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Your ref. -
Our ref 5207869/18.30/OC101/AL/DL/SW/IW/JC/fl

Date 23 February 2022

By Post and Email

Environmental Protection Department
Environmental Assessment Division
Strategic Assessment Group
Sheung Shui, Fanling, Tai Po Section (6)
27th floor, Southorn Centre,
130 Hennessy Road,
Wan Chai, Hong Kong

Attn: Ms. LAU Tai, Trista
Env Protection Offr (Strategic Assessment) 61

Dear Madam,

Agreement No. CE 32/2021 (CE)
Improvement Works at Lai Chi Wo Pier and Tung Ping Chau Public Pier – Design and Construction
Environmental Permit No. EP-586/2021
Submission of Baseline Monitoring Report (Rev. 2)

Pursuant to Conditions 4.3 of the EP No. EP-586/2021, we hereby submit the Baseline Monitoring Report (Rev. 2) for the captioned Project at Lai Chi Wo Pier.

The aforesaid submission has been certified by the Environmental Team (ET) and verified by the Independent Environmental Checker (IEC). The ET certification and the IEC verification letters have been enclosed for your record.

Should you have any queries regarding the above, please feel free to contact our Mr. Arthur Lo (Email: arthur.lo2@atkinsglobal.com) at 2972 1360 or Mr. Joe Chiu (Email: Joe.Chiu@atkinsglobal.com) at 2972 1119.

Yours faithfully,
For and on behalf of
Atkins China Ltd

Dickson LAW
Project Manager

cc CEDD/CEO Mr. CHIK Kan To (Project Coordinator /Projects 3 A)

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Our ref	5207869/18.30/OC101/AL/DL/SW/IW/JC/fl
Title	Submission of Baseline Monitoring Report (Rev. 2)
Date	23 February 2022

Attachment 1

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Baseline Monitoring Report (Rev. 2)

土木工程拓展署
CEDD Civil Engineering and Development Department

Agreement No. CE 32/2021 (CE) Improvement Works at Lai Chi Wo Pier and Tung Ping Chau Public Pier -Design and Construction

Baseline Monitoring Report (Rev. 2)

(5207869-OR111-02a)

21 February 2022

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Notice

This document and its contents have been prepared and are intended solely as information for Civil Engineering and Development Department and use in relation to this Assignment.

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Document History

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	First Issue	Various	Arthur LO	Wing WONG	Dickson LAW	28 January 2022
Rev 1	Second Issue	Various	Arthur LO	Wing WONG	Dickson LAW	14 February 2022
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Issue Record

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Document Title	Baseline Monitoring Report (Rev. 2)			
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Appendix

Not Used

1. Introduction

1.1 Background

1.1.1 Hong Kong is an international metropolis and comprises many natural scenic spots, rare geological features, attractions with traditional culture and heritage, and hiking trails with rich biological diversity. The famous Hong Kong UNESCO Global Geopark (Geopark), Marine Parks, old temples, eco-tourism sites and beautiful beaches in coastal areas are some examples. Many attractions are located at remote rural areas without land access and rely on marine transport. In recent years, number of local and non-local visitors attracted to these remote destinations has been constantly increasing.

1.1.2 Public piers play an important role in accessing these remote destinations. There are about 120 public piers in Hong Kong. Majority of these piers are built, maintained and managed by the Government.

1.1.3 Although regular inspections and maintenance for the remote public piers are carried out by the Government to ensure its structural integrity, some public piers at remote rural areas have been in place for many years and cannot cope with the current needs / usages, such as:

a) small or primitive piers leading to safety concerns during berthing and unsatisfactory boarding conditions especially for kids and elderly;

b) inadequate depth of water for berthing during low tide;

c) limited berthing space or narrow accesses which cannot cater for the fluctuating utilization during festive times or weekends; and

d) aged pier structures with a need for improvement works.

1.1.4 Civil Engineering and Development Department (CEDD) commissioned an Investigation Study (IS), “Study for Pier Improvement at Lai Chi Wo and Tung Ping Chau – Investigation” (Agreement No. CE 2/2018 (CE)), in June 2018 to verify the technical feasibility of improving two potential pier items located within Yan Chau Tong Marine Park and Tung Ping Chau Marine Park in the northeast region of Hong Kong. The improvement of these two piers are designated project under Item Q.1, Part 1 of Schedule 2 of the EIAO.

1.1.5 EIA study has been carried out in accordance with the requirement of the EIA Study Briefs including assessment of the potential environmental impacts, in particular water quality impact and ecological impact, and specified environmental monitoring and audit requirements to ensure the effective implementation of the recommended environmental protection and mitigation measures. The EIA Reports of the two piers were approved by DEP under the EIAO on 29 December 2020 and Environmental Permits (EPs) for construction and operation of the improvement works were granted on 19 February 2021. The EIA study made recommendations on the scope of improvement to the Lai Chi Wo Pier and Tung Ping Chau Public Pier with preliminary engineering studies for individual pier taking into account public aspiration and other constraints, prepared preliminary engineering layouts, and evaluated the feasibility of adopting innovative design elements for the piers.

1.1.6 Atkins China Ltd. was commissioned by the Civil Engineering and Development Department of the Hong Kong Government Special Administrative Region on 16 September 2021 to provide consultancy services for Agreement No. CE 32/2021 (CE) Design Consultancy for Improvement Works at Lai Chi Wo Pier and Tung Ping Chau Public Pier - Design and Construction (hereinafter called "the Assignment").

1.2 Project Description

1.2.1 Pier Improvement at Lai Chi Wo (the Project) is governed by the Environmental Permit, EP-586/2021, under the EIAO. The scale and scope of the Project includes:

- Modification of the existing pier and construction of new pier structures. The improved pier would be of approximately 155m long and 6m to 15m wide;
- Construction and removal of a temporary pier of approximately 70m long and 3m wide;
- Site investigation works for detailed design; and
- Associated facilities (e.g. barrier-free access, canopy, seats) and landscaping works, etc under the Project.

1.2.2 The Project Site is located in the vicinity of Lai Chi Wo Pier, which falls within the Yan Chau Tong Marine Park. Its location is shown in **Figure 1**.

1.2.3 The site investigation (SI) works for detailed design will be commenced on 16 February 2021 to collate necessary engineering and sediment quality information for the study for pier improvement at Lai Chi Wo.

1.3 Objective of the Report

1.3.1 This Baseline Monitoring Report is prepared in accordance with the requirements as set out in the EM&A Manual of the Project (Register No. AEIAR-225/2020) and shall be applicable to fulfilling Condition 4.3 of EP-586/2021.

1.4 Structure of the Report

1.4.1 The remainder of the Baseline Monitoring Report is structured as follows:

- **Section 2** details the monitoring locations, monitoring methodology, QA/QC requirements, baseline monitoring results, proposed action and limit levels, and the event and action plan for water quality monitoring;
- **Section 3** details the monitoring locations, monitoring methodology, survey findings, and the proposed construction phase monitoring for seagrass monitoring;
- **Section 4** provides the conclusion of this baseline monitoring

2. Water Quality Monitoring

2.1 Summary of EM&A Manual's Requirement

2.1.1 In accordance with Section 7.7 of the EM&A Manual under the Project, baseline conditions for water quality shall be established and agreed with EPD prior to the commencement of construction works. The baseline water quality monitoring shall be conducted for at least 4 weeks prior to the commencement of construction works with a frequency of 3 days in a week, at mid-flood and mid-ebb tides. The interval between two sets of monitoring shall not be less than 36 hours. The baseline conditions shall include the water quality parameters specified in Section 7.3 of the EM&A Manual, including dissolved oxygen (DO), dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids (SS) in the water body at all designated monitoring station for the Project. Further details of the baseline water quality monitoring under this Project shall be presented in the following sections.

2.2 Monitoring Locations

2.2.1 Baseline water quality monitoring will be carried out at four locations at Yan Chau Tong Marine Park near the hard coral community and seagrass and mangrove at Lai Chi Wo Beach SSSI. The water quality monitoring locations are presented in **Figure 2**. The coordinates and description of monitoring stations are summarised in **Table 2.1**.

Table 2.1 Proposed water quality monitoring location during construction phase

Monitoring Station ID	Description	Easting	Northing
WM1[1]	Lai Chi Wo Beach SSSI	845220	843133
WM2	Hard Coral Community	845344	843628
C1	Control Station 1	845855	843613
C2[1]	Control Station 2	845230	843211

Remarks:
1. WM1 and C2 are too shallow for monitoring vessel to access since the commencement of the Baseline Water Quality Monitoring on 7 December 2021. The nearest accessible points for WM1 (N846185, E845298) and C2 (N843273, E845190) were used for monitoring.

2.3 Monitoring Methodology

2.3.1 Monitoring Parameters and Frequency

2.3.1.1. The monitoring shall be established by measuring the dissolved oxygen (DO), dissolved oxygen saturation (DO%), temperature, turbidity, salinity, pH and suspended solids (SS) in the water body at all designated monitoring station listed in **Table 2.1**.

2.3.1.2. **Table 2.2** summarises the monitoring parameters, monitoring period and frequencies of the water quality monitoring. The measurement of monitoring

parameters followed the standard methods and detection limit requirements as stated in Sections 7.4 and 7.5 of the EM&A Manual.

Table 2.2 Proposed water quality monitoring location during construction phase

Monitoring Station	Parameters	Depth	Frequency and Replication
Impact Stations WM1, WM2 Control Stations C1, C2	• Dissolved Oxygen (DO) (mg/L) • Dissolved Oxygen Saturation (DOS) (%) • Temperature (°C) • pH • Turbidity (NTU) • Salinity (ppt) • Water depth (m) • Suspended Solid (SS) (mg/L)	• Three water depths: 1 m below sea surface, mid-depth and 1 m above seabed. • If the water depth is less than 3 m, mid-depth sampling only. • If water depth less than 6 m, mid-depth would be omitted.	• Baseline monitoring: three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of construction work. • Two replicates of in-situ measurements and water samples at each depth at each station.

2.3.1.3. In addition to the water quality parameters, other relevant data were also measured and recorded in Water Quality Monitoring Logs, including monitoring location / position, time, water depth, tidal stages, weather conditions and any special phenomena or work undertaken around the monitoring and works area that may influence the monitoring results.

2.3.2 Monitoring Equipment

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

Table 2.3 Water Quality Monitoring Equipment

Equipment	Brand and Model
Water Sampling Equipment	Rosette multibottle array water sampler with Niskin 2L samplers; Wildlife Supply Company, 2.2L water sampler
Positioning Device	Garmin, eTrex series
Water Depth Gauge	Garmin, Striker series
Equipment for Dissolved Oxygen, Temperature, Turbidity, pH and Salinity measurements	Dry season (Dec 21 – Jan 22) YSI ProDSS, S/N: 15M100005, 16H104233, 16H104234, 17E100747, 21G105356

2.3.3 Operational/ Analytical Procedures

2.3.3.1. At each monitoring station, two consecutive measurements of DO level, DO Saturation, Temperature, Turbidity, Salinity and pH were taken at each sampling depth. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken. Two water samples were collected for laboratory analysis of SS content. Following sample collection, water samples were stored in high density polythene bottles (1L) with no preservatives added, packed in ice (cooled to 4°C without being frozen) and kept in dark during both on-site temporary storage and transfer to the testing laboratory. The samples were delivered to the laboratory as soon as possible and the laboratory determination works started within 24 hours after collection of the water samples. The testing of SS for all monitoring stations was conducted by a Hong Kong Laboratory Accreditation Scheme (HOKLAS) accredited laboratory, ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066). Comprehensive quality assurance and control procedures were in place in order to ensure quality and consistency in results.

2.4 QA/QC Requirements

2.4.1 Calibration of In-situ Instruments

The pH meter, DO meter and turbidimeter shall be checked and calibrated before use. DO meter and turbidimeter shall be certified by a laboratory accredited under HOKLAS, and subsequently re-calibrated on quarterly basis throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring station. Copies of the calibration certificates for the measuring equipment for DO, Temperature, Turbidity, pH and Salinity are attached in **Appendix A1**.

2.4.2 Decontamination Procedures

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

2.4.3 Sampling Management and Supervision

All sampling bottles were labelled with the sample ID (including the indication of sampling station and tidal stage e.g IM1_ME_S_R1), laboratory number and sampling date. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

2.4.4 Quality Control Measures for Sample Testing

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

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

2.5 Baseline Water Quality Monitoring Results

2.5.1 Baseline water quality monitoring was conducted three times per week at four stations during dry season (4 weeks from 7 December 2021 to 1 January 2022). The detailed monitoring schedule is shown in **Appendix A2**. The monitoring results with weather and sea conditions at each monitoring day are shown in **Appendix A3**.

2.5.2 Upon checking the field records, no marine construction works were observed in the vicinity of all monitoring stations during the baseline monitoring period. No other external factors (e.g. surface runoff from nearby landmass, adverse weather) were identified that might affect water quality at the monitoring stations during the baseline monitoring period.

2.5.3 Overall, the baseline monitoring results for both impact and control stations are considered representative of the ambient water quality of the Project area during dry season for determination of Action and Limit Levels.

2.6 Action and Limit Levels

2.6.1 Action and Limit Levels of key assessment parameters for baseline water quality monitoring including DO, Turbidity and SS are determined in accordance with requirements set out in the EM&A Manual which are summarised in **Table 2.4**.

