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港燈
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HKLTL

Hong Kong Offshore LNG Terminal Project

Baseline Monitoring Report

7 December 2020

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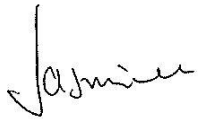
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7 December 2020

Hong Kong Offshore LNG Terminal Project

Baseline Monitoring Report



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

Reference Document/Plan

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Date of Report:	7 December 2020
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Reference EP Requirement

EP Condition:	Condition No. 5.3 of FEP-01/558/2018/A, FEP-02/558/2018 & FEP-03/558/2018
Content:	<i>Baseline Monitoring Report</i>
<p>The Permit Holder shall submit 3 hard copies and 1 electronic copy of relevant Baseline Monitoring Reports to the Director at least 2 weeks before the commencement of construction of the Project. The submissions shall be certified by the ET Leader and verified by the IEC as having complied with the requirements as set out in the updated EM&A Manual before submission to the Director. Additional copies of the Baseline Monitoring Report shall be provided upon request by the Director.</p>	

ET Certification

<p>I hereby certify that the above referenced document/plan complies with the above referenced condition of FEP-01/558/2018/A, FEP-02/558/2018 & FEP-03/558/2018.</p>	
Mr Raymond Chow, Environmental Team Leader:	Date: 7 December 2020

IEC Verification

<p>I hereby verify that the above referenced document/plan complies with the above referenced condition of FEP-01/558/2018/A, FEP-02/558/2018 & FEP-03/558/2018.</p>	
Mr Arthur Lo, Independent Environmental Checker:	Date: 15 December 2020

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EXECUTIVE SUMMARY

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

Baseline water quality monitoring was conducted three times a week for four weeks during wet season (Aug – Sep 2019) and four weeks during dry season (Dec 2019 – Jan 2020) at 35 monitoring stations specified in the Updated EM&A Manual. 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. 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 Dissolved Oxygen (DO), Turbidity and Suspended Solids (SS) based on the baseline monitoring results.

Baseline marine mammal monitoring was conducted for six months using vessel-based line transect surveys and passive acoustic monitoring (PAM). Vessel-based line transect surveys were conducted during June to November 2019, with a total of 36 line-transect surveys completed in Southwest Lantau (SWL), Southeast Lantau (SEL) and Lamma (LM) waters while PAM was conducted in the vicinity of the LNG Terminal site in September 2019 to March 2020. The distribution and encounter rate of Finless Porpoise in southern Lantau where a majority of Project construction works would take place were examined. Action and Limit Levels for construction phase marine mammal monitoring were established for Finless Porpoise based on the baseline monitoring results.

Upon agreement with EPD on this Baseline Monitoring Report, the Action and Limit Levels as proposed in this Report will be included in the next version of the Updated EM&A Manual.

1. INTRODUCTION

1.1 Background

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

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

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

- the double berth jetty at LNG Terminal under the Hong Kong LNG Terminal Limited, joint venture between CAPCO and HK Electric (FEP-01/558/2018);
- the subsea gas pipeline for the BPPS and the associated GRS in the BPPS under CAPCO (FEP-03/558/2018); and
- the subsea gas pipeline for the LPS and the associated GRS in the LPS under HK Electric (FEP-02/558/2018).

This Baseline Monitoring Report is prepared in accordance with the requirements as set out in the Updated EM&A Manual of the Project and shall be applicable to fulfilling Condition 5.3 of all three FEPs.

1.2 Project Components

The Project is comprised of the following key components:

- An offshore LNG receiving terminal (LNG Terminal) that comprises of the Jetty and the FSRU Vessel, under FEP-01/558/2018;
- Two subsea gas pipelines, namely:
 - The BPPS Pipeline, connecting the LNG Terminal with the GRS at the BPPS, under FEP-03/558/2018; and
 - The LPS Pipeline, connecting the LNG Terminal with the GRS at the LPS, under FEP-02/558/2018;
- The GRS facilities, namely:
 - The GRS located within the BPPS, under FEP-03/558/2018; and
 - The GRS located within the LPS, under FEP-02/558/2018.

The location of these components is shown in **Figures 1.1 to 1.3**.

1.3 Structure of the Report

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, baseline monitoring results, proposed action and limit levels, and the event and action plan for marine mammal monitoring;
- **Section 4** summarises the revisions for the Updated EM&A Manual; and
- **Section 5** provides the conclusion of this baseline monitoring.

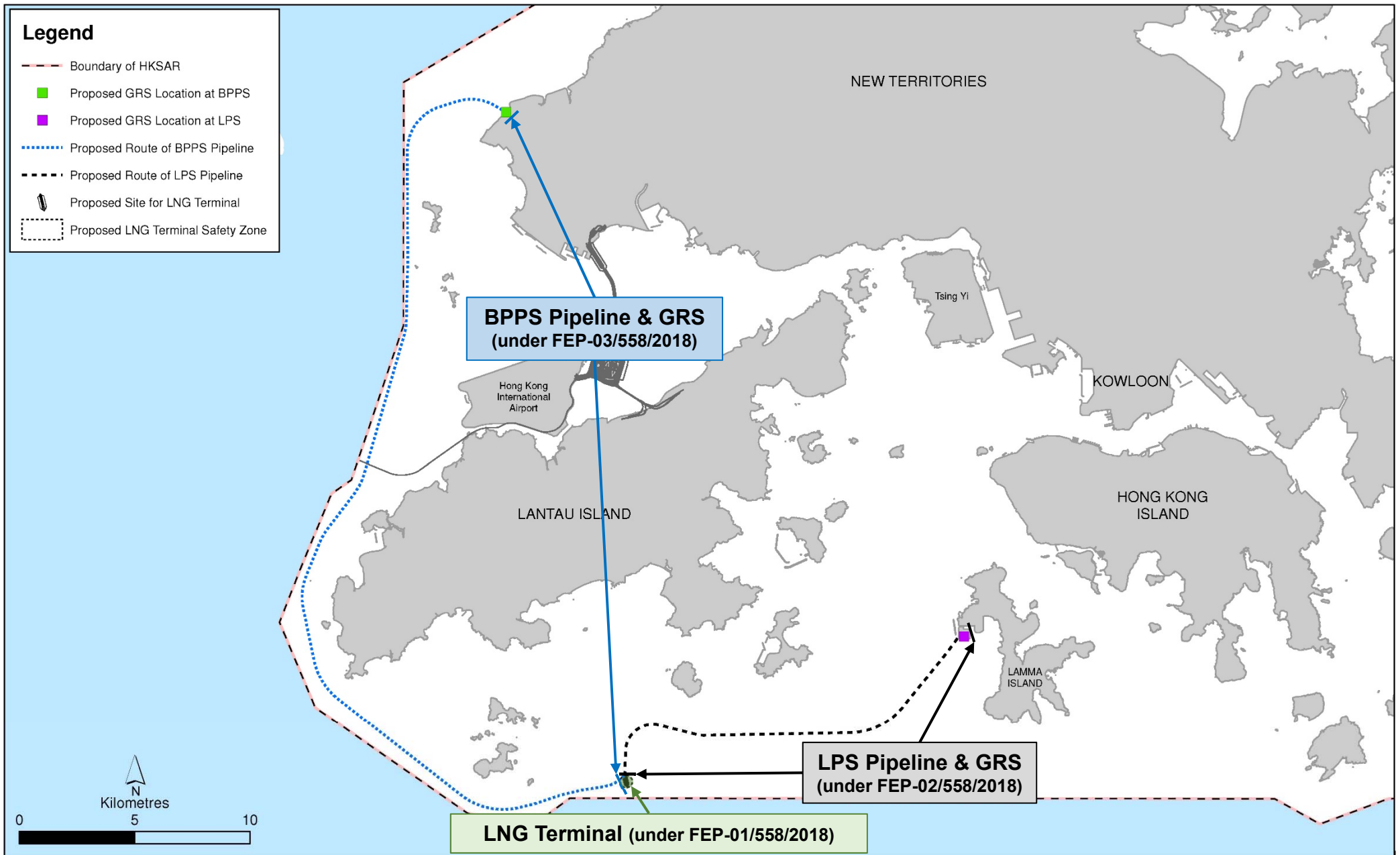



Figure 1.1

Indicative Location of Key Project Components

Legend

 Proposed GRS Location at BPPS

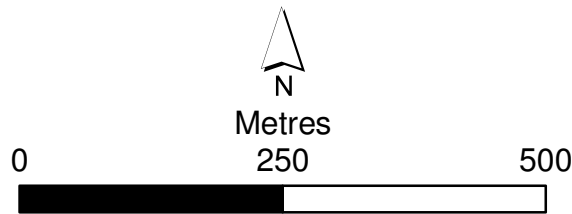
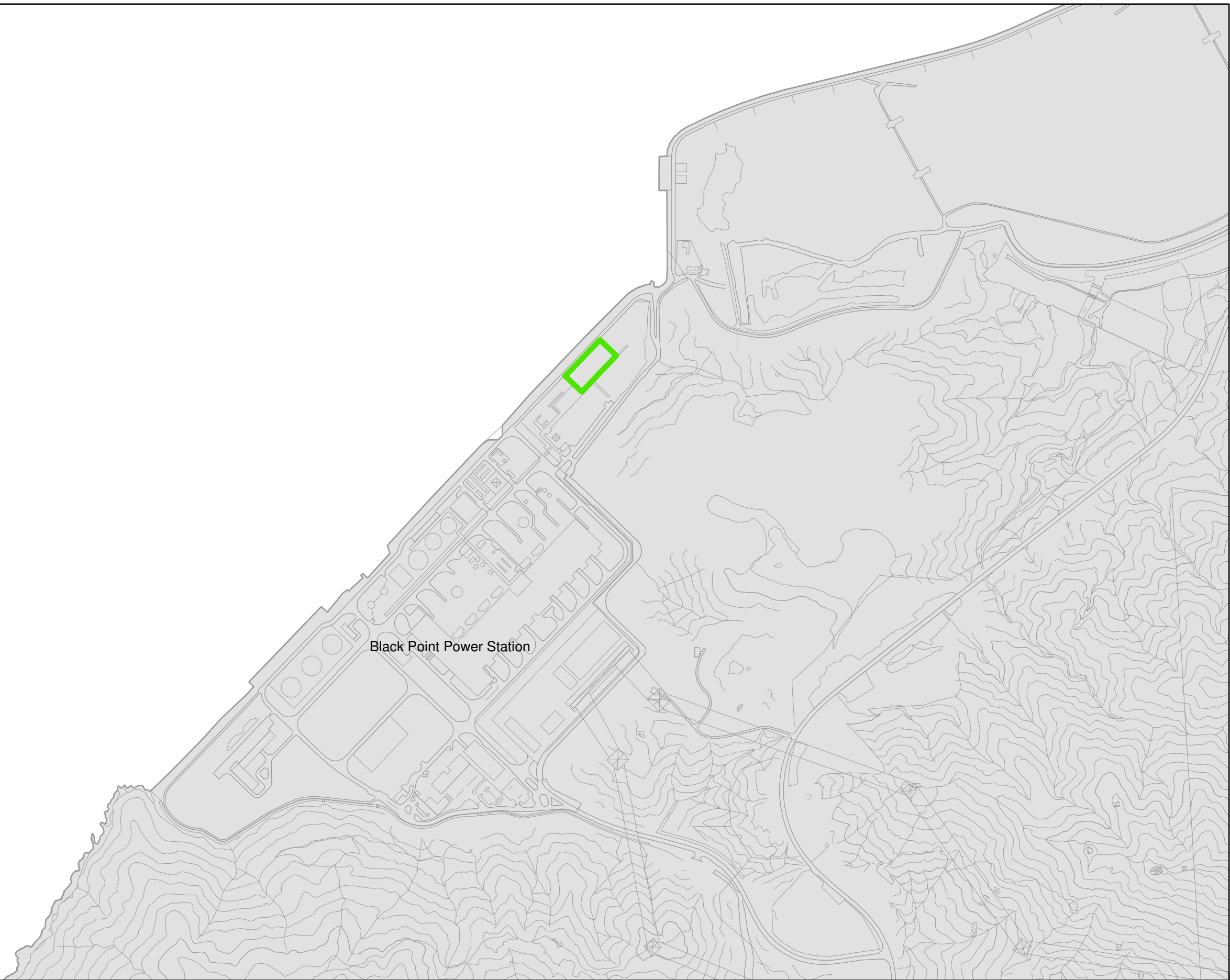


Figure 1.2

Indicative Location of the Gas Receiving Station at Black Point Power Station

Legend

 Proposed GRS Location at LPS

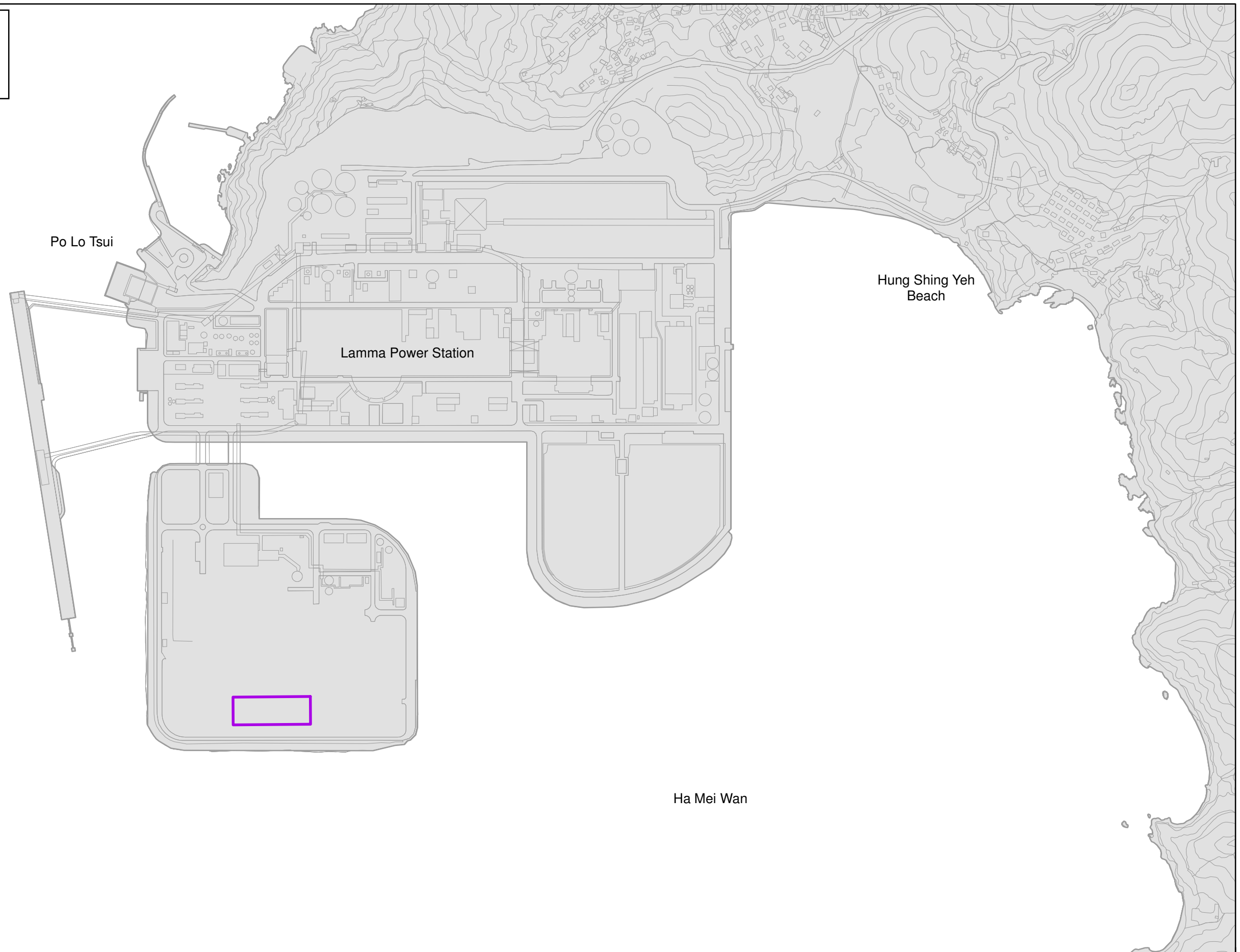


Figure 1.3

Indicative Location of the Gas Receiving Station at Lamma Power Station

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Date: 18/4/2018

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2. WATER QUALITY MONITORING

In accordance with the Updated EM&A Manual of the Project, baseline water quality monitoring was conducted three times per week for at least four weeks to establish the baseline conditions prior to the commencement of marine construction works for the Project and to demonstrate the suitability of the proposed control monitoring stations. Considering the seasonal variation in water quality, especially on dissolved oxygen, turbidity and suspended solids, baseline water quality monitoring was conducted for four weeks in the wet season (Aug – Sep 2019) and four weeks in the dry season (Dec 2019 – Jan 2020). The baseline conditions were established by measuring relevant water quality parameters at all designated monitoring stations for the Project, including control stations at mid-ebb and mid-flood tides. Further details of the baseline water quality monitoring under this Project are presented in the following sections.

2.1 Monitoring Locations

Baseline water quality monitoring was conducted at 35 monitoring stations within five Water Control Zones (WCZs), namely Deep Bay WCZ, North Western WCZ, North Western Supplementary WCZ, Southern WCZ and Second Southern Supplementary WCZ, comprising 22 impact stations, seven ebb-tide control stations and six flood-tide control stations. The locations of the monitoring stations are presented in **Figure 2.1**. The coordinates and description of monitoring stations are summarised in **Table 2.1**.

Table 2.1 Location of Water Quality Monitoring Stations

Station	Easting	Northing	Description
Monitoring stations within Southern WCZ and Second Southern Supplementary WCZ			
IM1	829453	806896	Impact Station for Coastline of South Lamma
IM2	828235	810347	Impact Station for Coastline of North Lamma
IM3	820683	805931	Impact Station for Coastline of South Cheung Chau
IM4	816997	805153	Impact Station for Coastline of South Shek Kwu Chau
IM5	814068	804100	Boundary of Proposed South Lantau Marine Park (MP)
IM6	814073	802029	Boundary of Proposed South Lantau MP
IM7	811652	802029	Boundary of Proposed South Lantau MP
IM8	810833	801430	Boundary of Proposed South Lantau MP
IM9	807101	801595	Boundary of Proposed South Lantau MP
IM10	803145	806407	Boundary of Southwest Lantau MP
E1	827317	811510	Control Station for Ebb Tide
E2	813367	808213	Control Station for Ebb Tide
E3	802686	804123	Control Station for Ebb Tide
F1	827892	804243	Control Station for Flood Tide
F2	822532	802161	Control Station for Flood Tide
F3	815032	801161	Control Station for Flood Tide
F4	809058	806567	Control Station for Flood Tide
Monitoring stations within Deep Bay WCZ, North Western WCZ, North Western Supplementary WCZ			
IM11A	801914	806510	Boundary of Southwest Lantau MP
IM12	801041	807024	Boundary of Southwest Lantau MP
IM13	800386	810750	Boundary of Southwest Lantau MP
IM14	801376	810750	Boundary of Southwest Lantau MP
IM15	804820	821110	Boundary of Sha Chau and Lung Kwu Chau MP
IM16A	805039	824343	Coral Colonies at Pak Chau
IM17	804865	827855	Boundary of Sha Chau and Lung Kwu Chau MP
IM18	806220	827890	Boundary of Sha Chau and Lung Kwu Chau MP
IM19	807274	829250	Impact Station for Coastline of Lung Kwu Tan
IM20A	809445	831728	Impact Station for Coastline of Deep Bay
IM21A	808879	830900	Coral Colony at Artificial Seawall at BPPS

Station	Easting	Northing	Description
IM22A	808703	830717	Coral Colony at Artificial Seawall at BPPS
E4	801571	811923	Control Station for Ebb Tide
E5	804634	822606	Control Station for Ebb Tide
E6	805418	832113	Control Station for Ebb Tide
E7A	808313	833524	Control Station for Ebb Tide
F5	805185	816591	Control Station for Flood Tide
F6	808812	824266	Control Station for Flood Tide

Note: Total Residual Chlorine (TRC) was measured only at monitoring stations IM6, F3 and E2 during baseline monitoring for the purpose of comparing against the operation phase monitoring.

2.2 Monitoring Methodology

2.2.1 Monitoring Parameters and Frequency

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

Table 2.2 Water Quality Monitoring Parameters and Frequency

Monitoring Station	Parameters	Depth	Frequency and Replication
<u>Impact Stations</u> IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, IM9, IM10, IM11A, IM12, IM13, IM14, IM15, IM16A, IM17, IM18, IM19, IM20A, IM21A, IM22A	<ul style="list-style-type: none"> Dissolved Oxygen (DO) (mg/L) Dissolved Oxygen Saturation (DOS) (%) Temperature (°C) pH Turbidity (NTU) Salinity (ppt) Water depth (m) Suspended Solid (SS) (mg/L) Total Residual Chlorine (TRC) (mg/L) * 	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.
<u>Control Stations</u> Ebb tide - E1, E2, E3, E4, E5, E6, E7A			
Flood tide - F1, F2, F3, F4, F5, F6			

* Note: TRC was measured only at monitoring stations IM6, F3 and E2 during baseline monitoring for the purpose of comparing against the operation phase monitoring.

In addition to the water quality parameters, other relevant data were also measured and recorded in Water Quality Monitoring Logs, including the location of the monitoring stations, water depth, time, weather conditions, sea conditions, tidal state, current direction and velocity, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

2.2.2 Monitoring Equipment

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

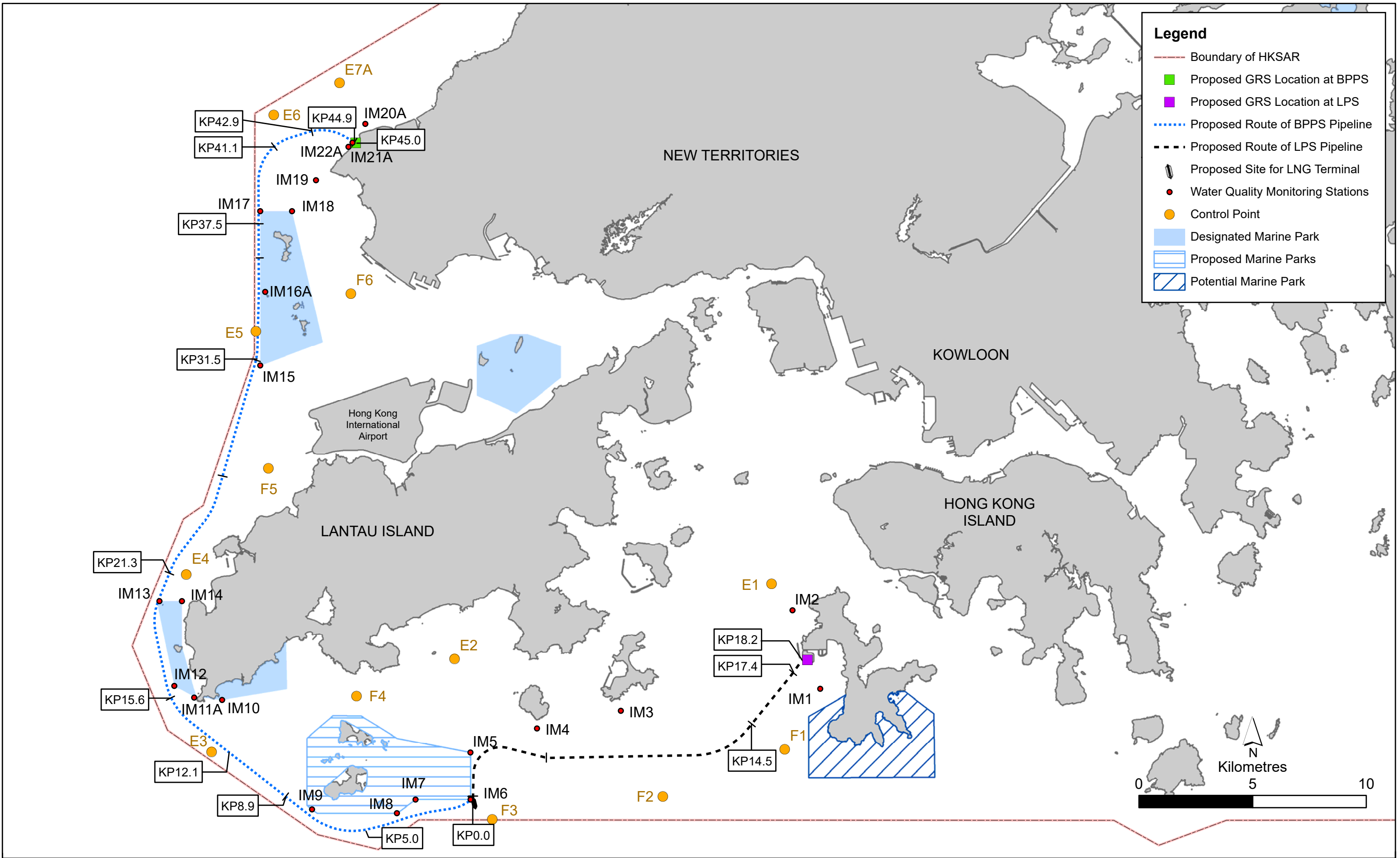


Figure 2.1

Water Quality Monitoring Locations

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	C-Nav GcGPS Positioning System Furuno, GPS Navigator GP-170 Garmin, eTrex series
Water Depth Gauge	Knudsen 320M Lowrance, Mark 5x Garmin, Striker series
Equipment for Dissolved Oxygen, Temperature, Turbidity, pH and Salinity measurements	<u>Wet season (Aug-Sep 19)</u> YSI 6920 and YSI 6820, S/N: MPP 15, MPP 30, MPP 37, MPP 46 YSI ProDSS, S/N: 15M100005, 17E100747, 17H105557, 18A104824 YSI 6920, S/N: 0001C6A7, 00019CB2 <u>Dry season (Dec 19 – Jan 20)</u> YSI 6920 and YSI 6820, S/N: MPP 15, MPP 37, MPP44 YSI ProDSS, S/N: 16H104234, 17E100747, 17H105557 YSI 6920, S/N: 0001C6A7, 00019CB2
Equipment for Current Velocity and Direction measurements	Workhorse Sentinel ADCP, Self-contained 1,200 and 600 kHz Sontek, S/N: 5161, 5489
Equipment for Total Residual Chlorine (TRC) measurements	Hanna Instruments, HI761

2.2.3 Operational/ Analytical Procedures

At each monitoring station, two consecutive measurements of DO level, DO Saturation, Temperature, Turbidity, Salinity and pH were taken at each sampling depth. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken. Two water samples were collected for laboratory analysis of SS 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.

2.3 QA/QC Requirements

2.3.1 Calibration of In-situ Instruments

In situ monitoring equipment for the measurement of temperature, dissolved oxygen, turbidity, pH and salinity was checked, calibrated and certified by a laboratory accredited under HOKLAS before use. Copies of the calibration certificates for the measuring equipment for DO, Temperature, Turbidity, pH and Salinity are attached in **Annex A1**. The test kit for TRC was checked against the calibration check set provided by the manufacturer before commencement of monitoring. The *in situ* monitoring equipment for the measurement of temperature, dissolved oxygen, turbidity, pH and salinity was subsequently re-calibrated every three months throughout the baseline water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibrations for dissolved oxygen meter were carried out before commencement of monitoring and after completion of all measurements each day.

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

2.3.2 Decontamination Procedures

Water sampling equipment used during the course of the 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.

2.3.3 Sampling Management and Supervision

All sampling bottles were labelled with the sample ID (including the indication of sampling station and tidal stage e.g. 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.

2.3.4 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).

2.4 Baseline Water Quality Monitoring Results

Baseline water quality monitoring was conducted three times per week at 35 stations during wet season (4 weeks from 14 August to 17 September 2019) ⁽¹⁾ and dry season (4 weeks from 26 December 2019 to 22 January 2020). The detailed monitoring schedule is shown in **Annex A2**. The monitoring results with weather and sea conditions at each monitoring day are shown in **Annex A3**. Graphical presentation of water quality monitoring results is given in **Annex A4**. Measurement of TRC was conducted in dry season at monitoring stations IM6, F3 and E2. Most of the TRC measurements were lower than the detection limit (i.e. <0.001 mg/L). The water quality monitoring results for DO, Turbidity and SS and those for TRC are summarised in **Table 2.4** and **Table 2.5**, respectively below.

⁽¹⁾ Some of the monitoring results obtained on 14, 16 and 19 August 2019 were discarded as they were sampled outside the planned tidal periods. Re-sampling at these monitoring stations was conducted on 14 and 17 September 2019. The planned monitoring on 2 September 2019 was postponed due to adverse weather.

Table 2.4 Summary of Monitoring Results for DO, Turbidity and SS

Station	DO (Surface & Middle) (mg/L)				DO (Bottom) (mg/L)				Turbidity (NTU)				SS (mg/L)			
	Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide	
	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry
E1	6.3±2.1 (3.9 - 12.9)	7.1±0.5 (6.4 - 8.0)	5.1±1.0 (3.7 - 7.4)	6.9±0.7 (6.3 - 9.0)	4.2±1.0 (1.6 - 5.8)	7.1±0.5 (6.5 - 8.1)	4.4±0.7 (3.3 - 6.0)	6.9±0.5 (6.3 - 8.1)	6.6±5.9 (1.4 - 26.8)	5.6±2.7 (1.5 - 13.4)	7.2±6.8 (1.8 - 40.0)	4.7±2.9 (1.1 - 11.8)	9.7±8.8 (1.9 - 34.6)	9.5±4.1 (2.7 - 22.1)	9.1±8.0 (2.0 - 49.4)	8.8±4.5 (2.4 - 21.8)
E2	7.4±2.7 (3.1 - 14.3)	7.7±0.6 (7.1 - 9.3)	7.7±2.2 (4.1 - 14.3)	7.5±0.7 (7.0 - 10.3)	3.1±1.4 (1.4 - 5.7)	7.5±0.4 (6.9 - 8.5)	3.9±1.5 (1.1 - 5.7)	7.3±0.2 (7.0 - 7.8)	6.8±7.4 (0.2 - 32.1)	4.5±2.2 (1.6 - 11.7)	7.0±8.0 (0.4 - 39.9)	4.9±2.4 (1.9 - 15.0)	10.5±9.8 (2.0 - 36.8)	7.6±2.8 (3.0 - 14.8)	10.2±13.7 (1.0 - 67.2)	8.4±4.2 (2.4 - 23.3)
E3	5.6±1.7 (3.1 - 9.1)	7.8±0.4 (7.0 - 8.9)	5.6±1.6 (3.5 - 9.1)	7.8±0.4 (7.2 - 8.8)	3.8±1.0 (2.9 - 5.8)	7.7±0.3 (7.3 - 8.4)	4.0±1.0 (2.9 - 5.5)	7.7±0.3 (7.2 - 8.1)	9.3±13.6 (0.9 - 81.8)	5.9±8.2 (1.7 - 53.2)	11.0±10.8 (0.6 - 50.0)	6.5±7.8 (0.8 - 38.3)	12.0±17.9 (2.0 - 109.0)	7.7±4.2 (1.4 - 18.7)	15.0±15.3 (0.5 - 62.5)	10.3±9.0 (2.0 - 38.5)
E4	5.3±1.7 (2.9 - 10.1)	7.6±0.4 (7.0 - 8.5)	6.0±2.2 (3.1 - 12.7)	7.7±0.5 (7.1 - 9.1)	3.9±1.1 (2.3 - 5.4)	7.6±0.4 (7.1 - 8.2)	4.2±0.9 (3.1 - 5.6)	7.6±0.4 (7.0 - 8.4)	25.6±42.7 (1.4 - 188.5)	12.0±13.0 (2.2 - 57.8)	13.3±16.8 (1.3 - 93.0)	10.4±5.9 (1.5 - 22.7)	18.4±18.5 (2.9 - 87.4)	19.5±23.5 (3.2 - 89.8)	13.6±16.7 (0.5 - 77.6)	16.0±11.4 (2.0 - 49.2)
E5	6.1±1.2 (4.3 - 10.0)	7.7±0.4 (7.2 - 8.3)	5.6±1.1 (4.3 - 7.9)	7.7±0.7 (6.9 - 9.1)	5.0±0.9 (2.9 - 6.9)	7.5±0.3 (7.0 - 8.2)	5.2±0.8 (3.9 - 6.9)	7.5±0.6 (6.9 - 8.7)	5.7±4.7 (1.6 - 27.6)	13.4±13.9 (2.9 - 66.0)	10.2±7.8 (3.3 - 37.2)	13.2±7.0 (2.4 - 40.7)	8.3±6.8 (2.3 - 38.4)	19.2±21.7 (3.5 - 90.9)	12.2±11.4 (2.5 - 50.5)	22.4±15.8 (2.0 - 66.4)
E6	5.5±1.0 (4.2 - 8.6)	7.2±0.3 (6.9 - 8.0)	4.9±1.1 (3.1 - 7.5)	7.2±0.3 (6.8 - 7.9)	4.8±0.6 (3.7 - 6.3)	7.2±0.3 (6.7 - 7.8)	4.1±0.5 (3.0 - 4.9)	7.1±0.3 (6.8 - 7.6)	5.5±3.2 (2.0 - 20.7)	6.4±4.1 (1.3 - 17.9)	15.9±13.5 (4.5 - 62.9)	7.2±4.7 (1.9 - 22.7)	8.3±5.8 (3.0 - 33.0)	8.7±5.4 (2.4 - 24.7)	20.5±20.8 (4.8 - 107.0)	9.5±6.9 (2.4 - 34.2)
E7A	5.7±0.8 (4.6 - 7.4)	7.1±0.3 (6.7 - 7.7)	5.5±1.0 (4.1 - 7.4)	7.2±0.3 (6.8 - 7.8)	4.9±0.7 (3.8 - 6.4)	7.1±0.3 (6.7 - 7.6)	4.7±0.6 (3.7 - 6.1)	7.2±0.3 (6.7 - 7.7)	5.3±3.3 (2.5 - 20.5)	4.8±2.6 (1.0 - 12.9)	11.0±9.5 (2.7 - 48.6)	7.1±4.5 (1.6 - 17.4)	7.2±5.0 (2.2 - 29.9)	6.9±4.7 (1.1 - 22.9)	13.8±16.4 (2.9 - 85.0)	10.3±10.6 (1.9 - 54.9)
F1	7.0±3.5 (2.2 - 14.4)	7.7±0.3 (7.2 - 8.9)	6.0±3.3 (2.1 - 12.7)	7.6±0.4 (7.1 - 8.7)	3.5±1.4 (1.8 - 6.4)	7.6±0.2 (7.3 - 7.9)	3.2±1.1 (2.0 - 5.7)	7.5±0.2 (7.1 - 7.7)	5.5±6.0 (0.7 - 26.6)	2.9±2.0 (0.7 - 9.7)	7.2±12.2 (0.7 - 77.8)	2.9±2.4 (0.8 - 15.4)	7.8±6.5 (0.5 - 30.0)	6.1±5.4 (1.1 - 42.8)	10.4±17.2 (0.5 - 106.0)	5.9±4.6 (1.4 - 30.1)
F2	7.1±3.2 (3.0 - 14.2)	7.8±0.2 (7.4 - 8.3)	6.7±3.3 (2.0 - 14.3)	7.7±0.3 (7.3 - 8.8)	3.5±1.1 (2.3 - 5.7)	7.6±0.1 (7.3 - 7.8)	3.5±1.2 (2.1 - 6.0)	7.5±0.2 (7.2 - 7.7)	4.7±4.4 (0.3 - 19.6)	2.1±1.7 (0.6 - 9.9)	5.3±4.5 (0.8 - 17.3)	2.5±1.9 (0.6 - 9.4)	7.0±5.8 (0.5 - 28.7)	4.9±2.9 (0.5 - 15.6)	7.1±5.9 (0.5 - 21.9)	5.6±3.1 (0.5 - 13.7)
F3	6.8±2.9 (3.7 - 15.9)	7.8±0.3 (7.5 - 8.5)	6.6±3.2 (2.4 - 14.5)	7.9±0.4 (7.3 - 9.0)	3.5±1.0 (2.4 - 5.5)	7.6±0.1 (7.4 - 7.9)	3.4±1.2 (2.1 - 6.0)	7.6±0.2 (7.3 - 7.9)	5.2±5.4 (0.4 - 21.8)	2.1±1.2 (0.5 - 6.0)	6.6±7.3 (0.5 - 30.1)	3.0±1.9 (0.5 - 8.9)	9.1±10.3 (1.1 - 53.3)	5.4±2.3 (1.1 - 11.5)	9.4±9.9 (0.5 - 42.8)	6.0±3.4 (1.6 - 16.5)
F4	6.3±2.6 (2.5 - 13.1)	7.9±0.7 (7.1 - 9.7)	6.6±2.5 (2.9 - 13.1)	7.8±0.7 (7.0 - 10.2)	3.5±1.2 (2.1 - 5.7)	7.8±0.6 (7.1 - 9.3)	3.2±1.1 (1.8 - 5.6)	7.6±0.5 (7.0 - 8.5)	5.8±4.4 (0.9 - 17.6)	4.9±3.6 (1.1 - 20.3)	8.3±8.0 (0.3 - 41.4)	7.6±6.3 (0.3 - 27.6)	7.8±5.5 (0.5 - 22.3)	8.7±5.0 (2.6 - 27.9)	11.3±12.0 (1.5 - 64.8)	12.3±8.8 (2.1 - 40.9)
F5	6.0±1.4 (4.0 - 10.0)	7.7±0.4 (7.3 - 8.6)	6.0±1.8 (4.5 - 11.4)	7.8±0.5 (7.2 - 8.5)	4.8±0.9 (3.3 - 6.4)	7.6±0.3 (7.1 - 8.2)	4.9±1.1 (3.7 - 8.2)	7.6±0.4 (7.1 - 8.3)	5.7±4.9 (1.2 - 23.8)	12.1±12.2 (2.3 - 41.8)	10.5±8.4 (2.4 - 38.2)	9.5±6.5 (1.9 - 30.6)	7.9±6.2 (1.0 - 30.4)	19.7±21.1 (3.0 - 81.9)	10.0±9.0 (0.5 - 36.7)	14.6±10.0 (2.1 - 42.9)

Station	DO (Surface & Middle) (mg/L)				DO (Bottom) (mg/L)				Turbidity (NTU)				SS (mg/L)			
	Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide	
	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry
F6	5.2±1.3 (3.5 - 10.0)	7.3±0.3 (7.0 - 8.3)	5.5±1.4 (3.9 - 9.2)	7.2±0.3 (6.7 - 7.9)	3.9±0.8 (2.8 - 5.5)	7.2±0.5 (6.7 - 8.2)	4.3±0.6 (3.3 - 5.5)	7.0±0.4 (6.5 - 7.8)	12.8±14.9 (1.8 - 74.7)	6.4±5.0 (0.9 - 22.6)	12.6±15.9 (2.6 - 84.9)	9.3±9.1 (0.8 - 44.6)	16.1±19.3 (1.5 - 104.0)	9.9±6.8 (3.3 - 32.0)	16.0±22.4 (2.5 - 127.0)	12.9±14.0 (1.5 - 75.1)
IM1	7.4±2.9 (2.6 - 14.1)	7.6±0.3 (7.2 - 8.4)	6.8±3.0 (2.6 - 13.4)	7.6±0.5 (7.0 - 8.7)	4.2±1.2 (2.6 - 6.6)	7.6±0.3 (7.2 - 8.0)	3.9±1.1 (2.4 - 5.6)	7.5±0.3 (7.1 - 7.9)	4.2±3.9 (0.6 - 20.1)	3.9±1.8 (1.7 - 9.4)	6.0±6.2 (0.5 - 25.4)	3.4±1.3 (1.3 - 7.5)	6.7±5.8 (1.8 - 31.1)	7.2±2.7 (2.8 - 14.2)	10.0±9.0 (1.8 - 35.2)	6.8±2.4 (1.8 - 13.5)
IM2	6.9±2.0 (4.6 - 12.1)	7.3±0.6 (6.6 - 8.8)	5.6±1.7 (3.3 - 11.2)	7.1±0.7 (6.2 - 9.7)	3.7±1.4 (1.7 - 5.9)	7.3±0.5 (6.7 - 8.1)	4.0±1.3 (1.5 - 6.1)	7.0±0.4 (6.2 - 7.8)	6.4±7.3 (1.2 - 40.4)	4.4±2.9 (1.1 - 17.2)	6.3±4.7 (1.0 - 18.3)	3.6±1.7 (1.2 - 11.0)	9.7±11.6 (1.6 - 66.0)	7.7±3.7 (1.4 - 20.6)	9.1±5.3 (2.7 - 24.6)	7.4±3.6 (2.3 - 27.8)
IM3	6.0±3.3 (1.5 - 13.7)	7.8±0.6 (7.0 - 9.4)	6.9±2.8 (2.6 - 13.5)	7.7±0.8 (6.8 - 10.5)	3.0±1.3 (1.0 - 5.5)	7.5±0.3 (7.0 - 8.0)	2.9±1.4 (1.2 - 5.6)	7.4±0.3 (6.9 - 7.9)	6.7±6.0 (1.0 - 24.6)	6.1±6.0 (1.1 - 24.2)	5.7±4.6 (0.2 - 17.6)	4.6±3.9 (1.1 - 17.7)	9.9±7.7 (1.4 - 32.6)	9.4±8.2 (2.0 - 42.0)	9.5±6.6 (1.5 - 27.5)	9.5±6.7 (2.4 - 32.1)
IM4	6.2±2.8 (2.4 - 12.3)	7.8±0.6 (7.1 - 9.0)	6.9±2.8 (2.5 - 13.8)	7.8±0.8 (7.0 - 10.8)	3.1±1.2 (1.5 - 5.7)	7.6±0.4 (7.0 - 8.1)	3.1±1.3 (1.4 - 5.8)	7.4±0.3 (6.9 - 8.0)	8.5±10.0 (1.1 - 42.3)	4.9±3.5 (0.7 - 15.1)	6.6±6.2 (0.9 - 34.4)	4.6±3.9 (0.8 - 17.4)	13.7±15.7 (2.5 - 78.2)	8.2±5.3 (1.4 - 26.7)	10.0±8.3 (0.5 - 44.8)	8.8±6.2 (2.1 - 31.6)
IM5	6.7±2.8 (2.6 - 13.6)	7.8±0.4 (7.2 - 9.0)	6.6±2.9 (2.9 - 13.8)	7.8±0.7 (7.1 - 10.5)	3.4±1.0 (2.2 - 5.5)	7.7±0.3 (7.2 - 8.1)	3.4±1.3 (2.0 - 6.0)	7.5±0.3 (7.1 - 8.3)	6.6±7.3 (0.5 - 33.0)	4.6±4.4 (0.6 - 18.6)	6.6±8.7 (1.0 - 50.8)	3.9±3.2 (0.5 - 17.7)	10.1±9.6 (1.3 - 36.1)	8.4±7.5 (1.1 - 32.6)	9.6±9.3 (1.1 - 49.6)	6.9±2.8 (2.1 - 14.1)
IM6	6.8±2.9 (3.4 - 15.8)	7.8±0.3 (7.5 - 8.6)	7.1±3.3 (2.5 - 14.4)	7.9±0.6 (7.2 - 10.7)	3.5±1.1 (1.9 - 5.5)	7.7±0.2 (7.5 - 8.0)	3.6±1.2 (2.5 - 6.0)	7.6±0.2 (7.2 - 8.0)	5.4±5.7 (0.6 - 25.5)	2.4±1.6 (0.6 - 9.2)	6.5±6.5 (0.3 - 22.1)	3.2±2.2 (0.4 - 11.6)	8.6±7.9 (0.5 - 39.9)	6.1±2.7 (0.5 - 13.4)	8.3±7.3 (0.5 - 29.1)	5.9±3.0 (1.4 - 15.0)
IM7	6.6±2.1 (3.5 - 13.0)	7.9±0.4 (7.0 - 9.1)	6.7±2.4 (2.9 - 12.6)	8.0±0.5 (7.4 - 9.6)	4.2±1.2 (2.5 - 6.0)	7.9±0.4 (7.3 - 8.8)	3.9±1.0 (2.6 - 6.0)	7.7±0.2 (7.5 - 8.3)	4.2±3.9 (0.6 - 17.1)	3.1±2.7 (1.2 - 14.5)	5.3±4.6 (0.4 - 17.6)	2.6±1.8 (0.6 - 10.6)	7.1±5.7 (0.5 - 26.9)	5.0±3.6 (0.5 - 18.0)	7.9±6.9 (0.5 - 32.0)	6.8±6.1 (1.9 - 30.5)
IM8	6.6±2.7 (3.1 - 14.3)	7.9±0.3 (7.0 - 8.6)	6.6±2.9 (2.5 - 14.2)	8.0±0.4 (7.4 - 9.3)	3.8±1.1 (2.6 - 5.7)	7.8±0.2 (7.3 - 8.2)	3.7±1.1 (2.5 - 5.9)	7.8±0.3 (7.4 - 8.4)	6.0±6.3 (0.7 - 24.7)	3.0±3.3 (0.9 - 16.2)	13.2±22.1 (0.7 - 88.3)	3.3±2.7 (0.7 - 11.2)	8.8±7.5 (1.2 - 33.7)	5.7±4.4 (1.6 - 22.7)	10.1±10.8 (0.5 - 56.3)	6.4±4.3 (1.1 - 21.0)
IM9	6.7±2.1 (4.0 - 13.9)	7.8±0.5 (7.1 - 8.8)	6.7±2.7 (3.5 - 14.9)	7.9±0.5 (7.3 - 9.2)	4.3±0.9 (2.9 - 5.9)	7.8±0.4 (7.4 - 8.6)	4.0±0.9 (2.9 - 5.6)	7.8±0.3 (7.3 - 8.3)	5.5±4.8 (0.3 - 18.0)	4.0±3.1 (1.0 - 15.2)	8.8±9.5 (1.0 - 33.0)	5.9±6.0 (0.7 - 27.0)	8.5±6.4 (1.2 - 25.6)	6.4±4.4 (1.2 - 22.8)	14.0±15.8 (1.6 - 69.8)	7.4±5.0 (1.5 - 18.1)
IM10	4.9±2.0 (2.2 - 10.5)	7.8±0.5 (7.1 - 8.8)	5.2±1.9 (2.2 - 9.6)	7.8±0.5 (7.1 - 8.8)	3.8±1.0 (2.3 - 5.6)	7.7±0.4 (7.3 - 8.7)	3.8±1.0 (2.5 - 5.6)	7.7±0.4 (7.1 - 8.4)	25.3±22.3 (0.5 - 103.7)	13.7±15.3 (1.8 - 65.3)	18.0±18.5 (0.7 - 77.6)	10.9±10.2 (2.1 - 55.6)	31.5±28.7 (3.4 - 176.0)	21.5±20.0 (3.9 - 106.0)	23.4±22.1 (1.6 - 88.6)	21.9±27.2 (2.9 - 122.0)
IM11A	6.4±2.0 (3.9 - 10.3)	7.7±0.5 (7.0 - 8.6)	7.0±2.5 (4.4 - 13.2)	7.7±0.4 (7.2 - 8.7)	5.6±1.7 (2.3 - 8.7)	7.7±0.4 (7.0 - 8.5)	6.4±2.0 (2.9 - 10.0)	7.7±0.3 (7.3 - 8.5)	35.6±25.0 (2.1 - 85.6)	18.4±17.4 (5.3 - 79.9)	20.7±21.5 (1.8 - 80.9)	23.9±25.1 (2.5 - 119.4)	46.2±38.2 (2.6 - 137.0)	28.8±22.3 (6.6 - 72.0)	19.2±16.8 (1.9 - 92.5)	36.0±23.1 (3.4 - 91.2)

Station	DO (Surface & Middle) (mg/L)				DO (Bottom) (mg/L)				Turbidity (NTU)				SS (mg/L)			
	Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide		Ebb Tide		Flood Tide	
	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry
IM12	5.8±2.2 (2.1 - 12.1)	7.7±0.5 (7.0 - 8.8)	6.1±2.3 (2.9 - 12.8)	7.7±0.4 (7.1 - 8.7)	3.9±1.0 (2.3 - 5.6)	7.7±0.5 (7.2 - 8.8)	4.2±1.2 (2.7 - 6.0)	7.6±0.4 (7.0 - 8.2)	50.4±77.6 (1.7 - 404.5)	13.2±12.8 (2.2 - 49.3)	20.5±27.0 (1.7 - 159.0)	15.0±11.9 (2.0 - 49.9)	30.5±31.8 (2.4 - 103.0)	26.3±29.4 (3.3 - 107.0)	25.8±29.1 (2.6 - 131.0)	21.5±14.0 (1.4 - 64.6)
IM13	5.7±2.0 (2.5 - 10.8)	7.7±0.4 (7.0 - 8.4)	5.3±2.1 (2.2 - 11.0)	7.7±0.4 (7.1 - 9.1)	3.9±1.1 (2.4 - 5.4)	7.6±0.4 (7.1 - 8.2)	3.8±1.1 (2.6 - 5.4)	7.6±0.3 (7.1 - 8.1)	23.6±46.6 (1.7 - 224.5)	9.9±11.9 (2.5 - 56.8)	12.7±9.0 (2.4 - 34.6)	11.6±8.9 (1.7 - 35.0)	18.2±20.1 (2.0 - 85.9)	12.5±10.7 (3.0 - 46.4)	16.7±12.9 (1.2 - 57.0)	15.4±10.0 (1.8 - 41.4)
IM14	6.1±2.0 (2.9 - 11.9)	7.6±0.5 (7.0 - 8.7)	6.3±2.4 (3.5 - 12.9)	7.6±0.4 (7.1 - 8.9)	4.0±1.0 (2.6 - 5.6)	7.6±0.3 (7.1 - 8.2)	4.2±0.9 (3.0 - 5.7)	7.6±0.3 (7.1 - 8.2)	29.2±50.3 (1.7 - 261.9)	14.7±15.0 (2.4 - 62.3)	11.7±11.0 (2.3 - 57.5)	11.3±6.2 (2.0 - 30.5)	20.1±27.1 (2.1 - 126.0)	25.4±32.3 (3.1 - 127.0)	15.6±15.8 (2.3 - 93.0)	17.2±9.1 (2.7 - 41.0)
IM15	5.6±0.9 (3.9 - 8.5)	7.7±0.5 (7.1 - 8.7)	6.0±2.0 (4.0 - 11.9)	7.7±0.7 (6.9 - 9.1)	4.8±0.8 (3.1 - 5.9)	7.6±0.4 (7.0 - 8.4)	5.4±1.4 (3.9 - 9.2)	7.5±0.5 (6.9 - 8.7)	7.7±9.0 (1.9 - 47.0)	10.5±8.2 (3.1 - 33.7)	8.1±4.4 (2.7 - 20.4)	14.2±11.2 (2.3 - 46.6)	9.7±12.0 (1.6 - 66.2)	16.9±17.6 (2.7 - 74.9)	11.3±6.8 (3.2 - 27.3)	24.8±22.4 (2.9 - 74.7)
IM16A	5.8±1.2 (4.1 - 10.3)	7.6±0.6 (7.0 - 9.1)	5.4±1.2 (3.9 - 8.5)	7.6±0.7 (6.9 - 9.2)	4.5±0.7 (3.1 - 5.5)	7.6±0.6 (7.0 - 8.8)	4.9±0.6 (3.6 - 6.2)	7.4±0.5 (6.9 - 8.6)	7.6±6.9 (2.5 - 39.6)	13.8±12.5 (3.2 - 58.2)	11.5±7.5 (4.1 - 34.5)	10.7±10.2 (1.4 - 55.8)	10.9±13.6 (1.5 - 72.7)	20.4±20.5 (2.7 - 75.7)	15.2±10.8 (3.8 - 44.0)	16.1±14.7 (1.2 - 63.1)
IM17	6.0±1.0 (4.5 - 8.5)	7.6±0.6 (7.0 - 9.0)	5.5±1.4 (3.9 - 9.0)	7.4±0.4 (6.9 - 8.4)	5.1±0.7 (3.6 - 6.5)	7.5±0.6 (6.6 - 8.7)	5.0±0.8 (3.7 - 6.4)	7.3±0.4 (6.7 - 8.2)	7.3±4.5 (2.1 - 19.8)	11.3±8.3 (2.6 - 30.2)	15.8±16.6 (4.2 - 79.7)	8.9±4.1 (2.5 - 20.4)	8.6±4.9 (1.8 - 25.9)	16.7±15.7 (3.1 - 65.2)	21.9±29.9 (3.3 - 150.0)	11.1±6.3 (1.2 - 24.6)
IM18	5.3±1.2 (3.6 - 9.6)	7.2±0.4 (6.7 - 8.0)	4.7±1.1 (3.4 - 8.3)	7.1±0.4 (6.5 - 7.8)	3.8±0.5 (2.8 - 4.6)	6.9±0.3 (6.6 - 7.6)	3.6±0.7 (2.8 - 4.7)	6.9±0.6 (6.3 - 8.6)	10.5±13.4 (1.8 - 78.7)	5.8±4.5 (1.5 - 28.6)	23.4±29.8 (4.8 - 143.0)	6.0±4.4 (1.1 - 18.3)	13.2±20.3 (2.0 - 128.0)	7.1±4.0 (1.6 - 16.9)	21.4±20.6 (4.3 - 75.2)	7.0±3.8 (2.0 - 19.5)
IM19	5.0±1.0 (3.2 - 7.7)	7.2±0.3 (6.7 - 8.0)	5.0±1.2 (3.2 - 8.8)	7.1±0.3 (6.7 - 7.7)	3.9±0.6 (2.9 - 4.7)	7.0±0.3 (6.6 - 7.7)	3.8±0.7 (2.6 - 4.9)	7.0±0.3 (6.5 - 7.7)	14.1±16.7 (2.9 - 106.2)	3.8±2.3 (0.9 - 10.9)	19.2±24.2 (2.7 - 105.4)	5.9±5.1 (0.6 - 23.9)	17.0±17.5 (3.0 - 100.0)	5.8±2.5 (1.6 - 10.5)	21.3±28.4 (3.5 - 146.0)	6.5±4.4 (1.5 - 23.9)
IM20A	5.7±0.8 (4.6 - 7.7)	7.2±0.3 (6.6 - 7.6)	5.5±0.8 (4.4 - 7.6)	7.3±0.3 (6.7 - 7.7)	4.9±0.7 (3.6 - 6.2)	7.2±0.3 (6.7 - 7.5)	4.7±0.7 (3.8 - 6.4)	7.2±0.3 (6.7 - 7.7)	8.2±7.7 (2.6 - 39.5)	6.7±3.3 (1.8 - 15.1)	11.9±7.1 (5.2 - 44.3)	7.9±4.9 (1.8 - 26.0)	11.1±9.9 (3.7 - 51.1)	10.2±4.8 (4.2 - 26.1)	16.0±9.1 (5.0 - 56.3)	11.8±6.9 (2.7 - 27.9)
IM21A	5.3±0.9 (3.9 - 6.9)	7.1±0.3 (6.7 - 7.6)	5.4±0.8 (4.5 - 6.9)	7.3±0.2 (6.8 - 7.6)	4.8±0.8 (3.4 - 6.4)	7.1±0.3 (6.7 - 7.6)	4.7±0.6 (3.7 - 6.2)	7.4±0.2 (6.8 - 7.6)	17.3±15.1 (2.6 - 67.6)	9.4±7.0 (2.7 - 33.5)	21.0±9.5 (5.0 - 37.7)	7.9±5.7 (1.6 - 24.7)	19.5±16.4 (3.6 - 76.6)	15.7±15.9 (2.9 - 75.0)	26.1±12.3 (4.9 - 45.8)	14.1±9.4 (5.1 - 41.5)
IM22A	5.3±0.7 (4.2 - 6.6)	7.1±0.2 (6.8 - 7.5)	5.3±0.8 (4.5 - 7.6)	7.2±0.3 (6.7 - 7.7)	5.1±0.6 (4.1 - 6.1)	7.1±0.3 (6.8 - 7.5)	4.5±0.5 (3.7 - 5.9)	7.2±0.3 (6.6 - 7.7)	17.6±11.7 (2.5 - 40.8)	7.1±3.5 (2.8 - 13.0)	18.2±12.9 (3.8 - 57.7)	6.6±4.8 (1.4 - 17.3)	20.7±13.7 (4.5 - 58.4)	12.0±5.8 (3.1 - 24.4)	24.6±20.2 (3.4 - 86.2)	10.6±7.2 (2.5 - 31.0)

Notes: (1) Averaged value ± standard deviation and the range of values (in bracket) are presented in each cell.
(2) Outliers are excluded in the dataset for the calculation of the water quality monitoring results.

Table 2.5 Summary of Monitoring Results for TRC

Station	TRC (mg/L)	
	Ebb Tide	Flood Tide
E2	0.011±0.014 (<0.001 - 0.059)	0.006±0.005 (<0.001 - 0.013)
F3	0.006±0.005 (<0.001 - 0.014)	0.013±0.013 (<0.001 - 0.037)
IM6	0.005±0.003 (<0.001 - 0.011)	0.008±0.008 (<0.001 - 0.025)

Note: 1) Averaged value ± standard deviation and the range of values (in bracket) are presented in each cell

The baseline water quality monitoring results showed that the levels of DO, Turbidity and SS varied across monitoring stations (both control and impact stations) and over time. It is noticed that extraordinarily high levels of Turbidity and SS were occasionally recorded during the monitoring. Repeat *in-situ* measurement was conducted during the baseline monitoring to confirm findings. 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. In view of the extraordinarily high levels of Turbidity and SS recorded, further analysis was conducted to identify outliers for the dataset obtained during the baseline monitoring. The analysis has been conducted with reference to the selected stations of the Deep Bay WCZ, North Western WCZ, Western Buffer WCZ and Southern WCZ from the EPD routine water quality monitoring data collected in the past 15 years from 2004 to 2018. The summary of the levels of Turbidity and SS collected from the EPD routine water quality monitoring data is presented in **Table 2.6**.

Table 2.6 Summary of EPD Routine Water Quality Monitoring Data

Water Control Zone	Range (Min – Max) of Turbidity (NTU)	Range (Min – Max) of SS (mg/L)
Deep Bay WCZ (DM3, DM4, DM5)	1.0 – 197.8	1.3 - 110.0
North Western WCZ (NM3, NM5, NM6, NM8)	0.6 - 868.4	<0.5 – 150.0
Western Buffer and Southern WCZ (WM1, SM5, SM6, SM7, SM12, SM13, SM17, SM18, SM20)	0.1 - 114.3	<0.5 – 180.0

Note:

- a. The EPD water quality monitoring stations for each WCZ has been selected based on the proximity with the Project with reference to the approved EIA Report.

From the past 15 years (2004-2018) EPD routine water quality monitoring data as shown in *Table 2.6*, it is understood that the levels of Turbidity and SS also varied over time, which represent natural fluctuations in marine water quality for each of the WCZs. As such, the Turbidity / SS data obtained during the baseline monitoring period having values higher than the maximum Turbidity / SS of the corresponding WCZs from EPD routine water quality monitoring data are considered as outliers and they are excluded in the data analysis thereafter.

With reference to Section 12.2 of the Updated EM&A Manual, analysis was also conducted between control and impact stations to determine the representativeness of the control stations for the Project during impact monitoring. As Turbidity and SS are evaluated against the Action and Limit levels using control stations, they are further analysed statistically. As the water quality monitoring stations are located within different WCZs, statistical analyses were conducted to determine the 95% confidence interval of control and impact stations in 8 groups based on the work locations with reference to Table 5.3 of the Updated EM&A Manual. The results of the statistical analyses are presented in **Table 2.7**.

Table 2.7 Results of the Statistical Analyses

Group	Description	95% Confidence Interval for Turbidity (NTU)		95% Confidence Interval for SS (mg/L)	
		Control Stations	Impact Stations	Control Stations	Impact Stations
1	During construction at the pipeline shore approach at LPS (LPS KP18.2-17.4), West Lamma Channel (LPS KP14.5-17.4) Impact Stations: IM1, IM2 Control Stations: E1 (Ebb), F1 (Flood)	4.75 - 6.41	4.42 - 5.14	7.68 - 10.05	7.56 - 8.60
2	During construction at the Double Berth Jetty to West Lamma Channel (LPS KP0.0-14.5) Impact Stations: IM3, IM4, IM5, IM6 Control Stations: E2 (Ebb), F2 (Flood), F3 (Flood)	4.29 - 5.25	5.10 - 5.77	7.08 - 8.35	8.46 - 9.38
3	During construction at the Jetty Approach (BPPS KP0.0 – 5.0), South of Soko Islands (BPPS KP5.0 – 8.9), Southwest of Soko Islands (BPPS KP8.9 - 12.1) Impact Stations: IM6, IM7, IM8, IM9 Control Stations: E3 (Ebb), F3 (Flood)	5.16 - 7.25	4.71 - 5.59	7.55 - 10.03	7.27 - 8.12
4	During construction at the Adamasta Channel (BPPS KP12.1 - 15.6), Southwest Lantau (BPPS KP15.6 - 21.3) Impact Stations: IM10, IM11A, IM12, IM13, IM14 Control Stations: E4 (Ebb), F4 (Flood)	10.60 - 16.12	17.60 - 20.77	13.36 - 17.31	21.75 - 24.36
5	During construction at the West of Tai O to West of HKIA (BPPS KP21.3 – 31.5) Impact Stations: IM15 Control Stations: E5 (Ebb), F5 (Flood)	8.56 - 11.00	8.91 - 11.14	11.30 - 14.89	13.30 - 17.46
6	During construction at the West of HKIA to Lung Kwu Chau (BPPS KP31.5 – 37.5) Impact Stations: IM15, IM16A, IM17 Control Stations: E6 (Ebb), F5 (Flood)	7.03 - 8.55	9.89 - 11.29	9.27 - 11.28	14.03 - 16.47
7	During construction at the Lung Kwu Chau to Urmston Anchorage (BPPS 37.5 - 41.1), Urmston Road (BPPS KP41.1 – 42.9) Impact Stations: IM17, IM18, IM19 Control Stations: E6 (Ebb), F6 (Flood), E5 (Flood)	8.50 - 10.40	9.92 - 12.13	11.86 - 14.79	11.72 - 14.15
8	During construction at the West of BPPS (BPPS KP42.9 - 44.9), Pipeline shore approach at BPPS (BPPS KP44.9 - 45.0) Impact Stations: IM19, IM20A, IM21A, IM22A Control Stations: E7a (Ebb), F6 (Flood)	7.19 - 9.84	10.54 - 12.18	9.54 - 13.33	13.91 - 15.89

Note:

- a. The cells are **bolded** if there is no overlapping of 95% confidence intervals of Turbidity / SS between control and impact stations within a group.

The results of the statistical analysis showed that the control stations for some of the groups (i.e. Groups 1, 2 (Turbidity only), 3, 5 and 7) did not differ from the impact stations significantly (i.e. overlapping of 95% confidence intervals of Turbidity / SS between control and impact stations within a group) and thus the control stations within these groups are representative for the purpose of impact monitoring. For the groups showing significant differences (i.e. no overlapping of 95% confidence

intervals of Turbidity / SS between control and impact stations within a group) between control and impact stations (i.e. Groups 2 (SS only), 4, 6 and 8), all the results showed that impact stations had higher levels of Turbidity / SS than the corresponding control stations. This indicates that if the control stations within these groups were used in the impact monitoring, they could be more conservative to demonstrate if there are any unacceptable impacts from the Project. Thus, the control stations within these groups could be considered for the purpose of impact monitoring.

Overall, the baseline monitoring results for both impact and control stations are considered representative of the ambient water quality of the Project area during both wet and dry seasons for determination of action and limit levels.

2.5 Action and Limit Levels

The water quality monitoring results indicated there were natural fluctuations in the marine environment and extraordinarily high values of Turbidity and SS occur occasionally throughout the monitoring over wet and dry seasons. Outliers for Turbidity and SS have been identified as discussed in **Section 2.4** and they are excluded in the determination of Action and Limit Levels. Taking into account seasonal variation of water quality, water quality monitoring was evaluated against Action and Limit Levels using data from all seasons to determine water quality compliance. In view of the variations across monitoring stations, it is proposed to establish eight sets of Action and Limit Levels based on the eight groups of work locations with reference to Table 5.3 of the Updated EM&A Manual for the construction phase marine water monitoring. 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 Updated EM&A Manual which are summarised in **Table 2.8**.

Table 2.8 Action and Limit Levels for Construction Phase Marine Water Monitoring

Parameter	Action Level	Limit Level
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 5 th %-ile of baseline data for surface and middle layers	<u>Surface and Middle</u> 4 mg L ⁻¹ or 1%ile of baseline for surface and middle layers
	<u>Bottom</u> 5 th %-ile of baseline data for bottom layer	<u>Bottom</u> 2 mg L ⁻¹ or 1%ile of baseline for bottom layer
Turbidity in NTU (Depth-averaged ^b) ^c	95 th %-ile of baseline data, and 120% of the relevant control station's turbidity at the same tide of the same day	99 th %-ile of baseline data, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^b) ^c	95 th %-ile of baseline data, and 120% of the relevant control station's SS at the same tide of the same day	99 th %-ile of baseline data, and 130% of the relevant control station's SS at the same tide of the same day

Notes:

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

The calculated Action and Limit levels for Construction Phase Marine Water Monitoring based on the work locations are shown in **Table 2.9**. The Action and Limit levels for first-year Operation Phase

Marine Water Monitoring will be determined for submission to EPD for approval before the commencement of operation of the monitoring programme, with reference to the latest water quality data from EPD Marine Water Quality Monitoring Station SM17.

Table 2.9 Calculated Action and Limit Levels for Construction Phase Marine Water Monitoring

Parameter	Action Level	Limit Level
Group 1 – During construction at the pipeline shore approach at LPS (LPS KP18.2-17.4), West Lamma Channel (LPS KP14.5-17.4)		
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 4.2 mg L ⁻¹	<u>Surface and Middle</u> 2.9 mg L ⁻¹
	<u>Bottom</u> 2.4 mg L ⁻¹	<u>Bottom</u> 1.6 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^b) ^c	14.4 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	19.9 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^b) ^c	20.8 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	29.6 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 2 - During construction at the Double Berth Jetty to West Lamma Channel (KP0.0-14.5)		
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 3.4 mg L ⁻¹	<u>Surface and Middle</u> 2.4 mg L ⁻¹
	<u>Bottom</u> 1.8 mg L ⁻¹	<u>Bottom</u> 1.4 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^b) ^c	17.1 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	26.8 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^b) ^c	25.7 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	37.1 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 3 – During construction at the Jetty Approach (BPPS KP0.0 – 5.0), South of Soko Islands (BPPS KP5.0 – 8.9), Southwest of Soko Islands (BPPS KP8.9 - 12.1)		
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 4.1 mg L ⁻¹	<u>Surface and Middle</u> 3.0 mg L ⁻¹
	<u>Bottom</u> 2.7 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^b) ^c	17.0 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	30.9 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day

Parameter	Action Level	Limit Level
SS in mg L ⁻¹ (Depth-averaged ^{b)} ^c	22.3 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	36.9 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 4 - During construction at the Adamasta Channel (BPPS KP12.1 - 15.6), Southwest Lantau (BPPS KP15.6 - 21.3)		
DO in mg L ^{-1 a}	<u>Surface and Middle</u> 3.4 mg L ⁻¹	<u>Surface and Middle</u> 2.5 mg L ⁻¹
	<u>Bottom</u> 2.8 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^{b)} ^c	63.1 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	165.7 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^{b)} ^c	75.4 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	121.8 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 5 – During construction at the West of Tai O to West of HKIA (BPPS KP21.3 – 31.5)		
DO in mg L ^{-1 a}	<u>Surface and Middle</u> 4.6 mg L ⁻¹	<u>Surface and Middle</u> 4.0 mg L ⁻¹
	<u>Bottom</u> 4.0 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^{b)} ^c	31.9 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	46.6 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^{b)} ^c	64.9 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	72.5 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 6 - During construction at the West of HKIA to Lung Kwu Chau (BPPS KP31.5 – 37.5)		
DO in mg L ^{-1 a}	<u>Surface and Middle</u> 4.4 mg L ⁻¹	<u>Surface and Middle</u> 3.9 mg L ⁻¹
	<u>Bottom</u> 3.9 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^{b)} ^c	30.7 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	47.0 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^{b)} ^c	49.2 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	74.0 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day

Parameter	Action Level	Limit Level
Group 7 – During construction at the Lung Kwu Chau to Urmston Anchorage (BPPS 37.5 - 41.1), Urmston Road (BPPS KP41.1 – 42.9)		
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 3.8 mg L ⁻¹	<u>Surface and Middle</u> 3.4 mg L ⁻¹
	<u>Bottom</u> 3.1 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^b) ^c	34.5 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	79.2 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^b) ^c	37.8 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	98.2 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Group 8 - During construction at the West of BPPS (BPPS KP42.9 - 44.9), Pipeline shore approach at BPPS (BPPS KP44.9 - 45.0)		
DO in mg L ⁻¹ ^a	<u>Surface and Middle</u> 4.3 mg L ⁻¹	<u>Surface and Middle</u> 3.4 mg L ⁻¹
	<u>Bottom</u> 3.6 mg L ⁻¹	<u>Bottom</u> 2.0 mg L ⁻¹
Turbidity in NTU (Depth-averaged ^b) ^c	34.3 NTU, and 120% of the relevant control station's turbidity at the same tide of the same day	58.5 NTU, and 130% of the relevant control station's turbidity at the same tide of the same day
SS in mg L ⁻¹ (Depth-averaged ^b) ^c	42.4 mg L ⁻¹ , and 120% of the relevant control station's SS at the same tide of the same day	78.2 mg L ⁻¹ , and 130% of the relevant control station's SS at the same tide of the same day
Notes:		
a.	For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.	
b.	"Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.	
c.	For Turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.	

2.6 Event and Action Plan

Should non-compliance of the criteria for water quality occur, action in accordance with the Event and Action Plan presented in **Table 2.10** below shall be carried out and review works would be conducted.

Table 2.10 Event and Action Plan for Water Quality Monitoring

Event	Action			
	ET	IEC	Contractor(s)	Project Proponents
Action Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and Project Proponents. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing.
Action Level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and Project Proponents; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented.

Event	Action			
	ET	IEC	Contractor(s)	Project Proponents
Limit Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s), Project Proponents and EPD; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented; 4. Request Contractor(s) to critically review the working methods.
Limit Level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in situ</i> measurement to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s), Project Proponents and EPD; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Discuss with ET and Contractor(s) on additional mitigation measures and advise Project Proponents accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to Project Proponents within 3 working days; 5. Implement the agreed mitigation measures; 6. As directed by Project Proponents, slow down or stop all or part of the marine construction works until no exceedance of Limit Level. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented; 3. Ensure additional mitigation measures are properly implemented; 4. Request Contractor(s) to critically review the working methods; 5. Consider and instruct, if necessary, the Contractor(s) to slow down or to stop all or part of the marine construction works until no exceedance of Limit Level.

3. MARINE MAMMAL MONITORING

In order to determine the efficacy of the recommended mitigation measures and provide verification of impact prediction/ evaluation of results, marine mammal monitoring was recommended. Baseline monitoring was conducted using vessel-based line transect survey and passive acoustic monitoring (PAM) method according to the Updated EM&A Manual.

3.1 Monitoring Methodology

3.1.1 Vessel-based Line Transect Survey

Vessel-based marine mammal survey by means of systematic line-transect boat survey was undertaken to examine the distribution and encounter rate of Finless Porpoise (FP) in southern Lantau where a majority of Project construction works would take place. Survey transects covering three survey areas for line-transect boat surveys, namely Southwest Lantau (SWL), Southeast Lantau (SEL) and Lamma (LM), are presented in **Figure 3.1**.

The transect boat survey was conducted from a 15m inboard vessels (with an open upper deck above the pilothouse, providing a mostly unobstructed 180° view of the area ahead of the vessel), weather permitting (Beaufort 0-5, no heavy rain, and visibility > 1,200m). The marine mammal observer (MMO) team conducted searches and observations from the flying bridge area, 4-5m eye height above the water surface. In order to ensure the quality of the data and allow consistency with the long-term AFCD database, and take consideration of the sea conditions of the monitoring site, a team of three qualified and trained MMOs made up the survey team.

As the vessel transits the transect lines at a relatively constant speed of 13-15km hr⁻¹, the primary MMO searched for marine mammals continuously through 7 X 50 marine binoculars. A second MMO searched with unaided eye and filled out data sheets. Both MMOs searched ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). MMOs rotated positions approximately every 30 minutes. An additional MMO was on the boat, who rotated into position to give observers a rest after each hour of search effort to minimise fatigue.

Effort data collected during on-effort monitoring periods included time and position for the start and end of search effort, vessel speed, sea state (Beaufort scale), visibility, and distance travelled in each series (a continuous period of search effort). When marine mammals were sighted, the survey team would end the survey effort and fill out a sighting sheet. The vessel would divert from its course to approach the marine mammal group for group size estimation, behavioural observations, and collection of identification photos. The sighting sheet included information on initial sighting angle and distance, position of initial sighting, sea state, group size and composition, and behaviour, such as response to the survey vessel and associations with vessels. Position, distance travelled, and vessel speed were obtained from a hand-held Global Positioning System (GPS) unit. The perpendicular distance (PSD) of the marine mammal group to the transect line was later calculated from the initial sighting distance and angle.

