		7.74		24.13		77.1		5.39		2.9			0.005
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Surface	1	2	1.0	0.16	248	26.80		7.74		24.13		77.1		5.39		2.9			0.004
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Middle	2	1	3.3			26.60		7.75		24.56		77.4		5.41		4.4			0.006
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Middle	2	2	3.3			26.60		7.75		24.63		77.6		5.42		4.4			0.006
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Bottom	3	1	5.6			26.60		7.76		25.33		81.4		5.67		6.1			0.002
CCGT	2023/07/19	Mid-Ebb	SR3A	Sunny	Moderate	14:09	14:12	6.6	Bottom	3	2	5.6			26.70		7.76		25.24		82.3		5.72		6.0			0.002
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Surface	1	1	1.0	0.21	146	27.30		7.73		24.38		78.7		5.44		3.1			0.003
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Surface	1	2	1.0	0.21	146	27.30		7.74		24.42		78.6		5.44		3.1			0.002
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Middle	2	1	3.5			26.20		7.77		26.33		70.9		4.94		4.1			0.004
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Middle	2	2	3.5			26.20		7.77		26.43		70.8		4.93		4.1			0.004
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Bottom	3	1	6.0			25.80		7.76		27.43		72.2		5.03		6.0			0.008
CCGT	2023/07/19	Mid-Ebb	SR5A	Sunny	Moderate	14:44	14:48	7.0	Bottom	3	2	6.0			25.90		7.76		27.38		72.4		5.04		6.0			0.005
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Surface	1	1	1.0	1.77	167	27.10		7.73		23.32		83.9		5.85		3.6			0.010
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Surface	1	2	1.0	1.77	167	27.10		7.73		23.34		83.8		5.84		3.5			0.011
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Middle	2	1	8.1			27.20		7.73		24.94		77.9		5.38		6.3			0.008
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Middle	2	2	8.1			27.10		7.73		25.09		77.7		5.37		6.3			0.008
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Bottom	3	1	15.2			26.00		7.75		26.86		72.1		5.02		7.0			0.003
CCGT	2023/07/19	Mid-Ebb	SR7	Sunny	Rough	14:57	15:01	16.2	Bottom	3	2	15.2			26.10		7.75		26.82		72.3		5.03		7.0			0.002
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Surface	1	1	1.0	0.66	218	27.00		7.73		23.24		79.6		5.57		2.2			0.012
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Surface	1	2	1.0	0.66	218	26.90		7.75		23.80		81.4		5.69		2.3			0.011
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Middle	2	1						7.75				82.5		5.63		3.1			0.008
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Middle	2	2						7.75				82.5		5.63		3.1			0.008
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Bottom	3	1	3.0			26.80		7.75		24.12		84.3		5.89		4.0			0.004
CCGT	2023/07/19	Mid-Ebb	SR14A	Sunny	Rough	13:55	13:58	4.0	Bottom	3	2	3.0			26.80		7.75		24.12		84.5		5.90		4.0			0.003
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Surface	1	1	1.0	0.40	45	27.20		7.75		22.71		78.9		5.52		2.0			0.007
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Surface	1	2	1.0	0.40	45	27.10		7.75		22.83		78.9		5.52		2.0			0.006
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Middle	2	1						7.76				76.2		5.52		3.1			0.004
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Middle	2	2						7.76				76.2		5.52		3.1			0.004
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Bottom	3	1	4.0			26.20		7.77		26.20		73.4		5.12		4.1			0.002
CCGT	2023/07/19	Mid-Flood	CEA	Fine	Moderate	8:15	8:17	5.0	Bottom	3	2	4.0			26.20		7.77		26.19		73.7		5.14		4.1			0.002
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Surface	1	1	1.0	0.09	326	27.00		7.90		22.84		84.5		5.93		2.4			0.009
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Surface	1	2	1.0	0.09	326	27.00		7.90		22.86		84.5		5.93		2.4			0.007
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Middle	2	1	8.4			26.50		7.94		24.90		78.5		5.49		4.0			0.004
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Middle	2	2	8.4			26.50		7.94		24.92		78.5		5.49		4.1			0.004
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Bottom	3	1	15.8			25.90		7.96		27.18		74.7		5.20		5.3			0.000
CCGT	2023/07/19	Mid-Flood	CF	Fine	Moderate	6:38	6:40	16.8	Bottom	3	2	15.8			25.90		7.96		27.23		74.9		5.22		5.3			0.002
CCGT	2023/07/19	Mid-Flood	SR3A	Fine	Moderate	7:46	7:48	6.2	Surface	1	1	1.0	0.15	66	27.20		7.79		22.71		79.4		5.55		2.4			0.00

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Surface	1	1	1.0	0.53	222	28.90		8.00		18.83		80.7		5.60		3.3		0.012	
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Surface	1	2	1.0	0.53	222	28.80		8.00		18.87		80.5		5.60		3.6		0.016	
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Middle	2	1					28.48	7.99			20.26		75.2		5.60	5.60	5.1		0.008
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Middle	2	2																	
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Bottom	3	1	3.2			28.10		7.99		21.65		69.8		4.84		6.5		0.002	
CCGT	2023/07/21	Mid-Ebb	CEA	Fine	Moderate	14:41	14:44	4.2	Bottom	3	2	3.2			28.10		7.98		21.69		69.9		4.84	4.84	6.8		0.000	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Surface	1	1	1.0	1.52	174	28.90		8.08		16.13		102.2		7.20		1.5		0.010	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Surface	1	2	1.0	1.52	174	28.80		8.09		16.44		101.9		7.13		1.5		0.008	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Middle	2	1	7.4			26.80		8.14		25.40		70.1		4.86		4.5		0.002	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Middle	2	2	7.4			26.80		8.14		25.48		69.9		4.84		5.0		0.004	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Bottom	3	1	13.8			26.50		8.08		26.53		70.2		4.87		10.6		0.001	
CCGT	2023/07/21	Mid-Ebb	CF	Fine	Moderate	15:42	15:45	14.8	Bottom	3	2	13.8			26.50		8.07		26.36		70.5		4.89		10.8		0.002	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Surface	1	1	1.0	0.19	250	29.90		8.02		18.50		92.5		6.33		4.2		0.019	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Surface	1	2	1.0	0.19	250	29.90		8.02		18.50		92.5		6.33		4.2		0.011	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Middle	2	1	3.5			28.80		8.04		20.51		77.8		5.37		7.8		0.000	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Middle	2	2	3.5			28.80		8.04		20.51		77.6		5.35		7.8		0.000	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Bottom	3	1	6.0			27.20		8.00		24.48		70.9		4.91		8.4		0.002	
CCGT	2023/07/21	Mid-Ebb	SR3A	Fine	Moderate	14:11	14:14	7.0	Bottom	3	2	6.0			27.20		8.00		24.48		70.9		4.91	4.91	8.4		0.004	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Surface	1	1	1.0	0.31	142	29.90		7.81		19.77		100.8		6.84		2.0		0.008	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Surface	1	2	1.0	0.31	142	29.90		7.82		19.80		100.6		6.82		1.9		0.011	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Middle	2	1	3.6			28.40		7.91		21.71		86.3		5.95		2.0		0.005	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Middle	2	2	3.6			28.40		7.91		21.79		86.0		5.93		2.2		0.004	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Bottom	3	1	6.2			27.70		7.90		23.36		73.0		5.05		6.1		0.002	
CCGT	2023/07/21	Mid-Ebb	SR5A	Fine	Moderate	15:12	15:16	7.2	Bottom	3	2	6.2			27.70		7.90		23.36		73.1		5.05	5.05	6.3		0.006	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Surface	1	1	1.0	1.50	163	29.40		8.07		16.22		100.6		7.03		1.8		0.012	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Surface	1	2	1.0	1.50	163	29.40		8.07		16.24		100.6		7.03		1.8		0.011	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Middle	2	1	8.5			27.10		8.02		24.48		75.6		5.24		4.3		0.008	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Middle	2	2	8.5			27.10		8.02		24.62		75.3		5.22		4.1		0.006	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Bottom	3	1	15.9			26.70		8.04		25.75		68.3		4.74		10.1		0.002	
CCGT	2023/07/21	Mid-Ebb	SR7	Fine	Moderate	15:31	15:35	16.9	Bottom	3	2	15.9			26.70		8.04		25.75		68.3		4.74	4.74	10.9		0.002	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Surface	1	1	1.0	0.50	205	29.40		8.05		19.59		84.3		5.77		3.2		0.011	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Surface	1	2	1.0	0.50	205	29.40		8.05		19.60		83.8		5.74		3.7		0.017	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Middle	2	1																	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Middle	2	2																	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Bottom	3	1	3.4			28.00		8.08		22.62		74.9		5.17		6.5		0.000	
CCGT	2023/07/21	Mid-Ebb	SR14A	Fine	Moderate	14:24	14:27	4.4	Bottom	3	2	3.4			27.90		8.08		22.70		74.9		5.17	5.17	6.6		0.000	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Surface	1	1	1.0	0.51	41	28.30		7.95		19.31		79.2		5.55		5.4		0.010	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Surface	1	2	1.0	0.51	41	28.20		7.95		19.33		79.1		5.54		5.9		0.013	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Middle	2	1																	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Middle	2	2																	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Bottom	3	1	3.7			27.90		7.96		22.21		78.2		5.42		11.3		0.004	
CCGT	2023/07/21	Mid-Flood	CEA	Fine	Moderate	8:50	8:52	4.7	Bottom	3	2	3.7			27.90		7.96		22.21		78.6		5.44	5.44	11.5		0.006	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Surface	1	1	1.0	0.15	328	27.90		7.82		20.07		78.7		5.53		2.7		0.008	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Surface	1	2	1.0	0.15	328	27.80		7.82		20.04		78.6		5.52		2.6		0.005	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Middle	2	1	7.8			27.00		7.84		25.07		71.3		4.94		2.3		0.002	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Middle	2	2	7.8			27.00		7.84		25.06		71.3		4.94		2.3		0.002	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Bottom	3	1	14.6			26.50		7.82		26.48		67.6		4.68		7.6		0.004	
CCGT	2023/07/21	Mid-Flood	CF	Fine	Moderate	7:51	7:53	15.6	Bottom	3	2	14.6			26.50		7.82		26.47		67.5		4.68	4.68	7.7		0.000	
CCGT	2023/07/21	Mid-Flood	SR3A	Fine	Moderate	9:14	9:17	7.0	Surface	1	1	1.0	0.13	79	27.90		7.90		21.68		75.3		5.23		7.7		0.015	
CCGT	202																											