Table 2.4 Action and Limit levels for Water Quality of All Water Monitoring Stations During the Construction Phase

Parameters	Action Level	Limit Level
DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 5 percentile of baseline data. [1] Bottom 5 percentile of baseline data. [1]	Surface and Middle 4 mg/L except 5 mg/L for fish culture zone; or 1 percentile of baseline data. [1] Bottom 2 mg/L or 1 percentile of baseline data. [1]
SS in mg/L (depth-averaged)	95 percentile of baseline data / 120% of upstream control stations' results. [2]	99 percentile of baseline data / 130% of upstream control stations' results. [2]
Turbidity in NTU (depth-averaged)	95 percentile of baseline data / 120% of upstream control stations' results. [2]	99 percentile of baseline data / 130% of upstream control stations' results. [2]

Notes:
[1] For DO, non-compliance occurs when monitoring results is lower than the limits.
[2] For SS and turbidity, non-compliance occurs when monitoring results is larger than the limits.
[3] "Depth-averaged" is calculated by taking the arithmetic means of readings of all three depth

2.6.2 The calculated Action and Limit levels for Construction Phase Marine Water Monitoring based on the baseline water quality monitoring results at designated impact stations are shown in **Table 2.5**.

Table 2.5 Calculated Action and Limit levels for Construction Phase Marine Water Quality Monitoring

Parameters	Action Level	Limit Level
DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 7.15 mg/L. [1]	Surface and Middle

	Bottom 6.85 mg/L. [1]	4 mg/L except 5 mg/L for fish culture zone; or 7.13 mg/L. [1] Bottom 2 mg/L or 6.43 mg/L. [1]
SS in mg/L (depth-averaged)	3.94 mg/L / 120% of upstream control stations' results. [2]	4.81 mg/L / 130% of upstream control stations' results. [2]
Turbidity in NTU (depth-averaged)	2.13 NTU / 120% of upstream control stations' results. [2]	4.01 NTU / 130% of upstream control stations' results. [2]

Notes:
[1] For DO, non-compliance occurs when monitoring results is lower than the limits.
[2] For SS and turbidity, non-compliance occurs when monitoring results is larger than the limits.
[3] "Depth-averaged" is calculated by taking the arithmetic means of readings of all three depth

2.7 Event and Action Plan

Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan in the **Table 2.6** below shall be carried out.

Table 2.6 Event and Action Plan for Water Quality

Event	Action			
	ET	**IEC**	**ER**	**Contractor**
Action level exceedance for one sampling day	1. Inform IEC, Contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods; and 3. Discuss remedial measures with IEC and Contractor and ER.	1. Discuss with ET, ER and Contactor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; 3. Supervise the implementation of agreed remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods 6. Discuss with ER, ET and IEC and proposed remedial measures to IEC and ER; and 7. Implement the agreed mitigation measures.

Action level exceedance for more than one consecutive sampling day	1. Repeat in-situ measurement on next day of exceedance to confirm findings; 2. Inform IEC, contractor and ER; 3. Check monitoring data, all plant, equipment and Contractor's working methods; 4. Discuss remedial measures with IEC, contractor and ER 5. Ensure remedial measures are implemented	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the proposed mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and 6. Implement the agreed mitigation measures.

Limit level exceedance for one sampling day	1. Repeat measurement on next day of exceedance to confirm findings; 2. Inform IEC. Contractor and ER; 3. Rectify unacceptably practice; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Consider changes of working methods;	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; and 4. Discuss with ET, IEC and Contractor on the effectiveness	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures

	6. Discuss mitigation measures with IEC ER and Contractor; and 7. Ensure the agreed remedial measures are implemented		of the implemented remedial measures.	to ER and IEC within 3 working days of notification; and 6. Implement the agreed remedial measures.
Limit level exceedance for more than one consecutive sampling day	1. Inform IEC, contractor and ER; 2. Check monitoring data, all plant, equipment and Contractor's working methods 3. Discuss mitigation measures with IEC, ER and Contractor; and 4. Ensure mitigation measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive day	1. Discuss with ET, Contractor and ER on the implemented mitigation measures; 2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review on advise the ET and ER on the effectiveness of the implemented mitigation measures.	1. Discuss with ET, IEC and Contractor on the implemented remedial measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the relevant construction activities until no exceedance of Limit level.	1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; 6. Implement the agreed remedial measures; and 7. As directed by the ER, to slow down or stop all or part of the relevant construction activities until no exceedance of Limit level.

Notes:
ET – Environmental Team
IEC – Independent Environmental Checker
ER – Engineer's Representative
Each step of actions required shall be implemented within 1 working days unless otherwise specified or agreed with EP

3. Seagrass Monitoring

3.1 Summary of EM&A Manual's Requirement

3.1.1 In accordance with Section 10.3.1.5 of the EM&A Manual under the Project, due to the importance and rarity of seagrass bed in Lai Chi Wo Beach SSSI, a baseline survey shall be conducted for the seagrass bed closely adjacent to the mangrove at the south of the 500m assessment area as identified in the EIA Report (Register No. AEIAR-225/2020). The seagrass bed is primarily composed *Zostera japonica*, which is a species of conservation importance.

3.2 Methodology

Walk-through Survey

3.2.1 A walk-through survey will be conducted by two surveyors, including the AFCD approved Qualified Ecologist, along the three identified seagrass zone (**Appendix B1**) for measuring the extend of the seagrass bed. The extends and species composition of the seagrass bed will be recorded during the walk-through survey.

Transect Survey

3.2.2 Should there be any seagrass species recorded during the walk-through survey, a transect survey will be carried out to examine the condition of seagrass for future reference.

3.2.3 One 50m to 100m transect will be laid horizontally to the shore, covering the three seagrass beds. Five 50cm x 50cm quadrats will be laid randomly along the transect.

3.2.4 Percentage cover, species composition and heath condition of the seagrass bed will be recorded in each quadrat during the transect survey.

3.3 Survey Findings

3.3.1 Walk-through surveys were conducted on 7th and 8th January 2022 along the three identified seagrass bed during low tide.

3.3.2 During the two days walk-through survey, no seagrass was recorded along the three seagrass beds identified during the EIA Study. Apart from the concerned seagrass beds, no seagrass was found along the area next to the mangrove as well as the mudflat area. Photos of the surveyed areas are provided in **Appendix B2**.

3.3.3 As no seagrass was identified during the walk-through survey, no transect survey was conducted during the baseline monitoring period.

3.3.4 Students from The University of Hong Kong have also conducted a survey from November 2020 to November 2021, and no seagrass has been found in Lai Chi Wo area (i.e. noted by the Qualified Ecologist via personal conversation in January 2022). Furthermore, according to Seagrass Team of Agriculture, Fisheries and Conservation Department, they noticed that seagrass bed in Lai Chi Wo was

disappeared recently (i.e. noted by the Qualified Ecologist via personal conversation in January 2022). Besides Lai Chi Wo, seagrass bed in Sheng Sze Wan, Sai Kung was also reported disappeared.

3.4 Construction Phase Monitoring

3.4.1 According to Section 10.3.1.6 of the EM&A Manual, construction phase monitoring will be carried out weekly during the first two weeks of construction phase and start of piling works. If no exceedance of water quality due to the construction works will be recorded, the monitoring schedule would be changed to monthly till the construction works are finished.

3.4.2 In addition, ad-hoc inspection of seagrass bed is required if the water quality data indicate exceedances due to the construction works.

3.4.3 Since no seagrass was recorded during the baseline survey, construction phase seagrass monitoring will be carried out after commencement of the construction work in order to monitor any present of seagrass during the whole construction period. Should there be any seagrass species identified construction phase monitoring, the extent of the seagrass bed, the coverage percentage and health conditions of seagrasses will be recorded.

4. Conclusion

4.1.1 In accordance with the EM&A Manual of the Project, baseline water quality and seagrass monitoring were undertaken prior to commencement of the construction works of the Project.

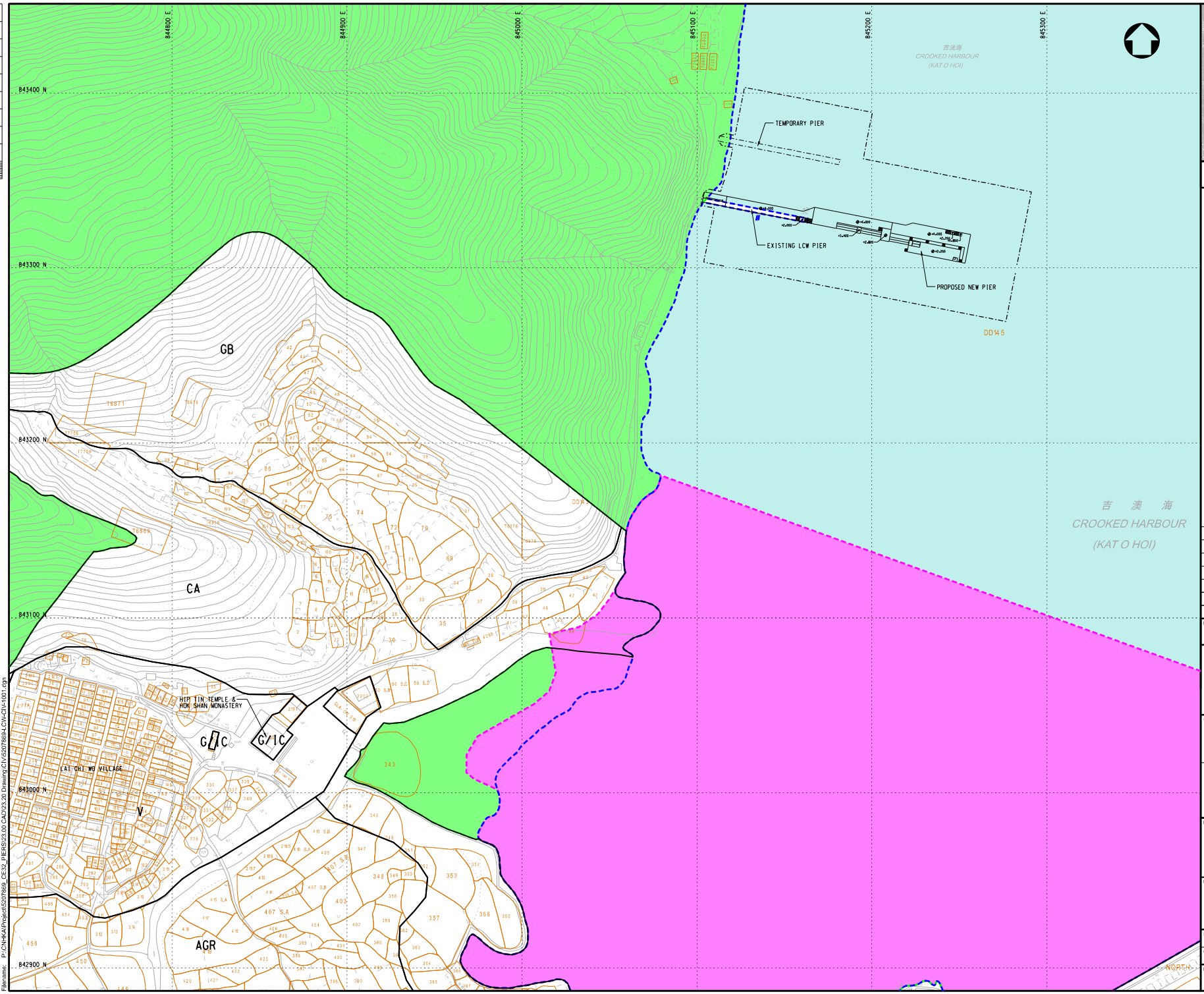
4.1.2 Baseline water quality monitoring was conducted three times a week for four weeks during dry season (Dec 2021 – Jan 2022) at 4 monitoring stations. Overall, no observable pollution source was recorded at the monitoring stations and no marine construction works were observed in the vicinity of all monitoring stations during the baseline monitoring period in dry season. The baseline monitoring results are thus considered representative of the ambient water quality levels. Action and Limit Levels for construction phase marine water quality monitoring were established for DO, SS and Turbidity based on the baseline monitoring results.

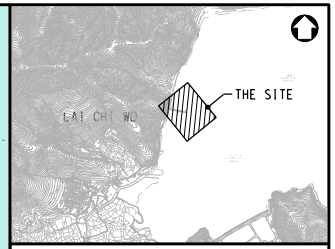
4.1.3 Baseline seagrass monitoring was conducted for two days in January 2022. Walk-through survey was carried out along the shore of the three seagrass bed identified in the EIA Report. As no seagrass was identified during the two days walk-through survey, no transect survey was conducted during the baseline monitoring period. Since no seagrass was recorded during the pre-construction baseline survey, construction phase seagrass impact monitoring will be carried out after commencement of the construction work in accordance with the EM&A Manual to monitor any present of seagrass during the whole construction period.

4.1.4 The site investigation (SI) works for detailed design will be commenced on 16 February 2021 to collate necessary engineering and sediment quality information for the study for pier improvement at Lai Chi Wo. According to the Construction Works Schedule submitted under Condition 2.10 of EP-586/2021 on 13 January 2022, the SI works are scheduled to be completed by the end of March 2022.

4.1.5 No marine works will be conducted during wet season until baseline water quality is conducted and the Action and Limit Levels for construction phase marine water quality monitoring for wet season are established. Upon the completion of baseline water quality monitoring for wet season, the Baseline Monitoring Report shall be updated for resubmission in accordance with Condition 4.3 of EP-586/2021.