All records of marine mammal sightings were collated, compiled and integrated with Geographic Information System (GIS). Positions of sightings together with group sizes, activities and calf occurrence were plotted on figures for illustration of spatial and temporal patterns of porpoise distribution, if any. The method for line transect analysis of porpoise encounter rate followed the established approach for AFCD long-term marine mammal monitoring ⁽²⁾. It should be noted that as FP are cryptic and difficult to identify as unique individuals with no useful natural markings, the potential of double counting could not be eliminated and hence rendering any abundance or density estimation confounded with serious violation of assumption under the line-transect survey method;

⁽²⁾ Samuel K.Y. Hung (2015) *Monitoring of Marine Mammals in Hong Kong Waters (2014-15): Final Report (1 April 2014 to 31 March 2015)*. Submitted to the Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government Tender Re.: AFCD/SQ/177/13

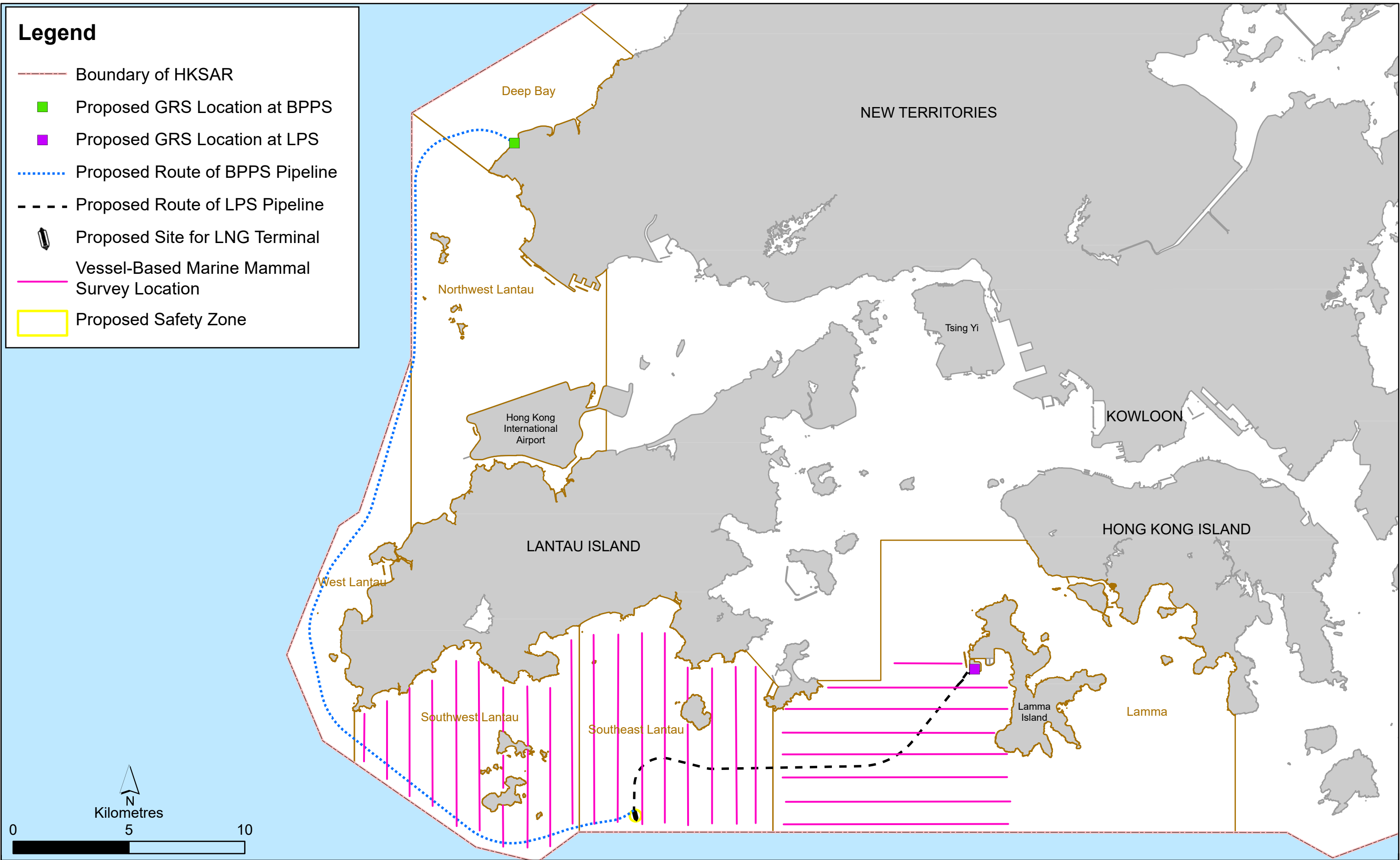


Figure 3.1

Vessel-Based Marine Mammal Survey Location

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Date: 8/6/2020

therefore such analysis was not proposed to be completed for FP, which is the same approach adopted for the AFCD long-term marine mammal monitoring.

Vessel-based line transect marine mammal surveys were conducted for six months between June and November 2019 with each transect line surveyed twice per month during baseline monitoring. Given the Action and Limit Levels to be established from the six months marine mammal surveys are to detect unacceptable/ unforeseen changes in FP distribution as construction work progresses, the following analyses were conducted for FP only.

3.1.1.1 Distribution Pattern Analysis

The line-transect survey data was integrated with a Geographic Information System (GIS) to visualize and interpret different spatial and temporal patterns of FP distribution using their sighting positions collected from vessel surveys. Location data of porpoise groups were plotted on map layers of Hong Kong using a desktop GIS (ArcView© 3.1) to examine their distribution patterns in detail. The dataset was also stratified into different subsets to examine distribution patterns of porpoise groups with different categories of group sizes, activities, fishing boat associations and young calves.

3.1.1.2 Encounter Rate Analysis

Since the line-transect survey effort was uneven among different survey areas and across different months of the study period, the encounter rates of FP in terms of number of on-effort sightings per 100 km of survey effort, and total number of porpoise sighted on-effort per 100 km of survey effort were calculated in each survey area in relation to the amount of survey effort conducted. The encounter rate could be used as an indicator to determine areas of importance to porpoises within the survey areas.

Only survey data collected under Beaufort 2 or below condition would be used for encounter rate analysis of FP ⁽³⁾. Formula for encounter rate is provided below:

Encounter Rate of Number of Porpoise Sightings (STG)

$$STG = \frac{\text{Total Number of On – effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

Encounter Rate of Number of Porpoises (ANI)

$$ANI = \frac{\text{Total Number of Porpoises from On – effort Sightings}}{\text{Total Amount of Survey Effort (km)}} \times 100$$

3.1.2 Passive Acoustic Monitoring

Underwater PAM surveys were conducted to monitor porpoise usage of southern Lantau waters over 24 hours under all weather conditions. Specific C-POD (Cetacean-Porpoise Detector) devices were used to record vocalizations of echolocating toothed whales and dolphins, in particular FP by detecting the trains of echolocation sounds they produced. C-PODs were deployed at five locations on the seabed within and in the vicinity of the LNG Terminal site, including three monitoring locations near the LNG terminal site (i.e. Locations 2-4), one monitoring location at east of Tai A Chau (i.e. Location 1) and one monitoring location at southeast of Shek Kwu Chau (i.e. Location 5) (**Figure 3.2**). During each deployment, the C-POD unit serial numbers as well as the time and date of deployments

⁽³⁾ Samuel K.Y. Hung (2018) *Monitoring of Marine Mammals in Hong Kong Waters (2018-19): Final Report (1 April 2018 to 31 March 2019)*. Submitted to the Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government Tender Re.: AFCD/SQ/197/17

Legend

- Boundary of HKSAR
- Proposed Route of BPPS Pipeline
- Proposed Route of LPS Pipeline
- Proposed Site for LNG Terminal
- Proposed South Lantau Marine Park
- Open Sea Disposal Area
- Proposed Safety Zone
- C-POD Deployment Location
- Submarine Cable
- Power Lines
- Pipeline

Proposed C-POD Deployment Location			
ID	Longitude	Latitude	Water Depth (m)
1	113° 55' 10.201" E	22° 09' 46.379" N	13
2	113° 56' 43.723" E	22° 09' 30.563" N	14
3	113° 57' 09.118" E	22° 09' 30.592" N	14.7
4	113° 57' 13.030" E	22° 10' 23.959" N	14.1
5	113° 59' 50.741" E	22° 11' 26.794" N	14

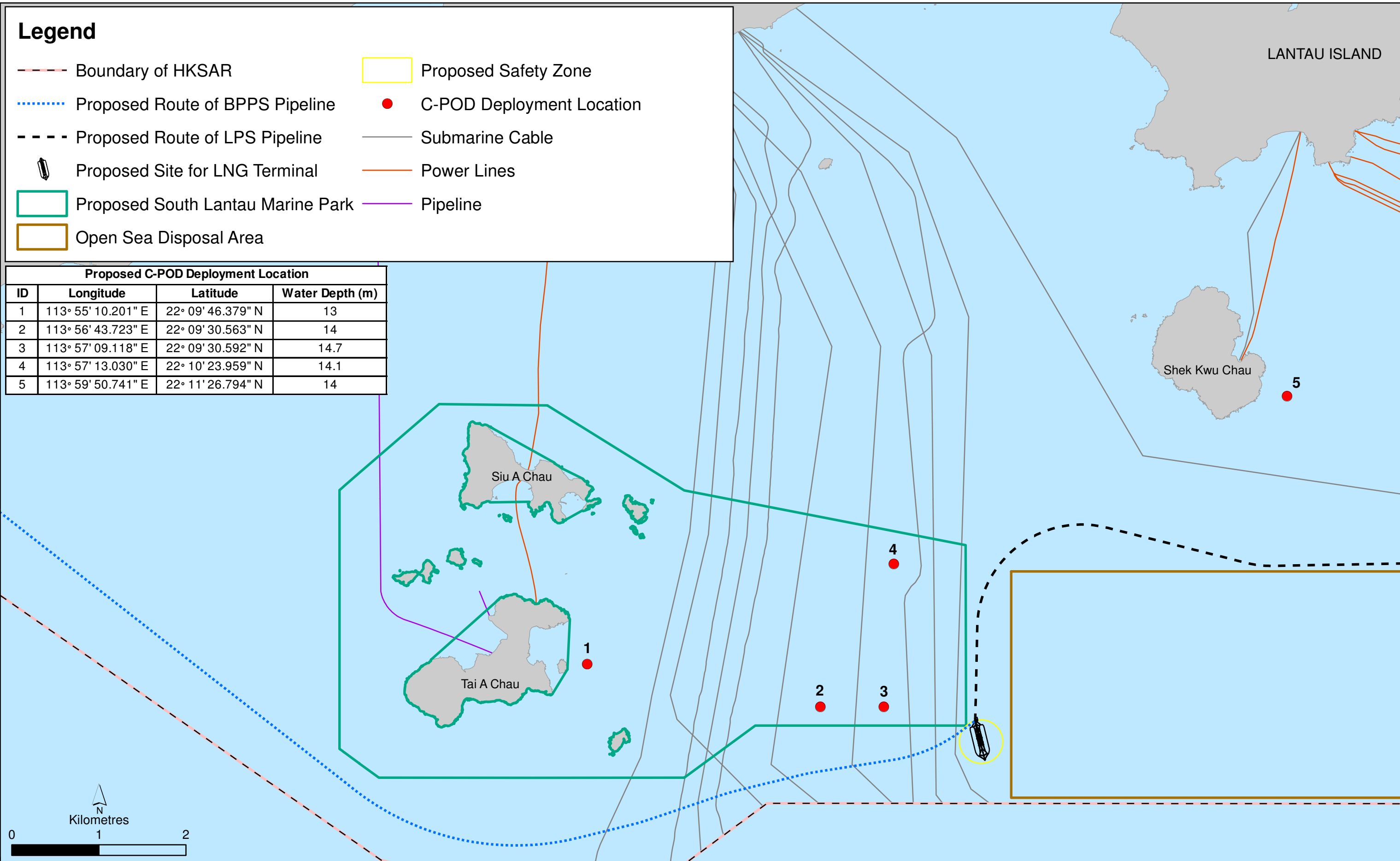


Figure 3.2

Underwater PAM Survey Location

were recorded. Information including the GPS positions and water depth at each of the deployment locations were also obtained. The records downloaded from the C-PODs were examined to identify vocalisation of FP. Analysis was undertaken to obtain information on FP, including:

- Number of clicks: calculated per hour to detect diel patterns, and per day to determine activity level at a site;
- Detection positive minutes (DPM): indicates the total amount of minutes where at least one click train was detected within a one minute time period, to measure the duration the FP spent in an area;
- Duration of click trains: provides an indication of the average density of FP at a site; and
- Encounter rates: represents the number of porpoise echolocation click train (>5 clicks) encounters per hour of acoustic measurement with the C-POD.

Any spatial or temporal trends (especially the 24-hour activity patterns) in changes of the above parameters were determined.

3.1.2.1 Analysis of PAM data

For detailed data analyses, the raw click data on the C-POD was first converted by the CPOD.exe software to “CP1” files. The click data was then processed using the KERNO classifier to identify click trains and their likely sources, and to reject weak boat sonar. The classified click trains were recorded in a “CP3” file.

The integrity of data record was first checked, and the period of adequate deployment and correct operation were identified. Visual validation was then performed to assess the overall rate of false positive detection positive minutes (DPM) as identified by the KERNO classifier. This validation method was based on the characteristics of clicks, multi-path clusters, and trains. Additional criteria based on the characteristics of the ambient noise regime could also be used, particularly in relation to boat sonar and sediment transport noise, which could generate a large number of ultrasonic “clicks”.

Notably, the level of false positives is not some consistent fraction of true positives, but is determined by the prevalence of the sources that are liable to be misclassified as dolphin clicks, such as boat sonar and sediment transport noise. Moreover, it should be recognized that the cause of a substantial proportion of the “false positive porpoises” was actually true porpoises, but were rejected simply because they were not distinctive enough to meet the stringency of these criteria.

After the visual validations, the DPMs could then be assessed as the parameter for porpoise occurrences at each deployment location. The DPM was chosen to calculate the total number of minutes where at least one click train was detected within a one-minute period, in order to measure the amount of time porpoises spend in an area.

Using DPM could eliminate the possibility of counting individual click trains produced by more than one porpoise, as the number of animals detected is unknown. The DPM is also useful for detecting diel and seasonal patterns of porpoise occurrences in order to determine the level of habitat utilization by both species at the various deployment locations.

3.2 Monitoring Results

3.2.1 Vessel-based Line Transect Survey

3.2.1.1 Line-Transect Survey Effort

During the six months of baseline monitoring surveys (i.e. June to November 2019), a total of 36 line-transect surveys were conducted among the three survey areas in SWL, SEL and LM. The detailed monitoring schedule is shown in **Annex B1**. Details of these survey effort data are presented in **Annex B2**.

A total of 2,597.64 km of survey effort was collected from the line-transect vessel surveys, which included 841.38 km in SWL, 819.08 km in SEL and 937.18 km in LM (**Annex B2**). The total survey effort conducted on primary and secondary lines among these three survey areas were 2,155.25 km and 442.39 km respectively. No other major activities (e.g. marine construction works) that might affect the results were recorded during the surveys. 61.9% of the total survey effort was conducted in condition of Beaufort Sea State 2 or below with good visibility, and such data can be used for the encounter rate analysis of FP.

3.2.1.2 FP Sightings

For the six-month baseline monitoring period, a total of 21 groups of 39 FPs were sighted among the three survey areas and all of them were sighted during on-effort search (**Annex B3**). Among these FP sightings, a total of 18 groups of 35 FPs were sighted at Beaufort 2 or below (**Annex B3**), which can be utilized for encounter rate analysis.

3.2.1.3 Distribution and Habitat Use of FP

Throughout the baseline monitoring period, the FPs were regularly sighted in the three survey areas of SWL, SEL and LM (**Figure 3.3**). Porpoise sightings were generally found to the southwest and southeast of Tai A Chau, to the east of Siu A Chau, and in the offshore waters between Cheung Chau and Lamma Island. On the contrary, porpoises rarely occurred at the western portion of SWL waters, the inshore waters to the south of Lantau Island (except a sighting made near Shui Hau Peninsula), as well as around Shek Kwu Chau and Cheung Chau.

Notably, only one porpoise sighting was made near the proposed jetty location of the Project. Furthermore, a few porpoise sightings were located near the proposed BPPS Pipeline, mainly to the southwest of Tai A Chau, while they also occurred southward to the eastern section (i.e. to the southwest of Lamma Island) of the LPS Pipeline.

The group sizes of FP occurred during the baseline monitoring period ranged from singletons to six animals, with an overall mean of 1.9 ± 1.35 . The majority of porpoise groups were very small, with 81.0% of porpoise groups composed of 1-2 animals, while all except one group had less than five animals per group (**Annex B3**).

The porpoise sighting distributions with different group sizes is shown in **Figure 3.4**. The small groups of 1-2 porpoises largely resembled their overall distribution for the baseline monitoring period. On the other hand, the three medium-sized groups with 3-4 porpoises per group were found to the east of Soko Islands and to the southwest of Lamma Island. The only larger group with six porpoises was sighted near Shui Hau Peninsula.

3.2.1.4 Encounter Rates of FP

The monthly and running quarterly STG and ANI for the combined survey areas from SWL, SEL and LM during the monitoring period are summarised in **Table 3.1**. The combined encounter rates of FP from all the survey areas (i.e. SWL, SEL and LM) during the six-month baseline monitoring period was 1.12 sightings per 100 km of survey effort. The monthly variations in combined porpoise encounter rates for the combined survey areas from SWL, SEL and LM during the baseline monitoring period indicated that porpoise occurrences peaked in September.

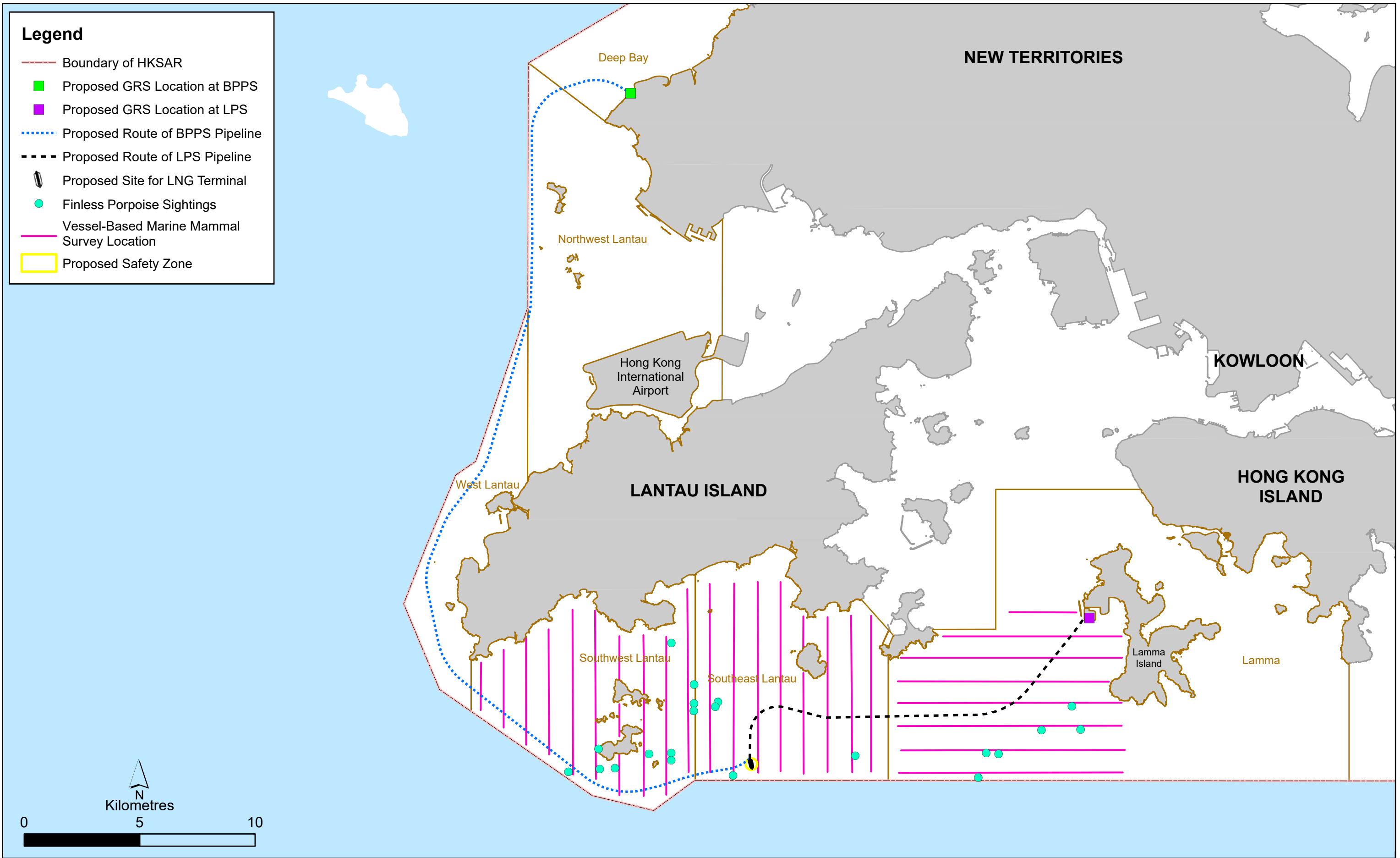


Figure 3.3

Distribution of Finless Porpoise Sightings during Marine Mammal Shipboard Survey between June and November 2019

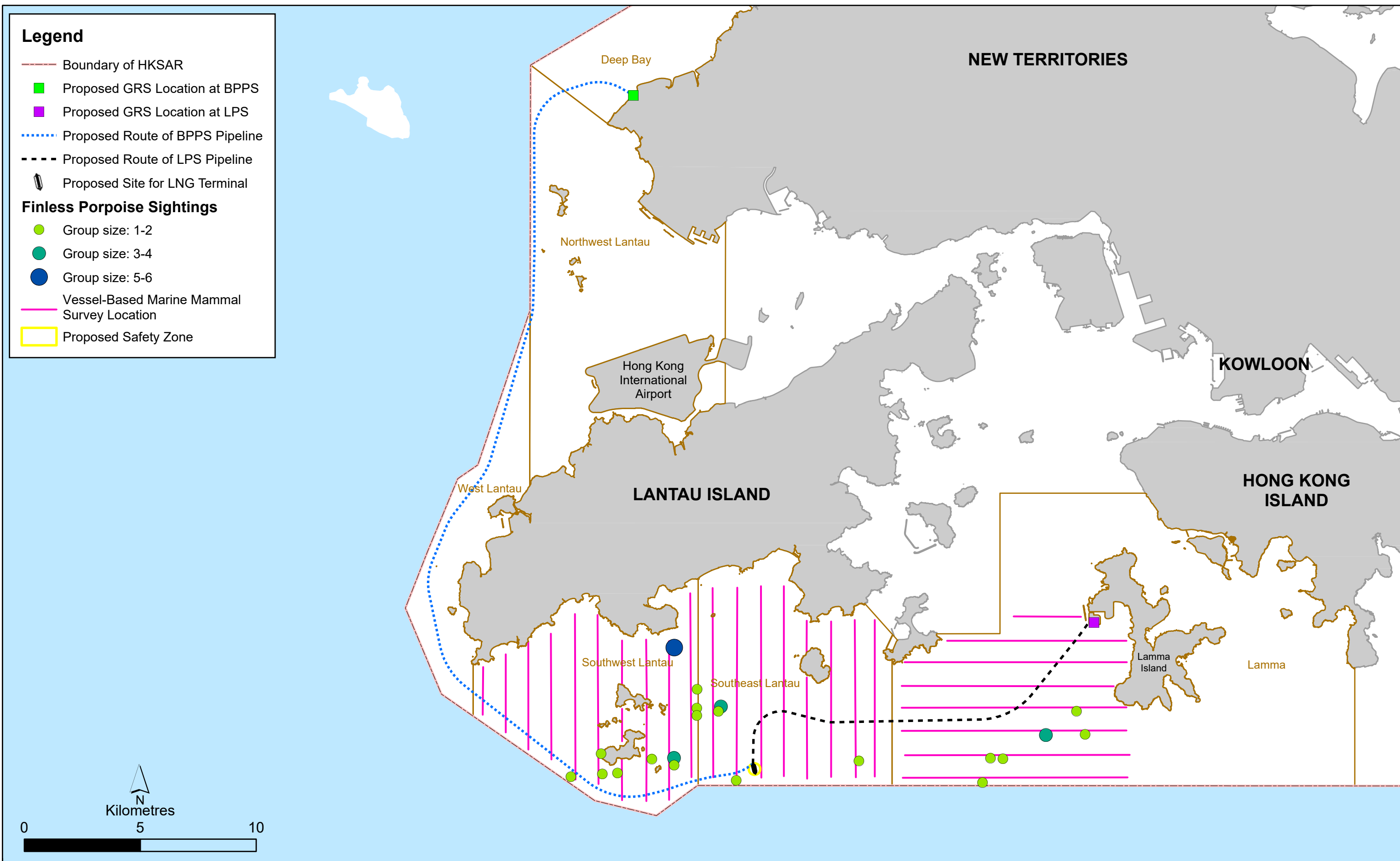


Figure 3.4 Distribution of Finless Porpoises with Different Group Sizes during Marine Mammal Shipboard Survey between June and November 2019

Table 3.1 Monthly and Quarterly STG and ANI for Finless Porpoise

Survey Period	On-effort (km)	No. of Sighting	No. of Porpoise	STG	ANI	Running STG	Running ANI
Jun 2019	314.88	3	7	0.95	2.22	-	-
Jul 2019	217.92	1	1	0.46	0.46	-	-
Aug 2019	337.92	3	8	0.89	2.37	0.80	1.84
Sep 2019	235.26	5	11	2.13	4.68	1.14	2.53
Oct 2019	208.51	2	3	0.96	1.44	1.28	2.81
Nov 2019	294.05	4	5	1.36	1.70	1.49	2.58
Jun – Nov 2019	1608.54	18	35	1.12	2.18	-	-

Notes:

1. Only data collected at Beaufort 2 or below were included for encounter rate analysis.
2. Running STG and Running ANI were calculated by combining three consecutive survey months data (e.g. running STG/ANI for Aug 2019 were calculated by combining the data in Jun – Aug 2019)

3.2.2 Passive Acoustic Monitoring

3.2.2.1 Summary of Passive Acoustic Monitoring Data Collection

C-POD units were deployed at five locations (see **Figure 3.2** for the locations) during the six-month monitoring period from 27 / 28 September 2019 to 31 March / 1 April 2020. All units from the five deployment locations were successfully recovered and refurbished for data download. The summaries of deployment data are presented in **Table 3.2** below, with detection statistics of FP included in **Annex B4**.

Table 3.2 Summary of PAM data for each Location

Location	Description
Location 1 (East of Tai A Chau)	The C-POD units were deployed for 185.9 days during the period of 27 September 2019 to 31 March 2020. Porpoise activity was recorded on all monitoring days (100%), with mean porpoise DPM per day to be 130.6.
Location 2 (FSRU-W)	The C-POD units were deployed for 185.8 days during the period of 27 September 2019 to 31 March 2020. Porpoise activity was recorded on all monitoring days (100%), with mean porpoise DPM per day to be 207.1.
Location 3 (FSRU-E)	The C-POD units were deployed for 185.1 days during the period of 28 September 2019 to 31 March 2020. Porpoise activity was recorded on all monitoring days (100%), with mean porpoise DPM per day to be 210.3.
Location 4 (FSRU-N)	The C-POD units were deployed for 185.9 days during the period of 28 September 2019 to 1 April 2020. Porpoise activity was recorded on all monitoring days (100%), with mean porpoise DPM per day to be 241.5.
Location 5 (Shek Kwu Chau)	The C-POD units were deployed for 185.8 days during the period of 28 September 2019 to 1 April 2020. Porpoise activity was recorded on most monitoring days (95.7%), with mean porpoise DPM per day to be 76.2.

3.2.2.2 Evaluation of Detection Errors, Loss of Click Detections and Boat Sonar

Visual validation was used to assess the overall rate of false positive porpoise DPM as identified by the KERNO classifier. Such false positives were found to be 0-2% (with 95% confidence level) across the monitoring locations (**Annex B4**). Inspection of the sampled porpoise DPM found that the majority of false positives were most likely due to misclassified sediment transport noise.

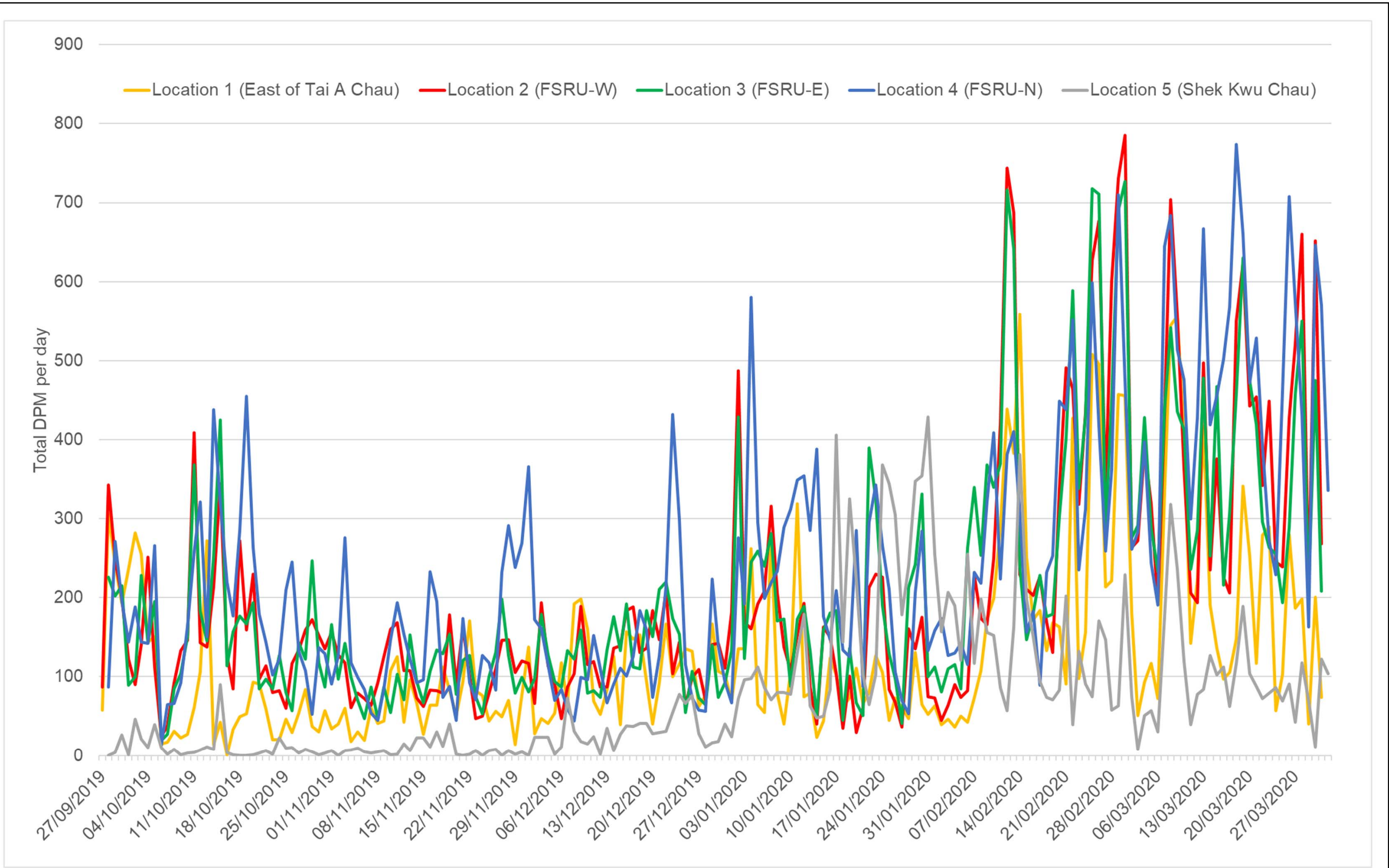
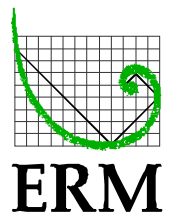


Figure 3.5

Detection Positive Minutes (DPM) per Day for Finless Porpoises among the Five Deployment Locations during the Six-month Baseline Monitoring

Date: 29/04/2020

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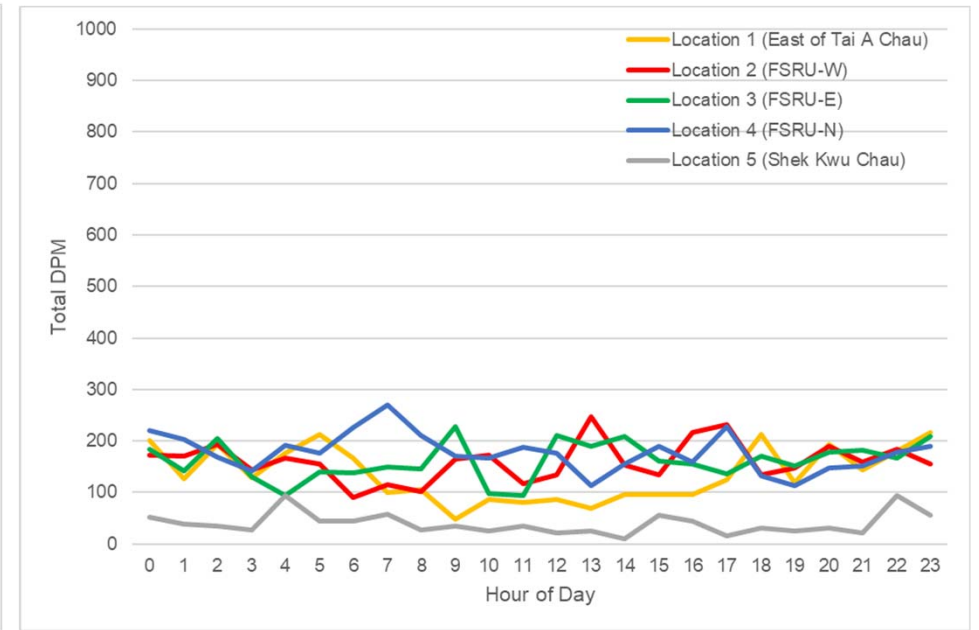
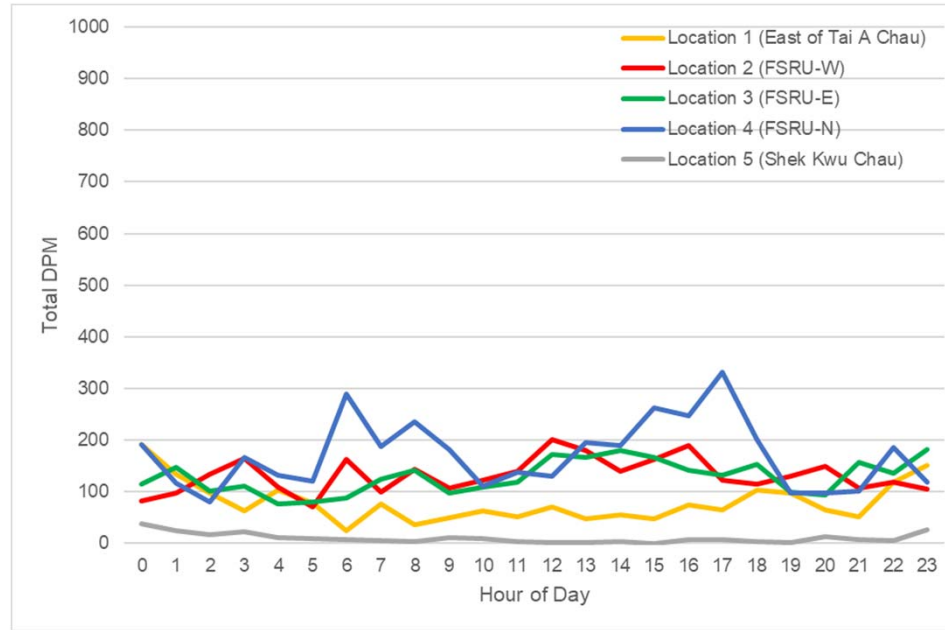
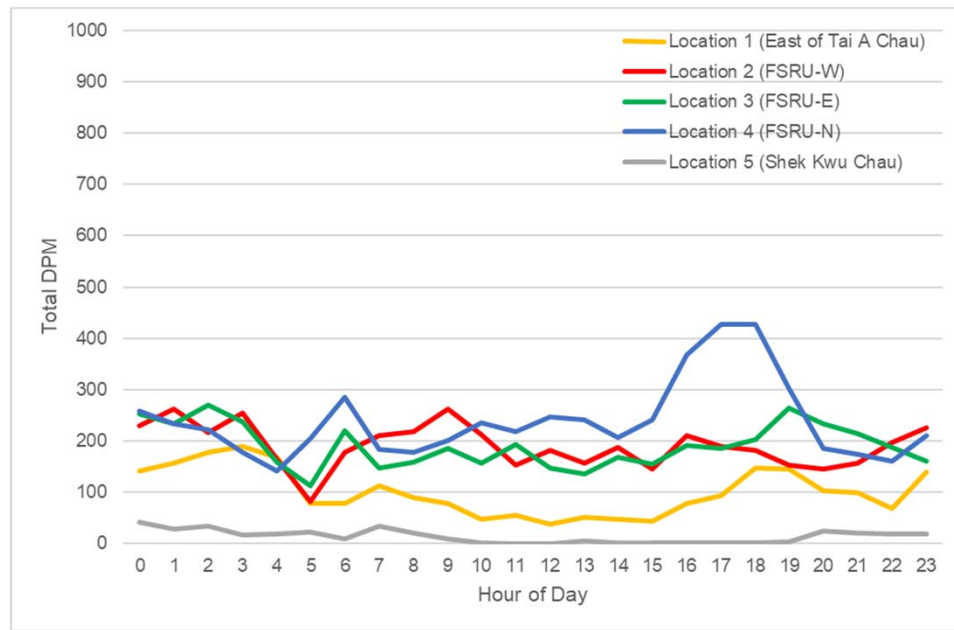


ERM

October 2019

November 2019

December 2019



January 2020

February 2020

March 2020

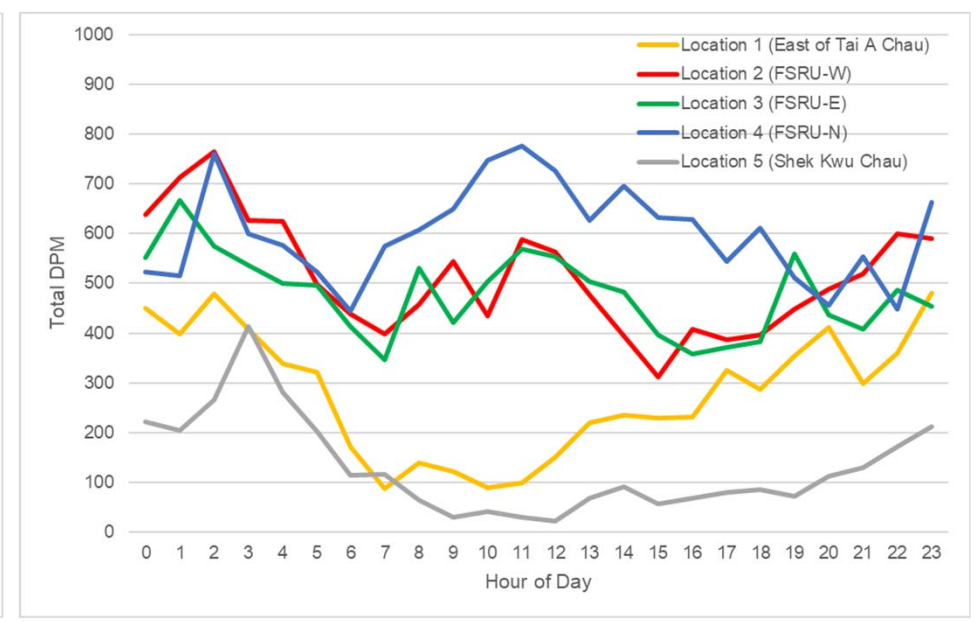
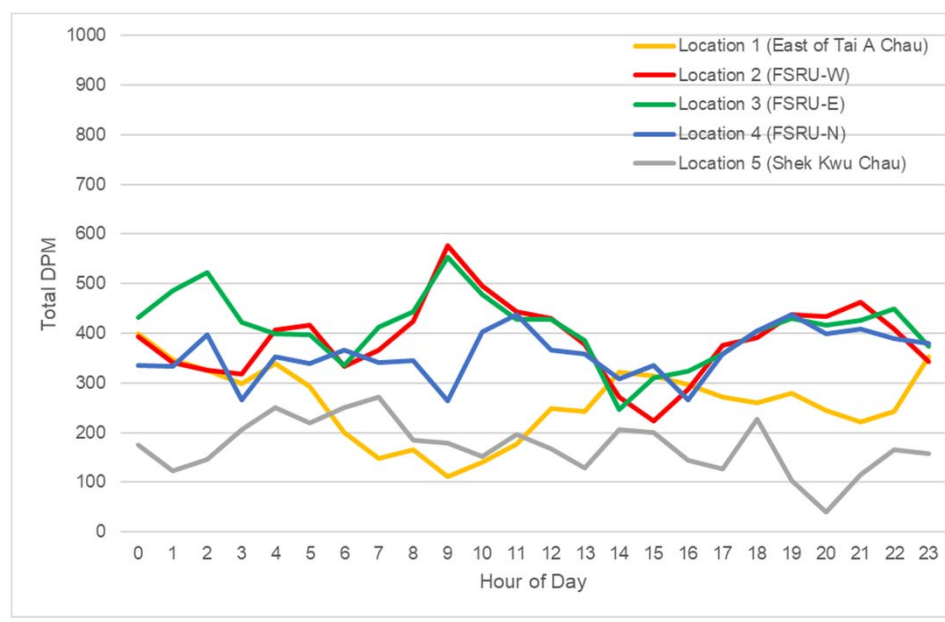
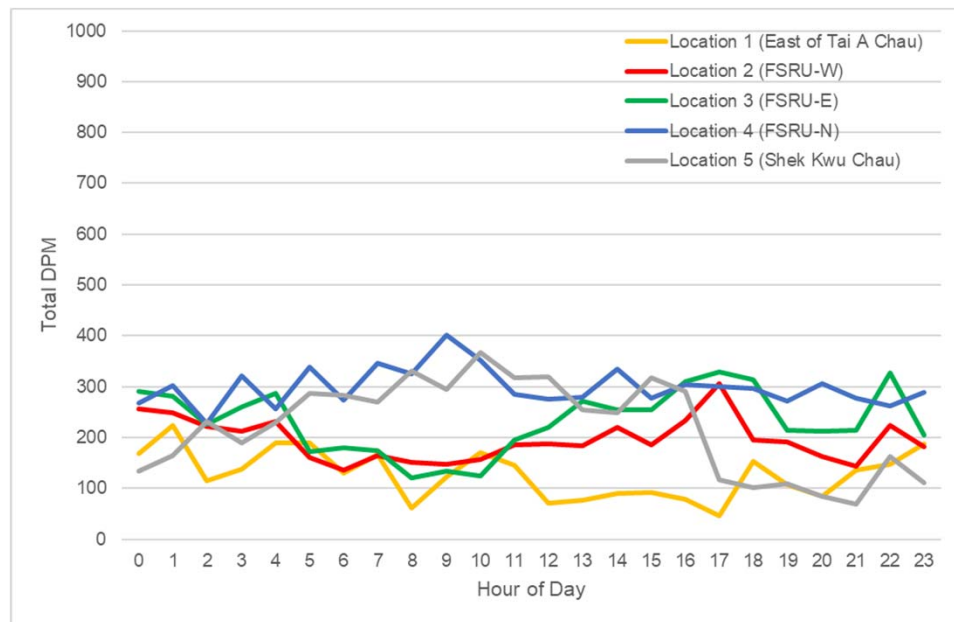
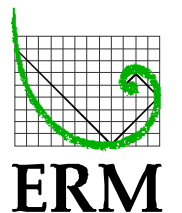


Figure 3.6 Monthly Comparisons on DPM Diel Patterns of Finless Porpoises among the Five Deployment Locations from October 2019 to March 2020

Date: 29/04/2020

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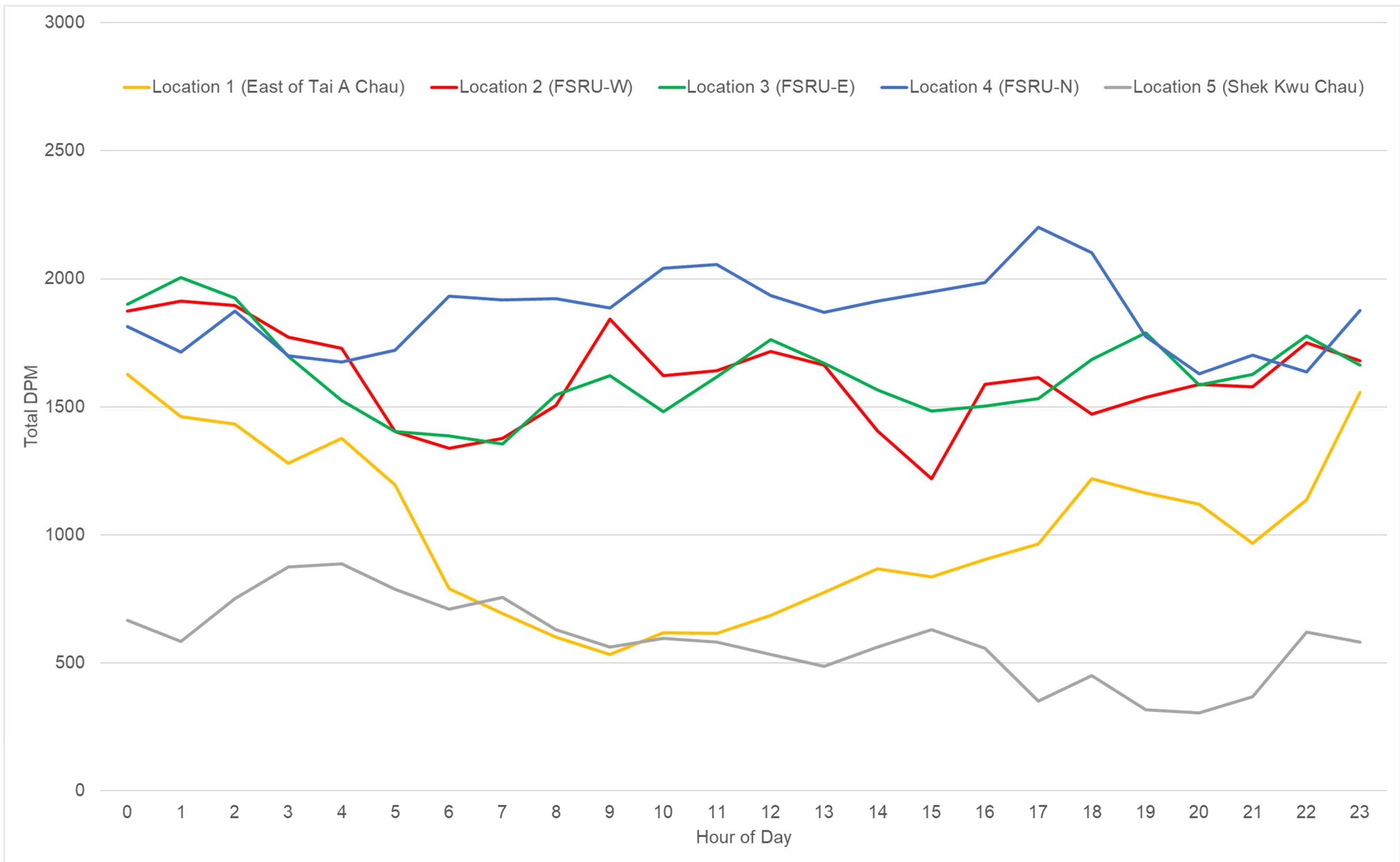
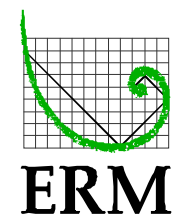


Figure 3.7 DPM Diel Patterns of Finless Porpoises among the Five Deployment Locations during the Six-month Baseline Monitoring

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Notably, the minute click limit can be exceeded in very noisy environments, meaning that no further clicks will be detected until the start of the next minutes. However, no time was lost at all five monitoring locations. Moreover, boat sonar was detected throughout the five monitoring locations, and this was generally around 50 kHz.

3.2.2.3 Temporal Variations in FP Occurrences

Variations in porpoise activity per day were observed at all five locations over the six-month monitoring period. Higher levels of porpoise activity were generally found between February and March 2020 for all the five locations (**Figure 3.5**). Among the five locations, the highest number of porpoise DPM was recorded at Location 4 (FSRU-N) while Locations 1 - 3 had larger variations of DPM across the monitoring period. In contrast, Location 5 (Shek Kwu Chau) recorded the least porpoise activity amongst the five locations with very low number of porpoise DPM recorded between late September and December 2019 (**Figure 3.5**).

3.2.2.4 Diel Patterns on FP Occurrences

FP activity in different hours of the day at the five locations is examined and comparison was made on the diel patterns among the five locations by each month from October 2019 to March 2020 and over the six-month monitoring period (**Figures 3.6-3.7**). Diel patterns were more distinguishable in February and March 2020 for all the five locations. All five sites generally showed a decline in porpoise activity from late morning to the middle of the day to some extent. Similar diel patterns were observed in Locations 2 - 4 (i.e. locations near the LNG terminal site). The diel pattern at Location 1 (East of Tai A Chau) was more distinguishable with higher porpoise activities during night-time. The diel pattern at Location 5 (Southeast of Shek Kwu Chau) was less distinguishable and the total DPM recorded throughout the six-month baseline monitoring period were lower than other locations.

3.3 Action and Limit Levels

According to the EIA, it is predicted that marine mammals would avoid the vicinity of the works areas during construction period and would return to the areas upon cessation of the disturbance.

Consequently, there may be a decline of FP usage of some waters of the Southeast Lantau survey area where the LNG Terminal is located, while the animals are expected to move to the broader southern Lantau waters including the Southwest Lantau and Lamma survey areas and continue to use the broader areas to a similar degree.

To detect unacceptable/ unforeseen changes in FP distribution as construction work progresses, the Action Level and Limit Level for marine mammal monitoring are established using encounter rate calculated from the six-month baseline vessel-based line transect surveys from the three survey areas as a whole in accordance with the Updated EM&A Manual. The combined baseline encounter rate will be used to compare with the encounter rate obtained during monthly construction phase monitoring calculated from last three month's monitoring data, i.e. running quarterly value. This approach would allow natural seasonal fluctuations in FP encounter rate to be accounted for, and allow data to be reviewed every month such as appropriate remedial actions could be taken timely if the threshold values are triggered. The action and limit levels are derived as stated in **Table 3.3**.

Table 3.3 Action and Limit Levels for Marine Mammal Monitoring

Monitoring Area	Action Level	Limit Level
Criteria for establishing Action and Limit Levels		
SWL, SEL and LM as a whole	Running quarterly STG & ANI < combined encounter rates from the six-month baseline monitoring data	Two consecutive running quarterly STG & ANI < combined encounter rates from the six-month baseline monitoring data
Derived Values from the data obtained during the 6-month baseline vessel-based marine mammal surveys		
SWL, SEL and LM as a whole	Running quarterly STG < 1.12 & ANI < 2.18	Two consecutive running quarterly STG < 1.12 & ANI < 2.18

Note: Action / Limit Levels will be triggered if both STG and ANI fall below the criteria.

3.4 Event and Action Plan

Should non-compliance of the criteria for marine mammal monitoring occur, action in accordance with the Event and Action Plan presented in **Table 3.4** below shall be carried out and review works would be conducted.

Table 3.4 Event and Action Plan for Marine Mammal Monitoring

Event	Action			
	ET	IEC	Contractor(s)	Project Proponents
Action Level exceeded	<ol style="list-style-type: none"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Review available AFCD data and relevant EM&A data to check if the exceedance is due to natural variation or works related; 3. Identify potential source(s) of impact; 4. Inform the IEC, Project Proponents and Contractor; 5. Increase site inspection and audit frequency to ensure all the marine mammal protective and/or precautionary measures are properly implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data and analysis and investigation by ET; 2. Conduct additional site inspection and audit with ET to ensure all the marine mammal protective and/or precautionary measures are properly implemented and advise Project Proponents the audit results and findings accordingly. 	<ol style="list-style-type: none"> 1. Inform the Project Proponents and confirm notification of the non-compliance in writing; 2. Conduct site inspection and audit with the ETL and IEC; 3. Ensure all the marine mammal protective and/or precautionary measures are properly implemented. 	<ol style="list-style-type: none"> 1. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 2. Check the audit results and findings from ET and IEC.
Limit Level exceeded	<ol style="list-style-type: none"> 1. Check monitoring data and repeat data analysis to confirm findings; 2. Review available AFCD data and relevant EM&A data to check if the exceedance is due to natural variation or works related; 3. Identify potential source(s) of impact; 4. Inform the IEC, Project Proponents and Contractor; 5. Increase site inspection and audit frequency to ensure all the marine mammal protective and/or precautionary measures are properly implemented; 6. Review previous occurrence of non-compliance events to investigate if there is a longer term trend that needs attention; 7. ET to discuss and confirm with Project Proponents, IEC and Contractor on the need for further mitigation measures (e.g. consider controlling and, if necessary suspending marine works associated with the suspected source of impact). 	<ol style="list-style-type: none"> 1. Check monitoring data and analysis and investigation by ET; 2. Conduct additional site inspection and audit with ET to ensure all the marine mammal protective and/or precautionary measures are properly implemented and advise Project Proponents the audit results and findings accordingly 3. Discuss and confirm further mitigation measures with Project Proponents, ET and Contractor; 4. Supervise / audit the implementation of further mitigation measures and advise Project Proponents the results and findings accordingly. 	<ol style="list-style-type: none"> 1. Inform the Project Proponents and confirm notification of the non-compliance in writing; 2. Conduct site inspection and audit with the ETL and IEC; 3. Ensure all the marine mammal protective and/or precautionary measures are properly implemented; 4. Discuss and confirm further mitigation measures with the ETL, IEC and Project Proponents; 5. Carry out further measures when advised by ET and agreed by Project Proponents and IEC. 	<ol style="list-style-type: none"> 1. Discuss the need for increased site inspection and audit frequency proposed by ET with IEC and the Contractor; 2. Check the audit results and findings from ET and IEC; 3. Discuss and confirm further mitigation measures with the ET, IEC and Contractor; 4. Supervise the implementation of further mitigation measures.

4. REVISIONS ON UPDATED EM&A MANUAL

Upon agreement with EPD on this Baseline Monitoring Report, revisions for the Action and Limit Levels as proposed in this Report will be updated in the Updated EM&A Manual.

5. CONCLUSION

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

Baseline water quality monitoring was conducted three times a week for four weeks during wet season (Aug – Sep 2019) and four weeks during dry season (Dec 2019 – Jan 2020) at 35 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. 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.

Baseline marine mammal monitoring was conducted for six months using vessel-based line transect surveys and PAM. A total of 36 vessel-based line-transect surveys were conducted during June to November 2019 in Southwest Lantau, Southeast Lantau and Lamma waters while PAM was conducted in the vicinity of the LNG Terminal site in September 2019 to March 2020. The distribution and encounter rate of FP at South Lantau waters were examined. Action and Limit Levels for construction phase marine mammal monitoring were established for FP based on the baseline monitoring results.

Upon agreement with EPD on this Baseline Monitoring Report, revisions for the Action and Limit Levels as proposed in this Report will be updated in the Updated EM&A Manual.

ANNEX A

BASELINE WATER QUALITY MONITORING

ANNEX A1

CALIBRATION CERTIFICATES



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR MEI SHING LAM	WORK ORDER:	HK1934082
CLIENT:	EGS (ASIA) LTD	AMENDMENT NO.:	1
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	09-Aug-2019
		DATE OF ISSUE:	30-Aug-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

This is an amendment of the Certificate of Analysis.

The serial number has been added.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI 6920 and YSI 6820
Serial No./ Equipment No.:	MPP15 SN:02J0058-AA
Date of Calibration:	13-Aug-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934082
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP15 SN:02J0058-AA
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.58	4.55	-0.03
6.21	6.26	+0.05
7.33	7.31	-0.02
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.02	+0.02
7.0	7.17	+0.17
10.0	10.18	+0.18
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934082
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP15 SN:02J0058-AA
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.1	+2.5
40	40.5	+1.3
80	81.1	+1.4
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.14	-8.6
20	18.99	-5.1
30	29.32	-2.3
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934082
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI 6920 and YSI 6820
Serial No./
Equipment No.: MPP15 SN:02J0058-AA
Date of Calibration: 13-Aug-2019

Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
4.5	4.78	+0.3
21.5	21.09	-0.4
40.0	39.30	-0.7
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR MEI SHING LAM	WORK ORDER:	HK1934776
CLIENT:	EGS (ASIA) LTD	AMENDMENT NO.:	1
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	09-Aug-2019
		DATE OF ISSUE:	30-Aug-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

This is an amendment of the Certificate of Analysis.

The serial number has been added.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI 6920 and YSI 6820
Serial No./ Equipment No.:	MPP30 SN:08C100240
Date of Calibration:	12-Aug-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934776
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP30 SN:08C100240

Date of Calibration: 12-Aug-2019 Date of Next Calibration: 12-Nov-2019

PARAMETERS:

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.18	4.25	+0.07
6.04	6.13	+0.09
7.33	7.17	-0.16
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.94	-0.06
7.0	6.98	-0.02
10.0	9.96	-0.04
	Tolerance Limit (pH unit)	±0.20

Remark:

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934776
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP30 SN:08C100240

Date of Calibration: 12-Aug-2019 Date of Next Calibration: 12-Nov-2019

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.1	+2.5
40	42.6	+6.5
80	83.5	+4.4
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.28	-7.2
20	19.04	-4.8
30	29.51	-1.6
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934776
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP30 SN:08C100240

Date of Calibration: 12-Aug-2019 Date of Next Calibration: 12-Nov-2019

PARAMETERS: Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
5.5	4.94	-0.6
21.5	20.57	-0.9
38.5	37.90	-0.6
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR MEI SHING LAM	WORK ORDER:	HK1934099
CLIENT:	EGS (ASIA) LTD	AMENDMENT NO.:	1
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	09-Aug-2019
		DATE OF ISSUE:	30-Aug-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

This is an amendment of the Certificate of Analysis.

The serial number has been added.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI 6920 and YSI 6820
Serial No./ Equipment No.:	MPP37 SN:09H101347
Date of Calibration:	13-Aug-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934099
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP37 SN:09H101347
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
5.14	5.28	+0.14
6.18	6.17	-0.01
7.33	7.33	+0.00
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.12	+0.12
7.0	7.17	+0.17
10.0	9.94	-0.06
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934099
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP37 SN:09H101347
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.0	+0.0
40	40.7	+1.8
80	81.0	+1.3
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.15	--
10	9.04	-9.6
20	18.43	-7.9
30	29.10	-3.0
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934099
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI 6920 and YSI 6820
Serial No./
Equipment No.: MPP37 SN:09H101347
Date of Calibration: 13-Aug-2019

Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
6.0	6.02	+0.0
21.5	20.96	-0.5
38.0	37.69	-0.3
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: MR MEI SHING LAM
CLIENT: EGS (ASIA) LTD
ADDRESS: 15/F., NORTH POINT INDUSTRIAL BUILDING,
499 KING'S ROAD, NORTH POINT,
HONG KONG

WORK ORDER: HK1934103
AMENDMENT NO.: 1
SUB- BATCH: 0
LABORATORY: HONG KONG
DATE RECEIVED: 09-Aug-2019
DATE OF ISSUE: 30-Aug-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

This is an amendment of the Certificate of Analysis.

The serial number has been added.

Scope of Test: Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP46 SN:14A101573
Date of Calibration: 13-Aug-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934103
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP46 SN:14A101573
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.99	5.02	+0.03
6.12	6.19	+0.07
7.33	7.34	+0.01
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.03	+0.03
7.0	6.95	-0.05
10.0	10.08	+0.08
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934103
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI 6920 and YSI 6820
Serial No./ Equipment No.: MPP46 SN:14A101573
Date of Calibration: 13-Aug-2019 Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.0	+0.0
40	40.5	+1.3
80	81.4	+1.8
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.34	-6.6
20	18.81	-6.0
30	29.28	-2.4
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1934103
AMENDMENT NO.: 1
SUB- BATCH: 0
DATE OF ISSUE: 30-Aug-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI 6920 and YSI 6820
Serial No./
Equipment No.: MPP46 SN:14A101573
Date of Calibration: 13-Aug-2019

Date of Next Calibration: 13-Nov-2019

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
8.0	7.15	-0.9
21.0	20.74	-0.3
38.0	37.73	-0.3
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



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

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
 Email: info@qualityprotest.com; Website: www.qualityprotest.com
 Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI060144
 Date of Issue : 25 June, 2019
 Page No. : 1 of 2

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 : Jun 25, 2019
 Date of Calibration : Jun 25, 2019
 Date of Next Calibration^(a) : Sep 25, 2019

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	4.02	0.02	Satisfactory
7.42	7.40	-0.02	Satisfactory
10.01	10.01	0.00	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
30.0	29.8	-0.2	Satisfactory
48.0	48.1	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 from 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 referenced to YSI product specifications.

APPROVED SIGNATORY:

LAM Ho-ye, Emma
 Assistant Laboratory Manager



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI060144
Date of Issue : 25 June, 2019
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.03	-0.42	Satisfactory
2.88	3.26	0.38	Satisfactory
5.23	5.29	0.06	Satisfactory
8.12	7.64	-0.48	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	142.8	-2.8	Satisfactory
0.01	1412	1398	-1.0	Satisfactory
0.1	12890	12934	0.3	Satisfactory
0.5	58670	56361	-3.9	Satisfactory
1.0	111900	111597	-0.3	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.94	-0.6	Satisfactory
20	20.00	0.0	Satisfactory
30	30.14	0.5	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.00	--	--
10	10.07	0.7	Satisfactory
20	20.11	0.5	Satisfactory
100	101.20	1.2	Satisfactory
800	804.30	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 from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI060143
 Date of Issue : 25 June, 2019
 Page No. : 1 of 2

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 : 17E100747
 Date of Received : Jun 25, 2019
 Date of Calibration : Jun 25, 2019
 Date of Next Calibration^(a) : Sep 25, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>	<u>Reference Method</u>
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	4.01	0.01	Satisfactory
7.42	7.41	-0.01	Satisfactory
10.01	10.03	0.02	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.2	0.2	Satisfactory
30.0	30.0	0.0	Satisfactory
48.0	47.9	-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 from 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 referenced to YSI product specifications.

APPROVED SIGNATORY: 
 LAM Ho-ye, Emma
 Assistant Laboratory Manager



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI060143
Date of Issue : 25 June, 2019
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.03	-0.42	Satisfactory
2.84	3.26	0.42	Satisfactory
5.21	5.29	0.08	Satisfactory
8.03	7.64	-0.39	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	145.1	-1.2	Satisfactory
0.01	1412	1402	-0.7	Satisfactory
0.1	12890	12921	0.2	Satisfactory
0.5	58670	56719	-3.3	Satisfactory
1.0	111900	111688	-0.2	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.96	-0.4	Satisfactory
20	20.13	0.6	Satisfactory
30	30.00	0.0	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.01	--	Satisfactory
10	10.05	0.5	Satisfactory
20	20.12	0.6	Satisfactory
100	100.90	0.9	Satisfactory
800	805.40	0.7	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 from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI080036
Date of Issue : 06 Aug, 2019
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17H105557
Date of Received : Aug 02, 2019
Date of Calibration : Aug 02, 2019
Date of Next Calibration^(a) : Nov 02, 2019

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	3.98	-0.02	Satisfactory
7.42	7.40	-0.02	Satisfactory
10.01	10.01	0.00	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
11.5	11.3	-0.2	Satisfactory
26.0	25.9	-0.1	Satisfactory
51.5	52.0	0.5	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -


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^(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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI080036
Date of Issue : 06 Aug, 2019
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.01	0.27	0.26	Satisfactory
1.68	1.75	0.07	Satisfactory
4.52	4.81	0.29	Satisfactory
7.84	8.00	0.16	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	152.6	3.9	Satisfactory
0.01	1412	1389	-1.6	Satisfactory
0.1	12890	12452	-3.4	Satisfactory
0.5	58670	58588	-0.1	Satisfactory
1.0	111900	111882	0.0	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	0.8	Satisfactory
20	20.35	1.8	Satisfactory
30	30.00	0.0	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.00	--	Satisfactory
10	10.03	0.3	Satisfactory
20	20.11	0.5	Satisfactory
100	100.07	0.1	Satisfactory
800	800.35	0.0	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI080035
Date of Issue : 06 Aug, 2019
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 18A104824
Date of Received : Aug 02, 2019
Date of Calibration : Aug 02, 2019
Date of Next Calibration^(a) : Nov 02, 2019

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	4.01	0.01	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.00	-0.01	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
11.5	11.4	-0.1	Satisfactory
26.0	25.9	-0.1	Satisfactory
51.5	52.0	0.5	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s) :-

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


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI080035
Date of Issue : 06 Aug, 2019
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.01	0.26	0.25	Satisfactory
1.68	1.82	0.14	Satisfactory
4.52	4.83	0.21	Satisfactory
7.84	8.04	0.20	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	144.3	-1.8	Satisfactory
0.01	1412	1394	-1.3	Satisfactory
0.1	12890	12677	-1.7	Satisfactory
0.5	58670	58642	0.0	Satisfactory
1.0	111900	112012	0.1	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.06	0.6	Satisfactory
20	20.22	1.1	Satisfactory
30	30.17	0.6	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ⁽¹⁾ (NTU)	Tolerance ⁽²⁾ (%)	Results
0	0.01	--	Satisfactory
10	10.04	0.4	Satisfactory
20	20.09	0.4	Satisfactory
100	100.19	0.2	Satisfactory
800	801.44	0.2	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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⁽²⁾ The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI070143
 Date of Issue : 25 July, 2019
 Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
 Manufacturer : YSI (a xylem brand)
 Serial Number : 0001C6A7
 Date of Received : Jul 24, 2019
 Date of Calibration : Jul 24, 2019
 Date of Next Calibration^(a) : Oct 24, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>	<u>Reference Method</u>
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	4.08	0.08	Satisfactory
7.42	7.38	-0.04	Satisfactory
10.01	10.05	0.04	Satisfactory

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

(2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
23.0	23.32	0.32	Satisfactory
28.0	27.65	-0.35	Satisfactory
48.0	49.6	1.6	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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^(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 referenced to YSI product specifications.


 LEE Chun-ning, Desmond
 Senior Chemist



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI070143
Date of Issue : 25 July, 2019
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.02	0.48	0.46	Satisfactory
3.66	3.50	-0.16	Satisfactory
5.70	5.78	0.08	Satisfactory
7.64	7.49	-0.15	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	140.2	-4.56	Satisfactory
0.01	1412	1386	-1.84	Satisfactory
0.1	12890	12742	-1.15	Satisfactory
0.5	58670	56780	-3.22	Satisfactory
1.0	111900	107432	-3.99	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	19.95	-0.25	Satisfactory
30	30.04	0.13	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ⁽¹⁾ (NTU)	Tolerance ⁽²⁾ (%)	Results
0	0.1	--	Satisfactory
10	9.8	-2.0	Satisfactory
20	19.4	-3.0	Satisfactory
100	97.2	-2.8	Satisfactory
800	776.3	-3.0	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

⁽¹⁾ "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

⁽²⁾ The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI070142
Date of Issue : 25 July, 2019
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 00019CB2
Date of Received : Jul 24, 2019
Date of Calibration : Jul 24, 2019
Date of Next Calibration^(a) : Oct 24, 2019

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	4.02	0.02	Satisfactory
7.42	7.39	-0.03	Satisfactory
10.01	10.04	0.03	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
23.0	22.62	0.38	Satisfactory
28.0	27.56	-0.44	Satisfactory
48.0	48.9	0.9	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 from 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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI070142
Date of Issue : 25 July, 2019
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.02	0.04	0.02	Satisfactory
3.66	3.56	-0.10	Satisfactory
5.70	5.86	0.16	Satisfactory
7.64	7.5	-0.14	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	136.8	-6.88	Satisfactory
0.01	1412	1352	-4.25	Satisfactory
0.1	12890	12754	-1.06	Satisfactory
0.5	58670	56354	-3.95	Satisfactory
1.0	111900	106531	-4.80	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.01	0.01	Satisfactory
20	19.90	-0.1	Satisfactory
30	29.82	-0.18	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance(g) (%)	Results
0	0.1	--	Satisfactory
10	9.6	-4.0	Satisfactory
20	19.9	-0.5	Satisfactory
100	98.4	-1.6	Satisfactory
800	762.9	-4.6	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.

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



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	LAM MEI SHING	WORK ORDER:	HK1953237
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	16-Dec-2019
		DATE OF ISSUE:	24-Dec-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI
Serial No./ Equipment No.:	MPP15
Date of Calibration:	23-Dec-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953237
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP15
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.92	3.76	-0.16
5.59	5.58	-0.01
8.34	8.28	-0.06
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.97	-0.03
7.0	7.05	+0.05
10.0	10.01	+0.01
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953237
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI
Serial No./
Equipment No.: MPP15
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.2	--
4	4.3	+7.5
40	38.9	-2.8
80	84.1	+5.1
400	/	N/A
800	/	N/A
Tolerance Limit (%)		±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.22	-7.8
20	19.82	-0.9
30	29.40	-2.0
Tolerance Limit (%)		±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953237
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP15
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS:
Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
8.0	8.11	+0.1
22.5	22.02	-0.5
42.0	41.50	-0.5
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	LAM MEI SHING	WORK ORDER:	HK1953275
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	16-Dec-2019
		DATE OF ISSUE:	24-Dec-2019

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI
Serial No./ Equipment No.:	MPP37
Date of Calibration:	23-Dec-2019

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953275
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP37
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.59	3.52	-0.07
5.47	5.46	-0.01
8.38	8.37	-0.01
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.06	+0.06
7.0	7.13	+0.13
10.0	10.09	+0.09
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953275
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP37
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.1	--
4	4.3	+7.5
40	43.7	+9.3
80	85.3	+6.6
400	/	N/A
800	/	N/A
Tolerance Limit (%)		±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.19	--
10	9.86	-1.4
20	20.38	+1.9
30	29.70	-1.0
Tolerance Limit (%)		±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1953275
SUB- BATCH: 0
DATE OF ISSUE: 24-Dec-2019
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP37
Date of Calibration: 23-Dec-2019

Date of Next Calibration: 23-Mar-2020

PARAMETERS: Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
8.0	8.05	+0.1
22.5	22.43	-0.1
44.0	43.64	-0.4
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	LAM MEI SHING	WORK ORDER:	HK1954542
CLIENT:	EGS (ASIA) LTD		
ADDRESS:	15/F, NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	SUB- BATCH:	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	27-Dec-2019
		DATE OF ISSUE:	03-Jan-2020

COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Equipment Type:	Multifunctional Meter
Brand Name/ Model No.:	YSI
Serial No./ Equipment No.:	MPP 44
Date of Calibration:	02-Jan-2020

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1954542
SUB- BATCH: 0
DATE OF ISSUE: 03-Jan-2020
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP 44
Date of Calibration: 02-Jan-2020

Date of Next Calibration: 02-Apr-2020

PARAMETERS:

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.21	3.31	+0.10
5.01	5.05	+0.04
6.77	6.74	-0.03
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.02	+0.02
7.0	7.12	+0.12
10.0	10.15	+0.15
	Tolerance Limit (pH unit)	±0.20

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1954542
SUB- BATCH: 0
DATE OF ISSUE: 03-Jan-2020
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: YSI
Serial No./ Equipment No.: MPP 44
Date of Calibration: 02-Jan-2020

Date of Next Calibration: 02-Apr-2020

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.1	--
4	3.7	-7.5
40	36.5	-8.8
80	75.2	-6.0
400	/	N/A
800	/	N/A
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.62	-3.8
20	20.71	+3.6
30	30.65	+2.2
	Tolerance Limit (%)	±10.0

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK1954542
SUB- BATCH: 0
DATE OF ISSUE: 03-Jan-2020
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter
Brand Name/
Model No.: YSI
Serial No./
Equipment No.: MPP 44
Date of Calibration: 02-Jan-2020

Date of Next Calibration: 02-Apr-2020

PARAMETERS:

Temperature

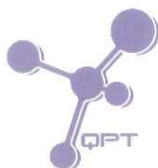
Method Ref: Section 6 of International Accreditation New Zealand Technical
Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
14.0	13.39	-0.6
22.5	21.86	-0.6
40.5	40.15	-0.4
	Tolerance Limit (°C)	±2.0

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

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

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganic



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AII20101
Date of Issue : 24 December 2019
Page No. : 1 of 2

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 : Dec 23, 2019
Date of Calibration : Dec 23, 2019
Date of Next Calibration^(a) : Mar 22, 2020

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	4.07	0.07	Satisfactory
7.42	7.48	0.06	Satisfactory
10.01	10.20	0.19	Satisfactory

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

(2) Temperature

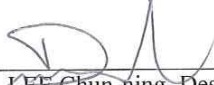
Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.2	0.2	Satisfactory
30.0	30.1	0.1	Satisfactory
49.0	49.0	0.0	Satisfactory

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 from 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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
Senior Chemist



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AII20101
Date of Issue : 24 December 2019
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.55	0.10	Satisfactory
4.27	4.30	0.03	Satisfactory
6.41	6.55	0.14	Satisfactory
8.20	8.31	0.11	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	154.1	4.90	Satisfactory
0.01	1412	1388	-1.70	Satisfactory
0.1	12890	12817	-0.57	Satisfactory
0.5	58670	59446	1.32	Satisfactory
1.0	111900	110937	-0.86	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.92	-0.80	Satisfactory
20	20.18	0.90	Satisfactory
30	30.41	1.37	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.10	--	Satisfactory
10	10.08	0.8	Satisfactory
20	20.11	0.5	Satisfactory
100	100.37	0.4	Satisfactory
800	798.42	-0.2	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 from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120102
Date of Issue : 24 December 2019
Page No. : 1 of 2

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 : 17E100747
Date of Received : Dec 23, 2019
Date of Calibration : Dec 23, 2019
Date of Next Calibration^(a) : Mar 22, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>	<u>Reference Method</u>
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	4.05	0.05	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.18	0.17	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
30.0	30.1	0.1	Satisfactory
49.0	49.2	0.2	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 from 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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
Senior Chemist



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120102
Date of Issue : 24 December 2019
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.52	0.07	Satisfactory
4.27	4.22	-0.05	Satisfactory
6.41	6.56	0.15	Satisfactory
8.20	8.30	0.10	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	154.3	5.04	Satisfactory
0.01	1412	1459	3.33	Satisfactory
0.1	12890	12914	0.19	Satisfactory
0.5	58670	57886	-1.34	Satisfactory
1.0	111900	110832	-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	9.89	-1.10	Satisfactory
20	20.14	0.70	Satisfactory
30	30.33	1.10	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.09	--	Satisfactory
10	10.03	0.3	Satisfactory
20	20.16	0.8	Satisfactory
100	100.28	0.3	Satisfactory
800	798.47	-0.2	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 from relevant international standards.