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Surface	1	1	1.0	0.25	219	28.90		8.08		26.64		108.7		7.22		2.4		0.013	
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Surface	1	2	1.0	0.25	219	28.90		8.08		26.65		108.6		7.22		2.5		0.011	
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Middle	2	1						8.02											
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Middle	2	2																	
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Bottom	3	1	4.2			28.30		7.96		29.77		84.1		5.55		3.7		0.003	
CCGT	2023/07/24	Mid-Ebb	CEA	Sunny	Moderate	15:13	15:17	5.2	Bottom	3	2	4.2			28.30		7.96		29.77		84.5		5.57		3.7		0.002	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Surface	1	1	1.0	1.03	174	29.00		8.22		28.40		126.3		8.30		2.6		0.012	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Surface	1	2	1.0	1.03	174	29.00		8.22		28.42		125.9		8.28		2.7		0.011	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Middle	2	1	8.0			28.20		8.10		30.82		96.6		6.34		3.5		0.006	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Middle	2	2	8.0			28.30		8.10		30.79		97.4		6.40		3.5		0.005	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Bottom	3	1	14.9			27.70		8.03		32.54		79.9		5.24		4.6		0.002	
CCGT	2023/07/24	Mid-Ebb	CF	Sunny	Moderate	16:43	16:47	15.9	Bottom	3	2	14.9			27.70		8.03		32.55		79.9		5.24		4.6		0.001	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Surface	1	1	1.0	0.18	252	28.60		8.05		27.32		103.8		6.91		2.2		0.018	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Surface	1	2	1.0	0.18	252	28.60		8.05		27.32		103.8		6.91		2.2		0.016	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Middle	2	1	3.9			28.30		8.03		29.71		90.1		5.95		3.2		0.003	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Middle	2	2	3.9			28.30		8.03		29.70		90.1		5.95		3.3		0.003	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Bottom	3	1	6.7			28.20		8.01		30.48		86.4		5.69		6.1		0.000	
CCGT	2023/07/24	Mid-Ebb	SR3A	Sunny	Moderate	15:40	15:44	7.7	Bottom	3	2	6.7			28.20		8.01		30.48		86.4		5.69		6.1		0.000	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Surface	1	1	1.0	0.29	146	29.20		8.20		25.98		138.1		9.17		2.3		0.009	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Surface	1	2	1.0	0.29	146	29.10		8.19		26.05		137.6		9.14		2.3		0.010	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Middle	2	1	3.5			28.20		8.03		30.20		87.6		5.78		2.3		0.006	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Middle	2	2	3.5			28.20		8.03		30.20		87.5		5.77		2.3		0.006	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Bottom	3	1	5.9			28.00		8.02		31.18		83.4		5.49		3.1		0.002	
CCGT	2023/07/24	Mid-Ebb	SR5A	Sunny	Moderate	16:05	16:09	6.9	Bottom	3	2	5.9			28.00		8.02		31.22		83.2		5.47		3.1		0.001	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Surface	1	1	1.0	0.83	160	28.20		8.11		30.86		102.2		6.71		3.7		0.009	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Surface	1	2	1.0	0.83	160	28.20		8.11		30.97		102.2		6.71		3.8		0.006	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Middle	2	1	8.9			27.80		8.03		32.36		81.0		5.31		4.3		0.003	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Middle	2	2	8.9			27.80		8.03		32.32		81.1		5.32		4.4		0.003	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Bottom	3	1	16.8			27.60		8.02		33.09		77.9		5.11		5.5		0.001	
CCGT	2023/07/24	Mid-Ebb	SR7	Sunny	Moderate	16:26	16:29	17.8	Bottom	3	2	16.8			27.60		8.02		33.08		77.9		5.11		5.4		0.002	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Surface	1	1	1.0	0.35	206	29.40		8.24		25.84		147.2		9.76		2.6		0.008	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Surface	1	2	1.0	0.35	206	29.40		8.24		25.81		147.5		9.77		2.6		0.006	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Middle	2	1																	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Middle	2	2																	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Bottom	3	1	3.9			28.90		8.06		26.77		80.3		5.27		4.6		0.000	
CCGT	2023/07/24	Mid-Ebb	SR14A	Sunny	Moderate	15:25	15:28	4.9	Bottom	3	2	3.9			28.80		8.06		26.79		80.3		5.27		4.6		0.001	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Surface	1	1	1.0	0.37	38	30.10		8.28		22.30		144.8		9.67		4.4		0.009	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Surface	1	2	1.0	0.37	38	30.00		8.28		22.35		144.2		9.64		4.5		0.008	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Middle	2	1																	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Middle	2	2																	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Bottom	3	1	3.6			29.30		8.07		24.98		99.3		6.62		8.3		0.004	
CCGT	2023/07/24	Mid-Flood	CEA	Sunny	Moderate	10:34	10:38	4.6	Bottom	3	2	3.6			29.30		8.07		24.98		99.3		6.62		8.1		0.003	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Surface	1	1	1.0	0.72	182	29.40		8.11		20.05		105.3		7.20		3.6		0.011	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Surface	1	2	1.0	0.72	182	29.40		8.11		20.07		105.1		7.19		3.6		0.010	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Middle	2	1	7.6			28.50		7.99		27.45		80.8		5.38		3.0		0.003	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Middle	2	2	7.6			28.50		7.99		27.45		80.8		5.38		3.1		0.004	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Bottom	3	1	14.1			27.90		7.93		29.87		66.2		4.39		12.3		0.000	
CCGT	2023/07/24	Mid-Flood	CF	Sunny	Moderate	8:54	8:58	15.1	Bottom	3	2	14.1			27.90		7.93		29.89		66.1		4.39		12.9		0.000	
CCGT	2023/07/24	Mid-Flood	SR3A	Sunny	Moderate	9:59	10:04	7.2	Surface	1	1	1.0	0.18	59	29.50		8.05		20.09		100.3		6.85		3.2		0.013	
CCGT	2023/07/24	Mid-Flood	SR3A	Sunny	Moderate	9																						