Figure





KEY PLAN
SCALE 1:10000

NOTES:

1. THE ENTIRE SITE IS SITUATED INSIDE THE AREA OF HONG KONG UNESCO LOBAL GEOPARK.

LEGEND:

	MARINE PARK
	COUNTRY PARK
	SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
	LAND LOT W/LAND LOT NO.
V	VILLAGE TYPE DEVELOPMENT
AGR	AGRICUL TURE
CA	CONSERVATION AREA
G/IC	GOVERNMENT, INSTITUTION OR COMMUNITY
GB	GREEN BELT

Rev.	Date	Description	By	Chk'd	App'd
A	DEC 2021	FIRST ISSUE	KLC	JC	SW

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ATKINS
Member of the SNC-Lavalin Group

Client: CEDD 土木工程拓展署 Civil Engineering and Development Department

土木工程處
CIVIL ENGINEERING OFFICE

Project Title:
AGREEMENT NO. CE 32/2021 (CE)
IMPROVEMENT WORKS AT LAI CHI WO PIER AND TUNG PING CHAU PUBLIC PIER - DESIGN AND CONSTRUCTION

Drawing Title:
Location Plan of Lai Chi Wo Pier

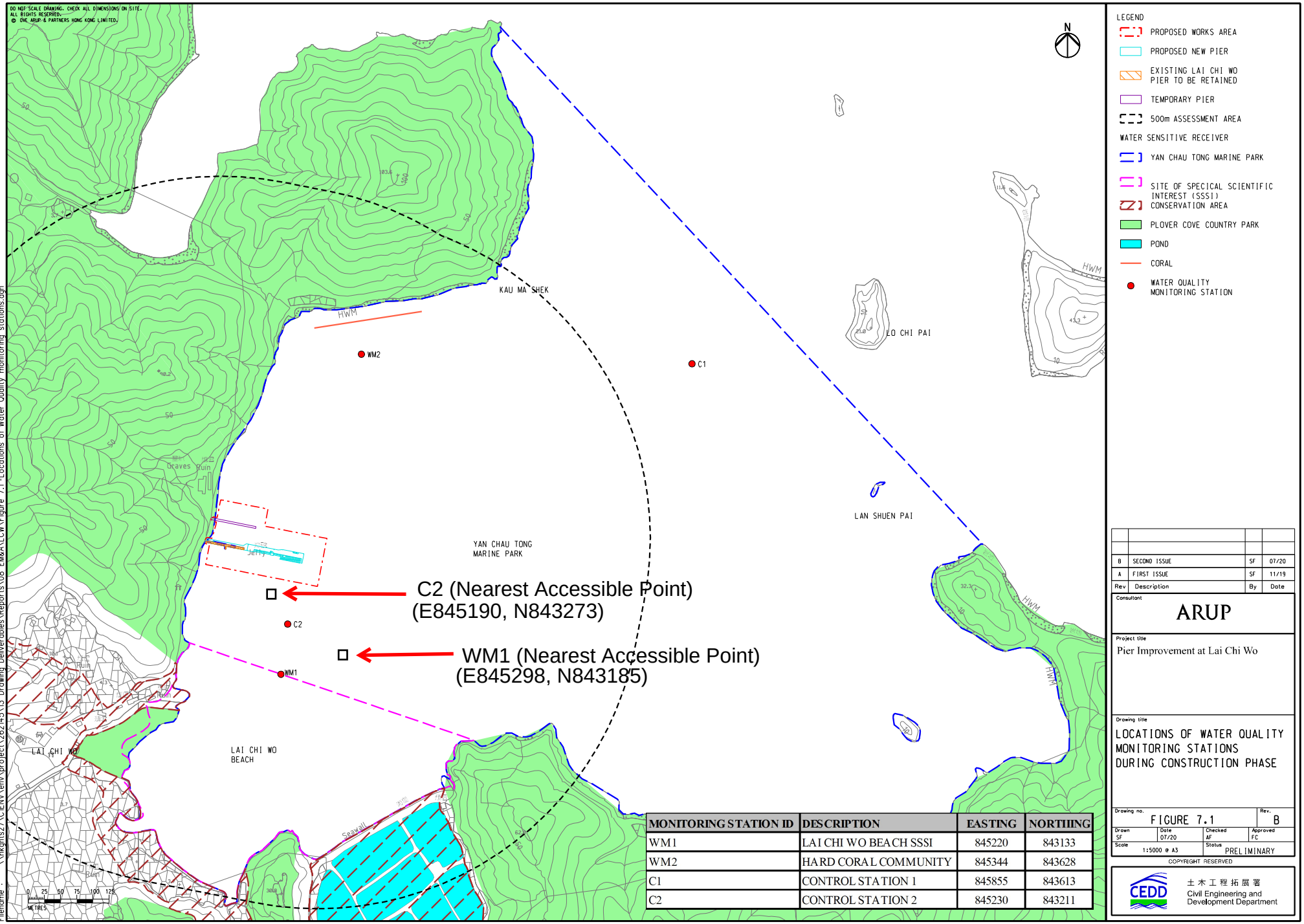
Scale	Designed	Drawn	Checked	Authorised
1:1000	SC	KLC	JC	SW
Original Size	Date	Date	Date	Date
A1	DEC 2021	DEC 2021	DEC 2021	DEC 2021

Drawing Number: Figure 1

Revision: A

User name: CHAN9162
Filename: P:\CNHK\Projects\5207869_CE32_PIERS\23.00 CAD\23.20 Drawing\CIV\5207869-LCW-CIV-1001.dgn
Date:14/12/2021 Time: 16:28:21

Figure 2 Water Quality Monitroing Locations Designated in the EIA Report



MONITORING STATION ID	DESCRIPTION	EASTING	NORTHING
WM1	LAI CHI WO BEACH SSSI	845220	843133
WM2	HARD CORAL COMMUNITY	845344	843628
C1	CONTROL STATION 1	845855	843613
C2	CONTROL STATION 2	845230	843211

Appendix A1

Calibration Certificates for Baseline Water Quality Monitoring

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

Report No. : BA100044
Date of Issue : 22 October 2021

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	15M100005
Date of Received	:	Oct 22, 2021
Date of Calibration	:	Oct 22, 2021
Date of Next Calibration[a]	:	Jan 21, 2022

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
Conductivity at 25°C	APHA 21e 2510 B
Salinity	APHA 21e 2520 B
Turbidity	APHA 21e 2130 B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.09	0.09	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.11	0.10	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
24	23.8	-0.2	Satisfactory
45	44.9	-0.1	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

LEE Chun-ning
Senior Chemist

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA100044
Date of Issue : 22 October 2021

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.12	0.11	-0.01	Satisfactory
1.77	1.84	0.07	Satisfactory
5.01	5.17	0.16	Satisfactory
8.19	8.19	0.00	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	153.2	4.29	Satisfactory
0.01	1412	1371	-2.90	Satisfactory
0.1	12890	12409	-3.73	Satisfactory
0.5	58670	57941	-1.24	Satisfactory
1.0	111900	111932	0.03	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.90	-1.00	Satisfactory
20	19.93	-0.35	Satisfactory
30	30.14	0.47	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.10	--	Satisfactory
10	9.91	-0.9	Satisfactory
20	19.88	-0.6	Satisfactory
100	97.73	-2.3	Satisfactory
800	796.64	-0.4	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

(g) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : R-BA110050
Date of Issue : 29 November 2021

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	16H104233
Date of Received	:	Nov 26, 2021
Date of Calibration	:	Nov 26, 2021
Date of Next Calibration[a]	:	Feb 25, 2022

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
Conductivity at 25°C	APHA 21e 2510 B
Salinity	APHA 21e 2520 B
Turbidity	APHA 21e 2130 B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.09	0.09	Satisfactory
7.42	7.48	0.06	Satisfactory
10.01	10.06	0.05	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
24	21.9	-0.1	Satisfactory
45	45.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : R-BA110050
Date of Issue : 29 November 2021

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
8.40	8.60	0.20	Satisfactory
5.34	5.22	-0.12	Satisfactory
2.63	2.47	-0.16	Satisfactory
0.16	0.35	0.19	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	151.0	2.79	Satisfactory
0.01	1412	1309	-7.29	Satisfactory
0.1	12890	12758	-1.02	Satisfactory
0.5	58670	59133	0.79	Satisfactory
1.0	111900	112965	0.95	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.95	-0.50	Satisfactory
20	19.93	-0.35	Satisfactory
30	29.88	-0.40	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.05	--	Satisfactory
10	9.83	-1.7	Satisfactory
20	19.84	-0.8	Satisfactory
100	97.8	-2.2	Satisfactory
800	796.2	-0.5	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

(g) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : R-BA110051
Date of Issue : 29 November 2021

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	16H104234
Date of Received	:	Nov 26, 2021
Date of Calibration	:	Nov 26, 2021
Date of Next Calibration[a]	:	Feb 25, 2022

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H^+ B
Dissolved Oxygen	APHA 21e 4500-O G
Conductivity at 25°C	APHA 21e 2510B
Salinity	APHA 21e 2520B
Turbidity	APHA 21e 2130B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.08	0.08	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.10	0.09	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
24	21.9	-0.1	Satisfactory
45	45.0	0.0	Satisfactory

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

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Remark(s): -

[a] *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.*
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : R-BA110051
Date of Issue : 29 November 2021

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
8.40	8.58	0.18	Satisfactory
5.34	5.16	-0.18	Satisfactory
2.63	2.50	-0.13	Satisfactory
0.16	0.51	0.35	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	152.0	3.47	Satisfactory
0.01	1412	1326	-6.09	Satisfactory
0.1	12890	12793	-0.75	Satisfactory
0.5	58670	59086	0.71	Satisfactory
1.0	111900	112741	0.75	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.08	0.80	Satisfactory
20	20.17	0.85	Satisfactory
30	30.21	0.70	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.05	--	Satisfactory
10	9.88	-1.2	Satisfactory
20	20.09	0.4	Satisfactory
100	98.8	-1.2	Satisfactory
800	812.3	1.5	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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(g) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BA120147
Date of Issue : 30 December 2021

PART A - CUSTOMER INFORMATION

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

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	17E100747
Date of Received :	24 December 2021
Date of Calibration :	24 December 2021
Date of Next Calibration :	23 March 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.10	--	Satisfactory
10	9.88	-1.2	Satisfactory
20	19.79	-1.1	Satisfactory
100	100.26	0.3	Satisfactory
800	808.37	1.0	Satisfactory

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

(2) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING (MS/CM AT 25°C)	TOLERANCE (%)	RESULT
146.9	151.2	2.92	Satisfactory
1412	1348	-4.53	Satisfactory
12890	12591	-2.32	Satisfactory
58670	57734	-1.60	Satisfactory
111900	111592	-0.28	Satisfactory

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

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AUTHORIZED SIGNATORY:

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BA120147
Date of Issue : 30 December 2021

(3) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
7.65	7.76	0.11	Satisfactory
6.09	6.17	0.08	Satisfactory
3.20	3.28	0.08	Satisfactory
0.78	0.56	-0.22	Satisfactory

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

(4) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.04	0.04	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.13	0.12	Satisfactory

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

(5) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.93	-0.70	Satisfactory
20	19.89	-0.55	Satisfactory
30	30.20	0.67	Satisfactory

Tolerance of Salinity should be less than ± 0.0 (%)

(6) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	9.9	-0.1	Satisfactory
20	20.0	0.0	Satisfactory
40	40.0	0.0	Satisfactory

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

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.
·The results relate only to the calibrated equipment as received
·The performance of the equipment stated 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 form relevant international standards.

--- END OF REPORT ---

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

Test Report No. : R-BA120148
Date of Issue : 30 December 2021

PART A - CUSTOMER INFORMATION

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

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	21G105356
Date of Received :	24 December 2021
Date of Calibration :	24 December 2021
Date of Next Calibration :	23 March 2022

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D - CALIBRATION RESULT

(1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.10	--	Satisfactory
10	9.81	-1.9	Satisfactory
20	19.82	-0.9	Satisfactory
100	100.22	0.2	Satisfactory
800	810.23	1.3	Satisfactory

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

(2) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING (MS/CM AT 25°C)	TOLERANCE (%)	RESULT
146.9	150.3	2.31	Satisfactory
1412	1369	-3.05	Satisfactory
12890	12488	-3.12	Satisfactory
58670	57746	-1.57	Satisfactory
111900	111426	-0.42	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BA120148
Date of Issue : 30 December 2021

(3) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
7.65	7.80	0.15	Satisfactory
6.09	6.20	0.11	Satisfactory
3.20	3.33	0.13	Satisfactory
0.78	0.56	-0.22	Satisfactory

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

(4) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.03	0.03	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.11	0.10	Satisfactory

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

(5) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.93	-0.70	Satisfactory
20	19.88	-0.60	Satisfactory
30	30.19	0.63	Satisfactory

Tolerance of Salinity should be less than ± 0.0 (%)

(6) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	9.9	-0.1	Satisfactory
20	20.0	0.0	Satisfactory
40	40.0	0.0	Satisfactory

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

Remark(s)

·The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

·The results relate only to the calibrated equipment as received

·The performance of the equipment stated 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 form relevant international standards.