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120100
Date of Issue : 24 December 2019
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17H105557
Date of Received : Dec 23, 2019
Date of Calibration : Dec 23, 2019
Date of Next Calibration^(a) : Mar 22, 2020

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	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.17	0.16	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	14.9	-0.1	Satisfactory
30.0	30.0	0.0	Satisfactory
49.0	49.0	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 from 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 referenced to YSI product specifications.

LEE Chun-ning, Desmond
Senior Chemist



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AII20100
Date of Issue : 24 December 2019
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.58	0.13	Satisfactory
4.27	4.33	0.06	Satisfactory
6.41	6.51	0.10	Satisfactory
8.20	8.29	0.09	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 ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	150.2	2.25	Satisfactory
0.01	1412	1369	-3.05	Satisfactory
0.1	12890	12928	0.29	Satisfactory
0.5	58670	58921	0.43	Satisfactory
1.0	111900	111994	0.08	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.88	-1.20	Satisfactory
20	19.92	-0.40	Satisfactory
30	29.58	-1.40	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.12	--	Satisfactory
10	9.98	-0.2	Satisfactory
20	19.88	-0.6	Satisfactory
100	100.33	0.3	Satisfactory
800	797.84	-0.3	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 from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100182
Date of Issue : 30 October 2019
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 0001C6A7
Date of Received : Oct 28, 2019
Date of Calibration : Oct 28, 2019
Date of Next Calibration^(a) : Jan 27, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H ⁺ B
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	4.07	0.07	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.05	0.04	Satisfactory

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

(2) Temperature


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

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

~ 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 from 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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100182
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

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

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

(4) Conductivity at 25°C

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

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

(5) Salinity

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

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ⁽¹⁾ (NTU)	Tolerance ⁽²⁾ (%)	Results
0	0.50	--	Satisfactory
10	10.02	0.2	Satisfactory
20	20.47	2.3	Satisfactory
100	100.16	0.2	Satisfactory
800	798.93	-0.1	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

⁽¹⁾ "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

⁽²⁾ The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI100183
Date of Issue : 30 October 2019
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PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI 6920V2 (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 00019CB2
Date of Received : Oct 28, 2019
Date of Calibration : Oct 28, 2019
Date of Next Calibration^(a) : Jan 27, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H ⁺ B
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	3.95	-0.05	Satisfactory
7.42	7.36	-0.06	Satisfactory
10.01	9.93	-0.08	Satisfactory

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

(2) Temperature

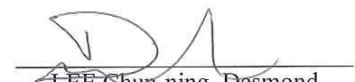
Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
25.0	24.9	-0.1	Satisfactory
35.0	34.9	-0.1	Satisfactory

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

~ 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
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^(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 referenced to YSI product specifications.


LEE Chun-ning, Desmond
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
1.04	0.80	-0.24	Satisfactory
4.10	4.34	0.24	Satisfactory
5.92	5.94	0.02	Satisfactory
7.81	8.07	0.26	Satisfactory

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

(4) Conductivity at 25°C

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

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

(5) Salinity

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

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

(6) Turbidity

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

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

~ END OF REPORT ~

Remark(s): -

^(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 from relevant international standards.

ANNEX A2

MONITORING SCHEDULE

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Water Quality Monitoring Schedule (August 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Aug	2-Aug	3-Aug
4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug
11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug
			Water Quality Monitoring		Water Quality Monitoring	
			mid-ebb tide 12:15 mid-flood tide 19:32		mid-ebb tide 13:25 mid-flood tide 6:47	
18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	mid-ebb tide 14:58 mid-flood tide 8:37		mid-ebb tide 16:02 mid-flood tide 9:58		mid-ebb tide 17:31 mid-flood tide 11:57	
25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	mid-ebb tide 9:06 mid-flood tide 16:36		mid-ebb tide 10:58 mid-flood tide 18:13		mid-ebb tide 12:37 mid-flood tide 19:30	

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Water Quality Monitoring Schedule (September 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep
			Water Quality Monitoring mid-ebb tide 16:36 mid-flood tide 10:28		Water Quality Monitoring mid-ebb tide 18:41 mid-flood tide 13:04	
8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep
	Water Quality Monitoring mid-ebb tide 9:44 mid-flood tide 17:36		Water Quality Monitoring mid-ebb tide 11:17 mid-flood tide 18:35			Water Quality Monitoring mid-ebb tide 13:01 mid-flood tide 19:37
15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep
		Water Quality Monitoring mid-flood tide 8:27				
22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep
29-Sep	30-Sep					

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Water Quality Monitoring Schedule (December 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec
8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
					Water Quality Monitoring	
					mid-ebb tide 1:07 mid-flood tide 8:28	
29-Dec	30-Dec	31-Dec				
	Water Quality Monitoring					
	mid-ebb tide 2:57 mid-flood tide 10:29					

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Water Quality Monitoring Schedule (January 2020)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jan	2-Jan	3-Jan	4-Jan
				Water Quality Monitoring		Water Quality Monitoring
				mid-ebb tide 4:46 mid-flood tide 12:56		mid-ebb tide 6:17 mid-flood tide 14:15
5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan
	Water Quality Monitoring		Water Quality Monitoring			Water Quality Monitoring
	mid-ebb tide 22:29 mid-flood tide 15:18		mid-ebb tide 23:33 mid-flood tide 16:27			mid-ebb tide 0:48 mid-flood tide 7:57
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring
		mid-ebb tide 2:56 mid-flood tide 10:07		mid-ebb tide 4:29 mid-flood tide 11:44		mid-ebb tide 20:00 mid-flood tide 13:29
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
	Water Quality Monitoring		Water Quality Monitoring			
	mid-ebb tide 22:11 mid-flood tide 15:11		mid-ebb tide 23:39 mid-flood tide 16:42			
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	

ANNEX A3

BASELINE WATER QUALITY MONITORING RESULTS

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E2	Fine	Calm	10:16	8.4	S	0.4	36.2	29.5	29.5	26.5	26.4	8.1	8.1	128.8	128.5	8.5	8.5	6.2	2.0	2.0	8.7	6.5	6.7	16.1
						0.1	90.6	29.6	26.4	26.4	8.2	8.1	128.2	8.4	8.4									
						0.1	150.3	28.0	28.1	31.5	31.3	7.8	7.9	57.8	59.1	3.8	3.9	4.4	4.2	8.0				
					M	0.1	128.6	28.1	27.7	31.1	31.3	7.9	7.8	60.4	54.4	4.0	3.8	4.0	19.8	7.4		7.7		
						0.4	221.7	27.7	27.7	33.5	33.5	7.7	7.8	54.5	54.4	3.6	3.8	3.8	18.1	32.9		33.8		
						0.2	10.8	27.7	27.7	33.5	33.5	7.9	7.8	54.3	54.4	3.5	3.8	3.8	21.6	34.6		33.8		
B	0.7	122.1	29.7	29.8	19.7	19.1	8.1	8.1	97.8	101.3	6.7	6.9	5.2	3.8	3.8	6.8	7.0							
	0.8	129.6	30.0	29.8	18.5	19.1	8.1	8.1	104.7	101.3	7.2	6.9	5.2	3.8	3.8	7.2	7.0							
	0.6	124.3	27.5	27.4	33.3	33.3	8.0	8.0	53.9	53.8	3.5	3.5	5.2	4.1	4.3	11.1	11.9	12.4						
E3	Fine	Calm	11:44	17.0	S	0.6	162.6	27.4	27.4	33.3	33.3	8.0	8.0	53.7	53.8	3.5	3.5	5.2	4.5	4.3	11.1	12.9	12.4	19.1
						0.5	114.5	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	38.1				
						0.5	110.7	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	37.7				
					M	0.5	114.5	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	38.1				
						0.5	110.7	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	37.7				
						0.5	110.7	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	37.7				
B	0.5	114.5	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	38.1									
	0.5	110.7	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	37.7									
	0.5	110.7	27.1	27.1	33.7	33.7	7.9	7.9	50.8	50.8	3.4	3.8	3.8	24.1	37.7									
E4	Cloudy	Calm	14:42	10.5	S	0.9	220.6	30.8	30.8	16.0	15.9	8.1	8.1	98.1	97.9	6.7	6.7	5.4	4.7	4.9	21.5	7.1	6.9	29.1
						1.5	182.2	30.8	30.8	15.9	15.9	8.1	8.1	97.8	97.9	6.7	6.7	5.4	5.0	4.9				
						1.1	194.8	28.7	28.7	27.3	27.3	8.0	8.0	61.8	61.8	4.1	4.1	5.4	20.0	25.7				
					M	1.3	180.4	28.7	28.7	27.2	27.3	8.0	8.0	61.8	61.8	4.1	4.1	5.4	20.0	26.0				
						0.5	230.4	28.2	28.2	30.9	30.9	7.9	7.9	54.8	55.8	3.6	3.8	3.8	40.0	56.4				
						0.6	200.3	28.2	28.2	30.6	30.7	8.0	7.9	56.9	55.8	3.7	3.8	3.8	39.3	52.6				
B	0.5	230.4	28.2	28.2	30.9	30.9	7.9	7.9	54.8	55.8	3.6	3.8	3.8	40.0	56.4									
	0.6	200.3	28.2	28.2	30.6	30.7	8.0	7.9	56.9	55.8	3.7	3.8	3.8	39.3	52.6									
	0.6	200.3	28.2	28.2	30.6	30.7	8.0	7.9	56.9	55.8	3.7	3.8	3.8	39.3	52.6									
E5	Cloudy	Calm	13:35	5.5	S	0.9	193.3	31.7	31.5	14.3	14.3	8.0	8.0	100.1	99.0	6.8	6.7	6.7	4.1	4.3	5.2	9.6	10.0	12.8
						0.2	213.4	31.3	31.5	14.4	14.3	8.0	8.0	97.8	99.0	6.7	6.7	6.7	4.5	4.3				
						1.3	209.5	29.8	29.9	18.8	18.6	7.9	7.9	82.5	82.2	5.6	3.8	3.8	6.1	15.2				
					B	0.9	220.6	29.9	29.9	18.4	18.6	7.9	7.9	81.9	82.2	5.6	3.8	3.8	6.0	16.1				
						1.4	98.8	30.2	30.3	16.4	15.8	8.0	8.0	86.1	86.2	5.9	5.9	5.5	5.8	10.6				
						0.8	106.9	30.4	30.3	15.2	15.8	8.0	8.0	86.3	86.2	6.0	5.9	5.5	5.3	10.5				
M	0.4	348.2	29.8	29.7	18.7	19.4	7.9	7.9	78.6	74.9	5.4	5.1	5.5	6.0	10.3									
	0.7	141.7	29.6	29.7	20.1	19.4	7.9	7.9	71.2	74.9	4.9	5.1	5.5	6.1	10.1									
	0.1	121.8	29.1	29.0	23.9	24.3	7.9	7.9	67.5	67.4	4.5	4.5	4.5	6.7	12.0									
B	0.3	230.0	29.0	29.0	24.6	24.3	7.9	7.9	67.2	67.4	4.5	4.5	4.5	7.7	12.0									
	0.8	278.7	30.6	30.6	15.1	15.1	7.9	7.9	96.4	96.3	6.6	6.6	6.5	3.9	3.9									
	0.2	136.5	30.6	30.6	15.0	15.1	7.9	7.9	96.3	96.3	6.6	6.6	6.5	4.0	3.9									
M	0.7	203.5	30.3	30.3	17.0	16.9	7.8	7.9	92.3	92.2	6.3	6.3	6.5	3.7	4.0									
	0.4	139.1	30.3	30.3	16.9	16.9	7.9	7.9	92.1	92.2	6.3	6.3	6.5	4.3	4.0									
	0.4	328.8	30.3	30.3	17.0	17.0	7.6	7.7	93.9	92.8	6.4	6.4	6.4	3.9	3.9									
B	0.9	187.7	30.3	30.3	17.0	17.0	7.9	7.7	91.7	92.8	6.3	6.4	6.4	3.9	3.9									
	0.5	122.0	29.8	29.8	25.0	25.0	8.4	8.4	182.8	180.7	12.1	12.0	8.0	2.0	2.0									
	0.5	101.7	29.8	29.8	25.1	25.0	8.4	8.4	178.6	180.7	11.8	12.0	8.0	2.1	2.0									
M	0.5	125.7	27.8	27.8	33.6	33.4	8.0	8.0	59.7	61.8	3.9	4.0	8.0	2.6	2.3									
	0.4	135.7	27.8	27.8	33.1	33.4	8.0	8.0	63.9	61.8	4.2	4.0	8.0	2.0	2.3									
	0.1	245.1	25.9	25.9	34.1	34.1	7.9	7.9	37.4	37.3	2.5	2.5	2.5	8.7	9.0									
B	0.1	136.3	25.9	25.9	34.1	34.1	7.9	7.9	37.4	37.3	2.5	2.5	2.5	8.7	9.0									
	0.3	150.5	30.3	30.3	25.9	25.9	8.4	8.4	173.5	174.4	11.3	11.4	8.0	1.7	1.8									
	0.3	150.5	30.3	30.3	25.9	25.9	8.4	8.4	173.5	174.4	11.5	11.4	8.0	1.9	1.8									
F2	Fine	Calm	14:49	19.0	S	0.5	92.8	27.8	27.9	32.3	32.0	8.0	8.1	67.2	70.2	4.4	4.6	8.0	2.3	2.1	4.4	6.2	6.5	9.6
						0.2	154.9	28.1	27.9	31.6	32.0	8.1	8.1	73.2	70.2	4.8	4.6	8.0	1.9	2.1				
						0.1	66.4	26.3	26.2	34.1	34.2	8.0	8.0	50.8	50.6	3.4	3.4	3.4	8.8	15.6				
					M	0.1	66.4	26.3	26.2	34.1	34.2	8.0	8.0	50.8	50.6	3.4	3.4	3.4	8.8	15.6				
						0.1	66.4	26.3	26.2	34.1	34.2	8.0	8.0	50.8	50.6	3.4	3.4	3.4	8.8	15.6				
						0.1	310.0	26.1	26.2	34.2	34.2	8.0	8.0	50.4	50.6	3.4	3.4	3.4	9.6	16.4				
B	0.1	310.0	26.1	26.2	34.2	34.2	8.0	8.0	50.4	50.6	3.4	3.4	3.4	9.6	16.4									
	0.1	310.0	26.1	26.2	34.2	34.2	8.0	8.0	50.4	50.6	3.4	3.4	3.4	9.6	16.4									
	0.1	310.0	26.1	26.2	34.2	34.2	8.0	8.0	50.4	50.6	3.4	3.4	3.4	9.6	16.4									

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)				
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
F3	Fine	Calm	13:16	17.4	S	0.6	132.4	29.9	29.9	22.6	22.7	8.2	8.2	110.5	110.5	7.4	7.4	5.7	2.3	2.5	3.5	4.3	4.4	8.5	
						0.4	129.9	29.9		22.7		8.2		110.4		7.4		2.7	4.5						
					M	0.3	112.6	27.7	27.7	33.2	33.2	8.0	8.0	61.2	60.8	4.0	4.0	5.7	1.5	1.5		7.0			7.4
						0.4	119.4	27.7		33.2		8.0		60.4		4.0		1.5	7.8						
					B	0.2	199.0	26.7	26.7	34.1	34.1	7.9	7.9	50.7	50.7	3.4	3.4	3.4	6.6	6.6		13.6			13.8
						0.2	199.0	26.7		34.1		8.0		50.7		3.4		6.6	13.9						
F4	Fine	Calm	10:47	14.0	S	0.6	83.6	29.4	29.5	22.3	22.4	8.1	8.1	102.8	102.3	6.9	6.9	5.0	3.1	3.1	8.0	7.0	7.4	12.9	
						0.5	85.5	29.6		22.5		8.1		101.8		6.8		3.1	7.7						
					M	0.3	129.7	27.7	27.8	32.4	32.2	7.9	7.9	45.5	46.0	3.0	3.0	5.0	6.9	6.8		9.9			10.1
						0.4	134.0	27.8		32.1		8.0		46.5		3.1		6.6	10.2						
					B	0.4	93.1	27.7	27.7	33.4	33.4	7.9	8.0	55.7	55.5	3.6	3.6	3.6	14.1	14.2		20.4			21.4
						0.2	105.3	27.7		33.4		8.0		55.3		3.6		14.4	22.3						
F5	Cloudy	Calm	14:12	5.5	S	1.1	291.7	31.0	30.9	17.9	18.0	8.0	8.0	88.7	87.9	6.0	5.9	5.9	5.0	4.8	6.1	5.5	5.3	8.4	
						0.6	150.9	30.9		18.2		8.0		87.2		5.9		4.6	5.0						
					B	0.7	207.4	28.4	28.7	28.7	26.6	8.0	8.0	62.9	64.4	4.2	4.3	4.3	8.3	7.4		11.9			11.6
						0.5	177.2	29.0		24.5		8.0		65.9		4.4		6.6	11.2						
F6	Cloudy	Calm	12:50	13.5	S	1.3	136.7	30.4	30.3	16.3	16.5	8.0	8.0	91.2	90.5	6.3	6.2	5.2	3.9	4.3	11.6	6.8	6.6	14.4	
						1.1	153.2	30.2		16.6		8.0		89.8		6.2		4.6	6.3						
					M	1.0	142.1	29.2	29.2	23.7	23.8	7.9	7.9	62.2	62.2	4.2	4.2	5.2	10.9	10.7		11.0			11.5
						1.0	153.7	29.2		23.9		7.9		62.2		4.2		10.6	12.0						
					B	0.3	70.9	28.3	28.3	27.5	27.3	7.9	7.9	55.4	54.6	3.7	3.6	3.6	21.5	19.9		25.5			25.2
						0.5	148.5	28.4		27.2		7.9		53.8		3.6		18.3	24.9						
IM3	Fine	Calm	14:22	14.5	S	0.2	276.0	30.3	30.3	26.8	26.7	8.3	8.3	159.3	161.6	10.4	10.5	6.9	1.6	1.5	10.3	7.7	7.4	19.1	
						0.5	269.7	30.4		26.7		8.3		164.0		10.6		1.5	7.0						
					M	0.3	141.2	27.7	27.7	33.6	33.6	8.0	8.0	49.7	50.0	3.3	3.3	6.9	11.8	12.1		18.7			19.2
						0.2	86.1	27.7		33.6		8.0		50.2		3.3		12.4	19.6						
					B	0.2	118.1	27.6	27.6	33.7	33.7	8.0	8.0	52.8	53.8	3.5	3.5	3.5	17.6	17.2		31.9			30.8
						0.2	345.1	27.6		33.7		8.0		54.8		3.6		16.8	29.7						
IM4	Fine	Calm	13:58	16.0	S	1.3	132.4	30.1	30.1	25.5	25.6	8.2	8.2	141.6	141.5	9.3	9.3	6.5	2.3	2.3	10.1	15.1	14.8	20.9	
						0.1	128.2	30.1		25.7		8.2		141.3		9.3		2.2	14.5						
					M	0.1	98.0	27.7	27.7	33.2	33.2	8.0	8.0	56.8	56.7	3.7	3.7	6.5	8.3	8.4		19.1			19.6
						0.1	32.4	27.7		33.1		8.0		56.5		3.7		20.0							
					B	0.1	76.2	27.5	27.5	33.8	33.8	8.0	8.0	51.7	52.1	3.4	3.4	3.4	20.4	19.8		27.9			28.5
						0.1	89.2	27.5		33.8		8.0		52.5		3.4		19.2	29.0						
IM5	Fine	Calm	13:38	15.2	S	0.5	118.1	29.6	29.5	25.4	25.5	8.2	8.2	86.1	86.2	5.7	5.7	4.6	3.0	2.8	6.9	4.0	4.1	11.2	
						0.2	117.4	29.4		25.6		8.2		86.2		5.7		2.6	4.2						
					M	0.3	155.1	27.5	27.5	33.4	33.5	8.0	8.0	55.6	54.5	3.7	3.6	4.6	5.7	6.2		8.1			8.5
						0.4	145.1	27.5		33.5		8.0		53.4		3.5		6.6	8.9						
					B	0.1	119.7	26.9	26.9	34.0	34.0	7.9	7.9	52.4	51.9	3.5	3.4	3.4	10.9	11.6		20.1			21.1
						0.1	94.4	26.9		34.1		8.0		51.5		3.4		12.3	22.0						

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Fine	Calm	13:02	16.0	S	0.5	124.5	29.7	29.7	23.6	23.5	8.1	8.1	109.4	107.5	7.3	7.2	5.6	2.4	2.4	4.6	6.2	6.2	10.1
						0.5	124.5	29.7		23.4		8.1		105.5		7.1			2.3			6.2		
					M	0.6	116.2	27.7	27.6	33.2	33.3	8.0	8.0	64.6	61.8	4.2	4.0	3.2	2.0	1.8		8.6	8.4	
						0.4	92.4	27.5		33.5		8.0		58.9		3.9			1.6			8.2		
					B	0.3	139.0	26.7	26.7	34.1	34.1	7.9	7.9	49.4	49.0	3.3	3.2	9.7	9.0	9.7		15.1	15.6	
						0.3	116.9	26.7		34.1		7.9		46.6		3.2			10.4			16.1		
IM7	Fine	Calm	12:33	13.0	S	0.4	94.2	29.4	29.4	23.9	24.1	8.1	8.1	93.9	93.7	6.3	6.3	5.3	2.6	2.5	3.8	6.5	6.7	9.5
						0.6	70.3	29.4		24.2		8.1		93.6		6.3			2.5			6.9		
					M	0.5	69.5	27.6	27.9	32.8	32.1	8.0	8.0	62.3	66.4	4.1	4.4	2.2	1.9	2.2		9.1	9.0	
						0.6	73.9	28.1		31.5		8.0		70.5		4.6			8.8					
					B	0.3	65.3	26.8	26.8	34.0	34.0	7.9	7.9	55.4	55.3	3.7	3.7	6.8	6.7	6.8		13.0	12.9	
						0.2	59.7	26.8		34.0		8.0		55.2		3.7			12.7					
IM8	Fine	Calm	12:45	14.4	S	0.3	98.7	29.6	29.6	24.0	24.3	8.1	8.1	101.8	99.8	6.8	6.7	5.5	2.4	2.4	3.6	7.5	7.2	10.5
						0.2	121.2	29.5		24.6		8.1		97.8		6.5			2.4			6.8		
					M	0.2	104.0	27.9	27.8	32.5	32.7	8.0	8.0	68.8	66.7	4.5	4.4	2.4	2.1	2.4		9.7	10.2	
						0.4	90.2	27.7		33.0		8.0		64.5		4.2			2.6			10.7		
					B	0.5	101.3	27.0	27.0	33.9	33.9	8.0	8.0	55.3	55.9	3.6	3.7	5.9	6.0	5.9		13.6	14.3	
						0.1	50.7	27.0		33.9		8.0		56.5		3.7			5.9			14.9		
IM9	Fine	Calm	12:11	15.0	S	0.5	105.0	30.5	30.5	24.0	23.4	8.1	8.1	95.1	95.9	6.3	6.3	5.8	2.3	2.6	5.9	9.0	8.9	15.3
						0.5	127.2	30.5		22.7		8.1		96.7		6.4			2.8			8.7		
					M	0.6	119.8	28.4	28.3	30.7	30.8	8.0	8.0	82.7	81.7	5.4	5.4	1.6	1.6	1.6		12.0	12.4	
						0.4	77.2	28.3		30.8		8.0		80.7		5.3			1.5			12.7		
					B	0.4	110.8	27.7	27.7	33.0	32.9	8.0	8.0	66.3	67.1	4.3	4.4	14.3	14.3	13.5		23.7	24.7	
						0.6	132.0	27.7		32.9		8.0		67.9		4.5			12.8			25.6		
IM10	Fine	Calm	11:24	12.6	S	0.7	73.9	29.1	28.9	25.3	26.3	8.0	8.0	77.0	74.2	5.1	4.9	4.2	12.1	13.0	32.5	21.0	21.7	38.1
						0.6	62.3	28.8		27.3		8.0		71.5		4.8			14.0			22.3		
					M	0.7	70.3	27.6	27.5	32.8	33.1	8.0	8.0	54.7	53.6	3.6	3.5	3.5	3.6	3.5		30.8	39.2	
						0.6	70.7	27.4		33.4		8.0		52.5		3.5			37.0			40.7		
					B	0.6	73.1	27.5	27.4	33.1	33.3	7.9	8.0	54.3	53.2	3.4	3.5	3.5	50.9	50.5		51.1	53.4	
						0.5	48.1	27.4		33.4		8.0		52.2		3.4			50.0			55.6		
IM13	Cloudy	Calm	15:08	16.0	S	1.0	273.0	31.5	31.5	12.6	12.4	8.1	8.1	98.6	96.3	6.8	6.6	6.1	4.1	4.5	13.5	4.8	4.8	21.0
						1.8	159.4	31.5		12.2		8.1		94.0		6.5			4.8			4.7		
					M	0.4	207.6	30.3	29.8	17.1	17.1	8.1	8.0	91.2	81.3	6.3	5.5	5.1	5.3	5.1		12.6	13.4	
						1.1	222.7	29.3		17.1		8.0		71.4		4.8			4.8			14.1		
					B	0.9	197.4	28.0	28.1	31.7	31.1	7.9	7.9	53.7	54.9	3.5	3.6	3.6	33.6	30.9		42.4	44.8	
						0.6	208.9	28.2		30.5		8.0		56.1		3.7			28.2			47.1		
IM14	Cloudy	Calm	14:55	9.5	S	1.5	190.3	31.0	30.9	15.8	15.9	8.1	8.1	100.7	100.5	6.9	6.9	6.4	4.9	5.0	16.4	7.8	7.4	22.7
						1.4	216.4	30.9		15.9		8.1		100.3		6.8			5.1			7.0		
					M	0.5	197.9	30.3	30.3	18.5	18.9	8.0	8.0	89.1	88.6	6.1	6.0	18.3	18.0	18.3		27.6	27.2	
						0.9	196.5	30.3		19.3		8.0		88.2		6.0			18.5			26.8		
					B	0.9	247.5	28.5	28.7	29.2	27.5	8.0	8.0	63.2	64.5	4.2	4.3	4.3	25.9	25.9		32.0	33.5	
						0.7	180.5	29.0		25.7		8.0		65.7		4.4			25.9			34.9		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	13:49	5.5	S	0.8	214.3	30.9	30.9	15.9	15.9	8.0	8.0	94.9	95.2	6.5	6.5	6.5	4.7	4.5	7.7	7.1	7.1	9.3
						1.4	224.9	30.9	16.0	16.0	8.0	8.0	95.4	95.2	6.5	6.5	6.5	4.2						
					B	1.1	227.5	29.6	29.7	21.1	20.6	7.9	7.9	78.4	80.3	5.3	5.4	5.4	11.1	10.9	7.7	11.3	11.4	
						1.4	244.3	29.9	29.7	20.2	20.6	8.0	8.0	82.2	80.3	5.6	5.4	5.4	10.7					
IM16A	Cloudy	Calm	13:21	7.0	S	0.5	225.3	31.8	31.7	13.6	13.8	8.0	8.0	93.4	92.8	6.4	6.3	6.1	4.7	4.7	7.7	5.5	5.6	9.9
						0.7	174.6	31.6	31.7	14.0	14.0	8.0	8.0	92.3	92.8	6.3	6.3	6.1	4.8					
					M	0.2	253.6	30.1	30.1	17.3	17.1	8.0	8.0	85.0	85.0	5.8	5.8	6.1	6.6	6.3	7.7	6.6	8.3	
						1.2	178.9	30.2	30.1	16.9	17.1	8.0	8.0	85.0	85.0	5.8	5.8	6.1	6.0					
					B	1.4	107.6	29.8	29.8	19.1	19.0	7.9	7.9	76.8	77.7	5.3	5.3	5.3	13.2	12.2	7.7	16.1	15.9	
						0.7	194.1	29.8	29.8	18.9	19.0	7.9	7.9	78.6	77.7	5.4	5.3	5.3	11.3					
IM17	Cloudy	Calm	12:08	5.0	S	0.5	174.3	31.0	30.9	14.0	14.3	8.0	8.0	92.4	92.5	6.4	6.4	6.4	5.4	5.3	6.6	4.7	4.8	6.7
						1.0	181.9	30.8	30.9	14.6	14.3	8.0	8.0	92.6	92.5	6.4	6.4	6.4	5.3					
					B	0.5	178.0	29.9	29.9	18.2	18.5	7.9	7.9	81.1	81.9	5.6	5.6	5.6	8.4	7.9	6.6	8.8	8.6	
						0.5	180.2	29.9	29.9	18.8	18.5	7.9	7.9	82.7	81.9	5.6	5.6	5.6	7.3					
IM18	Cloudy	Calm	12:23	17.5	S	0.8	138.5	30.5	30.6	15.6	15.6	8.0	8.0	90.3	89.6	6.2	6.2	5.4	5.1	5.0	11.1	6.5	6.8	14.9
						2.1	136.1	30.6	30.6	15.6	15.6	8.0	8.0	89.0	89.6	6.1	6.2	5.4	4.9					
					M	0.5	169.3	29.6	29.5	21.9	22.0	7.9	7.9	70.6	69.1	4.8	4.7	5.4	4.7	5.1	11.1	9.0	9.0	
						0.3	218.7	29.5	29.5	22.1	22.0	7.9	7.9	67.5	69.1	4.6	4.7	5.4	5.5					
					B	0.2	138.0	28.3	28.3	27.4	27.4	7.9	7.9	51.0	51.0	3.4	3.4	3.4	24.1	23.3	11.1	28.5	28.9	
						0.2	97.2	28.3	28.3	27.4	27.4	7.9	7.9	51.1	51.0	3.4	3.4	3.4	22.4					
IM19	Cloudy	Calm	11:44	18.0	S	0.4	172.7	30.4	30.4	17.3	17.4	8.0	8.0	87.4	87.7	6.0	6.0	5.3	4.2	4.1	12.9	5.4	4.9	13.5
						0.4	254.5	30.5	30.4	17.4	17.4	8.0	8.0	88.0	87.7	6.0	6.0	5.3	4.1					
					M	0.9	209.8	29.4	29.4	22.6	22.6	7.9	7.9	66.9	67.1	4.5	4.5	5.3	12.4	11.8	12.9	12.2	12.9	
						1.1	166.2	29.5	29.4	22.6	22.6	7.9	7.9	67.3	67.1	4.5	4.5	5.3	11.2					
					B	0.7	114.6	28.4	28.4	27.7	27.3	7.9	7.9	52.7	54.4	3.5	3.6	3.6	24.9	22.7	12.9	23.0	22.9	
						0.7	105.6	28.5	28.4	27.0	27.3	7.9	7.9	56.2	54.4	3.8	3.6	3.6	20.5					
IM20A	Cloudy	Calm	10:31	5.4	S	0.9	261.9	30.5	30.5	15.5	15.6	7.9	7.9	88.1	88.0	6.1	6.1	6.1	4.7	4.8	4.6	6.9	6.5	7.6
						0.3	155.9	30.5	30.5	15.6	15.6	7.9	7.9	87.9	88.0	6.0	6.1	6.1	4.8					
					B	1.2	294.5	30.4	30.4	15.6	15.6	7.9	7.9	90.1	88.8	6.2	6.1	6.1	4.2	4.4	4.6	8.7	8.7	
						0.7	263.7	30.5	30.4	15.6	15.6	7.9	7.9	87.6	88.8	6.0	6.1	6.1	4.5					
IM21A	Cloudy	Calm	10:42	6.0	S	0.7	191.0	30.3	30.3	16.4	16.5	7.9	7.9	84.4	83.4	5.8	5.7	5.3	6.4	7.2	15.2	9.3	9.3	21.5
						1.3	210.9	30.3	30.3	16.6	16.5	7.9	7.9	82.4	83.4	5.7	5.7	5.3	7.9					
					M	0.4	283.6	29.8	29.8	20.3	20.1	7.9	7.9	71.4	71.7	4.8	4.9	5.3	18.7	18.5	15.2	22.0	22.7	
						1.3	197.6	29.8	29.8	20.0	20.1	7.9	7.9	72.1	71.7	4.9	4.9	5.3	18.4					
					B	0.6	165.5	29.7	29.7	20.8	20.9	7.9	7.9	71.0	70.9	4.8	4.8	4.8	19.5	20.0	15.2	32.1	32.6	
						0.7	296.4	29.7	29.7	21.0	20.9	7.9	7.9	70.8	70.9	4.8	4.8	4.8	20.4					
IM22A	Cloudy	Calm	10:51	5.6	S	1.5	206.5	31.3	31.3	17.8	17.6	7.9	7.9	87.0	87.3	5.8	5.9	5.9	11.0	11.3	11.8	16.8	16.8	17.1
						1.2	236.0	31.4	31.3	17.4	17.6	7.9	7.9	87.6	87.3	5.9	5.9	5.9	11.7					
					B	1.9	236.3	31.3	31.2	17.7	18.2	7.9	7.9	88.1	86.3	5.9	5.8	5.8	11.4	12.3	11.8	17.4	17.5	
						1.1	216.6	31.2	31.2	18.7	18.2	7.9	7.9	84.5	86.3	5.7	5.8	5.8	13.2					

Remark: * DA: Depth-Averaged

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

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

Monitoring results obtained at stations E1, IM1, IM2, IM11 and IM12 during mid-ebb tide were discarded as they were sampled outside the planned tidal periods.

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
E1	Fine	Calm	17:04	9.0	S	0.6	208.4	28.4	28.5	25.5	25.4	7.7	7.8	64.9	66.5	4.4	4.5	4.1	4.6	4.5	7.8	7.9	10.6				
						0.6	208.4	28.5		25.4		68.2		4.6		4.5		8.0									
						0.3	221.3	27.8		27.5		27.5		7.5		7.6		55.4	3.7		3.8			6.0	5.8	9.9	
					M	0.6	181.7	27.9	27.5	27.5	7.6	7.6	56.8	3.8	3.8	5.6	5.8	10.1	10.0								
						0.2	197.1	27.6	27.6	29.1	7.0	7.2	52.4	3.5	3.5	11.3	11.2	14.3									
						0.2	225.4	27.6	29.1	7.3	7.3	51.5	3.5	3.5	11.1	11.2	13.5										
B	0.3	235.5	30.1	30.1	17.3	17.3	8.1	8.1	87.4	6.0	6.0	4.1	4.0	4.6	4.7												
	0.3	235.5	30.1	30.1	17.3	17.3	8.0	8.1	88.5	6.1	6.0	4.0	4.0	4.7													
	0.4	301.8	27.7	27.7	32.1	32.1	8.0	8.0	54.6	3.6	3.6	9.4	8.9	10.3													
E3	Fine	Calm	21:27	16.7	S	0.6	311.6	27.8	27.7	32.1	32.1	8.0	8.0	54.9	54.9	3.6	3.6	4.8	4.0	4.0	10.3	10.6	14.0				
						0.6	311.6	27.8		32.1		8.0		8.0		55.3		3.6	3.6		8.4			8.9	10.9		
						0.6	272.6	27.6		32.8		32.8		7.9		7.9		52.9	3.5		3.4			18.1	18.5	27.5	
					M	0.4	295.5	27.6	27.6	32.8	32.8	7.9	7.9	51.9	3.4	3.4	18.9	18.5	25.9	26.7							
						0.5	312.8	30.7	30.7	15.7	15.5	7.9	7.9	88.8	6.1	6.1	7.1	7.3	7.9								
						0.5	312.8	30.7	30.6	15.3	17.6	8.0	7.9	89.0	6.1	5.9	7.4	6.3	8.1								
B	0.5	19.5	30.6	30.6	17.6	17.6	7.9	7.9	88.3	6.0	6.0	6.6	6.3	8.7	8.6												
	0.5	358.9	28.9	28.9	17.6	25.9	7.9	7.9	88.3	6.0	6.0	6.0	6.3	8.4													
	0.5	358.9	28.9	28.9	25.9	25.9	7.9	7.9	64.7	4.3	4.3	14.9	15.0	16.2													
E4	Cloudy	Calm	18:04	10.5	S	0.6	347.0	28.9	28.9	25.9	25.9	7.9	7.9	63.6	63.6	4.2	4.3	4.3	15.1	15.0	16.0	16.1	10.9				
						0.6	347.0	28.9		25.9		7.9		7.9		62.6		4.2	4.3		15.1			15.0	16.0		
						0.6	20.6	30.3		30.3		16.8		16.8		7.9		7.9	82.9		5.7			5.7	7.4	7.7	10.1
					M	0.7	92.5	30.3	30.3	16.8	16.8	7.9	7.9	82.7	5.7	5.7	8.1	7.7	10.3	10.2							
						1.5	176.9	29.9	29.9	18.4	18.4	7.9	7.9	79.7	5.5	5.4	7.7	7.8	11.1								
						1.0	326.6	29.9	29.9	18.5	18.4	7.9	7.9	78.2	5.3	5.4	7.7	7.8	10.5								
E5	Cloudy	Calm	19:06	5.5	S	0.9	326.5	30.4	30.4	13.9	13.9	7.9	7.9	80.5	80.5	5.5	5.6	5.6	6.6	6.4	9.6	9.9	13.5				
						0.9	326.5	30.4		13.8		7.8		7.9		82.3		5.7	5.6		6.2			6.4	10.1		
						0.7	342.9	29.1		29.1		24.1		24.1		7.8		7.8	59.4		4.0			3.9	10.7	10.9	17.6
					B	1.3	350.6	29.1	29.1	24.0	24.1	7.8	7.8	57.0	3.8	3.9	11.2	10.9	16.7	17.2							
						0.5	62.8	29.9	29.9	20.7	20.6	7.9	7.9	75.4	5.1	5.1	6.1	6.1	8.2								
						0.2	258.2	29.9	29.9	20.4	20.6	7.9	7.9	75.6	5.1	5.1	6.0	6.1	8.7								
E6	Cloudy	Calm	21:04	5.5	S	0.1	231.4	29.5	29.5	22.8	22.8	7.8	7.8	66.6	66.6	4.4	4.5	4.5	9.3	9.0	11.5	11.7	10.1				
						0.2	82.4	29.2		29.2		24.6		24.6		8.1		8.1	94.2		6.3			6.3	1.9	1.8	3.7
						0.2	82.4	29.2		29.2		24.6		24.6		8.1		8.1	95.6		6.4			6.3	1.7	1.8	3.4
					M	0.3	306.5	27.4	27.4	33.7	33.7	8.0	8.0	49.3	3.2	3.3	3.1	2.9	5.7	5.5							
						0.3	311.9	27.5	27.4	33.7	33.7	8.0	8.0	50.8	3.3	3.3	2.7	2.9	5.2								
						0.2	285.1	25.6	25.6	34.3	34.2	7.9	7.9	39.2	2.6	2.6	11.7	11.6	18.7								
B	0.2	285.1	25.6	25.6	34.2	34.2	7.9	7.9	39.1	2.6	2.6	11.6	11.6	17.4	18.1												
	0.4	164.3	30.3	30.3	25.0	25.0	8.3	8.3	149.5	9.8	9.9	2.5	2.4	7.6													
	0.4	164.3	30.3	30.3	25.0	25.0	8.3	8.3	151.8	10.0	9.9	2.3	2.4	7.5													
E7A	Cloudy	Calm	21:56	5.0	S	0.2	82.4	29.2	29.2	24.6	24.6	8.1	8.1	94.2	94.9	6.3	6.3	4.8	1.9	1.8	3.7	3.6	9.0				
						0.2	82.4	29.2		24.6		8.1		8.1		95.6		6.4	6.3		1.7			1.8	3.4		
						0.3	306.5	27.4		27.4		33.7		33.7		8.0		8.0	49.3		3.2			3.3	3.1	2.9	5.7
					M	0.3	311.9	27.5	27.4	33.7	33.7	8.0	8.0	50.8	3.3	3.3	2.7	2.9	5.2	5.5							
						0.2	285.1	25.6	25.6	34.3	34.2	7.9	7.9	39.2	2.6	2.6	11.7	11.6	18.7								
						0.2	285.1	25.6	25.6	34.2	34.2	7.9	7.9	39.1	2.6	2.6	11.6	11.6	17.4								
F1	Fine	Calm	17:55	20.0	S	0.4	164.3	30.3	30.3	25.0	25.0	8.3	8.3	150.6	150.6	9.8	9.9	6.7	2.5	2.4	7.6	7.6	13.0				
						0.4	164.3	30.3		25.0		8.3		8.3		151.8		10.0	9.9		2.3			2.4	7.5		
						0.2	259.2	27.4		27.4		33.6		33.6		8.0		8.0	52.0		3.4			3.4	3.6	3.4	11.7
					M	0.1	302.3	27.4	27.4	33.6	33.6	8.0	8.0	52.8	3.5	3.4	3.2	3.4	11.6	11.7							
						0.4	322.4	26.4	26.4	34.2	34.2	7.9	7.9	41.0	2.7	2.7	13.1	13.3	19.9								
						0.4	322.4	26.4	26.4	34.2	34.2	7.9	7.9	40.9	2.7	2.7	13.6	13.3	19.7								
F2	Fine	Calm	18:29	19.0	S	0.4	164.3	30.3	30.3	25.0	25.0	8.3	8.3	150.6	150.6	9.8	9.9	6.7	2.5	2.4	7.6	7.6	13.0				
						0.4	164.3	30.3		25.0		8.3		8.3		151.8		10.0	9.9		2.3			2.4	7.5		
						0.2	259.2	27.4		27.4		33.6		33.6		8.0		8.0	52.0		3.4			3.4	3.6	3.4	11.7
					M	0.1	302.3	27.4	27.4	33.6	33.6	8.0	8.0	52.8	3.5	3.4	3.2	3.4	11.6	11.7							
						0.4	322.4	26.4	26.4	34.2	34.2	7.9	7.9	41.0	2.7	2.7	13.1	13.3	19.9								
						0.4	322.4	26.4	26.4	34.2	34.2	7.9	7.9	40.9	2.7	2.7	13.6	13.3	19.7								

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
F3	Fine	Calm	19:59	17.6	S	0.3	228.2	29.5	29.5	25.9	25.9	8.1	8.1	101.3	101.7	6.7	6.7	4.9	2.2	2.1	6.5	6.5	14.0			
						0.3	228.2	29.5	25.9	25.9	8.1	8.1	102.1	101.7	6.8	6.8	2.1	2.1								
						0.4	303.1	26.8	26.9	34.1	34.0	8.0	8.0	45.8	46.3	3.0	3.1	4.4	4.1							
					M	0.5	301.2	26.9	26.3	34.0	34.2	7.9	7.9	46.8	43.2	3.1	2.9	3.7	3.7	13.0				13.5	9.8	10.2
						0.3	20.6	26.3	26.3	34.2	34.2	7.9	7.9	43.7	42.8	2.9	2.9	13.0	13.9	2.8				2.8	10.6	10.2
						0.4	264.3	26.3	26.3	34.2	34.2	7.9	7.9	42.8	43.2	2.9	2.9	13.9	13.5	2.8				2.8	26.0	25.4
F4	Fine	Calm	22:13	13.5	S	0.3	281.1	29.3	29.3	28.1	28.2	8.1	8.1	95.0	95.7	6.2	6.3	5.3	2.8	2.8	6.9	6.4	12.2			
						0.3	281.1	29.3	29.3	28.2	28.2	8.1	8.1	96.5	95.7	6.3	6.3	2.8	2.8							
						0.3	227.1	28.6	28.6	30.3	30.3	8.0	8.0	66.4	67.3	4.4	4.4	4.5	4.3							
					M	0.3	102.8	28.6	28.6	30.3	30.3	8.0	8.0	68.2	67.3	4.5	4.4	4.1	4.3	4.1				4.3	10.4	10.5
						0.0	205.1	27.5	27.5	33.5	33.5	7.9	7.9	47.9	46.7	3.1	3.1	13.9	13.5	19.7				19.8		
						0.1	226.4	27.5	27.5	33.5	33.5	7.9	7.9	45.4	46.7	3.0	3.1	13.1	13.5	19.8				19.8		
F5	Cloudy	Calm	18:33	5.5	S	0.2	96.1	29.8	29.8	20.7	20.4	7.9	7.9	74.6	76.0	5.1	5.2	5.2	9.9	9.5	17.4	14.7	25.4			
						0.2	96.1	29.9	29.9	20.2	20.4	7.9	7.9	77.4	76.0	5.3	5.2	9.1	9.5							
					B	1.4	9.8	29.0	29.0	25.7	25.8	7.9	7.9	62.6	62.1	4.2	4.1	4.1	4.1	24.1				25.3	35.4	36.1
						1.3	31.5	29.0	29.0	25.8	25.8	7.9	7.9	61.5	62.1	4.1	4.1	26.6	25.3	36.7				36.1		
F6	Cloudy	Calm	19:43	13.5	S	0.6	87.7	31.0	31.0	14.2	14.4	7.9	7.9	91.7	91.5	6.3	6.3	5.8	5.1	4.9	9.5	8.5	15.2			
						0.4	338.4	31.0	31.0	14.6	14.4	7.9	7.9	91.4	91.5	6.3	6.3	4.7	4.9							
						0.9	282.6	30.0	29.9	19.2	19.4	7.9	7.9	76.2	76.6	5.2	5.2	9.2	8.9							
					M	0.8	332.9	29.9	29.9	19.6	19.4	7.9	7.9	76.9	76.6	5.2	5.2	8.7	8.9	14.4				14.0		
						0.8	351.2	29.2	29.2	22.9	22.9	7.9	7.9	66.6	66.2	4.5	4.5	14.4	14.6	23.1				23.0		
						0.5	99.4	29.2	29.2	22.9	22.9	7.9	7.9	65.8	66.2	4.4	4.5	14.9	14.6	19.8				19.8		
IM1	Fine	Calm	17:36	9.5	S	0.3	358.0	30.4	30.5	27.5	27.5	8.3	8.3	150.5	151.7	9.7	9.8	6.6	1.6	1.5	12.6	10.4	19.3			
						0.4	350.4	30.5	30.5	27.5	27.5	8.3	8.3	152.9	151.7	9.9	9.8	1.5	1.5							
						0.3	20.7	27.6	27.6	33.4	33.4	7.9	7.9	51.5	51.4	3.4	3.4	13.5	12.0							
					M	0.3	20.7	27.6	27.6	33.4	33.4	7.9	7.9	51.2	51.4	3.4	3.4	10.5	12.0	14.4				13.8		
						0.4	320.1	27.5	27.5	33.4	33.4	7.9	7.9	53.6	52.6	3.5	3.4	23.3	24.4	35.2				33.6		
						0.2	302.4	27.5	27.5	33.4	33.4	7.9	7.9	51.5	52.6	3.4	3.4	25.4	24.4	32.0				33.6		
IM2	Fine	Calm	17:16	11.0	S	0.5	203.8	29.0	29.0	23.7	23.8	8.0	8.0	78.8	79.0	5.3	5.3	4.8	2.8	2.8	8.0	6.4	12.3			
						0.8	202.9	29.0	29.0	23.9	23.8	8.0	8.0	79.1	79.0	5.3	5.3	2.8	2.8							
						0.6	213.9	28.2	28.2	26.4	26.4	7.9	7.9	61.3	62.5	4.1	4.2	4.2	3.8							
					M	0.6	213.5	28.2	28.2	26.3	26.4	7.9	7.9	63.6	62.5	4.3	4.2	3.3	3.8	6.6				6.4		
						0.1	185.5	26.9	26.9	32.7	32.6	7.8	7.8	41.9	39.1	2.8	2.6	16.5	17.4	24.6				24.3		
						0.1	185.5	26.9	26.9	32.5	32.6	7.8	7.8	36.2	39.1	2.4	2.6	18.3	17.4	24.0				24.3		
IM3	Fine	Calm	18:52	14.7	S	0.9	264.2	29.8	29.8	25.7	25.7	8.3	8.3	150.5	151.7	9.9	10.0	6.8	2.1	2.1	7.1	10.2	14.3			
						0.9	264.2	29.8	29.8	25.7	25.7	8.3	8.3	152.9	151.7	10.1	10.0	2.2	2.1							
						0.5	260.4	28.1	28.1	30.0	30.1	8.0	8.0	53.3	54.4	3.5	3.6	4.9	4.5							
					M	0.5	237.2	28.1	28.1	30.1	30.1	8.0	8.0	55.4	54.4	3.7	3.6	4.0	4.5	10.4				10.2		
						0.3	246.6	27.1	27.1	33.9	33.9	7.9	7.9	41.5	39.9	2.7	2.6	14.7	14.7	27.5				24.9		
						0.2	277.5	27.1	27.1	33.9	33.9	7.9	7.9	38.3	39.9	2.5	2.6	14.7	14.7	22.3				24.9		
IM4	Fine	Calm	19:16	16.7	S	1.6	300.1	29.6	29.6	26.5	26.5	8.3	8.3	130.4	131.4	8.6	8.6	6.7	2.5	2.4	7.5	7.8	13.3			
						1.6	300.1	29.6	29.6	26.5	26.5	8.3	8.3	132.5	131.4	8.7	8.6	2.2	2.4							
						0.4	266.1	28.4	28.4	29.6	29.8	8.0	8.0	69.1	71.0	4.6	4.7	3.7	3.4							
					M	1.2	332.5	28.4	28.4	29.9	29.8	8.0	8.0	72.9	71.0	4.8	4.7	3.2	3.4	9.4				9.1		
						0.3	270.6	27.3	27.3	33.9	33.9	8.0	8.0	45.7	45.6	3.0	3.0	17.7	16.6	22.8				23.1		
						0.3	270.6	27.3	27.3	33.9	33.9	8.0	8.0	45.6	45.6	3.0	3.0	15.5	16.6	23.3				23.1		
IM5	Fine	Calm	19:34	15.1	S	0.4	285.8	29.6	29.6	26.9	26.9	8.2	8.2	110.6	111.0	7.3	7.3	5.8	2.3	2.2	5.2	8.4	11.0			
						0.4	285.8	29.6	29.6	26.9	26.9	8.2	8.2	111.4	111.0	7.3	7.3	2.1	2.2							
						0.2	268.0	28.2	28.3	30.9	30.8	8.0	8.0	63.9	65.0	4.2	4.3	2.3	2.3							
					M	0.4	269.2	28.3	28.3	30.7	30.8	8.0	8.0	66.1	65.0	4.3	4.3	2.3	2.3	8.5				8.4		
						0.1	338.9	27.1	27.1	33.8	33.8	8.0	8.0	48.6	46.8	3.2	3.1	10.5	11.0	18.4				19.1		
						0.2	189.4	27.1	27.1	33.8	33.8	8.0	8.0	45.0	46.8	3.0	3.1	11.4	11.0	19.7				19.1		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Fine	Calm	20:11	16.2	S	0.1	227.3	29.6	29.6	26.5	26.5	8.2	8.2	113.4	113.2	7.5	7.5	6.1	2.1	2.1	5.5	6.4	6.4	11.8
						0.5	244.4	29.6		26.5		8.2		113.1		7.4			2.2			6.3		
					M	0.5	293.6	28.2	28.3	31.0	30.9	8.0	8.0	69.5	71.3	4.6	4.7	1.6	1.5	8.5		8.6		
						0.5	305.2	28.3		30.8		8.0		73.0		4.8		1.5		8.6				
					B	0.2	244.3	26.5	26.5	34.2	34.2	7.9	7.9	45.0	43.8	3.0	2.9	12.0	12.8	21.1		20.6		
						0.5	7.5	26.5		34.2		7.9		42.5		2.8		13.6		20.0				
IM7	Fine	Calm	20:39	13.0	S	0.7	236.8	29.4	29.4	24.4	24.4	8.1	8.1	90.6	90.8	6.0	6.1	5.5	2.9	2.8	4.5	5.0	5.1	10.0
						0.7	236.8	29.4		24.4		8.1		91.1		6.1			2.7			5.1		
					M	0.5	275.0	28.5	28.5	30.0	30.1	8.0	8.0	73.5	74.2	4.8	4.9	2.6	2.5	9.9		10.1		
						0.7	268.7	28.4		30.2		8.0		74.8		4.9		2.3		10.3				
					B	0.2	283.3	26.6	26.6	34.1	34.0	7.9	7.9	46.6	45.7	3.1	3.0	8.7	8.2	15.4		14.8		
						0.3	258.1	26.6		34.0		7.9		44.8		3.0		7.8		14.2				
IM8	Fine	Calm	20:28	14.4	S	0.6	281.4	29.3	29.3	26.7	26.7	8.1	8.1	99.0	99.3	6.5	6.6	5.8	2.0	2.1	4.7	4.2	4.2	10.5
						0.6	281.4	29.3		26.7		8.1		99.6		6.6			2.2			4.2		
					M	0.5	305.6	28.5	28.5	29.9	30.0	8.1	8.1	75.1	76.5	4.9	5.0	2.4	2.4	6.7		6.5		
						0.4	270.4	28.5		30.1		8.1		77.8		5.1		2.4		6.3				
					B	0.2	113.5	26.6	26.6	34.0	34.0	7.9	7.9	46.4	45.7	3.1	3.0	9.8	9.5	20.5		20.9		
						0.2	113.5	26.6		34.0		7.9		45.1		3.0		9.2		21.3				
IM9	Fine	Calm	21:01	14.8	S	0.6	334.2	30.3	30.3	16.9	16.7	8.1	8.1	96.5	96.9	6.6	6.6	5.6	3.5	3.5	8.8	6.0	6.1	16.3
						0.6	334.2	30.3		16.6		8.1		97.3		6.7			3.4			6.1		
					M	0.4	293.0	28.5	28.5	29.2	29.3	8.0	8.0	68.3	69.4	4.5	4.6	3.8	3.6	8.8		8.7		
						0.5	307.5	28.5		29.4		8.0		70.5		4.7		3.3		8.5				
					B	0.4	275.6	26.7	26.7	33.9	33.9	7.9	7.9	47.0	46.1	3.1	3.1	19.6	19.5	34.6		34.1		
						0.5	287.8	26.7		33.9		7.9		45.2		3.0		19.4		33.5				
IM10	Fine	Calm	21:42	12.1	S	0.2	3.1	29.8	29.8	20.7	20.8	8.0	8.0	84.5	84.6	5.7	5.7	5.5	5.1	5.1	17.4	9.9	9.8	28.0
						0.1	337.5	29.8		20.8		8.0		84.7		5.7			5.1			9.6		
					M	0.3	167.6	29.4	29.4	24.3	24.3	8.0	8.0	78.9	79.7	5.3	5.3	6.8	6.2	11.3		11.4		
						0.3	32.8	29.4		24.3		8.0		80.5		5.4		5.6		11.5				
					B	0.7	247.0	27.8	27.8	32.5	32.5	7.9	7.9	49.0	48.4	3.2	3.2	39.3	41.0	60.6		62.7		
						0.6	242.7	27.8		32.5		7.9		47.7		3.1		42.6		64.8				
IM11A	Cloudy	Calm	17:02	3.5	S	1.1	158.3	30.9	30.9	17.5	17.4	7.9	7.9	97.4	97.4	6.6	6.6	6.6	11.2	10.6	13.6	18.6	18.9	20.9
						0.6	113.2	30.9		17.4		7.9		97.3		6.6			10.1			19.1		
					B	0.7	73.8	30.8	30.8	17.9	18.0	7.8	7.9	96.5	96.4	6.5	6.5	16.8	16.6	23.3		22.9		
						0.9	152.5	30.8		18.0		7.9		96.2		6.5		16.4		22.4				
IM12	Cloudy	Calm	17:12	11.5	S	0.8	183.7	30.9	30.9	15.3	15.3	8.0	8.0	92.7	93.8	6.3	6.4	5.7	5.6	5.1	13.9	8.0	7.8	21.0
						0.9	169.3	30.9		15.2		8.0		94.9		6.5			4.6			7.5		
					M	0.8	347.9	29.5	29.4	24.4	24.7	7.9	7.9	74.8	74.3	5.0	5.0	14.6	14.0	19.3		19.9		
						0.5	350.8	29.3		25.0		7.9		73.8		4.9		13.5		20.4				
					B	0.4	9.4	28.4	28.5	30.3	29.5	7.9	7.9	63.7	63.2	4.2	4.2	25.4	22.6	34.8		35.5		
						0.3	268.5	28.6		28.8		7.9		62.6		4.1		19.8		36.1				
IM13	Cloudy	Calm	17:43	16.0	S	0.3	177.1	30.8	30.8	13.9	13.9	8.0	8.0	85.7	87.4	5.9	6.0	5.0	6.5	6.2	16.1	8.1	8.4	21.5
						1.2	35.5	30.8		13.8		7.9		89.1		6.2			5.9			8.6		
					M	0.3	121.5	28.9	28.7	26.5	27.1	7.9	7.9	61.3	58.9	4.1	3.9	11.7	12.1	19.1		19.9		
						0.4	341.5	28.5		27.7		7.9		56.4		3.8		12.5		20.6				
					B	0.8	48.4	28.0	28.0	32.0	31.9	7.9	7.9	53.4	52.5	3.5	3.4	30.0	29.9	37.5		36.4		
						0.9	306.7	28.0		31.9		7.9		51.6		3.4		29.9		35.3				
IM14	Cloudy	Calm	17:53	9.5	S	0.5	128.2	31.0	31.0	13.7	13.7	7.9	7.9	92.3	92.6	6.4	6.4	6.2	5.7	5.9	13.6	9.4	9.6	15.1
						0.5	128.2	31.0		13.8		7.9		92.8		6.4			6.2			9.8		
					M	0.3	285.6	30.7	30.7	16.8	16.8	8.0	8.0	87.6	88.9	6.0	6.1	6.6	6.0	11.5		11.5		
						0.3	285.6	30.8		16.8		8.0		90.3		6.2		5.3		11.4				
					B	1.1	58.9	28.4	28.5	29.2	29.0	7.9	7.9	57.2	56.7	3.8	3.8	30.5	29.0	23.4		24.4		
						0.3	117.3	28.5		28.8		7.9		56.2		3.7		27.5		25.3				

Water Quality Monitoring Data Log Sheet

Date: 2019/08/14

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	18:56	5.5	S	0.8	8.6	30.5	30.5	17.4	17.9	8.0	7.9	89.5	89.3	6.1	6.1	6.1	5.5	5.3	6.2	8.5	8.4	12.5
						0.8	8.6	30.4		18.5		7.9		89.1		6.1		5.1				8.3		
					B	0.9	356.5	29.9	29.8	21.4	22.1	7.9	7.9	80.1	78.1	5.4	5.2	5.2	6.9	7.1		16.0		
						0.7	312.7	29.6		22.8		7.9		76.1		5.1		7.4				17.3		
IM16A	Cloudy	Calm	19:18	6.5	S	1.0	9.2	30.6	30.6	12.5	12.4	7.9	7.9	89.3	89.6	6.2	6.3	6.3	5.3	5.3	9.1	7.0	7.2	13.0
						1.0	9.2	30.6		12.4		7.9		89.9		6.3		5.3				7.3		
					M	1.0	274.4	30.3	30.3	15.3	15.4	7.9	7.9	79.3	80.3	5.5	5.6	5.6	8.7	7.8		11.2		
						0.2	325.1	30.3		15.5		7.9		81.4		5.6		7.0				11.4		
					B	0.9	293.5	29.8	29.8	19.3	19.2	7.8	7.8	74.7	74.3	5.1	5.1	5.1	14.2	14.2		20.9		
						0.4	38.2	29.8		19.2		7.8		73.9		5.0		14.3				20.4		
IM17	Cloudy	Calm	20:29	4.5	S	0.7	316.5	30.3	30.3	14.0	14.0	7.9	7.9	85.0	84.9	5.9	5.9	5.9	7.0	6.6	10.5	6.8	7.0	12.2
						0.7	316.5	30.3		14.1		7.8		84.8		5.9		6.2				7.1		
					B	0.6	81.8	30.0	30.0	17.2	17.3	7.8	7.8	77.4	76.7	5.3	5.3	5.3	13.8	14.5		17.4		
						0.7	292.3	30.0		17.3		7.8		76.0		5.2		15.2				17.3		
IM18	Cloudy	Calm	20:09	17.0	S	0.5	31.1	30.9	31.0	12.2	12.8	7.9	7.9	85.3	87.2	5.9	6.0	5.0	6.0	5.9	14.3	7.3	7.6	18.4
						0.5	31.1	31.1		13.3		7.9		89.2		6.2		5.8				7.8		
					M	0.3	24.6	29.1	29.1	23.8	23.7	7.8	7.8	57.3	57.5	3.9	3.9	3.9	8.4	7.9		12.6		
						1.3	356.3	29.1		23.6		7.8		57.7		3.9		7.5				12.6		
					B	0.6	17.4	28.6	28.6	26.1	26.1	7.8	7.8	53.0	52.4	3.6	3.5	3.5	27.7	29.0		35.8		
						0.8	355.0	28.6		26.1		7.8		51.9		3.5		30.3				32.3		
IM19	Cloudy	Calm	20:46	17.5	S	0.8	296.2	30.9	30.9	14.6	14.8	7.9	7.9	89.7	90.4	6.2	6.2	5.7	5.0	5.0	13.6	6.5	6.5	20.2
						0.3	237.1	30.9		15.1		7.9		91.1		6.3		5.1				6.5		
					M	0.5	28.2	29.8	29.8	20.9	21.0	7.9	7.9	74.2	76.9	5.0	5.2	5.0	5.9	5.4		10.7		
						0.5	12.7	29.9		21.2		7.9		79.6		5.4		4.8				10.1		
					B	0.5	307.3	27.9	27.8	29.0	29.1	7.8	7.8	47.3	45.4	3.2	3.0	3.0	27.8	30.3		45.1		
						0.5	291.9	27.8		29.1		7.8		43.5		2.9		32.8				42.0		
IM20A	Cloudy	Calm	21:42	4.5	S	0.2	311.7	30.3	30.3	19.6	19.8	7.9	7.9	80.4	79.0	5.4	5.3	5.3	8.2	8.3	9.1	15.7	15.2	16.7
						0.3	109.0	30.3		19.9		7.9		77.5		5.2		8.4				14.6		
					B	0.1	325.6	29.6	29.5	23.3	23.5	7.8	7.8	70.2	67.2	4.7	4.5	4.5	9.6	9.9		18.0		
						0.4	150.2	29.4		23.7		7.8		64.2		4.3		10.1				18.5		
IM21A	Cloudy	Calm	21:32	4.5	S	0.4	275.2	30.1	30.0	21.0	21.4	7.8	7.8	71.2	70.4	4.8	4.7	4.7	13.1	13.0	15.1	19.3	19.0	23.9
						0.4	275.2	29.9		21.9		7.8		69.7		4.7		13.0				18.6		
					B	0.5	82.3	29.4	29.4	24.1	24.1	7.8	7.8	66.7	64.8	4.5	4.3	4.3	17.1	17.2		28.0		
						0.7	288.8	29.4		24.1		7.8		62.9		4.2		17.4				29.5		
IM22A	Cloudy	Calm	21:27	4.5	S	0.3	57.4	30.5	30.5	20.6	20.6	7.9	7.9	76.8	77.0	5.1	5.2	5.2	14.9	14.6	15.6	23.8	23.0	24.2
						0.3	57.4	30.5		20.6		7.9		77.1		5.2		14.3				22.1		
					B	0.5	218.3	29.4	29.7	24.4	24.0	7.8	7.8	63.8	64.7	4.3	4.3	4.3	15.6	16.6		25.0		
						0.5	321.9	29.9		23.7		7.8		65.7		4.4		17.6				25.8		

Remark: * DA: Depth-Averaged

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

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

Monitoring results obtained at station E2 during mid-flood tide were discarded as they were sampled outside the planned tidal periods.