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)						
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Surface	1	1	1.0	0.32	224	29.30	29.08	8.03	8.04	18.52	22.08	110.0	93.5	7.57	7.55	7.0	7.9	0.012	0.008						
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Surface	1	2	1.0	0.32	220	29.20		8.03		18.92		109.4		7.52		7.6		0.011							
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Middle	2	1																							
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Middle	2	2																							
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Bottom	3	1	3.4	0.29	216	28.90		8.04		25.43		77.4		5.16		8.9		0.003							
CCGT	2023/07/26	Mid-Ebb	CEA	Sunny	Moderate	7:09	7:13	4.4	Bottom	3	2	3.4	0.27	220	28.90	8.04	25.43	77.5	5.16	8.1	0.004													
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Surface	1	1	1.0	0.37	180	30.00	29.22	8.24	8.06	19.03	25.66	114.8	91.2	7.77	6.67	3.9	3.6	0.014	0.011						
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Surface	1	2	1.0	0.36	177	29.90		8.24		19.18		114.8		7.78		3.9		0.018							
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Middle	2	1	7.6	0.35	155	28.90		7.97		28.75		85.4		5.57		3.5		0.011							
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Middle	2	2	7.6	0.34	153	28.90		7.97		28.78		85.2		5.57		3.5		0.012							
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Bottom	3	1	14.2	0.39	149	28.80		7.97		29.11		73.5		4.80		3.2		0.008							
CCGT	2023/07/26	Mid-Ebb	CF	Sunny	Moderate	5:56	6:00	15.2	Bottom	3	2	14.2	0.41	155	28.80	7.97	29.12	73.4	4.79	3.3	0.002													
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Surface	1	1	1.0	0.13	230	28.90	28.60	7.98	7.99	19.90	22.82	108.5	86.7	7.46	6.52	9.4	9.6	0.011	0.007						
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Surface	1	2	1.0	0.14	232	28.90		7.98		19.91		108.4		7.46		9.4		0.010							
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Middle	2	1	3.8	0.12	231	28.60		7.99		21.81		81.4		5.57		9.8		0.004							
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Middle	2	2	3.8	0.12	237	28.50		7.99		21.91		81.4		5.58		9.8		0.008							
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Bottom	3	1	6.6	0.17	221	28.50		8.00		26.70		70.2		4.68		9.4		0.004							
CCGT	2023/07/26	Mid-Ebb	SR3A	Sunny	Moderate	7:35	7:40	7.6	Bottom	3	2	6.6	0.21	226	28.20	8.00	26.70	70.2	4.70	10.0	0.006													
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Surface	1	1	1.0	0.28	146	29.30	29.05	7.99	7.98	16.52	22.18	119.1	93.8	8.27	6.89	4.8	6.1	0.017	0.008						
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Surface	1	2	1.0	0.32	144	29.30		7.99		16.59		118.9		8.27		5.0		0.011							
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Middle	2	1	3.4	0.27	157	29.10		7.98		23.86		82.3		5.51		6.3		0.005							
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Middle	2	2	3.4	0.26	154	29.00		7.98		23.88		82.1		5.51		6.4		0.006							
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Bottom	3	1	5.8	0.24	146	28.80		7.98		26.10		80.4		5.34		7.1		0.002							
CCGT	2023/07/26	Mid-Ebb	SR5A	Sunny	Moderate	6:35	6:40	6.8	Bottom	3	2	5.8	0.21	151	28.80	7.98	26.10	80.3	5.34	7.1	0.007													
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Surface	1	1	1.0	0.37	176	29.60	29.08	8.25	8.06	18.80	25.50	112.8	91.3	7.70	6.62	3.9	4.5	0.012	0.010						
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Surface	1	2	1.0	0.39	180	29.50		8.25		18.75		112.2		7.67		3.9		0.009							
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Middle	2	1	8.4	0.31	178	28.80		7.97		28.94		85.1		5.56		4.5		0.012							
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Middle	2	2	8.4	0.29	179	28.80		7.97		28.98		85.0		5.56		4.5		0.011							
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Bottom	3	1	15.8	0.34	156	28.90		7.97		28.78		76.4		4.99		4.9		0.010							
CCGT	2023/07/26	Mid-Ebb	SR7	Sunny	Moderate	6:13	6:17	16.8	Bottom	3	2	15.8	0.39	163	28.90	7.97	28.74	76.4	4.99	5.1	0.005													
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Surface	1	1	1.0	0.33	219	28.50	28.30	8.03	8.04	18.75	22.38	115.6	95.6	8.06	8.07	6.1	7.7	0.003	0.004						
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Surface	1	2	1.0	0.29	216	28.40		8.03		18.79		115.6		8.07		6.3		0.004							
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Middle	2	1																							
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Middle	2	2																							
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Bottom	3	1	3.9	0.30	232	28.10		8.04		25.99		75.7		5.10		9.3		0.005							
CCGT	2023/07/26	Mid-Ebb	SR14A	Sunny	Moderate	7:24	7:27	4.9	Bottom	3	2	3.9	0.32	236	28.20	8.04	25.99	75.7	5.09	9.2	0.002													
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Surface	1	1	1.0	0.21	24	31.90	31.48	8.21	8.01	19.35	20.59	136.3	108.8	8.99	8.98	3.8	5.3	0.020	0.008						
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Surface	1	2	1.0	0.24	26	31.80		8.21		19.37		135.8		8.97		4.0		0.000							
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Middle	2	1																							
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Middle	2	2																							
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Bottom	3	1	3.3	0.28	37	31.10		7.81		21.82		81.5		5.36		6.7		0.002							
CCGT	2023/07/26	Mid-Flood	CEA	Sunny	Moderate	12:58	13:02	4.3	Bottom	3	2	3.3	0.29	30	31.10	7.81	21.82	81.6	5.37	6.7	0.008													
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Surface	1	1	1.0	0.01	330	30.50	29.22	8.34	8.10	15.97	24.94	141.8	98.4	9.75	7.53	2.7	3.8	0.034	0.024						
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Surface	1	2	1.0	0.02	324	30.40		8.34		16.01		141.8		9.74		2.7		0.028							
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Middle	2	1	7.8	0.02	320	28.70		7.99		28.76		80.6		5.31		1.8		0.011							
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Middle	2	2	7.8	0.01	323	28.70		7.99		28.78		80.6		5.31		1.8		0.022							
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Bottom	3	1	14.6	0.05	331	28.50		7.98		30.03		72.8		4.78		6.5		0.024							
CCGT	2023/07/26	Mid-Flood	CF	Sunny	Moderate	11:26	11:30	15.6	Bottom	3	2	14.6	0.05	327	28.50	7.98	30.09	72.7	4.78	7.1	0.023													
CCGT	2023/07/26	Mid-Flood	SR3A	Sunny	Moderate	13:31	13:34	7.3	Surface	1	1	1.0	0.11	59	31.00	30.38	8.27	8.05	19.16	22.49	129.3	97.5	8.65	7.18	8.1	9.1	0.000	0.013						
CCGT	2023/07/26	Mid-Flood	SR3A	Sunny	Moderate	13:31	13:34	7.3	Surface	1	2	1.0	0.13	51	31.00		8.27		19.16		129.3		8.65		8.1		0.021							
CCGT	2023/07/26	Mid-Flood	SR3A	Sunny	Moderate	13:31	13:34	7.3	Middle	2	1	3.7	0.04	86	30.40		7.95		22.85		86.1		5.71		10.2		0.000							
CCGT	2023/07/26	Mid-Flood	SR3A	Sunny	Moderate	13:31	13:34	7.3	Middle	2	2	3.7	0.06	79	30.30		7.95																	

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)							
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Surface	1	1	1.0	0.09	227	30.10	29.85	8.43	8.14	20.40	24.05	147.5	101.6	9.82	9.84	3.4	7.7	0.013	0.009							
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Surface	1	2	1.0	0.05	222	30.10		8.43		20.38		148.0		9.85		3.4		0.011								
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Middle	2	1																								
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Middle	2	2																								
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Bottom	3	1	3.6	0.08	233	29.60		7.85		27.73		54.6		3.57		11.9		0.006								
CCGT	2023/07/28	Mid-Ebb	CEA	Sunny	Calm	9:58	10:02	4.6	Bottom	3	2	3.6	0.03	240	29.60	7.86	27.68	56.2	3.67	11.9	0.004														
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Surface	1	1	1.0	0.48	175	30.70	29.13	8.28	8.02	21.39	27.43	131.3	85.2	8.53	6.37	0.7	1.5	0.018	0.009							
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Surface	1	2	1.0	0.50	178	30.70		8.27		21.39		131.2		8.59		0.7		0.014								
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Middle	2	1	7.9	0.53	175	28.60		7.90		29.54		63.4		4.17		1.9		0.010								
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Middle	2	2	7.9	0.52	180	28.60		7.90		29.52		63.5		4.18		1.9		0.009								
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Bottom	3	1	14.7	0.54	185	28.10		7.88		31.34		60.9		4.00		1.9		0.000								
CCGT	2023/07/28	Mid-Ebb	CF	Sunny	Calm	8:02	8:07	15.7	Bottom	3	2	14.7	0.58	189	28.10	7.88	31.37	60.8	3.99	2.0	0.002														
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Surface	1	1	1.0	0.02	92	32.20	30.33	8.31	8.04	21.39	26.05	128.3	83.7	8.23	6.43	6.7	9.1	0.009	0.005							
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Surface	1	2	1.0	0.07	87	32.20		8.31		21.39		127.9		8.19		6.7		0.008								
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Middle	2	1	3.7	0.06	102	30.20		7.96		26.35		71.3		4.64		9.2		0.004								
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Middle	2	2	3.7	0.03	96	30.20		7.96		26.33		71.3		4.64		9.3		0.004								
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Bottom	3	1	6.3	0.03	106	28.60		7.86		30.40		51.7		3.38		11.4		0.000								
CCGT	2023/07/28	Mid-Ebb	SR3A	Sunny	Calm	9:24	9:28	7.3	Bottom	3	2	6.3	0.02	104	28.60	7.86	30.43	51.6	3.38	11.4	0.006														
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Surface	1	1	1.0	0.12	330	30.60	29.60	8.12	8.04	25.68	27.94	101.7	85.8	6.61	6.28	1.5	4.6	0.017	0.006							
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Surface	1	2	1.0	0.10	331	30.60		8.12		25.68		101.7		6.61		1.5		0.011								
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Middle	2	1	3.5	0.08	342	29.60		8.07		27.91		91.1		5.95		4.1		0.005								
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Middle	2	2	3.5	0.13	343	29.60		8.07		27.91		91.0		5.94		4.1		0.004								
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Bottom	3	1	5.9	0.05	306	28.60		7.94		30.21		64.5		4.23		8.3		0.001								
CCGT	2023/07/28	Mid-Ebb	SR5A	Sunny	Calm	8:49	8:53	6.9	Bottom	3	2	5.9	0.03	312	28.60	7.93	30.22	64.5	4.23	8.3	0.000														
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Surface	1	1	1.0	0.44	200	30.60	29.33	8.32	8.09	21.73	26.95	135.9	95.1	8.89	7.21	1.9	2.9	0.016	0.009							
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Surface	1	2	1.0	0.40	203	30.60		8.32		21.73		135.7		8.87		1.9		0.015								
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Middle	2	1	9.3	0.48	195	29.30		8.03		28.01		84.5		5.54		2.4		0.009								
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Middle	2	2	9.3	0.51	194	29.20		8.02		28.04		84.4		5.54		2.4		0.008								
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Bottom	3	1	17.6	0.42	214	28.20		7.91		31.01		64.9		4.26		4.3		0.002								
CCGT	2023/07/28	Mid-Ebb	SR7	Sunny	Calm	8:26	8:29	18.6	Bottom	3	2	17.6	0.44	209	28.10	7.91	31.18	64.9	4.26	4.4	0.004														
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Surface	1	1	1.0	0.10	231	31.60	30.70	8.32	8.11	22.24	24.88	136.3	99.1	8.75	8.74	2.0	5.3	0.008	0.005							
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Surface	1	2	1.0	0.07	235	31.60		8.32		22.23		136.0		8.72		2.0		0.005								
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Middle	2	1																								
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Middle	2	2																								
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Bottom	3	1	3.8	0.17	248	29.80		7.89		27.53		62.1		4.05		8.6		0.003								
CCGT	2023/07/28	Mid-Ebb	SR14A	Sunny	Calm	9:37	9:39	4.8	Bottom	3	2	3.8	0.12	254	29.80	7.89	27.53	62.1	4.05	8.6	0.002														
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Surface	1	1	1.0	0.08	57	31.80	31.13	8.44	8.18	20.40	22.74	155.8	115.5	10.05	10.05	2.8	5.2	0.018	0.011							
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Surface	1	2	1.0	0.13	61	31.80		8.44		20.40		155.8		10.05		2.8		0.017								
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Middle	2	1																								
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Middle	2	2																								
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Bottom	3	1	3.1	0.14	51	30.40		7.92		25.10		73.2		4.79		7.7		0.006								
CCGT	2023/07/28	Mid-Flood	CEA	Sunny	Moderate	14:55	14:58	4.1	Bottom	3	2	3.1	0.19	48	30.50	7.92	25.07	77.0	5.03	7.6	0.004														
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Surface	1	1	1.0	0.07	154	30.00	28.90	8.19	8.04	24.52	28.28	109.4	81.5	7.22	6.08	1.2	1.7	0.016	0.009							
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Surface	1	2	1.0	0.04	150	29.90		8.19		24.53		109.3		7.23		1.2		0.015								
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Middle	2	1	7.4	0.07	167	28.80		7.98		28.86		74.8		4.92		1.5		0.010								
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Middle	2	2	7.4	0.09	160	28.80		7.98		28.86		74.8		4.93		1.6		0.009								
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Bottom	3	1	13.7	0.09	145	28.00		7.93		31.39		60.5		3.98		2.4		0.004								
CCGT	2023/07/28	Mid-Flood	CF	Sunny	Moderate	16:35	16:39	14.7	Bottom	3	2	13.7	0.09	142	27.90	7.94	31.50	60.3	3.96	2.5	0.002														
CCGT	2023/07/28	Mid-Flood	SR3A	Sunny	Moderate	15:29	15:32	6.9	Surface	1	1	1.0	0.08	210	31.50	30.97	8.26	8.14	23.22	25.21	130.1	108.7	8.31	7.98	1.5	4.6	0.015	0.008							
CCGT	2023/07/28	Mid-Flood	SR3A	Sunny	Moderate	15:29	15:32	6.9	Surface	1	2	1.0	0.04	215	31.50		8.26		23.22		130.1		8.31		1.5		0.013								
CCGT	2023/07/28	Mid-Flood	SR3A	Sunny	Moderate	15:29	15:32	6.9	Middle	2	1	3.5	0.05	196	31.70		8.20		24.06		120.6		7.64		3.7		0.008								
CCGT	2023/07/28	Mid-Flood	SR3A	Sunny	Moderate	15:29	15:32	6.9	Middle	2	2	3.5	0.09	193	31.70																				