--- END OF REPORT ---

Appendix A2

Monitoring Schedule for Baseline Water Quality Monitoring

Appendix A2 Monitoring Schedule for Baseline Water Quality Monitoring

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	ebb tide 12:20 - 15:41 flood tide 7:04 - 10:34		ebb tide 14:32 - 16:58 flood tide 9:02 - 12:32		ebb tide 16:46 - 20:14 flood tide 11:04 - 14:34	
06-Dec	**WQM** 07-Dec	08-Dec	**WQM** 09-Dec	10-Dec	**WQM** 11-Dec	12-Dec
	ebb tide 6:59 - 10:29 flood tide 13:27 - 16:57		ebb tide 8:38 - 12:08 flood tide 14:38 - 18:08		ebb tide 9:39 - 13:05 flood tide 15:26 - 18:56	
13-Dec	**WQM** 14-Dec	15-Dec	**WQM** 16-Dec	17-Dec	**WQM** 18-Dec	19-Dec
	ebb tide 11:31 - 14:25 flood tide 6:23 - 9:53		ebb tide 12:52 - 15:28 flood tide 7:42 - 11:12		ebb tide 14:37 - 17:02 flood tide 9:15 - 12:45	
20-Dec	**WQM** 21-Dec	22-Dec	**WQM** 23-Dec	24-Dec	**WQM** 25-Dec	26-Dec
	ebb tide 17:58 - 21:28 flood tide 11:41 - 15:11		ebb tide 7:14 - 10:44 flood tide 13:14 - 16:44		ebb tide 9:07 - 12:37 flood tide 14:51 - 18:21	
27-Dec	**WQM** 28-Dec	29-Dec	**WQM** 30-Dec	31-Dec	**WQM** 01-Jan	02-Jan
					Lai Chi Wo Baseline Water Quality (WQM) Schedule **Dry Season (December 2021 to January 2022)**	