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Cloudy	Calm	15:41	8.0	S	0.4	173.9	28.1	28.1	27.3	27.2	7.9	7.9	89.1	89.4	6.0	6.0	6.0	3.0	2.7	4.0	3.6	12.8
						0.8	178.9	28.1	27.2	27.2	7.9	7.9	89.7	89.4	6.0	6.0	6.0	3.0	2.7	3.1	3.6		
						1.0	233.4	28.0	27.7	27.8	7.9	7.9	88.5	88.6	5.9	5.9	5.9	2.6	2.6	5.0	4.9		
					0.5	136.9	28.0	27.8	27.8	7.9	7.9	88.8	88.8	6.0	6.0	6.0	2.6	2.6	4.8	4.8			
					0.8	216.3	27.2	27.3	31.3	31.1	7.9	7.9	60.4	59.0	4.0	3.9	3.9	9.4	9.2	30.5	30.1		
					0.8	218.9	27.3	27.3	30.9	31.1	7.9	7.9	57.6	59.0	3.8	3.9	3.9	8.9	9.2	29.6	30.1		
E2	Cloudy	Calm	10:32	8.0	S	0.2	33.7	29.0	29.0	28.2	28.2	7.9	7.9	113.5	115.1	7.5	7.6	6.2	1.9	1.9	3.9	3.9	10.6
						0.2	202.1	29.0	28.2	28.2	7.9	7.9	116.6	115.1	7.7	7.6	6.2	1.8	1.9	3.9	3.9		
						0.2	338.8	28.5	28.4	29.8	30.0	7.6	7.6	75.0	72.1	4.9	4.7	4.7	3.5	3.4	4.4	4.2	
					0.2	338.8	28.3	28.4	30.2	30.0	7.7	7.6	69.1	72.1	4.6	4.7	4.7	3.4	3.4	4.0	4.2		
					0.1	41.3	27.1	27.1	33.8	33.7	7.1	7.1	42.0	40.7	2.8	2.7	2.7	18.5	17.7	23.8	23.7		
					0.1	41.3	27.1	27.1	33.6	33.7	7.2	7.1	39.5	40.7	2.6	2.7	2.7	16.9	17.7	23.6	23.7		
E3	Cloudy	Calm	11:37	17.3	S	0.5	116.7	28.8	28.9	27.5	27.0	8.0	8.0	93.0	94.0	6.2	6.2	5.5	2.2	2.2	3.0	3.1	5.9
						0.4	108.6	29.0	28.9	26.5	27.0	8.0	8.0	95.1	94.0	6.3	6.2	5.5	2.2	2.2	3.1	3.1	
						0.6	100.6	28.0	28.0	32.4	32.4	7.9	7.9	72.3	72.7	4.7	4.8	4.8	1.1	1.0	4.8	4.6	
					0.6	100.6	28.0	28.0	32.4	32.4	7.9	7.9	73.2	72.7	4.8	4.8	4.8	0.9	1.0	4.3	4.6		
					0.5	98.5	26.7	26.7	33.8	33.8	7.9	7.9	58.8	57.8	3.9	3.8	3.8	6.8	7.0	10.6	10.0		
					0.5	98.5	26.8	26.7	33.8	33.8	7.9	7.9	56.9	57.8	3.8	3.8	3.8	7.2	7.0	9.3	10.0		
E4	Cloudy	Calm	14:44	11.0	S	1.1	218.3	30.1	30.1	19.5	19.5	7.7	7.7	88.6	89.7	6.0	6.1	5.2	4.9	4.6	4.1	4.1	5.7
						2.4	186.2	30.1	30.1	19.5	19.5	7.7	7.7	90.7	89.7	6.2	6.1	5.2	4.3	4.6	4.1	4.1	
						0.5	176.7	28.3	28.3	27.5	27.3	7.5	7.5	64.1	64.4	4.3	4.3	4.3	18.1	15.8	7.5	7.3	
					1.0	215.2	28.4	28.3	27.0	27.3	7.5	7.5	64.7	64.4	4.3	4.3	4.3	13.6	15.8	7.1	7.3		
					0.6	183.2	27.4	27.4	32.0	32.0	7.4	7.4	47.4	45.9	3.1	3.0	3.0	188.5	188.1	159.0^	-		
					0.5	253.1	27.4	27.4	32.0	32.0	7.4	7.4	44.5	45.9	3.0	3.0	3.0	167.0^	188.1	167.0^	-		
E5	Cloudy	Calm	13:39	5.5	S	0.6	219.2	30.6	30.6	14.3	14.3	7.8	7.8	77.6	87.0	5.4	6.0	6.0	4.4	4.0	4.9	5.2	6.1
						0.6	219.2	30.6	30.6	14.3	14.3	7.8	7.8	96.3	87.0	6.7	6.0	6.0	3.7	4.0	5.5	5.2	
						1.5	204.3	28.7	28.8	24.5	23.5	7.7	7.7	73.0	73.9	4.9	5.0	5.0	5.1	5.1	6.9	7.0	
					0.7	138.8	28.9	28.8	22.6	23.5	7.7	7.7	74.7	73.9	5.1	5.0	5.0	5.0	5.1	7.0	7.0		
					0.7	97.8	29.8	29.7	18.8	18.8	7.7	7.7	75.0	75.0	5.1	5.1	5.1	5.7	5.7	9.4	9.7		
					0.7	97.8	29.7	29.7	18.9	18.8	7.7	7.7	75.0	75.0	5.1	5.1	5.1	5.7	5.7	9.9	9.7		
E6	Cloudy	Calm	11:19	6.5	M	0.3	356.3	29.3	29.3	21.0	21.2	7.7	7.6	71.8	72.2	4.9	4.9	5.0	5.1	5.0	8.6	8.7	8.2
						0.2	138.2	29.2	29.3	21.4	21.2	7.6	7.6	72.5	72.2	4.9	4.9	4.9	4.9	5.0	8.7	8.7	
						1.1	324.4	28.9	28.9	23.1	23.1	7.7	7.7	70.0	72.2	4.7	4.9	4.9	6.6	6.6	6.0	6.4	
					0.1	163.5	28.9	28.9	23.1	23.1	7.6	7.7	67.6	68.8	4.6	4.7	4.7	6.7	6.6	6.7	6.4		
					0.1	265.4	29.4	29.5	20.3	20.0	7.5	7.5	76.1	76.7	5.2	5.2	5.2	5.7	5.4	4.9	4.5		
					1.7	27.6	29.5	29.5	19.7	20.0	7.5	7.5	77.3	76.7	5.3	5.2	5.2	5.0	5.4	4.1	4.5		
E7A	Cloudy	Calm	10:29	5.5	B	0.4	233.7	28.8	28.8	23.8	23.8	7.3	7.3	69.5	67.6	4.7	4.6	4.6	8.1	8.1	9.2	9.7	7.1
						0.4	341.7	28.8	28.8	23.8	23.8	7.4	7.3	65.6	67.6	4.4	4.6	4.6	8.2	8.1	10.1	9.7	
						0.5	145.0	29.1	29.1	28.0	28.0	8.2	8.2	153.3	154.8	10.1	10.2	10.2	2.3	2.5	3.1	3.4	
F1	Cloudy	Calm	14:48	19.6	M	0.5	136.5	27.0	27.2	33.8	33.6	7.9	7.9	50.9	52.2	3.4	3.4	6.8	2.3	2.5	3.7	3.4	9.9
						0.4	114.7	27.3	27.2	33.4	34.3	7.9	7.9	53.6	52.2	3.5	3.4	6.8	2.6	2.5	3.7	3.4	
						0.4	88.2	25.4	25.4	34.3	34.3	7.8	7.8	44.7	43.6	3.0	2.9	2.9	16.7	16.4	20.4	21.9	
					0.4	88.2	25.4	25.4	34.3	34.3	7.8	7.8	42.5	43.6	2.9	2.9	2.9	16.2	16.4	23.3	21.9		
					0.5	85.4	29.8	29.8	27.2	27.2	8.3	8.3	179.5	182.0	11.7	11.9	11.9	1.7	1.7	3.7	3.7		
					0.5	85.4	29.8	29.8	27.2	27.2	8.3	8.3	184.6	182.0	12.1	11.9	11.9	1.7	1.7	3.7	3.7		
F2	Cloudy	Calm	14:21	19.0	M	0.6	147.0	26.5	26.5	34.0	34.0	7.9	7.9	56.9	57.2	3.8	3.8	7.8	3.4	3.3	5.3	5.4	8.8
						0.6	138.8	26.5	26.5	34.0	34.0	7.9	7.9	57.5	57.2	3.8	3.8	7.8	3.3	3.3	5.5	5.4	
						0.2	243.2	25.5	25.5	34.3	34.3	7.9	7.9	54.4	53.8	3.7	3.6	3.6	11.0	11.1	17.0	17.2	
					0.2	111.4	25.5	25.5	34.3	34.3	7.9	7.9	53.1	53.8	3.6	3.6	3.6	11.2	11.1	17.3	17.2		
					0.2	243.2	25.5	25.5	34.3	34.3	7.9	7.9	54.4	53.8	3.7	3.6	3.6	11.0	11.1	17.0	17.2		
					0.2	111.4	25.5	25.5	34.3	34.3	7.9	7.9	53.1	53.8	3.6	3.6	3.6	11.2	11.1	17.3	17.2		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
F3	Cloudy	Calm	12:59	17.7	S	0.5	97.5	29.6	29.6	26.1	26.0	8.2	8.2	149.0	150.5	9.8	9.9	7.4	1.9	1.9	10.5	10.7	
						0.5	97.5	29.6	29.6	26.0	26.0	8.2	8.2	152.0	150.5	10.0	9.9	7.4	1.9	1.9	10.5	10.7	
					M	0.3	136.1	27.5	27.5	33.9	33.9	8.0	8.0	72.4	73.1	4.7	4.8	5.4	5.4	2.0	2.0	20.8	20.9
						0.5	112.0	27.5	27.5	33.9	33.9	8.0	8.0	73.7	73.1	4.8	4.8	5.4	5.4	0.9	0.9	21.0	20.9
					B	0.2	122.5	25.7	25.7	34.3	34.3	7.9	7.9	53.4	52.3	3.6	3.5	3.5	3.5	12.9	13.2	30.3	30.2
						0.2	122.5	25.7	25.7	34.3	34.3	7.9	7.9	51.2	52.3	3.4	3.5	3.5	3.5	13.5	13.2	30.0	30.2
F4	Cloudy	Calm	10:58	14.0	S	0.4	135.4	28.9	28.9	28.7	28.5	8.0	8.0	101.6	104.8	6.7	6.9	5.4	2.1	2.2	4.1	4.2	
						0.3	96.2	29.0	28.9	28.4	28.5	8.0	8.0	108.0	104.8	7.1	6.9	5.4	2.2	2.2	4.2	4.2	
					M	0.1	116.2	27.4	27.4	33.2	33.1	7.9	7.9	57.1	58.0	3.8	3.8	3.1	3.1	2.5	2.3	5.5	5.5
						0.1	116.2	27.5	27.4	33.1	33.1	7.9	7.9	58.8	58.0	3.9	3.8	3.1	3.1	2.0	2.3	5.4	5.5
					B	0.2	78.4	27.0	27.0	33.8	33.8	7.8	7.8	48.2	47.2	3.2	3.1	3.1	3.1	13.3	13.8	19.7	20.0
						0.2	129.6	27.0	27.0	33.8	33.8	7.8	7.8	46.2	47.2	3.1	3.1	3.1	3.1	14.4	13.8	20.3	20.0
F5	Cloudy	Calm	14:12	5.5	S	0.8	196.9	30.3	30.3	19.3	19.3	7.8	7.8	89.8	92.8	6.1	6.3	6.3	3.3	3.3	5.1	5.2	
						0.8	196.9	30.3	30.3	19.3	19.3	7.8	7.8	95.9	92.8	6.5	6.3	6.3	3.3	3.3	5.3	5.2	
					B	0.5	275.8	27.7	27.6	31.0	31.1	7.6	7.5	59.8	55.3	4.0	3.7	3.7	3.7	16.7	17.9	17.8	18.9
						0.6	188.7	27.6	27.6	31.2	31.1	7.5	7.5	50.9	55.3	3.4	3.7	3.7	3.7	19.1	17.9	19.9	18.9
					S	0.7	172.4	30.0	30.1	17.8	17.8	7.7	7.7	58.7	58.7	4.0	4.0	4.0	4.0	7.8	7.8	5.8	5.5
						0.7	172.4	30.1	30.1	17.8	17.8	7.8	7.7	58.7	58.7	4.0	4.0	4.0	4.0	7.8	7.8	5.2	5.5
M	0.7	138.1	28.3	28.4	25.2	25.1	7.5	7.5	56.7	57.8	3.8	3.9	3.9	3.9	10.1	9.1	10.9	11.6					
	0.7	138.1	28.4	28.4	25.0	25.1	7.5	7.5	58.9	57.8	4.0	3.9	3.9	3.9	8.1	9.1	12.2	11.6					
B	0.4	188.2	27.2	27.2	29.2	29.2	7.5	7.5	46.9	46.4	3.2	3.1	3.1	3.1	48.4	48.0	33.8	34.0					
	0.4	120.2	27.2	27.2	29.2	29.2	7.5	7.5	45.9	46.4	3.1	3.1	3.1	3.1	47.7	48.0	34.2	34.0					
IM1	Cloudy	Calm	15:07	9.0	S	0.6	286.7	29.5	29.5	29.3	29.3	8.2	8.2	139.0	140.7	9.0	9.1	6.7	2.0	2.1	3.2	3.1	
						0.2	78.2	29.5	29.5	29.3	29.3	8.2	8.2	142.4	140.7	9.2	9.1	6.7	2.1	2.1	2.9	3.1	
					M	0.6	286.7	27.7	27.7	32.4	32.4	7.9	7.9	65.1	66.1	4.3	4.3	4.3	4.3	1.5	1.4	2.8	3.1
						0.6	286.7	27.7	27.7	32.5	32.4	7.9	7.9	67.1	66.1	4.4	4.3	4.3	4.3	1.3	1.4	3.4	3.1
					B	0.1	53.0	25.9	25.9	34.0	34.0	7.8	7.8	42.8	41.4	2.9	2.8	2.8	2.8	9.1	9.3	8.5	8.5
						0.2	331.3	25.9	25.9	34.0	34.0	7.8	7.8	40.1	41.4	2.7	2.8	2.8	2.8	9.5	9.3	8.5	8.5
IM2	Cloudy	Calm	15:29	11.0	S	0.7	224.9	28.4	28.4	27.8	27.8	8.0	8.0	112.9	113.6	7.5	7.6	6.8	2.5	2.5	3.3	3.3	
						0.9	185.4	28.4	28.4	27.7	27.8	8.0	8.0	114.3	113.6	7.6	7.6	6.8	2.5	2.5	3.2	3.3	
					M	0.4	198.2	28.0	27.9	28.7	28.8	8.0	8.0	91.8	90.0	6.1	6.0	6.0	6.0	4.5	4.1	4.2	4.4
						0.4	198.2	27.9	27.9	28.9	28.8	8.0	8.0	88.1	90.0	5.9	6.0	6.0	6.0	3.7	4.1	4.5	4.4
					B	0.5	163.9	26.8	26.8	32.7	32.6	7.8	7.8	45.8	45.7	3.1	3.0	3.0	3.0	40.4	40.3	63.3	64.7
						0.5	163.9	26.9	26.8	32.5	32.6	7.8	7.8	45.6	45.7	3.0	3.0	3.0	3.0	40.1	40.3	66.0	64.7
IM3	Cloudy	Calm	13:58	14.6	S	0.6	145.6	29.2	29.2	28.6	28.6	8.1	8.1	132.2	133.4	8.7	8.7	5.9	2.4	2.4	4.5	4.5	
						0.3	53.1	29.2	29.2	28.6	28.6	8.1	8.1	134.6	133.4	8.8	8.7	5.9	2.4	2.4	4.4	4.5	
					M	0.3	72.9	27.1	27.1	33.8	33.8	7.8	7.8	42.7	45.1	2.8	3.0	3.0	3.0	6.0	5.5	5.5	5.3
						0.3	72.9	27.2	27.1	33.7	33.8	7.9	7.8	47.5	45.1	3.1	3.0	3.0	3.0	4.9	5.5	5.1	5.3
					B	0.3	104.7	26.6	26.6	34.0	34.0	7.8	7.8	39.6	38.6	2.6	2.6	2.6	2.6	23.8	24.2	32.6	30.6
						0.1	167.9	26.6	26.6	34.0	34.0	7.8	7.8	37.6	38.6	2.5	2.6	2.6	2.6	24.6	24.2	28.6	30.6
IM4	Cloudy	Calm	13:37	16.3	S	1.2	172.8	29.4	29.4	27.8	27.8	8.2	8.2	141.5	143.8	9.3	9.4	6.5	2.4	2.3	8.1	8.1	
						1.2	172.8	29.4	29.4	27.8	27.8	8.2	8.2	146.1	143.8	9.6	9.4	6.5	2.2	2.3	8.0	8.1	
					M	0.1	201.3	27.3	27.3	33.6	33.5	7.9	7.9	54.3	54.6	3.6	3.6	3.6	3.6	8.3	8.0	13.0	12.5
						0.4	167.0	27.3	27.3	33.5	33.5	7.9	7.9	55.0	54.6	3.6	3.6	3.6	3.6	7.8	8.0	12.0	12.5
					B	0.3	80.6	26.9	26.9	33.9	33.9	7.8	7.8	49.7	48.6	3.3	3.2	3.2	3.2	40.2	41.2	78.2	77.7
						0.8	249.3	26.9	26.9	33.9	33.9	7.8	7.8	47.6	48.6	3.1	3.2	3.2	3.2	42.3	41.2	77.2	77.7
IM5	Cloudy	Calm	13:19	15.2	S	0.4	131.4	29.3	29.3	26.2	26.2	8.1	8.1	123.8	123.9	8.2	8.2	6.4	2.1	2.1	2.6	2.5	
						0.4	131.4	29.3	29.3	26.2	26.2	8.1	8.1	124.0	123.9	8.2	8.2	6.4	2.1	2.1	2.4	2.5	
					M	0.1	64.6	27.6	27.6	33.5	33.5	7.9	7.9	69.6	70.5	4.6	4.6	4.6	4.6	1.1	1.0	4.6	4.8
						0.1	64.6	27.6	27.6	33.5	33.5	7.9	7.9	71.5	70.5	4.7	4.6	4.6	4.6	0.9	1.0	4.9	4.8
					B	0.1	24.3	26.3	26.3	34.2	34.2	7.9	7.9	53.3	51.9	3.5	3.5	3.5	3.5	14.1	14.5	26.2	25.5
						0.2	138.7	26.3	26.3	34.2	34.2	7.9	7.9	50.5	51.9	3.4	3.5	3.5	3.5	14.9	14.5	24.8	25.5

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Cloudy	Calm	12:47	16.3	S	0.4	109.3	29.4	29.4	26.6	26.6	8.2	8.2	141.5	142.9	9.3	9.4	7.0	2.1	2.1	4.6	12.4	
						0.5	121.0	29.4	26.6	26.6	8.2	8.2	144.2	69.6	4.5	4.6	7.0	2.1	2.1	4.7			
						0.5	103.1	27.6	27.6	33.7	33.7	7.9	7.9	70.9	4.6	4.6	7.0	1.0	0.9	5.1			
					M	0.3	81.1	27.6	27.6	33.7	33.7	7.9	7.9	70.9	4.6	4.6	3.4	3.4	0.8	0.8	5.4		
						0.2	134.8	25.8	25.8	34.3	34.3	7.9	7.9	52.3	3.5	3.5	3.4	3.4	17.0	17.0	27.1		
						0.2	101.0	25.8	25.8	34.3	34.3	7.9	7.9	49.5	3.3	3.3	3.4	3.4	18.0	17.5	27.6		
B	0.5	104.9	29.3	29.3	25.7	25.7	8.0	8.0	100.2	6.7	6.7	5.7	5.7	1.5	1.4	4.1							
	0.4	112.8	29.3	29.3	25.7	25.7	8.0	8.0	101.3	6.7	6.7	5.7	5.7	1.4	1.4	4.6							
	0.2	98.5	27.7	27.7	33.1	33.1	7.9	7.9	71.7	4.7	4.7	4.7	4.7	1.4	1.4	5.1							
IM7	Cloudy	Calm	12:22	13.3	S	0.2	76.2	27.7	27.7	33.1	33.1	7.9	7.9	72.9	72.3	4.8	4.7	4.6	1.3	1.4	5.5	7.7	
						0.2	98.5	27.7	27.7	33.1	33.1	7.9	7.9	71.7	4.7	4.7	4.7	4.7	1.4	1.4	5.1		
						0.2	76.2	27.7	27.7	33.1	33.1	7.9	7.9	72.9	4.8	4.7	4.6	4.6	1.3	1.4	5.5		
					M	0.3	225.8	26.6	26.6	34.0	34.0	7.9	7.9	79.8	5.3	5.3	4.6	4.6	11.0	10.8	13.2		
						0.4	59.4	26.6	26.6	34.0	34.0	7.9	7.9	60.4	4.0	4.0	4.6	4.6	10.6	10.8	13.6		
						0.3	225.8	26.6	26.6	34.0	34.0	7.9	7.9	79.8	5.3	5.3	4.6	4.6	11.0	10.8	13.2		
B	0.4	59.4	26.6	26.6	34.0	34.0	7.9	7.9	60.4	4.0	4.0	4.6	4.6	10.6	10.8	13.6							
	0.5	109.5	29.5	29.5	26.6	26.5	8.1	8.1	121.6	8.0	8.1	6.6	6.6	1.8	1.8	6.9							
	0.5	117.0	29.5	29.5	26.6	26.5	8.1	8.1	124.4	8.0	8.0	6.6	6.6	1.9	1.8	6.7							
IM8	Cloudy	Calm	12:32	14.7	S	0.6	91.5	28.1	28.1	32.6	32.6	8.0	8.0	78.5	79.4	5.1	5.2	6.6	1.4	1.3	7.3	15.8	
						0.4	97.6	28.1	28.1	32.5	32.5	8.0	8.0	80.4	5.2	5.2	6.6	6.6	1.1	1.3	7.3		
						0.1	198.3	26.4	26.4	34.2	34.2	7.9	7.8	57.0	3.8	3.7	3.7	3.7	19.3	20.4	32.7		
					M	0.3	101.4	26.4	26.4	34.2	34.2	7.8	7.8	53.8	3.6	3.6	3.7	3.7	21.6	20.4	33.7		
						0.7	123.0	29.5	29.5	21.6	21.7	8.0	8.0	98.2	6.6	6.6	6.7	6.7	2.0	2.0	3.7		
						0.4	94.6	29.5	29.5	21.8	21.7	8.0	8.0	99.6	6.7	6.7	6.7	6.7	2.0	2.0	3.5		
B	0.1	149.1	27.9	27.9	33.1	33.1	7.9	7.9	73.8	4.8	4.9	4.9	4.9	1.4	1.3	6.1							
	0.3	99.5	27.9	27.9	33.1	33.1	8.0	8.0	75.1	4.9	4.9	4.9	4.9	1.1	1.3	5.3							
	0.2	142.0	27.1	27.1	33.7	33.7	7.9	7.9	64.6	4.3	4.3	4.2	4.2	11.4	11.8	21.9							
IM9	Cloudy	Calm	12:02	15.2	S	0.3	135.9	27.1	27.1	33.7	33.7	7.9	7.9	63.0	63.8	4.1	4.2	4.2	11.4	11.8	21.2	10.3	
						0.2	142.0	27.1	27.1	33.7	33.7	7.9	7.9	63.0	63.8	4.1	4.2	4.2	4.2	11.4	11.8		21.2
						0.3	135.9	27.1	27.1	33.7	33.7	7.9	7.9	63.0	63.8	4.1	4.2	4.2	4.2	11.4	11.8		21.2
					M	0.4	94.6	29.5	29.5	21.8	21.7	8.0	8.0	99.6	6.7	6.7	6.7	6.7	2.0	2.0	3.7		
						0.1	149.1	27.9	27.9	33.1	33.1	7.9	7.9	73.8	4.8	4.9	4.9	4.9	1.4	1.3	6.1		
						0.3	99.5	27.9	27.9	33.1	33.1	8.0	8.0	75.1	4.9	4.9	4.9	4.9	1.1	1.3	5.3		
B	0.2	142.0	27.1	27.1	33.7	33.7	7.9	7.9	64.6	4.3	4.3	4.2	4.2	11.4	11.8	21.9							
	0.3	135.9	27.1	27.1	33.7	33.7	7.9	7.9	63.0	4.1	4.1	4.2	4.2	12.2	11.8	21.2							
	0.4	94.6	29.5	29.5	21.8	21.7	8.0	8.0	99.6	6.7	6.7	6.7	6.7	2.0	2.0	3.7							
IM10	Cloudy	Calm	15:48	11.0	S	0.4	152.0	28.6	28.6	28.1	28.1	7.6	7.7	68.6	72.4	4.5	4.8	3.9	12.2	11.0	10.3	28.3	
						0.2	114.4	28.7	28.6	28.0	28.1	7.7	7.7	76.2	4.5	4.8	3.9	3.9	9.7	11.0	12.0		
						0.5	4.2	27.0	27.0	33.3	33.3	7.5	7.5	45.1	3.0	3.0	3.0	3.0	23.7	23.9	27.9		
					M	0.8	239.0	27.0	27.0	33.3	33.3	7.5	7.5	44.9	3.0	3.0	3.0	3.0	24.1	23.9	28.6		
						0.4	123.3	26.7	26.7	33.7	33.8	7.5	7.5	49.5	3.3	3.3	3.2	3.2	41.2	45.9	47.6		
						0.9	224.7	26.6	26.6	33.8	33.8	7.5	7.5	47.3	3.1	3.1	3.2	3.2	50.5	45.9	43.2		
B	0.2	103.2	30.1	30.1	18.9	18.9	7.8	7.8	93.9	6.4	6.4	6.4	6.4	56.7	56.3	94.6							
	0.6	159.0	30.1	30.1	18.9	18.9	7.8	7.8	94.3	6.4	6.4	6.4	6.4	55.9	56.3	97.6							
	0.4	103.2	30.1	30.1	18.9	18.9	7.8	7.8	93.7	6.4	6.4	6.4	6.4	56.7	56.3	94.6							
IM11A	Cloudy	Calm	15:38	4.5	S	0.7	164.2	30.1	30.1	18.9	18.9	7.8	7.8	93.9	93.9	6.4	6.4	6.4	56.7	56.3	94.6	115.3	
						0.6	159.0	30.1	30.1	18.9	18.9	7.8	7.8	94.3	6.4	6.4	6.4	6.4	55.9	56.3	97.6		
						0.4	103.2	30.1	30.1	18.9	18.9	7.8	7.8	93.7	6.4	6.4	6.4	6.4	56.7	56.3	94.6		
					M	0.4	103.2	30.1	30.1	18.9	18.9	7.8	7.8	93.7	6.4	6.4	6.4	6.4	56.7	56.3	94.6		
						1.6	159.6	30.4	30.4	16.1	16.1	7.8	7.8	95.8	6.6	6.5	5.8	5.8	5.3	6.0	4.2		
						1.6	159.6	30.4	30.4	16.1	16.1	7.8	7.8	95.8	6.6	6.5	5.8	5.8	5.3	6.0	4.2		
B	0.5	71.3	29.5	29.3	21.7	22.6	7.7	7.7	76.0	5.1	5.1	5.1	5.1	26.6	27.1	23.1							
	0.9	215.2	29.2	29.3	23.5	22.6	7.7	7.7	75.6	5.1	5.1	5.1	5.1	27.6	27.1	26.6							
	1.0	132.1	27.3	27.3	32.2	32.1	7.5	7.5	47.1	3.1	3.1	3.1	3.1	116.7	113.3	160.0^							
IM12	Cloudy	Calm	15:30	11.5	S	0.9	197.0	27.3	27.3	32.1	32.1	7.5	7.5	45.4	46.2	3.0	3.1	3.1	109.8	113.3	168.0^	15.2	
						0.1	115.9	30.3	30.3	15.8	16.8	7.8	7.8	92.7	6.4	6.4	5.7	5.7	4.8	4.7	4.2		
						0.1	115.9	30.3	30.3	15.8	16.8	7.8	7.8	93.4	6.4	6.4	5.7	5.7	4.6	4.7	4.0		
					M	0.5	71.3	29.5	29.3	21.7	22.6	7.7	7.7	76.0	5.1	5.1	5.1	5.1	26.6	27.1	23.1		
						0.9	215.2	29.2	29.3	23.5	22.6	7.7	7.7	75.6	5.1	5.1	5.1	5.1	27.6	27.1	26.6		
						1.0	132.1	27.3	27.3	32.2	32.1	7.5	7.5	47.1	3.1	3.1	3.1	3.1	116.7	113.3	160.0^		
B	0.9	239.0	27.7	27.7	30.4	30.6	7.5	7.5	50.2	3.3	3.3	3.4	3.4	67.5	64.2	79.8							
	1.1	269.8	27.6	27.7	30.8	30.6	7.5	7.5	50.6	3.4	3.4	3.4	3.4	60.8	64.2	85.9							
	1.1	269.8	27.6	27.7	30.8	30.6	7.5	7.5	50.6	3.4	3.4	3.4	3.4	60.8	64.2	85.9							
IM13	Cloudy	Calm	15:09	16.5	S	2.3	173.1	30.3	30.3	18.7	18.7	7.8	7.8	97.6	97.8	6.6	6.6	6.5	3.5	3.5	2.1	30.8	
						0.3	211.5	30.3	30.3	18.7	18.7	7.8	7.8	98.1	97.8	6.7	6.6	6.5	3.5	3.5	2.1		
						0.9	239.0	27.7	27.7	30.4	30.6	7.5	7.5	50.2	3.3	3.3	3.4	3.4	67.5	64.2	79.8		
					M	1.2	243.1	30.0	30.1	20.0	19.7	7.7	7.8	94.5	6.4	6.4	6.4	6.4	5.2	4.7	5.1		
						1.4	183.2	30.2	30.1	19.5	19.7	7.8	7.8	95.9	6.5	6.5	6.4	6.4	4.2	4.7	4.8		
						1.1	229.0	27.9	27.9	29.6	29.5	7.5	7.5	56.0	3.7	3.7							

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM15	Cloudy	Calm	13:49	6.0	S	0.8	194.7	30.4	30.5	14.5	14.3	7.8	7.8	95.6	95.5	6.6	6.6	6.1	3.6	3.6	1.7	11.3		
						0.8	194.7	30.5	14.2	14.3	7.8	7.8	95.4	95.5	6.6	6.6	6.1	3.6	3.6	1.6	1.7			
						0.9	167.8	29.8	29.7	20.1	20.3	7.7	7.7	79.1	83.4	5.4	5.7	6.1	4.0	3.9	3.4		3.3	
					0.9	192.8	29.7	29.7	20.4	20.3	7.7	7.7	87.7	87.9	6.0	6.0	5.9	5.9	5.9	3.8	3.9		3.2	29.0
					0.5	109.5	28.1	28.0	28.9	29.0	7.6	7.5	87.9	87.9	5.9	5.9	5.9	14.6	14.6	14.5	14.6		31.5	
					0.4	300.3	28.0	28.0	29.1	29.0	7.5	7.5	87.9	87.9	5.9	5.9	5.9	14.6	14.6	14.6	14.6		26.4	
IM16A	Cloudy	Calm	13:09	7.0	S	0.4	157.7	30.7	30.7	13.8	13.8	7.8	7.8	96.0	96.6	6.7	6.7	6.3	3.6	3.6	1.7	4.1		
						0.4	157.7	30.7	30.7	13.8	13.8	7.8	7.8	97.3	96.6	6.7	6.7	6.3	3.6	3.6	1.5		1.6	
						0.8	145.2	29.5	29.4	18.8	18.6	7.7	7.7	87.1	86.6	6.0	6.0	6.3	3.5	3.5	3.9		3.9	
					0.8	109.4	29.4	29.4	18.5	18.6	7.7	7.7	86.1	86.6	5.9	6.0	6.3	3.5	3.5	3.9	3.9		3.9	
					0.5	88.1	28.1	28.2	27.8	27.9	7.6	7.6	63.6	60.8	4.3	4.1	4.1	9.3	9.6	6.6	6.8			
					0.5	178.0	28.2	28.2	27.9	27.9	7.6	7.6	58.1	60.8	3.9	4.1	4.1	9.9	9.6	7.0	7.0			
IM17	Cloudy	Calm	12:07	5.5	S	1.9	142.6	30.7	30.6	12.9	13.0	7.8	7.8	90.9	94.3	6.3	6.6	6.6	6.6	6.5	12.9	2.2	5.4	
						1.3	261.7	30.6	30.6	13.2	13.0	7.8	7.8	97.7	94.3	6.8	6.6	6.6	6.6	6.5	6.5	6.5		1.8
					0.6	214.4	29.3	29.3	21.3	21.2	7.7	7.7	72.8	72.3	5.0	4.9	4.9	19.8	19.3	9.0	8.8			
					0.6	99.8	29.3	29.3	21.2	21.2	7.7	7.7	71.9	72.3	4.9	4.9	4.9	18.9	19.3	8.6	8.6			
IM18	Cloudy	Calm	12:18	17.5	S	0.3	170.0	30.4	30.6	14.0	13.8	7.8	7.8	86.0	91.9	6.0	6.4	5.2	5.0	4.4	12.1	2.3	11.8	
						0.6	182.0	30.8	30.6	13.6	13.8	7.8	7.8	97.8	91.9	6.8	6.4	5.2	3.9	4.4	3.9	4.4		2.0
					0.1	110.2	28.6	28.7	24.9	24.3	7.5	7.6	58.5	60.0	4.0	4.1	4.1	11.9	10.7	9.7	9.8			
					0.2	237.8	28.8	28.7	23.7	24.3	7.6	7.6	61.4	60.0	4.2	4.1	4.1	9.4	10.7	9.9	9.9			
					1.1	32.3	28.0	28.0	26.8	26.8	7.5	7.5	54.0	53.6	3.6	3.6	3.6	21.0	21.1	24.9	23.4			
					0.2	308.4	28.0	28.0	26.8	26.8	7.5	7.5	53.1	53.6	3.6	3.6	3.6	21.3	21.1	21.9	21.9			
IM19	Cloudy	Calm	11:45	18.0	S	1.4	164.7	30.1	30.0	19.4	19.5	7.7	7.7	81.4	81.8	5.5	5.6	5.0	5.2	5.2	37.4	4.8	37.1	
						1.4	164.7	30.0	30.0	19.7	19.5	7.7	7.7	82.2	81.8	5.6	5.6	5.0	5.2	5.2	5.2	5.2		5.1
					0.9	110.9	29.0	29.0	23.0	23.1	7.6	7.6	64.8	66.0	4.4	4.5	4.5	11.3	10.0	7.7	7.8			
					0.1	230.0	29.0	29.0	23.2	23.1	7.6	7.6	67.2	66.0	4.6	4.5	4.5	8.6	10.0	7.8	7.8			
					0.3	80.5	27.6	27.6	28.2	28.3	7.6	7.5	52.5	50.6	3.5	3.4	3.4	87.7	97.0	100.0	98.6			
					0.6	147.1	27.5	27.6	28.3	28.3	7.5	7.5	48.8	50.6	3.3	3.4	3.4	106.2	97.0	97.2	97.2			
IM20A	Cloudy	Calm	10:42	5.5	S	0.4	190.7	30.1	30.1	18.0	18.0	7.7	7.7	82.8	83.5	5.7	5.7	5.7	4.2	4.3	14.9	4.3	17.2	
						0.4	190.7	30.2	30.1	18.0	18.0	7.7	7.7	84.2	83.5	5.8	5.7	5.7	4.4	4.3	4.4	4.3		
					0.6	320.0	28.9	28.9	23.9	23.8	7.5	7.5	66.4	63.9	4.5	4.3	4.3	24.2	25.4	31.9	30.4			
					0.4	307.3	28.9	28.9	23.8	23.8	7.5	7.5	61.4	63.9	4.2	4.3	4.3	26.6	25.4	28.9	28.9			
IM21A	Cloudy	Calm	10:50	5.5	S	0.7	185.7	29.6	29.6	21.5	21.7	7.6	7.6	70.0	70.1	4.7	4.7	4.7	20.6	20.5	32.0	13.0	31.8	
						1.0	218.2	29.5	29.6	21.9	21.7	7.6	7.6	70.2	70.1	4.7	4.7	4.7	20.3	20.5	20.3	20.3		
					0.3	275.2	28.7	28.7	24.6	24.7	7.6	7.6	63.6	61.1	4.3	4.1	4.1	39.2	43.5	47.4	50.8			
0.3	221.7	28.7	28.7	24.7	24.7	7.6	7.6	58.6	61.1	4.0	4.1	4.1	47.8	43.5	54.2	54.2								
IM22A	Cloudy	Calm	10:59	5.0	S	1.1	174.4	30.7	30.7	23.3	22.7	7.7	7.7	72.8	74.4	4.8	4.9	4.9	34.5	31.0	34.1	23.2	32.5	
						1.1	174.4	30.6	30.7	22.1	22.7	7.7	7.7	76.0	74.4	5.0	4.9	4.9	27.5	31.0	24.2	24.2		
					0.8	210.0	30.2	30.2	24.1	24.1	7.7	7.7	69.1	68.6	4.6	4.5	4.5	36.9	37.1	43.3	41.2			
0.1	213.2	30.2	30.2	24.1	24.1	7.7	7.7	68.2	68.6	4.5	4.5	4.5	37.4	37.1	39.1	39.1								

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)													
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*										
E2	Cloudy	Calm	09:03	9.0	S	0.1	199.4	28.9	28.9	27.9	27.9	7.9	7.9	97.3	98.6	6.4	6.5	5.4	2.0	1.9	15.2	6.4	6.3	27.1										
						0.3	285.8	28.9		27.9		8.0		99.9		6.6			1.9			6.1												
						0.5	10.5	28.4		29.9		29.8		7.8		62.1			4.1			4.3			4.5	8.0								
					M	0.1	199.4	28.5	27.2	29.8	29.8	7.8	7.7	67.2	34.5	35.6	2.3	2.3	2.3	4.4	39.5	4.0	39.5	67.2	66.7									
						0.0	226.3	27.2		33.6		7.7		33.4		2.2				39.9		66.2												
						0.0	226.3	27.2		33.6		7.7		33.4		2.2				39.9		66.2												
B	0.5	307.6	28.9	28.9	19.9	19.6	7.9	7.9	79.8	80.7	5.5	5.6	4.6	3.2	3.2	18.1	3.4	3.2	18.1	3.4	3.5	23.1												
	0.5	307.6	28.9		19.4		7.9		81.6		5.6			3.2			3.5																	
	1.0	303.9	27.4		27.4		32.5		32.6		7.8			7.8			55.0			3.6			3.6	4.6	5.0	6.0	6.3							
M	0.9	305.9	27.4	26.8	32.6	33.8	7.8	7.8	53.9	54.4	3.6	3.3	3.3	4.2	46.1	10.1	4.6	5.0	10.1	6.6	6.3	9.8												
	0.7	301.4	26.8		33.8		7.8		50.5		3.3			42.2			56.6																	
	0.5	297.7	26.8		33.8		7.8		49.3		3.3			50.0			62.5																	
B	0.7	301.4	26.8	26.8	33.8	33.8	7.8	7.8	50.5	49.9	3.3	3.3	3.3	42.2	46.1	10.1	50.0	5.0	10.1	56.6	59.6	9.8												
	0.5	297.7	26.8		33.8		7.8		49.3		3.3			50.0			62.5																	
	0.2	222.8	29.2		29.1		17.0		16.7		7.9			7.9			72.1			78.6			5.0	5.5	5.1	4.9	4.9	10.1	4.8	5.1	10.1	3.3	3.6	9.8
0.2	222.8	29.1	16.4	7.9		85.1	6.0	4.9		3.8																								
M	0.5	52.3	29.0	28.9	22.0	22.7	7.9	7.9	68.7	70.2	4.7	4.8	5.1	8.3	8.2	10.1	8.2	8.2	10.1	7.0	6.9	9.8												
	0.3	164.3	28.9		23.5		7.9		71.7		4.9			8.2			6.8																	
	0.2	336.7	27.3		32.2		7.7		49.6		3.3			16.8			19.0																	
B	0.2	336.7	27.3	27.3	32.2	32.2	7.7	7.7	49.6	48.0	3.3	3.2	3.2	17.6	17.2	10.1	17.6	17.2	10.1	18.8	18.9	9.8												
	0.1	39.9	27.3		32.2		7.7		46.4		3.1			17.6			18.8																	
	0.4	147.4	29.6		29.6		14.1		14.0		7.9			7.9			79.2			79.7			5.6	5.6	5.6	6.4	5.8	9.3	5.1	5.8	9.3	4.2	4.4	7.9
1.7	147.1	29.6	14.0	7.9		80.2	5.7	5.1		4.6																								
S	0.3	50.2	29.5	29.5	20.5	20.4	7.9	7.9	76.1	75.6	5.2	5.2	5.2	13.5	12.8	9.3	13.5	12.8	9.3	11.6	11.3	7.9												
	0.3	50.2	29.5		20.4		7.9		75.2		5.1			12.2			11.0																	
	1.4	343.1	29.1		29.3		21.0		20.4		7.8			7.8			61.0			64.7			4.2	4.4	4.1	10.0	10.4	12.2	10.0	10.4	12.2	12.1	12.0	16.0
1.3	330.6	29.4	19.8	7.8		68.4	4.7	10.9		11.9																								
M	1.0	30.4	28.4	28.4	25.6	25.5	7.7	7.7	54.6	54.8	3.7	3.7	4.1	12.4	12.1	12.2	12.4	12.1	12.2	16.0	16.8	16.0												
	1.2	1.7	28.4		25.4		7.7		55.0		3.7			11.7			17.6																	
	0.6	341.1	28.3		25.8		7.8		55.4		3.7			14.0			18.6																	
B	0.7	2.7	28.3	28.3	25.8	25.8	7.7	7.8	55.3	55.3	3.7	3.7	3.7	14.1	14.0	12.2	14.1	14.0	12.2	20.0	19.3	16.0												
	0.2	169.5	28.0		28.0		27.6		27.6		7.9			7.9			71.8			72.3			4.8	4.9	3.9	2.9	2.8	4.9	2.9	2.8	4.9	5.7	5.8	8.8
	0.2	169.5	28.0				27.6				7.9						72.8						4.9			2.7			5.9					
M	0.1	33.7	27.1	27.1	33.8	33.8	7.8	7.8	46.0	45.8	3.0	3.0	3.9	2.2	2.0	4.9	2.2	2.0	4.9	6.4	6.4	8.8												
	0.1	33.7	27.0		33.8		7.8		45.6		3.0			1.9			6.4																	
	0.1	107.6	25.0		25.0		34.4		34.4		7.8			7.8			43.6			43.3			3.0	2.9	2.9	9.8	10.0	4.9	9.8	10.0	4.9	14.4	14.2	8.8
0.3	6.0	25.0	34.4	7.8		42.9	2.9	10.3		14.4																								
S	0.1	233.1	29.2	29.2	27.2	27.2	8.1	8.1	122.2	123.2	8.1	8.1	6.0	1.4	1.4	3.7	1.4	1.4	3.7	2.5	2.6	5.4												
	0.1	222.5	29.2		27.2		8.2		124.2		8.2			1.3			2.7																	
	0.2	302.6	26.7		26.7		33.8		33.8		7.9			7.9			59.5			59.8			3.9	4.0	6.0	1.9	1.7	3.7	1.9	1.7	3.7	2.9	3.1	5.4
0.1	310.4	26.8	33.8	7.9		60.2	4.0	1.6		3.2																								
M	0.1	119.2	25.3	25.3	34.4	34.4	7.8	7.8	45.2	44.6	3.1	3.0	3.0	8.0	8.1	3.7	8.0	8.1	3.7	10.9	10.6	5.4												
	0.7	339.4	25.3		34.4		7.8		44.0		3.0			8.2			10.3																	
	0.1	233.1	29.2		27.2		8.1		122.2		8.1			1.4			2.5																	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
F3	Cloudy	Calm	06:39	17.8	S	0.2	295.4	28.8	28.8	26.4	26.4	7.9	7.9	86.6	87.3	5.8	5.8	4.6	1.7	1.7	5.9	3.0	3.1	9.5			
						0.3	256.0	28.8	26.4	26.4	7.9	7.9	88.0	87.3	5.9	5.8	4.6	1.7	1.7								
						0.6	310.6	26.8	26.8	33.7	33.7	7.8	7.8	51.0	51.7	3.4	3.4	4.6	3.0	2.8							
					M	0.3	301.1	26.9	26.8	33.6	33.6	7.8	7.8	52.4	51.7	3.5	3.4	3.2	3.2	13.2		2.7			2.7	3.4	3.7
						0.3	301.0	25.6	25.6	34.4	34.4	7.8	7.8	48.5	47.9	3.3	3.2	3.2	3.2	13.3		2.7			2.7	21.5	21.8
						0.3	301.0	25.6	25.6	34.4	34.4	7.8	7.8	47.3	47.9	3.2	3.2	3.2	3.2	13.3		2.7			2.7	22.1	21.8
F4	Cloudy	Calm	08:37	14.0	S	0.5	271.9	28.6	28.6	29.4	29.3	7.9	7.9	75.3	78.4	5.0	5.2	4.1	2.7	2.7	18.0	5.6	5.5	27.6			
						0.7	303.4	28.7	28.6	29.3	29.3	7.9	7.9	81.5	78.4	5.4	5.2	4.1	2.8	2.7							
						0.5	281.2	26.9	26.9	33.8	33.8	7.8	7.8	44.3	44.5	2.9	2.9	2.9	13.0	11.8		2.7			14.1	14.6	
					M	0.5	281.2	26.9	26.9	33.8	33.8	7.8	7.8	44.7	44.5	3.0	2.9	2.9	10.6	11.8		2.9			2.9	15.0	14.6
						0.2	253.0	26.9	26.9	33.9	33.9	7.7	7.7	44.2	43.4	2.9	2.9	2.9	37.7	39.6		2.9			2.9	60.8	62.8
						0.3	281.5	26.9	26.9	33.9	33.9	7.8	7.7	42.7	43.4	2.8	2.9	2.9	41.4	39.6		2.9			2.9	64.8	62.8
F5	Cloudy	Calm	05:51	5.5	S	0.7	71.6	29.1	29.1	17.6	17.6	7.9	7.9	80.8	82.7	5.6	5.8	5.8	5.3	5.1	6.5	4.0	3.6	5.0			
						0.4	109.7	29.1	29.1	17.6	17.6	7.9	7.9	84.5	82.7	5.9	5.8	5.8	5.0	5.1							
					B	0.3	157.9	28.8	28.9	24.0	23.3	7.9	7.9	67.9	69.2	4.6	4.7	4.7	9.0	7.9		4.7			4.7	6.6	6.4
						0.7	48.7	29.1	28.9	22.7	23.3	7.9	7.9	70.4	69.2	4.8	4.7	4.7	6.9	7.9		4.7			4.7	6.2	6.4
F6	Cloudy	Calm	07:07	14.5	S	1.1	307.4	29.8	29.8	16.7	16.7	7.9	7.9	83.2	83.5	5.8	5.8	5.2	4.4	4.3	8.9	5.2	5.3	12.7			
						1.1	307.4	29.8	29.8	16.6	16.7	7.9	7.9	83.8	83.5	5.8	5.8	5.2	4.4	4.3							
						0.7	334.9	29.0	29.0	22.9	22.9	7.9	7.9	68.0	68.0	4.6	4.6	4.6	5.0	4.9							
					M	1.6	319.2	29.0	29.0	23.0	22.9	7.9	7.9	68.0	68.0	4.6	4.6	4.6	4.9	4.9		4.9			4.9	7.0	6.9
						0.5	276.6	28.4	28.4	25.5	25.4	7.8	7.8	61.8	60.3	4.2	4.1	4.1	15.9	17.5		4.1			4.1	27.4	25.9
						0.7	339.0	28.4	28.4	25.4	25.4	7.8	7.8	58.9	60.3	4.0	4.1	4.1	19.1	17.5		4.1			4.1	24.3	25.9
IM1	Cloudy	Calm	04:26	8.0	S	0.2	5.0	28.7	28.7	29.2	29.3	7.9	7.9	73.7	74.2	4.9	4.9	4.3	2.2	2.3	1.9	6.6	6.7	5.1			
						0.4	311.9	28.8	28.7	29.4	29.3	7.9	7.9	74.6	74.2	4.9	4.9	4.3	2.4	2.3							
						0.4	17.4	27.6	27.6	32.4	32.3	7.8	7.8	55.1	56.1	3.6	3.7	3.7	1.2	1.2		3.6			3.7	5.7	5.5
					M	0.1	318.3	27.7	27.6	32.2	32.3	7.8	7.8	57.0	56.1	3.8	3.7	3.7	1.1	1.2		3.8			3.7	5.2	5.5
						0.2	285.8	26.8	26.8	33.6	33.6	7.8	7.8	49.4	48.4	3.3	3.2	3.2	2.1	2.2		3.3			3.2	3.4	3.2
						0.1	43.7	26.7	26.8	33.6	33.6	7.8	7.8	47.4	48.4	3.1	3.2	3.2	2.2	2.2		3.1			3.2	2.9	3.2
IM3	Cloudy	Calm	05:41	14.6	S	0.2	228.1	28.7	28.7	27.9	27.9	8.0	8.0	97.4	98.6	6.5	6.5	4.6	1.8	1.8	6.5	4.3	4.5	9.4			
						0.5	42.3	28.8	28.7	27.9	27.9	8.0	8.0	99.8	98.6	6.6	6.5	4.6	1.8	1.8							
						0.4	214.6	27.3	27.3	33.4	33.3	7.8	7.8	41.0	40.3	2.7	2.6	2.6	5.1	5.1		4.6			5.1	5.1	
					M	0.2	244.2	27.3	27.3	33.2	33.3	7.8	7.8	39.6	40.3	2.6	2.6	2.6	5.0	5.1		4.6			5.0	5.2	5.5
						0.4	307.5	26.4	26.4	34.1	34.1	7.7	7.7	31.1	29.9	2.1	2.0	2.0	12.3	12.6		2.0			2.0	17.8	18.1
						0.2	335.1	26.4	26.4	34.1	34.1	7.7	7.7	28.7	29.9	1.9	2.0	2.0	12.8	12.6		2.0			2.0	18.4	18.1
IM4	Cloudy	Calm	06:02	16.3	S	0.3	267.9	28.8	28.8	26.3	26.3	8.0	8.0	89.7	90.9	6.0	6.1	4.5	2.2	2.1	6.9	4.7	4.9	11.8			
						0.3	267.9	28.8	28.8	26.3	26.3	8.0	8.0	92.2	90.9	6.2	6.1	4.5	2.1	2.1							
						0.4	258.9	27.0	27.0	33.9	33.9	7.8	7.8	44.8	44.8	3.0	3.0	3.0	6.4	6.2		4.5			6.4	6.2	
					M	0.3	229.5	27.0	27.0	33.9	33.9	7.8	7.8	44.8	44.8	3.0	3.0	3.0	6.1	6.2		3.1			3.1	6.1	6.2
						0.1	156.5	27.0	27.0	34.0	34.0	7.8	7.8	47.9	47.4	3.2	3.1	3.1	12.4	12.4		3.1			3.1	19.0	19.9
						0.3	277.0	27.0	27.0	34.0	34.0	7.8	7.8	46.9	47.4	3.1	3.1	3.1	12.4	12.4		3.1			3.1	20.8	19.9
IM5	Cloudy	Calm	06:21	15.0	S	0.2	269.0	28.9	28.9	26.6	26.6	8.0	7.9	89.4	90.4	6.0	6.0	4.9	2.2	2.1	4.6	3.8	3.5	8.4			
						0.4	306.2	28.9	28.9	26.5	26.6	7.9	7.9	91.4	90.4	6.1	6.0	4.9	2.1	2.1							
						0.3	320.4	27.6	27.6	32.9	32.9	7.8	7.8	58.3	58.9	3.8	3.9	3.9	1.4	1.4		4.9			1.4	4.7	4.6
					M	0.2	306.3	27.6	27.6	32.9	32.9	7.9	7.8	59.6	58.9	3.9	3.9	3.9	1.4	1.4		3.9			3.9	4.5	4.6
						0.4	298.2	26.1	26.1	34.3	34.3	7.8	7.8	49.4	48.6	3.3	3.2	3.2	9.9	10.1		3.2			3.2	16.4	17.0
						0.1	341.2	26.1	26.1	34.3	34.3	7.8	7.8	47.9	48.6	3.2	3.2	3.2	10.4	10.1		3.2			3.2	17.5	17.0

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
IM6	Cloudy	Calm	06:51	16.4	S	0.5	286.2	28.9	28.9	26.5	26.5	8.0	8.0	93.3	94.6	6.2	6.3	5.0	1.6	1.6	4.4	3.1	3.4	7.4		
						0.5	286.2	28.9	26.5	26.5	8.0	8.0	96.0	6.4	6.4	5.0	1.6	1.6								
						0.3	277.1	27.0	27.0	33.8	33.8	7.8	7.8	54.3	3.6	3.6	5.0	2.4	2.4							
					M	0.3	293.9	26.9	26.0	33.8	34.3	7.8	7.8	54.9	3.6	3.3	3.3	3.3	3.3	3.3	9.1	8.8	9.1	4.4	4.4	14.4
						0.3	284.5	26.0	26.0	34.3	34.3	7.8	7.8	50.6	3.4	3.3	3.3	3.3	3.3	3.3	9.1	8.8	9.1	4.4	4.4	14.4
						0.1	326.3	26.0	26.0	34.3	34.3	7.8	7.8	49.1	3.3	3.3	3.3	3.3	3.3	3.3	9.1	8.8	9.1	4.4	4.4	14.4
IM7	Cloudy	Calm	07:16	13.1	S	0.2	287.0	28.7	28.7	25.8	25.8	7.9	7.9	81.3	81.9	5.5	5.5	4.9	2.2	2.2	7.2	2.2	2.2	12.1		
						0.2	287.0	28.7	28.7	25.8	25.8	7.9	7.9	82.6	5.5	5.5	4.9	2.2	2.2							
						0.7	307.0	27.7	27.7	33.6	33.5	7.9	7.9	65.0	4.2	4.4	4.9	2.2	2.9							
					M	0.7	307.0	27.8	27.7	33.4	33.5	7.9	7.9	68.7	4.5	4.4	4.9	2.2	2.9	4.9	2.2	2.9	7.2	3.0	3.1	12.1
						0.2	270.0	26.2	26.2	34.2	34.2	7.8	7.8	52.9	3.5	3.5	3.5	3.5	3.5	3.5	16.5	15.3	16.5	3.1	3.1	31.0
						0.4	302.1	26.2	26.2	34.2	34.2	7.8	7.8	51.3	3.4	3.5	3.5	3.5	3.5	3.5	16.5	15.3	16.5	3.1	3.1	31.0
IM8	Cloudy	Calm	07:06	14.5	S	0.4	269.6	28.9	28.9	26.0	26.0	7.9	7.9	89.8	91.0	6.0	6.1	5.2	1.8	1.8	12.9	4.5	4.2	22.7		
						0.8	271.6	28.9	28.9	26.0	26.0	7.9	7.9	92.1	6.2	6.1	5.2	1.8	1.8							
						0.3	332.8	27.5	27.4	33.8	33.8	7.9	7.9	62.2	4.3	4.2	4.2	4.2	4.2	1.2		1.3	1.2			
					M	0.4	291.7	27.3	27.4	33.9	33.8	7.9	7.9	63.9	4.2	4.2	4.2	4.2	4.2	1.2	1.1	1.2	12.9	9.3	9.6	22.7
						0.2	344.7	26.1	26.1	34.2	34.2	7.8	7.8	48.3	3.2	3.2	3.2	3.2	3.2	35.8	36.5	35.8	9.6	9.6	54.4	
						0.2	344.6	26.1	26.1	34.2	34.2	7.8	7.8	46.9	3.1	3.2	3.2	3.2	3.2	35.8	35.1	35.8	9.6	9.6	54.4	
IM9	Cloudy	Calm	07:35	15.4	S	0.9	302.1	28.8	28.8	23.6	24.0	7.9	7.9	78.9	79.1	5.3	5.3	4.8	3.4	3.3	7.8	6.8	7.3	15.0		
						0.9	302.1	28.8	28.8	24.4	24.0	7.9	7.9	79.3	5.4	5.3	4.8	3.3	3.3							
						0.8	275.5	27.9	27.9	32.3	32.3	7.8	7.8	64.8	4.3	4.2	4.2	4.2	1.4	1.5		1.4				
					M	0.6	294.5	27.9	27.9	32.4	32.3	7.8	7.8	64.8	4.2	4.2	4.2	4.2	1.4	1.2	1.4	7.8	10.2	9.8	15.0	
						0.2	285.1	26.3	26.3	34.2	34.2	7.8	7.8	52.9	3.5	3.5	3.5	3.5	18.8	17.7	18.8	9.8	9.8	27.8		
						0.6	288.4	26.3	26.3	34.2	34.2	7.8	7.8	51.5	3.4	3.5	3.5	3.5	18.8	17.7	18.8	9.8	9.8	27.8		
IM11A	Cloudy	Calm	04:20	4.5	S	0.3	277.4	29.2	29.2	19.0	18.9	7.9	7.9	82.2	83.6	5.7	5.8	5.8	6.7	6.3	17.4	7.0	7.1	18.1		
						0.3	89.2	29.2	29.2	18.9	18.9	7.9	7.9	85.0	5.9	5.8	5.8	6.0	6.3							
						0.5	254.3	28.3	28.4	27.1	26.6	7.8	7.8	68.1	4.6	4.5	4.5	4.5	28.3	28.5						
					B	0.8	327.3	28.5	28.4	26.1	26.6	7.8	7.8	67.1	4.5	4.5	4.5	4.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	29.1
						0.2	98.1	29.2	29.2	17.7	17.7	7.9	7.9	86.5	6.0	6.0	6.0	6.0	4.7	4.7	4.7	6.3	6.3	6.3	7.1	
						0.2	98.1	29.2	29.2	17.7	17.7	7.9	7.9	87.0	6.0	6.0	6.0	6.0	4.7	4.7	4.7	6.3	6.3	6.3	7.1	
IM12	Cloudy	Calm	04:29	12.5	S	0.2	98.1	29.2	29.2	17.7	17.7	7.9	7.9	86.5	86.8	6.0	6.0	4.6	4.7	4.7	24.8	9.7	9.9	30.7		
						0.2	98.1	29.2	29.2	17.7	17.7	7.9	7.9	87.0	6.0	6.0	6.0	6.0	4.7	4.7						
						0.4	94.2	27.8	27.7	29.9	30.6	7.8	7.7	49.9	3.3	3.3	3.3	3.3	17.6	16.5		17.6				
					M	0.4	94.2	27.6	27.7	31.3	30.6	7.7	7.7	48.4	3.2	3.3	3.3	3.3	17.6	18.7	17.6	17.6	14.7	14.1	30.7	
						1.1	359.7	27.1	27.1	33.1	33.1	7.7	7.7	41.8	2.8	2.7	2.7	2.7	52.1	53.0	52.1	52.1	66.6	68.3	68.3	
						0.4	292.2	27.1	27.1	33.1	33.1	7.7	7.7	41.2	2.7	2.7	2.7	2.7	51.1	51.1	51.1	51.1	69.9	69.9	69.9	
IM13	Cloudy	Calm	04:54	16.5	S	0.4	119.8	29.1	29.1	15.0	15.0	7.9	7.9	79.7	81.0	5.6	5.7	4.3	5.9	6.0	9.5	7.2	6.8	12.1		
						0.4	119.8	29.1	29.1	15.0	15.0	7.9	7.9	82.2	5.8	5.7	5.7	5.7	6.1	6.0						
						0.5	35.3	28.1	28.2	28.1	28.0	7.8	7.8	44.2	3.0	2.9	2.9	2.9	10.1	10.1						
					M	0.6	108.7	28.2	28.2	27.9	28.0	7.8	7.8	44.1	2.9	2.9	2.9	2.9	10.1	10.1	10.1	10.1	8.9	8.9	12.1	
						0.3	166.5	27.1	27.1	32.9	32.9	7.7	7.7	45.5	3.0	2.9	2.9	2.9	12.5	11.8	12.5	12.5	21.6	20.6	20.6	
						0.5	303.1	27.1	27.1	32.9	32.9	7.7	7.7	43.3	2.9	2.9	2.9	2.9	13.1	13.1	13.1	13.1	19.5	19.5	19.5	
IM14	Cloudy	Calm	05:05	10.5	S	0.4	158.7	29.0	29.0	13.8	13.8	7.9	7.9	85.2	85.6	6.1	6.1	5.5	5.6	5.5	11.0	5.4	5.3	13.9		
						0.4	158.7	29.0	29.0	13.8	13.8	7.9	7.9	86.0	6.1	6.1	6.1	6.1	5.5	5.5						
						0.5	217.9	28.8	28.8	23.8	22.8	7.9	7.9	69.5	4.7	4.9	4.9	4.9	7.2	6.8						
					M	0.7	61.2	28.9	28.8	21.9	22.8	7.9	7.9	73.3	5.0	4.9	4.9	4.9	6.4	6.8	6.8	6.8	8.1	8.0	8.0	
						0.5	45.3	27.2	27.2	32.7	32.7	7.7	7.7	54.0	3.6	3.6	3.6	3.6	20.5	20.5	20.5	20.5	26.8	28.4	28.4	
						0.1	16.6	27.2	27.2	32.7	32.7	7.7	7.7	54.0	3.6	3.6	3.6	3.6	20.6	20.6	20.6	20.6	29.9	29.9	29.9	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
IM15	Cloudy	Calm	06:16	6.0	S	0.2	264.6	29.4	29.4	16.3	15.9	7.9	7.9	79.2	80.2	5.5	5.6	5.3	5.4	5.3	9.5	7.0	7.3	13.6		
						0.7	10.0	29.4	29.4	15.6	7.9	7.9	81.1	80.2	5.7	5.6	5.3	5.2	5.3							
						0.4	327.1	29.4	29.4	20.9	20.9	7.9	7.9	72.9	73.2	5.0	5.0	5.3	6.4	6.5						
					M	0.3	279.0	29.4	29.4	20.9	20.9	7.9	7.9	73.4	73.2	5.0	5.0	5.3	6.6	6.5		9.5	6.5		11.9	11.2
						0.5	49.4	28.6	28.6	25.7	25.8	7.8	7.8	60.9	60.4	4.1	4.1	4.1	16.5	16.7		16.7	16.5		22.3	
						0.2	31.2	28.6	28.6	25.9	25.9	7.8	7.8	59.9	60.4	4.0	4.1	4.1	16.8	16.7		16.7	16.8		22.6	
IM16A	Cloudy	Calm	06:43	7.0	S	0.3	0.7	29.4	29.5	16.5	16.3	7.9	7.9	78.8	79.1	5.5	5.5	5.2	6.5	5.9	12.5	8.7	9.1	18.9		
						0.3	0.7	29.5	29.5	16.2	16.3	7.9	7.9	79.4	79.1	5.5	5.5	5.2	5.4	5.9						
						0.4	279.2	29.3	29.3	20.9	20.8	7.9	7.9	72.4	72.5	4.9	4.9	5.2	17.1	15.9						
					M	0.3	324.7	29.4	29.4	20.7	20.8	7.9	7.9	72.5	72.5	5.0	4.9	5.0	14.7	15.9		12.5	15.9		19.7	20.9
						0.4	8.6	29.3	29.3	21.0	21.0	7.9	7.9	75.0	73.8	5.1	5.0	5.0	14.4	15.6		15.6	14.4		28.1	26.7
						0.7	10.1	29.3	29.3	21.1	21.0	7.9	7.9	72.6	73.8	4.9	5.0	5.0	16.7	15.6		15.6	16.7		25.2	
IM17	Cloudy	Calm	07:47	5.5	S	1.0	351.6	29.5	29.5	16.9	16.9	7.8	7.8	80.0	80.6	5.6	5.6	5.6	6.7	5.9	11.5	12.4	12.5	22.4		
						0.9	337.8	29.5	29.5	17.0	16.9	7.8	7.8	81.2	80.6	5.6	5.6	5.6	5.1	5.9						
						0.8	37.0	29.4	29.4	19.7	19.7	7.8	7.8	79.8	79.8	5.5	5.5	5.5	17.1	17.1						
					B	0.8	38.9	29.4	29.4	19.7	19.7	7.8	7.8	79.7	79.8	5.5	5.5	5.5	17.2	17.1		17.1	17.2		34.5	
						0.9	3.2	29.6	29.6	13.1	13.1	7.8	7.8	77.0	77.3	5.5	5.5	4.6	5.0	4.9		11.5	4.9		8.8	9.0
						0.9	3.2	29.6	29.6	13.1	13.1	7.8	7.8	77.6	77.3	5.5	5.5	4.6	4.9	4.9		11.5	4.9		9.1	9.0
IM18	Cloudy	Calm	07:33	17.5	S	1.2	350.5	28.5	28.5	25.0	25.3	7.7	7.7	54.9	55.0	3.7	3.7	4.6	10.8	10.8	24.5	13.3	12.7	31.5		
						1.5	335.7	28.4	28.5	25.6	25.3	7.7	7.7	55.1	55.0	3.7	3.7	4.6	10.8	10.8						
						0.6	49.8	27.4	27.4	28.8	28.8	7.7	7.7	43.2	42.1	2.9	2.8	2.8	57.1	57.7						
					M	0.9	5.0	27.4	27.4	28.8	28.8	7.7	7.7	41.1	42.1	2.8	2.8	2.8	58.3	57.7		24.5	57.7		70.8	73.0
						0.9	5.0	27.4	27.4	28.8	28.8	7.7	7.7	41.1	42.1	2.8	2.8	2.8	58.3	57.7		24.5	57.7		75.2	73.0
						0.6	49.8	27.4	27.4	28.8	28.8	7.7	7.7	43.2	42.1	2.9	2.8	2.8	57.1	57.7		24.5	57.7		70.8	73.0
IM19	Cloudy	Calm	08:04	18.0	S	0.7	19.4	29.7	29.7	18.0	18.0	7.8	7.8	74.7	74.7	5.1	5.1	4.9	4.5	4.5	24.4	4.5	4.8	16.6		
						1.1	359.2	29.7	29.7	18.1	18.0	7.8	7.8	74.7	74.7	5.1	5.1	4.9	4.5	4.5						
						0.7	339.6	29.1	29.1	22.6	22.5	7.8	7.8	66.3	68.0	4.5	4.6	4.9	6.4	5.7						
					M	1.7	353.9	29.1	29.1	22.5	22.5	7.8	7.8	69.7	68.0	4.7	4.6	4.9	5.0	5.7		24.4	5.7		6.9	7.0
						1.1	345.8	27.2	27.2	29.5	29.5	7.7	7.6	48.9	47.0	3.3	3.2	3.2	59.1	63.1		63.1	59.1		35.6	
						0.2	103.9	27.2	27.2	29.5	29.5	7.6	7.6	45.2	47.0	3.0	3.2	3.2	67.0	63.1		63.1	67.0		40.2	
IM20A	Cloudy	Calm	09:07	5.5	S	0.5	274.7	30.0	30.0	19.4	19.2	7.9	7.9	81.1	81.2	5.5	5.5	5.5	6.5	6.6	10.0	13.6	13.8	18.1		
						4.6	342.7	30.0	30.0	18.9	19.2	7.9	7.9	81.2	81.2	5.5	5.5	5.5	6.7	6.6						
						0.2	197.6	28.6	28.6	25.0	25.0	7.8	7.8	60.8	58.8	4.1	4.0	4.0	13.2	13.5						
					B	0.2	197.6	28.6	28.6	24.9	25.0	7.8	7.8	56.9	58.8	3.8	4.0	4.0	13.8	13.5		10.0	13.5		22.1	22.4
						0.2	197.6	28.6	28.6	24.9	25.0	7.8	7.8	56.9	58.8	3.8	4.0	4.0	13.8	13.5		10.0	13.5		22.1	22.4
						0.2	197.6	28.6	28.6	24.9	25.0	7.8	7.8	56.9	58.8	3.8	4.0	4.0	13.8	13.5		10.0	13.5		22.1	22.4
IM21A	Cloudy	Calm	08:56	5.5	S	0.5	205.7	30.0	30.1	21.5	21.4	7.8	7.8	68.0	72.2	4.6	4.8	4.8	24.3	23.8	22.9	30.4	31.9	37.1		
						0.2	236.9	30.2	30.1	21.4	21.4	7.9	7.8	76.4	72.2	5.1	4.8	4.8	23.2	23.8						
						0.4	342.3	28.3	28.3	26.0	26.0	7.8	7.8	70.9	66.4	4.8	4.5	4.5	21.0	22.1						
					B	0.4	184.9	28.3	28.3	26.0	26.0	7.8	7.8	61.8	66.4	4.2	4.5	4.5	23.3	22.1		22.1	23.3		43.7	
						0.7	171.4	29.9	29.9	21.7	21.5	7.9	7.9	68.7	69.9	4.6	4.7	4.7	26.4	24.1		24.1	26.4		28.8	
						0.7	171.4	29.9	29.9	21.7	21.5	7.9	7.9	68.7	69.9	4.6	4.7	4.7	26.4	24.1		24.1	26.4		28.8	
IM22A	Cloudy	Calm	08:51	5.0	S	0.7	171.4	29.8	29.9	21.3	21.5	7.9	7.9	71.2	69.9	4.8	4.7	4.7	21.9	24.1	27.2	28.8	32.2	42.1		
						0.2	273.0	28.7	28.8	25.4	25.3	7.8	7.8	60.4	58.5	4.1	3.9	3.9	29.1	30.2						
						0.9	229.3	28.8	28.8	25.2	25.3	7.8	7.8	56.6	58.5	3.8	3.9	3.9	31.3	30.2		30.2	31.3		54.9	

Remark: * DA: Depth-Averaged

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

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

Monitoring results obtained at stations E1, E7, IM2 and IM10 during mid-flood tide were discarded as they were sampled outside the planned tidal periods.