Project	Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Level Code	Replicate	Sampling depth (m)	Current Speed*	Current Direction*	Water Temperature (°C)	Water Temperature (°C)	pH	pH	Salinity ppt	Salinity ppt	DO Saturation (%)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Turbidity (NTU)	TRC (mg/L)	TRC (mg/L)						
	(yyyy-mm-dd)			Condition	Condition	Start Time	Finish Time	Depth (m)					(m/s)		Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged	Value	Depth-Averaged		
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Surface	1	1	1.0	0.43	214	29.70	29.48	7.82	7.83	23.54	24.55	64.4	62.8	4.30	4.30	8.1	10.1	0.008	0.006						
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Surface	1	2	1.0	0.42	221	29.60		7.82		23.56		64.4		4.30		9.1									
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Middle	2	1																							
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Middle	2	2																							
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Bottom	3	1	3.6	0.35	217	29.30		7.83		25.55		61.0		4.05		11.3									
CCGT	2023/07/31	Mid-Ebb	CEA	Fine	Moderate	11:00	11:04	4.6	Bottom	3	2	3.6	0.39	215	29.30	7.83	25.54	61.3	4.07	4.06	11.9	0.005												
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Surface	1	1	1.0	0.84	183	29.20	28.73	7.94	7.91	25.80	27.51	75.1	65.1	5.00	4.62	3.1	7.0	0.006	0.011						
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Surface	1	2	1.0	0.87	176	29.20		7.94		25.80		75.1		4.99		3.1									
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Middle	2	1	7.6	0.92	180	28.70		7.91		26.94		63.9		4.25		4.9									
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Middle	2	2	7.6	0.90	183	28.70		7.90		26.96		63.8		4.24		5.1									
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Bottom	3	1	14.2	0.93	153	28.30		7.89		29.79		56.3		3.72		12.8									
CCGT	2023/07/31	Mid-Ebb	CF	Fine	Moderate	12:02	12:06	15.2	Bottom	3	2	14.2	0.93	160	28.30	7.89	29.76	56.6	3.73	13.0	0.017													
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Surface	1	1	1.0	0.11	237	30.00	29.57	7.78	7.80	24.28	25.96	60.0	59.5	3.97	3.96	13.0	13.0	0.008	0.008						
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Surface	1	2	1.0	0.08	231	30.00		7.78		24.28		60.0		3.97		13.0									
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Middle	2	1	3.6	0.14	243	29.60		7.80		25.37		59.7		3.95		14.0									
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Middle	2	2	3.6	0.13	237	29.60		7.80		25.39		59.7		3.95		13.9									
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Bottom	3	1	6.2	0.13	243	29.10		7.82		28.22		58.9		3.87		12.2									
CCGT	2023/07/31	Mid-Ebb	SR3A	Fine	Moderate	10:31	10:34	7.2	Bottom	3	2	6.2	0.09	249	29.10	7.82	28.23	58.9	3.87	12.1	0.005													
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Surface	1	1	1.0	0.38	145	29.60	29.20	7.92	7.90	26.02	26.96	71.0	66.7	4.68	4.47	3.9	9.5	0.000	0.005						
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Surface	1	2	1.0	0.41	138	29.60		7.92		26.00		71.0		4.69		4.0									
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Middle	2	1	3.6	0.40	156	29.00		7.90		27.38		64.4		4.26		8.7									
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Middle	2	2	3.6	0.43	154	29.00		7.90		27.40		64.3		4.25		9.3									
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Bottom	3	1	6.2	0.38	137	29.00		7.89		27.49		64.6		4.27		15.0									
CCGT	2023/07/31	Mid-Ebb	SR5A	Fine	Moderate	11:33	11:38	7.2	Bottom	3	2	6.2	0.38	139	29.00	7.89	27.48	64.8	4.28	15.8	0.002													
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Surface	1	1	1.0	0.74	171	29.70	28.80	7.93	7.91	25.72	27.62	77.2	65.4	5.10	4.59	3.6	8.8	0.017	0.009						
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Surface	1	2	1.0	0.72	169	29.60		7.93		25.74		77.0		5.09		3.7									
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Middle	2	1	8.2	0.72	185	28.50		7.90		27.39		61.2		4.08		10.5									
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Middle	2	2	8.2	0.68	188	28.50		7.90		27.41		61.2		4.08		10.6									
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Bottom	3	1	15.4	0.69	191	28.20		7.90		29.74		57.7		3.81		12.5									
CCGT	2023/07/31	Mid-Ebb	SR7	Fine	Moderate	11:50	11:54	16.4	Bottom	3	2	15.4	0.65	184	28.30	7.90	29.72	57.8	3.82	12.3	0.002													
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Surface	1	1	1.0	0.42	215	29.70	29.53	7.82	7.82	24.28	25.38	67.7	65.3	4.50	4.50	3.1	6.2	0.004	0.005						
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Surface	1	2	1.0	0.42	211	29.70		7.82		24.28		67.7		4.50		3.0									
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Middle	2	1																							
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Middle	2	2																							
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Bottom	3	1	4.0	0.45	205	29.30		7.82		26.48		62.7		4.14		9.3									
CCGT	2023/07/31	Mid-Ebb	SR14A	Fine	Moderate	10:43	10:48	5.0	Bottom	3	2	4.0	0.44	210	29.40	7.82	26.48	63.0	4.16	9.2	0.002													
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Surface	1	1	1.0	0.34	33	28.50	28.28	7.97	7.98	24.61	25.71	64.1	61.7	4.30	4.31	10.6	11.5	0.005	0.005						
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Surface	1	2	1.0	0.33	30	28.40		7.97		24.61		64.1		4.31		11.2									
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Middle	2	1																							
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Middle	2	2																							
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Bottom	3	1	3.9	0.31	36	28.10		7.98		26.81		59.1		3.95		12.5									
CCGT	2023/07/31	Mid-Flood	CEA	Cloudy	Moderate	4:56	5:00	4.9	Bottom	3	2	3.9	0.29	37	28.10	7.98	26.81	59.4	3.97	11.7	0.001													
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Surface	1	1	1.0	0.10	202	29.20	28.42	7.95	7.92	26.35	27.29	67.4	63.1	4.42	4.23	7.5	7.2	0.014	0.008						
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Surface	1	2	1.0	0.08	202	29.10		7.95		26.33		67.4		4.44		7.5									
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Middle	2	1	7.6	0.09	178	28.10		7.91		27.71		60.8		4.03		7.1									
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Middle	2	2	7.6	0.06	174	28.10		7.91		27.73		60.7		4.03		7.1									
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Bottom	3	1	14.2	0.13	196	28.00		7.91		27.82		61.0		4.06		6.8									
CCGT	2023/07/31	Mid-Flood	CF	Rainy	Moderate	3:34	3:39	15.2	Bottom	3	2	14.2	0.15	199	28.00	7.91	27.81	61.2	4.07	6.9	0.003													
CCGT	2023/07/31	Mid-Flood	SR3A	Cloudy	Moderate	5:34	5:39	7.3	Surface	1	1	1.0	0.16	68	28.10	27.80	7.92	7.93	24.94	26.65	56.4	55.9	3.81	3.80	13.0	13.2	0.000	0.005						
CCGT	2023/07/31	Mid-Flood	SR3A	Cloudy	Moderate	5:34	5:39	7.3	Surface	1	2	1.0	0.13	64	28.10		7.92		25.11		56.4		3.80		13.0									
CCGT	2023/07/31	Mid-Flood	SR3A	Cloudy	Moderate	5:34	5:39	7.3	Middle	2	1	3.7	0.08	45	27.80		7.93		26.03		56.1		3.78		13.4									
CCGT	2023/07/31	Mid-Flood	SR3A	Cloudy	Moderate	5:34	5:39	7.3	Middle	2	2	3.7	0.12	49	27.70		7.93		26.05		56.1		3.79		13.4									
CCGT	2023/07/31	Mid-Flood	SR3A	Cloudy	Moderate	5:34	5:39	7.3	Bottom	3	1	6.3	0.08	59	27.70		7.94		28.88		55.3		3.67		13.0									
CCGT	2023/07/31																																	