Appendix A3

Baseline Water Quality Monitoring Results

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Surface	1.0	20.8	7.9	33.2	103.1	7.6	0.5	20.9	7.9	33.2	103.1	7.6	0.5		7.5	1.8	2.2	3.0
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Surface	1.0	20.9	7.9	33.2	103.1	7.6	0.5									2.5		
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Middle	5.0	20.7	7.9	33.3	101.7	7.5	0.6	20.7	7.9	33.3	101.8	7.5	0.6	0.5		3.4	3.4	
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Middle	5.0	20.7	7.9	33.3	101.8	7.5	0.6									3.3		
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Bottom	8.9	20.7	7.9	33.3	98.0	7.2	0.3	20.7	7.9	33.3	97.9	7.2	0.3		7.2	3.4	3.5	
07/12/2021	Mid-Ebb	C1	Cloudy	Calm	12:34	12:36	9.9	Bottom	8.9	20.7	7.9	33.3	97.7	7.2	0.3									3.5		
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.4	-	-	3.2
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Surface	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Middle	0.6	21.2	8.1	33.2	101.5	7.4	1.5	21.2	8.1	33.2	101.5	7.4	1.5	1.5		3.4	3.2	
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Middle	0.6	21.2	8.1	33.2	101.4	7.4	1.5									2.9		
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
07/12/2021	Mid-Ebb	C2	Cloudy	Calm	12:49	12:50	1.2	Bottom			-	-	-	-	-									-		
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.5	-	-	1.9
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Surface	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Middle	0.9	21.1	8.0	33.1	101.9	7.5	0.7	21.1	8.0	33.1	101.9	7.5	0.7	0.7		2.3	1.9	
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Middle	0.9	21.1	8.0	33.1	101.9	7.5	0.7									1.4		
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
07/12/2021	Mid-Ebb	WM1	Cloudy	Calm	12:45	12:46	1.8	Bottom			-	-	-	-	-									-		
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Surface	1.0	20.9	8.0	33.3	102.5	7.5	0.4	20.9	8.0	33.3	102.5	7.5	0.3		7.5	2.4	2.2	3.0
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Surface	1.0	20.9	8.0	33.3	102.4	7.5	0.3									2.0		
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0		-	-	
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Middle	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Bottom	3.6	20.7	8.1	33.3	97.7	7.2	5.0	20.7	8.1	33.3	97.7	7.2	5.6		7.2	3.4	3.8	
07/12/2021	Mid-Ebb	WM2	Cloudy	Calm	12:53	12:55	4.6	Bottom	3.6	20.7	8.1	33.3	97.6	7.2	6.2									4.2		
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Surface	1.0	20.7	8.0	33.2	99.1	7.3	0.6	20.7	8.0	33.2	99.1	7.3	0.5		7.3	3.2	3.1	3.0
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Surface	1.0	20.7	8.0	33.2	99.1	7.3	0.5									3.0		
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Middle	4.6	20.7	7.9	33.2	98.4	7.3	0.2	20.7	7.9	33.2	98.4	7.3	0.2	0.4		2.7	2.9	
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Middle	4.6	20.7	7.9	33.2	98.3	7.3	0.2									3.0		
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Bottom	8.1	20.6	7.9	33.3	95.9	7.1	0.4	20.6	7.9	33.3	95.9	7.1	0.4		7.1	3.0	3.1	
07/12/2021	Mid-Flood	C1	Cloudy	Calm	09:20	09:22	9.1	Bottom	8.1	20.6	7.9	33.3	95.9	7.1	0.4									3.2		
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.2	-	-	2.8
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Surface	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Middle	0.6	20.6	8.2	33.1	97.6	7.2	1.3	20.6	8.2	33.1	97.6	7.2	1.3	1.3		2.3	2.8	
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Middle	0.6	20.6	8.2	33.1	97.6	7.2	1.3									3.2		
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
07/12/2021	Mid-Flood	C2	Cloudy	Calm	09:44	09:45	1.2	Bottom			-	-	-	-	-									-		
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.2	-	-	3.4
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Surface	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Middle	0.6	20.6	8.1	33.1	97.8	7.2	4.9	20.6	8.1	33.1	97.8	7.2	4.9	4.9		3.5	3.4	
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Middle	0.6	20.6	8.1	33.1	97.8	7.2	4.9									3.3		
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
07/12/2021	Mid-Flood	WM1	Cloudy	Calm	09:33	09:34	1.2	Bottom			-	-	-	-	-									-		
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Surface	1.0	20.7	8.2	33.2	99.8	7.4	0.7	20.7	8.2	33.2	99.8	7.4	0.7		7.4	2.8	3.1	2.8
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Surface	1.0	20.7	8.2	33.2	99.8	7.4	0.7									3.3		
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7		-	-	
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Middle	-	-	-	-	-	-	-									-		
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Bottom	3.1	20.7	8.2	33.2	99.6	7.4	0.7	20.7	8.2	33.2	99.6	7.4	0.7		7.4	2.0	2.6	
07/12/2021	Mid-Flood	WM2	Cloudy	Calm	09:56	09:58	4.1	Bottom	3.1	20.7	8.2	33.2	99.6	7.4	0.7									3.1		
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Surface	1.0	20.9	8.0	33.3	101.2	7.4	0.1	21.0	8.0	33.3	101.1	7.4	0.1		7.2	1.9	2.1	2.0
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Surface	1.0	21.0	8.0	33.3	101.0	7.4	0.1									2.2		
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Middle	4.1	20.6	8.0	33.3	93.0	6.9	0.6	20.6	8.0	33.3	93.0	6.9	0.6	0.8		2.1	2.0	
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Middle	4.1	20.6	8.0	33.3	93.0	6.9	0.6									1.9		
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Bottom	7.2	20.7	8.0	33.3	91.0	6.7	1.8	20.7	8.0	33.3	91.0	6.7	1.8		6.7	1.9	1.9	
09/12/2021	Mid-Ebb	C1	Cloudy	Calm	14:43	14:46	8.2	Bottom	7.2	20.7	8.0	33.3	90.9	6.7	1.8									1.8		
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.6
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Surface	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Middle	0.7	22.1	8.1	33.3	101.3	7.3	1.1	22.1	8.1	33.3	101.4	7.3	1.1	1.1		2.4	2.6	
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Middle	0.7	22.1	8.1	33.3	101.4	7.3	1.2									2.8		
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Ebb	C2	Cloudy	Calm	14:54	14:56	1.4	Bottom			-	-	-	-	-									-		
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.3
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Surface	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Middle	0.7	22.0	8.1	33.3	101.7	7.3	0.6	22.0	8.1	33.3	101.7	7.3	0.6	0.6		2.3	2.3	
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Middle	0.7	22.0	8.1	33.3	101.7	7.3	0.6									2.2		
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Ebb	WM1	Cloudy	Calm	14:50	14:52	1.3	Bottom			-	-	-	-	-									-		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Surface	1.0	21.5	8.0	33.3	99.6	7.2	0.1	21.6	8.0	33.3	99.7	7.2	0.1	1.2	7.2	1.9	2.1	2.2
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Surface	1.0	21.6	8.0	33.3	99.7	7.2	0.1									2.2		
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Middle	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Bottom	4.0	20.7	8.2	33.3	95.6	7.1	2.2	20.7	8.2	33.3	95.7	7.1	2.2		7.1	2.1	2.3	
09/12/2021	Mid-Ebb	WM2	Cloudy	Calm	15:00	15:05	5.0	Bottom	4.0	20.7	8.2	33.3	95.7	7.1	2.2									2.5		
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Surface	1.0	20.8	7.9	33.3	97.6	7.2	0.3	20.8	7.9	33.3	97.5	7.2	0.3	0.6	7.0	1.7	1.9	1.8
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Surface	1.0	20.8	7.9	33.3	97.4	7.2	0.3									2.1		
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Middle	4.1	20.6	7.9	33.3	93.2	6.9	0.5	20.6	7.9	33.3	93.2	6.9	0.5			2.1	1.8	
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Middle	4.1	20.6	7.9	33.3	93.2	6.9	0.6									1.4		
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Bottom	7.1	20.6	7.9	33.3	89.0	6.6	1.1	20.6	7.9	33.3	89.0	6.6	1.1		6.6	1.8	1.7	
09/12/2021	Mid-Flood	C1	Cloudy	Calm	11:09	11:13	8.1	Bottom	7.1	20.6	7.9	33.3	89.0	6.6	1.1									1.6		
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	7.0	-	-	1.9
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Surface	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Middle	0.6	21.5	7.9	33.0	95.8	7.0	0.6	21.5	7.9	33.0	95.8	7.0	0.6			1.5	1.9	
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Middle	0.6	21.5	7.9	33.0	95.7	7.0	0.6									2.3		
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Flood	C2	Cloudy	Calm	11:25	11:27	1.1	Bottom			-	-	-	-	-									-		
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	7.3	-	-	1.7
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Surface	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Middle	0.6	21.6	7.9	33.4	100.3	7.3	1.9	21.7	7.9	33.3	101.0	7.3	2.0			1.4	1.7	
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Middle	0.6	21.8	7.9	33.2	101.7	7.4	2.0									1.9		
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:20	11:23	1.2	Bottom			-	-	-	-	-									-		
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Surface	1.0	21.0	7.8	33.3	97.4	7.1	0.8	21.0	7.8	33.3	97.4	7.1	0.8	1.3	7.1	2.2	2.0	1.8
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Surface	1.0	21.0	7.8	33.3	97.4	7.2	0.9									1.7		
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Middle	-	-	-	-	-	-	-									-		
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Bottom	3.1	20.7	7.8	33.3	97.0	7.2	1.7	20.7	7.8	33.3	97.0	7.2	1.7		7.2	1.8	1.7	
09/12/2021	Mid-Flood	WM2	Cloudy	Calm	11:30	11:33	4.1	Bottom	3.1	20.7	7.8	33.3	97.0	7.2	1.8									1.5		
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Surface	1.0	21.2	8.0	33.3	105.5	7.7	0.3	21.2	8.0	33.3	105.5	7.7	0.3	1.4	7.3	1.5	1.8	1.6
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Surface	1.0	21.2	8.0	33.3	105.5	7.7	0.3									2.0		
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Middle	5.0	20.7	8.0	33.3	93.5	6.9	0.1	20.7	8.0	33.3	93.5	6.9	0.1			2.0	1.7	
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Middle	5.0	20.7	8.0	33.3	93.5	6.9	0.1									1.3		
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Bottom	9.0	20.8	8.0	33.4	85.5	6.3	4.1	20.8	8.0	33.4	85.8	6.3	4.0		6.3	1.1	1.3	
11/12/2021	Mid-Ebb	C1	Cloudy	Calm	16:46	16:48	10.0	Bottom	9.0	20.8	8.0	33.4	86.0	6.3	3.8									1.5		
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	7.4	-	-	1.6
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Surface	-	-	-	-	-	-	-									-		
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Middle	1.1	21.9	8.0	33.3	102.1	7.4	0.9	21.9	8.0	33.3	102.2	7.4	0.9			1.4	1.6	
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Middle	1.1	21.9	8.0	33.3	102.2	7.4	1.0									1.8		
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
11/12/2021	Mid-Ebb	C2	Cloudy	Calm	16:56	16:57	2.1	Bottom			-	-	-	-	-									-		
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	7.4	-	-	1.7
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Surface	-	-	-	-	-	-	-									-		
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Middle	0.9	21.9	8.0	33.3	102.6	7.4	0.2	21.9	8.0	33.3	102.7	7.4	0.2			1.3	1.7	
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Middle	0.9	21.9	8.0	33.3	102.7	7.4	0.2									2.1		
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
11/12/2021	Mid-Ebb	WM1	Cloudy	Calm	16:52	16:53	1.8	Bottom			-	-	-	-	-									-		
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Surface	1.0	21.5	8.0	33.4	102.2	7.4	0.5	21.5	8.0	33.4	102.2	7.4	0.6	1.1	7.4	1.3	1.4	1.7
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Surface	1.0	21.4	8.0	33.4	102.1	7.4	0.6									1.4		
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Middle	-	-	-	-	-	-	-									-		
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Bottom	4.0	20.8	8.1	33.3	95.9	7.1	1.6	20.8	8.1	33.3	95.9	7.1	1.7		7.1	2.4	2.0	
11/12/2021	Mid-Ebb	WM2	Cloudy	Calm	17:00	17:03	5.0	Bottom	4.0	20.8	8.1	33.3	95.9	7.1	1.8									1.5		
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Surface	1.0	21.2	8.0	33.3	103.4	7.6	1.3	21.2	8.0	33.3	103.4	7.6	1.2	1.2	7.3	2.0	1.7	1.5
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Surface	1.0	21.2	8.0	33.3	103.4	7.6	1.1									1.4		
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Middle	4.8	20.7	8.0	33.3	95.0	7.0	1.1	20.7	8.0	33.3	95.0	7.0	1.1			1.7	1.5	
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Middle	4.8	20.7	8.0	33.3	95.0	7.0	1.1									1.3		
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Bottom	8.5	20.7	7.9	33.4	86.4	6.4	1.4	20.7	7.9	33.4	86.5	6.4	1.4		6.4	1.2	1.2	
11/12/2021	Mid-Flood	C1	Cloudy	Calm	13:41	13:43	9.5	Bottom	8.5	20.7	7.9	33.4	86.5	6.4	1.4									1.2		
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	7.3	-	-	1.8
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Surface	-	-	-	-	-	-	-									-		
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Middle	0.8	21.7	8.0	33.3	101.1	7.3	2.2	21.7	8.0	33.3	101.1	7.3	2.2			1.7	1.8	
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Middle	0.8	21.7	8.0	33.3	101.1	7.3	2.2									1.8		
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
11/12/2021	Mid-Flood	C2	Cloudy	Calm	13:53	13:55	1.6	Bottom			-	-	-	-	-									-		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	1.8
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Surface	-	-	-	-	-	-	-								7.3	-		
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Middle	0.9	21.6	8.0	33.3	101.1	7.3	2.2	21.6	8.0	33.3	101.1	7.3	2.2	2.2		1.6	1.8	
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Middle	0.9	21.6	8.0	33.3	101.1	7.3	2.2									2.0		
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
11/12/2021	Mid-Flood	WM1	Cloudy	Calm	13:47	13:49	1.8	Bottom			-	-	-	-	-									-		
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Surface	1.0	21.3	8.1	33.3	100.5	7.3	0.5	21.3	8.1	33.3	100.5	7.3	0.5			1.3	1.5	1.6
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Surface	1.0	21.3	8.1	33.3	100.4	7.3	0.6								7.3	1.6		
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0		-	-	
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Middle	-	-	-	-	-	-	-									-		
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Bottom	3.7	20.9	8.0	33.3	92.6	6.8	1.5	20.9	8.0	33.3	92.6	6.8	1.5		6.8	1.6	1.8	
11/12/2021	Mid-Flood	WM2	Cloudy	Calm	13:59	14:02	4.7	Bottom	3.7	20.9	8.0	33.3	92.5	6.8	1.5									2.0		
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Surface	1.0	20.9	8.1	33.3	101.8	7.5	1.3	20.9	8.1	33.3	101.7	7.5	1.4			3.2	3.2	2.8
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Surface	1.0	20.9	8.1	33.3	101.6	7.5	1.5								7.4	3.2		
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Middle	4.9	20.9	8.1	33.3	98.5	7.2	0.6	20.9	8.0	33.3	98.5	7.2	0.7	1.8		2.7	2.8	
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Middle	4.9	20.9	8.0	33.3	98.4	7.2	0.7									2.9		
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Bottom	8.7	20.9	7.9	33.4	88.8	6.5	3.4	20.9	7.9	33.4	88.8	6.5	3.5		6.5	2.4	2.4	
14/12/2021	Mid-Ebb	C1	Sunny	Calm	09:46	09:48	9.7	Bottom	8.7	20.9	7.9	33.4	88.8	6.5	3.5									2.4		
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3.1
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Surface	-	-	-	-	-	-	-								7.2	-		
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Middle	0.6	20.5	8.0	33.3	96.9	7.2	1.4	20.5	8.0	33.2	97.0	7.2	1.5	1.5		3.1	3.1	
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Middle	0.6	20.5	8.0	33.2	97.0	7.2	1.7									3.0		
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
14/12/2021	Mid-Ebb	C2	Sunny	Calm	09:59	10:00	1.2	Bottom			-	-	-	-	-									-		
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2.4
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Surface	-	-	-	-	-	-	-								7.4	-		
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Middle	0.5	20.7	8.1	33.3	99.5	7.3	1.8	20.7	8.1	33.3	99.7	7.4	1.8	1.8		2.5	2.4	
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Middle	0.5	20.7	8.1	33.3	99.8	7.4	1.8									2.2		
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
14/12/2021	Mid-Ebb	WM1	Sunny	Calm	09:54	09:55	1.0	Bottom			-	-	-	-	-									-		
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Surface	1.0	20.9	8.0	33.4	101.1	7.4	1.0	20.9	8.0	33.4	101.1	7.4	1.0			2.2	2.2	2.8
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Surface	1.0	20.9	8.0	33.4	101.1	7.4	1.0								7.4	2.1		
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1		-	-	
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Middle	-	-	-	-	-	-	-									-		
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Bottom	3.5	20.8	8.1	33.4	101.0	7.4	1.2	20.8	8.1	33.4	101.0	7.4	1.3		7.4	3.4	3.5	
14/12/2021	Mid-Ebb	WM2	Sunny	Calm	10:05	10:07	4.5	Bottom	3.5	20.8	8.1	33.4	101.0	7.4	1.4									3.5		
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Surface	1.0	21.0	8.2	33.3	102.6	7.5	0.5	21.0	8.2	33.3	102.6	7.5	0.6			3.3	3.4	2.8
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Surface	1.0	21.0	8.2	33.3	102.5	7.5	0.6								7.4	3.5		
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Middle	4.8	20.9	8.1	33.3	99.2	7.3	0.8	20.9	8.1	33.3	99.1	7.3	0.8	1.5		2.5	2.6	
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Middle	4.8	20.9	8.1	33.3	99.0	7.3	0.7									2.7		
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Bottom	8.5	20.9	8.0	33.4	89.1	6.6	3.2	20.9	8.0	33.4	89.2	6.6	3.2		6.6	2.3	2.4	
14/12/2021	Mid-Flood	C1	Sunny	Calm	13:40	13:42	9.5	Bottom	8.5	20.9	8.0	33.4	89.3	6.6	3.1									2.5		
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3.1
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Surface	-	-	-	-	-	-	-								7.3	-		
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Middle	1.0	20.9	8.0	33.3	99.9	7.3	2.4	20.9	8.0	33.3	100.0	7.3	2.4	2.4		3.0	3.1	
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Middle	1.0	20.9	8.0	33.3	100.0	7.4	2.4									3.1		
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
14/12/2021	Mid-Flood	C2	Sunny	Calm	13:50	13:51	2.0	Bottom			-	-	-	-	-									-		
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3.1
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Surface	-	-	-	-	-	-	-								7.1	-		
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Middle	0.7	20.8	8.1	33.3	96.6	7.1	1.8	20.8	8.1	33.3	96.7	7.1	1.9	1.9		3.1	3.1	
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Middle	0.7	20.8	8.1	33.3	96.8	7.1	1.9									3.1		
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
14/12/2021	Mid-Flood	WM1	Sunny	Calm	13:47	13:48	1.4	Bottom			-	-	-	-	-									-		
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Surface	1.0	20.9	8.0	33.4	101.4	7.5	0.7	20.9	8.0	33.4	101.4	7.5	0.7			3.7	3.6	3.1
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Surface	1.0	20.9	8.0	33.4	101.3	7.5	0.7								7.5	3.4		
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1		-	-	
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Middle	-	-	-	-	-	-	-									-		
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Bottom	3.6	20.8	8.1	33.3	101.3	7.5	1.5	20.8	8.1	33.3	101.3	7.5	1.5		7.5	2.6	2.6	
14/12/2021	Mid-Flood	WM2	Sunny	Calm	13:55	13:57	4.6	Bottom	3.6	20.8	8.1	33.2	101.3	7.5	1.5									2.6		
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Surface	1.0	21.2	8.1	33.3	104.4	7.6	0.8	21.2	8.1	33.3	104.4	7.6	0.8			3.0	3.1	2.7
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Surface	1.0	21.2	8.1	33.3	104.3	7.6	0.8								7.4	3.2		
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Middle	4.8	21.0	8.2	33.4	98.6	7.2	0.8	21.0	8.2	33.4	98.5	7.2	0.8	0.8		2.8	2.6	
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Middle	4.8	21.0	8.2	33.4	98.4	7.2	0.8									2.3		
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Bottom	8.5	20.9	8.1	33.4	81.4	6.0	1.0	20.9	8.1	33.4	81.5	6.0	0.9		6.0	2.7	2.4	
16/12/2021	Mid-Ebb	C1	Cloudy	Calm	11:11	11:13	9.5	Bottom	8.5	20.9	8.1	33.4	81.5	6.0	0.9									2.0		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Surface	-	-	-	-	-	-	-	-								-	-	2.2
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.2	-		
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Middle	0.4	21.5	7.9	33.3	99.1	7.2	2.0	21.5	7.9	33.3	99.1	7.2	1.9	1.9		2.1	2.2	
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Middle	0.4	21.5	7.9	33.3	99.1	7.2	1.9									2.3		
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Bottom			-	-	-	-	-									-	-	
16/12/2021	Mid-Ebb	C2	Cloudy	Calm	11:24	11:26	0.8	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Surface	-	-	-	-	-	-	-									-	-	2.2
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-		
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Middle	0.6	21.5	8.0	33.4	100.7	7.3	1.8	21.5	8.0	33.4	100.8	7.3	1.8	1.8		2.3	2.2	
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Middle	0.6	21.5	8.0	33.4	100.8	7.3	1.8									2.0		
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Bottom			-	-	-	-	-									-	-	
16/12/2021	Mid-Ebb	WM1	Cloudy	Calm	11:19	11:21	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Surface	1.0	21.2	8.0	33.4	99.8	7.3	1.0	21.2	8.0	33.4	99.8	7.3	1.0			3.7	3.3	2.8
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Surface	1.0	21.2	8.0	33.4	99.7	7.3	1.0								7.3	2.8		
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Middle	-	-	-	-	-	-	-									-		
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Bottom	3.5	21.0	8.0	33.4	86.2	6.3	1.3	21.0	8.0	33.4	86.2	6.3	1.3		6.3	2.5	2.4	
16/12/2021	Mid-Ebb	WM2	Cloudy	Calm	11:30	11:33	4.5	Bottom	3.5	21.0	8.0	33.4	86.1	6.3	1.3									2.3		
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Surface	1.0	21.6	8.0	33.3	107.0	7.8	0.8	21.6	8.0	33.3	107.1	7.8	0.8			3.0	2.8	2.6
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Surface	1.0	21.6	8.0	33.3	107.1	7.8	0.8								7.7	2.5		
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Middle	4.8	21.1	8.0	33.4	104.8	7.7	0.8	21.1	8.0	33.4	104.8	7.7	0.8	0.8		2.7	2.4	
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Middle	4.8	21.1	8.0	33.4	104.8	7.7	0.8									2.1		
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Bottom	8.6	21.0	8.1	33.4	90.2	6.6	0.9	21.0	8.1	33.4	90.1	6.6	0.9		6.6	2.4	2.6	
16/12/2021	Mid-Flood	C1	Sunny	Calm	14:40	14:42	9.6	Bottom	8.6	21.0	8.1	33.4	89.9	6.6	1.0									2.7		
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Surface	-	-	-	-	-	-	-									-	-	2.7
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.5	-		
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Middle	0.7	22.1	8.0	33.3	103.5	7.5	1.5	22.1	8.0	33.3	103.6	7.5	1.5	1.5		2.7	2.7	
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Middle	0.7	22.1	8.0	33.3	103.6	7.5	1.5									2.6		
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Bottom			-	-	-	-	-									-	-	
16/12/2021	Mid-Flood	C2	Cloudy	Calm	14:50	14:52	1.3	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Surface	-	-	-	-	-	-	-									-	-	2.8
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.5	-		
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Middle	0.6	22.0	8.0	33.3	104.5	7.5	2.0	22.0	8.0	33.3	104.5	7.5	2.0	2.0		2.7	2.8	
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Middle	0.6	22.0	8.0	33.3	104.4	7.5	2.0									2.8		
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Bottom			-	-	-	-	-									-	-	
16/12/2021	Mid-Flood	WM1	Sunny	Calm	14:44	14:46	1.1	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Surface	1.0	21.9	8.0	33.3	104.1	7.5	0.9	21.9	8.0	33.3	104.1	7.5	0.9			1.8	2.2	2.5
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Surface	1.0	21.9	8.0	33.3	104.0	7.5	0.9								7.5	2.6		
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Middle	-	-	-	-	-	-	-									-		
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Bottom	3.4	21.3	8.1	33.4	99.7	7.3	1.5	21.3	8.1	33.4	99.7	7.3	1.5		7.3	2.6	2.8	
16/12/2021	Mid-Flood	WM2	Cloudy	Calm	14:55	14:58	4.4	Bottom	3.4	21.3	8.1	33.4	99.6	7.3	1.5									3.0		
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Surface	1.0	20.9	8.0	33.3	101.2	7.4	1.0	21.0	8.0	33.3	101.1	7.4	1.1			3.0	2.8	3.1
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Surface	1.0	21.0	8.0	33.3	101.0	7.4	1.1								7.2	2.5		
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Middle	4.8	20.6	8.0	33.3	93.0	6.9	1.1	20.6	8.0	33.3	93.0	6.9	1.1	1.1		3.3	3.1	
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Middle	4.8	20.6	8.0	33.3	93.0	6.9	1.1									2.9		
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Bottom	8.5	20.7	8.0	33.3	91.0	6.7	1.3	20.7	8.0	33.3	91.0	6.7	1.2		6.7	3.5	3.4	
18/12/2021	Mid-Ebb	C1	Fine	Calm	10:39	10:41	9.5	Bottom	8.5	20.7	8.0	33.3	90.9	6.7	1.2									3.2		
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Surface	-	-	-	-	-	-	-									-	-	2.3
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-		
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Middle	1.0	22.1	8.1	33.3	101.3	7.3	1.3	22.1	8.1	33.3	101.4	7.3	1.3	1.3		1.9	2.3	
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Middle	1.0	22.1	8.1	33.3	101.4	7.3	1.3									2.6		
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Bottom			-	-	-	-	-									-	-	
18/12/2021	Mid-Ebb	C2	Fine	Calm	10:29	10:30	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Surface	-	-	-	-	-	-	-									-	-	2.5
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-		
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Middle	0.7	22.0	8.1	33.3	101.7	7.3	1.1	22.0	8.1	33.3	101.7	7.3	1.0	1.0		2.1	2.5	
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Middle	0.7	22.0	8.1	33.3	101.7	7.3	1.0									2.8		
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Bottom			-	-	-	-	-									-	-	
18/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:33	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-		
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Surface	1.0	21.5	8.0	33.3	99.6	7.2	1.2	21.6	8.0	33.3	99.7	7.2	1.2			3.0	2.7	2.5
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Surface	1.0	21.6	8.0	33.3	99.7	7.2	1.3								7.2	2.4		
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6		-	-	
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Middle	-	-	-	-	-	-	-									-		
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Bottom	3.6	20.7	8.2	33.3	95.6	7.1	1.9	20.7	8.2	33.3	95.7	7.1	1.9		7.1	2.0	2.3	
18/12/2021	Mid-Ebb	WM2	Fine	Calm	10:22	10:24	4.6	Bottom	3.6	20.7	8.2	33.3	95.7	7.1	2.0									2.6		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Surface	1.0	20.8	7.9	33.3	97.6	7.2	1.1	20.8	7.9	33.3	97.5	7.2	1.0		7.0	3.8	3.6	3.0
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Surface	1.0	20.8	7.9	33.3	97.4	7.2	1.0									3.4		
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Middle	4.9	20.6	7.9	33.3	93.2	6.9	1.1	20.6	7.9	33.3	93.2	6.9	1.1	1.2		3.2	2.9	
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Middle	4.9	20.6	7.9	33.3	93.2	6.9	1.1									2.6		
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Bottom	8.7	20.6	7.9	33.3	89.0	6.6	1.4	20.6	7.9	33.3	89.0	6.6	1.4		6.6	2.2	2.5	
18/12/2021	Mid-Flood	C1	Fine	Calm	18:18	18:20	9.7	Bottom	8.7	20.6	7.9	33.3	89.0	6.6	1.4									2.7		
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.0	-	-	3.0
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Surface	-	-	-	-	-	-	-									-		
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Middle	0.6	21.5	7.9	33.0	95.8	7.0	1.0	21.5	7.9	33.0	95.8	7.0	1.0	1.0		2.9	3.0	
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Middle	0.6	21.5	7.9	33.0	95.7	7.0	1.0									3.1		
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
18/12/2021	Mid-Flood	C2	Fine	Calm	18:27	18:28	1.2	Bottom			-	-	-	-	-									-		
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.8
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Surface	-	-	-	-	-	-	-									-		
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Middle	0.5	21.6	7.9	33.4	100.3	7.3	1.2	21.7	7.9	33.3	101.0	7.3	1.2	1.2		2.5	2.8	
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Middle	0.5	21.8	7.9	33.2	101.7	7.4	1.2									3.1		
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
18/12/2021	Mid-Flood	WM1	Fine	Calm	18:23	18:24	1.0	Bottom			-	-	-	-	-									-		
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Surface	1.0	21.0	7.8	33.3	97.4	7.1	1.3	21.0	7.8	33.3	97.4	7.1	1.3		7.1	2.7	2.6	2.7
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Surface	1.0	21.0	7.8	33.3	97.4	7.2	1.2									2.5		
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4		-	-	
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Middle	-	-	-	-	-	-	-									-		
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Bottom	3.5	20.7	7.8	33.3	97.0	7.2	1.7	20.7	7.8	33.3	97.0	7.2	1.6		7.2	3.0	2.7	
18/12/2021	Mid-Flood	WM2	Fine	Calm	18:31	18:33	4.5	Bottom	3.5	20.7	7.8	33.3	97.0	7.2	1.6									2.4		
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Surface	1.0	19.8	7.9	33.4	95.6	7.2	1.1	19.8	7.9	33.4	95.6	7.2	1.1		7.1	2.7	2.6	2.0
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Surface	1.0	19.8	7.9	33.4	95.6	7.2	1.0									2.4		
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Middle	4.7	19.8	7.9	33.4	95.0	7.1	1.2	19.8	7.9	33.4	95.0	7.1	1.1	1.9		2.0	2.1	
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Middle	4.7	19.8	7.9	33.4	95.0	7.1	1.0									2.2		
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Bottom	8.3	19.7	8.0	33.4	97.3	7.3	3.7	19.7	8.0	33.4	97.4	7.3	3.5		7.3	1.6	1.5	
21/12/2021	Mid-Ebb	C1	Rainy	Moderate	11:44	11:46	9.3	Bottom	8.3	19.7	8.0	33.4	97.5	7.3	3.4									1.3		
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.4	-	-	1.6
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Surface	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Middle	0.8	19.8	8.1	33.4	97.9	7.3	0.6	19.8	8.1	33.4	98.0	7.4	0.7	0.7		1.4	1.6	
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Middle	0.8	19.7	8.1	33.4	98.0	7.4	0.7									1.8		
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
21/12/2021	Mid-Ebb	C2	Rainy	Moderate	11:37	11:38	1.6	Bottom			-	-	-	-	-									-		
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.3
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Surface	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Middle	0.6	19.6	8.2	33.3	96.3	7.2	1.9	19.6	8.2	33.3	96.4	7.3	1.9	1.9		2.3	2.3	
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Middle	0.6	19.6	8.2	33.3	96.5	7.3	1.9									2.2		
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
21/12/2021	Mid-Ebb	WM1	Rainy	Moderate	11:39	11:40	1.2	Bottom			-	-	-	-	-									-		
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Surface	1.0	19.7	7.9	33.3	95.2	7.2	0.8	19.7	7.9	33.3	95.2	7.2	0.8		7.2	1.8	1.9	1.9
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Surface	1.0	19.7	7.9	33.3	95.2	7.2	0.8									1.9		
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Middle	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Bottom	3.6	19.6	8.0	33.4	95.5	7.2	1.5	19.6	8.0	33.4	95.6	7.2	1.5		7.2	1.9	2.0	
21/12/2021	Mid-Ebb	WM2	Rainy	Moderate	11:33	11:35	4.6	Bottom	3.6	19.6	8.0	33.4	95.6	7.2	1.5									2.1		
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Surface	1.0	19.8	8.1	33.4	96.1	7.2	0.9	19.8	8.1	33.4	96.1	7.2	1.0		7.1	1.4	1.5	1.6
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Surface	1.0	19.8	8.1	33.4	96.0	7.2	1.0									1.5		
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Middle	4.7	19.9	7.9	33.4	94.0	7.0	0.8	19.9	7.9	33.4	94.0	7.0	0.9	1.5		1.6	1.7	
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Middle	4.7	19.9	7.9	33.4	93.9	7.0	1.0									1.7		
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Bottom	8.3	19.8	8.0	33.5	93.1	7.0	2.5	19.8	8.0	33.5	93.2	7.0	2.5		7.0	1.8	1.8	
21/12/2021	Mid-Flood	C1	Rainy	Moderate	09:10	09:12	9.3	Bottom	8.3	19.8	8.0	33.5	93.2	7.0	2.5									1.8		
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	1.9
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Surface	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Middle	1.0	19.6	8.1	33.3	96.7	7.3	0.8	19.6	8.1	33.3	96.8	7.3	0.8	0.8		2.0	1.9	
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Middle	1.0	19.6	8.1	33.3	96.8	7.3	0.8									1.7		
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
21/12/2021	Mid-Flood	C2	Rainy	Moderate	09:21	09:22	2.0	Bottom			-	-	-	-	-									-		
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.2
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Surface	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Middle	0.9	19.7	7.9	33.4	97.1	7.3	1.0	19.7	7.9	33.4	97.1	7.3	1.1	1.1		2.1	2.2	
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Middle	0.9	19.7	7.9	33.4	97.1	7.3	1.1									2.2		
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
21/12/2021	Mid-Flood	WM1	Rainy	Moderate	09:17	09:18	1.8	Bottom			-	-	-	-	-									-		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Surface	1.0	19.7	8.0	33.3	95.2	7.2	0.7	19.7	8.0	33.3	95.2	7.2	0.7		7.2	2.5	2.4	2.4
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Surface	1.0	19.7	8.0	33.3	95.1	7.2	0.7									2.2		
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9		-	-	
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Middle	-	-	-	-	-	-	-									-		
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Bottom	3.8	19.5	8.1	33.3	94.4	7.1	1.1	19.5	8.1	33.3	94.5	7.1	1.1		7.1	2.6	2.5	
21/12/2021	Mid-Flood	WM2	Rainy	Moderate	09:28	09:30	4.8	Bottom	3.8	19.5	8.1	33.3	94.5	7.1	1.1									2.4		
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Surface	1.0	20.2	8.2	32.7	98.1	7.3	1.1	20.2	8.2	32.7	98.1	7.3	1.1		7.3	1.4	1.8	2.4
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Surface	1.0	20.2	8.2	32.7	98.1	7.3	1.1									2.1		
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Middle	4.8	20.1	8.2	32.7	97.3	7.3	1.1	20.1	8.2	32.7	97.4	7.3	1.1	1.1		2.5	2.6	
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Middle	4.8	20.1	8.2	32.7	97.4	7.3	1.1									2.6		
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Bottom	8.5	20.1	8.2	32.7	97.7	7.3	1.2	20.1	8.2	32.7	97.8	7.3	1.2		7.3	2.5	3.0	
23/12/2021	Mid-Ebb	C1	Fine	Calm	13:39	13:41	9.5	Bottom	8.5	20.1	8.2	32.7	97.8	7.3	1.2									3.4		
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	2.1
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Surface	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Middle	1.0	20.2	8.2	32.7	97.9	7.3	1.1	20.2	8.2	32.7	98.0	7.3	1.1	1.1		2.4	2.1	
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Middle	1.0	20.2	8.2	32.7	98.1	7.3	1.1									1.8		
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
23/12/2021	Mid-Ebb	C2	Fine	Calm	13:29	13:31	2.0	Bottom			-	-	-	-	-									-		
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.4	-	-	3.7
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Surface	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Middle	0.7	20.0	8.2	32.7	98.4	7.4	1.1	20.0	8.2	32.7	98.4	7.4	1.0	1.0		3.3	3.7	
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Middle	0.7	20.0	8.2	32.7	98.3	7.4	1.0									4.0		
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
23/12/2021	Mid-Ebb	WM1	Fine	Calm	13:32	13:34	1.4	Bottom			-	-	-	-	-									-		
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Surface	1.0	20.1	8.2	32.7	96.0	7.2	1.0	20.1	8.2	32.7	95.9	7.2	1.0		7.2	3.4	3.7	3.6
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Surface	1.0	20.1	8.2	32.8	95.8	7.2	1.0									4.0		
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1		-	-	
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Middle	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Bottom	3.6	20.1	8.2	32.8	95.9	7.2	1.2	20.1	8.2	32.8	96.1	7.2	1.2		7.2	3.6	3.4	
23/12/2021	Mid-Ebb	WM2	Fine	Calm	13:23	13:25	4.6	Bottom	3.6	20.1	8.2	32.8	96.2	7.2	1.2									3.2		
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Surface	1.0	20.1	8.1	32.8	97.5	7.3	1.0	20.1	8.1	32.8	97.5	7.3	1.1		7.3	4.4	4.1	3.1
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Surface	1.0	20.1	8.1	32.8	97.5	7.3	1.1									3.7		
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Middle	4.9	20.0	8.1	32.8	97.2	7.3	1.1	20.0	8.1	32.8	97.2	7.3	1.1	1.1		3.2	2.8	
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Middle	4.9	20.0	8.1	32.8	97.1	7.3	1.1									2.3		
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Bottom	8.7	20.1	8.0	32.8	96.7	7.2	1.2	20.1	8.0	32.8	96.9	7.3	1.2		7.3	2.0	2.5	
23/12/2021	Mid-Flood	C1	Fine	Calm	07:53	07:55	9.7	Bottom	8.7	20.1	8.0	32.8	97.0	7.3	1.2									2.9		
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	3.4
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Surface	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Middle	0.6	20.0	8.1	32.8	97.7	7.3	1.0	20.0	8.1	32.8	97.8	7.3	1.0	1.0		3.4	3.4	
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Middle	0.6	20.0	8.1	32.8	97.8	7.3	1.0									3.3		
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
23/12/2021	Mid-Flood	C2	Fine	Calm	08:01	08:03	1.2	Bottom			-	-	-	-	-									-		
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	3.4
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Surface	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Middle	0.6	20.2	8.1	32.8	98.1	7.3	1.2	20.2	8.1	32.8	98.1	7.3	1.2	1.2		3.7	3.4	
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Middle	0.6	20.2	8.1	32.8	98.1	7.3	1.3									3.1		
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
23/12/2021	Mid-Flood	WM1	Fine	Calm	07:57	07:58	1.1	Bottom			-	-	-	-	-									-		
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Surface	1.0	20.2	8.2	32.7	98.1	7.3	1.1	20.2	8.2	32.7	98.1	7.3	1.1		7.3	3.2	2.8	2.5
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Surface	1.0	20.2	8.2	32.7	98.1	7.3	1.1									2.4		
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Middle	-	-	-	-	-	-	-									-		
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Bottom	3.5	20.2	8.2	32.8	97.6	7.3	1.2	20.2	8.2	32.8	97.6	7.3	1.2		7.3	1.7	2.1	
23/12/2021	Mid-Flood	WM2	Fine	Calm	08:05	08:07	4.5	Bottom	3.5	20.1	8.2	32.8	97.5	7.3	1.2									2.5		
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Surface	1.0	20.1	8.3	32.7	97.2	7.3	1.0	20.1	8.3	32.7	97.2	7.3	1.0		7.3	1.7	1.7	2.6
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Surface	1.0	20.1	8.3	32.7	97.2	7.3	1.0									1.6		
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Middle	4.8	20.2	8.3	32.7	97.5	7.3	1.1	20.2	8.3	32.7	97.5	7.3	1.1	1.1		2.6	2.6	
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Middle	4.8	20.2	8.3	32.7	97.5	7.3	1.1									2.5		
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Bottom	8.5	20.0	8.3	32.7	97.7	7.3	1.2	20.0	8.3	32.7	97.7	7.3	1.2		7.3	3.6	3.5	
25/12/2021	Mid-Ebb	C1	Fine	Calm	14:38	14:40	9.5	Bottom	8.5	20.0	8.3	32.7	97.7	7.3	1.2									3.3		
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		7.3	-	-	3.5
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Surface	-	-	-	-	-	-	-									-		
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Middle	1.0	20.0	8.3	32.7	97.1	7.3	1.2	20.1	8.3	32.7	97.2	7.3	1.2	1.2		3.2	3.5	
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Middle	1.0	20.1	8.3	32.7	97.3	7.3	1.2									3.7		
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Ebb	C2	Fine	Calm	14:50	14:52	2.0	Bottom			-	-	-	-	-									-		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Surface	-	-	-	-	-	-	-	-								-	-	2.4
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Surface	-	-	-	-	-	-	-	-								-		
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Middle	0.7	20.2	8.3	32.7	97.5	7.3	1.0	20.2	8.3	32.7	97.5	7.3	1.0	1.0	7.3	2.5	2.4	
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Middle	0.7	20.2	8.3	32.7	97.5	7.3	1.0									2.3		
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Ebb	WM1	Fine	Calm	14:42	14:44	1.4	Bottom			-	-	-	-	-									-		
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Surface	1.0	20.1	8.3	32.7	96.8	7.2	1.0	20.1	8.3	32.7	96.8	7.2	1.1	1.1	7.2	2.5	2.6	3.1
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Surface	1.0	20.1	8.3	32.7	96.7	7.2	1.1									2.6		
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Middle	-	-	-	-	-	-	-									-		
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Bottom	3.6	20.1	8.3	32.8	96.0	7.2	1.1	20.1	8.3	32.8	96.1	7.2	1.1		7.2	3.8	3.7	
25/12/2021	Mid-Ebb	WM2	Fine	Calm	14:51	14:53	4.6	Bottom	3.6	20.0	8.3	32.8	96.1	7.2	1.1									3.6		
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Surface	1.0	19.9	8.3	32.7	97.6	7.3	1.0	19.9	8.3	32.7	97.6	7.3	1.0	1.1	7.3	3.2	3.3	3.1
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Surface	1.0	19.9	8.3	32.7	97.6	7.3	1.1									3.3		
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Middle	4.9	20.1	8.3	32.7	96.8	7.3	1.1	20.1	8.3	32.7	96.9	7.3	1.1		7.3	2.9	3.1	
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Middle	4.9	20.0	8.3	32.7	96.9	7.3	1.1									3.2		
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Bottom	8.7	20.0	8.3	32.7	97.5	7.3	1.2	20.1	8.3	32.7	97.6	7.3	1.2		7.3	2.9	2.9	
25/12/2021	Mid-Flood	C1	Fine	Calm	10:29	10:31	9.7	Bottom	8.7	20.1	8.3	32.7	97.6	7.3	1.2									2.8		
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2.7
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Surface	-	-	-	-	-	-	-									-		
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Middle	0.6	20.1	8.3	32.7	97.3	7.3	1.1	20.1	8.3	32.7	97.3	7.3	1.1	1.1	7.3	2.6	2.7	
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Middle	0.6	20.1	8.3	32.7	97.3	7.3	1.0									2.7		
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Flood	C2	Fine	Calm	10:19	10:21	1.2	Bottom			-	-	-	-	-									-		
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4.1
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Surface	-	-	-	-	-	-	-									-		
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Middle	0.5	20.1	8.3	32.7	97.4	7.3	1.2	20.1	8.3	32.7	97.5	7.3	1.2	1.2	7.3	4.0	4.1	
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Middle	0.5	20.1	8.3	32.7	97.5	7.3	1.2									4.2		
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Flood	WM1	Fine	Calm	10:23	10:25	1.0	Bottom			-	-	-	-	-									-		
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Surface	1.0	20.2	8.3	32.7	97.9	7.3	1.1	20.2	8.3	32.7	97.9	7.3	1.1	1.1	7.3	4.0	3.9	4.5
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Surface	1.0	20.2	8.3	32.7	97.9	7.3	1.1									3.7		
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Middle	-	-	-	-	-	-	-									-		
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Bottom	3.5	20.2	8.3	32.7	97.9	7.3	1.2	20.2	8.3	32.7	97.9	7.3	1.2		7.3	5.2	5.1	
25/12/2021	Mid-Flood	WM2	Fine	Calm	10:13	10:15	4.5	Bottom	3.5	20.2	8.3	32.7	97.9	7.3	1.2									5.0		
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Surface	1.0	18.9	8.1	33.4	99.4	7.7	1.0	18.9	8.1	33.4	99.3	7.6	1.0	1.5	7.5	2.6	2.4	2.8
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Surface	1.0	18.9	8.1	33.4	99.2	7.6	1.0									2.2		
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Middle	4.9	18.9	8.1	33.4	96.9	7.5	1.5	18.9	8.1	33.4	96.9	7.5	1.5		7.5	3.2	2.8	
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Middle	4.9	18.9	8.1	33.4	96.9	7.5	1.5									2.4		
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Bottom	8.8	19.0	8.1	33.4	95.8	7.3	2.2	19.0	8.1	33.4	95.8	7.3	2.2		7.3	3.5	3.1	
28/12/2021	Mid-Ebb	C1	Cloudy	Calm	17:59	18:01	9.8	Bottom	8.8	19.0	8.1	33.4	95.7	7.3	2.2									2.6		
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2.0
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Surface	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Middle	1.0	19.1	8.1	33.4	100.7	7.7	1.1	19.1	8.1	33.4	100.7	7.7	1.1	1.1	7.7	2.2	2.0	
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Middle	1.0	19.1	8.1	33.4	100.7	7.7	1.1									1.8		
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Ebb	C2	Cloudy	Calm	18:09	18:10	2.0	Bottom			-	-	-	-	-									-		
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3.0
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Surface	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Middle	0.6	18.9	8.1	33.5	101.7	7.8	1.6	18.9	8.1	33.5	101.8	7.8	1.6	1.6	7.8	2.6	3.0	
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Middle	0.6	18.9	8.1	33.5	101.8	7.9	1.6									3.4		
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Ebb	WM1	Cloudy	Calm	18:06	18:07	1.2	Bottom			-	-	-	-	-									-		
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Surface	1.0	18.8	8.1	33.4	99.8	7.6	1.0	18.8	8.1	33.4	99.8	7.6	1.0	1.1	7.6	2.7	3.0	2.8
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Surface	1.0	18.8	8.1	33.4	99.8	7.6	1.0									3.2		
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Middle	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Bottom	4.1	18.7	8.1	33.4	98.9	7.6	1.2	18.7	8.1	33.4	99.0	7.6	1.2		7.6	3.0	2.6	
28/12/2021	Mid-Ebb	WM2	Cloudy	Calm	18:15	18:17	5.1	Bottom	4.1	18.7	8.1	33.4	99.0	7.6	1.3									2.1		
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Surface	1.0	19.0	8.1	33.4	100.7	7.7	1.0	19.0	8.1	33.4	100.7	7.7	1.0	1.4	7.5	4.2	3.7	3.3
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Surface	1.0	19.0	8.1	33.4	100.6	7.7	1.0									3.2		
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Middle	4.6	19.0	8.1	33.4	97.4	7.4	1.0	19.0	8.1	33.4	97.4	7.4	1.0		7.5	3.8	3.4	
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Middle	4.6	18.9	8.1	33.4	97.4	7.4	1.0									3.0		
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Bottom	8.2	18.9	8.1	33.4	96.1	7.3	2.1	18.9	8.1	33.4	96.2	7.3	2.1		7.3	2.5	2.8	
28/12/2021	Mid-Flood	C1	Cloudy	Calm	11:42	11:44	9.2	Bottom	8.2	18.9	8.1	33.4	96.2	7.3	2.2									3.1		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4.3
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Surface	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Middle	1.0	18.9	8.1	33.4	102.9	7.8	0.8	18.9	8.1	33.4	103.0	7.8	0.8	0.8	7.8	4.8	4.3	
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Middle	1.0	18.9	8.1	33.4	103.0	7.9	0.8									3.7		
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Flood	C2	Cloudy	Calm	12:02	12:03	2.0	Bottom			-	-	-	-	-									-		
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	5.1
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Surface	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Middle	0.5	19.1	8.1	33.4	103.1	7.9	0.8	19.1	8.1	33.4	103.1	7.9	0.8	0.8	7.9	5.5	5.1	
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Middle	0.5	19.1	8.1	33.4	103.1	7.8	0.8									4.7		
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Flood	WM1	Cloudy	Calm	11:47	11:48	1.0	Bottom			-	-	-	-	-									-		
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Surface	1.0	18.9	8.1	33.4	101.5	7.7	0.8	18.9	8.1	33.4	101.5	7.7	0.8	0.9	7.7	2.9	3.1	3.4
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Surface	1.0	18.9	8.1	33.4	101.5	7.7	0.8									3.3		
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Middle	-	-	-	-	-	-	-									-		
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Bottom	3.5	18.9	8.1	33.4	101.8	7.8	0.9	18.9	8.1	33.4	101.9	7.8	0.9		7.8	4.0	3.6	
28/12/2021	Mid-Flood	WM2	Cloudy	Calm	12:12	12:14	4.5	Bottom	3.5	18.9	8.1	33.4	101.9	7.8	0.9									3.2		
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Surface	1.0	19.6	8.2	33.5	111.8	8.4	1.2	19.6	8.2	33.5	111.8	8.4	1.2	1.3	8.4	2.3	2.5	3.1
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Surface	1.0	19.6	8.2	33.5	111.7	8.4	1.2									2.6		
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Middle	4.5	19.5	8.2	33.5	110.9	8.5	1.3	19.5	8.2	33.5	110.8	8.4	1.3			2.7	2.8	
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Middle	4.5	19.5	8.2	33.5	110.7	8.3	1.3									2.8		
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Bottom	8.0	19.5	8.2	33.5	109.7	8.3	1.4	19.5	8.2	33.5	109.6	8.3	1.4		8.3	3.8	4.0	
30/12/2021	Mid-Ebb	C1	Fine	Calm	10:28	10:30	9.0	Bottom	8.0	19.5	8.2	33.5	109.5	8.3	1.4									4.2		
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4.0
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Surface	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Middle	0.6	19.6	8.3	33.5	112.2	8.4	1.2	19.6	8.3	33.5	112.2	8.4	1.2	1.2	8.4	4.1	4.0	
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Middle	0.6	19.6	8.3	33.5	112.2	8.4	1.2									3.8		
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
30/12/2021	Mid-Ebb	C2	Fine	Calm	10:36	10:38	1.2	Bottom			-	-	-	-	-									-		
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	2.4
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Surface	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Middle	0.5	19.6	8.2	33.4	112.2	8.6	1.4	19.7	8.2	33.4	112.2	8.5	1.4	1.4	8.5	2.2	2.4	
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Middle	0.5	19.7	8.2	33.4	112.2	8.4	1.4									2.5		
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
30/12/2021	Mid-Ebb	WM1	Fine	Calm	10:32	10:34	1.0	Bottom			-	-	-	-	-									-		
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Surface	1.0	19.5	8.3	33.5	112.0	8.4	1.2	19.5	8.3	33.5	112.0	8.4	1.2	1.3	8.4	2.6	2.6	2.4
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Surface	1.0	19.5	8.3	33.5	112.0	8.4	1.2									2.5		
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Middle	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Bottom	3.5	19.6	8.3	33.5	112.4	8.5	1.4	19.6	8.3	33.5	112.5	8.5	1.4		8.5	2.3	2.2	
30/12/2021	Mid-Ebb	WM2	Fine	Calm	10:40	10:42	4.5	Bottom	3.5	19.6	8.3	33.5	112.5	8.6	1.4									2.1		

Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Surface	1.0	19.5	8.3	33.5	112.6	8.6	1.2	19.5	8.3	33.5	112.6	8.6	1.2		8.6	1.6	1.7	2.0
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Surface	1.0	19.5	8.3	33.5	112.6	8.6	1.2									1.8		
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Middle	4.7	19.5	8.3	33.5	112.6	8.6	1.3	19.5	8.3	33.5	112.6	8.6	1.3	1.3		2.1	2.1	
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Middle	4.7	19.5	8.3	33.5	112.6	8.6	1.3									2.0		
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Bottom	8.4	19.6	8.3	33.5	112.8	8.5	1.3	19.6	8.3	33.5	112.8	8.5	1.3		8.5	2.2	2.2	
30/12/2021	Mid-Flood	C1	Fine	Calm	13:34	13:36	9.4	Bottom	8.4	19.6	8.3	33.5	112.8	8.5	1.3									2.2		
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.5	-	-	2.3
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Surface	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Middle	1.0	19.5	8.3	33.5	112.4	8.5	1.3	19.5	8.3	33.5	112.4	8.5	1.3	1.3		2.4	2.3	
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Middle	1.0	19.5	8.3	33.5	112.4	8.5	1.4									2.1		
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
30/12/2021	Mid-Flood	C2	Fine	Calm	13:24	13:26	2.0	Bottom			-	-	-	-	-									-		
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.5	-	-	2.4
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Surface	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Middle	0.7	19.5	8.3	33.5	112.3	8.5	1.2	19.5	8.3	33.5	112.3	8.5	1.2	1.2		2.3	2.4	
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Middle	0.7	19.5	8.3	33.5	112.2	8.5	1.2									2.4		
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
30/12/2021	Mid-Flood	WM1	Fine	Calm	13:28	13:30	1.4	Bottom			-	-	-	-	-									-		
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Surface	1.0	19.5	8.3	33.5	112.3	8.5	1.2	19.5	8.3	33.5	112.3	8.5	1.2		8.5	1.4	1.5	1.9
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Surface	1.0	19.5	8.3	33.5	112.3	8.6	1.3									1.5		
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Middle	-	-	-	-	-	-	-									-		
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Bottom	3.6	19.5	8.3	33.5	112.7	8.6	1.3	19.6	8.3	33.5	112.7	8.5	1.3		8.5	2.4	2.4	
30/12/2021	Mid-Flood	WM2	Fine	Calm	13:18	13:20	4.6	Bottom	3.6	19.6	8.3	33.5	112.7	8.5	1.3									2.3		
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Surface	1.0	19.6	8.2	33.5	112.1	8.4	1.1	19.6	8.2	33.5	112.1	8.4	1.0		8.5	1.2	1.2	1.0
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Surface	1.0	19.6	8.2	33.5	112.0	8.4	1.0									1.1		
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Middle	4.7	19.5	8.2	33.5	111.8	8.5	1.2	19.5	8.2	33.5	111.8	8.5	1.2	1.2		1.1	1.0	
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Middle	4.7	19.4	8.2	33.5	111.8	8.5	1.2									0.9		
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Bottom	8.4	19.4	8.2	33.5	111.8	8.6	1.3	19.4	8.2	33.5	111.9	8.5	1.3		8.5	0.8	0.9	
01/01/2022	Mid-Ebb	C1	Fine	Calm	12:23	12:25	9.4	Bottom	8.4	19.4	8.2	33.5	111.9	8.5	1.2									1.0		
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.6	-	-	1.1
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Surface	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Middle	0.6	19.4	8.3	33.5	112.3	8.6	1.0	19.4	8.3	33.5	112.3	8.6	1.1	1.1		1.1	1.1	
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Middle	0.6	19.4	8.3	33.5	112.2	8.6	1.1									1.0		
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
01/01/2022	Mid-Ebb	C2	Fine	Calm	12:31	12:33	1.2	Bottom			-	-	-	-	-									-		
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.6	-	-	1.1
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Surface	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Middle	0.5	19.6	8.2	33.4	112.1	8.5	1.2	19.6	8.2	33.4	112.1	8.6	1.1	1.1		0.8	1.1	
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Middle	0.5	19.6	8.2	33.4	112.1	8.6	1.1									1.4		
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
01/01/2022	Mid-Ebb	WM1	Fine	Calm	12:27	12:29	1.0	Bottom			-	-	-	-	-									-		
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Surface	1.0	19.5	8.3	33.5	112.8	8.6	1.1	19.5	8.3	33.5	112.8	8.6	1.1		8.6	1.2	1.2	1.2
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Surface	1.0	19.5	8.3	33.5	112.7	8.6	1.1									1.2		
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2		-	-	
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Middle	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Bottom	3.6	19.5	8.3	33.5	112.5	8.6	1.3	19.5	8.3	33.5	112.5	8.5	1.3		8.5	1.2	1.1	
01/01/2022	Mid-Ebb	WM2	Fine	Calm	12:35	12:36	4.6	Bottom	3.6	19.5	8.3	33.5	112.4	8.5	1.3									1.0		
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Surface	1.0	19.4	8.3	33.5	112.5	8.6	1.1	19.4	8.3	33.5	112.5	8.6	1.1		8.5	1.2	1.3	1.2
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Surface	1.0	19.4	8.3	33.5	112.5	8.6	1.1									1.3		
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Middle	4.7	19.5	8.3	33.5	112.0	8.4	1.2	19.5	8.3	33.5	112.0	8.4	1.2	1.2		1.1	1.2	
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Middle	4.7	19.5	8.3	33.5	111.9	8.4	1.2									1.3		
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Bottom	8.4	19.6	8.3	33.5	112.6	8.5	1.2	19.6	8.3	33.5	112.7	8.5	1.2		8.5	1.2	1.1	
01/01/2022	Mid-Flood	C1	Fine	Calm	15:53	15:55	9.4	Bottom	8.4	19.6	8.3	33.5	112.7	8.5	1.2									0.9		
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.6	-	-	1.1
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Surface	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Middle	1.0	19.5	8.3	33.5	112.5	8.6	1.2	19.5	8.3	33.5	112.5	8.6	1.2	1.2		1.0	1.1	
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Middle	1.0	19.5	8.3	33.5	112.5	8.6	1.2									1.2		
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
01/01/2022	Mid-Flood	C2	Fine	Calm	15:43	15:45	2.0	Bottom			-	-	-	-	-									-		
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-		8.5	-	-	1.5
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Surface	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Middle	0.7	19.5	8.3	33.5	112.4	8.5	1.2	19.5	8.3	33.5	112.4	8.5	1.2	1.2		1.6	1.5	
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Middle	0.7	19.5	8.3	33.5	112.4	8.6	1.2									1.4		
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Bottom			-	-	-	-	-	-	-	-	-	-	-			-	-	
01/01/2022	Mid-Flood	WM1	Fine	Calm	15:46	15:47	1.4	Bottom			-	-	-	-	-									-		