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Fine	Calm	17:08	8.0	S	0.3	186.9	27.6	27.6	28.9	28.9	7.9	7.9	73.9	74.1	5.0	5.0	4.5	2.0	2.0	2.2	2.1	5.5		
						0.5	207.6	27.5	27.6	28.9	28.9	7.9	7.9	74.3	74.1	5.0	5.0	4.5	2.1	2.0	1.9	2.1			
					M	0.3	190.0	26.8	26.8	30.2	30.2	7.8	7.8	57.9	58.1	3.9	3.9	3.2	3.2	3.2	3.3	3.3		6.2	6.0
						0.5	198.5	26.8	26.8	30.2	30.2	7.8	7.8	58.4	58.1	4.0	3.9	3.2	3.2	3.2	3.3	3.3		5.7	5.7
					B	0.4	171.7	26.5	26.6	31.8	31.3	7.7	7.8	47.2	47.5	3.2	3.2	3.2	3.2	3.2	5.9	5.4		8.8	8.5
						0.3	151.6	26.7	26.6	30.8	31.3	7.8	7.8	47.7	47.5	3.2	3.2	3.2	3.2	3.2	4.9	5.4		8.2	8.5
E2	Fine	Calm	12:07	9.5	S	0.4	162.3	28.2	28.2	28.2	28.2	8.0	8.0	107.8	109.5	7.2	7.3	6.7	1.8	1.7	2.7	2.8	6.1		
						0.2	135.5	28.3	28.2	28.2	28.2	8.0	8.0	111.2	109.5	7.4	7.3	6.7	1.6	1.7	2.9	2.9			
					M	0.5	97.3	27.9	27.9	28.9	28.9	7.9	7.9	89.1	90.7	6.0	6.1	2.8	2.8	2.8	2.9	2.8		5.6	5.6
						0.5	183.7	27.9	27.9	28.9	28.9	7.9	7.9	92.3	90.7	6.2	6.1	2.8	2.8	2.8	2.6	2.8		5.5	5.5
					B	0.1	260.1	26.7	26.7	32.8	32.8	7.7	7.7	44.5	41.8	3.0	2.8	2.8	2.8	2.8	7.7	8.3		9.6	10.0
						0.1	260.1	26.7	26.7	32.8	32.8	7.7	7.7	39.0	41.8	2.6	2.8	2.8	2.8	2.8	9.0	8.3		10.4	10.4
E3	Fine	Calm	13:05	17.0	S	0.3	310.4	28.8	28.7	26.3	26.8	7.9	7.9	84.8	87.0	5.7	5.8	4.8	2.4	2.3	2.7	2.6	5.2		
						0.3	310.4	28.5	28.7	27.2	26.8	7.9	7.9	89.1	87.0	5.9	5.8	4.8	2.3	2.3	2.4	2.4			
					M	0.3	130.6	27.2	27.2	31.1	31.0	7.8	7.8	54.9	55.6	3.7	3.7	3.7	3.7	3.7	4.2	4.2		4.4	4.7
						0.3	130.6	27.2	27.2	30.9	31.0	7.8	7.8	56.2	55.6	3.8	3.7	3.7	3.7	3.7	4.1	4.2		4.9	4.7
					B	0.3	149.0	25.9	26.0	33.5	33.5	7.7	7.7	45.7	44.9	3.1	3.0	3.0	3.0	3.0	7.3	7.3		8.6	8.4
						0.1	168.7	26.0	26.0	33.5	33.5	7.7	7.7	44.1	44.9	3.0	3.0	3.0	3.0	3.0	7.4	7.3		8.2	8.4
E4	Cloudy	Calm	16:00	11.0	S	0.8	206.0	29.6	29.4	20.7	21.2	7.6	7.6	67.4	74.4	4.6	5.1	4.0	6.1	5.7	3.4	3.7	21.7		
						0.8	206.0	29.2	29.4	21.7	21.2	7.6	7.6	81.5	74.4	5.5	5.1	4.0	5.3	5.7	3.9	3.7			
					M	0.9	222.9	26.7	26.7	31.9	31.9	7.4	7.4	43.0	43.2	2.9	2.9	2.9	2.9	2.9	26.8	25.0		23.1	22.9
						1.7	221.4	26.7	26.7	31.9	31.9	7.4	7.4	43.4	43.2	2.9	2.9	2.9	2.9	2.9	23.2	25.0		22.7	22.9
					B	0.8	165.0	26.5	26.5	32.3	32.3	7.4	7.4	43.3	42.8	2.9	2.9	2.9	2.9	2.9	89.8	79.5		39.8	38.5
						0.4	207.4	26.5	26.5	32.3	32.3	7.4	7.4	42.2	42.8	2.8	2.9	2.9	2.9	2.9	69.1	79.5		37.1	37.1
E5	Cloudy	Calm	14:59	5.5	S	0.5	190.6	29.7	29.8	18.4	18.2	7.7	7.7	82.3	83.2	5.7	5.7	5.7	3.5	3.4	4.2	3.8	5.7		
						0.5	188.0	29.9	29.8	18.0	18.2	7.7	7.7	84.2	83.2	5.8	5.7	5.7	3.3	3.4	3.4	3.4			
					B	1.3	176.4	27.9	27.8	26.4	26.6	7.6	7.6	71.7	64.7	4.9	4.4	4.4	4.4	4.4	6.5	7.2		7.5	7.5
						0.7	133.8	27.8	27.8	26.8	26.6	7.6	7.6	57.8	64.7	3.9	4.4	4.4	4.4	4.4	7.8	7.2		7.5	7.5
					S	0.3	121.0	29.3	29.3	18.3	18.2	7.7	7.7	71.7	72.8	5.0	5.0	5.0	5.0	5.0	5.8	6.0		6.0	6.2
						0.3	121.0	29.3	29.3	18.1	18.2	7.7	7.7	73.9	72.8	5.1	5.0	5.0	5.0	5.0	6.3	6.0		6.3	6.2
E6	Cloudy	Calm	12:57	6.5	M	0.5	206.9	28.7	28.7	20.9	21.0	7.7	7.6	70.4	70.7	4.8	4.9	5.0	5.0	4.9	5.1	5.2	5.2		
						0.1	278.8	28.7	28.7	21.1	21.0	7.6	7.6	71.1	70.7	4.9	4.9	4.9	4.8	4.9	5.2	5.2			
					B	0.5	38.1	28.3	28.3	23.3	23.1	7.7	7.7	69.2	68.3	4.7	4.7	4.7	4.7	4.7	6.3	6.0		4.6	4.4
						0.1	177.0	28.3	28.3	23.0	23.1	7.6	7.7	67.5	68.3	4.6	4.7	4.7	4.7	4.7	5.6	6.0		4.1	4.4
					S	0.1	185.8	29.7	29.7	17.7	17.7	7.6	7.6	80.4	80.7	5.5	5.6	5.6	5.6	5.6	3.8	3.9		3.5	3.8
						0.4	246.9	29.7	29.7	17.7	17.7	7.6	7.6	81.1	80.7	5.6	5.6	5.6	5.6	5.6	3.9	3.9		4.1	4.1
E7A	Cloudy	Calm	12:05	5.5	B	0.7	169.2	28.5	28.5	23.1	22.9	7.6	7.6	70.8	70.4	4.8	4.8	4.8	5.3	5.4	5.5	5.8	4.8		
						1.1	78.1	28.5	28.5	22.8	22.9	7.6	7.6	70.0	70.4	4.8	4.8	4.8	4.8	4.8	5.5	5.4		6.0	5.8
					S	0.5	176.0	29.2	29.2	27.6	27.6	8.0	8.0	99.8	101.1	6.6	6.7	6.7	6.7	6.7	1.8	1.8		1.6	1.5
						0.3	158.1	29.3	29.2	27.6	27.6	8.0	8.0	102.3	101.1	6.7	6.7	6.7	6.7	6.7	1.7	1.8		1.4	1.5
					M	0.3	120.7	26.4	26.4	33.7	33.6	7.8	7.8	39.3	39.1	2.6	2.6	2.6	2.6	2.6	2.0	2.0		3.8	3.7
						0.6	136.5	26.4	26.4	33.5	33.6	7.8	7.8	39.0	39.1	2.6	2.6	2.6	2.6	2.6	2.0	2.0		3.5	3.5
B	0.5	130.7	24.8	24.8	34.2	34.2	7.8	7.8	41.5	40.7	2.8	2.8	2.8	2.8	2.8	9.1	9.7	14.2	14.5						
	0.3	93.3	24.8	24.8	34.2	34.2	7.8	7.8	39.9	40.7	2.7	2.8	2.8	2.8	2.8	10.3	9.7	14.7	14.5						
F1	Fine	Calm	16:16	19.5	S	0.3	137.1	28.6	28.6	28.4	28.4	8.2	8.2	160.0	161.5	10.6	10.7	6.9	2.1	2.2	3.9	3.5	7.4		
						0.2	110.5	28.6	28.6	28.4	28.4	8.2	8.2	163.1	161.5	10.8	10.7	6.9	2.3	2.2	3.1	3.1			
					M	0.4	88.4	25.9	25.9	33.9	33.9	7.8	7.8	44.7	45.1	3.0	3.0	3.0	3.0	3.0	3.9	3.6		5.9	5.9
						0.4	88.4	25.9	25.9	33.9	33.9	7.8	7.8	45.6	45.1	3.1	3.0	3.0	3.0	3.0	3.3	3.6		5.8	5.9
					B	0.0	351.0	24.8	24.7	34.2	34.2	7.8	7.7	43.0	42.0	2.9	2.9	2.9	2.9	2.9	7.8	8.5		13.0	12.8
						0.2	82.8	24.7	24.7	34.2	34.2	7.7	7.7	40.9	42.0	2.8	2.9	2.9	2.9	2.9	9.1	8.5		12.5	12.8

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Fine	Calm	14:29	17.5	S	0.5	135.3	29.6	29.6	27.4	27.4	8.2	8.2	141.8	143.8	9.3	9.4	7.3	1.5	1.5	3.1	3.4		
						0.5	135.3	29.6	29.6	27.4	27.4	8.2	8.2	145.9	143.8	9.6	9.4	7.3	1.5	1.5	3.6	3.4		
					M	0.4	94.8	27.9	27.9	33.2	33.2	8.0	8.0	77.9	78.5	5.1	5.1	5.1	5.1	5.1	0.5	0.5	4.0	4.1
						0.4	94.8	27.9	27.9	33.2	33.2	8.0	8.0	79.1	78.5	5.2	5.1	5.1	5.1	5.1	0.5	0.5	4.1	4.1
					B	0.4	130.6	25.3	25.3	34.1	34.1	7.8	7.8	44.2	42.5	3.0	2.9	2.9	2.9	2.9	5.7	6.1	8.0	7.7
						0.5	126.3	25.3	25.3	34.2	34.1	7.8	7.8	40.8	42.5	2.8	2.9	2.9	2.9	2.9	6.4	6.1	7.3	7.7
F4	Fine	Calm	12:31	14.0	S	0.3	245.3	28.5	28.5	28.4	28.4	8.0	8.0	110.8	113.4	7.4	7.5	5.3	2.1	2.1	2.1	3.2		
						0.2	199.6	28.5	28.5	28.4	28.4	8.0	8.0	116.1	113.4	7.7	7.5	5.3	2.0	2.1	3.2	3.2		
					M	0.1	134.7	27.2	27.1	31.8	32.0	7.7	7.7	47.0	44.7	3.1	3.0	3.0	3.0	3.0	8.3	8.5	5.8	5.8
						0.3	145.5	27.0	27.1	32.1	32.0	7.7	7.7	42.5	44.7	2.8	3.0	3.0	3.0	3.0	8.8	8.5	5.8	5.8
					B	0.1	118.9	26.4	26.3	33.4	33.4	7.7	7.7	40.6	39.4	2.7	2.6	2.6	2.6	2.6	6.5	6.4	8.0	8.8
						0.1	125.9	26.3	26.3	33.4	33.4	7.7	7.7	38.3	39.4	2.6	2.6	2.6	2.6	2.6	6.4	6.4	9.5	8.8
F5	Cloudy	Calm	15:32	5.5	S	1.7	181.9	28.9	28.9	23.7	23.7	7.6	7.6	66.9	69.2	4.5	4.7	4.7	5.8	5.1	4.2	4.6		
						1.7	181.9	28.9	28.9	23.7	23.7	7.6	7.6	71.6	69.2	4.8	4.7	4.7	4.7	5.1	4.9	4.6		
					B	0.4	229.1	27.1	27.1	30.3	30.4	7.5	7.5	72.7	68.4	4.9	4.6	4.6	4.6	4.6	7.0	7.0	8.8	8.8
						0.6	279.2	27.0	27.1	30.5	30.4	7.5	7.5	64.1	68.4	4.3	4.6	4.6	4.6	4.6	7.0	7.0	8.7	8.8
F6	Cloudy	Calm	14:22	14.5	S	1.1	134.1	29.9	29.9	18.5	18.5	7.7	7.7	78.2	79.6	5.4	5.4	4.7	4.4	3.9	3.3	3.7		
						1.1	134.1	30.0	29.9	18.4	18.5	7.7	7.7	81.1	79.6	5.5	5.4	5.4	4.7	3.9	3.4	3.7		
					M	0.7	116.7	27.5	27.6	26.4	26.1	7.6	7.6	57.4	58.3	3.9	4.0	4.0	4.0	4.0	12.6	13.4	12.6	16.1
						0.4	133.9	27.8	27.6	25.7	26.1	7.6	7.6	59.2	58.3	4.0	4.0	4.0	4.0	4.0	14.2	13.4	16.5	16.1
					B	0.5	127.9	26.5	26.5	29.6	29.6	7.6	7.6	55.1	54.2	3.8	3.7	3.7	3.7	3.7	18.2	18.9	21.5	21.5
						0.3	333.3	26.5	26.5	29.6	29.6	7.6	7.6	53.4	54.2	3.6	3.7	3.7	3.7	3.7	19.6	18.9	21.5	21.5
IM1	Fine	Calm	16:35	9.5	S	0.3	67.2	28.7	28.7	30.4	30.4	8.1	8.1	116.7	118.5	7.6	7.7	6.1	2.2	2.2	4.8	4.5		
						0.3	18.7	28.7	28.7	30.4	30.4	8.1	8.1	120.4	118.5	7.9	7.7	7.7	6.1	2.2	2.2	4.1	4.5	
					M	0.3	53.1	27.7	27.8	32.0	32.0	7.8	7.8	67.7	67.4	4.5	4.4	4.4	4.4	4.4	2.5	2.6	4.5	4.4
						0.3	53.1	27.9	27.8	32.0	32.0	7.8	7.8	67.1	67.4	4.4	4.4	4.4	4.4	4.4	2.7	2.6	4.2	4.4
					B	0.3	64.1	26.9	27.0	32.7	32.7	7.8	7.8	60.8	60.7	4.0	4.0	4.0	4.0	4.0	1.7	1.7	4.3	4.4
						0.1	49.2	27.0	27.0	32.6	32.7	7.8	7.8	60.6	60.7	4.0	4.0	4.0	4.0	4.0	1.7	1.7	4.5	4.4
IM2	Fine	Calm	16:57	11.0	S	0.7	191.2	27.9	27.9	28.5	28.5	7.9	7.9	82.5	83.5	5.5	5.6	5.1	1.8	1.7	4.2	4.2		
						0.7	191.2	27.9	27.9	28.5	28.5	7.9	7.9	84.4	83.5	5.7	5.6	5.6	5.1	1.7	1.7	4.1	4.2	
					M	1.0	183.7	27.1	27.1	29.5	29.5	7.8	7.8	67.7	68.9	4.6	4.7	4.7	4.7	4.7	2.7	2.5	4.2	4.5
						1.0	183.7	27.1	27.1	29.5	29.5	7.8	7.8	70.1	68.9	4.7	4.7	4.7	4.7	4.7	2.3	2.5	4.7	4.5
					B	0.2	210.1	25.7	25.6	33.9	33.9	7.7	7.7	37.6	36.5	2.5	2.5	2.5	2.5	2.5	10.5	10.9	17.0	17.3
						0.2	210.1	25.6	25.6	33.9	33.9	7.7	7.7	35.3	36.5	2.4	2.5	2.5	2.5	2.5	11.2	10.9	17.5	17.3
IM3	Fine	Calm	15:26	14.5	S	0.4	118.8	29.0	29.0	28.5	28.5	8.0	8.0	112.1	114.6	7.4	7.5	4.9	1.8	1.8	5.3	5.5		
						0.5	133.6	29.0	29.0	28.6	28.5	8.0	8.0	117.0	114.6	7.7	7.5	7.5	4.9	1.7	1.7	5.6	5.5	
					M	0.1	122.1	26.2	26.2	33.8	33.9	7.7	7.7	34.2	34.1	2.3	2.3	2.3	2.3	2.3	5.8	5.6	8.4	8.2
						0.3	127.6	26.1	26.2	33.9	33.9	7.7	7.7	33.9	34.1	2.3	2.3	2.3	2.3	2.3	5.4	5.6	8.0	8.2
					B	0.2	50.9	25.8	25.8	34.0	34.0	7.7	7.7	37.1	36.0	2.5	2.4	2.4	2.4	2.4	8.6	8.9	14.4	13.8
						0.2	50.9	25.8	25.8	34.0	34.0	7.7	7.7	34.9	36.0	2.3	2.4	2.4	2.4	2.4	9.3	8.9	13.2	13.8
IM4	Fine	Calm	15:06	16.0	S	0.3	126.5	28.5	28.5	27.5	27.5	7.9	7.9	82.8	83.7	5.5	5.6	4.1	1.8	1.7	3.8	3.7		
						0.4	135.7	28.5	28.5	27.6	27.5	7.9	7.9	84.7	83.7	5.6	5.6	5.6	4.1	1.6	1.6	3.6	3.7	
					M	0.2	178.1	26.6	26.6	32.6	32.7	7.8	7.8	39.6	39.9	2.7	2.7	2.7	2.7	2.7	7.7	7.5	8.6	9.0
						0.2	175.9	26.6	26.6	32.8	32.7	7.8	7.8	40.2	39.9	2.7	2.7	2.7	2.7	2.7	7.3	7.5	9.4	9.0
					B	0.5	100.8	26.1	26.1	33.8	33.8	7.7	7.7	37.2	36.4	2.5	2.4	2.4	2.4	2.4	16.6	16.6	26.1	25.6
						0.2	93.0	26.1	26.1	33.8	33.8	7.7	7.7	35.5	36.4	2.4	2.4	2.4	2.4	2.4	16.7	16.6	25.0	25.6
IM5	Fine	Calm	14:48	15.0	S	0.4	104.0	28.8	28.8	27.8	27.8	8.2	8.2	147.3	152.6	9.7	10.1	6.9	1.5	1.7	2.2	2.2		
						0.4	104.0	28.8	28.8	27.8	27.8	8.2	8.2	157.9	152.6	10.5	10.1	10.1	6.9	1.8	1.7	2.2	2.2	
					M	0.1	314.7	27.3	27.2	32.2	32.3	7.8	7.8	54.7	55.1	3.6	3.7	3.7	3.7	3.7	1.4	1.3	3.0	3.2
						0.4	71.2	27.2	27.2	32.3	32.3	7.8	7.8	55.6	55.1	3.7	3.7	3.7	3.7	3.7	1.2	1.3	3.4	3.2
					B	0.2	98.7	25.4	25.4	34.1	34.1	7.8	7.8	42.9	41.7	2.9	2.8	2.8	2.8	2.8	8.9	8.9	12.4	12.1
						0.2	98.7	25.4	25.4	34.1	34.1	7.8	7.8	40.4	41.7	2.7	2.8	2.8	2.8	2.8	8.9	8.9	11.8	12.1

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average
IM6	Fine	Calm	14:17	16.0	S	0.2	150.7	29.1	29.1	27.4	27.4	8.2	8.2	134.5	137.7	8.9	9.1	7.1	1.6	1.6	3.3	3.4	6.2
						0.2	120.2	29.2	27.5	27.4	8.2	8.2	140.9	137.7	9.3	9.1	7.1	1.6	1.6	3.5	3.4		
						0.3	59.9	27.8	27.8	33.7	33.7	8.0	8.0	76.2	77.5	5.0	5.0	7.1	0.6	0.6	3.3	3.3	
					0.4	115.0	27.8	27.8	33.7	33.7	8.0	8.0	78.7	77.5	5.1	5.0	2.8	0.6	0.6	3.2	3.3		
					M	0.1	184.2	25.2	25.2	34.2	34.2	7.7	7.7	43.5	41.2	3.0	2.8	2.8	8.4	8.9	12.2	12.0	
						0.1	184.2	25.2	25.2	34.2	34.2	7.7	7.7	38.9	41.2	2.6	2.8	2.8	9.4	8.9	11.8	12.0	
IM7	Fine	Calm	13:49	13.0	S	0.2	105.4	28.3	28.4	28.8	28.7	8.0	8.0	90.8	94.8	6.0	6.3	5.4	1.4	1.4	3.1	3.3	4.5
						0.6	76.0	28.4	28.5	28.7	8.0	8.0	98.8	94.8	6.6	6.3	5.4	1.5	1.4	3.5	3.3		
						0.4	77.5	27.4	27.5	33.1	33.1	7.9	7.9	68.6	69.2	4.5	4.6	4.6	0.7	0.7	3.4	3.5	
					M	0.4	77.5	27.5	27.5	33.1	33.1	7.9	7.9	69.9	69.2	4.6	4.6	3.3	0.6	0.6	3.6	3.5	
						0.2	72.8	25.8	25.8	34.0	34.0	7.8	7.8	50.4	49.4	3.4	3.3	3.3	4.7	4.7	6.8	6.6	
					B	0.2	119.4	25.8	25.8	34.0	34.0	7.8	7.8	48.5	49.4	3.3	3.3	3.3	4.7	4.7	6.3	6.6	
0.2	119.4	25.8	25.8	34.0		34.0	7.8	7.8	48.5	49.4	3.3	3.3	3.3	4.7	4.7	6.3	6.6						
IM8	Fine	Calm	13:59	14.5	S	0.4	141.8	29.0	28.9	27.9	28.1	8.1	8.1	115.0	115.4	7.6	7.6	6.2	1.6	1.6	2.2	2.2	8.4
						0.4	124.8	28.8	28.2	28.1	8.1	8.1	115.9	115.4	7.7	7.6	6.2	1.6	1.6	2.2	2.2		
						0.2	50.9	27.6	27.6	33.4	33.4	7.9	7.9	72.2	73.2	4.7	4.8	4.8	0.9	0.8	6.6	7.0	
					M	0.2	50.9	27.6	27.6	33.4	33.4	7.9	7.9	74.1	73.2	4.9	4.8	3.0	0.7	0.7	7.3	7.0	
						0.2	94.2	25.4	25.4	34.1	34.1	7.8	7.8	45.9	43.9	3.1	3.0	3.0	9.2	10.0	16.8	16.0	
					B	0.4	93.9	25.4	25.4	34.1	34.1	7.8	7.8	41.8	43.9	2.8	3.0	3.0	10.8	10.0	15.1	16.0	
0.4	142.9	28.9	28.9	25.3		25.3	7.9	7.9	93.8	93.8	6.3	6.3	3.0	2.0	2.0	4.4	4.7						
IM9	Fine	Calm	13:29	15.0	S	0.4	139.4	29.0	29.0	25.1	25.2	7.9	7.9	94.1	94.0	6.3	6.3	5.9	2.0	2.0	4.9	4.7	10.0
						0.5	164.2	28.0	28.0	29.5	29.5	7.9	7.9	80.4	82.2	5.3	5.5	5.9	2.3	2.2	5.4	5.5	
						0.5	164.2	28.0	28.0	29.4	29.5	7.9	7.9	83.9	82.2	5.6	5.5	5.9	2.1	2.2	5.6	5.5	
					M	0.2	152.1	26.1	26.1	33.4	33.5	7.8	7.8	47.0	45.4	3.2	3.0	3.0	10.5	11.2	20.8	19.8	
						0.2	152.1	26.0	26.1	33.5	33.5	7.8	7.8	43.7	45.4	2.9	3.0	3.0	11.9	11.2	18.8	19.8	
					B	0.4	142.9	28.9	28.9	25.3	25.3	7.9	7.9	93.8	93.8	6.3	6.3	3.0	2.0	2.0	4.4	4.7	
0.3	139.4	29.0	29.0	25.1		25.2	7.9	7.9	94.1	94.0	6.3	6.3	5.9	2.0	2.0	4.9	4.7						
IM10	Cloudy	Calm	17:05	11.0	S	0.1	147.2	27.7	27.7	28.9	28.8	7.7	7.7	71.5	71.4	4.8	4.8	3.8	10.3	9.1	10.0	10.0	21.9
						1.1	256.6	27.7	27.7	28.8	28.8	7.7	7.7	71.2	71.4	4.8	4.8	3.8	7.9	9.1	10.0	10.0	
						0.8	132.0	26.1	26.1	33.3	33.3	7.5	7.5	40.6	40.6	2.7	2.7	2.7	17.0	16.3	16.2	15.6	
					M	0.8	132.0	26.1	26.1	33.3	33.3	7.5	7.5	40.6	40.6	2.7	2.7	2.7	15.6	16.3	14.9	15.6	
						0.7	284.2	25.8	25.8	33.8	33.8	7.6	7.5	46.0	45.9	3.1	3.1	3.1	28.3	28.3	42.1	40.3	
					B	0.7	314.1	25.8	25.8	33.8	33.8	7.5	7.5	45.8	45.9	3.1	3.1	3.1	28.3	28.3	38.4	40.3	
0.5	119.3	28.6	28.7	24.9		24.9	7.7	7.7	72.6	73.5	4.9	5.0	5.0	37.7	33.5	59.6	60.7						
IM11A	Cloudy	Calm	16:54	4.5	S	0.5	119.3	28.7	28.7	24.8	24.9	7.7	7.7	74.3	73.5	5.0	5.0	5.0	29.3	33.5	61.7	60.7	61.2
						0.2	35.5	28.3	28.3	26.1	26.0	7.7	7.7	70.7	69.9	4.8	4.7	4.7	53.7	55.8	60.5	61.7	
						0.8	89.4	28.3	28.3	25.8	26.0	7.7	7.7	69.1	69.9	4.7	4.7	4.7	57.9	55.8	62.8	61.7	
					M	1.9	180.8	28.6	28.6	24.3	24.1	7.7	7.7	73.6	74.4	5.0	5.0	4.0	8.4	7.5	6.1	6.2	
						1.9	180.8	28.6	28.6	23.9	24.1	7.7	7.7	75.2	74.4	5.1	5.0	4.0	6.5	7.5	6.2	6.2	
					B	1.2	141.1	26.8	26.8	31.3	31.2	7.5	7.5	45.0	45.0	3.0	3.0	4.0	81.7	80.6	40.2	41.0	
1.6	143.9	26.8	26.8	31.0		31.2	7.5	7.5	45.1	45.0	3.0	3.0	4.0	79.5	80.6	41.7	41.0						
IM12	Cloudy	Calm	16:45	12.5	S	0.8	170.5	26.5	26.5	32.4	32.4	7.5	7.5	42.0	41.7	2.8	2.8	2.8	204.9	203.3	85.7	87.9	45.0
						0.6	179.6	26.5	26.5	32.4	32.4	7.5	7.5	41.4	41.7	2.8	2.8	2.8	201.7	203.3	90.0	87.9	
						1.2	175.5	30.2	30.0	20.1	20.7	7.7	7.8	79.4	83.9	5.4	5.7	4.5	3.7	3.4	4.5	4.6	
					M	1.2	175.5	30.2	30.0	20.1	20.7	7.7	7.8	88.3	83.9	6.0	6.0	4.5	3.2	3.4	4.7	4.7	
						0.7	193.6	27.0	27.0	30.7	30.5	7.5	7.5	49.9	50.8	3.4	3.4	3.4	7.1	6.6	10.3	10.3	
					B	0.7	205.8	27.1	27.0	30.3	30.5	7.5	7.5	51.7	50.8	3.5	3.4	3.4	6.0	6.6	10.2	10.3	
0.4	216.8	26.6	26.6	32.2		32.1	7.5	7.5	46.9	44.8	3.1	3.0	3.0	189.7	207.1	68.1	62.2						
IM13	Cloudy	Calm	16:21	16.5	S	0.8	261.1	28.9	29.0	22.9	22.9	7.6	7.6	68.4	72.9	4.6	4.9	4.0	5.0	4.9	7.8	7.7	25.7
						0.9	209.1	29.0	29.0	22.8	22.9	7.7	7.6	77.4	72.9	5.3	4.9	4.0	4.7	4.9	7.5	7.7	
						0.8	205.2	26.8	26.8	31.4	31.5	7.4	7.4	45.1	44.4	3.0	3.0	4.0	18.6	18.8	11.2	11.2	
					M	0.8	233.6	26.7	26.8	31.7	31.5	7.4	7.4	43.7	44.4	2.9	3.0	4.0	18.9	18.8	11.1	11.2	
						0.8	195.7	26.5	26.5	32.3	32.3	7.5	7.4	43.7	43.0	2.9	2.9	2.9	85.2	82.0	31.1	29.7	
					B	1.5	224.7	26.6	26.6	32.3	32.3	7.4	7.4	42.3	43.0	2.8	2.9	2.9	78.8	82.0	28.2	29.7	
1.5	224.7	26.6	26.6	32.3		32.3	7.4	7.4	42.3	43.0	2.8	2.9	2.9	78.8	82.0	28.2	29.7						
IM14	Cloudy	Calm	16:10	10.5	S	0.8	261.1	28.9	29.0	22.9	22.9	7.6	7.6	68.4	72.9	4.6	4.9	4.0	5.0	4.9	7.8	7.7	16.2
						0.9	209.1	29.0	29.0	22.8	22.9	7.7	7.6	77.4	72.9	5.3	4.9	4.0	4.7	4.9	7.5	7.7	
						0.8	205.2	26.8	26.8	31.4	31.5	7.4	7.4	45.1	44.4	3.0	3.0	4.0	18.6	18.8	11.2	11.2	
					M	0.8	233.6	26.7	26.8	31.7	31.5	7.4	7.4	43.7	44.4	2.9	3.0	4.0	18.9	18.8	11.1	11.2	
						0.8	195.7	26.5	26.5	32.3	32.3	7.5	7.4	43.7	43.0	2.9	2.9	2.9	85.2	82.0	31.1	29.7	
					B	1.5	224.7	26.6	26.6	32.3	32.3	7.4	7.4	42.3	43.0	2.8	2.9	2.9	78.8	82.0	28.2	29.7	
1.5	224.7	26.6	26.6	32.3		32.3	7.4	7.4	42.3	43.0	2.8	2.9	2.9	78.8	82.0	28.2	29.7						

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM15	Cloudy	Calm	15:09	6.5	S	1.2	207.0	30.1	30.1	18.4	18.4	7.7	7.7	81.9	84.1	5.6	5.7	5.3	3.3	3.2	3.3	3.6		
						0.3	217.5	30.1	18.4	18.4	7.7	7.7	86.4	84.1	5.9	5.7	5.3	3.1	3.2	3.9	3.6			
						0.8	190.6	29.2	28.9	24.2	24.2	7.6	7.6	73.3	70.9	4.9	4.8	5.3	5.1	5.0	5.9	5.7		
					M	0.7	242.4	28.5	27.4	25.0	25.0	7.6	7.6	68.5	65.8	4.6	4.8	3.8	4.9	4.9	5.4	5.4	19.8	20.7
						0.5	191.4	27.4	27.4	28.9	29.0	7.6	7.5	59.3	55.8	4.0	3.8	3.8	15.6	17.2	18.8	21.6	21.6	
						0.4	162.3	27.4	27.4	29.1	29.0	7.5	7.5	52.2	55.8	3.5	3.8	3.8	18.8	17.2	21.6	21.6	21.6	
IM16A	Cloudy	Calm	14:45	7.5	S	0.6	76.9	29.8	29.8	18.1	18.2	7.7	7.7	84.9	85.1	5.8	5.8	5.3	3.1	3.0	2.8	2.9		
						1.0	131.6	29.7	29.8	18.2	18.2	7.7	7.7	85.2	85.1	5.9	5.8	5.3	3.0	3.0	2.9	2.9		
						0.2	252.0	28.4	28.4	22.8	22.7	7.6	7.6	68.1	68.1	4.7	4.7	4.7	5.4	5.3	4.5	4.6		
					M	0.5	221.3	28.4	28.4	22.7	22.7	7.6	7.6	68.1	68.1	4.7	4.7	4.7	5.3	5.3	4.7	4.7	22.1	23.9
						0.2	1.4	27.5	27.4	28.6	28.8	7.6	7.6	60.2	55.8	4.1	3.8	3.8	19.8	22.1	22.1	23.9	23.9	
						0.2	1.4	27.4	27.4	29.1	28.8	7.6	7.6	51.3	55.8	3.5	3.8	3.8	24.4	22.1	25.6	25.6	25.6	
IM17	Cloudy	Calm	13:50	5.5	S	0.2	204.9	29.2	29.3	19.2	19.0	7.7	7.7	74.4	76.3	5.1	5.3	5.3	9.8	8.8	9.5	9.2		
						2.2	152.3	29.4	29.3	18.8	19.0	7.7	7.7	78.1	76.3	5.4	5.3	5.3	7.8	8.8	8.9	9.2		
						1.1	172.7	28.6	28.5	21.8	22.0	7.7	7.7	75.1	75.2	5.2	5.2	5.2	12.1	12.1	16.1	15.1		
					B	0.2	136.0	28.5	28.5	22.2	22.0	7.6	7.6	75.2	75.2	5.2	5.2	5.2	12.1	12.1	14.0	15.1		
						0.2	195.7	28.9	28.9	20.4	20.3	7.6	7.6	72.4	72.9	5.0	5.0	4.7	8.5	8.4	7.7	7.9		
						0.2	195.7	29.0	28.9	20.2	20.3	7.6	7.6	73.4	72.9	5.1	5.0	4.7	8.2	8.4	8.0	8.0		
IM18	Cloudy	Calm	14:00	17.5	M	0.3	63.2	28.1	28.1	23.9	23.9	7.6	7.6	63.0	63.9	4.3	4.4	4.4	7.5	6.7	7.9	8.0		
						0.3	106.4	28.1	28.1	23.8	23.9	7.6	7.6	64.8	63.9	4.4	4.4	4.4	5.9	6.7	8.1	8.0		
						0.5	172.8	27.3	27.2	27.6	27.7	7.5	7.5	54.4	53.3	3.7	3.6	3.6	30.5	31.1	23.3	24.5		
					B	0.5	165.9	27.2	27.2	27.8	27.7	7.5	7.5	52.3	53.3	3.6	3.6	3.6	31.7	31.1	25.6	25.6		
						0.8	203.9	29.3	29.1	21.0	21.3	7.6	7.6	70.2	69.8	4.8	4.8	4.4	11.0	10.2	10.6	10.5		
						0.8	203.9	28.9	28.9	21.6	21.3	7.6	7.6	69.4	69.8	4.8	4.8	4.4	9.3	10.2	10.4	10.5		
IM19	Cloudy	Calm	13:33	18.0	M	1.0	190.6	28.1	28.1	24.8	24.8	7.6	7.6	59.5	59.6	4.1	4.1	4.1	31.9	31.1	30.4	30.1		
						0.8	186.3	28.1	28.1	24.8	24.8	7.6	7.6	59.7	59.6	4.1	4.1	4.1	30.4	31.1	29.8	30.1		
						0.3	77.4	27.0	27.0	28.2	28.2	7.6	7.6	56.6	55.9	3.9	3.8	3.8	27.9	28.2	36.5	36.1		
					B	0.3	77.4	27.0	27.0	28.2	28.2	7.5	7.5	55.3	55.9	3.8	3.8	3.8	28.4	28.2	35.6	36.1		
						1.3	265.7	29.5	29.6	17.5	17.2	7.7	7.7	75.0	75.2	5.2	5.2	5.2	6.4	6.2	5.7	5.7		
						0.6	270.0	29.6	29.6	17.0	17.2	7.7	7.7	75.5	75.2	5.2	5.2	5.2	6.0	6.2	5.7	5.7		
IM20A	Cloudy	Calm	12:18	5.0	B	0.7	210.0	28.4	28.3	23.8	24.0	7.6	7.6	69.3	66.5	4.7	4.5	4.5	13.3	14.7	15.0	15.9		
						0.3	184.5	28.3	28.3	24.1	24.0	7.6	7.6	63.7	66.5	4.3	4.5	4.5	16.0	14.7	16.7	15.9		
						0.7	199.9	29.5	29.5	18.4	18.8	7.7	7.7	72.7	72.6	5.0	5.0	5.0	15.5	14.9	12.2	11.8		
					S	0.7	199.9	29.4	29.5	19.1	18.8	7.7	7.7	72.5	72.6	5.0	5.0	5.0	14.3	14.9	11.4	11.8		
						0.4	229.8	28.2	28.2	24.4	24.4	7.6	7.6	60.8	60.4	4.1	4.1	4.1	50.0	51.2	29.9	28.7		
						0.4	229.8	28.2	28.2	24.4	24.4	7.6	7.6	60.1	60.4	4.1	4.1	4.1	52.4	51.2	27.4	28.7		
IM22A	Cloudy	Calm	12:32	5.0	S	0.9	197.3	30.4	30.4	21.9	21.7	7.7	7.7	75.1	74.8	5.0	5.0	5.0	30.3	31.5	16.7	16.4		
						1.2	230.0	30.3	30.4	21.5	21.7	7.7	7.7	74.5	74.8	5.0	5.0	5.0	32.6	31.5	16.0	16.4		
						0.1	116.4	29.9	29.9	23.1	23.1	7.7	7.7	78.6	75.2	5.2	5.0	5.0	32.0	34.4	12.8	12.5		
					B	0.1	116.4	29.9	29.9	23.1	23.1	7.7	7.7	78.6	75.2	5.2	5.0	5.0	32.0	34.4	12.8	12.5		
						0.3	261.1	30.0	30.0	23.0	23.1	7.7	7.7	71.9	75.2	4.8	5.0	5.0	36.8	34.4	12.1	12.5		
						0.3	261.1	30.0	30.0	23.0	23.1	7.7	7.7	71.9	75.2	4.8	5.0	5.0	36.8	34.4	12.1	12.5		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E1	Fine	Calm	06:12	8.5	S	0.2	134.2	27.2	27.2	28.0	28.0	7.9	7.8	59.7	59.9	4.1	4.1	4.0	2.7	2.7	3.2	4.0	3.8	5.8
						0.3	195.2	27.2		28.0		7.8		60.1		4.1			2.8					
						0.3	204.3	27.0	29.2	7.9	57.7	3.9	4.0											
					M	0.3	204.3	27.0	29.2	29.2	7.9	7.9	57.6	57.7	3.9	3.9	4.0	4.0						
						0.9	230.0	26.8	26.8	29.9	29.9	8.0	8.0	59.4	58.6	4.0	4.0	4.0	3.0	3.0				
						0.1	15.5	26.8		29.9		8.0		57.9		3.9		3.0						
E3	Fine	Calm	10:15	17.0	S	0.6	289.3	28.3	28.3	23.5	23.7	8.0	8.0	78.9	79.5	5.4	5.4	4.6	2.7	2.6	12.2	7.4	7.2	20.3
						0.6	305.2	28.3		23.9		8.0		80.1		5.5			2.6					
						0.6	308.8	27.1	27.1	30.7	30.8	8.0	8.0	55.3	55.4	3.7	3.7	4.1	3.8					
					0.7	303.8	27.1	30.8		8.0		55.5		3.7		3.5								
					M	0.4	287.9	25.9	25.9	33.6	33.6	7.9	7.9	43.2	42.8	2.9	2.9	2.9	29.8	30.3				
						0.5	313.3	25.9		33.6		7.9		42.4		2.9		30.8						
B	0.4	287.9	25.9	25.9		33.6	33.6	7.9	7.9	43.2	42.8	2.9	2.9	2.9	29.8	30.3								
	0.5	313.3	25.9		33.6	7.9		42.4		2.9		30.8												
	0.5	313.3	25.9	33.6	7.9	42.4	2.9	30.8																
E4	Cloudy	Calm	07:19	11.5	S	0.3	122.3	28.5	28.5	16.6	16.6	7.9	7.9	77.0	77.9	5.5	5.5	4.9	5.5	5.4	10.0	4.3	4.3	6.8
						0.3	122.3	28.5		16.6		7.9		78.8		5.6			5.2					
						0.5	184.6	28.0	28.0	25.5	25.4	7.9	7.9	61.7	62.1	4.2	4.2	7.5	7.4					
					0.5	306.8	28.0	25.3		7.9		62.6		4.3		7.3								
					M	0.6	350.8	27.5	27.4	27.5	28.1	7.8	7.8	56.2	56.4	3.8	3.8	3.8	18.1	17.2				
						0.5	49.0	27.3		28.7		7.8		56.6		3.8		16.3						
0.5	49.0	27.3	28.7	7.8		56.6	3.8	16.3																
E5	Cloudy	Calm	08:26	5.5	S	0.5	2.5	28.9	28.9	16.6	16.5	7.8	7.8	75.8	75.8	5.3	5.3	5.3	5.3	5.1	6.4	4.2	4.3	6.1
						0.6	326.6	28.9		16.5		7.8		75.9		5.3			5.0					
						0.7	3.5	28.9	28.9	19.4	19.5	7.8	7.8	76.9	76.4	5.3	5.3	7.6	7.7					
					0.6	350.4	28.9	19.7		7.8		75.8		5.2		7.7								
					M	0.7	3.5	28.9	28.9	19.4	19.5	7.8	7.8	76.9	76.4	5.3	5.3	7.6	7.7					
						0.6	350.4	28.9		19.7		7.8		75.8		5.2		7.7						
0.6	350.4	28.9	19.7	7.8		75.8	5.2	7.7																
E6	Cloudy	Calm	10:18	6.5	S	1.6	6.9	28.9	29.0	19.5	19.0	7.8	7.8	64.4	66.7	4.5	4.6	4.3	4.8	4.7	11.6	6.2	6.6	13.9
						1.6	6.9	29.1		18.4		7.8		69.0		4.8			4.5					
						1.1	356.8	28.0	28.1	24.7	24.7	7.7	7.7	59.1	59.3	4.0	4.0	12.0	11.2					
					1.1	322.0	28.1	24.7		7.7		59.5		4.1		10.5								
					M	1.1	17.3	27.8	27.8	25.7	25.7	7.8	7.8	58.5	58.0	4.0	3.9	3.9	18.7	19.0				
						1.1	17.3	27.8		25.7		7.8		57.5		3.9		19.3						
1.1	17.3	27.8	25.7	7.8		57.5	3.9	19.3																
F1	Fine	Calm	07:08	20.4	S	0.3	276.2	27.1	27.1	29.1	28.8	7.9	7.9	59.4	60.4	4.0	4.1	3.5	2.7	2.6	3.8	2.8	3.1	5.1
						0.4	355.0	27.2		28.6		7.9		61.5		4.2			2.5					
						0.3	255.6	26.4	26.4	33.6	33.6	7.9	7.9	43.8	43.9	2.9	2.9	1.6	1.6					
					0.1	278.0	26.4	33.6		7.9		44.1		2.9		1.5								
					M	0.3	293.7	24.6	24.6	34.2	34.2	7.9	7.9	43.9	43.7	3.0	3.0	3.0	7.0	7.2				
						0.3	293.7	24.6		34.2		7.9		43.5		3.0		7.4						
0.2	233.8	27.5	27.5	28.1		28.1	8.0	8.0	68.8	69.0	4.6	4.7	1.9	1.9										
0.2	233.8	27.5		28.1	8.0		69.3		4.7		1.9													
F2	Fine	Calm	07:36	19.5	S	0.2	233.8	27.5	27.5	28.1	28.1	8.0	8.0	68.8	69.0	4.6	4.7	4.3	1.9	1.9	3.7	2.4	2.7	6.4
						0.2	233.8	27.5		28.1		8.0		69.3		4.7			1.9					
						0.1	307.3	27.2	27.2	33.3	33.3	8.0	8.0	59.6	60.5	3.9	4.0	4.0	1.0	0.9				
					0.1	307.3	27.3	33.2		8.0		61.5		4.1		0.8								
					M	0.3	22.8	24.5	24.5	34.2	34.2	7.9	7.9	44.1	43.7	3.0	3.0	3.0	8.0	8.3				
						0.7	281.9	24.5		34.2		7.9		43.3		3.0		8.6						
0.7	281.9	24.5	34.2	7.9		43.3	3.0	8.6																

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
F3	Fine	Calm	08:54	18.0	S	0.4	322.9	28.0	28.0	27.0	27.0	8.1	8.1	92.3	93.5	6.2	6.3	4.6	1.0	1.0	4.0	1.6	1.5	5.6			
						0.5	309.7	28.0	27.1	27.1	8.2	8.2	94.7	94.7	6.4	6.4	4.6	1.0	1.0	1.3		1.3					
						0.2	348.3	25.9	33.8	33.8	7.9	7.9	42.8	44.0	2.9	3.0	4.6	2.6	2.3	2.3		2.4					
					M	0.2	310.3	26.0	33.8	33.8	8.0	8.0	45.3	44.0	3.0	3.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
						0.5	61.0	25.2	34.2	34.2	7.9	7.9	39.6	38.8	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
						0.3	16.6	25.2	34.2	34.2	7.9	7.9	38.0	38.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
F4	Fine	Calm	10:51	14.0	S	0.5	243.0	28.1	28.1	28.4	28.4	8.2	8.2	92.0	94.1	6.1	6.3	4.6	2.4	2.2	7.8	3.4	3.2	11.8			
						0.5	281.0	28.1	28.4	28.4	8.2	8.2	96.3	94.1	6.4	6.3	4.6	2.1	2.2	2.9		2.9					
						0.7	299.8	26.9	32.2	32.2	7.9	7.9	43.1	43.1	2.9	2.9	2.6	2.6	2.6	2.6		2.6	2.6				
					M	0.4	279.8	26.9	32.3	32.2	7.9	7.9	43.1	43.1	2.9	2.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
						0.2	52.5	25.9	33.8	33.8	7.9	7.9	39.8	38.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
						0.1	36.9	25.9	33.8	33.8	7.9	7.9	37.4	38.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
F5	Cloudy	Calm	07:51	5.5	S	0.9	353.6	28.5	28.5	22.4	22.3	7.9	7.9	69.5	70.6	4.8	4.8	4.8	4.8	4.8	7.4	5.9	5.8	6.7			
						0.7	324.7	28.5	22.2	22.3	7.9	7.9	71.7	70.6	4.9	4.8	4.8	4.8	4.8	4.8		4.8					
					B	0.6	345.9	28.2	24.3	24.5	7.9	7.9	67.5	66.0	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
						0.6	345.9	28.2	24.7	24.7	7.9	7.9	64.6	66.0	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
F6	Cloudy	Calm	09:02	14.5	S	0.4	209.1	29.1	29.1	17.9	17.9	7.8	7.8	73.3	73.8	5.1	5.1	4.9	4.8	4.7	11.4	4.1	4.1	10.9			
						0.4	209.1	29.1	17.9	17.9	7.8	7.8	74.4	73.8	5.2	5.1	4.9	4.7	4.7	4.7		4.7					
						0.7	268.7	28.3	23.0	22.9	7.8	7.8	67.1	67.2	4.6	4.6	4.6	4.6	4.6	4.6		4.6	4.6				
					M	0.7	316.0	28.4	22.9	22.9	7.8	7.8	67.3	67.2	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
						0.3	226.8	27.7	25.8	25.8	7.8	7.8	60.8	60.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
						0.5	345.6	27.7	25.9	25.9	7.8	7.8	60.3	60.6	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
IM1	Fine	Calm	06:50	9.8	S	0.2	7.4	27.7	27.8	29.8	29.7	7.9	7.9	63.2	65.1	4.2	4.3	3.6	2.6	2.6	2.3	2.4	2.5	3.1			
						0.4	314.7	27.8	29.7	29.7	7.9	7.9	66.9	65.1	4.5	4.3	3.6	2.6	2.6	2.6		2.6					
						0.2	15.5	26.4	33.4	33.4	7.9	7.9	44.4	44.5	3.0	3.0	3.0	3.0	3.0	3.0		3.0					
					M	0.1	231.8	26.4	33.5	33.5	7.9	7.9	44.5	44.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
						0.3	341.7	25.8	33.7	33.7	7.9	7.9	44.9	44.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
						0.3	341.7	25.6	33.7	33.7	7.9	7.9	43.5	44.2	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
IM2	Fine	Calm	06:29	11.0	S	0.5	199.1	27.3	27.3	27.4	27.4	7.8	7.8	61.9	62.0	4.2	4.2	3.8	2.4	2.4	4.1	3.6	3.3	6.2			
						0.5	199.1	27.3	27.4	27.4	7.8	7.8	62.2	62.0	4.2	4.2	3.8	3.8	3.7	3.7		3.7	3.7				
						0.2	229.5	26.9	30.6	30.6	7.8	7.8	48.3	49.6	3.3	3.3	3.3	3.3	3.3	3.3		3.3					
					M	0.2	229.5	26.9	30.5	30.5	7.8	7.8	50.9	49.6	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
						0.3	51.4	25.9	33.6	33.6	7.8	7.8	37.2	35.3	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
						0.3	51.4	25.9	33.6	33.6	7.8	7.8	33.4	35.3	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
IM3	Fine	Calm	07:58	15.0	S	0.4	269.2	27.5	27.5	28.0	28.0	8.0	8.0	70.4	71.1	4.8	4.8	3.8	2.1	2.1	4.8	2.9	2.9	7.9			
						0.3	264.7	27.5	28.0	28.0	8.0	8.0	71.7	71.1	4.8	4.8	3.8	3.8	3.7	3.7		3.7					
						0.2	278.0	26.8	32.0	32.2	7.9	7.9	44.3	43.2	3.0	2.9	2.9	2.9	2.9	2.9		2.9					
					M	0.1	203.0	26.7	32.4	32.2	7.9	7.9	42.2	43.2	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
						0.5	274.1	25.4	34.1	34.1	7.9	7.9	41.3	40.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
						0.5	274.1	25.4	34.1	34.1	7.9	7.9	39.4	40.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
IM4	Fine	Calm	08:17	16.5	S	0.5	266.2	27.3	27.3	28.4	28.4	8.0	8.0	70.4	71.0	4.8	4.8	3.7	1.7	1.7	6.1	3.1	3.0	9.2			
						0.4	281.4	27.3	28.4	28.4	8.0	8.0	71.6	71.0	4.8	4.8	3.7	1.7	1.7	1.7		1.7					
						0.4	278.3	26.5	33.1	33.1	7.9	7.9	38.3	38.0	2.6	2.5	2.5	2.5	2.5	2.5		2.5					
					M	0.2	247.2	26.5	33.2	33.1	7.9	7.9	37.8	38.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
						0.3	254.0	26.0	33.9	33.8	7.9	7.9	40.5	39.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
						0.3	281.0	26.0	33.8	33.8	7.9	7.9	39.0	39.8	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
IM5	Fine	Calm	08:36	15.5	S	0.5	271.7	27.9	27.9	28.2	28.2	8.1	8.1	83.7	84.6	5.6	5.7	4.8	1.4	1.3	3.9	2.0	2.0	6.4			
						0.2	271.5	27.9	28.2	28.2	8.1	8.1	85.6	84.6	5.7	5.7	4.8	1.3	1.3	1.3		1.3					
						0.5	294.4	27.3	32.9	32.9	8.0	8.0	57.2	58.1	3.8	3.8	3.8	3.8	3.8	3.8		3.8	3.8				
					M	0.5	294.4	27.3	32.9	32.9	8.0	8.0	59.0	58.1	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
						0.2	163.6	25.5	34.1	34.1	7.9	7.9	40.2	39.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
						0.4	283.5	25.5	34.1	34.1	7.9	7.9	38.4	39.3	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Fine	Calm	09:06	16.5	S	0.4	273.0	28.0	28.0	27.2	27.3	8.1	8.1	88.1	88.7	5.9	6.0	5.0	1.2	1.2	2.9	2.0	1.9	3.9
						0.3	289.6	28.0	27.3	27.3	8.1	8.1	89.3	88.7	6.0	6.0	5.0	1.2	1.2					
						0.5	94.4	27.2	27.2	33.6	33.6	8.1	8.1	61.9	62.3	4.1	4.1	5.0	0.7	0.7				
					M	0.1	241.8	27.1	27.2	33.5	33.6	8.0	8.1	62.7	62.3	4.1	4.1	5.0	0.6	0.7				
						0.2	267.2	25.4	25.4	34.1	34.1	7.9	7.9	41.5	40.3	2.8	2.7	2.7	6.5	6.8				
						0.3	354.5	25.4	25.4	34.1	34.1	7.9	7.9	39.2	40.3	2.7	2.7	2.7	7.2	6.8				
B	0.5	292.6	27.9	27.9	27.3	27.3	8.1	8.1	78.7	79.6	5.3	5.4	4.5	2.0	2.1									
	0.4	271.2	27.9	27.9	27.4	27.3	8.1	8.1	80.6	79.6	5.4	5.4	4.5	2.2	2.1									
	0.3	301.9	27.1	27.1	32.8	32.8	8.0	8.0	55.3	56.0	3.7	3.7	4.5	1.0	1.1									
IM7	Fine	Calm	09:31	13.5	S	0.4	311.9	27.1	27.1	32.9	32.8	8.0	8.0	56.7	56.0	3.8	3.7	4.5	1.2	1.1	5.1	3.4	3.6	8.9
						0.4	245.3	25.4	25.4	34.1	34.1	8.0	8.0	47.2	45.9	3.2	3.1	3.1	11.8	12.0				
						0.3	276.0	25.4	25.4	34.1	34.1	8.0	8.0	44.7	45.9	3.0	3.1	3.1	11.8	12.0				
					M	0.5	244.9	28.0	28.0	27.6	27.5	8.1	8.1	82.2	82.8	5.5	5.6	4.6	1.6	1.7				
						0.5	305.5	28.0	28.0	27.4	27.5	8.1	8.1	83.5	82.8	5.6	5.6	4.6	1.8	1.7				
						0.2	295.1	26.8	26.8	33.2	33.2	8.0	8.0	53.7	54.1	3.6	3.6	4.6	1.4	1.4				
B	0.2	295.1	26.8	26.8	33.2	33.2	8.0	8.0	54.4	54.1	3.6	3.6	4.6	1.3	1.4									
	0.4	339.6	25.3	25.3	34.1	34.1	7.9	7.9	42.6	41.7	2.9	2.8	2.8	21.6	22.3									
	0.1	34.0	25.3	25.3	34.1	34.1	7.9	7.9	40.8	41.7	2.8	2.8	2.8	23.1	22.3									
IM8	Fine	Calm	09:21	15.0	S	0.9	289.6	27.8	27.8	28.3	28.2	8.0	8.0	71.7	72.3	4.8	4.9	4.2	2.2	2.2	8.5	5.5	5.7	16.7
						0.5	287.2	27.8	27.8	28.1	28.2	8.0	8.0	73.0	72.3	4.9	4.9	4.2	2.3	2.2				
						0.6	291.6	27.2	27.2	31.7	31.5	8.0	8.0	52.8	53.6	3.5	3.6	4.2	2.7	2.4				
					M	0.8	302.0	27.2	27.2	31.4	31.5	8.0	8.0	54.4	53.6	3.6	3.6	4.2	2.1	2.4				
						0.5	297.4	25.5	25.5	34.0	34.0	7.9	7.9	44.0	43.7	3.0	3.0	3.0	18.4	18.4				
						0.5	297.4	25.5	25.5	34.0	34.0	7.9	7.9	43.4	43.7	2.9	3.0	3.0	18.5	18.4				
B	0.5	294.9	27.2	27.2	29.2	29.2	7.8	7.8	53.2	54.9	3.6	3.7	3.2	6.8	6.4									
	0.5	276.3	27.2	27.2	29.3	29.3	7.8	7.8	56.6	54.9	3.8	3.7	3.2	6.0	6.4									
	0.4	253.9	26.0	26.0	33.6	33.6	7.7	7.7	40.3	40.0	2.7	2.7	3.2	12.7	12.5									
IM9	Fine	Calm	09:51	15.5	S	0.4	126.5	26.0	26.0	33.6	33.6	7.7	7.7	39.8	40.0	2.7	2.7	3.2	12.3	12.5	7.7	5.5	5.7	13.0
						0.2	292.5	26.0	26.0	33.6	33.6	7.7	7.7	44.4	43.1	3.0	2.9	3.2	19.6	20.9				
						0.7	152.1	25.9	25.9	33.6	33.6	7.7	7.7	41.9	43.1	2.8	2.9	3.2	22.2	20.9				
					M	1.0	138.7	27.7	27.6	25.3	25.6	7.9	7.9	64.9	64.4	4.4	4.4	4.4	10.0	10.4				
						1.0	138.7	27.6	27.6	25.8	25.6	7.9	7.9	63.8	64.4	4.4	4.4	4.4	10.8	10.4				
						0.6	109.7	26.6	26.6	32.2	32.1	7.8	7.8	48.9	45.8	3.3	3.1	3.1	27.5	28.7				
B	0.4	255.9	26.6	26.6	32.1	32.1	7.8	7.8	42.8	45.8	2.9	3.1	3.1	30.0	28.7									
	0.8	135.6	28.0	28.0	23.2	23.0	7.9	7.9	68.3	69.0	4.7	4.8	3.8	6.3	6.1									
	0.8	135.6	28.0	28.0	22.9	23.0	7.9	7.9	69.8	69.0	4.8	4.8	3.8	5.9	6.1									
IM10	Cloudy	Calm	06:10	11.5	S	0.4	342.5	26.7	26.7	32.1	32.1	7.8	7.8	43.2	43.2	2.9	2.9	3.8	10.5	10.2	13.3	12.1	12.9	15.9
						0.4	342.5	26.7	26.7	32.1	32.1	7.8	7.8	43.2	43.2	2.9	2.9	3.8	9.9	10.2				
						0.4	160.3	26.5	26.5	32.6	32.6	7.8	7.8	43.8	43.8	2.9	2.9	2.9	30.8	30.9				
					M	0.2	205.8	26.5	26.5	32.6	32.6	7.8	7.8	43.7	43.8	2.9	2.9	2.9	30.9	30.9				
						0.9	26.1	28.3	28.3	18.3	18.4	8.0	8.0	78.0	78.3	5.5	5.5	4.5	4.7	4.8				
						0.6	155.6	28.3	28.3	18.4	18.4	8.0	8.0	78.6	78.3	5.5	5.5	4.5	4.8	4.8				
B	0.4	284.8	27.2	27.2	29.6	29.6	7.8	7.8	50.3	50.7	3.4	3.4	4.5	7.3	7.0									
	0.5	46.9	27.2	27.2	29.6	29.6	7.9	7.8	51.0	50.7	3.4	3.4	4.5	6.7	7.0									
	0.9	26.6	26.6	26.6	32.2	32.1	7.8	7.8	42.5	42.2	2.9	2.8	2.8	21.7	21.8									
IM11A	Cloudy	Calm	06:22	4.5	S	1.1	148.0	28.4	28.4	20.3	19.2	7.9	7.9	78.8	78.9	5.5	5.5	5.1	5.1	11.2	5.3	5.4	11.5	
						1.1	148.0	28.4	28.4	18.1	19.2	7.9	7.9	79.1	78.9	5.6	5.5	5.1	5.1					
						0.4	99.8	28.1	28.1	23.9	23.9	7.9	7.9	68.3	68.9	4.7	4.7	5.1	5.5					
					M	0.5	180.6	28.1	28.1	23.9	23.9	7.9	7.9	69.6	68.9	4.8	4.7	5.1	5.3					
						0.4	1.7	26.6	26.6	32.1	32.1	7.8	7.8	41.9	42.2	2.8	2.8	2.8	22.0		21.8			
						0.1	45.6	27.9	27.9	25.4	25.5	7.9	7.9	66.7	66.6	4.5	4.5	4.5	6.2		6.3			
B	0.3	316.3	27.9	27.9	25.5	25.5	7.9	7.9	66.5	66.6	4.5	4.5	4.5	6.4	6.3									
	0.1	45.6	27.9	27.9	25.4	25.5	7.9	7.9	66.7	66.6	4.5	4.5	4.5	6.2	6.3									
	0.3	316.3	27.9	27.9	25.5	25.5	7.9	7.9	66.5	66.6	4.5	4.5	4.5	6.4	6.3									
IM12	Cloudy	Calm	06:32	12.5	S	0.8	135.6	28.0	28.0	23.2	23.0	7.9	7.9	68.3	69.0	4.7	4.8	3.8	6.3	6.1	15.7	6.3	6.1	20.5
						0.8	135.6	28.0	28.0	22.9	23.0	7.9	7.9	69.8	69.0	4.8	4.8	3.8	5.9	6.1				
						0.4	342.5	26.7	26.7	32.1	32.1	7.8	7.8	43.2	43.2	2.9	2.9	3.8	10.5	10.2				
					M	0.4	342.5	26.7	26.7	32.1	32.1	7.8	7.8	43.2	43.2	2.9	2.9	3.8	9.9	10.2				
						0.4	160.3	26.5	26.5	32.6	32.6	7.8	7.8	43.8	43.8	2.9	2.9	2.9	30.8	30.9				
						0.2	205.8	26.5	26.5	32.6	32.6	7.8	7.8	43.7	43.8	2.9	2.9	2.9	30.9	30.9				
B	0.4	160.3	26.5	26.5	32.6	32.6	7.8	7.8	43.8	43.8	2.9	2.9	2.9	30.8	30.9									
	0.2	205.8	26.5	26.5	32.6	32.6	7.8	7.8	43.7	43.8	2.9	2.9	2.9	30.9	30.9									
	0.9	26.1	28.3	28.3	18.3	18.4	8.0	8.0	78.0	78.3	5.5	5.5	4.5	4.7	4.8									
IM13	Cloudy	Calm	06:57	16.5	S	0.6	155.6	28.3	28.3	18.3	18.4	8.0	8.0	78.0	78.3	5.5	5.5	4.5	4.7	4.8	11.2	6.8	6.8	11.5
						0.4	284.8	27.2	27.2	29.6	29.6	7.8	7.8	50.3	50.7	3.4	3.4	4.5	7.3	7.0				
						0.5	46.9	27.2	27.2	29.6	29.6	7.9	7.8	51.0	50.7	3.4	3.4	4.5	6.7	7.0				
					M	0.9	26.6	26.6	26.6	32.2	32.1	7.8	7.8	42.5	42.2	2.9	2.8	2.8	21.7	21.8				
						0.4	1.7	26.6	26.6	32.1	32.1	7.8	7.8	41.9	42.2	2.8	2.8	2.8	22.0	21.8				
						1.1	148.0	28.4	28.4	20.3	19.2	7.9	7.9	78.8	78.9	5.5	5.5	5.1	5.1					
B	1.1	148.0	28.4	28.4	18.1	19.2	7.9	7.9	79.1	78.9	5.6	5.5	5.1	5.1										
	0.4	99.8	28.1	28.1	23.9	23.9	7.9	7.9	68.3	68.9	4.7	4.7	5.1	5.5										
	0.5	180.6	28.1	28.1	23.9	23.9	7.9	7.9	69.6	68.9	4.8	4.7	5.1	5.3										

Water Quality Monitoring Data Log Sheet

Date: 2019/08/19

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
IM15	Cloudy	Calm	08:14	6.5	S	0.6	359.8	28.7	28.7	20.7	20.7	7.9	7.9	68.7	70.6	4.7	4.9	4.4	7.0	6.4	9.7	7.6	7.8	16.6		
						0.6	72.3	28.7		20.6		7.8		72.6		5.0			5.9							
						1.2	11.6	28.0	26.0	25.5	7.8	7.8	58.5	59.2	4.0	4.0	13.3	12.3	15.7	16.5						
					M	0.3	104.1	28.1	25.1	26.3	7.9	7.9	76.0	74.6	5.2	5.1	5.1	11.3	10.4	9.8	25.5	25.8	25.5		25.2	25.5
						0.6	220.2	27.9	26.3		7.9		73.2		5.0			11.0								
						0.5	356.8	27.9	26.3		7.9		73.2		5.0			11.0								
IM16A	Cloudy	Calm	08:38	7.0	S	0.4	38.0	28.8	28.8	18.1	18.1	7.8	7.8	74.4	74.6	5.2	5.2	5.1	8.8	7.8	24.2	11.4	11.7	30.5		
						0.4	38.0	28.8		18.1		7.8		74.4		5.2			6.9							
						0.6	359.4	28.7	21.0	21.0	7.8	7.8	71.8	71.8	5.0	4.9	34.5	32.2	37.7	36.8						
					M	0.6	84.8	28.7	20.9	21.0	7.8	7.8	71.7	75.3	4.9	5.2	5.2	29.9	32.5	32.4	32.5	42.1	43.1		44.0	43.1
						0.2	48.2	28.7	21.0		7.8		75.3		5.2			32.4								
						0.3	0.6	28.7	21.1		7.8		75.3		5.2			32.5								
IM17	Cloudy	Calm	09:41	5.5	S	0.5	51.1	29.0	29.0	16.3	16.1	7.8	7.8	74.6	74.9	5.2	5.3	5.3	5.0	5.0	16.6	10.5	10.5	23.0		
						0.1	359.2	29.0		15.9		7.8		75.2		5.3			5.0							
						1.2	295.9	28.7	20.1	20.3	7.7	7.7	75.0	72.6	5.2	5.0	5.0	27.0	28.1	34.4	35.5	36.6	35.5			
					1.2	357.2	28.7	20.6	7.7		70.2		4.9		29.2											
					0.6	72.6	29.1	14.5	14.3		7.8		7.8		71.7			73.2		5.1		5.2			4.6	5.2
					0.6	72.6	29.2	14.0		7.8	74.7	5.3		5.0												
1.0	284.2	28.1	24.7	24.7	7.7	7.7	58.6	59.3		4.0	4.0	6.6		6.6	6.3	6.4										
M	0.8	322.1	28.1	24.6	27.7	7.7	7.7	59.9	50.1	4.1	3.4	3.4	6.6	75.6	6.5	37.8	37.7	37.8	37.9	37.8						
	0.3	11.3	27.3	27.8		7.7		50.2		3.4			79.0													
	0.2	330.0	27.3	27.7		7.7		50.1		3.4			72.2													
IM18	Cloudy	Calm	09:28	17.5	S	0.6	72.6	29.2	29.2	14.5	14.3	7.8	7.8	71.7	73.2	5.1	5.2	4.6	5.2	5.1	29.1	4.5	4.6	16.3		
						0.6	72.6	29.2		14.0		7.8		74.7		5.3			5.0							
						1.0	284.2	28.1	24.7	24.7	7.7	7.7	58.6	59.3	4.0	4.0	6.6	6.6	6.3	6.4						
					M	0.8	322.1	28.1	24.6	27.7	7.7	7.7	59.9	50.1	4.1	3.4	3.4	6.6	75.6	6.5	37.8	37.7	37.8		37.9	37.8
						0.3	11.3	27.3	27.8		7.7		50.2		3.4			79.0								
						0.2	330.0	27.3	27.7		7.7		50.1		3.4			72.2								
IM19	Cloudy	Calm	09:58	18.0	S	0.3	236.3	29.2	29.2	17.1	17.2	7.8	7.8	75.1	75.5	5.2	5.3	4.9	4.8	4.9	21.9	4.5	4.4	10.5		
						0.6	325.7	29.2		17.2		7.8		75.9		5.3			5.0							
						1.3	340.1	28.5	22.2	22.2	7.8	7.8	67.2	67.5	4.6	4.6	4.4	5.5	5.5	6.3	6.3	6.2	20.8			
					0.6	325.5	28.5	22.2	7.8		67.8		4.7		5.5											
					0.3	277.4	26.8	29.3	29.3		7.7		7.7		56.7			53.7		3.9		3.7			52.3	55.2
					B	0.5	23.2	26.7	29.4	29.3	7.7	7.7	50.8	59.6	3.5	4.1	4.1	58.1	12.5	21.9	16.2	21.9	16.2		21.9	16.2
0.9	59.0	28.7	22.2	22.6		7.8	7.8	64.0	63.9		4.4		4.4		10.3			10.1		12.7		11.9				
0.9	175.3	28.6	23.1	22.6		7.8	7.8	63.8	63.9		4.4		4.4		9.9			11.0		11.0		11.9				
M	0.2	350.4	28.1	24.7	24.7	7.8	7.8	60.0	59.6	4.1	4.1	4.1	12.6	12.5	16.7	16.2	15.6	16.2	15.6	16.2						
	0.4	189.0	28.1	24.8		7.8		59.3		4.0			12.4													
	1.4	255.2	29.8	17.7		18.5		7.8		7.8			76.0		76.6		5.2		5.2		5.2	11.8	12.8	11.3	11.9	11.3
0.2	202.4	30.0	19.3	7.8	77.2		5.3	13.8																		
0.3	261.2	27.9	25.4	25.3	7.7		7.7	61.7	61.6		4.2	4.2	4.2	36.3		36.4	23.3	22.6		21.8		21.8		21.8		21.8
0.3	261.2	28.0	25.2		7.7	61.5		4.2		36.4																
IM21A	Cloudy	Calm	10:47	5.5	S	1.3	166.9	29.0	28.9	19.7	19.8	7.8	7.8	70.2	70.2	4.8	4.8	4.8	13.5	13.9	16.2	14.1	14.9	18.7		
						0.2	326.9	28.9		20.0		7.8		70.2		4.8			14.2							
						0.1	160.4	28.4	23.3	23.3	7.8	7.8	68.1	68.1	4.7	4.7	4.7	18.5	18.5	22.6	22.5	22.4	22.5			
					0.1	171.0	28.4	23.3	7.8		68.1		4.7		18.5											
					0.1	171.0	28.4	23.3	7.8		68.1		4.7		18.5											

Remark: * DA: Depth-Averaged

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

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

Monitoring results obtained at stations E2 and E7 during mid-flood tide were discarded as they were sampled outside the planned tidal periods.

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)												
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*									
E1	Fine	Calm	0.7	8.5	S	1.2	292.8	28.6	28.6	29.2	29.2	8.4	8.4	193.6	194.5	12.8	12.8	9.6	2.0	1.9	3.3	4.7	4.7	7.2									
						0.1	12.1	28.6		29.2		8.4		195.5		12.9		2.0	4.7														
						0.4	141.8	27.1	29.4	8.0	93.1	6.3	1.9	6.3																			
					M	0.4	141.8	27.0	29.4	8.0	93.6	6.3	1.8	6.3																			
						0.2	1.9	26.4	26.4	31.4	31.5	7.9	7.9	62.5	62.3	4.2	4.2	4.2	6.1	6.1		10.1			10.3								
						0.5	172.4	26.4		31.5		7.9		62.0		4.2			6.0	10.4													
E2	Cloudy	Moderate	0.7	8.5	S	0.2	85.0	29.9	29.9	28.4	28.4	8.4	8.4	220.5	220.3	14.3	14.3	11.6	2.0	2.0	4.8	4.3	4.5	6.9									
						0.2	91.0	29.9		28.4		8.4		220.1		14.3		2.0	4.7														
						0.1	78.0	28.4	29.0	8.1	135.5	9.0	2.2	6.7																			
					M	0.1	82.0	28.4	29.1	29.0	8.1	8.1	134.7	8.9	8.9	2.3	2.2	6.6	6.7														
						0.2	81.0	27.6	27.6	30.6	30.6	7.8	7.8	54.4	54.2	3.6	3.6	3.6		10.2		9.7											
						0.2	83.0	27.5		30.6		7.8		53.9		3.6		10.4															
E3	Cloudy	Moderate	0.6	16.8	S	0.1	110.0	28.4	28.4	28.5	28.4	8.1	8.1	137.5	137.5	9.1	9.1	6.3	2.0	2.0	6.6	6.0	6.2	8.2									
						0.1	116.0	28.4		28.4		8.1		137.4		9.1		2.0	6.3														
						0.4	122.0	26.6	26.6	31.9	32.0	7.8	7.8	52.6	52.6	3.5	3.5	7.1	7.1	8.0													
					M	0.4	125.0	26.5	32.1	32.1	7.8	7.8	52.5	52.5	3.5	3.5	7.1	7.1	8.5	8.3													
						0.5	123.0	25.6	25.6	33.9	33.9	7.8	7.8	44.6	44.7	3.0	3.0	3.0	10.3			10.3											
						0.5	125.0	25.6		33.9		7.8		44.8		3.0		10.7															
E4	Cloudy	Moderate	0.6	12.3	S	0.3	193.0	29.6	29.7	20.9	20.8	7.8	7.8	83.6	83.5	5.7	5.7	4.4	2.5	2.5	7.2	5.5	5.3	6.7									
						0.3	196.0	29.7		20.8		7.8		83.4		5.7		7.2	7.2			5.1											
						0.4	220.0	26.3	26.3	32.6	32.6	7.8	7.8	46.0	45.9	3.1	3.1	7.2	6.0														
					M	0.4	239.0	26.3	32.7	32.7	7.8	7.8	45.8	45.8	3.1	3.1	7.2	6.5	6.3														
						0.3	207.0	26.0	26.0	33.6	33.6	7.8	7.8	47.2	47.2	3.2	3.2	3.2		11.9		8.8											
						0.3	227.0	26.0		33.6		7.8		47.2		3.2		11.9															
E5	Cloudy	Calm	0.7	5.5	S	1.2	64.5	30.3	30.4	18.1	18.0	8.0	8.0	86.8	93.7	5.9	6.4	6.4	3.2	3.0	4.6	3.7	3.4	5.4									
						0.5	163.0	30.5		17.9		8.0		100.7		6.8		2.8	3.1														
						0.3	234.4	27.7	27.0	7.9	61.2	4.1	4.1	6.2	6.2	7.7	7.5																
					B	0.4	118.6	27.7	27.7	27.0	7.9	7.9	59.5	60.3		4.0		4.1	6.1	7.2													
						1.2	246.3	29.7	29.7	18.9	18.9	7.9	7.9	84.5	85.4	5.8	5.9	5.6	4.1	3.8													
						0.4	105.5	29.7		19.0		7.9		86.3		5.9		3.5	3.8														
E6	Cloudy	Calm	0.6	6.0	M	0.2	139.3	29.2	29.0	20.9	21.5	7.9	7.9	78.6	77.2	5.4	5.3	5.6	4.4	4.5	4.1	8.4	8.6	8.0									
						0.3	161.1	28.8		22.1		7.9		75.7		5.2		4.7	8.7														
						0.5	32.4	27.6	27.7	26.2	25.8	7.8	7.8	63.9	63.8	4.4	4.4	4.4	4.2	3.9													
					0.5	32.4	27.8	25.5		7.8		63.8		4.4		3.6		8.6															
					E7A	Cloudy	Calm	0.6	5.5	S	0.3	114.9	30.3	30.3	17.7	17.7	7.8	7.8	74.6	80.0		5.1			5.5	5.5	4.9	4.6	4.9	7.8	8.3	8.9	
											0.9	209.1	30.3		17.8		7.8		85.4			5.8				4.3	8.8						
0.3	345.7	27.5	26.8	7.7							65.5	4.5	4.2	4.6	5.2	9.2	9.6																
B	0.8	47.8	27.3	27.4						27.3	7.7	7.7	58.0	61.7		4.0		4.2	5.7	9.9													
	0.4	150.0	29.2	29.2						29.2	29.2	8.5	8.5	206.3	208.2	13.5	13.6	9.2	0.8	0.8													
	0.5	72.2	29.2							29.2		8.5		210.1		13.7		0.8	8.1														
F1	Fine	Calm	0.7	20.0	M	0.2	73.9	27.0	27.0	31.9	31.8	8.0	8.0	67.5	71.4	4.5	4.8	9.2	1.1	1.1	3.4	0.5	1.3	8.0									
						0.2	73.9	27.1		31.7		8.0		75.3		5.0			1.1			2.0											
						0.3	172.9	24.5	24.5	34.5	34.4	7.9	7.9	38.2	37.2	2.6	2.6		2.6	8.0		8.2											
					0.2	172.6	24.5	34.4		7.9		36.3		2.5		8.5																	
					F2	Fine	Calm	0.6	19.5	S	0.2	36.3	29.3	29.3	29.0	29.0	8.5		8.5	195.5		197.2			12.8	12.9	8.7	0.7	0.8	2.7	3.2	3.4	6.7
											0.2	35.7	29.3		29.0		8.5			199.0					13.0			0.8			3.6		
0.3	91.3	27.1	27.0	33.4							33.4	8.0	8.0	67.0	67.2	4.4	4.4	0.6	0.6														
0.3	91.3	26.9		33.5						8.0		67.4		4.5		0.6																	
B	0.1	45.0	24.8	24.8						34.4	34.4	7.9	7.9	38.8	38.2	2.7	2.6	2.6	6.6	6.8													
	0.2	78.3	24.8							34.4		7.9		37.6		2.6		7.0	11.1														