APPENDIX D GRAPHIC PRESENTATION OF BASELINE MONITORING RESULT

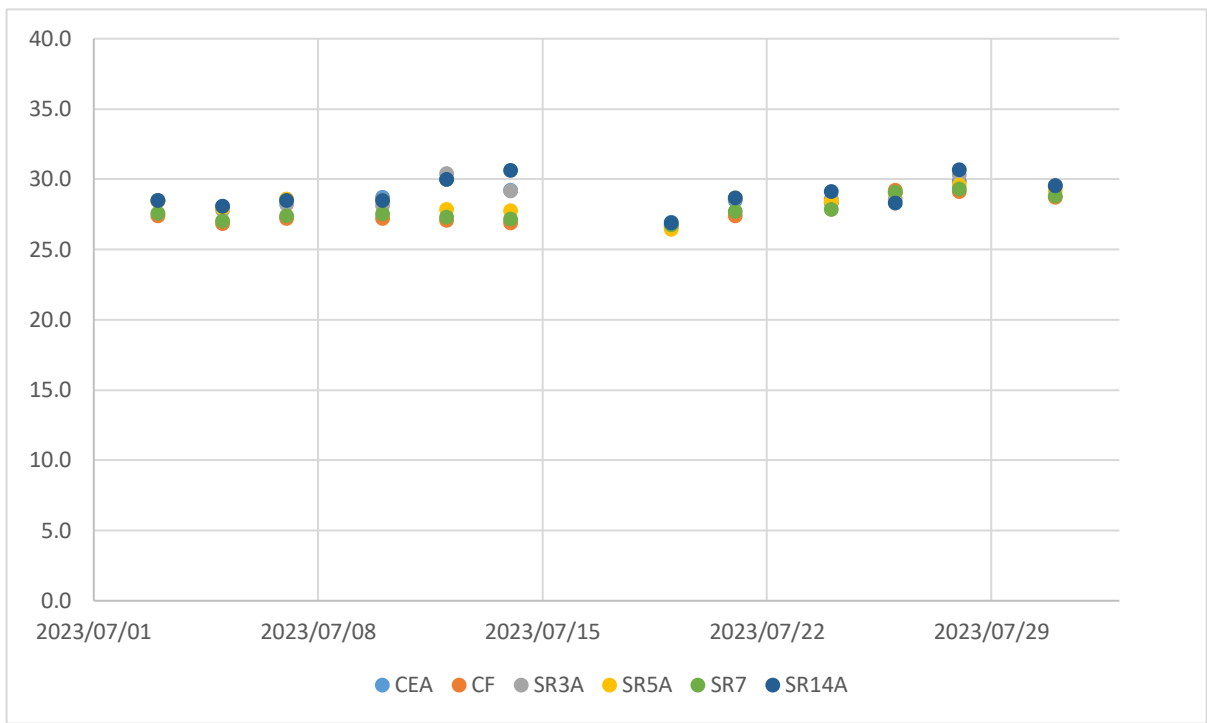


Figure 1: Depth-Averaged Water Temperature (°C) at monitoring stations during ebb tide between 3 July and 31 July 2023

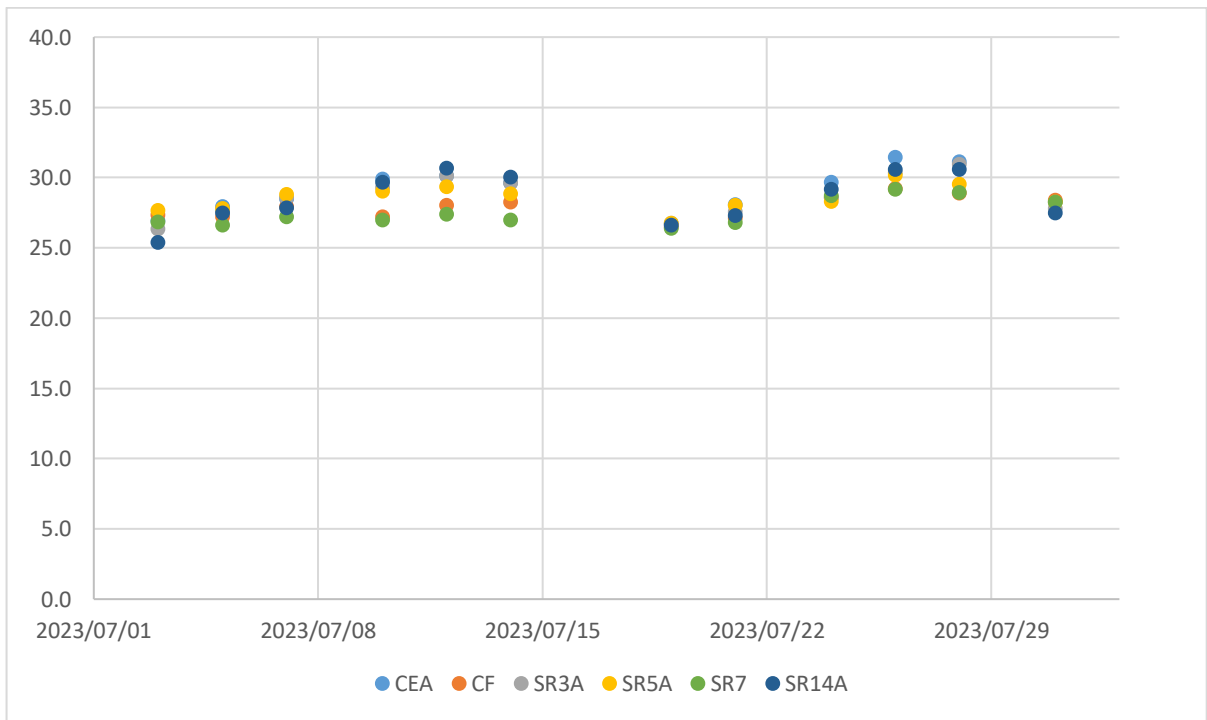


Figure 2: Depth-Averaged Water Temperature (°C) at monitoring stations during flood tide between 3 July and 31 July 2023