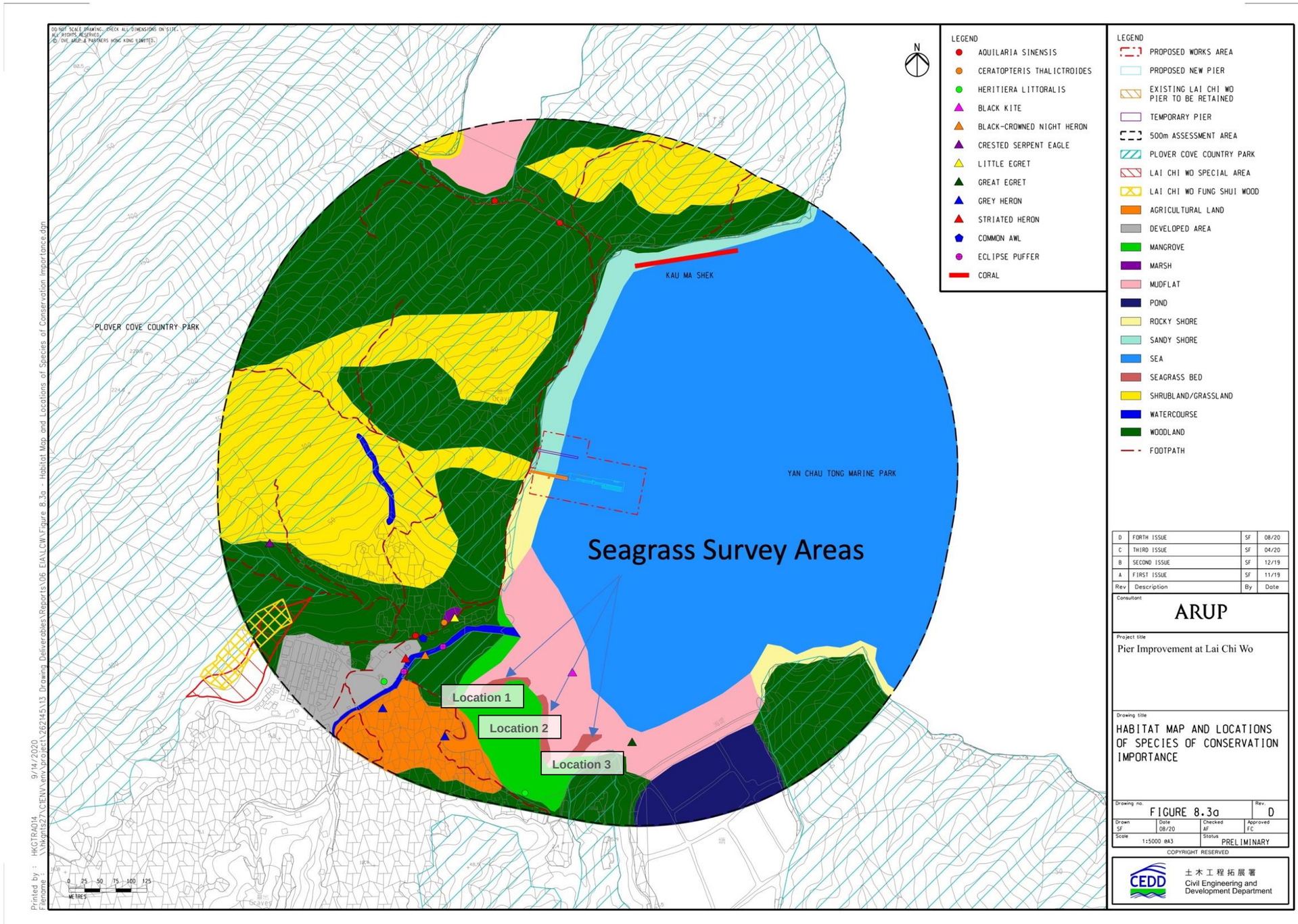
Date	Tide	Station	Weather	Sea	Sampling Time		Water	Level	Sampling depth (m)	Water Temperature (°C)	pH	Salinity ppt	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Water Temperature (°C)	pH	Salinity ppt	DO %	DO mg/L	Turbidity (NTU)	Turbidity (NTU)	DO mg/L	Suspended Solids (mg/L)	Suspended Solids (mg/L)	Suspended Solids (mg/L)
(dd-mm-yyyy)			Condition	Condition	Start	Finish	Depth (m)			Value	Value	Value	Value	Value	Value	Average	Average	Average	Average	Average	Average	DA*	DA*	Value	Average	DA*
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Surface	1.0	19.5	8.3	33.5	112.2	8.6	1.1	19.5	8.3	33.5	112.2	8.5	1.1	1.1	8.5	1.4	1.3	1.1
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Surface	1.0	19.5	8.3	33.5	112.2	8.5	1.0									1.1		
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Middle	-	-	-	-	-	-	-									-		
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Bottom	3.6	19.7	8.3	33.5	112.1	8.5	1.2	19.7	8.3	33.5	112.2	8.5	1.2		8.5	0.8	0.9	
01/01/2022	Mid-Flood	WM2	Fine	Calm	15:36	15:38	4.6	Bottom	3.6	19.7	8.3	33.5	112.2	8.5	1.2									0.9		