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Fine	Calm	0.6	18.0	S	0.4	30.7	29.3	29.3	28.8	28.8	8.4	8.4	179.7	181.4	11.7	11.9	8.1	1.0	1.0	2.8	6.9	6.7	5.9
						0.4	30.7	29.2		28.8		183.1		12.0		1.0			6.5					
						0.2	31.5	27.1		32.6		8.0		63.1		4.2			0.7			1.7		
					M	0.2	31.5	27.2	32.5	8.0	67.9	4.5	4.3	0.6	1.9	1.8								
						B	0.1	140.7	25.2	25.2	34.3	34.3	7.9	7.9	42.5	41.6	2.9	2.8	2.8	6.6	6.7	8.7	9.1	
							0.1	140.7	25.2		34.3		7.9		40.6		2.8			6.8		9.4		
F4	Cloudy	Moderate	0.7	13.3	S	0.7	96.0	30.0	30.0	26.3	26.3	8.3	8.3	200.5	199.9	13.1	13.1	10.1	2.3	2.3	5.6	3.3	3.8	4.2
						0.7	99.0	30.0		26.3		8.3		199.2		13.0			2.4			4.3		
						0.5	85.0	28.2		29.8		8.0		110.0		7.3			4.2			4.2		
					M	0.5	93.0	28.2	28.2	30.0	29.9	8.0	8.0	105.5	107.8	7.0	7.1	4.2	4.2	4.5	4.4			
						B	0.3	108.0	26.7	26.7	32.2	32.2	7.8	7.8	49.5	49.7	3.3	3.3	3.3	10.4	10.3	4.9	4.6	
							0.4	117.0	26.7		32.2		7.8		49.8		3.3			10.3		4.2		
F5	Cloudy	Moderate	0.6	6.7	S	0.1	279.0	29.1	29.1	21.4	21.4	7.9	7.9	81.2	81.1	5.5	5.5	5.1	2.9	2.9	5.3	2.5	3.0	7.8
						0.1	303.0	29.1		21.3		7.9		80.9		5.5			2.9			3.4		
						0.2	81.0	27.9		27.9		28.4		8.0		69.5			4.7			4.6		
					M	0.2	83.0	27.9	28.4	8.0	69.6	4.7	4.7	4.6	5.1	4.6								
						B	0.1	105.0	27.3	27.4	29.8	29.8	8.0	8.0	58.8	58.9	3.9	3.9	3.9	8.5	8.5	16.0	15.9	
							0.1	114.0	27.4		29.8		8.0		58.9		4.0			8.5		15.8		
F6	Cloudy	Calm	0.6	14.0	S	0.4	230.6	29.6	29.6	20.8	20.8	8.0	8.0	89.7	91.2	6.1	6.2	5.3	2.5	2.4	7.1	4.1	4.2	10.2
						0.7	144.6	29.6		20.8		8.0		92.7		6.3			2.3			4.2		
						0.2	46.3	27.8		27.9		25.8		7.9		62.8			4.3			5.4		
					M	0.1	116.3	28.0	27.9	25.5	25.7	7.9	7.9	65.8	64.3	4.5	4.4	5.6	5.5	8.5	8.8			
						B	0.2	160.8	26.2	26.2	30.2	30.2	7.9	7.9	54.4	53.2	3.7	3.6	3.6	13.2	13.4	18.6	17.6	
							0.5	152.5	26.2		30.2		7.9		52.1		3.6			16.5				
IM1	Fine	Calm	0.7	9.5	S	0.2	174.6	28.9	28.9	29.3	29.3	8.5	8.5	208.5	209.0	13.7	13.7	13.3	0.8	0.8	2.3	4.1	4.1	6.4
						0.3	32.2	28.9		29.3		8.5		209.5		13.7			0.8			4.0		
						0.2	197.8	28.8		29.3		8.4		192.6		12.6			1.0			5.1		
					M	0.2	197.8	28.9	28.8	29.3	29.3	8.5	8.4	198.7	195.7	13.0	12.8	1.0	1.0	5.0	5.1			
						B	0.1	252.5	25.4	25.4	33.8	33.8	7.9	7.9	50.5	49.9	3.4	3.4	3.4	5.4	5.1	10.8	10.1	
							0.1	252.5	25.4		33.8		7.9		49.3		3.3			4.8		9.3		
IM2	Fine	Calm	0.7	11.0	S	0.3	189.1	28.2	28.2	29.2	29.2	8.3	8.3	181.1	181.6	12.0	12.0	9.2	1.6	1.5	2.7	4.5	4.7	8.2
						0.4	253.6	28.2		29.2		8.3		182.1		12.1			1.5			4.8		
						0.4	165.3	27.3		27.3		30.5		30.5		8.1			8.1			93.7		
					M	0.4	165.3	27.3	27.3	30.4	30.5	8.1	8.1	94.8	94.3	6.3	6.3	2.3	2.3	6.9	6.9			
						B	0.2	191.3	25.5	25.5	33.7	33.7	7.9	7.9	40.5	39.5	2.7	2.7	2.7	4.2	4.3	12.8	13.0	
							0.2	191.3	25.5		33.7		7.9		38.6		2.6			4.3		13.1		
IM3	Fine	Calm	0.6	8.5	S	0.6	252.8	29.3	29.3	29.0	29.0	8.5	8.5	206.6	208.4	13.5	13.6	8.0	1.2	1.2	2.3	4.5	4.3	6.2
						0.4	9.7	29.3		29.0		8.5		210.3		13.7			1.3			4.1		
						0.2	48.1	26.4		26.4		32.4		32.5		7.8			7.8			35.2		
					M	0.4	115.8	26.4	26.4	32.5	32.5	7.8	7.8	35.8	35.5	2.4	2.4	2.4	2.4	5.7	5.9			
						B	0.1	78.2	25.7	25.6	34.1	34.1	7.8	7.8	31.1	30.0	2.1	2.0	2.0	3.2	3.4	8.0	8.3	
							0.2	90.0	25.6		34.1		7.8		28.8		1.9			3.6		8.5		
IM4	Fine	Calm	0.6	16.5	S	0.2	354.2	29.5	29.6	29.1	29.0	8.5	8.5	189.6	189.4	12.3	12.3	7.6	1.3	1.3	4.4	5.2	4.9	8.4
						0.2	354.2	29.6		29.0		8.5		189.2		12.3			1.3			4.6		
						0.3	288.7	26.8		26.8		31.0		31.0		7.9			7.9			43.7		
					M	0.3	124.0	26.8	26.8	31.1	31.0	7.9	7.9	44.0	43.8	3.0	2.9	3.4	7.6	7.4				
						B	0.3	41.5	25.8	25.8	34.1	34.1	7.9	7.9	34.5	33.8	2.3	2.3	2.3	8.7	8.5	13.5	12.9	
							0.2	65.9	25.8		34.1		7.9		33.0		2.2			8.3		12.2		
IM5	Fine	Calm	0.6	15.5	S	0.8	132.4	30.0	30.0	28.7	28.7	8.5	8.5	200.3	201.8	12.9	13.0	9.3	0.9	0.9	4.0	4.3	4.2	8.7
						0.4	301.1	30.0		28.7		8.5		203.3		13.1			0.9			4.1		
						0.3	50.1	27.8		27.8		30.1		30.1		8.1			8.0			83.7		
					M	0.2	60.0	27.8	27.8	30.1	30.1	8.0	8.0	84.1	83.9	5.6	5.6	0.8	0.8	7.1	7.2			
						B	0.3	143.6	25.6	25.6	34.1	34.1	7.9	7.9	36.8	35.9	2.5	2.4	2.4	10.3	10.1	14.4	14.7	
							0.3	143.6	25.6		34.1		7.9		35.0		2.4			9.9		15.0		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Fine	Calm	0.6	16.0	S	0.3	302.6	29.7	29.7	28.7	28.7	8.5	8.5	190.5	192.4	12.4	12.5	8.5	8.5	0.8	0.8	3.4	3.6	5.6
						0.3	302.6	29.7		28.7		8.5		194.3		12.6		0.8		3.8				
						0.1	344.2	27.4		31.9		8.0		64.9		4.3		1.0		4.6				
					M	0.1	344.2	27.6	31.6	8.0	70.0	4.6	1.0	4.3	4.5									
						0.2	97.9	25.4	34.3	7.9	46.1	3.1	4.5	8.6										
						0.2	152.1	25.3	34.3	7.9	43.4	2.9	4.8	8.8										
B	0.2	58.8	29.1	28.4	25.3	34.3	7.9	7.9	44.7	3.0	3.0	4.6	4.6	8.7										
	0.2	58.8	29.1	28.4	25.3	34.3	7.9	7.9	44.7	3.0	3.0	4.6	4.6	8.7										
	0.2	58.8	29.1	28.4	25.3	34.3	7.9	7.9	44.7	3.0	3.0	4.6	4.6	8.7										
IM7	Fine	Calm	0.6	8.5	S	0.2	58.8	29.1	29.2	28.4	28.4	8.4	8.4	191.4	194.6	12.6	12.8	10.6	10.6	1.1	1.1	4.3	4.3	6.8
						0.3	104.0	29.2		28.4		8.4		197.8		13.0		1.0		6.4				
						0.5	294.3	28.3		29.1		8.1		123.9		8.2		1.4		6.6				
					M	0.2	21.5	28.4	28.3	29.0	29.0	8.1	8.1	129.4	8.6	8.4	1.4	1.4	6.8					
						0.1	0.7	25.9	25.9	33.8	33.8	7.5	7.5	46.8	3.1	3.1	5.3	5.3	9.5					
						0.4	339.7	25.9	25.9	33.8	33.8	7.6	7.5	45.2	3.0	3.1	5.2	5.2	9.5					
B	0.1	0.7	25.9	25.9	33.8	33.8	7.5	7.5	46.8	3.1	3.1	5.3	5.3	9.5										
	0.4	339.7	25.9	25.9	33.8	33.8	7.6	7.5	45.2	3.0	3.1	5.2	5.2	9.5										
	0.4	339.7	25.9	25.9	33.8	33.8	7.6	7.5	45.2	3.0	3.1	5.2	5.2	9.5										
IM8	Fine	Calm	0.6	15.0	S	0.8	196.0	29.3	29.4	28.2	28.2	8.5	8.5	209.9	212.4	13.8	13.9	9.6	9.6	1.2	1.2	5.8	5.5	6.5
						0.1	41.3	29.4		28.2		8.5		214.8		14.0		1.1		5.2				
						0.1	44.7	27.6		30.5		8.0		76.8		5.1		1.1		6.5				
					M	0.1	44.7	27.8	27.7	30.1	30.3	8.0	8.0	84.4	5.6	5.4	1.0	1.1	6.3					
						0.2	18.9	25.6	25.6	34.1	34.1	7.9	7.9	44.5	3.0	2.9	6.9	7.0	7.6					
						0.1	92.2	25.6	25.6	34.1	34.1	7.9	7.9	42.6	2.9	2.9	7.1	7.0	7.6					
B	0.2	70.0	29.7	29.8	27.9	27.9	8.3	8.3	213.1	13.9	13.8	2.0	2.0	5.9										
	0.2	72.0	29.8	29.8	27.9	27.9	8.3	8.3	211.0	13.7	13.8	2.0	2.0	5.8										
	0.1	87.0	28.1	28.1	29.4	29.4	8.0	8.0	118.2	7.9	7.8	1.9	2.0	7.4										
IM9	Cloudy	Moderate	0.6	14.7	S	0.2	70.0	29.7	29.8	27.9	27.9	8.3	8.3	213.1	212.1	13.9	13.8	10.8	10.8	2.0	2.0	5.9	5.9	7.1
						0.2	72.0	29.8		27.9		8.3		211.0		13.7		2.0		5.8				
						0.1	87.0	28.1		28.1		29.4		29.4		8.0		8.0		118.2		7.9		
					M	0.1	87.0	28.1	28.1	29.4	29.4	8.0	8.0	117.5	7.8	7.8	2.1	2.0	7.2					
						0.3	148.0	26.8	26.8	31.9	31.9	7.9	7.9	67.1	4.5	4.5	10.6	10.6	8.7					
						0.3	158.0	26.8	26.8	31.9	31.9	7.9	7.9	67.0	4.5	4.5	10.6	10.6	8.7					
B	0.4	62.0	29.0	29.0	26.7	26.7	8.1	8.1	144.3	9.6	9.6	3.3	3.3	8.1										
	0.4	65.0	29.0	29.0	26.7	26.7	8.1	8.1	143.9	9.6	9.6	3.3	3.3	8.2										
	0.6	67.0	26.6	26.6	31.8	32.0	7.9	7.9	66.3	4.5	4.4	8.7	8.7	8.5										
IM10	Cloudy	Moderate	0.6	12.0	S	0.4	62.0	29.0	29.0	26.7	26.7	8.1	8.1	144.3	144.1	9.6	9.6	7.0	7.0	3.3	3.3	8.1	8.2	12.3
						0.4	65.0	29.0		26.7		8.1		143.9		9.6		3.3		8.2				
						0.6	67.0	26.6		26.6		31.8		32.0		7.9		7.9		66.3		4.5		
					M	0.6	71.0	26.5	26.6	32.1	32.0	7.9	7.9	63.8	4.3	4.4	8.7	8.7	8.9					
						0.4	58.0	26.3	26.3	32.8	32.8	7.8	7.8	51.3	3.4	3.4	12.1	12.1	19.7					
						0.5	61.0	26.3	26.3	32.8	32.8	7.8	7.8	51.5	3.5	3.4	12.1	12.1	20.1					
B	0.5	61.0	26.3	26.3	32.8	32.8	7.8	7.8	51.5	3.5	3.4	12.1	12.1	20.1										
	0.5	177.0	29.2	29.2	22.2	22.2	8.0	8.0	130.5	8.9	8.9	5.2	5.3	2.6										
	0.5	179.0	29.1	29.2	22.3	22.2	8.0	8.0	130.7	8.9	8.9	5.4	5.3	2.8										
IM11A	Cloudy	Moderate	0.6	5.5	S	0.5	177.0	29.2	29.2	22.2	22.2	8.0	8.0	130.5	130.6	8.9	8.9	8.9	8.9	5.2	5.3	2.6	2.7	5.6
						0.5	179.0	29.1		22.3		8.0		130.7		8.9		5.4		2.8				
						0.6	201.0	28.7		25.4		8.0		128.9		8.7		10.1		8.7		10.1		
					M	0.6	201.0	28.7	28.7	25.4	25.4	8.0	8.0	128.7	8.7	8.7	10.1	10.1	8.7					
						0.3	122.0	30.4	30.4	23.1	23.1	8.1	8.1	138.8	9.2	9.2	1.7	1.7	4.7					
						0.3	127.0	30.4	30.4	23.1	23.1	8.1	8.1	138.5	9.2	9.2	1.7	1.7	4.4					
B	0.2	152.0	27.3	27.3	30.4	30.4	7.8	7.8	70.8	4.7	4.7	4.5	4.5	6.4										
	0.2	166.0	27.2	27.3	30.4	30.4	7.8	7.8	70.5	4.7	4.7	4.6	4.5	6.3										
	0.2	138.0	26.7	26.8	31.9	31.8	7.8	7.8	57.5	3.9	3.9	9.6	9.6	8.2										
IM12	Cloudy	Moderate	0.6	14.3	S	0.2	152.0	27.3	27.3	30.4	30.4	7.8	7.8	70.8	70.7	4.7	4.7	7.0	7.0	4.5	4.5	6.4	6.4	6.4
						0.2	166.0	27.2		30.4		7.8		70.5		4.7		4.6		6.3				
						0.2	138.0	26.7		26.8		31.9		31.8		7.8		7.8		57.5		3.9		
					M	0.2	149.0	26.8	26.8	31.8	31.8	7.8	7.8	57.8	3.9	3.9	9.6	9.6	8.8					
						0.2	176.0	29.4	29.4	19.9	19.9	7.9	7.9	85.6	5.9	5.9	2.4	2.4	3.4					
						0.2	183.0	29.4	29.4	19.9	19.9	7.9	7.9	85.3	5.8	5.9	2.4	2.4	3.5					
B	0.2	176.0	29.4	29.4	19.9	19.9	7.9	7.9	85.6	5.9	5.9	2.4	2.4	3.4										
	0.2	183.0	29.4	29.4	19.9	19.9	7.9	7.9	85.3	5.8	5.9	2.4	2.4	3.5										
	0.2	228.0	26.1	26.1	33.2	33.2	7.8	7.8	43.5	2.9	2.9	7.4	7.4	5.9										
IM13	Cloudy	Moderate	0.6	14.7	S	0.2	176.0	29.4	29.4	19.9	19.9	7.9	7.9	85.6	85.5	5.9	5.9	4.4	4.4	2.4	2.4	3.4	3.5	5.2
						0.2	183.0	29.4		19.9		7.9		85.3		5.8		2.4		3.5				
						0.2	228.0	26.1		26.1		33.2		33.2		7.8		7.8		43.5		2.9		
					M	0.2	230.0	26.1	26.0	33.4	33.4	7.8	7.8	44.0	3.0	3.0	10.5	10.5	6.4					
						0.3	198.0	26.0	26.0	33.4	33.4	7.8	7.8	44.2	3.0	3.0	10.5	10.5	6.2					
						0.3	198.0	26.0	26.0	33.4	33.4	7.8	7.8	44.2	3.0	3.0	10.5	10.5	6.2					
B	0.4	225.0	28.9	28.9	22.3	22.3	7.9	7.9	102.2	7.0	7.0	2.3	2.3	3.3										
	0.5	227.0	28.9	28.9	22.3	22.3	7.9	7.9	102.2	7.0	7.0	2.3	2.3	3.1										
	0.5	209.0	26.5	26.5	30.0	30.3	7.8	7.8	52.4	3.6	3.5	9.8	9.9	5.5										
IM14	Cloudy	Moderate	0.6	11.4	S	0.4	225.0	28.9	28.9	22.3	22.3	7.9	7.9	102.2	102.2	7.0	7.0	5.2	5.2	2.3	2.3	3.3	3.2	6.5
						0.5	227.0	28.9		22.3		7.9		102.2		7.0		2.3		3.1				
						0.5	209.0	26.5		26.5		30.0		30.3		7.8		7.8		52.4		3.6		
					M	0.5	211.0	26.5	26.5	30.7	30.3	7.8	7.8	51.6	3.5	3.5	9.9	9.9	5.6					
						0.5	191.0	26.1	26.1	33.2	33.2	7.8	7.8	47.6	3.2	3.2	10.7	10.7	10.0					
						0.5	192.0	26.1	26.1	33.2	33.2	7.8	7.8	48.0	3.2	3.2	10.7	10.7	11.3					

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value
IM15	Cloudy	Calm	0.7	6.5	S	0.8	51.8	30.1	30.0	19.9	20.1	8.0	8.0	101.8	101.7	6.9	6.9	5.7	2.3	2.2	5.4	2.8	3.1	6.4
						0.8	51.8	29.9	20.3	20.3	8.0	8.0	101.6	6.9	6.9	2.0	2.0	3.3						
						1.8	151.9	27.5	27.7	26.3	7.9	7.9	61.9	4.2	4.5	7.0	6.6	6.4						
					M	1.1	207.7	28.1	25.0	26.3	7.9	7.9	71.2	4.8	4.5	6.1	6.6	5.8						
						0.5	162.4	27.5	27.9	27.9	7.9	7.9	67.3	4.6	4.3	7.0	7.5	10.0						
						0.1	251.6	27.5	27.9	27.9	7.9	7.9	61.3	4.1	4.3	8.0	7.5	10.3						
IM16A	Cloudy	Calm	0.7	7.5	S	1.0	119.8	30.2	30.3	18.3	18.2	8.0	8.0	92.5	96.1	6.3	6.5	5.9	2.6	2.5	4.6	3.7	3.6	6.4
						1.0	119.8	30.4	18.1	18.2	8.0	8.0	99.7	6.8	6.5	2.5	2.5	3.4						
						0.2	250.9	28.4	23.5	23.6	7.9	7.9	74.5	5.1	5.2	3.3	3.1	4.8						
					M	0.5	246.9	28.4	23.6	23.6	7.9	7.9	79.0	5.4	5.2	2.8	3.1	5.0						
						1.4	115.3	27.9	26.4	26.4	7.9	7.9	71.7	4.9	4.6	7.8	8.2	10.6						
						0.1	241.4	27.8	26.4	26.4	7.9	7.9	64.8	4.4	4.6	8.6	8.2	10.9						
IM17	Cloudy	Calm	0.6	5.5	S	0.4	36.8	29.4	29.6	21.3	20.8	7.9	7.9	86.9	90.4	5.9	6.1	6.1	2.5	2.3	3.5	6.2	6.2	9.9
						0.9	349.4	29.7	20.3	20.8	7.9	7.9	94.0	6.4	6.1	2.1	2.3	6.2						
						0.8	135.2	28.3	24.1	24.1	7.9	7.9	79.2	5.4	5.1	4.4	4.7	13.3						
					B	0.5	115.8	28.2	24.2	24.1	7.9	7.9	69.7	4.8	5.1	5.0	4.7	13.7						
						1.2	117.4	30.0	20.7	20.7	7.9	7.9	86.2	5.8	6.1	3.0	2.7	10.4						
						0.2	115.7	30.1	20.5	20.6	7.9	7.9	95.0	6.4	6.1	2.3	2.7	10.8						
IM18	Cloudy	Calm	0.6	17.5	S	0.9	176.4	28.0	28.0	25.0	25.0	7.8	7.8	61.2	62.4	4.2	4.2	5.2	6.1	5.4	14.0	5.0	4.8	6.2
						1.1	178.3	28.0	25.0	25.0	7.8	7.8	63.5	4.3	4.2	4.7	5.4	4.6						
						0.7	148.0	26.2	30.2	30.2	7.8	7.8	50.3	3.4	3.3	37.7	34.1	3.0						
					M	0.4	146.4	26.2	30.2	30.2	7.8	7.8	47.3	3.2	3.3	30.5	34.1	3.4						
						0.5	240.0	29.4	29.4	23.3	23.0	7.8	7.8	73.6	75.0	4.9	5.0	7.9	7.7	6.9				
						1.0	223.6	29.5	22.7	23.0	7.8	7.8	76.5	5.2	5.0	7.6	7.7	6.4						
IM19	Cloudy	Calm	0.6	18.0	M	0.5	201.1	28.0	28.1	26.4	26.3	7.8	7.8	61.3	62.0	4.1	4.2	4.6	10.2	9.4	10.0	9.3	9.5	10.3
						0.5	201.1	28.1	26.2	26.3	7.8	7.8	62.8	4.2	4.2	8.7	9.4	14.0						
						0.5	113.0	26.3	29.9	29.9	7.8	7.8	55.2	3.8	3.7	13.4	12.7	14.7						
					B	0.9	124.2	26.3	26.3	29.9	29.9	7.8	7.8	53.1	54.1	3.6	3.7	12.0	12.7	15.5				
						0.5	191.7	29.8	19.8	20.0	7.8	7.8	78.1	5.3	5.4	6.0	5.7	8.4						
						1.2	258.9	29.7	20.2	20.2	7.8	7.8	80.7	5.5	5.4	5.5	5.7	7.8						
IM20A	Cloudy	Calm	0.6	4.5	B	1.0	242.8	28.1	28.2	24.2	24.7	7.8	7.8	73.9	70.5	5.0	4.8	4.8	8.8	8.8	7.3	12.4	12.5	10.3
						1.0	242.8	28.4	24.2	24.7	7.8	7.8	67.1	4.6	4.8	8.7	8.8	12.5						
						0.4	275.0	29.8	19.6	20.2	7.8	7.8	77.1	5.3	5.3	7.6	7.4	5.6						
IM21A	Cloudy	Calm	0.6	5.0	S	0.4	275.0	29.4	27.4	26.7	26.8	7.8	7.8	64.0	61.4	4.4	4.2	4.2	16.3	17.7	12.5	20.2	21.3	13.6
						0.5	146.0	27.4	26.8	26.8	7.8	7.8	58.8	4.0	4.2	19.2	17.7	22.3						
					B	0.8	223.4	29.5	25.6	25.7	25.7	7.8	7.8	72.3	72.1	4.8	4.8	4.8	19.8	19.3		24.7		
						0.8	223.4	29.4	25.7	25.7	7.8	7.8	72.0	4.8	4.8	18.8	19.3	25.3						
IM22A	Cloudy	Calm	0.6	4.5	S	0.7	340.6	29.1	29.1	25.9	25.9	7.8	7.8	72.4	71.5	4.8	4.8	4.8	19.7	19.9	19.6	27.5	27.9	26.5
						0.2	192.8	29.1	25.9	25.9	7.8	7.8	70.5	4.7	4.8	20.2	19.9	28.3						
					B	0.7	340.6	29.1	25.9	25.9	7.8	7.8	72.4	71.5	4.8	4.8	4.8	19.7	19.9	27.5				
						0.2	192.8	29.1	25.9	25.9	7.8	7.8	70.5	4.7	4.8	20.2	19.9	28.3						

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value
E1	Fine	Calm	07:43	8.5	S	0.1	4.5	27.0	27.0	29.3	29.3	7.7	7.7	78.9	79.7	5.3	5.4	5.0	1.9	1.9	2.1	3.2	3.1	4.4
						0.2	236.0	27.0		29.3		7.8		80.5		5.4			1.9			3.0		
						0.5	357.4	26.7		29.9		7.5		67.5		4.6			2.2			4.5		
					M	0.2	196.8	26.7	29.9	7.6	67.1	4.5	4.6	2.2	2.2	4.5								
						0.1	256.0	26.5	26.6	30.7	30.7	7.2	67.1	4.5	4.7	2.4	2.3	5.6						
						0.1	256.0	26.7	26.6	30.7	30.7	7.4	72.0	4.9	2.3	4.6	5.1							
B	0.2	85.0	29.9	29.9	28.4	28.4	8.4	8.4	220.5	220.3	14.3	14.3	2.0	2.0	5.0									
	0.2	91.0	29.9	29.9	28.4	28.4	8.4	8.4	220.1	220.3	14.3	14.3	2.0	2.0	4.9									
	0.1	78.0	28.4	28.4	29.0	29.0	8.1	8.1	135.5	135.1	9.0	8.9	2.1	2.2	4.1									
E2	Cloudy	Moderate	16:16	8.5	S	0.1	78.0	28.4	28.4	29.0	29.0	8.1	8.1	135.5	135.1	9.0	8.9	11.6	2.0	2.0	4.8	4.1	3.6	3.8
						0.1	82.0	28.4		29.1		8.1		134.7		8.9			2.3			3.1		
						0.2	81.0	27.6		27.6		30.6		30.6		7.8			7.8			54.4		
					M	0.2	83.0	27.5	27.6	30.6	30.6	7.8	7.8	53.9	54.2	3.6	3.6	10.4	10.3	3.1		3.0		
						0.1	110.0	28.4	28.4	28.5	28.4	8.1	8.1	137.5	137.5	9.1	9.1	2.0	2.0	0.5				
						0.1	116.0	28.4	28.4	28.4	28.4	8.1	8.1	137.4	137.5	9.1	9.1	2.0	2.0	1.0				
B	0.4	122.0	26.6	26.6	31.9	32.0	7.8	7.8	52.6	52.6	3.5	3.5	7.1	7.1	0.5									
	0.4	125.0	26.5	26.6	32.1	32.1	7.8	7.8	52.5	52.6	3.5	3.5	7.1	7.1	0.5									
	0.5	123.0	25.6	25.6	33.9	33.9	7.8	7.8	44.6	44.7	3.0	3.0	10.3	10.5	1.0									
E3	Cloudy	Moderate	14:59	16.8	S	0.1	110.0	28.4	28.4	28.5	28.4	8.1	8.1	137.5	137.5	9.1	9.1	6.3	2.0	2.0	6.6	0.5	0.5	0.9
						0.1	116.0	28.4		28.4		8.1		137.4		9.1			2.0			1.0		
						0.4	122.0	26.6		26.6		31.9		32.0		7.8			7.8			52.6		
					M	0.4	125.0	26.5	26.6	32.1	32.1	7.8	7.8	52.5	52.6	3.5	3.5	7.1	7.1	0.5				
						0.5	123.0	25.6	25.6	33.9	33.9	7.8	7.8	44.6	44.7	3.0	3.0	10.3	10.5	1.0				
						0.5	125.0	25.6	25.6	33.9	33.9	7.8	7.8	44.8	44.7	3.0	3.0	10.7	10.5	1.9				
B	0.3	193.0	29.6	29.7	20.9	20.8	7.8	7.8	83.6	83.5	5.7	5.7	2.5	2.5	0.5									
	0.3	196.0	29.7	29.7	20.8	20.8	7.8	7.8	83.4	83.5	5.7	5.7	2.5	2.5	0.5									
	0.4	220.0	26.3	26.3	32.6	32.6	7.8	7.8	46.0	45.9	3.1	3.1	7.2	7.2	0.5									
E4	Cloudy	Moderate	13:53	12.3	S	0.3	193.0	29.6	29.7	20.9	20.8	7.8	7.8	83.6	83.5	5.7	5.7	4.4	2.5	2.5	7.2	0.5	0.5	0.5
						0.3	196.0	29.7		20.8		7.8		83.4		5.7			2.5			0.5		
						0.4	220.0	26.3		26.3		32.6		32.6		7.8			7.8			46.0		
					M	0.4	239.0	26.3	26.3	32.7	32.7	7.8	7.8	45.8	45.9	3.1	3.1	7.2	7.2	0.5				
						0.3	207.0	26.0	26.0	33.6	33.6	7.8	7.8	47.2	47.2	3.2	3.2	11.9	11.9	0.5				
						0.3	227.0	26.0	26.0	33.6	33.6	7.8	7.8	47.2	47.2	3.2	3.2	11.9	11.9	0.5				
B	0.3	46.9	28.4	28.3	20.7	20.7	7.7	7.7	72.8	73.8	5.1	5.1	3.6	3.6	5.4	3.5	3.0							
	0.3	46.9	28.3	28.3	20.7	20.7	7.7	7.7	74.8	73.8	5.2	5.1	3.5	3.5	2.5									
	0.1	259.8	27.6	27.6	27.3	27.3	7.7	7.7	60.4	58.8	4.1	4.0	7.3	7.2	4.9									
E5	Cloudy	Calm	07:53	5.5	S	0.1	259.8	27.6	27.6	27.3	27.3	7.7	7.7	57.2	58.8	3.9	4.0	4.0	7.1	7.2	5.4	5.6	5.3	4.1
						0.1	259.8	27.6		27.3		7.7		57.2		3.9			7.1			5.6		
						0.3	321.5	29.3		29.2		14.4		14.6		7.7			7.7			70.4		
					M	0.8	350.4	29.2	29.2	14.9	14.6	7.7	7.7	71.7	71.0	5.1	5.0	8.2	8.6	4.8				
						0.4	319.5	27.8	27.8	25.0	25.0	7.7	7.7	61.1	57.9	4.2	4.0	17.4	17.4	20.3				
						0.4	319.5	27.7	27.8	25.1	25.0	7.7	7.7	54.7	57.9	3.7	4.0	17.4	17.4	19.9				
B	0.1	259.8	27.6	27.6	27.3	27.3	7.7	7.7	57.2	58.8	3.9	4.0	7.1	7.2	5.6									
	0.1	259.8	27.6	27.6	27.3	27.3	7.7	7.7	57.2	58.8	3.9	4.0	7.1	7.2	5.6									
	0.3	321.5	29.3	29.2	14.4	14.6	7.7	7.7	70.4	71.0	5.0	5.0	9.1	8.6	5.7									
E6	Cloudy	Calm	09:55	5.5	S	0.3	321.5	29.3	29.2	14.4	14.6	7.7	7.7	70.4	71.0	5.0	5.0	5.0	9.1	8.6	13.0	5.7	5.3	12.7
						0.8	350.4	29.2		14.9		7.7		71.7		5.1			8.2					
						0.4	319.5	27.8		27.8		25.0		25.0		7.7			7.7			61.1		
					M	0.4	319.5	27.8	27.8	25.0	25.0	7.7	7.7	61.1	57.9	4.2	4.0	17.4	17.4	20.3				
						0.4	319.5	27.7	27.8	25.1	25.0	7.7	7.7	54.7	57.9	3.7	4.0	17.4	17.4	19.9				
						0.4	319.5	27.7	27.8	25.1	25.0	7.7	7.7	54.7	57.9	3.7	4.0	17.4	17.4	19.9				
B	1.0	39.6	28.5	28.4	22.1	22.2	7.7	7.7	59.8	60.0	4.1	4.1	13.7	12.3	4.5									
	1.0	39.6	28.3	28.4	22.4	22.2	7.6	7.7	60.3	60.0	4.1	4.1	10.9	12.3	11.2									
	0.5	68.8	27.9	27.9	24.8	24.8	7.7	7.7	61.4	59.5	4.2	4.1	21.7	22.6	19.4									
E7A	Cloudy	Calm	10:45	5.0	S	0.0	39.6	28.3	28.3	29.2	29.2	8.3	8.3	149.0	151.9	9.9	10.1	6.6	0.9	0.9	3.3	0.5	1.0	4.0
						0.3	73.1	28.4		28.3		29.2		8.3		154.8			10.2			1.0		
						0.3	303.4	26.4		26.4		33.2		33.2		7.9			7.9			46.8		
					M	0.3	303.4	26.3	26.4	33.3	33.2	7.9	7.9	47.7	47.2	3.2	3.2	1.4	1.4	0.5				
						0.3	301.2	24.3	24.3	34.5	34.5	7.8	7.8	40.0	39.4	2.8	2.7	7.6	7.6	10.3				
						0.3	341.0	24.3	24.3	34.5	34.5	7.8	7.8	38.8	39.4	2.7	2.7	7.7	7.6	11.0				
B	0.2	227.0	28.6	28.6	29.0	29.0	8.3	8.3	153.3	155.4	10.1	10.3	0.9	0.9	1.1									
	0.2	227.0	28.6	28.6	29.0	29.0	8.3	8.3	157.5	155.4	10.4	10.3	0.8	0.9	0.5									
	0.2	274.9	26.5	26.7	32.6	32.2	7.9	7.9	48.2	50.2	3.2	3.4	2.0	2.0	4.4									
F1	Fine	Calm	08:35	20.0	S	0.2	274.9	26.8	26.7	31.8	32.2	7.9	7.9	52.1	50.2	3.5	3.4	6.8	1.9	2.0	3.6	3.5	4.0	4.4
						0.2	274.9	26.8		31.8		7.9		52.1		3.5			1.9			3.5		
						0.1	71.3	24.3		24.3		34.5		34.5		7.8			7.8			42.5		
					M	0.1	71.3	24.3	24.3	34.5	34.5	7.8	7.8	42.5	42.1	2.9	2.9	7.7	7.8	8.5				
						0.1	71.3	24.3	24.3	34.5	34.5	7.8	7.8	42.5	42.1	2.9	2.9	7.7	7.8	8.5				
						0.1	71.3	24.3	24.3	34.5	34.5	7.8	7.8	41.6	42.1	2.9	2.9	8.0	7.8	8.3				

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Fine	Calm	10:31	18.0	S	0.6	251.9	29.2	29.2	28.7	28.7	8.3	8.3	168.8	170.7	11.0	11.2	8.2	0.8	0.8	2.7	1.9	1.7	5.3
						0.3	264.1	29.2	28.7	28.7	8.3	8.3	172.7	170.7	11.3	11.2	8.2	0.8	0.8	1.4		1.7		
						0.4	342.6	27.7	27.7	31.5	31.4	8.0	8.0	77.3	78.0	5.1	5.2	8.2	0.7	0.6		0.5	0.5	
					M	0.3	279.9	27.7	27.7	31.3	31.4	8.0	8.0	78.8	78.0	5.2	5.2	8.2	0.5	0.6		0.5	0.5	
						0.1	327.6	25.2	25.2	34.3	34.3	7.9	7.9	42.0	41.4	2.9	2.8	2.8	6.4	6.8		19.6	13.8	
						0.1	266.9	25.2	25.2	34.3	34.3	7.9	7.9	40.8	41.4	2.8	2.8	2.8	6.4	6.8		7.9	13.8	
F4	Cloudy	Moderate	15:54	13.3	S	0.7	96.0	30.0	30.0	26.3	26.3	8.3	8.3	200.5	199.9	13.1	13.1	10.1	2.3	2.3	5.6	2.5	2.0	2.4
						0.7	99.0	30.0	30.0	26.3	26.3	8.3	8.3	199.2	199.9	13.0	13.1	10.1	2.4	2.3		1.5	2.0	
						0.5	85.0	28.2	28.2	29.8	29.9	8.0	8.0	110.0	107.8	7.3	7.1	10.1	4.2	4.2		1.7	2.0	
					M	0.5	93.0	28.2	28.2	30.0	29.9	8.0	8.0	105.5	107.8	7.0	7.1	10.1	4.2	4.2		2.2	2.0	
						0.3	108.0	26.7	26.7	32.2	32.2	7.8	7.8	49.5	49.7	3.3	3.3	3.3	10.4	10.3		3.7	3.2	
						0.4	117.0	26.7	26.7	32.2	32.2	7.8	7.8	49.8	49.7	3.3	3.3	3.3	10.3	10.3		2.7	3.2	
F5	Cloudy	Moderate	13:23	6.7	S	0.1	279.0	29.1	29.1	21.4	21.4	7.9	7.9	81.2	81.1	5.5	5.5	5.1	2.9	2.9	5.3	0.5	0.5	0.9
						0.1	303.0	29.1	29.1	21.3	21.4	7.9	7.9	80.9	81.1	5.5	5.5	5.1	2.9	2.9		0.5	0.5	
						0.2	81.0	27.9	27.9	28.4	28.4	8.0	8.0	69.5	69.6	4.7	4.7	4.7	4.6	4.6		0.5	0.5	
					M	0.2	83.0	27.9	27.9	28.4	28.4	8.0	8.0	69.6	69.6	4.7	4.7	4.7	4.6	4.6		0.5	0.5	
						0.1	105.0	27.3	27.3	29.8	29.8	8.0	8.0	58.8	58.9	3.9	3.9	3.9	8.5	8.5		1.3	1.8	
						0.1	114.0	27.4	27.4	29.8	29.8	8.0	8.0	58.9	58.9	4.0	3.9	3.9	8.5	8.5		2.3	1.8	
F6	Cloudy	Calm	08:31	13.5	S	0.3	218.4	28.2	28.3	23.3	23.1	7.7	7.7	63.9	64.7	4.4	4.4	4.2	3.7	3.6	8.2	2.6	2.6	7.0
						0.6	203.8	28.3	28.3	22.9	23.1	7.7	7.7	65.5	64.7	4.5	4.4	4.2	3.5	3.6		2.5	2.6	
						0.7	336.5	27.6	27.5	26.4	26.4	7.7	7.7	57.7	58.3	3.9	4.0	4.0	6.6	6.4		5.3	5.1	
					M	0.4	147.9	27.5	27.5	26.4	26.4	7.7	7.7	58.9	58.3	4.0	4.0	4.0	6.1	6.4		4.9	5.1	
						0.5	239.1	26.4	26.4	29.6	29.6	7.7	7.7	54.4	52.6	3.7	3.6	3.6	14.6	14.5		13.2	13.4	
						1.4	306.9	26.4	26.4	29.6	29.6	7.7	7.7	50.8	52.6	3.5	3.6	3.6	14.4	14.5		13.6	13.4	
IM1	Fine	Calm	08:17	9.5	S	0.1	150.5	28.1	28.1	29.3	29.3	8.2	8.2	152.8	154.3	10.1	10.2	9.4	0.9	0.8	3.2	3.3	2.8	7.2
						0.3	318.7	28.1	28.1	29.3	29.3	8.3	8.3	155.8	154.3	10.3	10.2	9.4	0.8	0.8		2.3	2.8	
						0.4	148.7	27.8	27.8	29.4	29.4	8.1	8.1	127.7	129.1	8.5	8.6	8.6	1.3	1.3		3.4	3.9	
					M	0.3	62.0	27.8	27.8	29.4	29.4	8.1	8.1	130.4	129.1	8.7	8.6	8.6	1.3	1.3		4.3	3.9	
						0.1	45.8	27.0	26.9	31.9	32.0	7.9	7.9	72.5	70.9	4.8	4.7	4.7	7.3	7.4		14.1	15.1	
						0.1	253.3	26.8	26.9	32.0	32.0	7.9	7.9	69.2	70.9	4.6	4.7	4.7	7.5	7.4		16.0	15.1	
IM2	Fine	Calm	07:55	11.6	S	0.3	253.8	27.0	27.0	29.5	29.5	7.9	7.9	84.5	85.1	5.7	5.8	5.2	1.4	1.4	3.1	4.7	5.2	7.3
						0.2	234.0	26.9	26.9	29.5	29.5	7.9	7.9	85.8	85.1	5.8	5.8	5.2	1.5	1.4		5.6	5.2	
						0.3	348.7	26.7	26.7	29.9	29.9	7.8	7.8	69.1	69.3	4.7	4.7	4.7	2.0	2.0		6.4	5.9	
					M	0.1	256.0	26.7	26.7	29.9	29.9	7.8	7.8	69.6	69.3	4.7	4.7	4.7	1.9	2.0		5.4	5.9	
						0.2	156.0	26.1	26.0	32.6	32.9	7.8	7.8	51.4	45.4	3.5	3.1	3.1	5.3	5.9		11.6	10.9	
						0.3	129.9	25.9	25.9	33.2	32.9	7.8	7.8	39.5	45.4	2.7	3.1	3.1	6.4	5.9		10.2	10.9	
IM3	Fine	Calm	09:25	15.0	S	0.2	248.9	28.3	28.4	29.2	29.2	8.3	8.3	157.4	159.4	10.4	10.5	8.0	1.1	1.1	2.8	4.7	4.3	7.4
						0.2	321.8	28.4	28.4	29.2	29.2	8.3	8.3	161.3	159.4	10.7	10.5	8.0	1.0	1.1		3.8	4.3	
						0.2	256.9	27.3	27.3	29.7	29.7	8.0	8.0	80.4	81.5	5.4	5.5	5.5	2.2	2.2		4.5	5.0	
					M	0.3	249.3	27.4	27.4	29.7	29.7	8.0	8.0	82.6	81.5	5.5	5.5	5.5	2.1	2.2		5.4	5.0	
						0.1	205.9	25.5	25.5	34.2	34.2	7.8	7.8	29.2	28.3	2.0	1.9	1.9	5.1	5.2		13.4	13.1	
						0.1	205.9	25.5	25.5	34.2	34.2	7.8	7.8	27.3	28.3	1.8	1.9	1.9	5.2	5.2		12.8	13.1	
IM4	Fine	Calm	09:46	16.5	S	0.3	303.1	29.1	29.1	28.8	28.8	8.4	8.4	186.2	187.4	12.2	12.3	10.7	0.9	1.0	3.9	6.7	6.5	9.1
						0.2	289.5	29.1	29.1	28.8	28.8	8.4	8.4	188.7	187.4	12.4	12.3	10.7	1.0	1.0		6.3	6.5	
						0.1	218.8	28.3	28.3	29.4	29.4	8.2	8.2	135.1	136.6	8.9	9.0	9.0	1.4	1.4		6.2	5.8	
					M	0.2	278.5	28.3	28.3	29.4	29.4	8.2	8.2	138.2	136.6	9.1	9.0	9.0	1.3	1.4		5.3	5.8	
						0.3	228.5	25.7	25.7	34.1	34.1	7.9	7.8	34.6	33.7	2.3	2.3	2.3	8.9	9.3		15.9	15.0	
						0.3	235.2	25.7	25.7	34.1	34.1	7.8	7.8	32.8	33.7	2.2	2.3	2.3	9.7	9.3		14.1	15.0	
IM5	Fine	Calm	10:05	15.5	S	0.3	313.9	29.0	29.0	28.2	28.2	8.4	8.4	186.6	188.2	12.3	12.4	8.6	1.1	1.1	4.6	5.0	4.8	9.8
						0.2	255.1	28.9	28.9	28.2	28.2	8.4	8.4	189.9	188.2	12.5	12.4	8.6	1.2	1.1		4.6	4.8	
						0.1	43.0	27.5	27.5	30.2	30.2	8.0	8.0	68.8	73.1	4.6	4.9	4.9	1.7	1.7		6.6	6.1	
					M	0.1	43.0	27.6	27.5	30.2	30.2	8.0	8.0	77.5	73.1	5.2	4.9	4.9	1.7	1.7		5.5	6.1	
						0.1	277.5	25.8	25.8	34.0	34.0	7.9	7.8	37.5	36.5	2.5	2.5	2.5	10.9	11.0		17.4	18.5	
						0.0	14.0	25.8	25.8	34.0	34.0	7.8	7.8	35.6	36.5	2.4	2.5	2.5	11.0	11.0		19.5	18.5	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average
IM6	Fine	Calm	10:19	16.5	S	0.9	237.6	29.0	29.0	28.4	28.4	8.4	8.4	189.1	191.5	12.4	12.6	9.2	1.1	1.1	2.8	6.7	6.8	7.3	
						0.9	237.6	28.9	28.4	28.4	8.4	8.4	193.9	12.8	1.1	2.9	6.9								
						0.3	284.6	27.9	28.0	30.6	30.4	8.0	8.1	79.5	5.3		5.8	1.1	1.1	6.0					
					0.3	284.6	28.2	30.2	30.2	8.1	8.1	94.7	6.3	6.3	1.1		1.1	6.9							
					B	0.5	27.7	25.4	25.4	34.2	34.2	7.9	7.9	43.3	2.9	2.9	2.9	6.3	6.3	9.0		8.7			
						0.5	27.7	25.4	34.2	34.2	7.9	7.9	41.6	2.8	2.8	6.3	6.3	8.3							
0.2	309.8	28.7	28.1	28.1		28.1	8.4	8.4	190.8	12.6	12.6	1.7	1.5	5.8											
IM7	Fine	Calm	11:02	13.0	S	0.1	252.3	28.7	28.7	28.2	28.1	8.4	8.4	189.6	190.2	12.5	12.6	10.4	1.3	1.5	3.2	5.2	5.5	7.1	
						0.3	258.8	28.1	28.2	29.2	29.2	8.1	8.2	120.1	8.0	8.1	2.0	1.9	4.8						
						0.2	320.1	28.2	29.1	29.1	8.2	8.2	124.6	8.3	8.1	1.9	1.9	4.3							
					B	0.4	266.6	25.9	25.9	33.8	33.8	7.9	7.9	49.2	3.3	3.3	3.3	6.1	6.2	12.0		11.2			
						0.4	266.6	25.9	33.8	33.8	7.9	7.9	48.2	3.2	3.3	6.2	6.2	10.4							
						0.5	294.7	28.8	28.8	27.5	27.4	8.4	8.4	184.0	185.7	12.2	12.3	8.4	1.4	1.4					4.0
IM8	Fine	Calm	10:51	14.5	S	0.1	321.5	28.7	28.8	27.4	27.4	8.4	8.4	187.4	185.7	12.4	12.3	8.4	1.4	1.4	4.8	4.3	4.2	7.7	
						0.5	302.2	27.6	27.5	30.6	30.9	7.9	7.9	71.5	66.3	4.8	4.4	1.7	1.8	2.7					
						0.4	273.8	27.3	31.2	31.2	7.9	7.9	61.1	4.1	4.4	1.8	1.8	2.9							
					B	0.3	318.9	25.6	25.6	34.1	34.1	7.9	7.9	44.7	3.0	3.0	3.0	11.6	16.2						
						0.3	318.9	25.6	34.1	34.1	7.9	7.9	43.2	2.9	3.0	11.0	11.3	15.0							
						0.2	70.0	29.7	29.8	27.9	27.9	8.3	8.3	213.1	13.9	13.8	2.0	2.0		4.2					
IM9	Cloudy	Moderate	15:24	14.7	S	0.2	72.0	29.8	29.8	27.9	27.9	8.3	8.3	211.0	212.1	13.7	13.8	10.8	2.0	2.0	4.9	3.2	3.7	5.9	
						0.1	87.0	28.1	28.1	29.4	29.4	8.0	8.0	118.2	117.9	7.9	7.8	1.9	2.0	4.0					
						0.1	92.0	28.0	28.1	29.4	29.4	8.0	8.0	117.5	117.9	7.8	7.8	2.1	2.0	3.4					
					B	0.3	148.0	26.8	26.8	31.9	31.9	7.9	7.9	67.1	67.1	4.5	4.5	4.5	10.6	10.6		10.9			10.4
						0.3	158.0	26.8	31.9	31.9	7.9	7.9	67.0	67.0	4.5	4.5	4.5	10.6	10.6	9.9					
						0.4	62.0	29.0	29.0	26.7	26.7	8.1	8.1	144.3	144.1	9.6	9.6	7.0	3.3	3.3		5.3			
IM10	Cloudy	Moderate	14:43	12.0	S	0.4	65.0	29.0	29.0	26.7	26.7	8.1	8.1	143.9	144.1	9.6	9.6	7.0	3.3	3.3	8.0	4.3	4.3	4.4	
						0.6	67.0	26.6	26.6	31.8	32.0	7.9	7.9	66.3	65.1	4.5	4.4	8.7	8.7	4.7					
						0.6	71.0	26.5	26.6	32.1	32.0	7.9	7.9	63.8	65.1	4.3	4.4	8.7	8.7	3.8					
					B	0.4	58.0	26.3	26.3	32.8	32.8	7.8	7.8	51.3	51.4	3.4	3.4	3.4	12.1	12.1		4.1			4.0
						0.5	61.0	26.3	26.3	32.8	32.8	7.8	7.8	51.5	51.4	3.5	3.4	3.4	12.1	12.1		3.9			
						0.5	177.0	29.2	29.2	22.2	22.2	8.0	8.0	130.5	130.6	8.9	8.9	8.9	5.2	5.3		1.9			
IM11A	Cloudy	Moderate	14:34	5.5	S	0.5	179.0	29.1	29.2	22.3	22.2	8.0	8.0	130.7	130.6	8.9	8.9	8.9	5.4	5.3	7.7	2.8	2.4	2.9	
						0.5	184.0	28.7	28.7	25.4	25.4	8.0	8.0	128.9	128.8	8.7	8.7	8.7	10.1	10.1		3.2			
						0.6	201.0	28.7	28.7	25.4	25.4	8.0	8.0	128.7	128.8	8.7	8.7	8.7	10.1	10.1		3.8			
					B	0.3	122.0	30.4	30.4	23.1	23.1	8.1	8.1	138.8	138.7	9.2	9.2	7.0	1.7	1.7		5.6			5.1
						0.3	127.0	30.4	30.4	23.1	23.1	8.1	8.1	138.5	138.7	9.2	9.2	7.0	1.7	1.7		4.5			
						0.2	152.0	27.3	27.3	30.4	30.4	7.8	7.8	70.8	70.7	4.7	4.7	4.7	4.6	4.5		2.8			
IM12	Cloudy	Moderate	14:26	14.3	M	0.2	166.0	27.2	27.3	30.4	30.4	7.8	7.8	70.5	70.7	4.7	4.7	3.9	3.9	3.9	5.3	3.4	3.1	4.0	
						0.2	166.0	27.2	27.3	30.4	30.4	7.8	7.8	70.5	70.7	4.7	4.7	3.9	3.9	3.9		4.4			
						0.2	138.0	26.7	26.8	31.9	31.8	7.8	7.8	57.5	57.7	3.9	3.9	3.9	9.6	9.6		4.4			
					B	0.2	149.0	26.8	26.8	31.8	31.8	7.8	7.8	57.8	57.7	3.9	3.9	3.9	9.6	9.6		3.4			3.9
						0.2	176.0	29.4	29.4	19.9	19.9	7.9	7.9	85.6	85.5	5.9	5.9	4.4	2.4	2.4		1.2			
						0.2	183.0	29.4	29.4	19.9	19.9	7.9	7.9	85.3	85.5	5.8	5.9	4.4	2.4	2.4		1.7			
IM13	Cloudy	Moderate	14:07	14.7	S	0.2	228.0	26.1	26.1	33.2	33.2	7.8	7.8	43.5	43.5	2.9	2.9	4.4	7.4	7.4	6.8	2.5	2.4	2.7	
						0.2	230.0	26.1	26.1	33.2	33.2	7.8	7.8	43.5	43.5	2.9	2.9	4.4	7.4	7.4		2.2			
						0.3	198.0	26.0	26.0	33.4	33.4	7.8	7.8	44.0	44.1	3.0	3.0	3.0	10.5	10.5		3.8			
					B	0.3	198.0	26.0	26.0	33.4	33.4	7.8	7.8	44.2	44.1	3.0	3.0	3.0	10.5	10.5		4.6			4.2
						0.4	225.0	28.9	28.9	22.3	22.3	7.9	7.9	102.2	102.2	7.0	7.0	5.2	2.3	2.3		2.3			
						0.5	227.0	28.9	28.9	22.3	22.3	7.9	7.9	102.2	102.2	7.0	7.0	5.2	2.3	2.3		2.8			
IM14	Cloudy	Moderate	14:00	11.4	S	0.5	209.0	26.5	26.5	30.0	30.3	7.8	7.8	52.4	52.0	3.6	3.5	5.2	9.8	9.9	7.6	4.1	3.8	3.3	
						0.5	211.0	26.5	26.5	30.7	30.3	7.8	7.8	51.6	52.0	3.5	3.5	3.5	9.9	9.9		3.5			
						0.5	191.0	26.1	26.1	33.2	33.2	7.8	7.8	47.6	47.8	3.2	3.2	3.2	10.7	10.7		4.0			
					B	0.5	192.0	26.1	26.1	33.2	33.2	7.8	7.8	48.0	47.8	3.2	3.2	3.2	10.7	10.7		3.3			3.7
						0.5	192.0	26.1	26.1	33.2	33.2	7.8	7.8	48.0	47.8	3.2	3.2	3.2	10.7	10.7		3.3			
						0.5	192.0	26.1	26.1	33.2	33.2	7.8	7.8	48.0	47.8	3.2	3.2	3.2	10.7	10.7		3.3			

Water Quality Monitoring Data Log Sheet

Date: 2019/08/21

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)							
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*				
IM15	Cloudy	Calm	07:40	6.0	S	1.5	339.2	28.2	28.2	21.2	21.3	7.7	7.7	75.8	77.2	5.3	5.4	5.0	2.9	2.8	4.1	4.4	3.9	4.5				
						0.5	258.9	28.1		21.3		78.6		5.5		2.7			3.4									
						0.9	41.0	28.1		23.4		7.6		65.8		4.5			3.8			4.4						
					M	0.5	146.3	28.1	23.2	23.3	7.7	7.7	69.9	67.8	4.8	4.7	4.0	6.1	3.1	3.4	3.9							
						0.7	336.7	27.7	26.2	26.7	7.4	7.5	62.0	59.7	4.2	4.0	4.0	6.1	3.0	3.4	3.9							
						0.3	275.4	27.7	26.7	26.7	7.5	7.5	57.3	57.3	3.9	4.0	4.0	6.1	6.2	6.1	5.8							
IM16A	Cloudy	Calm	08:07	6.5	S	0.6	239.1	28.5	28.5	20.7	20.9	7.7	7.7	66.6	66.2	4.6	4.6	4.5	5.4	5.4	6.0	5.8	5.6	5.9				
						1.1	180.4	28.5		21.1		20.9		7.7		7.7			65.8			66.2			4.5	4.6	5.3	5.6
						0.7	132.9	28.4		21.7		21.7		7.7		7.7			64.5			64.5			4.4	4.4	6.1	5.9
					M	0.5	286.6	28.4	21.6	21.7	7.7	7.7	64.6	64.5	4.5	4.4	6.3	6.2	5.3	5.6								
						0.5	316.2	27.9	25.8	25.6	7.7	7.7	69.0	66.7	4.7	4.5	6.4	6.5	6.8	6.5								
						0.4	83.0	27.9	25.5	25.6	7.7	7.7	64.3	66.7	4.4	4.5	6.5	6.5	6.2	6.5								
IM17	Cloudy	Calm	09:13	5.0	S	0.9	214.0	29.0	29.0	16.5	16.0	7.7	7.6	62.1	62.1	4.4	4.4	4.4	5.7	5.4	10.4	5.9	6.3	13.2				
						0.9	214.0	29.0		15.5		16.0		7.7		7.6			62.0			62.1			4.4	4.4	5.1	5.4
						0.7	344.3	28.2		23.1		23.2		7.7		7.7			62.8			61.9			4.3	4.3	16.0	15.4
					B	0.4	85.1	28.1	23.3	23.2	7.7	7.7	61.1	61.9	4.2	4.3	14.8	15.4	13.4	20.1								
						0.2	194.9	28.9	16.4	16.1	7.7	7.7	66.9	68.1	4.7	4.8	5.8	5.6	7.9	7.6								
						0.2	194.9	28.9	15.8	16.1	7.7	7.7	69.4	68.1	4.9	4.8	5.5	5.6	7.2	7.6								
IM18	Cloudy	Calm	09:00	17.0	M	0.6	336.0	27.1	27.1	27.4	27.5	7.7	7.7	51.6	52.0	3.5	3.5	4.2	9.0	8.6	31.7	10.3	10.7	26.3				
						0.2	268.2	27.1		27.6		27.5		7.7		7.7			52.4			52.0			3.6	3.5	8.2	8.6
						0.4	275.5	26.2		30.0		30.0		7.7		7.7			45.3			45.0			3.1	3.1	76.0	81.0
					B	0.6	326.8	26.2	30.0	30.0	7.7	7.7	44.8	45.0	3.1	3.1	85.9	81.0	61.4	60.8								
						0.6	298.7	28.6	19.7	19.1	7.7	7.7	64.4	65.8	4.5	4.6	5.8	5.9	9.2	9.2								
						0.7	46.1	28.8	18.5	19.1	7.7	7.7	67.2	65.8	4.7	4.6	5.9	5.9	9.1	9.2								
IM19	Cloudy	Calm	09:33	17.5	M	0.4	56.7	27.3	27.3	27.0	27.0	7.7	7.7	49.8	49.8	3.4	3.4	4.0	9.5	8.7	30.1	9.4	9.6	45.4				
						0.6	65.8	27.3		27.0		27.0		7.7		7.7			49.8			49.8			3.4	3.4	7.9	8.7
						0.5	12.7	26.6		29.0		29.0		7.7		7.7			53.0			52.1			3.6	3.6	74.5	75.7
					B	0.6	356.2	26.7	28.9	29.0	7.7	7.7	51.3	52.1	3.5	3.6	76.9	75.7	111.0	117.5								
						1.4	62.9	29.7	20.1	19.8	7.7	7.7	76.3	76.5	5.2	5.2	20.0	18.1	9.3	10.1								
						1.4	62.9	29.6	19.6	19.8	7.7	7.7	76.7	76.5	5.2	5.2	16.2	18.1	10.8	10.1								
IM20A	Cloudy	Calm	10:31	4.5	B	0.3	155.8	27.9	27.8	25.3	25.4	7.7	7.7	69.1	65.2	4.7	4.4	4.4	38.7	41.5	29.8	49.0	52.7	31.4				
						0.1	32.1	27.8		25.6		25.4		7.7		7.7			61.4			65.2			4.2	4.4	44.3	41.5
						1.4	217.3	29.7		20.8		20.7		7.7		7.7			75.2			76.4			5.1	5.2	15.4	14.7
IM21A	Cloudy	Calm	10:22	5.0	S	0.8	202.6	29.7	29.7	20.6	20.7	7.7	7.7	77.6	76.4	5.3	5.2	5.2	14.1	14.7	20.5	14.3	13.3	23.4				
						0.2	152.5	29.4		22.5		22.8		7.7		7.7			73.3			71.8			4.9	4.9	24.6	26.3
						0.4	267.6	29.1		23.1		22.8		7.7		7.7			70.4			71.8			4.8	4.9	28.1	26.3
					B	0.8	166.5	29.0	18.1	18.2	7.7	7.7	72.2	72.8	5.0	5.1	8.1	7.3	4.5	4.8								
						0.8	166.5	29.0	18.3	18.2	7.7	7.7	73.4	72.8	5.1	5.1	6.4	7.3	5.1	4.8								
						0.5	152.4	27.7	25.9	25.9	7.7	7.7	71.0	65.2	4.8	4.4	34.0	35.2	46.2	48.4								
IM22A	Cloudy	Calm	10:16	4.5	B	0.4	110.4	27.6	27.7	26.0	25.9	7.7	7.7	59.3	65.2	4.0	4.4	4.4	36.3	35.2	21.2	50.6	48.4	26.6				

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Fine	Calm	19:03	8.5	S	0.2	53.7	28.3	28.4	28.6	28.6	8.3	8.3	160.2	161.1	10.6	10.7	8.5	1.5	1.5	2.7	2.5	3.1		
						0.2	53.7	28.4	28.6	28.6	8.3	8.3	162.1	161.1	10.8	10.7	8.5	1.5	1.5	2.3	2.5				
						0.2	260.5	27.1	27.2	29.7	29.6	8.0	8.1	94.0	95.0	6.3	6.4	8.5	3.0	2.9	3.0	3.0			
					M	0.6	8.9	27.2	27.2	29.5	29.6	8.1	8.1	96.0	95.0	6.5	6.4	8.5	2.9	2.9	2.9	2.9		3.5	3.8
						B	0.1	134.5	26.7	26.7	30.8	30.8	8.0	8.0	86.3	84.5	5.8	5.7	8.5	3.9	4.0	3.9		4.1	4.1
							0.3	231.4	26.7	26.7	30.9	30.8	8.0	8.0	82.7	84.5	5.6	5.7	8.5	4.1	4.0	4.1		4.1	4.1
E2	Cloudy	Calm	18:41	8.7	S	0.1	10.0	29.1	29.1	27.8	27.8	8.5	8.5	206.0	205.7	13.6	13.6	9.5	0.7	0.8	3.6	3.4	12.5		
						0.1	10.0	29.1	29.1	27.8	27.8	8.5	8.5	205.4	205.7	13.5	13.6	9.5	0.8	0.8	3.2	3.4			
						0.0	339.0	27.7	27.7	29.7	29.7	8.1	8.1	82.3	82.5	5.5	5.5	9.5	0.2	0.2	4.3	4.2			
					M	0.0	312.0	27.7	27.7	29.7	29.7	8.1	8.1	82.6	82.5	5.5	5.5	9.5	0.2	0.2	4.0	4.2			
						B	0.0	299.0	26.9	26.9	31.2	31.2	7.8	7.8	21.6	21.7	1.5	1.5	1.5	22.8	22.8	28.6		29.9	
							0.0	323.0	26.9	26.9	31.2	31.2	7.8	7.8	21.7	21.7	1.5	1.5	1.5	22.8	22.8	31.1		29.9	
E3	Cloudy	Calm	17:12	16.6	S	0.2	107.0	28.7	28.7	23.8	23.8	8.2	8.2	120.1	119.9	8.2	8.2	5.8	1.0	1.1	2.3	2.2	2.4		
						0.2	116.0	28.7	28.7	23.7	23.8	8.2	8.2	119.6	119.9	8.1	8.2	5.8	1.1	1.1	2.0	2.2			
						0.2	118.0	26.4	26.4	31.8	31.8	7.9	7.9	50.7	50.8	3.4	3.4	5.8	5.9	5.9	2.2	2.5			
					M	0.2	119.0	26.4	26.4	31.8	31.8	7.9	7.9	50.9	50.8	3.4	3.4	5.8	5.9	5.9	2.8	2.5			
						B	0.2	138.0	25.6	25.6	33.1	33.1	7.9	7.9	42.3	42.5	2.9	2.9	2.9	28.1	28.2	2.4		2.4	
							0.2	145.0	25.6	25.6	33.1	33.1	7.9	7.9	42.6	42.5	2.9	2.9	2.9	28.2	28.2	2.4		2.4	
E4	Cloudy	Calm	15:51	11.8	S	0.2	190.0	29.2	29.2	18.6	18.6	8.1	8.1	100.8	100.7	7.0	7.0	5.0	2.6	2.7	3.2	3.1	11.8		
						0.2	197.0	29.2	29.2	18.7	18.7	8.1	8.1	100.6	100.7	7.0	7.0	5.0	2.7	2.7	2.9	3.1			
						0.3	209.0	26.1	26.1	32.4	32.4	7.9	7.9	43.8	43.9	3.0	3.0	5.0	8.9	9.0	3.5	3.4			
					M	0.3	224.0	26.1	26.1	32.4	32.4	7.9	7.9	43.9	43.9	3.0	3.0	5.0	9.0	9.0	3.2	3.4			
						B	0.3	202.0	26.0	26.0	32.8	32.8	7.9	7.9	48.3	48.5	3.3	3.3	3.3	15.0	14.8	28.0		29.0	
							0.3	207.0	26.0	26.0	32.8	32.8	7.9	7.9	48.7	48.5	3.3	3.3	3.3	14.6	14.8	30.0		29.0	
E5	Cloudy	Calm	18:05	5.5	S	0.8	255.5	29.4	29.5	17.7	17.2	8.1	8.1	96.5	99.1	6.7	6.9	6.9	3.3	3.3	2.9	2.7	4.0		
						0.8	255.5	29.6	29.5	16.7	17.2	8.1	8.1	101.6	99.1	7.1	6.9	6.9	3.2	3.3	2.5	2.7			
						0.2	91.2	28.3	28.3	23.9	23.7	7.9	7.9	73.7	70.3	5.0	4.8	4.8	6.0	6.1	5.6	5.2			
					B	1.3	212.0	28.3	28.3	23.6	23.7	7.9	7.9	66.9	70.3	4.6	4.8	4.8	6.2	6.1	4.8	5.2			
						S	0.5	15.2	29.7	30.0	16.2	15.2	7.9	7.9	77.0	83.1	5.4	5.8	5.8	5.3	5.4	3.1		3.3	
							0.6	290.9	30.3	30.0	14.3	15.2	8.0	7.9	89.3	83.1	6.2	5.8	5.8	5.6	5.4	3.4		3.3	
E6	Cloudy	Calm	16:12	5.5	S	1.0	129.6	28.5	28.5	22.2	22.4	7.9	7.8	70.0	67.6	4.8	4.6	4.6	4.6	4.6	4.4	4.6	3.9		
						0.6	217.8	28.4	28.5	22.6	22.4	7.8	7.8	65.2	67.6	4.5	4.6	4.6	4.9	4.7	4.8	4.6			
						1.0	17.0	30.6	30.8	16.0	15.6	7.9	7.9	84.7	94.2	5.8	6.4	6.4	4.4	4.4	4.3	4.1			
					M	1.0	17.0	31.1	30.8	15.2	15.6	7.9	7.9	103.7	94.2	7.1	6.4	6.4	4.3	4.4	4.3	4.1			
						B	0.3	102.7	27.6	27.8	26.5	25.9	7.5	7.6	55.7	61.8	3.8	4.2	4.2	5.9	5.2	10.4		10.2	
							0.7	286.2	28.0	27.8	25.4	25.9	7.7	7.6	68.0	61.8	4.6	4.2	4.2	4.6	5.2	9.9		10.2	
F1	Fine	Calm	18:13	20.0	S	0.1	105.2	29.7	29.7	29.2	29.2	8.6	8.6	219.1	220.7	14.2	14.3	8.4	0.8	0.8	3.2	3.4	5.7		
						0.1	105.2	29.8	29.7	29.1	29.2	8.6	8.6	222.2	220.7	14.4	14.3	8.4	0.8	0.8	3.6	3.4			
						0.1	230.7	26.7	26.6	31.8	32.2	7.9	7.9	40.4	37.0	2.7	2.5	8.4	1.2	1.2	6.0	5.8			
					M	0.1	242.2	26.5	26.6	32.6	32.2	7.8	7.9	33.6	37.0	2.2	2.5	8.4	1.1	1.2	5.6	5.8			
						B	0.3	172.7	24.2	24.2	34.5	34.5	7.8	7.8	27.9	27.1	1.9	1.9	1.9	5.3	5.1	8.3		8.0	
							0.3	172.7	24.2	24.2	34.5	34.5	7.8	7.8	26.3	27.1	1.8	1.9	1.9	4.9	5.1	7.7		8.0	
F2	Fine	Calm	17:44	19.5	S	0.1	32.5	28.9	28.9	28.7	28.7	8.5	8.5	215.7	215.1	14.2	14.1	8.9	1.0	1.0	4.2	4.2	7.0		
						0.1	32.5	28.9	28.9	28.8	28.7	8.5	8.5	214.5	215.1	14.1	14.1	8.9	1.0	1.0	4.2	4.2			
						0.3	102.0	27.0	26.9	32.9	32.9	8.0	8.0	55.0	54.8	3.7	3.6	3.6	0.4	0.3	4.0	4.1			
					M	0.2	70.9	26.9	26.9	33.0	32.9	8.0	8.0	54.6	54.8	3.6	3.6	3.6	0.3	0.3	4.2	4.1			
						B	0.2	161.1	24.1	24.1	34.5	34.5	7.8	7.8	38.6	37.7	2.7	2.6	2.6	9.4	9.7	13.2		12.7	
							0.2	161.1	24.1	24.1	34.5	34.5	7.8	7.8	36.9	37.7	2.5	2.6	2.6	10.1	9.7	12.2		12.7	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average
F3	Fine	Calm	17:08	17.5	S	2.1	107.8	29.2	29.2	26.5	26.5	8.6	8.6	239.7	240.1	15.9	15.9	10.0	1.8	1.9	4.5	4.3	5.9
						2.1	107.8	29.2	29.2	26.5	26.5	8.6	8.6	240.5	240.1	15.9	15.9	10.0	1.8	1.9	4.1	4.3	
						0.3	142.3	27.0	27.0	33.1	33.0	8.0	8.0	61.6	61.5	4.1	4.1	10.0	0.4	0.4	4.5	4.8	
					0.3	93.4	27.0	27.0	33.0	33.0	8.0	8.0	61.4	61.5	4.1	4.1	2.8	0.5	0.5	5.1	5.1	8.7	
					0.1	108.1	24.9	24.9	34.4	34.4	7.9	7.9	42.2	41.2	2.9	2.8	2.8	6.6	6.7	8.6	8.6		
					0.1	108.1	24.9	24.9	34.4	34.4	7.9	7.9	40.3	41.2	2.8	2.8	2.8	6.9	6.7	8.7	8.7		
F4	Cloudy	Calm	18:15	13.2	S	0.3	82.0	29.1	29.1	26.2	26.2	8.4	8.4	159.7	159.6	10.6	10.6	7.0	0.9	0.9	5.0	4.7	9.8
						0.4	84.0	29.1	29.1	26.1	26.2	8.4	8.4	159.5	159.6	10.6	10.6	7.0	0.9	0.9	4.4	4.4	
						0.3	86.0	27.2	27.2	30.6	30.6	7.9	7.9	51.3	51.5	3.4	3.5	2.2	2.1	2.1	7.7	7.8	
					0.3	94.0	27.2	27.2	30.5	30.6	7.9	7.9	51.6	51.5	3.5	3.5	2.2	2.1	2.1	7.8	7.8	17.0	
					0.1	54.0	26.2	26.2	32.6	32.6	7.8	7.8	31.7	31.8	2.1	2.2	2.2	5.9	6.1	17.5	17.0		
					0.1	56.0	26.2	26.2	32.6	32.6	7.8	7.8	31.9	31.8	2.2	2.2	2.2	6.2	6.1	16.4	16.4		
F5	Cloudy	Calm	15:22	6.6	S	0.3	250.0	29.8	29.8	13.1	13.1	8.0	8.0	94.8	94.7	6.7	6.7	5.8	2.9	3.0	4.6	4.6	9.6
						0.3	251.0	29.8	29.8	13.1	13.1	8.0	8.0	94.6	94.7	6.7	6.7	5.8	3.0	3.0	4.5	4.5	
						0.2	67.0	27.8	27.8	27.2	27.2	8.0	8.0	73.3	73.3	4.9	4.9	5.8	2.1	2.2	6.3	6.2	
					0.2	67.0	27.8	27.8	27.2	27.2	8.0	8.0	73.2	73.2	4.9	4.9	3.8	2.2	2.2	6.1	6.1	18.1	
					0.2	42.0	27.0	27.0	30.3	30.3	7.9	7.9	56.5	56.7	3.8	3.8	3.8	13.3	12.9	17.1	17.1		
					0.2	44.0	27.0	27.0	30.3	30.3	7.9	7.9	56.8	56.7	3.8	3.8	3.8	12.5	12.9	19.0	19.0		
F6	Cloudy	Calm	17:26	14.0	S	0.1	243.6	29.4	29.3	19.2	19.4	8.0	8.0	86.1	89.7	5.9	6.2	5.2	1.8	2.0	3.0	2.9	7.7
						0.8	62.5	29.2	29.3	19.7	19.4	8.0	8.0	93.2	89.7	6.4	6.2	5.2	2.2	2.0	2.7	2.7	
						0.6	168.7	27.3	27.5	28.2	28.2	7.9	7.9	59.2	61.7	4.0	4.2	5.2	5.6	5.2	7.3	7.6	
					0.3	274.3	27.6	27.5	28.1	28.2	7.9	7.9	64.3	61.7	4.3	4.2	3.6	4.9	9.8	7.8	7.8	12.6	
					0.6	53.5	26.0	26.0	30.5	30.5	7.9	7.9	56.1	53.4	3.8	3.6	3.6	9.3	9.8	11.8	11.8		
					0.6	53.5	26.0	26.0	30.5	30.5	7.9	7.9	50.6	53.4	3.5	3.6	3.6	10.3	9.8	13.3	13.3		
IM1	Fine	Calm	18:30	9.5	S	0.1	309.4	30.5	30.6	29.1	29.1	8.6	8.6	218.0	219.2	13.9	14.0	11.5	0.7	0.6	3.2	3.4	4.5
						0.1	309.4	30.7	30.6	29.1	29.1	8.6	8.6	220.5	219.2	14.1	14.0	11.5	0.6	0.6	3.6	3.6	
						0.3	40.0	29.0	28.9	30.2	30.2	8.3	8.3	143.5	139.4	9.3	9.1	11.5	1.2	1.2	4.5	4.3	
					0.6	147.6	28.8	28.9	30.3	30.2	8.3	8.3	135.3	139.4	8.8	9.1	11.5	1.1	1.2	4.1	4.1	5.7	
					0.2	183.8	26.4	26.4	32.4	32.4	7.9	7.9	52.1	51.7	3.5	3.5	3.5	2.1	2.0	5.9	5.9		
					0.2	183.8	26.4	26.4	32.4	32.4	7.9	7.9	51.3	51.7	3.4	3.5	3.5	1.9	2.0	5.4	5.4		
IM2	Fine	Calm	18:51	11.5	S	0.1	154.0	28.7	28.9	28.8	28.8	8.4	8.5	173.0	174.9	11.4	11.5	9.7	2.0	2.0	6.0	6.0	5.5
						0.1	154.0	29.1	28.9	28.8	28.8	8.5	8.5	176.8	174.9	11.6	11.5	9.7	2.1	2.0	6.0	6.0	
						0.3	227.5	27.9	27.9	30.1	30.1	8.2	8.2	118.4	119.8	7.9	8.0	9.7	1.6	1.7	5.5	5.4	
					0.1	217.2	27.9	27.9	30.1	30.1	8.2	8.2	121.2	119.8	8.0	8.0	1.7	1.8	1.7	5.2	5.2	5.1	
					0.1	319.7	24.9	24.9	34.2	34.2	7.8	7.8	26.1	25.1	1.8	1.7	1.7	3.0	3.1	5.2	5.1		
					0.2	308.9	24.9	24.9	34.2	34.2	7.8	7.8	24.2	25.1	1.7	1.7	1.7	3.2	3.1	4.9	4.9		
IM3	Fine	Calm	15:19	15.1	S	0.2	119.6	29.1	29.1	29.0	29.0	8.5	8.5	181.7	183.2	11.9	12.0	7.1	1.4	1.4	2.9	2.8	3.8
						0.2	103.3	29.1	29.1	29.0	29.0	8.5	8.5	184.8	183.2	12.1	12.0	7.1	1.4	1.4	2.6	2.6	
						0.4	283.7	26.7	26.7	32.3	32.4	7.8	7.8	34.9	34.3	2.3	2.3	7.1	1.0	1.1	3.1	3.3	
					0.4	283.7	26.7	26.7	32.4	32.4	7.8	7.8	33.8	34.3	2.3	2.3	1.1	1.1	1.1	3.4	3.4	5.4	
					0.1	184.8	25.4	25.4	34.2	34.2	7.5	7.6	16.3	15.8	1.1	1.1	1.1	2.0	2.1	5.1	5.1		
					0.4	220.3	25.4	25.4	34.2	34.2	7.6	7.6	15.4	15.8	1.0	1.1	1.1	2.1	2.1	5.6	5.6		
IM4	Fine	Calm	15:43	16.7	S	0.2	85.9	28.8	28.8	28.7	28.7	8.4	8.4	162.1	167.1	10.7	11.0	7.0	1.4	1.4	3.9	3.7	6.6
						0.2	75.0	28.8	28.8	28.6	28.7	8.4	8.4	172.1	167.1	11.3	11.0	7.0	1.3	1.4	3.5	3.5	
						0.2	181.5	26.9	26.9	31.8	31.8	7.9	7.9	43.3	43.4	2.9	2.9	7.0	1.4	1.4	4.2	4.2	
					0.3	28.5	26.9	26.9	31.8	31.8	7.9	7.9	43.6	43.4	2.9	2.9	1.8	1.4	1.4	4.5	4.4	11.7	
					0.2	221.5	25.8	25.8	33.9	33.9	7.8	7.8	27.3	26.7	1.8	1.8	1.8	7.4	7.4	12.1	11.7		
					0.2	221.5	25.8	25.8	33.9	33.9	7.8	7.8	26.1	26.7	1.8	1.8	1.8	7.4	7.4	11.3	11.3		
IM5	Fine	Calm	16:04	15.4	S	0.3	26.9	29.1	29.5	28.4	27.9	8.5	8.5	197.9	202.8	13.0	13.3	9.0	1.7	1.7	5.3	5.3	7.7
						0.3	26.9	29.8	29.5	27.5	27.9	8.6	8.5	207.8	202.8	13.6	13.3	9.0	1.7	1.7	5.2	5.2	
						0.2	128.6	27.5	27.5	31.6	31.6	8.0	8.0	70.9	70.6	4.7	4.7	9.0	0.6	0.5	5.6	5.5	
					0.2	128.6	27.5	27.5	31.6	31.6	8.0	8.0	70.2	70.6	4.7	4.7	9.0	0.5	0.5	5.3	5.3	12.5	
					0.1	54.3	25.4	25.4	34.2	34.2	7.8	7.8	35.2	34.2	2.4	2.3	2.3	8.4	9.0	12.4	12.4		
					0.1	54.3	25.4	25.4	34.2	34.2	7.8	7.8	33.3	34.2	2.3	2.3	2.3	9.6	9.0	12.6	12.6		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Fine	Calm	16:56	16.0	S	0.5	220.7	29.3	29.3	26.8	26.8	8.6	8.6	238.3	238.9	15.7	15.8	9.6	1.5	1.5	6.6	6.9	8.4
						0.5	220.7	29.2	29.3	26.8	26.8	8.6	8.6	239.5	238.9	15.8	15.8	9.6	1.5	1.5	7.2	7.3	
					M	0.1	99.9	27.1	27.1	32.4	32.4	8.0	8.0	51.3	52.3	3.4	3.5	2.8	0.7	0.8	7.6	7.5	
						0.1	99.9	27.1	27.1	32.4	32.4	8.0	8.0	53.3	52.3	3.5	3.5	2.8	0.7	0.8	7.6	7.5	
					B	0.4	258.1	24.9	24.9	34.4	34.4	7.9	7.9	41.6	40.6	2.8	2.8	2.8	7.0	7.1	11.5	10.9	
						0.1	119.9	24.9	24.9	34.4	34.4	7.9	7.9	39.7	40.6	2.7	2.8	2.8	7.3	7.1	10.3	10.9	
IM7	Fine	Calm	16:36	12.7	S	0.2	161.8	28.8	28.8	28.5	28.5	8.4	8.4	162.9	164.3	10.7	10.8	8.1	1.2	1.2	7.0	7.2	8.1
						0.2	161.8	28.8	28.8	28.5	28.5	8.4	8.4	165.7	164.3	10.9	10.8	8.1	1.2	1.2	7.3	7.7	
					M	0.3	115.2	27.5	27.5	31.0	31.2	8.1	8.1	82.3	79.6	5.5	5.3	2.6	1.3	1.2	8.1	7.9	
						0.2	98.6	27.4	27.5	31.3	31.2	8.1	8.1	76.9	79.6	5.1	5.3	2.6	1.1	1.2	7.7	7.9	
					B	0.4	29.1	25.3	25.3	34.2	34.2	7.9	7.9	38.8	38.0	2.6	2.6	2.6	8.4	8.5	9.4	9.3	
						0.1	64.2	25.3	25.3	34.2	34.2	7.9	7.9	37.2	38.0	2.5	2.6	2.6	8.5	8.5	9.1	9.3	
IM8	Fine	Calm	16:24	14.6	S	0.7	187.4	29.9	29.7	25.5	25.9	8.6	8.6	210.6	214.1	13.9	14.1	9.0	1.7	1.7	4.0	4.0	6.0
						0.7	187.4	29.6	29.7	26.3	25.9	8.6	8.6	217.7	214.1	14.3	14.1	9.0	1.7	1.7	3.9	3.9	
					M	0.2	143.0	27.5	27.4	31.9	32.0	8.0	8.0	58.7	59.0	3.9	3.9	2.6	0.7	0.7	4.3	4.5	
						0.2	143.0	27.4	27.4	32.2	32.0	8.0	8.0	59.3	59.0	3.9	3.9	2.6	0.7	0.7	4.6	4.5	
					B	0.1	101.0	25.2	25.2	34.3	34.3	7.9	7.9	39.9	38.8	2.7	2.6	2.6	7.3	7.3	9.5	9.6	
						0.1	101.0	25.2	25.2	34.3	34.3	7.9	7.9	37.7	38.8	2.6	2.6	2.6	7.4	7.3	9.7	9.6	
IM9	Cloudy	Calm	17:41	15.0	S	0.3	111.0	28.9	28.9	24.3	24.3	8.4	8.4	164.0	164.1	11.1	11.1	8.4	0.8	0.9	2.9	3.1	3.9
						0.3	119.0	28.9	28.9	24.2	24.3	8.4	8.4	164.1	164.1	11.1	11.1	8.4	0.9	0.9	3.3	3.1	
					M	0.3	96.0	27.7	27.7	30.0	30.0	8.1	8.1	85.0	85.0	5.7	5.7	2.9	0.3	0.4	3.4	3.3	
						0.3	96.0	27.7	27.7	30.0	30.0	8.1	8.1	84.9	85.0	5.7	5.7	2.9	0.4	0.4	3.2	3.3	
					B	0.1	162.0	25.5	25.5	33.3	33.3	7.9	7.9	42.4	42.6	2.9	2.9	2.9	9.7	9.7	4.9	5.3	
						0.1	167.0	25.5	25.5	33.3	33.3	7.9	7.9	42.8	42.6	2.9	2.9	2.9	9.7	9.7	5.6	5.3	
IM10	Cloudy	Calm	16:55	12.5	S	0.1	35.0	28.6	28.6	26.9	26.9	8.4	8.4	157.5	157.5	10.5	10.5	7.0	2.0	2.0	4.1	3.8	13.0
						0.1	36.0	28.6	28.6	26.9	26.9	8.4	8.4	157.4	157.5	10.5	10.5	7.0	2.0	2.0	3.5	3.8	
					M	0.2	83.0	26.4	26.5	31.8	31.8	7.9	7.9	50.4	50.5	3.4	3.4	3.4	8.7	8.6	5.4	5.8	
						0.2	89.0	26.5	26.5	31.8	31.8	7.9	7.9	50.6	50.5	3.4	3.4	3.4	8.5	8.6	6.1	5.8	
					B	0.2	67.0	26.1	26.1	32.5	32.5	7.9	7.9	49.9	50.0	3.4	3.4	3.4	11.5	11.7	29.3	29.4	
						0.2	71.0	26.1	26.1	32.5	32.5	7.9	7.9	50.1	50.0	3.4	3.4	3.4	11.8	11.7	29.4	29.4	
IM11A	Cloudy	Moderate	16:42	5.8	S	0.3	183.0	28.8	28.8	22.5	22.6	8.2	8.2	106.7	106.5	7.3	7.3	3.6	2.1	2.2	2.8	3.0	12.1
						0.4	200.0	28.8	28.8	22.6	22.6	8.2	8.2	106.2	106.5	7.2	7.3	3.6	2.2	2.2	3.2	3.0	
					B	0.1	28.0	27.2	27.2	30.0	30.0	8.0	8.0	72.0	72.4	4.8	4.9	4.9	5.1	5.0	19.6	21.2	
						0.1	28.0	27.2	27.2	29.9	30.0	8.0	8.0	72.8	72.4	4.9	4.9	4.9	4.9	5.0	22.7	21.2	
					S	0.3	154.0	28.4	28.5	26.2	26.1	8.1	8.1	100.1	100.3	6.7	6.7	5.7	1.7	1.8	4.8	4.6	
						0.4	157.0	28.5	28.5	26.0	26.1	8.1	8.1	100.4	100.3	6.7	6.7	5.7	1.8	1.8	4.4	4.6	
M	0.1	189.0	27.1	27.1	30.3	30.3	8.0	8.0	69.0	69.0	4.6	4.6	4.6	2.3	2.3	6.3	6.1						
	0.1	201.0	27.1	27.1	30.3	30.3	8.0	8.0	69.0	69.0	4.6	4.6	4.6	2.3	2.3	5.9	6.1						
B	0.2	123.0	26.7	26.7	31.4	31.4	7.9	8.0	59.9	60.0	4.0	4.0	4.0	13.3	13.6	74.1	71.3						
	0.3	129.0	26.7	26.7	31.4	31.4	8.0	8.0	60.0	60.0	4.0	4.0	4.0	13.8	13.6	68.4	71.3						
IM12	Cloudy	Moderate	16:32	13.6	S	0.3	171.0	28.9	28.9	23.8	23.8	8.1	8.1	107.0	107.1	7.2	7.2	5.1	1.7	1.8	6.6	6.7	23.1
						0.3	184.0	28.9	28.9	23.8	23.8	8.1	8.1	107.1	107.1	7.2	7.2	5.1	1.9	1.8	6.8	6.7	
					M	0.2	222.0	26.0	26.0	32.7	32.7	7.9	7.9	42.4	42.5	2.9	2.9	2.9	6.7	6.8	13.0	13.5	
						0.2	237.0	26.0	26.0	32.7	32.7	7.9	7.9	42.5	42.5	2.9	2.9	2.9	6.8	6.8	13.9	13.5	
					B	0.3	185.0	25.9	25.9	33.1	33.1	7.9	7.9	45.5	45.7	3.1	3.1	3.1	21.7	21.7	46.1	49.3	
						0.3	201.0	25.9	25.9	33.1	33.1	7.9	7.9	45.8	45.7	3.1	3.1	3.1	21.6	21.7	52.4	49.3	
IM13	Cloudy	Moderate	16:12	17.6	S	0.3	189.0	28.4	28.5	25.4	25.4	8.1	8.1	95.4	95.5	6.4	6.4	5.4	2.2	2.3	4.2	4.5	10.7
						0.3	205.0	28.5	28.5	25.3	25.4	8.1	8.1	95.6	95.5	6.4	6.4	5.4	2.4	2.3	4.7	4.5	
					M	0.3	200.0	27.3	27.3	29.3	29.3	8.0	8.0	65.6	65.4	4.4	4.4	4.4	5.5	5.5	6.9	6.6	
						0.3	209.0	27.3	27.3	29.3	29.3	8.0	8.0	65.2	65.4	4.4	4.4	4.4	5.5	5.5	6.3	6.6	
					B	0.4	210.0	26.0	26.0	32.7	32.7	7.9	7.9	43.5	43.7	2.9	3.0	3.0	14.5	14.5	21.0	21.2	
						0.4	230.0	26.0	26.0	32.7	32.7	7.9	7.9	43.8	43.7	3.0	3.0	3.0	14.4	14.5	21.3	21.2	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
IM15	Cloudy	Calm	18:16	6.5	S	0.8	238.0	28.9	28.9	20.6	20.6	7.9	7.9	74.0	73.8	5.1	5.1	5.0	2.3	2.2	2.1	2.5	5.1			
						0.8	238.0	28.9	28.9	20.6	20.6	7.9	7.9	73.5	73.8	5.1	5.1	5.0	2.3	2.2	2.1	2.5				
					M	0.2	67.8	28.4	28.4	22.9	22.8	7.9	7.9	71.9	72.5	4.9	5.0	4.1	4.2	4.8	4.3	3.2		3.5	9.6	
						0.2	67.8	28.5	27.8	22.8	22.8	7.9	7.9	73.2	72.5	5.0	5.0	4.1	4.2	4.8	4.3	3.2		3.5		
					B	0.6	238.5	27.8	27.8	26.8	26.8	7.9	7.9	71.4	67.8	4.8	4.6	4.6	8.0	4.6	7.3	8.0		9.0	9.6	10.1
						0.1	275.4	27.8	27.8	26.8	26.8	7.9	7.9	64.2	67.8	4.4	4.6	4.6	8.0	4.6	8.6	8.0		10.1	9.6	
IM16A	Cloudy	Calm	17:51	7.0	S	0.6	152.9	28.8	28.8	21.1	20.6	8.0	8.0	77.9	81.7	5.4	5.6	5.1	3.7	3.7	3.6	3.6	3.9			
						1.1	172.0	28.9	28.8	20.1	20.6	8.0	8.0	85.5	81.7	5.9	5.6	5.1	3.7	3.7	3.6	3.6				
					M	0.6	222.2	28.5	28.5	22.7	22.8	7.9	7.9	67.6	67.9	4.6	4.6	4.6	6.3	4.6	4.1	3.9		3.7	3.6	4.5
						0.6	222.2	28.5	28.5	22.8	22.8	7.9	7.9	68.1	67.9	4.7	4.6	4.6	6.3	4.6	3.7	3.9		3.4	3.6	
					B	0.3	281.7	28.3	28.3	23.9	23.9	7.9	7.9	70.8	68.6	4.8	4.7	4.7	7.0	4.7	6.0	6.3		4.3	4.5	10.4
						0.3	281.7	28.3	28.3	24.0	23.9	7.9	7.9	66.4	68.6	4.5	4.7	4.7	7.0	4.7	6.7	6.3		4.7	4.5	
IM17	Cloudy	Calm	16:49	5.0	S	0.9	271.3	29.6	29.6	16.4	16.3	8.0	8.0	85.7	87.0	6.0	6.1	6.1	3.1	2.9	9.1	9.5	10.2			
						0.9	271.3	29.7	29.6	16.1	16.3	8.0	8.0	88.2	87.0	6.1	6.1	6.1	2.9	2.9	9.8	9.5				
					B	0.3	183.6	28.5	28.5	22.3	22.3	7.8	7.8	65.2	63.8	4.5	4.4	4.4	7.0	4.4	6.9	7.0		11.3	10.9	
0.3	136.4	28.5	28.5	22.3		22.3	7.8	7.8	62.3	63.8	4.3	4.4	4.4	7.0	4.4	7.1	7.0	10.4	10.9							
IM18	Cloudy	Calm	17:00	17.5	S	1.0	159.8	30.3	30.3	16.3	16.2	8.0	8.0	90.0	93.2	6.2	6.4	5.3	3.6	3.7	3.2	3.6	7.3			
						0.4	220.9	30.3	30.3	16.2	16.2	8.0	8.0	96.5	93.2	6.6	6.4	5.3	3.7	3.7	3.9	3.6				
					M	1.0	76.0	27.5	27.5	26.9	26.8	7.9	7.9	61.7	61.4	4.2	4.2	4.2	3.1	5.5	3.3	5.7		5.5	12.9	
						1.0	76.0	27.5	27.5	26.8	26.8	7.9	7.9	61.1	61.4	4.2	4.2	4.2	3.1	5.5	2.9	5.7		5.5		
					B	0.1	77.0	26.8	26.8	28.8	28.9	7.8	7.8	55.4	53.6	3.8	3.7	3.7	9.6	3.7	9.0	9.6		13.8	12.9	
						0.1	77.0	26.7	26.8	28.9	28.9	7.8	7.8	51.9	53.6	3.5	3.7	3.7	9.6	3.7	10.2	9.6		12.0	12.9	
IM19	Cloudy	Calm	16:30	17.5	S	0.5	92.7	30.5	30.5	15.0	15.1	8.0	8.0	96.0	97.0	6.6	6.7	5.4	4.4	4.5	4.1	4.1	10.1			
						0.5	92.7	30.5	30.5	15.3	15.1	8.0	8.0	98.1	97.0	6.8	6.7	5.4	4.5	4.5	4.1	4.1				
					M	0.5	150.2	28.1	28.0	25.8	26.2	7.9	7.9	60.4	60.4	4.1	4.1	4.1	9.0	8.3	9.1	9.0		10.0	10.5	
						1.0	233.7	27.8	28.0	26.7	26.2	7.9	7.9	60.4	60.4	4.1	4.1	4.1	9.0	8.3	8.8	9.0		11.0	10.5	
					B	0.5	188.8	26.4	26.4	30.0	29.9	7.9	7.9	57.1	55.2	3.9	3.8	3.8	11.5	3.8	12.6	11.5		14.4	15.6	
						0.2	209.2	26.4	26.4	29.8	29.9	7.9	7.9	53.3	55.2	3.6	3.8	3.8	11.5	3.8	10.5	11.5		16.8	15.6	
IM20A	Cloudy	Calm	15:34	4.5	S	0.3	52.5	30.8	30.8	15.6	15.5	7.9	7.9	91.2	95.9	6.3	6.6	6.6	4.9	4.4	4.4	4.4	8.1			
						0.3	52.5	30.8	30.8	15.4	15.5	7.9	7.9	100.5	95.9	6.9	6.6	6.6	4.4	4.4	4.3	4.4				
					B	0.4	355.3	29.1	29.1	21.9	21.9	7.8	7.8	66.8	65.7	4.6	4.5	4.5	9.4	6.9	9.6	9.4		11.5	11.8	
0.7	221.1	29.1	29.1	21.9		21.9	7.8	7.8	64.6	65.7	4.4	4.5	4.5	9.4	6.9	9.3	9.4	12.0	11.8							
IM21A	Cloudy	Calm	15:43	5.0	S	0.4	237.1	30.9	30.9	15.3	15.3	8.0	8.0	98.2	99.6	6.7	6.8	6.8	4.9	4.7	3.6	3.7	4.2			
						1.5	218.8	30.9	30.9	15.3	15.3	8.0	8.0	101.1	99.6	6.9	6.8	6.8	4.7	4.7	3.7	3.7				
					B	0.8	14.4	29.9	29.9	19.5	19.0	7.9	7.9	87.9	85.1	6.0	5.8	5.8	7.6	6.1	7.6	7.6		4.7	4.7	
0.2	79.1	30.0	29.9	18.6		19.0	7.9	7.9	82.2	85.1	5.6	5.8	5.8	7.6	6.1	7.6	7.6	4.7	4.7							
IM22A	Cloudy	Calm	15:51	4.5	S	0.4	44.0	30.1	30.1	20.6	20.6	7.9	7.9	83.1	83.8	5.6	5.7	5.7	6.5	6.5	5.4	5.5	5.9			
						0.4	44.0	30.1	30.1	20.6	20.6	7.9	7.9	84.5	83.8	5.9	5.7	5.7	6.5	6.5	5.6	5.5				
					B	0.5	332.5	28.9	28.9	23.3	23.3	7.8	7.8	69.8	70.3	4.7	4.8	4.8	5.7	6.0	5.5	5.7		6.4	6.2	
0.4	188.6	29.0	28.9	23.3		23.3	7.8	7.8	70.8	70.3	4.8	4.8	4.8	5.7	6.0	6.0	6.0	6.2	6.0							