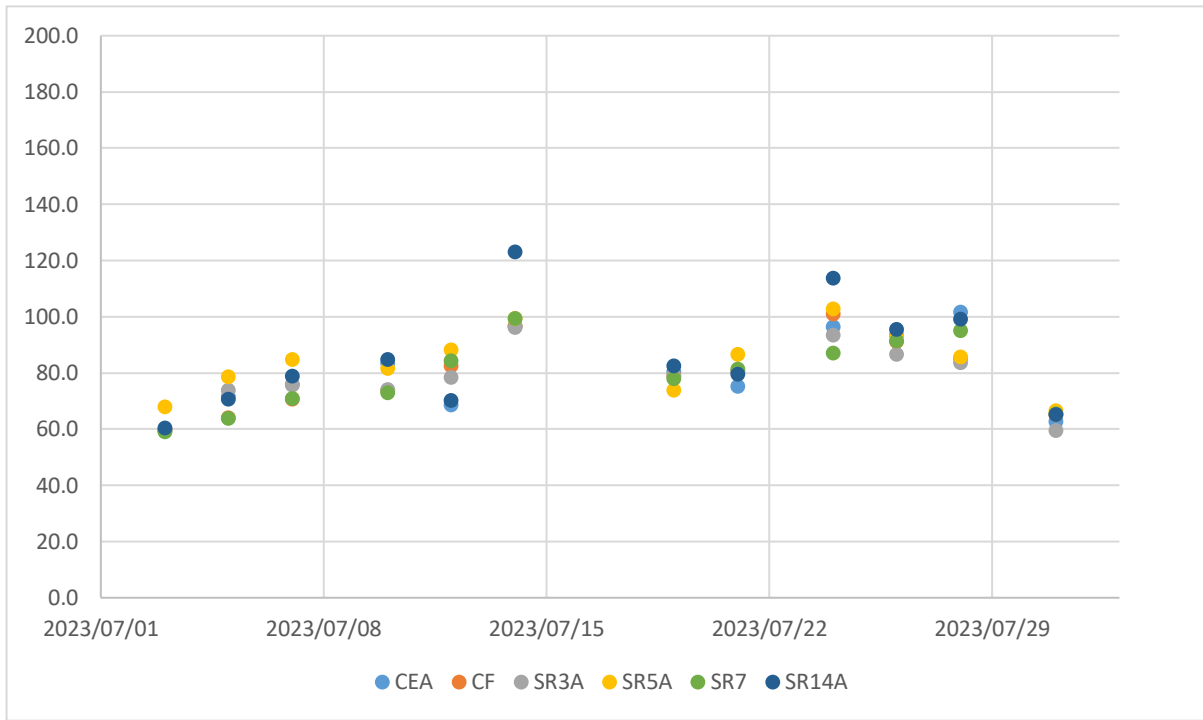


Figure 3: Depth-Averaged Dissolved Oxygen Saturation (%) at monitoring stations during ebb tide between 3 July and 31 July 2023

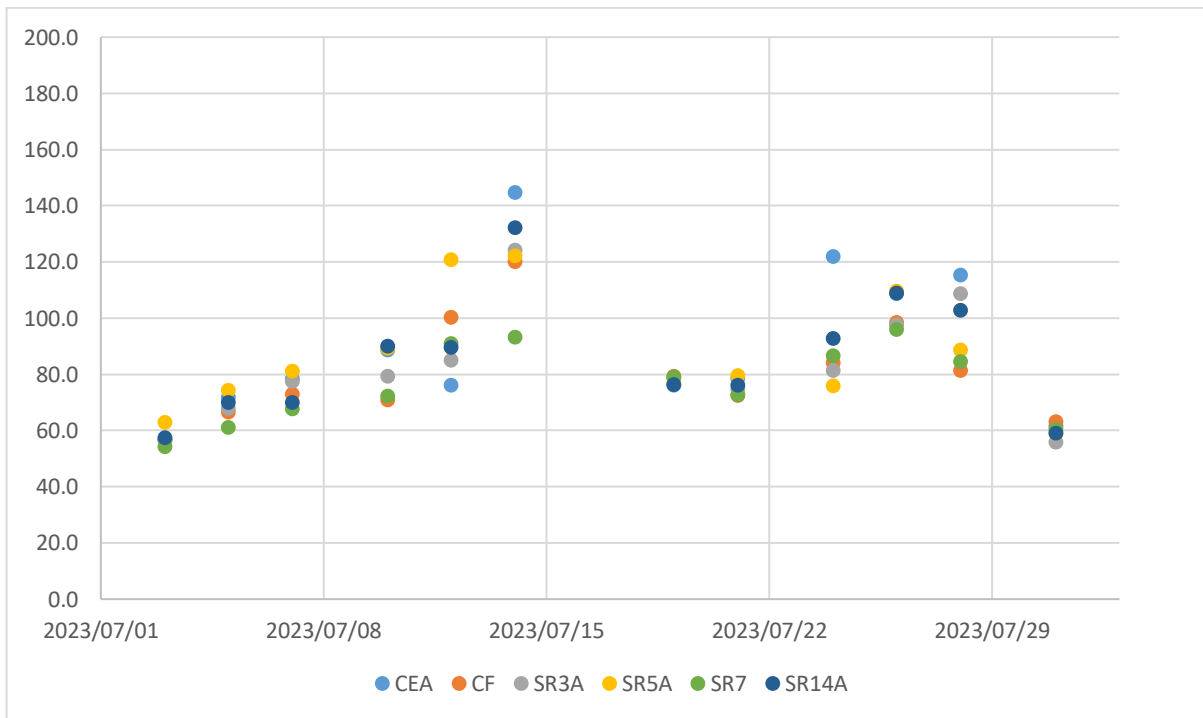


Figure 4: Depth-Averaged Dissolved Oxygen Saturation (%) at monitoring stations during flood tide between 3 July and 31 July 2023

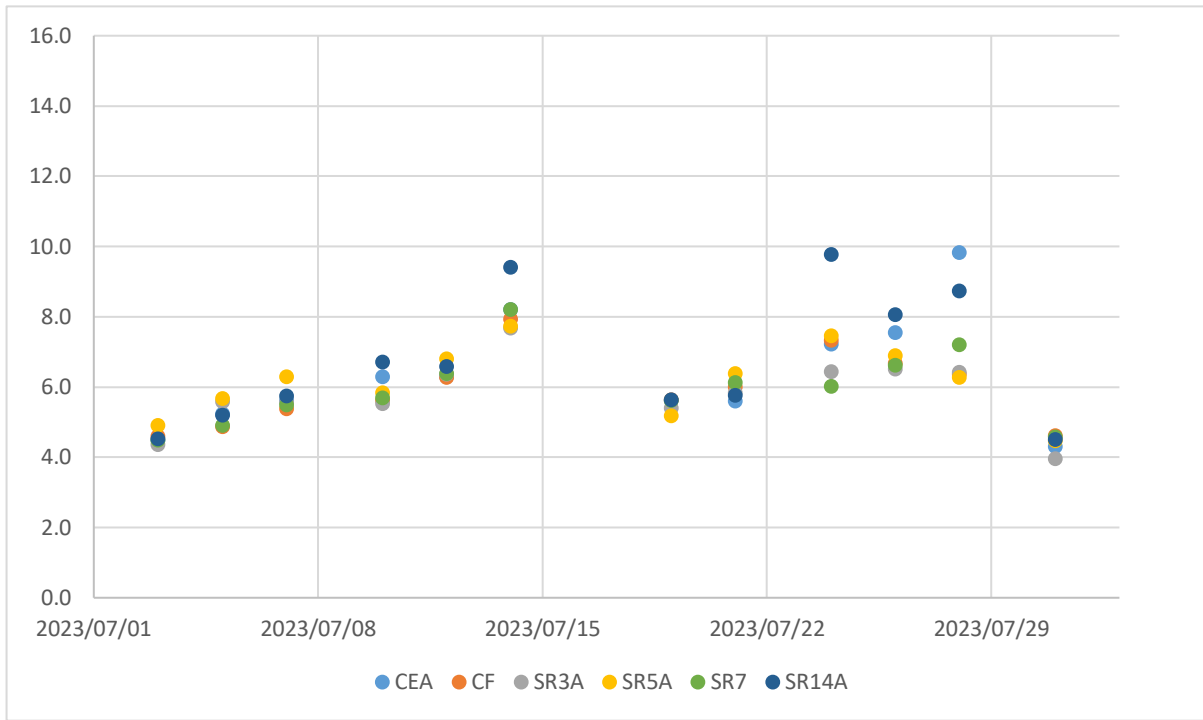


Figure 5: Average of Dissolved Oxygen at Surface and Mid-depth Level (mg/L) at monitoring stations during ebb tide between 3 July and 31 July 2023

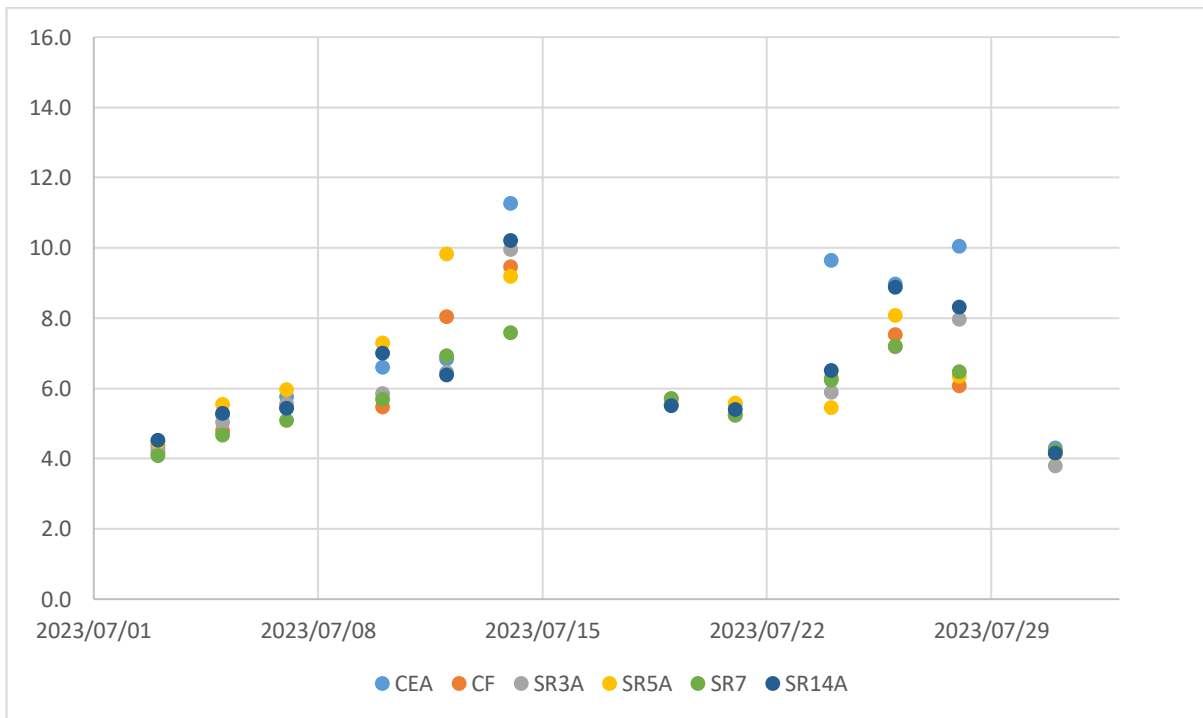


Figure 6: Average of Dissolved Oxygen at Surface and Mid-depth Level (mg/L) at monitoring stations during flood tide between 3 July and 31 July 2023