Remark: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher

Appendix B1

Identified Seagrass Bed in the EIA Report

Appendix B1 Identified Seagrass Bed in the EIA Report



Appendix B2

Photo of Surveyed Area for Seagrass Bed

Appendix B2 Photo of Surveyed Area for Seagrass Bed


Location 1: No Seagrass was recorded


Location 2: No Seagrass was recorded


Location 3: No Seagrass was recorded

Sean WONG
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ATKINS
Member of the SNC-Lavalin Group

Our ref	5207869/18.30/OC101/AL/DL/SW/IW/JC/fl
Title	Submission of Baseline Monitoring Report (Rev. 2)
Date	23 February 2022

Attachment 2

–

ET Certification and IEC Verification Letters

ATKINS
Member of the SNC-Lavalin Group

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Your ref. -
Our ref 5207869/18.30/OC100/AL/DL/SW/IW/AL/fl

Date 21 February 2022

By Post and By Email
Civil Engineering and Development Department
Civil Engineering Office
Pier Improvement Unit
Projects Section 3
4/F, Civil Engineering and Development Building
101 Princess Margaret Road
Homantin, Kowloon

Attn: Mr. LEE Man Chow, Francis
Project Team Leader

Dear Sirs,

Agreement No. CE 32/2021 (CE)
Improvement Works at Lai Chi Wo Pier and Tung Ping Chau Public Pier – Design and Construction
Certification of Baseline Monitoring Report (Rev. 2)

Pursuant to Condition 4.3 of the Environmental Permit No. EP-586/2021, I hereby certify the Baseline Monitoring Report (Rev. 2).

Should you have any queries regarding the above, please feel free to contact us by telephone number 2972 1360.

Yours faithfully,
For and on behalf of
Atkins China Ltd

Arthur Hong Nam Lo
Environmental Team Leader

cc EPD - Ms. LAU Tai, Trista (Env Protection Offr (Strategic Assessment) 61)
Wilson Acoustic Ltd - Mr. Morgan Cheng (IEC)

Wilson Acoustics Limited

Unit 601, Block A, Shatin Industrial Centre,
5 - 7 Yuen Shun Circuit, Shatin, NT
Tel: (852) 3188-1170, Fax: (852) 3422-8117
E-mail: who@wal.hk
Web: www.wal.hk

Our Ref: 21411-22

By Email

23 February 2022

Civil Engineering and Development Department
Civil Engineering and Development Building,
101 Princess Margaret Road,
Kowloon, Hong Kong

Attention: Mr. LEE Man-chow

Subject: **Agreement No. PI 2/2021 Independent Environmental Checker Services for Improvement Works at Lai Chi Wo Pier and Improvement Works at Tung Ping Chau Public Pier**
Verification of Baseline Monitoring Report (Revision 2)

Dear Mr Lee,

We refer to the email on 21 February 2022 from Atkins China Limited about Baseline Monitoring Report (Revision 2) for Improvement Works at Lai Chi Wo Pier.

We have no comment in this stage for works in dry season and hereby verify Baseline Monitoring Report (Revision 2) as required under Condition 4.2.(i) & 4.3 of the Environmental Permit (EP-586/2021).

No marine works will be conducted during wet season until baseline water quality is conducted and the Action and Limit Levels for construction phase marine water quality monitoring for wet season are established.

Should you have any queries, please feel free to contact us by telephone number 2637-0623 or fax 3422-8117.

Yours sincerely

Morgan Cheng
Independent Environmental Checker, Wilson Acoustics Limited

ST

Encl.

c.c. Civil Engineering and Development Department (Attn.: Mr. YUNG Chung Bun, Thomas)
Environmental Protection Department (Attn.: Ms. LAU Tai, Trista)
Atkins China Limited (Attn.: Mr. Sean Wong)