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)				
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
E1	Fine	Calm	09:38	8.7	S	0.1	138.3	27.6	27.6	29.2	29.2	8.0	8.0	108.2	109.1	7.3	7.3	6.5	6.5	1.9	1.8	3.8	2.3	2.2	5.2
						0.2	194.4	27.6		29.1		8.1		110.0		7.4		1.8		2.0					
						0.1	292.3	27.1		29.8		7.9		85.1		5.7		2.1		3.4					
					M	0.1	292.3	27.1	29.8	29.8	7.9	85.3	5.7	2.1	3.7										
						0.4	184.0	26.4	26.4	30.9	7.6	64.0	4.3	7.6	10.3										
						0.2	47.3	26.4	26.4	30.8	7.7	62.5	4.2	7.4	9.3										
B	0.1	350.0	28.6	28.6	26.8	8.3	152.4	10.2	0.8	2.8															
	0.1	15.0	28.6	28.6	26.8	8.3	151.9	10.1	0.8	2.3															
	0.2	306.0	28.2	28.2	28.9	8.2	100.3	6.7	0.6	3.1															
E2	Cloudy	Moderate	10:29	8.5	S	0.2	321.0	28.2	28.2	28.9	28.9	8.2	8.2	99.9	100.1	6.6	6.7	8.4	0.6	0.6	5.5	2.8	3.0	5.8	
						0.2	266.0	27.1	27.1	31.0	7.8	15.9	1.1	15.0	12.3										
						0.2	277.0	27.1	27.1	31.0	7.8	16.0	1.1	14.9	11.3										
					M	0.2	317.0	26.3	26.3	32.1	7.9	49.8	3.4	7.5	33.6										
						0.2	334.0	26.3	26.3	32.1	7.9	49.9	3.4	7.5	36.3										
						0.1	37.0	28.2	28.2	25.6	8.1	97.5	6.6	0.7	3.0										
B	0.1	37.0	28.2	28.2	25.6	8.1	97.5	6.6	0.7	2.1															
	0.4	325.0	27.4	27.4	30.2	8.0	74.5	5.0	0.6	6.0															
	0.5	337.0	27.4	27.4	30.2	8.0	74.2	5.0	0.6	6.3															
E3	Cloudy	Moderate	12:01	16.6	S	0.1	309.0	29.8	29.8	13.2	13.2	8.1	8.1	99.9	99.9	7.1	7.1	5.8	2.6	2.6	2.9	5.7	5.6	14.6	
						0.1	314.0	29.8	29.8	13.2	8.1	99.8	7.0	2.6	5.4										
						0.3	23.0	27.2	27.2	29.6	8.0	69.3	4.7	1.3	9.8										
					M	0.4	24.0	27.2	27.2	29.6	8.0	69.1	4.6	1.4	10.2										
						0.2	46.0	26.2	26.2	32.2	7.9	50.1	3.4	16.5	10.5										
						0.2	48.0	26.2	26.2	32.2	7.9	50.4	3.4	16.7	11.9										
B	1.6	192.5	29.3	29.3	12.2	7.8	74.5	5.3	5.4	3.5															
	0.8	267.8	29.3	29.3	13.5	7.8	75.9	5.4	5.4	3.4															
	0.9	292.8	28.4	28.4	23.4	7.8	67.9	4.6	4.9	6.1															
E4	Cloudy	Calm	13:28	11.9	S	0.1	309.0	29.8	29.8	13.2	13.2	8.1	8.1	99.9	99.9	7.1	7.1	5.9	2.6	2.6	6.9	5.7	10.0	8.9	
						0.1	314.0	29.8	29.8	13.2	8.1	99.8	7.0	2.6	5.4										
						0.3	23.0	27.2	27.2	29.6	8.0	69.3	4.7	1.3	9.8										
					M	0.4	24.0	27.2	27.2	29.6	8.0	69.1	4.6	1.4	10.2										
						0.2	46.0	26.2	26.2	32.2	7.9	50.1	3.4	16.5	10.5										
						0.2	48.0	26.2	26.2	32.2	7.9	50.4	3.4	16.7	11.9										
B	1.6	192.5	29.3	29.3	12.2	7.8	74.5	5.3	5.4	3.5															
	0.8	267.8	29.3	29.3	13.5	7.8	75.9	5.4	5.4	3.4															
	0.9	292.8	28.4	28.4	23.4	7.8	67.9	4.6	4.9	6.1															
E5	Cloudy	Calm	09:55	5.5	S	0.7	114.8	29.8	29.9	13.1	13.1	7.8	7.8	73.1	75.0	5.2	5.3	5.3	8.0	12.7	6.0	6.3	14.6		
						0.7	114.8	30.0	29.9	13.1	7.8	76.9	5.4	7.9	6.5										
						0.7	221.0	27.6	27.6	25.8	7.8	62.3	4.3	17.1	22.6										
					M	0.3	350.1	27.6	27.6	25.8	7.8	55.5	3.8	17.8	23.2										
						0.2	68.7	29.7	29.7	28.7	8.5	193.2	12.5	0.8	1.9										
						0.2	269.4	29.7	29.7	28.6	8.5	195.6	12.7	0.7	1.5										
B	0.2	350.9	26.0	26.0	33.7	7.8	30.9	2.1	1.6	2.4															
	0.2	350.9	26.0	26.0	33.7	7.8	30.7	2.1	1.6	2.2															
	0.4	216.8	24.3	24.2	34.5	7.8	30.0	2.1	6.0	8.3															
E6	Cloudy	Calm	11:47	5.5	S	0.7	114.8	29.8	29.9	13.1	13.1	7.8	7.8	73.1	75.0	5.2	5.3	5.3	8.0	12.7	6.0	6.3	14.6		
						0.7	114.8	30.0	29.9	13.1	7.8	76.9	5.4	7.9	6.5										
						0.7	221.0	27.6	27.6	25.8	7.8	62.3	4.3	17.1	22.6										
					M	0.3	350.1	27.6	27.6	25.8	7.8	55.5	3.8	17.8	23.2										
						0.2	68.7	29.7	29.7	28.7	8.5	193.2	12.5	0.8	1.9										
						0.2	269.4	29.7	29.7	28.6	8.5	195.6	12.7	0.7	1.5										
B	0.2	350.9	26.0	26.0	33.7	7.8	30.9	2.1	1.6	2.4															
	0.2	350.9	26.0	26.0	33.7	7.8	30.7	2.1	1.6	2.2															
	0.4	216.8	24.3	24.2	34.5	7.8	30.0	2.1	6.0	8.3															
E7A	Cloudy	Calm	12:36	5.0	S	0.1	117.3	29.8	29.8	27.8	27.8	8.6	8.6	213.8	216.5	13.9	14.1	8.7	1.4	1.4	3.9	1.3	1.5	6.1	
						0.1	150.6	29.8	29.8	27.8	8.6	219.2	14.3	1.4	1.6										
						0.1	76.6	26.6	26.6	32.9	7.9	50.0	3.3	1.0	2.1										
					M	0.3	44.0	26.6	26.6	32.8	7.9	51.1	3.4	0.8	2.4										
						0.2	4.8	24.1	24.1	34.5	7.8	39.8	2.7	9.3	14.5										
						0.2	4.8	24.1	24.1	34.5	7.8	38.5	2.7	9.8	14.8										
B	0.1	117.3	29.8	29.8	27.8	8.6	213.8	13.9	1.4	1.5															
	0.1	150.6	29.8	29.8	27.8	8.6	219.2	14.3	1.4	1.6															
	0.1	76.6	26.6	26.6	32.9	7.9	50.0	3.3	1.0	2.1															

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Fine	Calm	12:39	17.7	S	0.2	355.2	29.6	29.5	24.8	25.5	8.5	8.5	202.3	207.5	13.4	13.8	9.0	1.6	1.5	3.6	4.1	3.8	7.1
						0.3	98.9	29.3		26.1		8.5		212.6		14.1			1.5			3.5		
						0.1	62.5	27.0		33.2		7.9		62.3		4.1			0.6			5.0		
					M	0.1	62.5	27.1	33.2	33.2	8.0	8.0	65.1	63.7	4.3	4.2	0.6	0.6	0.6	0.6	0.6	0.6	5.8	5.4
						0.1	49.8	25.0	34.4	34.4	7.8	7.8	40.2	39.4	2.7	2.7	2.7	2.7	2.7	2.7	8.7	8.7	11.1	12.0
						0.1	49.8	25.0	34.4	34.4	7.8	7.8	38.7	39.4	2.6	2.7	2.7	2.7	2.7	2.7	8.9	8.7	12.9	12.0
F4	Cloudy	Moderate	10:55	13.4	S	0.2	268.0	28.9	28.9	26.1	26.1	8.4	8.4	160.2	159.9	10.7	10.7	7.2	0.8	0.8	4.9	3.0	3.1	5.3
						0.2	288.0	28.8		26.1		8.4		159.6		10.7			0.8			3.2		
						0.2	256.0	27.2		30.4		7.9		54.8		3.7			4.1			4.0		
					M	0.2	275.0	27.3	30.4	30.4	7.9	7.9	54.9	54.9	3.7	3.7	3.7	3.7	4.1	4.1	4.1	4.1	4.4	4.2
						0.3	286.0	26.1	32.6	32.6	7.8	7.8	31.4	31.6	2.1	2.1	2.1	2.1	9.6	9.6	8.3	8.6		
						0.3	299.0	26.1	32.6	32.6	7.8	7.8	31.7	31.6	2.1	2.1	2.1	2.1	9.7	9.7	8.8	8.6		
F5	Cloudy	Calm	14:02	6.5	S	0.2	274.0	29.8	29.8	12.5	12.5	8.0	8.0	89.1	89.1	6.3	6.3	5.4	2.4	2.4	8.3	3.0	3.2	4.8
						0.2	279.0	29.8		12.5		8.0		89.1		6.3			2.4			3.4		
						0.3	45.0	27.7		27.3		7.9		67.1		4.5			4.1			3.5		
					M	0.3	46.0	27.7	27.2	27.3	7.9	7.9	66.9	67.0	4.5	4.5	4.5	4.5	4.1	4.1	4.1	4.1	3.8	3.7
						0.2	25.0	26.9	30.4	30.4	7.9	7.9	55.2	55.3	3.7	3.7	3.7	3.7	18.3	18.3	7.4	7.6		
						0.2	27.0	26.9	30.4	30.4	7.9	7.9	55.4	55.3	3.7	3.7	3.7	3.7	18.2	18.3	7.7	7.6		
F6	Cloudy	Calm	10:31	13.5	S	2.2	245.1	29.5	29.5	14.9	14.0	7.8	7.8	75.0	76.9	5.3	5.4	4.7	4.7	4.7	8.1	3.6	3.8	9.1
						2.2	245.1	29.6		13.2		7.8		78.7		5.6			4.6			3.9		
						0.5	261.6	27.7		26.2		7.8		57.9		3.9			3.5			4.7		
					M	0.9	311.6	27.7	26.1	26.2	7.8	7.8	60.2	59.1	4.1	4.0	4.0	4.0	3.1	3.1	4.2	4.5		
						0.6	18.0	26.4	29.7	29.8	7.7	7.7	53.1	50.5	3.6	3.4	3.4	3.4	15.3	16.5	18.6	19.0		
						0.5	292.8	26.4	29.8	29.8	7.8	7.7	47.9	50.5	3.3	3.4	3.4	3.4	17.8	16.5	19.3	19.0		
IM1	Fine	Calm	10:15	9.5	S	0.2	18.6	30.0	30.0	28.9	28.9	8.6	8.6	203.8	205.7	13.1	13.3	12.2	0.5	0.5	2.6	1.9	1.9	7.0
						0.3	330.8	30.0		29.0		8.6		207.5		13.4			0.6			1.8		
						0.2	212.6	29.5		29.6		8.4		171.7		11.1			1.1			4.5		
					M	0.4	21.0	29.6	29.5	29.6	8.4	8.4	171.1	171.4	11.1	11.1	11.1	11.1	1.0	1.0	4.2	4.4		
						0.2	286.0	26.0	32.9	32.9	7.9	7.8	45.4	44.8	3.1	3.0	3.0	3.0	6.3	6.3	14.1	14.9		
						0.5	341.4	26.0	32.9	32.9	7.8	7.8	44.1	44.8	3.0	3.0	3.0	3.0	5.7	5.7	15.7	14.9		
IM2	Fine	Calm	09:51	11.5	S	0.1	93.5	29.3	29.3	29.3	29.4	8.4	8.4	170.3	170.8	11.1	11.1	9.2	1.1	1.1	3.5	3.5	3.5	6.1
						1.2	230.9	29.3		29.4		8.4		171.3		11.2			1.0			3.4		
						0.3	215.3	27.5		30.4		8.1		108.0		7.2			1.3			6.2		
					M	0.3	215.3	27.5	30.5	30.4	8.1	8.1	112.8	110.4	7.5	7.4	7.4	7.4	1.3	1.3	6.3	6.3		
						0.1	75.6	25.9	32.5	32.5	7.8	7.8	53.5	49.9	3.6	3.4	3.4	3.4	8.2	8.2	8.5	8.7		
						0.3	187.1	25.8	32.6	32.6	7.8	7.8	46.2	49.9	3.1	3.4	3.4	3.4	8.5	8.2	8.9	8.7		
IM3	Fine	Calm	11:35	15.0	S	0.4	285.4	28.9	28.8	29.2	29.3	8.4	8.4	169.3	167.1	11.1	11.0	8.4	1.2	1.2	1.8	2.6	2.9	4.2
						0.0	191.6	28.8		29.3		8.3		164.8		10.8			1.2			3.2		
						0.1	182.3	27.6		30.1		8.0		87.8		5.9			1.6			4.3		
					M	0.2	322.9	27.6	30.1	30.1	8.0	8.0	90.0	88.9	6.0	5.9	5.9	5.9	1.6	1.6	4.0	4.2		
						0.2	304.8	25.5	34.2	34.2	7.7	7.7	20.1	18.6	1.4	1.3	1.3	1.3	2.7	2.7	5.5	5.5		
						0.4	196.0	25.5	34.2	34.2	7.7	7.7	17.1	18.6	1.2	1.3	1.3	1.3	2.8	2.7	5.4	5.5		
IM4	Fine	Calm	11:58	16.8	S	0.1	145.9	29.0	29.2	28.4	28.3	8.4	8.4	161.5	169.0	10.6	11.1	7.3	1.2	1.3	3.2	2.6	2.4	3.8
						0.3	288.2	29.3		28.1		8.4		176.6		11.6			1.4			2.2		
						0.2	228.9	27.0		31.0		7.9		50.8		3.4			1.4			3.3		
					M	0.1	253.5	27.0	31.0	31.0	7.9	7.9	51.5	51.1	3.5	3.4	3.4	3.4	1.5	1.5	2.8	3.1		
						0.1	348.9	25.8	33.9	33.9	7.8	7.8	30.5	29.6	2.1	2.0	2.0	2.0	6.8	6.7	5.8	6.1		
						0.2	235.7	25.8	33.9	33.9	7.8	7.8	28.7	29.6	1.9	2.0	2.0	2.0	6.7	6.7	6.3	6.1		
IM5	Fine	Calm	12:18	15.5	S	0.3	256.3	29.3	29.3	28.0	28.0	8.4	8.4	188.9	191.0	12.4	12.5	8.0	1.5	1.6	4.4	2.2	2.5	7.2
						0.3	256.3	29.3		28.0		8.4		193.0		12.7			1.6			2.8		
						0.3	272.4	26.6		32.6		7.9		50.7		3.4			1.5			3.4		
					M	0.3	241.0	26.6	32.5	32.5	7.9	7.9	51.1	50.9	3.4	3.4	3.4	3.4	1.4	1.4	3.8	3.6		
						0.3	254.1	25.5	34.1	34.1	7.8	7.8	38.5	37.0	2.6	2.5	2.5	2.5	10.2	10.2	16.0	15.4		
						0.0	124.3	25.5	34.1	34.1	7.8	7.8	35.6	37.0	2.4	2.5	2.5	2.5	10.2	10.2	14.8	15.4		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM6	Fine	Calm	12:52	16.1	S	0.2	38.2	29.3	29.3	26.8	26.8	8.5	8.5	216.1	217.6	14.3	14.3	9.1	1.6	1.6	4.0	2.1	2.3	6.4			
						0.1	55.3	29.3	29.3	26.8	26.8	8.5	8.5	219.1	219.1	14.4	14.4		1.5			1.5					
						0.1	197.7	27.1	27.2	32.1	32.0	7.9	7.9	55.1	56.6	3.7	3.8		0.9			0.8					
					M	0.4	350.1	27.2	27.2	31.9	34.3	7.8	7.8	58.2	39.6	3.9	2.7	10.2	9.7	0.8		0.8	4.1		4.5	4.1	4.5
						0.1	107.3	25.3	25.2	34.2	34.3	7.8	7.8	40.9	39.6	2.8	2.7	2.6	2.7	9.3		9.7	13.1		12.5	11.8	12.5
						0.3	338.8	25.2	25.2	34.3	34.3	7.8	7.8	38.2	39.6	2.6	2.7	10.2	10.0	1.3		1.3	2.8		3.1	3.4	3.1
IM7	Fine	Calm	13:23	12.9	S	0.1	84.8	28.9	28.8	27.0	27.1	8.3	8.3	163.6	163.5	10.9	10.9	10.9	1.3	1.3	3.9	2.8	3.1	6.5			
						0.2	41.7	28.7	28.8	27.2	27.1	8.3	8.3	163.4	163.5	10.9	10.9	1.3	1.3								
						0.2	341.4	27.7	27.6	31.1	31.3	8.0	7.9	68.8	67.7	4.6	4.5	0.6	0.5								
					M	0.2	341.4	27.6	27.6	31.4	34.1	7.9	7.9	66.6	39.3	4.4	2.7	4.5	4.5	0.4		0.5	3.6		3.7	3.7	3.7
						0.3	268.1	25.4	25.4	34.1	34.1	7.8	7.8	39.8	39.3	2.7	2.7	2.7	2.7	9.8		10.0	12.0		12.8	13.6	12.8
						0.1	244.6	25.4	25.4	34.1	34.1	7.8	7.8	38.7	39.3	2.6	2.7	10.2	10.0	1.3		1.3	3.4		3.1	3.6	3.1
IM8	Fine	Calm	13:11	14.7	S	0.2	350.1	29.4	29.4	25.8	25.7	8.4	8.4	183.7	183.4	12.2	12.1	8.2	1.6	1.5	4.6	2.3	2.4	6.9			
						0.2	186.0	29.5	29.5	25.7	25.7	8.4	8.4	183.1	183.4	12.1	12.1		1.5			1.5					
						0.4	297.2	27.5	27.5	31.6	31.6	7.9	7.9	65.5	65.5	4.3	4.3		0.7			0.7					
					M	0.2	324.3	27.5	27.5	31.6	34.2	7.8	7.8	65.6	38.3	4.4	2.6	4.3	4.3	0.8		0.7	3.1		3.3	3.5	3.3
						0.1	299.0	25.2	25.2	34.2	34.2	7.8	7.8	39.2	38.3	2.7	2.6	2.6	2.6	11.6		11.5	14.6		15.1	15.5	15.1
						0.1	299.0	25.2	25.2	34.2	34.2	7.8	7.8	37.4	38.3	2.5	2.6	2.6	2.6	11.5		11.5	15.5		15.1	15.5	15.1
IM9	Cloudy	Moderate	11:30	15.1	S	0.2	15.0	29.1	29.1	21.0	21.0	8.2	8.2	116.6	116.8	8.0	8.0	6.4	1.6	1.6	4.3	3.8	3.7	6.9			
						0.2	15.0	29.1	29.1	21.0	21.0	8.2	8.2	116.9	116.8	8.0	8.0		1.6			1.6					
						0.5	281.0	27.1	27.2	30.9	30.9	8.0	8.0	71.6	71.5	4.8	4.8		1.3			1.3					
					M	0.5	297.0	27.2	27.2	30.8	30.9	8.0	8.0	71.3	71.5	4.8	4.8	1.3	1.3	4.3		4.2	4.0		4.2		
						0.3	275.0	25.2	25.2	33.5	33.5	7.9	7.9	43.0	43.1	2.9	2.9	2.9	2.9	10.0		10.0	12.5		13.0	13.5	13.0
						0.3	294.0	25.2	25.2	33.5	33.5	7.9	7.9	43.2	43.1	2.9	2.9	2.9	2.9	10.0		10.0	12.5		13.0	13.5	13.0
IM10	Cloudy	Calm	12:18	13.1	S	0.8	255.0	28.6	28.6	25.6	25.6	8.3	8.3	136.8	136.7	9.2	9.2	8.2	1.3	1.3	7.4	5.6	6.0	12.4			
						0.8	267.0	28.6	28.6	25.5	25.6	8.3	8.3	136.6	136.7	9.2	9.2		1.3			1.3					
						0.7	251.0	28.0	28.0	28.3	28.3	8.2	8.2	108.5	108.4	7.3	7.3		0.7			0.7					
					M	0.7	272.0	28.0	28.0	28.3	28.3	8.2	8.2	108.2	108.4	7.2	7.3	0.7	0.7	11.8		12.1	18.3		19.2	20.0	19.2
						0.7	252.0	26.6	26.6	31.5	31.5	7.9	7.9	59.1	59.4	4.0	4.0	4.0	4.0	20.1		20.1	18.3		19.2	20.0	19.2
						0.7	264.0	26.6	26.6	31.5	31.5	7.9	7.9	59.6	59.4	4.0	4.0	4.0	4.0	20.0		20.0	18.3		19.2	20.0	19.2
IM11A	Cloudy	Calm	12:28	5.8	S	0.1	262.0	29.6	29.6	15.3	15.3	8.2	8.2	107.7	107.8	7.5	7.6	3.8	1.8	1.8	1.8	2.7	3.1	5.2			
						0.1	264.0	29.5	29.6	15.3	15.3	8.2	8.2	107.8	107.8	7.6	7.6		1.8			1.8					
						0.3	301.0	28.0	28.0	25.7	25.7	8.1	8.1	96.9	97.0	6.6	6.6		3.7			3.7					
					B	0.3	304.0	28.0	28.0	25.7	25.7	8.1	8.1	97.1	97.0	6.6	6.6	3.7	3.7	7.6		7.3	7.6		7.3		
						0.1	22.0	29.3	29.3	18.1	18.2	8.2	8.2	113.3	113.5	7.9	7.9	6.9	6.9	1.8		1.8	3.8		4.0	4.2	4.0
						0.1	23.0	29.2	29.3	18.2	18.2	8.2	8.2	113.7	113.5	7.9	7.9	6.9	6.9	1.8		1.8	3.8		4.0	4.2	4.0
IM12	Rainy	Calm	12:39	13.4	M	0.2	322.0	27.6	27.6	28.3	28.4	8.1	8.1	88.2	88.1	5.9	5.9	6.9	3.3	3.4	11.5	5.4	5.4	6.1			
						0.2	333.0	27.6	27.6	28.4	28.4	8.1	8.1	87.9	88.1	5.9	5.9		3.4			3.4					
						0.4	321.0	26.0	26.0	32.6	32.6	7.9	7.9	44.1	44.2	3.0	3.0		29.4			29.3					
					B	0.5	324.0	26.0	26.0	32.6	32.6	7.9	7.9	44.2	44.2	3.0	3.0	29.2	29.3	8.6		8.8	9.0		8.8		
						0.1	306.0	29.8	29.8	13.0	13.0	8.1	8.1	99.7	99.6	7.0	7.0	2.5	2.5	4.2		4.5	4.7		4.5		
						0.1	321.0	29.7	29.8	13.0	13.0	8.1	8.1	99.5	99.6	7.0	7.0	2.5	2.5	4.2		4.5	4.7		4.5		
IM13	Rainy	Calm	13:04	17.2	S	0.5	6.0	26.0	26.0	32.6	32.6	7.9	7.9	42.9	42.9	2.9	2.9	5.0	10.2	10.2	14.3	8.3	8.6	12.8			
						0.5	6.0	26.0	26.0	32.6	32.6	7.9	7.9	42.9	42.9	2.9	2.9		10.1			10.2					
						0.4	15.0	25.8	25.8	33.0	33.0	7.9	7.9	44.8	45.1	3.0	3.1		30.2			30.2					
					M	0.4	16.0	25.8	25.8	33.0	33.0	7.9	7.9	45.3	45.1	3.1	3.1	30.2	30.2	26.1		25.3	26.1		25.3		
						0.1	4.0	29.3	29.3	16.6	16.6	8.1	8.1	97.2	97.3	6.8	6.8	3.3	3.3	4.2		4.2	4.2		4.2		
						0.1	4.0	29.3	29.3	16.5	16.6	8.1	8.1	97.3	97.3	6.8	6.8	3.3	3.3	4.2		4.2	4.2		4.2		
IM14	Cloudy	Calm	13:17	10.9	S	0.3	15.0	27.4	27.4	29.0	29.0	8.0	8.0	70.7	70.6	4.8	4.8	5.8	3.5	3.8	9.8	9.2	8.9	11.0			
						0.3	16.0	27.4	27.4	29.0	29.0	8.0	8.0	70.5	70.6	4.7	4.8		4.0			4.0					
						0.2	56.0	26.2	26.2	32.3	32.3	7.9	7.9	48.9	49.3	3.3	3.3		22.4			22.4					
					M	0.2	59.0	26.2	26.2	32.3	32.3	7.9	7.9	49.6	49.3	3.3	3.3	22.3	22.4	19.0		20.1	21.1		20.1		
						0.2	59.0	26.2	26.2	32.3	32.3	7.9	7.9	49.6	49.3	3.3	3.3	22.3	22.4	19.0		20.1	21.1		20.1		
						0.2	59.0	26.2	26.2	32.3	32.3	7.9	7.9	49.6	49.3	3.3	3.3	22.3	22.4	19.0		20.1	21.1		20.1		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/23

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)							
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*				
IM15	Cloudy	Calm	09:41	6.0	S	0.2	347.0	29.2	29.2	14.7	14.7	7.8	7.8	84.6	84.9	6.0	6.0	5.6	4.2	4.2	4.7	4.5	4.6	5.7				
						0.2	347.0	29.2		14.6		7.8		85.1		6.0			4.2									
						0.3	352.7	29.2	18.4	18.4	7.8	7.8	75.3	74.6	5.2	5.2	3.9		3.9	5.6		5.3						
					M	0.5	256.2	29.1	18.3	28.5	23.0	23.0	7.7	7.7	67.0	66.7	4.6	4.6	4.6	3.9	5.9	7.0	7.2	5.0	7.2			
						0.2	175.4	28.5	23.0		7.7		66.4		4.5		6.0			7.3								
						0.2	180.3	28.5	23.0		7.7		66.4		4.5		6.0			7.3								
B	0.3	102.5	29.2	14.1	29.3	7.8	13.7	7.8	7.8	69.5	72.2	4.9	5.1	4.7	6.1	6.1	6.0	6.1	5.8	5.8								
	1.3	163.4	29.3	13.3		7.8		75.0		5.3		6.0			5.6													
	0.2	87.9	28.7	20.5		20.9		7.8		7.8		63.9			63.4		4.4		4.4		6.6	6.4	8.8	9.0				
IM16A	Cloudy	Calm	10:08	6.5	S	0.2	214.8	28.6	21.3	20.9	7.8	7.8	62.9	63.4	4.3	4.4	4.4	6.2	6.4	7.5	9.2	9.0	9.3					
						0.2	214.8	28.6	21.3		7.8		62.9		4.3			6.2										
						0.2	148.7	28.4	23.3		23.4		7.7		7.7			67.7			64.5			4.6	4.4	9.6	10.1	13.7
					M	0.1	57.7	28.3	23.5	28.4	7.8	23.4	7.8	7.7	61.3	64.5	4.2	4.4	4.4	10.7	10.1	12.6	13.2					
						0.7	217.7	29.7	13.9		13.7		7.8		7.8		74.1			76.2		5.2		5.4	7.7	7.7	6.4	6.7
						0.7	217.7	29.7	13.4		28.7		7.8		7.8		78.2			68.7		5.5		4.7	7.8	8.4	6.9	7.9
0.4	124.0	28.7	21.3	7.8	7.8	72.0	68.7	5.0	4.7	8.0		8.4	7.8	7.9														
0.2	43.0	28.7	21.2	7.8	7.8	65.4	68.7	4.5	4.7	8.9		8.4	7.9	7.9														
IM17	Cloudy	Calm	11:09	5.0	S	0.3	36.0	29.8	14.3	14.3	7.9	7.8	71.4	74.4	5.0	5.2	4.3	6.6	6.5	15.9	4.7	4.5	15.6					
						0.3	36.0	29.9	14.2		7.8		7.8		77.4			74.4			5.4			5.2	6.4	6.5		
						1.1	350.0	27.1	27.9		28.0		7.8		7.8			50.5			51.0			3.4	3.5	7.4	6.7	7.0
					M	0.8	36.9	27.1	27.1	27.1	7.8	28.0	7.8	7.8	51.5	51.0	3.5	3.5	4.3	5.9	6.7	6.6	6.8					
						0.9	67.7	26.1	30.5		30.5		7.8		7.8		46.6			45.5		3.2		3.1	34.0	34.6	35.1	35.5
						0.7	199.1	26.1	30.5		30.5		7.8		7.8		44.5			45.5		3.0		3.1	35.2	34.6	35.9	35.5
IM18	Cloudy	Calm	10:58	17.0	S	0.2	152.5	29.2	18.0	17.9	7.8	7.8	65.6	68.7	4.6	4.8	4.0	5.0	4.8	19.3	6.5	6.1	11.5					
						0.8	352.7	29.3	17.7		7.8		71.9		5.0			4.5			5.7							
						0.8	11.8	27.0	27.9		27.8		7.8		7.8			48.3			47.9			3.3	3.3	7.0	6.7	9.6
					M	0.6	334.1	27.1	27.8	27.8	7.8	27.8	7.8	7.8	47.5	47.9	3.2	3.6	4.0	6.4	6.7	9.2	9.4					
						0.8	357.0	26.5	29.6		29.6		7.8		7.8		53.8			53.0		3.7		3.6	43.4	46.5	19.5	19.0
						0.6	340.7	26.5	29.6		29.6		7.8		7.8		52.3			53.0		3.6		3.6	49.5	46.5	18.4	19.0
IM19	Cloudy	Calm	11:26	17.5	S	0.8	80.8	30.4	18.4	18.8	7.8	7.8	79.1	80.7	5.4	5.5	5.5	10.4	10.4	11.7	5.0	5.8	10.6					
						0.8	80.8	30.5	19.2		18.8		7.8		7.8			82.2			80.7			5.6	5.5	10.4	10.4	
						0.2	307.2	28.1	24.6		24.6		7.7		7.7			58.3			56.7			4.0	3.9	13.2	13.0	14.4
					B	0.4	89.5	28.1	24.7	28.1	7.7	24.6	7.7	7.7	55.2	56.7	3.8	3.9	3.9	12.8	13.0	16.6	15.5					
						0.2	356.4	29.7	21.1		21.0		7.7		7.7		67.5			69.1		4.6		4.7	20.1	18.3	18.5	19.4
						0.2	356.4	29.8	20.9		28.6		7.7		23.4		7.7			7.7		70.7		60.7	4.8	4.1	4.1	16.6
0.9	202.8	28.6	23.4	23.4	7.7	7.7	62.0	60.7	4.2	4.1		34.1	33.9	23.8		24.3												
0.5	50.9	28.6	23.5	23.5	7.7	7.7	59.4	60.7	4.0	4.1		33.7	33.9	24.8		24.3												
IM21A	Cloudy	Calm	12:13	5.0	S	0.4	85.0	29.8	14.7	14.7	7.9	7.9	73.2	77.9	5.1	5.5	5.5	7.1	6.4	11.8	3.4	3.4	12.4					
						0.4	85.0	29.8	14.8		7.8		7.9		82.6			77.9			5.8			5.5	5.6	6.4		
						0.4	235.9	27.5	26.7		26.8		7.8		7.8			67.4			61.2			4.6	4.2	15.7	17.3	21.5
					M	0.3	267.0	27.5	26.8	27.5	7.8	26.8	7.8	7.8	55.0	61.2	3.7	4.2	4.2	18.8	17.3	21.4	21.5					
						0.3	267.0	27.5	26.8		7.8		7.8		55.0		61.2			3.7		4.2		18.8	17.3			
						0.3	267.0	27.5	26.8		7.8		7.8		55.0		61.2			3.7		4.2		18.8	17.3			

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)										
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*							
E1	Rainy	Moderate	11:38	8.1	S	0.6	187.8	27.1	27.1	25.2	25.3	8.0	8.0	79.8	79.3	5.5	5.5	5.1	1.7	1.7	4.2	3.4	3.2	5.9							
						0.7	198.7	27.0		25.5		8.0		78.9		5.5			1.6			3.0									
						0.5	209.0	26.5	26.5	28.4	28.4	7.9	7.9	67.6	67.6	4.6	4.6		1.7			1.7			5.5						
					M	0.7	186.9	26.4	25.9	28.4	32.6	7.8	7.8	28.3	26.0	1.9	1.8	8.8	9.2	1.6		1.8	8.8		9.2	5.5	5.4	9.2			
						0.2	185.6	25.9		32.5		7.8		23.7		1.6		9.5		8.8											
						0.3	155.6	25.9		32.8		7.8		23.7		1.6		9.5		9.5											
B	0.3	45.1	27.2	27.2	28.6	28.6	8.0	8.0	77.4	78.0	5.2	5.3	2.2	2.2	2.3	4.3	2.2	2.2	3.5	3.6	12.7										
	0.3	45.1	27.2		28.6		8.0		78.5		5.3		1.7		3.6																
	0.3	146.4	27.2		32.8		7.9		46.6		3.1		1.7		4.8																
E2	Rainy	Moderate	06:07	9.2	S	0.3	6.9	27.6	27.4	32.8	32.8	8.0	7.9	53.7	50.2	3.5	3.3	4.3	1.8	1.7	6.1	5.1	5.0	12.7							
						0.3	146.4	27.2		32.8		7.9		46.6		3.1			1.7			4.8									
						0.3	6.9	27.6	32.8	8.0	53.7	3.5	1.5	5.1																	
					M	0.4	106.4	25.8	25.8	33.9	33.9	7.7	7.7	21.9	21.1	1.5	1.4	13.8	14.5	1.4		1.4	13.8		14.5	30.1	29.6	9.2			
						0.1	6.6	25.8		33.9		7.7		20.3		1.4		15.2		29.0											
						0.1	130.9	28.6		28.5		14.9		14.7		8.1		8.1		94.4			94.8			6.7			6.8	2.5	2.5
E3	Rainy	Moderate	07:13	17.3	S	0.1	130.9	28.6	28.5	14.9	14.7	8.1	8.1	94.4	94.8	6.7	6.8	5.1	2.5	2.5	4.3	2.7	3.0	5.6							
						0.1	130.9	28.5		14.6		8.1		95.3		6.8			2.5			2.7									
						0.3	133.6	25.3	25.3	34.2	34.2	8.0	8.0	50.1	50.1	3.4	3.4		3.1			3.0			4.5						
					M	0.3	133.6	25.3	25.1	34.2	34.2	8.0	8.0	50.0	50.1	3.4	3.0	2.9	7.3	2.9		3.0	4.7		9.2	4.7	4.6	9.2			
						0.2	98.1	25.1		34.2		8.0		45.6		3.1		7.4		8.5											
						0.3	160.2	25.2		34.2		8.0		44.2		3.0		7.2		9.8											
E4	Rainy	Calm	10:01	11.0	S	1.0	190.2	28.3	28.3	14.9	14.9	7.9	7.9	85.8	88.3	6.1	6.3	4.9	1.5	1.5	8.0	4.6	4.6	12.3							
						1.0	190.2	28.3		14.9		7.9		90.9		6.5			1.4			4.6									
						1.8	194.6	26.9	27.1	25.9	25.7	7.8	7.8	46.6	49.8	3.2	3.4		6.4			5.9			10.1						
					M	1.1	169.1	27.4	25.8	25.5	25.7	7.8	7.8	53.0	49.8	3.7	3.4	5.4	5.9	5.4		5.9	9.4		9.8	9.4	9.8	12.3			
						0.9	200.4	25.8		33.1		33.1		7.7		7.7		39.7		37.2			2.7			2.5			15.6	16.6	22.6
						1.0	197.1	25.8		33.1		33.1		7.7		7.7		34.6		37.2			2.3			2.5			17.6	16.6	22.7
E5	Rainy	Calm	08:54	6.0	S	0.7	174.2	28.4	28.4	13.9	13.9	7.9	7.9	88.7	88.6	6.4	6.4	6.1	2.5	2.5	2.0	2.4	2.6	4.5							
						0.7	174.2	28.4		14.0		7.9		88.6		6.4			2.5			2.8									
						0.5	172.2	28.5	16.4	7.8	79.2	5.6	5.7	2.1	2.0	2.5	2.6														
					M	0.5	172.2	28.5	28.5	16.4	16.4	7.8	7.8	83.0	81.1	5.9	5.7	1.9	2.0	1.9		2.0	2.6		2.6	2.6	2.6	4.5			
						0.1	111.4	27.3		26.9		7.7		101.2		6.9		1.6		8.0											
						0.5	166.1	27.3		27.3		26.9		7.7		101.3		6.9		1.6			8.4								
E6	Rainy	Calm	06:59	6.5	S	4.2	287.1	28.2	28.2	14.6	14.6	7.8	7.8	83.6	83.7	6.0	6.0	5.8	3.4	3.4	4.1	4.3	4.5	6.4							
						4.2	287.1	28.2		14.6		7.8		83.8		6.0			3.4			4.7									
						0.7	222.8	28.2	28.2	16.1	16.1	7.8	7.8	77.9	79.4	5.6	5.7		3.7			3.6			5.1						
					M	0.7	222.8	28.2	27.6	16.1	16.4	7.8	7.8	80.9	79.4	5.8	5.7	3.5	3.6	3.5		3.6	5.1		5.2	5.1	5.2	6.4			
						0.7	171.6	27.6		24.3		7.7		75.2		5.2		4.7		9.5											
						0.2	252.8	27.5		22.8		7.7		60.4		4.2		5.7		9.3											
E7A	Rainy	Calm	06:11	5.5	S	0.4	265.7	28.5	28.4	16.4	16.3	7.6	7.6	81.6	81.7	5.8	5.8	5.8	3.3	3.3	3.4	3.5	3.7	4.1							
						0.7	295.4	28.4		16.3		7.7		81.8		5.8			3.3			3.9									
						0.6	147.2	28.5	17.6	7.4	76.3	5.4	3.6	4.2																	
					B	0.1	236.1	28.3	28.4	16.7	17.1	7.5	7.4	81.0	78.7	5.8	5.6	3.4	3.6	3.4		3.6	4.7		4.5	4.7	4.5	4.1			
						0.5	189.2	27.3		27.5		8.2		105.5		7.2		1.7		3.8											
						0.5	189.2	27.3		27.3		27.5		8.2		107.2		7.3		1.7			4.3								
F1	Rainy	Moderate	10:40	20.1	S	0.5	189.2	27.3	27.3	27.5	27.5	8.2	8.2	105.5	106.4	7.2	7.2	5.1	1.7	1.7	5.8	3.8	4.1	8.9							
						0.5	189.2	27.3		27.5		8.2		107.2		7.3			1.7			4.3									
						0.6	108.3	25.4	25.4	34.2	34.1	7.9	8.0	42.4	44.7	2.9	3.0		1.8			1.6			4.7						
					M	0.4	99.9	25.5	23.5	34.1	34.5	8.0	7.9	47.0	39.2	3.2	2.7	1.4	14.1	3.2		2.7	14.1		14.1	5.7	17.5	17.5			
						0.4	141.8	23.5		34.5		7.9		39.6		2.8		14.1		18.7											
						0.4	182.7	23.5		34.5		7.9		38.7		2.7		14.0		16.2											
F2	Rainy	Moderate	10:06	19.0	S	0.8	319.2	27.8	27.8	28.8	28.8	8.1	8.1	90.6	90.7	6.1	6.1	5.5	1.0	1.0	3.8	0.5	1.1	6.0							
						0.8	319.2	27.8		28.8		8.1		90.8		6.1			1.0			1.6									
						0.6	89.8	26.8	26.8	33.9	33.9	8.1	8.1	72.8	73.4	4.8	4.9		0.5			0.5			0.5						
					M	0.6	89.8	26.8	24.5	33.9	34.3	8.1	7.9	74.1	50.9	4.9	3.5	0.5	9.8	0.5		9.8	0.5		16.6	0.5	16.6	6.0			
						0.1	333.1	24.5		34.3		7.9		51.4		3.5		9.6		15.7											
						0.1	56.3	24.5		34.3		7.9		50.3		3.5		10.0		17.4											

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Rainy	Moderate	08:38	18.0	S	0.3	87.4	27.7	27.7	26.9	26.9	8.1	8.1	87.3	87.5	5.9	5.9	5.5	1.1	1.1	4.1	1.9	1.6	3.3
						0.3	87.4	27.7	26.9	26.9	8.1	8.1	87.8	87.5	6.0	6.0	5.5	1.1	1.1					
						0.5	94.3	26.7	26.8	33.9	33.9	8.1	8.1	75.3	76.0	5.0	5.0	5.5	0.7	0.7				
					M	0.7	101.4	26.9	26.8	33.9	33.9	8.1	8.1	76.8	76.0	5.1	5.1	5.5	0.6	0.6				
						0.1	269.2	23.9	23.9	34.5	34.5	7.9	7.9	41.3	40.9	2.9	2.8	2.8	11.2	10.5				
						0.1	62.7	24.0	24.0	34.5	34.5	7.9	7.9	40.5	40.9	2.8	2.8	2.8	9.7	10.5				
B	0.1	109.8	27.1	27.1	25.8	25.9	8.0	8.0	89.7	89.6	6.2	6.2	4.3	2.1	2.0									
	0.1	109.8	27.1	27.1	26.0	25.9	8.0	8.0	89.5	89.6	6.2	6.2	4.3	2.0	2.0									
	0.2	101.0	25.8	25.8	34.0	34.0	7.9	7.9	37.1	37.0	2.5	2.5	4.3	4.4	4.2									
F4	Rainy	Moderate	06:36	13.9	S	0.1	109.8	27.1	27.1	25.8	25.9	8.0	8.0	89.7	89.6	6.2	6.2	4.3	2.1	2.0	3.8	2.5	2.4	4.5
						0.1	109.8	27.1	27.1	26.0	25.9	8.0	8.0	89.5	89.6	6.2	6.2	4.3	2.0	2.0				
						0.2	101.0	25.8	25.8	34.0	34.0	7.9	7.9	37.1	37.0	2.5	2.5	4.3	4.4	4.2				
					M	0.2	59.9	25.8	25.8	34.0	34.0	7.9	7.9	37.0	37.0	2.5	2.5	4.3	4.0	4.2				
						0.1	307.1	25.7	25.7	34.0	34.0	7.9	7.9	35.4	34.9	2.4	2.4	2.4	5.3	5.2				
						0.1	307.1	25.7	25.7	34.0	34.0	7.9	7.9	34.5	34.9	2.3	2.4	2.4	5.1	5.2				
B	0.1	307.1	25.7	25.7	34.0	34.0	7.9	7.9	35.4	34.9	2.4	2.4	2.4	5.3	5.2									
	0.1	307.1	25.7	25.7	34.0	34.0	7.9	7.9	34.5	34.9	2.3	2.4	2.4	5.1	5.2									
	0.1	307.1	25.7	25.7	34.0	34.0	7.9	7.9	34.5	34.9	2.3	2.4	2.4	5.1	5.2									
F5	Rainy	Calm	09:31	6.0	S	0.8	337.1	28.3	28.3	16.3	16.1	7.9	7.9	92.0	92.1	6.5	6.6	6.5	1.3	1.2	1.8	1.3	1.2	1.8
						0.4	149.8	28.3	28.3	15.9	16.1	7.9	7.9	92.2	92.1	6.6	6.6	6.5	1.2	1.2				
						1.0	164.4	28.3	28.3	16.4	16.4	7.9	7.9	90.4	90.9	6.4	6.5	6.5	1.6	1.4				
					M	0.7	237.0	28.3	28.3	16.3	16.4	7.9	7.9	91.4	90.9	6.5	6.5	6.5	1.2	1.4				
						0.6	205.6	28.3	28.3	18.1	17.9	7.9	7.9	87.3	86.8	6.2	6.1	6.1	2.8	2.7				
						1.0	188.4	28.3	28.3	17.7	17.9	7.9	7.9	86.2	86.8	6.1	6.1	6.1	2.6	2.7				
B	1.7	111.5	28.2	28.2	16.0	16.0	7.8	7.8	81.2	83.3	5.8	5.9	4.8	2.6	2.7									
	1.7	111.5	28.2	28.2	15.9	16.0	7.8	7.8	85.4	83.3	6.1	6.1	4.8	2.8	2.7									
	0.9	141.1	26.8	26.9	27.9	27.7	7.8	7.8	54.0	54.7	3.7	3.7	4.8	2.8	2.7									
F6	Rainy	Calm	08:13	14.5	S	1.7	111.5	28.2	28.2	16.0	16.0	7.8	7.8	81.2	83.3	5.8	5.9	4.8	2.6	2.7	4.6	2.4	2.0	4.2
						1.7	111.5	28.2	28.2	15.9	16.0	7.8	7.8	85.4	83.3	6.1	6.1	4.8	2.8	2.7				
						0.9	141.1	26.8	26.9	27.9	27.7	7.8	7.8	54.0	54.7	3.7	3.7	4.8	2.8	2.7				
					M	0.1	10.4	27.0	26.9	27.4	27.7	7.8	7.8	55.4	54.7	3.8	3.7	4.8	2.6	2.7				
						0.1	334.2	25.6	25.6	30.9	30.8	7.7	7.7	50.5	47.4	3.5	3.3	3.3	7.8	8.3				
						0.4	184.0	25.6	25.6	30.8	30.8	7.7	7.7	44.3	47.4	3.0	3.0	3.3	8.9	8.3				
B	0.2	137.3	27.4	27.4	27.9	27.8	8.1	8.1	102.0	102.9	6.9	7.0	4.8	1.8	1.8									
	0.2	137.3	27.4	27.4	27.7	27.8	8.1	8.1	103.8	102.9	7.0	7.0	4.8	1.9	1.8									
	0.5	145.1	26.0	26.2	33.4	33.2	7.9	7.9	38.8	40.3	2.6	2.7	4.8	1.9	1.6									
IM1	Rainy	Moderate	11:00	9.6	S	0.2	137.3	27.4	27.4	27.9	27.8	8.1	8.1	102.0	102.9	6.9	7.0	4.8	1.8	1.8	5.5	2.5	2.5	11.8
						0.2	137.3	27.4	27.4	27.7	27.8	8.1	8.1	103.8	102.9	7.0	7.0	4.8	1.9	1.8				
						0.5	145.1	26.0	26.2	33.4	33.2	7.9	7.9	38.8	40.3	2.6	2.7	4.8	1.9	1.6				
					M	0.2	230.8	26.4	26.2	33.0	33.2	7.9	7.9	41.8	40.3	2.8	2.7	4.8	1.4	1.6				
						0.2	212.0	24.5	24.5	34.3	34.3	7.9	7.9	40.5	39.1	2.8	2.7	2.7	12.2	13.0				
						0.0	229.4	24.5	24.5	34.3	34.3	7.9	7.9	37.6	39.1	2.6	2.7	2.7	13.8	13.0				
B	0.1	334.2	25.6	25.6	30.9	30.8	7.7	7.7	50.5	47.4	3.5	3.3	3.3	7.8	8.3									
	0.4	184.0	25.6	25.6	30.8	30.8	7.7	7.7	44.3	47.4	3.0	3.0	3.3	8.9	8.3									
	0.2	137.3	27.4	27.4	27.9	27.8	8.1	8.1	102.0	102.9	6.9	7.0	4.8	1.8	1.8									
IM2	Rainy	Moderate	11:24	11.1	S	0.6	191.6	27.0	27.0	24.8	24.8	8.0	8.0	89.5	89.5	6.2	6.2	5.5	1.5	1.5	5.2	1.6	1.8	8.0
						0.6	191.6	27.0	27.0	24.9	24.8	8.0	8.0	89.4	89.5	6.2	6.2	5.5	1.5	1.5				
						0.7	207.6	26.5	26.5	29.1	29.1	8.0	8.0	70.8	71.1	4.8	4.9	5.5	1.9	1.8				
					M	0.7	192.5	26.5	26.5	29.0	29.1	8.0	8.0	71.4	71.1	4.9	4.9	5.5	1.7	1.8				
						0.1	94.8	24.9	24.8	33.9	34.0	7.8	7.8	25.8	25.0	1.8	1.7	1.7	11.0	12.2				
						0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2				
B	0.1	94.8	24.9	24.8	33.9	34.0	7.8	7.8	25.8	25.0	1.8	1.7	1.7	11.0	12.2									
	0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2									
	0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2									
IM3	Rainy	Moderate	09:41	14.4	S	0.6	191.6	27.0	27.0	24.8	24.8	8.0	8.0	89.5	89.5	6.2	6.2	5.5	1.5	1.5	3.5	1.6	1.8	6.4
						0.6	191.6	27.0	27.0	24.9	24.8	8.0	8.0	89.4	89.5	6.2	6.2	5.5	1.5	1.5				
						0.7	207.6	26.5	26.5	29.1	29.1	8.0	8.0	70.8	71.1	4.8	4.9	5.5	1.9	1.8				
					M	0.7	192.5	26.5	26.5	29.0	29.1	8.0	8.0	71.4	71.1	4.9	4.9	5.5	1.7	1.8				
						0.1	94.8	24.9	24.8	33.9	34.0	7.8	7.8	25.8	25.0	1.8	1.7	1.7	11.0	12.2				
						0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2				
B	0.1	94.8	24.9	24.8	33.9	34.0	7.8	7.8	25.8	25.0	1.8	1.7	1.7	11.0	12.2									
	0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2									
	0.0	184.6	24.7	24.8	34.1	34.0	7.8	7.8	24.2	25.0	1.7	1.7	1.7	13.5	12.2									
IM4	Rainy	Moderate	09:19	16.4	S	0.9	22.8	27.3	27.3	29.5	29.3	8.1	8.1	80.4	81.9	5.4	5.5	4.5	1.3	1.3	3.2	3.6	3.5	8.0
						0.9	22.8	27.3	27.3	29.1	29.3	8.1	8.1	83.3	81.9	5.6	5.5	4.5	1.3	1.3				
						0.5	108.6	26.1	26.1	34.0	34.0	8.0	8.0	51.3	52.1	3.4	3.5	4.5	1.5	1.5				
					M	0.4	129.8	26.1	26.1	34.0	34.0	8.0	8.0	52.9	52.1	3.5	3.5	4.5	1.4	1.5				
						0.2	112.1	25.0	25.0	34.2	34.2	7.8	7.8	23.7	22.9	1.6	1.6	1.6	6.9	7.0				
						0.2	112.1	25.0	25.0	34.2	34.2	7.8	7.8	22.1	22.9	1.5	1.6	1.6	7.1	7.0				
B	0.2	112.1	25.0	25.0	34.2	34.2	7.8	7.8	22.1	22.9	1.5	1.6	1.6	7.1	7.0									
	0.7	115.0	27.0	27.0	25.7	25.6	8.1	8.1	92.3	92.9	6.4	6.4	5.2	1.8	1.9									
	0.7	115.0	27.0	27.0	25.5	25.6	8.1	8.1	93.5	92.9	6.5													

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Rainy	Moderate	08:26	16.2	S	0.3	96.3	27.4	27.4	25.4	25.4	8.1	8.1	92.1	92.5	6.3	6.4	5.6	1.2	1.3	4.7	3.2	3.0	7.9
						0.3	96.3	27.4	25.4	25.4	8.1	8.1	92.9	92.5	6.4	6.4	5.6	1.3	1.3					
						0.4	96.4	26.4	26.3	33.9	34.0	8.1	8.1	72.7	71.9	4.8	4.8	5.6	0.7	0.8				
					M	0.4	95.3	26.2	26.3	34.0	34.0	8.1	8.1	71.0	71.9	4.7	4.8	5.6	0.9	0.8	4.7	4.6	4.4	
						0.3	115.6	24.0	24.0	34.5	34.5	7.9	7.9	40.2	39.5	2.8	2.7	2.7	11.7	12.0	4.2	4.2	16.3	
						0.1	123.7	24.0	24.0	34.5	34.5	7.9	7.9	38.7	39.5	2.7	2.7	2.7	12.4	12.0	15.2	15.2	16.3	
IM7	Rainy	Moderate	07:58	13.0	S	0.2	45.6	27.6	27.6	28.8	28.8	8.1	8.1	72.8	73.0	4.9	4.9	4.2	1.1	1.1	5.2	3.2	3.4	10.2
						0.2	45.6	27.7	27.6	28.7	28.8	8.1	8.1	73.2	73.0	4.9	4.9	4.2	1.1	1.1				
						0.5	109.7	26.1	26.0	33.8	33.9	8.0	8.0	54.0	53.4	3.6	3.6	4.2	1.5	1.4				
					M	0.5	85.1	26.0	26.0	33.9	33.9	8.0	8.0	52.7	53.4	3.5	3.6	4.2	1.4	1.4	4.2	4.3	4.3	
						0.2	33.5	24.6	24.6	34.4	34.4	8.0	8.0	51.2	50.7	3.5	3.5	3.5	13.6	13.1	21.1	21.1	23.1	
						0.3	81.0	24.6	24.6	34.4	34.4	8.0	8.0	50.2	50.7	3.4	3.5	3.5	12.6	13.1	25.0	25.0	23.1	
IM8	Rainy	Moderate	08:09	14.7	S	0.2	18.2	27.6	27.6	25.2	25.3	8.0	8.0	81.5	81.4	5.6	5.6	4.8	1.6	1.6	8.3	3.6	3.3	13.6
						0.4	175.6	27.6	27.6	25.4	25.3	8.0	8.0	81.3	81.4	5.6	5.6	4.8	1.5	1.6				
						0.3	47.7	25.6	25.7	34.1	34.1	8.0	8.0	58.2	58.8	3.9	4.0	4.0	2.3	2.1		7.4		
					M	0.2	36.3	25.7	25.7	34.1	34.1	8.0	8.0	59.4	58.8	4.0	4.0	4.0	1.9	2.1	6.9	6.9	7.2	
						0.8	122.8	24.7	24.7	34.4	34.4	8.0	8.0	49.5	49.1	3.4	3.4	3.4	20.0	21.4	28.8	28.8	30.2	
						0.2	118.1	24.7	24.7	34.4	34.4	8.0	8.0	48.7	49.1	3.3	3.4	3.4	22.7	21.4	31.6	31.6	30.2	
IM9	Rainy	Moderate	07:38	15.2	S	0.4	103.6	27.8	27.8	23.2	23.2	8.1	8.0	79.7	80.0	5.5	5.5	4.8	1.8	1.8	4.2	3.6	3.4	6.8
						0.4	103.6	27.8	27.8	23.2	23.2	8.0	8.0	80.2	80.0	5.5	5.5	4.8	1.8	1.8				
						0.5	124.6	26.0	26.0	33.9	33.9	8.0	8.0	60.2	60.3	4.0	4.0	4.8	1.9	1.8		4.3		
					M	0.6	90.6	26.0	26.0	33.9	33.9	8.0	8.0	60.4	60.3	4.1	4.0	4.8	1.7	1.8	4.5	4.5	4.4	
						0.4	97.9	24.9	24.9	34.4	34.4	8.0	8.0	52.2	51.6	3.6	3.5	3.5	8.8	9.0	13.4	12.0	12.7	
						0.4	97.9	24.9	24.9	34.4	34.4	8.0	8.0	51.0	51.6	3.5	3.5	3.5	9.2	9.0	12.0	12.0	12.7	
IM10	Rainy	Calm	11:08	11.0	S	0.5	170.9	26.7	26.6	25.9	26.0	7.8	7.8	62.7	66.0	4.3	4.6	3.4	5.6	5.3	18.1	10.4	10.8	29.1
						0.1	184.8	26.5	26.6	26.1	26.0	7.8	7.8	69.4	66.0	4.8	4.6	3.4	4.9	5.3				
						0.2	57.4	25.1	25.1	34.1	34.1	7.7	7.7	32.8	32.5	2.2	2.2	2.4	18.6	17.5		22.5		
					M	0.5	122.6	25.1	25.1	34.1	34.1	7.7	7.7	32.2	32.5	2.2	2.2	2.4	16.4	17.5	26.6	26.6	24.6	
						0.6	347.8	25.1	25.1	34.1	34.1	7.7	7.7	35.9	35.1	2.4	2.4	2.4	32.7	31.7	50.4	50.4	51.9	
						0.6	38.6	25.1	25.1	34.1	34.1	7.7	7.7	34.3	35.1	2.3	2.4	2.4	30.6	31.7	53.4	53.4	51.9	
IM11A	Rainy	Calm	10:57	4.5	S	0.5	229.5	27.7	27.7	17.4	17.2	7.9	7.9	54.5	59.4	3.9	4.2	4.2	30.9	27.8	38.0	24.4	24.2	30.9
						0.5	229.5	27.8	27.7	17.0	17.2	7.9	7.9	64.2	59.4	4.6	4.2	4.2	24.6	27.8				
						0.9	175.5	25.4	25.5	33.5	33.2	7.7	7.7	36.3	35.1	2.5	2.4	2.4	52.3	48.2		36.8		
					B	0.5	73.4	25.6	25.5	33.0	33.2	7.7	7.7	33.9	35.1	2.3	2.4	2.4	44.1	48.2	38.5	38.5	37.7	
						1.3	172.6	28.4	28.4	13.7	13.7	7.9	7.9	88.6	90.0	6.4	6.5	4.3	2.5	2.4	2.9	2.7		
						0.5	209.7	28.4	28.4	13.7	13.7	7.9	7.9	91.4	90.0	6.6	6.5	4.3	2.3	2.4	2.4	2.4		
IM12	Rainy	Calm	10:47	12.5	M	2.1	210.6	25.7	25.7	33.3	33.3	7.7	7.7	31.7	31.5	2.1	2.1	4.3	33.4	33.0	33.5	42.6	41.0	45.7
						1.1	183.1	25.7	25.7	33.3	33.3	7.7	7.7	31.3	31.5	2.1	2.1	4.3	32.7	33.0				
						0.8	148.8	25.5	25.5	33.6	33.6	7.7	7.7	38.7	36.6	2.6	2.5	2.5	62.0	65.1		95.5		
					B	0.4	86.7	25.5	25.5	33.6	33.6	7.7	7.7	34.5	36.6	2.3	2.5	2.5	68.2	65.1	91.6	91.6	93.6	
						0.8	168.7	28.4	28.4	13.8	13.8	7.9	7.9	86.5	88.9	6.2	6.4	4.5	2.4	2.1	3.5	3.3		
						0.8	222.4	28.4	28.4	13.8	13.8	7.9	7.9	91.3	88.9	6.6	6.4	4.5	1.9	2.1	3.1	3.3		
IM13	Rainy	Calm	10:25	16.5	S	0.9	166.5	26.2	26.2	32.1	32.2	7.7	7.7	37.6	37.4	2.5	2.5	4.5	7.9	7.5	12.5	10.7	10.5	15.5
						1.1	206.5	26.1	26.2	32.4	32.2	7.7	7.7	37.2	37.4	2.5	2.5	4.5	7.2	7.5				
						0.6	261.0	25.8	25.8	33.1	33.1	7.7	7.7	38.5	36.8	2.6	2.5	2.5	27.4	27.8		31.8		
					M	0.9	167.1	25.8	25.8	33.1	33.1	7.7	7.7	35.0	36.8	2.4	2.5	2.5	28.1	27.8	33.8	33.8	32.8	
						0.3	84.6	28.4	28.4	14.2	14.2	7.9	7.9	92.2	92.3	6.6	6.6	6.4	1.7	1.7	2.6	2.5		
						0.6	213.0	28.4	28.4	14.2	14.2	7.9	7.9	92.5	92.3	6.7	6.6	6.4	1.8	1.7	2.4	2.5		
IM14	Rainy	Calm	10:12	10.5	M	1.0	212.8	28.4	28.4	15.3	15.4	7.9	7.9	85.8	87.2	6.1	6.2	6.4	2.9	2.6	14.1	4.0	4.0	18.7
						0.3	185.2	28.4	28.4	15.4	15.4	7.9	7.9	88.6	87.2	6.3	6.2	6.4	2.2	2.6				
						1.0	154.6	26.1	26.1	32.4	32.4	7.7	7.7	51.1	44.9	3.5	3.0	3.0	35.1	38.1		50.3		
					B	1.0	154.6	26.1	26.1	32.4	32.4	7.7	7.7	51.1	44.9	3.5	3.0	3.0	35.1	38.1	50.3	49.8		
						0.3	84.6	28.4	28.4	14.2	14.2	7.9	7.9	92.2	92.3	6.6	6.6	6.4	1.7	1.7	2.6	2.5		
						1.0	181.5	26.1	26.1	32.3	32.3	7.7	7.7	38.8	44.9	2.6	3.0	3.0	41.2	38.1	49.2	49.2		