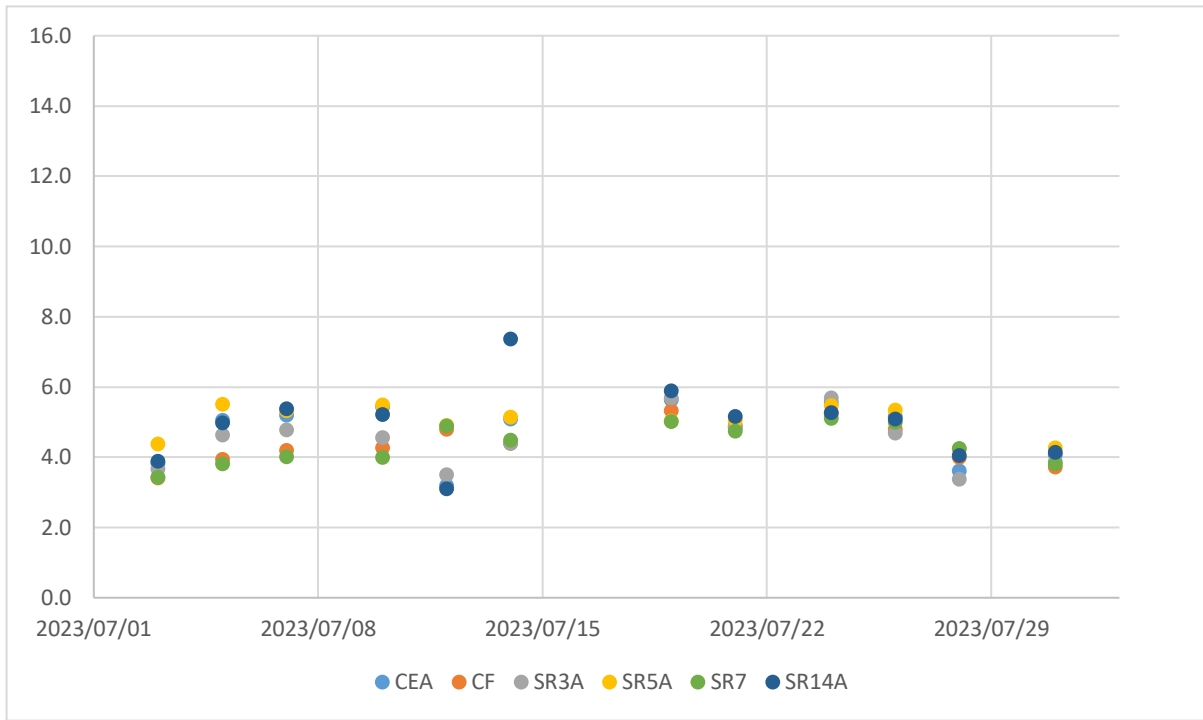


Figure 7: Average of Dissolved Oxygen at Bottom Level (mg/L) at monitoring stations during ebb tide between 3 July and 31 July 2023

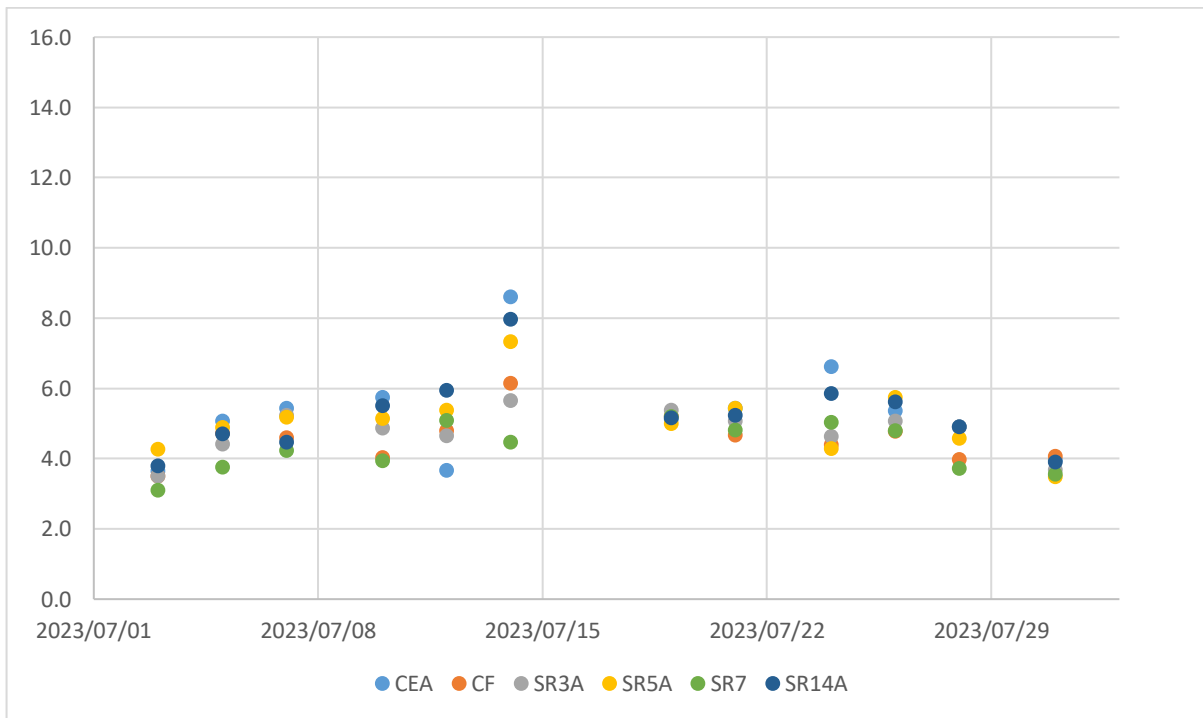


Figure 8: Average of Dissolved Oxygen at Bottom Level (mg/L) at monitoring stations during flood tide between 3 July and 31 July 2023

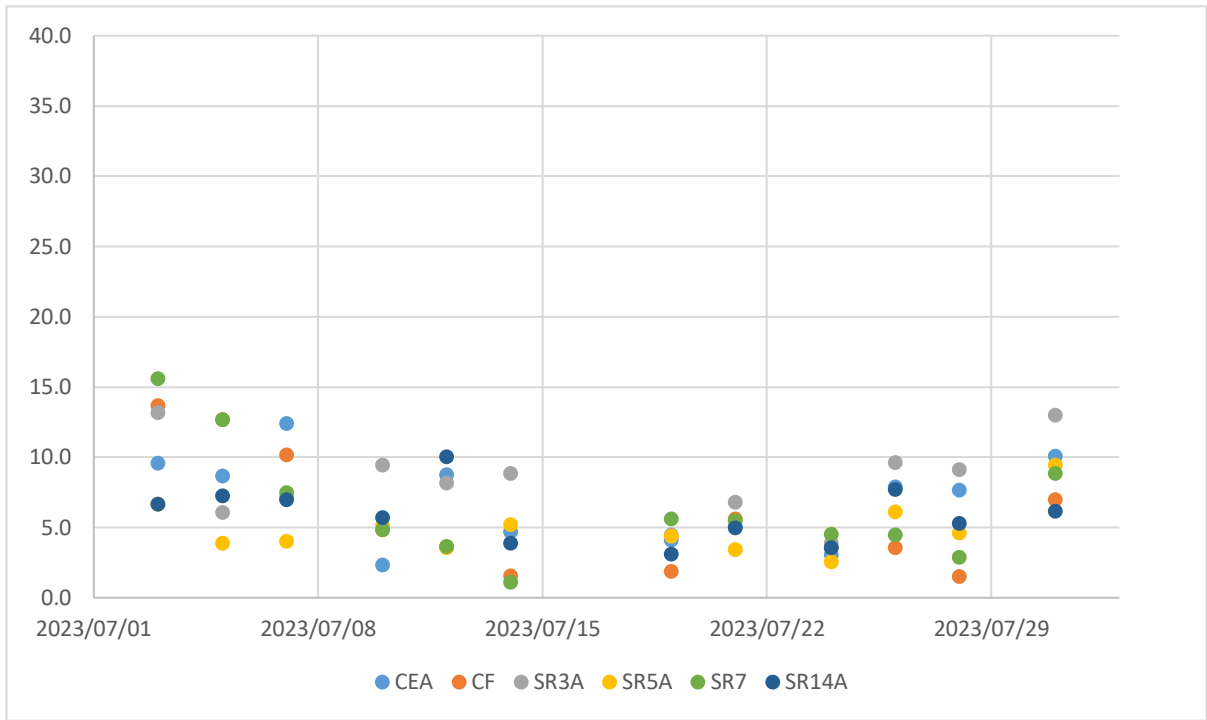


Figure 9: Depth-averaged Turbidity (NTU) at monitoring stations during ebb tide between 3 July and 31 July 2023

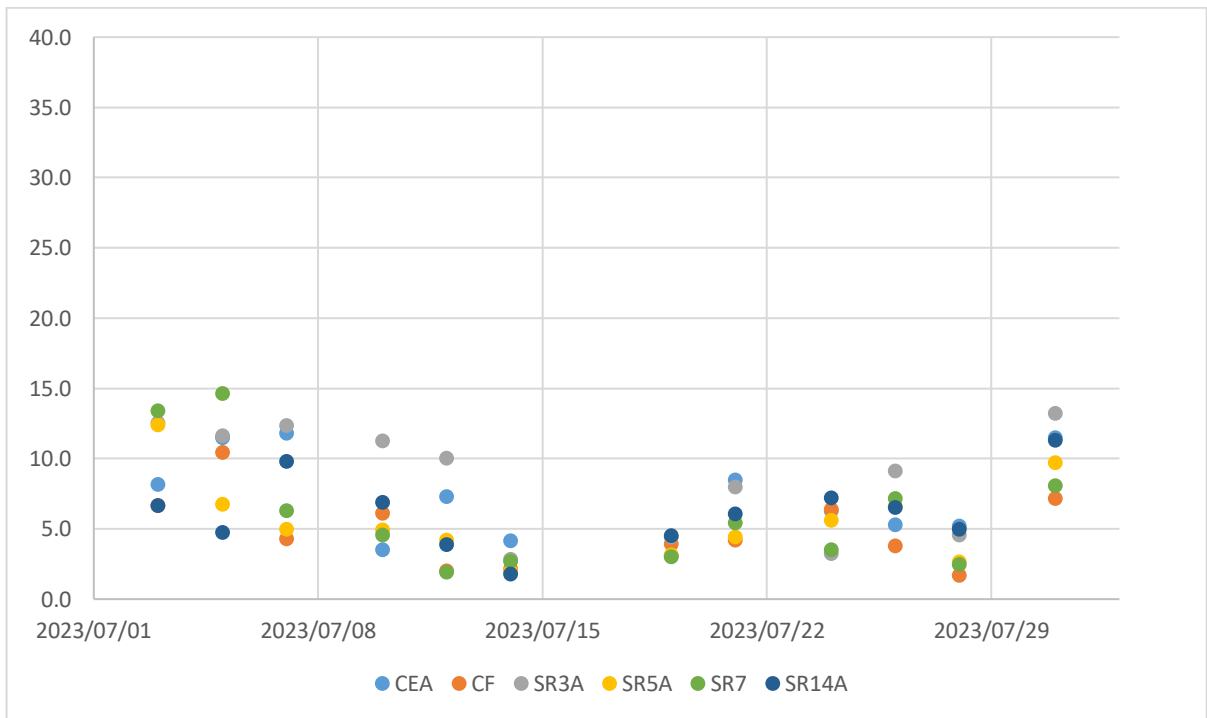


Figure 10: Depth-averaged Turbidity (NTU) at monitoring stations during flood tide between 3 July and 31 July 2023

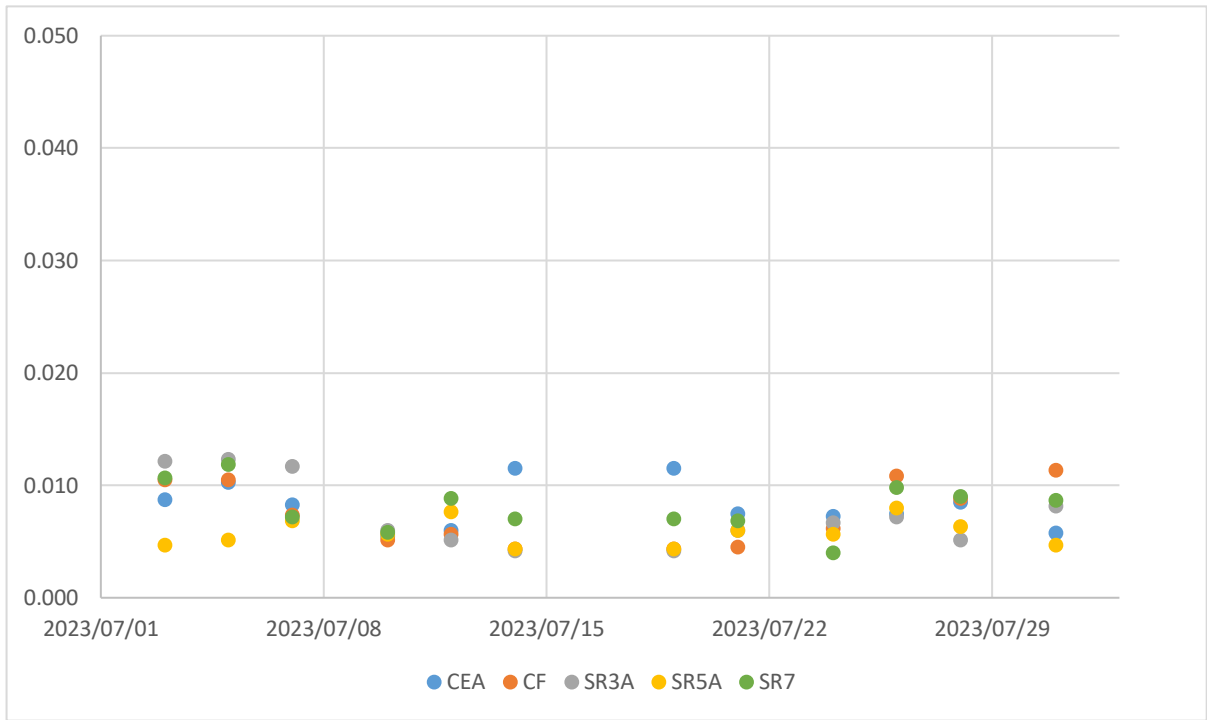


Figure 11: Depth-averaged Total Residual Chlorine (mg/L) at monitoring stations during ebb tide between 3 July and 31 July 2023

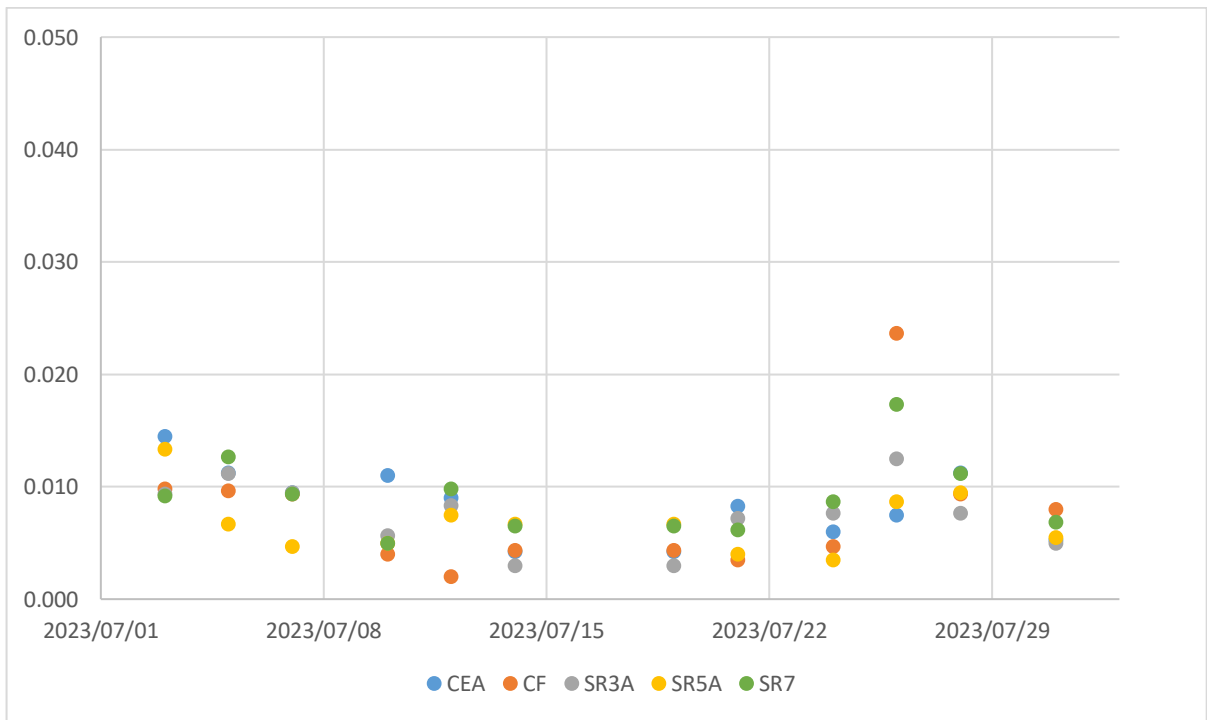


Figure 12: Depth-averaged Total Residual Chlorine (mg/L) at monitoring stations during flood tide between 3 July and 31 July 2023