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM15	Rainy	Calm	09:08	6.5	S	0.5	134.6	28.4	28.4	14.0	14.0	7.9	7.9	88.0	88.6	6.3	6.4	5.9	2.3	2.2	3.4	3.0	3.3	5.9			
						0.5	134.6	28.4	14.0	14.0	7.9	7.9	89.1	89.1	6.4	6.4	5.9	2.2	2.2								
						1.7	202.6	28.2	28.2	19.0	19.4	7.8	7.8	76.4	76.8	5.4	5.4	5.9	2.2	2.0							
					M	0.7	238.2	28.2	28.2	19.8	19.8	7.7	7.7	77.2	77.2	5.4	5.4	4.1	4.1	6.2	5.9	2.6	2.6	6.1	4.0	4.2	11.3
						0.4	177.8	27.0	26.9	28.0	28.0	7.7	7.7	66.0	60.0	4.5	4.1	4.1	4.1	6.2	5.9	2.6	2.6				
						0.4	240.1	26.9	26.9	28.0	28.0	7.7	7.7	54.1	54.1	3.7	3.6	3.6	3.6	10.8	11.3	10.8	10.8				
IM16A	Rainy	Calm	08:39	7.5	S	0.4	204.4	28.3	28.3	13.3	13.3	7.9	7.9	89.0	89.1	6.4	6.4	6.2	2.6	2.6	6.1	7.7	7.5	11.3			
						1.7	180.3	28.3	28.3	13.3	13.3	7.9	7.9	89.2	89.1	6.4	6.4	6.2	2.6	2.6							
						0.2	339.6	28.4	28.4	14.4	14.3	7.8	7.8	81.0	82.7	5.8	5.9	5.9	4.8	4.5							
					M	1.3	209.1	28.4	28.4	14.2	14.2	7.8	7.8	84.3	82.7	6.1	5.9	5.9	4.1	4.5	4.8	4.5	3.0	8.4	8.2	4.9	
						0.6	292.6	27.1	27.1	27.3	27.3	7.7	7.7	54.9	52.5	3.7	3.6	3.6	3.6	10.8	11.3	10.8		10.8			
						0.8	4.4	27.1	27.1	27.3	27.3	7.7	7.7	50.1	52.5	3.4	3.6	3.6	3.6	11.9	11.3	11.9		11.9			
B	0.4	149.7	28.3	28.3	13.0	13.0	7.9	7.9	86.3	86.6	6.3	6.3	6.3	6.3	3.4	3.3	5.2	2.9	2.8	10.5							
	0.5	148.6	28.3	28.3	13.0	13.0	7.9	7.9	86.8	86.6	6.3	6.3	6.3	6.3	3.2	3.3											
	0.1	106.4	28.3	28.3	17.6	17.6	7.8	7.8	83.7	82.0	5.9	5.8	5.8	5.8	2.7	2.7											
IM17	Rainy	Calm	07:36	5.5	S	0.7	126.8	28.2	28.3	17.7	17.7	7.8	7.8	80.2	82.0	5.7	5.8	5.8	2.7	2.7	3.0	6.6	6.9	4.9			
						0.9	68.9	28.3	28.3	13.9	13.9	7.9	7.9	80.8	82.8	5.8	6.0	6.0	4.8	2.9		2.9					
						0.9	68.9	28.3	28.3	14.0	13.9	7.9	7.9	84.8	82.8	6.1	6.0	6.0	4.8	2.9		2.9					
					M	0.7	105.6	27.1	27.1	27.0	27.0	7.7	7.7	52.0	53.0	3.6	3.6	3.6	3.6	3.0	3.3	4.3	6.2	6.2	7.4		
						0.6	261.9	27.1	27.1	27.0	27.0	7.7	7.7	54.0	53.0	3.7	3.6	3.6	3.6	3.0	3.3						
						0.7	297.0	25.1	25.1	31.8	31.8	7.7	7.7	43.0	41.6	3.0	2.9	2.9	2.9	9.0	9.3						
B	0.6	92.5	25.1	25.1	31.8	31.8	7.7	7.7	40.2	41.6	2.8	2.9	2.9	2.9	9.6	9.3	5.2	11.1	11.4	10.5							
	0.7	297.0	25.1	25.1	31.8	31.8	7.7	7.7	43.0	41.6	3.0	2.9	2.9	2.9	9.0	9.3											
	0.6	92.5	25.1	25.1	31.8	31.8	7.7	7.7	40.2	41.6	2.8	2.9	2.9	2.9	9.6	9.3											
IM18	Rainy	Calm	07:48	18.0	S	0.5	131.2	28.2	28.2	15.2	15.1	7.9	7.8	80.3	82.2	5.8	5.9	4.6	3.1	3.0	4.3	6.0	5.6	7.4			
						1.6	163.4	28.2	28.2	15.0	15.1	7.8	7.8	84.1	82.2	6.0	5.9	5.9	4.6	3.0							
						0.6	154.7	26.7	26.7	28.3	28.3	7.7	7.7	46.6	47.7	3.2	3.3	3.3	4.6	4.7							
					M	0.6	166.7	26.7	26.7	28.4	28.4	7.7	7.7	48.8	47.7	3.3	3.3	3.3	4.9	4.7	3.1	7.4	7.5	6.0			
						0.2	345.9	25.0	25.0	31.9	31.9	7.7	7.7	46.0	43.8	3.2	3.0	3.0	4.5	5.1							
						0.4	32.5	25.0	25.0	32.0	32.0	7.7	7.7	41.6	43.8	2.9	3.0	3.0	5.6	5.1							
B	0.8	53.6	28.4	28.4	15.8	15.7	7.7	7.7	83.8	83.8	6.0	6.0	6.0	6.0	3.0	3.0	3.1	5.6	5.5	8.4							
	0.8	53.6	28.4	28.4	15.6	15.7	7.7	7.7	83.8	83.8	6.0	6.0	6.0	6.0	3.0	3.0											
	0.7	175.7	28.3	28.3	17.2	17.2	7.7	7.7	84.5	83.4	6.0	5.9	5.9	5.9	3.1	3.2											
IM20A	Rainy	Calm	06:24	5.0	S	0.7	175.7	28.3	28.3	17.1	17.2	7.7	7.7	82.4	83.4	5.8	5.9	5.9	3.3	3.2	4.3	6.7	6.6	6.0			
						0.7	175.7	28.3	28.3	17.1	17.2	7.7	7.7	82.4	83.4	5.8	5.9	5.9	3.3	3.2							
						0.7	175.7	28.3	28.3	17.1	17.2	7.7	7.7	82.4	83.4	5.8	5.9	5.9	3.3	3.2							
IM21A	Rainy	Calm	06:33	5.5	S	2.8	252.1	28.5	28.5	16.6	16.6	7.7	7.7	81.1	81.2	5.7	5.8	5.8	4.6	4.5	5.4	6.5	6.8	8.4			
						2.8	252.1	28.5	28.5	16.6	16.6	7.8	7.7	81.3	81.2	5.8	5.8	5.8	4.4	4.5							
						2.5	219.4	28.5	28.5	17.5	17.5	7.7	7.7	84.0	82.1	5.9	5.8	5.8	6.0	6.4							
					B	0.7	186.7	28.5	28.5	17.6	17.7	7.7	7.7	80.3	83.4	5.7	5.8	5.8	6.8	6.8	6.8	10.3	10.0	11.7			
						0.5	241.6	29.2	29.2	17.7	17.7	7.7	7.7	83.4	83.2	5.8	5.8	5.8	6.8	6.8							
						0.5	241.6	29.1	29.1	17.7	17.7	7.7	7.7	83.0	83.2	5.8	5.8	5.8	6.9	6.8							
IM22A	Rainy	Calm	06:39	5.0	S	0.5	241.6	29.2	29.2	17.7	17.7	7.7	7.7	83.4	83.2	5.8	5.8	5.8	6.8	6.8	6.8	9.6	10.0	11.7			
						0.5	241.6	29.1	29.1	17.7	17.7	7.7	7.7	83.0	83.2	5.8	5.8	5.8	6.9	6.8							
						0.5	127.8	29.1	29.1	17.7	17.7	7.7	7.7	86.5	85.1	6.0	5.9	5.9	6.6	6.8							
B	0.4	217.7	29.1	29.1	17.7	17.7	7.7	7.7	83.7	85.1	5.8	5.9	5.9	7.0	6.8	6.8	13.0	13.3	11.7								
	0.4	217.7	29.1	29.1	17.7	17.7	7.7	7.7	83.7	85.1	5.8	5.9	5.9	7.0	6.8												
	0.4	217.7	29.1	29.1	17.7	17.7	7.7	7.7	83.7	85.1	5.8	5.9	5.9	7.0	6.8												

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*
E1	Rainy	Moderate	13:37	8.7	S	5.1	144.5	26.7	26.6	26.2	26.4	7.8	7.8	78.4	76.3	5.4	5.3	4.6	2.9	3.1	3.7	3.4	6.9
						5.1	144.5	26.6		26.7		7.8		74.1		5.1			3.3			3.5	
						0.5	197.6	25.7	29.8	7.8	58.6	4.0	3.7	7.6									
					M	0.6	205.9	25.7	30.0	29.9	7.8	7.8	57.8	58.2	4.0	4.0	3.9	3.8	7.6				
						0.4	209.5	25.7	31.0	31.1	7.5	7.5	51.3	49.4	3.5	3.4	4.1	4.2	9.8				
						0.6	262.0	25.7	31.2		7.6	47.5	3.3		4.2		8.8						
E2	Rainy	Moderate	19:05	8.5	S	0.1	235.3	27.4	27.4	27.0	27.0	8.1	8.1	120.7	121.2	8.2	8.2	7.5	1.6	1.5	3.9	1.2	7.8
						0.3	316.3	27.4		26.9		8.1		121.8		8.3			1.5			2.2	
						0.3	191.5	27.4	29.0	8.1	100.4	6.8	1.6	3.0									
					M	0.1	240.4	27.4	29.0	29.0	8.1	8.1	100.9	100.6	6.8	6.8	1.4	1.5	3.2				
						0.3	91.1	27.2	30.9	30.7	7.9	7.9	69.6	69.2	4.6	4.6	8.8	8.7	34.0				
						0.3	326.2	27.2	30.5		8.0	68.9	4.6		8.6		3.0						
E3	Rainy	Moderate	18:04	16.3	S	0.5	326.4	28.1	28.3	20.6	19.0	8.0	8.0	91.7	92.8	6.4	6.5	5.0	2.6	2.5	11.4	7.5	16.0
						0.5	326.4	28.5		17.4		8.0		94.0		6.6			2.5			6.5	
						0.4	325.7	26.1	32.5	32.6	7.9	7.9	51.7	51.7	3.5	3.5	6.2	6.2	8.2				
					M	0.5	332.1	26.0	32.8	32.6	7.9	7.9	51.8	51.7	3.5	3.4	6.2	6.2	9.2				
						0.3	274.4	25.7	33.8		7.9	7.9	51.1		50.6		3.4		3.4	25.6		25.5	
						0.3	274.4	25.7	33.8	33.8	7.9	7.9	50.2	50.6	3.4	3.4	25.4	25.5	31.7				
E4	Rainy	Calm	14:46	10.5	S	0.4	345.8	28.6	28.6	14.3	14.3	8.0	8.0	91.2	91.6	6.5	6.6	6.0	2.2	2.2	5.6	2.1	8.2
						0.4	345.8	28.6		14.3		8.0		92.1		6.6			2.3			2.9	
						0.3	262.7	28.2	17.7	18.3	7.9	7.9	71.8	75.8	5.1	5.4	4.8	4.3	7.4				
					M	0.7	130.7	28.0	19.0	18.3	7.9	7.9	79.8	75.8	5.6	5.4	3.7	4.3	8.4				
						0.0	173.2	26.9	28.3		28.1	7.8	7.8		58.1		53.5		4.0	3.7		10.7	
						0.6	346.1	26.9	28.0	28.1	7.8	7.8	49.0	53.5	3.3	3.7	10.0	10.4	14.7				
E5	Rainy	Calm	15:48	5.5	S	0.6	280.5	28.3	28.3	16.5	16.4	7.8	7.8	78.7	79.0	5.6	5.6	5.6	8.0	7.5	8.7	8.5	10.0
						0.6	280.5	28.4		16.4		7.8		79.4		5.6			7.1			9.6	
						0.7	340.1	28.0	19.0	18.8	7.8	7.8	76.7	75.1	5.4	5.3	9.7	9.9	10.4				
					B	0.4	330.7	28.0	18.6	18.8	7.8	7.8	73.4	75.1	5.2	5.3	10.2	9.9	11.3				
						0.2	303.9	28.6	14.2		14.3	7.7	7.7		72.1		72.8		5.2	5.2		8.4	
						0.5	220.9	28.6	14.4	14.3	7.7	7.7	73.5	72.8	5.3	5.2	8.4	8.4	7.0				
E6	Rainy	Calm	17:35	5.5	S	0.6	330.5	28.0	27.8	19.9	20.9	7.7	7.7	69.3	64.3	4.9	4.5	4.5	8.2	9.1	8.7	10.5	8.9
						0.4	304.4	27.7		21.8		7.7		59.3		4.1			9.9			9.9	
						0.9	214.0	28.4	17.6	17.8	7.7	7.7	68.9	69.1	4.9	4.9	6.4	6.4	6.8				
					B	0.9	214.0	28.5	18.0	21.7	7.7	7.7	69.3	64.4	4.9	4.5	6.5	7.8	5.8				
						0.7	32.5	27.7	21.7		7.7	7.7	67.9		64.4		4.7		4.5	8.0		8.0	
						0.7	32.5	27.7	21.7	21.7	7.7	7.7	60.9	64.4	4.3	4.5	7.7	7.7	7.9				
F1	Rainy	Moderate	14:31	19.5	S	0.2	14.3	27.2	27.2	26.7	26.7	8.0	8.0	95.4	96.5	6.5	6.6	4.3	1.3	1.3	6.8	2.4	11.0
						0.2	14.3	27.2		26.8		8.0		97.7		6.7			1.4			3.4	
						0.4	119.1	24.4	34.4	34.4	7.8	7.8	30.7	30.6	2.1	2.1	4.0	3.9	8.3				
					M	0.2	160.2	24.4	34.4	34.4	7.8	7.8	30.5	30.6	2.1	2.1	3.8	3.9	7.2				
						0.3	348.5	23.3	34.5		7.9	7.9	44.4		44.5		3.1		3.1	14.8		15.3	
						0.3	348.5	23.3	34.5	34.5	7.9	7.9	44.6	44.5	3.1	3.1	15.8	15.3	23.4				
F2	Rainy	Moderate	15:02	19.0	S	0.2	296.1	28.1	28.1	26.7	26.9	8.1	8.1	99.4	100.1	6.7	6.7	5.2	0.9	0.9	5.3	1.8	7.9
						0.2	296.1	28.1		27.1		8.1		100.8		6.8			0.9			1.3	
						0.1	86.0	25.1	34.2	34.2	7.9	7.9	52.4	52.7	3.6	3.6	3.7	3.6	6.9				
					M	0.3	186.4	25.1	34.2	34.2	7.9	7.9	52.9	52.7	3.6	3.6	3.4	3.6	6.3				
						0.5	85.2	23.4	34.6		7.8	7.8	45.5		44.6		3.2		3.1	11.2		11.4	
						0.2	116.3	23.4	34.5	34.5	7.8	7.8	43.7	44.6	3.1	3.1	11.5	11.4	15.7				

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Rainy	Moderate	16:32	17.1	S	0.4	273.9	28.3	28.3	22.4	22.8	8.0	8.0	92.6	91.8	6.4	6.3	4.7	1.8	1.8	8.2	2.4	2.0	6.6		
						0.4	273.9	28.2	23.2	8.0	23.2	91.0	6.2	1.7												
					M	0.2	178.3	25.2	25.2	34.1	34.1	7.9	7.9	45.5	45.5	3.1	3.1	4.7	3.8	3.7		3.8	4.8			
						0.2	213.1	25.2	25.2	34.1	34.1	7.9	7.9	45.4	45.5	3.1	3.1	2.7	3.6	19.3		3.6	5.3			
					B	0.2	265.7	24.1	24.1	34.5	34.5	7.8	7.8	39.2	38.6	2.7	2.7	2.7	17.5	17.5		2.3	2.4		2.3	13.1
						0.2	291.2	24.1	24.1	34.5	34.5	7.8	7.8	38.0	38.0	2.6	2.6	2.7	21.1	21.1		2.3	2.4		2.3	13.8
F4	Rainy	Moderate	18:39	13.2	S	0.5	286.9	27.8	27.8	27.2	27.1	8.1	8.1	113.2	113.3	7.6	7.6	6.8	2.3	2.4	6.0	2.5	3.1	8.0		
						0.5	286.9	27.8	27.8	27.1	27.1	8.1	8.1	113.4	113.3	7.7	7.6	6.8	2.4	2.4						
					M	0.2	274.2	27.4	27.4	28.5	28.5	8.0	8.0	86.2	88.1	5.8	5.9	2.7	2.1	1.9		2.1	2.5			
						0.5	279.7	27.4	27.4	28.5	28.5	8.0	8.0	89.9	88.1	6.1	5.9	2.7	1.8	1.9		3.0	2.8			
					B	0.0	161.6	25.5	25.5	34.1	34.1	7.9	7.9	40.6	39.8	2.7	2.7	2.7	13.5	13.8		2.6	2.7		16.9	18.2
						0.0	161.6	25.5	25.5	34.1	34.1	7.9	7.9	38.9	39.8	2.6	2.7	2.7	14.1	13.8		2.6	2.7		19.5	18.2
F5	Rainy	Calm	15:15	5.5	S	0.4	60.2	28.4	28.2	18.2	19.0	7.9	7.9	83.1	82.0	5.8	5.8	5.8	2.5	2.7	4.1	2.3	2.8	3.8		
						1.2	64.6	28.0	19.8	19.0	7.9	7.9	80.8	82.0	5.7	5.8	5.8	2.9	2.7							
					B	0.6	332.6	27.9	27.9	22.7	22.9	7.9	7.9	75.1	71.8	5.2	5.0	5.0	5.2	5.6		4.7	4.7			
						0.2	90.3	27.9	27.9	23.1	22.9	7.9	7.9	68.5	71.8	4.7	5.0	5.0	5.9	5.6		4.7	4.7			
F6	Rainy	Calm	16:22	13.5	S	0.6	143.0	28.7	28.8	14.4	14.3	7.8	7.8	82.3	85.3	5.9	6.1	5.1	4.7	4.4	8.8	3.2	3.2	9.7		
						0.3	126.7	28.8	28.8	14.3	14.3	7.8	7.8	88.2	85.3	6.3	6.1	5.1	4.2	4.4						
					M	0.1	282.3	27.7	27.7	21.7	21.7	7.7	7.7	59.6	59.6	4.2	4.2	4.2	8.9	8.8		8.8	9.6			
						0.1	282.3	27.7	27.7	21.7	21.7	7.7	7.7	59.6	59.6	4.2	4.2	4.2	8.8	8.8		10.2	9.9			
					B	0.5	332.4	26.9	26.9	25.7	25.7	7.7	7.7	59.8	58.0	4.1	4.0	4.0	12.2	13.0		13.0	16.5		16.1	
						0.7	192.3	26.9	26.9	25.7	25.7	7.7	7.7	56.2	58.0	3.9	4.0	4.0	13.9	13.0		13.0	15.6		16.1	
IM1	Rainy	Moderate	14:11	9.0	S	0.4	32.6	27.5	27.5	28.5	28.4	8.1	8.1	106.8	109.1	7.2	7.4	5.0	2.0	2.0	6.7	4.4	4.2	12.6		
						0.4	32.6	27.6	27.5	28.3	28.4	8.1	8.1	111.5	109.1	7.5	7.4	5.0	2.0	2.0						
					M	0.4	66.4	25.7	25.8	33.8	33.7	7.8	7.8	38.2	38.5	2.6	2.6	2.6	1.6	1.4		1.4	3.3		3.4	
						0.4	66.4	25.9	25.8	33.6	33.7	7.9	7.8	38.8	38.5	2.6	2.6	2.6	1.3	1.4		1.4	3.5		3.4	
					B	0.3	38.0	25.1	25.2	34.1	34.1	7.8	7.8	37.5	36.3	2.5	2.5	2.5	18.3	16.6		16.6	31.2		30.2	
						0.1	340.9	25.2	25.2	34.1	34.1	7.8	7.8	35.2	36.3	2.4	2.5	2.5	14.8	16.6		16.6	29.1		30.2	
IM2	Rainy	Moderate	13:49	11.0	S	0.4	198.4	26.6	26.6	27.1	27.2	7.9	7.9	82.4	82.8	5.7	5.7	4.8	1.7	1.7	4.9	3.5	3.9	7.2		
						0.4	198.4	26.6	26.6	27.3	27.2	7.9	7.9	83.1	82.8	5.7	5.7	4.8	1.7	1.7						
					M	0.3	168.3	26.3	26.1	30.2	30.7	7.9	7.9	61.4	58.7	4.2	4.0	4.0	2.8	2.9		2.9	4.0		3.9	
						0.4	187.6	26.0	26.1	31.3	30.7	7.8	7.9	55.9	58.7	3.8	4.0	4.0	2.9	2.9		2.9	3.8		3.9	
					B	0.2	325.7	24.8	24.8	34.2	34.2	7.7	7.7	23.3	22.5	1.6	1.5	1.5	10.1	10.2		10.2	12.9		13.8	
						0.4	20.1	24.8	24.8	34.1	34.2	7.7	7.7	21.7	22.5	1.5	1.5	1.5	10.4	10.2		10.2	14.6		13.8	
IM3	Rainy	Moderate	15:27	14.2	S	0.3	278.6	27.3	27.3	26.6	26.5	8.1	8.1	107.1	107.4	7.3	7.3	5.9	1.5	1.5	4.2	4.3	4.8	8.2		
						0.3	278.6	27.3	27.3	26.5	26.5	8.1	8.1	107.8	107.4	7.4	7.3	5.9	1.5	1.5						
					M	0.3	70.9	27.0	27.0	31.0	30.9	8.0	8.0	66.2	66.9	4.4	4.5	4.5	1.4	1.3		1.3	5.0		5.5	
						0.2	110.2	27.0	27.0	30.9	30.9	8.0	8.0	67.6	66.9	4.5	4.5	4.5	1.1	1.3		1.3	6.0		5.5	
					B	0.1	253.2	24.4	24.4	34.4	34.4	7.8	7.8	28.3	27.0	1.9	1.9	1.9	9.5	9.8		9.8	14.7		14.4	
						0.3	6.8	24.4	24.4	34.4	34.4	7.8	7.8	25.8	27.0	1.8	1.9	1.9	10.2	9.8		9.8	14.1		14.4	
IM4	Rainy	Moderate	15:52	15.7	S	0.8	299.1	27.7	27.7	24.7	24.7	8.1	8.1	116.2	116.2	8.0	8.0	7.2	1.1	1.1	4.7	3.2	2.7	7.9		
						0.8	299.1	27.7	27.7	24.7	24.7	8.1	8.1	116.3	116.2	8.0	8.0	7.2	1.0	1.1						
					M	0.5	284.2	27.3	27.3	28.7	28.7	8.1	8.1	94.6	95.4	6.4	6.4	6.4	1.2	1.2		1.2	8.0		7.5	
						0.5	284.2	27.3	27.3	28.6	28.7	8.1	8.1	96.2	95.4	6.5	6.4	6.4	1.1	1.2		1.2	7.0		7.5	
					B	0.1	304.2	24.7	24.7	34.3	34.3	7.8	7.8	23.5	22.3	1.6	1.5	1.5	11.9	12.0		12.0	13.6		13.6	
						0.3	256.5	24.7	24.7	34.3	34.3	7.8	7.8	21.1	22.3	1.4	1.5	1.5	12.2	12.0		12.0	13.6		13.6	
IM5	Rainy	Moderate	16:11	15.2	S	0.4	313.0	27.9	27.9	25.1	25.1	8.1	8.1	106.4	106.9	7.3	7.3	5.2	1.6	1.5	7.3	1.1	1.6	14.1		
						0.4	313.0	27.9	27.9	25.2	25.1	8.1	8.1	107.4	106.9	7.3	7.3	5.2	1.5	1.5						
					M	0.3	215.4	26.1	26.1	33.7	33.7	7.9	7.9	48.3	46.1	3.2	3.1	3.1	2.5	2.5		2.5	2.6		2.6	
						0.2	239.6	26.2	26.1	33.6	33.7	7.9	7.9	43.8	46.1	2.9	3.1	3.1	2.4	2.5		2.5	2.5		2.6	
					B	0.1	33.5	24.5	24.5	34.4	34.4	7.9	7.9	43.9	43.0	3.0	2.9	2.9	17.7	17.8		17.8	49.6		38.2	
						0.3	352.9	24.5	24.5	34.4	34.4	7.9	7.9	42.1	43.0	2.9	2.9	2.9	17.8	17.8		17.8	26.7		38.2	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Rainy	Moderate	16:44	15.6	S	0.3	284.6	28.2	28.3	22.9	22.8	8.0	8.0	92.5	92.6	6.4	6.4	4.5	1.6	1.6	1.6	7.1	1.8	8.9		
						0.3	284.6	28.3		22.8		8.0		92.8		6.4		1.6	2.0							
						0.3	163.6	26.2		33.5		33.5		7.9		40.8		2.7	3.2		3.9					
					M	0.3	185.0	26.2	26.2	33.4	34.5	7.9	7.9	37.9	39.3	2.5	2.6	2.9	2.9	16.7	16.5	3.1	3.1	4.1	4.0	20.8
						0.1	306.9	24.4		34.5		7.8		43.4		3.0		16.4		2.9		12.9				
						0.5	116.3	24.3		34.5		7.8		41.8		2.9		16.4		2.9		12.9				
IM7	Rainy	Moderate	17:13	12.8	S	0.4	311.3	28.9	28.9	17.3	17.4	8.1	8.1	105.1	105.8	7.4	7.4	6.3	1.6	1.6	1.5	3.2	1.0	3.3		
						0.4	311.3	28.9		17.5		8.1		106.5		7.5		1.5	0.5							
						0.3	262.7	27.3		28.6		29.0		8.0		78.2		5.3	1.5		1.7					
					M	0.6	284.6	27.2	27.3	29.5	34.3	8.0	8.0	77.7	78.0	5.2	5.3	3.8	3.8	6.6	6.6	1.5	1.5	1.8	1.8	7.0
						0.2	174.5	25.3		34.3		7.9		57.3		3.9		6.6		7.5						
						0.3	243.5	25.1		34.3		7.9		55.4		3.8		6.6		6.5						
IM8	Rainy	Moderate	17:02	14.0	S	0.2	318.2	28.4	28.4	20.5	20.6	8.0	8.0	95.9	97.2	6.7	6.7	4.8	1.6	1.6	2.2	7.0	1.8	6.5		
						0.2	318.2	28.5		20.7		8.0		98.6		6.8		1.7	1.3							
						0.5	307.3	26.3		33.2		7.9		42.4		2.8		3.8	6.4							
					M	0.4	236.0	26.3	26.3	33.2	34.4	7.9	7.9	42.0	42.2	2.8	2.8	3.5	3.7	5.4	5.4	5.8	5.8	5.9		
						0.1	357.9	24.8		34.4		7.9		52.8		3.6		15.2		5.8						
						0.1	357.9	24.8		34.4		7.9		51.8		3.5		16.0		17.9						
IM9	Rainy	Moderate	17:36	14.5	S	0.5	358.9	28.9	28.9	15.4	15.5	8.1	8.0	105.2	105.8	7.5	7.5	6.1	1.7	1.7	2.3	11.0	2.2	14.4		
						0.5	358.9	28.9		15.6		8.0		106.5		7.5		1.7	2.1							
						0.6	300.6	27.2		29.6		8.0		70.2		4.7		2.0	2.0							
					M	0.6	304.4	27.2	27.2	29.5	34.3	8.0	8.0	70.9	70.6	4.8	4.7	2.3	2.5	2.0	2.0	2.0	2.0	14.4		
						0.1	300.7	25.0		34.3		7.9		55.4		3.8		41.7		39.0						
						0.2	331.7	25.0		34.3		7.9		54.2		3.7		29.6		36.2						
IM10	Rainy	Calm	13:36	11.0	S	0.7	323.9	27.0	27.0	24.4	24.4	7.9	7.9	77.4	78.7	5.4	5.5	3.8	3.3	3.2	5.8	29.0	5.3	32.3		
						0.7	323.9	27.1		24.4		7.9		80.0		5.6		3.1	4.8							
						0.6	277.1	25.1		34.1		7.8		32.4		2.2		12.0	15.0							
					M	0.7	286.8	25.1	25.1	34.1	34.1	7.8	7.8	32.1	32.2	2.2	2.2	11.4	11.7	16.1	16.1	15.6	15.6	32.3		
						0.5	288.0	25.0		34.2		7.7		38.3		2.6		76.8		76.2						
						0.7	237.0	25.0		34.2		7.7		36.0		2.5		77.6		75.5						
IM11A	Rainy	Calm	13:49	4.5	S	1.1	132.4	28.5	28.5	14.1	14.2	8.0	8.0	95.4	95.0	6.8	6.8	6.8	8.4	9.2	11.3	11.7	12.2	18.0		
						1.1	132.4	28.5		14.4		8.0		94.6		6.8		9.9	13.0							
						0.8	149.2	28.3		15.5		8.0		93.1		6.7		13.7	23.3							
					B	0.8	264.9	28.3	28.3	15.5	15.5	8.0	8.0	91.6	92.3	6.5	6.6	6.6	6.6	15.0	14.3	24.2	23.8	23.8		
						0.3	59.0	28.1		17.1		8.0		81.3		5.8		5.1		2.6						
						0.3	59.0	28.1		16.9		8.0		85.0		6.0		4.1		3.6						
IM12	Rainy	Calm	13:59	12.0	S	0.7	359.1	26.9	27.0	25.1	24.7	7.9	7.9	55.6	57.8	3.9	4.0	5.0	10.3	11.3	12.9	14.4	13.9	14.3		
						0.7	23.0	27.0		24.3		7.9		60.1		4.2		12.3	14.8							
						0.2	47.7	25.8		31.7		7.8		42.7		2.9		27.1	34.2							
					M	0.6	328.1	25.9	25.8	31.1	31.4	7.8	7.8	41.0	41.8	2.8	2.9	2.9	2.9	27.5	27.3	17.5	17.5	25.9		
						0.5	27.3	28.6		14.2		7.9		84.4		6.0		3.8		3.3						
						0.5	27.3	28.6		14.2		7.9		88.6		6.4		3.2		2.8						
IM13	Rainy	Calm	14:26	16.0	S	0.6	268.5	26.1	26.4	31.7	30.2	7.8	7.8	33.0	35.9	2.2	2.4	4.3	16.8	15.3	18.6	12.1	17.3	15.6		
						0.7	353.8	26.8		28.7		7.8		38.9		2.7		13.7	16.0							
						0.3	259.7	26.0		32.6		7.8		44.7		3.0		16.2	25.9							
					B	0.5	69.8	26.0	26.0	32.7	32.7	7.8	7.8	39.5	42.1	2.7	2.8	2.8	2.8	19.0	17.6	26.6	26.6	26.3		
						0.7	0.6	28.7		14.5		7.9		87.6		6.3		2.7		3.1						
						0.7	0.6	28.7		14.5		7.9		90.2		6.4		2.4		3.3						
IM14	Rainy	Calm	14:35	10.0	S	0.6	140.6	27.8	27.8	21.5	22.0	7.9	7.8	62.9	63.9	4.4	4.4	5.4	7.0	6.8	7.0	8.2	7.1	9.9		
						0.2	227.6	27.7		22.5		7.8		65.0		4.5		6.6	7.2							
						0.9	79.8	26.6		29.6		7.8		52.9		3.6		13.9	20.7							
					M	0.9	79.8	26.5	26.6	30.1	29.9	7.8	7.8	43.6	48.2	3.0	3.3	3.3	3.3	16.4	15.2	18.0	18.0	19.4		
						0.9	79.8	26.5		30.1		7.8		43.6		3.0		16.4		18.0						
						0.9	79.8	26.5		30.1		7.8		43.6		3.0		16.4		18.0						

Water Quality Monitoring Data Log Sheet

Date: 2019/08/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM15	Rainy	Calm	15:37	5.5	S	0.2	298.2	28.5	28.5	15.4	15.4	7.9	7.9	90.4	90.0	6.4	6.4	6.4	4.0	4.1	5.0	3.2	3.7	4.4			
						0.2	298.2	28.6	28.5	15.4	15.4	7.9	7.9	89.7	89.7	6.4	6.4	6.4	4.2	4.1							
					B	0.3	358.8	28.2	28.2	18.9	18.6	7.9	7.9	86.7	85.5	6.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	5.6	5.1
						0.5	289.7	28.3	28.2	18.4	18.6	7.9	7.9	84.3	85.5	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	4.5	
IM16A	Rainy	Calm	16:00	6.5	S	0.6	329.8	28.6	28.6	14.9	14.9	7.8	7.8	86.9	87.2	6.2	6.2	6.0	4.9	4.8	6.0	4.0	3.9	9.1			
						0.6	329.8	28.6	28.6	14.9	14.9	7.8	7.8	87.5	87.2	6.2	6.2	6.0	4.8	4.8							
					M	0.3	196.6	28.3	28.3	16.8	16.7	7.8	7.8	79.8	80.3	5.7	5.7	5.7	7.0	6.6	6.0	7.0	6.6		4.6	5.1	
						0.9	240.0	28.3	28.3	16.7	16.7	7.8	7.8	80.8	80.3	5.7	5.7	5.7	6.2	6.6	6.0	6.2	6.6		5.6		5.1
					B	0.4	122.1	27.8	27.8	20.3	20.4	7.8	7.8	74.9	72.1	5.3	5.1	5.1	20.6	22.2	6.0	20.6	22.2		17.0	18.3	
						0.4	235.5	27.7	27.8	20.3	20.4	7.8	7.8	69.3	72.1	4.9	5.1	5.1	23.8	22.2	6.0	23.8	22.2		19.6		18.3
IM17	Rainy	Calm	17:00	4.5	S	0.3	312.1	28.3	28.4	16.1	16.1	7.8	7.8	73.5	73.3	5.2	5.2	5.2	7.9	7.3	11.5	4.4	4.9	9.3			
						0.3	312.1	28.4	28.4	16.2	16.1	7.7	7.8	73.1	73.3	5.2	5.2	5.2	6.7	7.3							
					B	0.8	300.0	28.2	28.1	17.3	17.6	7.8	7.8	79.0	78.0	5.6	5.5	5.5	14.9	15.7	6.0	14.9	15.7		12.8	13.8	
						0.6	53.1	28.1	28.1	17.9	17.6	7.8	7.8	76.9	78.0	5.4	5.5	5.5	16.4	15.7	6.0	16.4	15.7		14.7		13.8
IM18	Rainy	Calm	16:49	16.5	S	0.5	266.5	28.6	28.6	15.0	15.3	7.8	7.7	72.1	73.1	5.1	5.2	4.5	6.5	6.4	14.2	6.0	5.6	15.9			
						0.5	266.5	28.6	28.6	15.6	15.3	7.7	7.7	74.2	73.1	5.3	5.2	4.5	6.2	6.4		6.2			6.4	5.1	5.6
					M	0.6	237.4	27.5	27.5	22.3	22.3	7.7	7.7	53.4	54.0	3.7	3.8	4.5	11.1	10.8	4.5	11.1	10.8		10.0	10.8	
						0.2	308.6	27.5	27.5	22.3	22.3	7.7	7.7	54.7	54.0	3.8	3.8	4.5	10.6	10.8	4.5	10.6	10.8		11.5		10.8
					B	0.3	11.4	25.4	25.4	31.2	31.3	7.8	7.8	46.8	44.4	3.2	3.1	3.1	23.1	25.3	3.1	23.1	25.3		29.7	31.3	
						0.6	81.6	25.3	25.4	31.4	31.3	7.8	7.8	42.0	44.4	2.9	3.1	3.1	27.5	25.3	3.1	27.5	25.3		32.9		31.3
IM19	Rainy	Calm	17:16	17.0	S	1.0	24.5	28.6	28.6	16.2	16.2	7.8	7.8	78.6	79.1	5.6	5.6	4.6	6.0	6.0	13.5	6.3	5.8	15.0			
						0.5	22.7	28.6	28.6	16.3	16.2	7.8	7.8	79.6	79.1	5.6	5.6	4.6	6.0	6.0		6.0			6.0	5.3	5.8
					M	0.5	286.3	26.8	26.9	26.4	26.2	7.8	7.8	49.1	51.8	3.4	3.6	4.6	7.7	7.2	4.6	7.7	7.2		5.2	5.8	
						0.5	45.7	27.0	26.9	26.0	26.2	7.8	7.8	54.5	51.8	3.8	3.6	4.6	6.7	7.2	4.6	6.7	7.2		6.3		5.8
					B	0.4	186.8	24.8	24.8	32.4	32.4	7.8	7.8	43.2	40.1	3.0	2.8	2.8	24.5	27.3	2.8	24.5	27.3		31.7	33.6	
						0.1	178.0	24.8	24.8	32.4	32.4	7.8	7.8	37.1	40.1	2.6	2.8	2.8	30.0	27.3	2.8	30.0	27.3		35.4		33.6
IM20A	Rainy	Calm	18:10	4.0	S	0.8	353.4	28.8	28.8	15.9	15.9	7.8	7.8	84.6	85.1	6.0	6.0	6.0	5.7	5.5	7.0	5.8	6.3	8.3			
						0.8	353.4	28.8	28.8	15.8	15.9	7.8	7.8	85.7	85.1	6.1	6.0	6.0	5.2	5.5		6.0			6.0	5.2	6.3
					B	0.6	23.1	28.9	28.8	19.2	19.3	7.8	7.7	78.7	76.4	5.5	5.3	5.3	8.2	8.5	5.3	8.2	8.5		10.3	10.3	
						0.9	21.6	28.8	28.8	19.3	19.3	7.7	7.7	74.1	76.4	5.1	5.3	5.3	8.8	8.5	5.3	8.8	8.5		10.2		10.3
IM21A	Rainy	Calm	18:02	4.5	S	1.8	67.7	29.0	28.9	16.6	15.5	7.8	7.8	86.0	86.5	6.0	6.1	6.1	7.3	6.5	15.9	5.8	5.4	19.3			
						1.8	67.7	28.8	28.9	14.5	15.5	7.8	7.8	87.1	86.5	6.2	6.1	6.1	5.8	6.5		6.1			6.1	5.8	5.4
					B	0.3	322.6	28.7	28.5	21.1	22.4	7.8	7.7	78.9	74.0	5.4	5.1	5.1	23.6	25.3	5.1	23.6	25.3		31.6	33.3	
						0.3	322.6	28.4	28.5	23.6	22.4	7.7	7.7	69.2	74.0	4.7	5.1	5.1	27.0	25.3	5.1	27.0	25.3		34.9		33.3
IM22A	Rainy	Calm	17:56	4.5	S	0.4	195.9	28.3	28.4	18.9	18.1	7.8	7.8	67.5	73.5	4.7	5.2	5.2	8.7	7.7	8.4	9.8	9.5	10.1			
						0.3	164.9	28.6	28.4	17.2	18.1	7.8	7.8	79.6	73.5	5.6	5.2	5.2	6.6	7.7		6.6			7.7	9.1	9.5
					B	0.4	204.8	27.8	27.6	23.1	23.6	7.8	7.8	61.7	61.0	4.3	4.2	4.2	9.3	9.2	4.2	9.3	9.2		11.1	10.8	
						0.2	276.5	27.4	27.6	24.1	23.6	7.8	7.8	60.3	61.0	4.2	4.2	4.2	9.0	9.2	4.2	9.0	9.2		10.5		10.8

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
E1	Fine	Calm	13:19	8.0	S	0.6	199.7	26.6	26.6	28.0	28.0	7.9	7.9	81.3	81.2	5.6	5.6	5.5	2.1	2.3	5.3	10.4
						0.6	199.7	26.6	28.0	28.0	7.9	7.9	81.1	81.2	5.6	5.6	5.5	2.6	2.3	5.3		
						0.7	193.3	26.2	29.4	29.6	7.9	7.9	80.8	79.1	5.5	5.4	5.5	2.6	2.9	5.6		
					0.5	181.2	26.1	29.8	29.6	7.9	7.9	77.4	79.1	5.3	5.4	5.5	3.3	2.9	5.7			
					0.6	198.7	25.9	30.3	30.3	7.9	7.9	67.2	66.7	4.6	4.6	4.6	10.3	10.7	19.2			
					0.4	199.8	25.9	30.3	30.3	7.9	7.9	66.2	66.7	4.5	4.6	4.6	11.1	10.7	21.5			
E2	Fine	Calm	07:58	9.6	S	0.4	70.8	28.8	28.9	23.0	23.0	8.2	8.2	126.4	126.4	8.6	8.6	6.6	1.6	1.6	3.3	9.0
						0.4	70.8	28.9	22.9	23.0	8.2	8.2	126.5	126.4	8.6	8.6	6.6	1.6	1.6	3.8		
						0.2	49.2	26.9	26.9	29.5	29.5	7.9	7.9	67.9	67.6	4.6	4.6	4.6	1.8	1.7	6.3	
					0.2	26.4	26.9	26.9	29.5	29.5	7.9	7.9	67.3	67.6	4.6	4.6	4.6	1.6	1.7	5.9		
					0.2	319.8	26.3	31.1	31.1	7.6	7.6	39.0	38.4	2.6	2.6	2.6	11.1	11.1	18.2			
					0.1	102.4	26.3	31.1	31.1	7.7	7.6	37.9	38.4	2.6	2.6	2.6	11.2	11.1	16.5			
E3	Fine	Calm	09:02	17.2	S	0.5	99.2	28.0	28.0	24.7	24.5	8.0	8.0	80.4	80.9	5.5	5.5	4.4	1.6	1.5	6.4	16.1
						0.5	99.2	28.0	24.3	24.5	8.0	8.0	81.4	80.9	5.6	5.5	4.4	1.5	1.5	6.5		
						0.3	146.7	26.2	32.0	32.0	7.9	7.9	47.5	46.9	3.2	3.2	3.2	6.8	7.0	12.4		
					0.2	327.4	26.1	32.0	32.0	7.9	7.9	46.4	46.9	3.1	3.2	3.2	7.1	7.0	12.0			
					0.4	98.1	25.5	33.8	33.8	7.9	7.9	44.9	44.4	3.0	3.0	3.0	25.3	23.0	28.8			
					0.4	98.1	25.5	33.8	33.8	7.9	7.9	43.9	44.4	3.0	3.0	3.0	20.8	23.0	30.5			
E4	Cloudy	Calm	11:41	11.0	S	1.6	195.1	29.3	29.3	17.7	17.8	7.9	7.9	73.4	74.8	5.1	5.2	4.2	3.7	3.3	8.0	21.2
						2.1	212.8	29.3	17.9	17.8	7.9	7.9	76.2	74.8	5.3	5.2	4.2	2.9	3.3	8.0		
						0.9	196.5	27.1	27.7	27.8	7.9	7.9	47.2	47.7	3.2	3.2	3.2	15.5	15.3	22.5		
					1.1	230.6	27.1	27.9	27.8	7.9	7.9	48.1	47.7	3.3	3.2	3.2	15.0	15.3	21.7			
					0.4	276.0	26.0	32.1	32.2	7.9	7.9	44.7	42.0	3.0	2.8	2.8	62.5	65.7	32.4			
					0.9	248.6	26.0	32.2	32.2	7.9	7.9	39.2	42.0	2.7	2.8	2.8	68.9	65.7	34.8			
E5	Cloudy	Calm	10:40	6.5	S	0.8	190.3	29.3	29.3	17.8	17.9	7.9	7.9	75.3	76.6	5.2	5.3	4.9	3.1	3.0	5.2	7.8
						0.8	190.3	29.3	17.9	17.9	7.9	7.9	77.9	76.6	5.4	5.3	4.9	2.9	3.0	6.0		
						0.2	128.3	28.2	23.0	23.0	7.9	7.9	62.7	64.1	4.3	4.4	4.4	3.1	3.0	6.7		
					0.2	128.3	28.2	23.1	23.0	7.9	7.9	65.4	64.1	4.5	4.4	4.4	2.8	3.0	6.0			
					0.2	125.5	27.1	28.1	28.1	7.8	7.8	47.9	45.6	3.3	3.1	3.1	6.9	7.3	11.8			
					0.3	301.7	27.1	28.1	28.1	7.8	7.8	43.2	45.6	2.9	3.1	3.1	7.7	7.3	11.1			
E6	Cloudy	Calm	08:50	6.5	S	0.6	96.8	28.8	28.7	18.2	18.5	7.7	7.7	65.3	65.4	4.6	4.6	4.4	3.8	3.8	6.3	6.8
						0.6	96.8	28.7	18.9	18.5	7.7	7.7	65.4	65.4	4.6	4.6	4.4	3.9	3.8	6.4		
						0.3	2.2	28.3	21.5	21.5	7.8	7.8	60.3	61.2	4.2	4.2	4.2	5.1	5.1	6.5		
					0.7	84.6	28.3	21.5	21.5	7.8	7.8	62.0	61.2	4.3	4.2	4.2	5.2	5.1	6.9			
					0.3	192.9	27.3	25.7	25.7	7.8	7.8	59.0	56.4	4.1	3.9	3.9	4.2	4.2	7.4			
					0.6	43.8	27.3	25.7	25.7	7.8	7.8	53.9	56.4	3.7	3.9	3.9	4.3	4.2	7.3			
E7A	Cloudy	Calm	07:58	5.5	S	0.5	150.2	28.6	28.6	18.7	18.7	7.6	7.6	65.6	66.3	4.6	4.6	4.6	3.1	3.2	3.7	3.6
						0.5	150.8	28.6	18.7	18.7	7.6	7.6	67.0	66.3	4.7	4.6	4.6	3.3	3.2	3.3		
						0.5	197.5	27.6	24.1	24.5	7.4	7.5	65.3	63.7	4.5	4.4	4.4	3.0	2.9	3.8		
					0.3	302.6	27.5	24.9	24.9	7.5	7.5	62.0	63.7	4.3	4.4	4.4	2.9	2.9	3.6			
					0.4	134.3	29.1	25.3	25.3	8.4	8.4	167.1	168.1	11.2	11.2	11.2	1.4	1.4	3.1			
					0.4	134.3	29.1	25.3	25.3	8.4	8.4	169.0	168.1	11.3	11.2	11.2	1.4	1.4	3.1			
F1	Fine	Calm	12:22	19.6	M	0.2	138.8	26.5	26.6	31.8	31.8	8.0	8.0	57.1	57.1	3.8	3.8	7.5	0.7	0.7	2.3	5.4
						0.2	113.0	26.6	31.7	31.8	8.0	8.0	57.1	57.1	3.8	3.8	7.5	0.7	0.7	2.2		
						0.4	117.8	24.1	34.4	34.4	7.8	7.8	30.8	29.4	2.1	2.0	2.0	5.9	6.0	11.4		
					0.3	98.7	24.1	34.4	34.4	7.8	7.8	28.1	29.4	1.9	2.0	2.0	6.1	6.0	10.4			
					0.1	124.5	29.0	23.6	23.5	8.2	8.2	127.7	131.6	8.6	8.9	6.1	1.2	1.1	2.6			
					0.1	124.5	29.1	23.4	23.5	8.2	8.2	135.6	131.6	9.2	8.9	6.1	1.1	1.1	3.1			
F2	Fine	Calm	11:51	18.7	M	0.2	89.3	26.4	26.4	32.6	32.6	7.9	7.9	51.1	50.8	3.4	3.4	6.1	1.4	1.3	2.4	4.2
						0.2	350.4	26.4	32.5	32.6	7.9	7.9	50.5	50.8	3.4	3.4	6.1	1.3	1.3	2.4		
						0.1	39.5	24.1	34.5	34.5	7.8	7.8	39.0	38.2	2.7	2.6	2.6	6.0	6.0	7.7		
					0.1	39.5	24.1	34.5	34.5	7.8	7.8	37.5	38.2	2.6	2.6	2.6	6.0	6.0	6.8			
					0.1	124.5	29.0	23.6	23.5	8.2	8.2	127.7	131.6	8.6	8.9	6.1	1.2	1.1	2.6			
					0.1	124.5	29.1	23.4	23.5	8.2	8.2	135.6	131.6	9.2	8.9	6.1	1.1	1.1	3.1			

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
F3	Fine	Calm	10:26	17.5	S	0.6	127.9	29.0	28.9	24.0	24.1	8.2	8.2	119.7	119.1	8.1	8.0	5.9	1.0	1.0	1.8	2.3				
						0.6	127.9	28.9	24.2	24.1	8.2	8.2	118.5	119.1	8.0	8.0	5.9	1.0	1.0	1.8	2.3					
					M	0.4	143.9	25.7	25.7	33.8	33.8	7.9	7.9	54.2	55.4	3.7	3.7	2.5	2.5	4.1	2.6	2.5	3.9	3.7		
						0.4	78.4	25.7	25.7	33.8	33.8	8.0	8.0	56.6	55.4	3.8	3.7	2.5	2.5	4.1	2.3	2.5	3.4	3.7		
					B	0.6	54.6	24.4	24.4	34.4	34.4	7.8	7.8	38.0	36.8	2.6	2.5	2.5	2.5	2.5	2.5	8.9	8.7	10.5	9.9	
						0.1	200.2	24.4	24.4	34.4	34.4	7.8	7.8	35.6	36.8	2.5	2.5	2.5	2.5	2.5	2.5	8.9	9.1	9.3	9.9	
F4	Fine	Calm	08:25	14.0	S	0.9	150.3	28.6	28.6	23.7	23.7	8.2	8.2	116.9	118.0	7.9	8.0	5.3	1.4	1.5	1.1	1.4				
						0.9	150.3	28.6	28.6	23.8	23.7	8.2	8.2	119.1	118.0	8.1	8.0	5.3	1.4	1.5	1.1	1.4				
					M	0.3	178.6	26.3	26.4	32.2	32.0	7.8	7.8	37.1	38.1	2.5	2.6	2.6	2.6	2.6	2.6	2.3	2.6	2.3	9.8	9.3
						0.3	178.6	26.5	26.4	31.8	32.0	7.9	7.8	39.1	38.1	2.6	2.6	2.6	2.6	2.6	2.6	2.3	2.0	2.3	8.8	9.3
					B	0.3	94.7	26.0	26.0	33.2	33.2	7.8	7.8	32.3	31.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	8.8	8.9	13.9	13.2
						0.3	94.7	26.0	26.0	33.2	33.2	7.8	7.8	30.5	31.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	9.0	8.9	12.5	13.2
F5	Cloudy	Calm	11:13	6.0	S	0.6	170.9	28.9	28.8	19.2	19.6	7.9	7.9	73.8	73.4	5.1	5.1	4.6	3.0	3.1	6.6	6.2				
						0.6	170.9	28.8	28.8	20.1	19.6	7.9	7.9	73.0	73.4	5.0	5.1	4.6	3.0	3.1	6.6	6.2				
					M	0.7	199.3	27.9	27.9	24.4	24.5	7.9	7.9	58.6	59.9	4.0	4.1	4.1	4.1	4.1	4.1	3.6	3.9	3.6	7.2	6.7
						0.8	188.7	27.9	27.9	24.5	24.5	7.9	7.9	61.2	59.9	4.2	4.1	4.1	4.1	4.1	4.1	3.6	3.3	3.6	6.2	6.7
					B	0.7	240.9	26.9	26.9	29.0	29.0	7.9	7.9	54.9	51.8	3.7	3.5	3.5	3.5	3.5	3.5	3.5	7.6	7.9	10.9	10.5
						0.5	260.0	26.9	26.9	29.0	29.0	7.9	7.9	48.8	51.8	3.3	3.3	3.5	3.5	3.5	3.5	3.5	8.2	7.9	10.1	10.5
F6	Cloudy	Calm	10:03	14.5	S	0.6	107.1	28.6	28.6	19.7	19.9	7.8	7.8	67.7	69.2	4.7	4.8	4.2	3.0	3.0	5.0	4.5				
						0.6	107.1	28.6	28.6	20.0	19.9	7.8	7.8	70.8	69.2	4.9	4.8	4.2	3.0	3.0	5.0	4.5				
					M	1.2	84.8	26.6	26.6	27.3	27.3	7.8	7.8	50.9	51.4	3.5	3.5	3.5	3.5	3.5	3.5	4.7	4.3	6.4	6.1	
						0.5	154.2	26.7	26.6	27.2	27.3	7.8	7.8	51.9	51.4	3.6	3.5	3.5	3.5	3.5	3.5	3.5	4.0	4.3	5.8	6.1
					B	0.3	206.2	25.2	25.2	31.2	31.2	7.8	7.8	42.5	41.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	22.6	24.3	38.6	38.9
						1.0	172.5	25.2	25.2	31.2	31.2	7.8	7.8	41.1	41.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	26.0	24.3	39.1	38.9
IM1	Fine	Calm	12:41	9.1	S	0.3	183.8	29.1	29.2	28.1	27.9	8.2	8.2	128.6	129.9	8.4	8.5	7.4	1.8	1.8	4.4	4.4				
						0.3	183.8	29.1	29.2	27.6	27.9	8.2	8.2	131.1	129.9	8.7	8.5	7.4	1.8	1.8	4.4	4.4				
					M	0.3	306.5	27.3	27.3	29.8	29.9	8.0	8.0	91.5	92.2	6.1	6.2	6.2	6.2	6.2	6.2	1.7	1.7	5.3	5.3	
						0.2	317.6	27.3	27.3	29.9	29.9	8.0	8.0	92.8	92.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	1.7	1.7	5.2	5.3
					B	0.1	332.9	25.8	25.8	32.5	32.5	7.9	7.9	58.9	58.1	4.0	3.9	3.9	3.9	3.9	3.9	3.9	5.1	5.2	8.0	7.9
						0.4	229.5	25.8	25.8	32.5	32.5	7.9	7.9	57.4	58.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	5.2	5.2	7.7	7.9
IM2	Fine	Calm	13:04	10.8	S	1.0	232.8	27.8	27.8	27.6	27.6	8.2	8.2	133.0	133.5	9.0	9.0	7.3	1.7	1.7	3.4	3.6				
						1.0	232.8	27.8	27.8	27.6	27.6	8.2	8.2	134.0	133.5	9.0	9.0	9.0	9.0	9.0	9.0	1.7	1.7	3.4	3.6	
					M	0.8	203.8	26.5	26.5	29.7	29.7	8.0	8.0	82.0	83.3	5.6	5.7	5.7	5.7	5.7	5.7	7.9	7.5	4.8	4.7	
						0.9	192.5	26.5	26.5	29.8	29.7	8.0	8.0	84.7	83.3	5.8	5.7	5.7	5.7	5.7	5.7	7.5	7.1	4.6	4.7	
					B	0.4	183.2	25.8	25.8	31.2	31.2	7.9	7.9	59.8	59.3	4.1	4.0	4.0	4.0	4.0	4.0	4.0	14.1	14.2	21.4	22.3
						0.7	211.8	25.8	25.8	31.2	31.2	7.9	7.9	58.8	59.3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	14.3	14.2	23.2	22.3
IM3	Fine	Calm	11:27	14.6	S	0.4	2.2	28.1	28.2	26.5	26.5	8.2	8.2	133.5	135.2	9.0	9.1	5.3	1.7	1.5	4.2	4.1				
						0.4	2.2	28.2	28.2	26.5	26.5	8.2	8.2	137.0	135.2	9.2	9.1	5.3	1.7	1.5	4.2	4.1				
					M	0.3	169.0	25.5	25.5	33.1	33.1	7.7	7.7	24.5	23.2	1.7	1.6	1.6	1.6	1.6	1.6	4.2	4.3	6.8	6.5	
						0.2	142.1	25.5	25.5	33.1	33.1	7.7	7.7	21.9	23.2	1.5	1.6	1.6	1.6	1.6	1.6	4.4	4.3	6.2	6.5	
					B	0.1	29.2	24.8	24.8	34.2	34.2	7.7	7.7	26.2	24.2	1.8	1.7	1.7	1.7	1.7	1.7	1.7	3.1	3.3	8.4	8.6
						0.3	186.2	24.8	24.8	34.2	34.2	7.7	7.7	22.2	24.2	1.5	1.5	1.7	1.7	1.7	1.7	1.7	3.5	3.3	8.7	8.6
IM4	Fine	Calm	11:05	16.5	S	0.2	127.6	29.0	28.9	23.9	24.0	8.2	8.2	131.7	132.3	8.9	8.9	5.6	1.1	1.1	4.5	4.3				
						0.2	127.6	28.9	28.9	24.2	24.0	8.2	8.2	133.0	132.3	9.0	8.9	5.6	1.1	1.1	4.5	4.3				
					M	0.1	132.9	26.0	26.0	32.2	32.2	7.8	7.8	34.9	35.0	2.4	2.4	2.4	2.4	2.4	2.4	2.8	2.8	7.7	7.8	
						0.1	132.9	26.0	26.0	32.2	32.2	7.8	7.8	35.1	35.0	2.4	2.4	2.4	2.4	2.4	2.4	2.8	2.8	7.9	7.8	
					B	0.6	116.5	25.1	25.1	34.1	34.1	7.8	7.8	26.2	24.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	6.9	7.2	12.0	12.1
						0.6	116.5	25.1	25.1	34.1	34.1	7.8	7.8	23.6	24.9	1.6	1.7	1.7	1.7	1.7	1.7	1.7	7.5	7.2	12.2	12.1
IM5	Fine	Calm	10:46	15.3	S	1.4	158.9	29.0	29.0	24.0	24.0	8.3	8.3	145.1	145.2	9.8	9.8	6.2	1.2	1.2	4.2	4.2				
						1.4	158.9	29.0	29.0	24.0	24.0	8.3	8.3	145.3	145.2	9.8	9.8	6.2	1.2	1.2	4.2	4.2				
					M	0.3	126.4	26.3	26.3	32.4	32.4	7.8	7.8	38.1	38.1	2.6	2.6	2.6	2.6	2.6	2.6	2.8	2.7	7.5	7.4	
						0.3	112.9	26.3	26.3	32.4	32.4	7.8	7.8	38.0	38.1	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	7.3	7.4	
					B	0.2	115.8	25.0	25.0	34.2	34.2	7.8	7.8	34.8	33.8	2.4	2.3	2.3	2.3	2.3	2.3	2.3	7.3	7.4	10.7	11.2
						0.2	115.8	25.0	25.0	34.2	34.2	7.8	7.8	32.8	33.8	2.2	2.3	2.3	2.3	2.3	2.3	2.3	7.5	7.4	11.6	11.2

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM6	Fine	Calm	10:14	16.3	S	0.4	94.2	28.9	28.9	24.0	23.9	8.2	8.2	123.6	122.8	8.3	8.3	5.9	1.2	1.2	3.6	3.9	8.8	
						0.4	94.2	28.9	28.9	23.8	23.9	8.2	8.2	121.9	122.8	8.2	8.3	5.9	1.2	1.2	4.2	3.9		
						0.5	110.5	26.1	26.0	33.3	33.4	7.9	7.9	52.8	53.1	3.6	3.6	5.1	2.1	2.1	5.4	5.1		
					0.5	110.5	26.0	26.0	33.4	33.4	7.9	7.9	53.4	53.1	3.6	3.6	2.5	2.5	2.5	1.9	1.9	4.8		4.8
					0.5	10.1	24.6	24.6	34.4	34.4	7.8	7.8	38.3	37.0	2.6	2.5	2.5	11.5	12.0	11.5	17.6	17.5		
					0.4	29.9	24.6	24.6	34.4	34.4	7.8	7.8	35.8	37.0	2.5	2.5	2.5	12.4	12.0	12.4	17.3	17.3		
IM7	Fine	Calm	09:47	12.9	S	0.4	104.4	28.6	28.6	23.5	23.5	8.1	8.1	106.9	107.5	7.3	7.3	5.6	1.0	1.0	3.0	2.8	5.2	
						0.4	104.4	28.6	28.6	23.5	23.5	8.1	8.1	108.1	107.5	7.4	7.3	5.6	1.0	1.0	2.5	2.8		
						0.2	112.1	26.7	26.7	31.4	31.4	7.9	7.9	57.7	57.3	3.9	3.9	3.1	3.1	3.1	1.8	1.7		4.9
					0.3	73.3	26.7	26.7	31.4	31.4	7.9	7.9	57.0	57.3	3.8	3.9	3.1	3.1	3.1	1.6	1.7	4.9		4.9
					0.1	48.5	25.2	25.2	34.1	34.1	7.9	7.9	47.3	46.3	3.2	3.1	3.1	6.6	6.6	6.6	6.6	8.1		8.1
					0.1	120.4	25.2	25.2	34.1	34.1	7.9	7.9	45.2	46.3	3.1	3.1	3.1	6.6	6.6	6.6	6.6	8.0		8.0
IM8	Fine	Calm	09:58	14.7	S	0.2	105.7	28.6	28.5	23.1	23.6	8.2	8.1	118.3	114.4	8.1	7.8	5.5	1.4	1.3	2.5	2.5	7.6	
						0.2	105.7	28.4	28.5	24.1	23.6	8.1	8.1	110.5	114.4	7.5	7.8	5.5	1.3	1.3	2.5	2.5		
						0.1	37.3	26.3	26.3	32.3	32.3	7.9	7.9	46.7	47.0	3.1	3.2	3.2	3.3	3.2	3.3	7.6		7.2
					0.1	37.3	26.3	26.3	32.3	32.3	7.9	7.9	47.2	47.0	3.2	3.2	3.2	3.0	3.2	3.0	6.7	6.7		
					0.4	117.2	25.1	25.1	34.0	34.1	7.9	7.9	40.9	39.8	2.8	2.7	2.7	9.4	9.4	9.4	12.5	13.2		
					0.4	117.2	25.1	25.1	34.1	34.1	7.9	7.9	38.7	39.8	2.6	2.7	2.7	9.5	9.4	9.5	13.9	13.9		
IM9	Fine	Calm	09:27	15.4	S	0.2	151.6	28.1	28.1	24.3	24.6	8.1	8.1	94.6	95.0	6.5	6.5	5.4	1.5	1.4	3.1	3.2	7.6	
						0.2	151.6	28.1	28.1	24.9	24.6	8.1	8.1	95.4	95.0	6.5	6.5	5.4	1.3	1.4	3.2	3.2		
						0.2	136.2	27.1	27.1	30.3	30.3	8.0	8.0	63.5	63.8	4.3	4.3	4.3	1.5	1.5	5.3	5.2		
					0.1	181.6	27.1	27.1	30.3	30.3	8.0	8.0	64.0	63.8	4.3	4.3	4.3	1.5	1.5	5.0	5.0			
					0.4	117.2	25.8	25.8	33.6	33.5	7.9	7.9	54.9	54.1	3.7	3.6	3.6	3.4	3.3	14.4	14.6			
					0.3	14.5	25.9	25.9	33.5	33.5	7.9	7.9	53.3	54.1	3.6	3.6	3.6	3.2	3.3	14.7	14.7			
IM10	Cloudy	Calm	12:54	11.0	S	0.6	189.1	25.9	26.4	32.8	32.0	7.9	7.9	39.5	40.3	2.7	2.7	2.6	15.5	13.9	22.5	21.9	34.2	
						0.6	189.1	26.8	26.4	31.2	32.0	7.9	7.9	41.1	40.3	2.8	2.7	2.6	12.3	13.9	21.2	21.2		
						0.3	345.2	25.5	25.5	33.9	33.9	7.9	7.9	37.7	37.6	2.6	2.5	2.5	72.6	68.7	35.5	36.1		
					0.6	311.3	25.5	25.5	33.9	33.9	7.9	7.9	37.5	37.6	2.5	2.5	2.5	64.9	68.7	36.6	36.6			
					0.5	52.3	25.4	25.4	33.9	33.9	7.9	7.9	43.7	41.7	3.0	2.8	2.8	59.6	62.0	44.0	44.6			
					0.6	31.2	25.4	25.4	33.9	33.9	7.9	7.9	39.6	41.7	2.7	2.8	2.8	64.5	62.0	45.2	44.6			
IM11A	Cloudy	Calm	12:43	4.0	S	0.8	185.8	28.2	28.3	23.6	23.6	7.9	7.9	67.5	67.6	4.6	4.6	4.6	39.8	37.3	26.0	25.4	26.5	
						0.8	185.8	28.3	28.3	23.6	23.6	7.9	7.9	67.6	67.6	4.6	4.6	4.6	34.9	37.3	24.8	25.4		
						0.6	161.8	28.2	28.2	23.7	23.7	7.9	7.9	70.3	69.1	4.8	4.7	4.7	46.1	49.9	27.2	27.7		
					0.7	156.9	28.2	28.2	23.8	23.7	7.9	7.9	67.9	69.1	4.6	4.7	4.7	53.7	49.9	53.7	28.1			
					1.6	133.9	28.6	28.7	20.8	20.8	7.9	7.9	72.7	73.5	5.0	5.1	5.1	3.5	3.2	3.7	3.3			
					1.6	133.9	28.7	28.7	20.7	20.8	7.9	7.9	74.4	73.5	5.1	5.1	5.1	2.9	3.2	2.9	3.3			
IM12	Cloudy	Calm	12:21	12.5	M	1.9	148.1	27.3	27.1	27.4	28.0	7.9	7.9	61.5	60.6	4.2	4.1	4.6	7.5	6.7	19.1	19.6	20.2	
						0.9	124.4	27.0	27.1	28.7	28.0	7.9	7.9	59.7	60.6	4.1	4.1	4.1	5.8	6.7	20.0	19.6		
						1.0	174.4	26.3	26.3	31.1	31.1	7.9	7.9	44.6	44.1	3.0	3.0	3.0	89.5	88.5	36.1	37.7		
					0.7	156.2	26.3	26.3	31.1	31.1	7.9	7.9	43.7	44.1	3.0	3.0	3.0	87.6	88.5	39.2	37.7			
					2.4	185.4	28.8	28.9	18.7	18.4	7.9	7.9	70.7	71.6	4.9	5.0	5.0	3.6	3.5	3.8	3.5			
					2.4	185.4	29.0	28.9	18.1	18.4	7.9	7.9	72.5	71.6	5.0	5.0	5.0	3.4	3.5	3.2	3.5			
IM13	Cloudy	Calm	12:05	16.5	M	1.0	163.4	27.1	26.9	28.5	28.9	7.9	7.9	53.2	51.1	3.6	3.5	4.2	23.1	23.6	13.5	14.4	14.7	
						0.4	278.9	26.7	26.9	29.2	28.9	7.9	7.9	49.1	51.1	3.3	3.5	3.5	24.1	23.6	15.2	14.4		
						1.1	213.3	26.3	26.3	31.1	30.9	7.9	7.9	40.3	41.5	2.7	2.8	2.8	25.4	22.4	24.7	26.3		
					1.0	254.9	26.4	26.3	30.7	30.9	7.9	7.9	42.8	41.5	2.9	2.8	2.8	19.3	22.4	27.8	26.3			
					1.6	219.3	29.1	29.0	19.0	19.1	7.9	7.9	73.7	74.5	5.1	5.2	5.2	5.6	5.4	7.5	7.4			
					1.6	219.3	29.0	29.0	19.3	19.1	7.9	7.9	75.3	74.5	5.2	5.2	5.2	5.2	5.4	7.2	7.4			
IM14	Cloudy	Calm	11:49	10.0	M	1.3	209.5	28.2	27.9	23.3	24.6	7.9	7.9	63.1	61.0	4.3	4.2	4.7	10.4	10.1	11.6	10.9	17.8	
						1.7	209.9	27.6	27.9	25.9	24.6	7.9	7.9	58.9	61.0	4.0	4.2	4.2	9.8	10.1	10.2	10.9		
						1.3	170.0	26.1	26.1	31.7	31.7	7.9	7.9	40.8	39.7	2.8	2.7	2.7	70.6	72.2	35.4	35.3		
					0.7	131.4	26.1	26.1	31.7	31.7	7.9	7.9	38.6	39.7	2.6	2.7	2.7	73.8	72.2	35.1	35.3			

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
IM15	Cloudy	Calm	10:51	6.0	S	0.8	184.0	29.0	29.0	18.8	18.7	7.8	7.8	71.8	72.4	5.0	5.0	4.6	3.1	3.1	4.9	2.6	4.8	2.9	
						0.8	184.0	29.1	29.0	18.6	18.7	7.8	7.8	73.0	72.4	5.1	5.0	4.6	3.1	3.1					
					M	1.0	215.1	28.2	28.3	22.6	22.1	7.9	7.8	57.2	59.9	3.9	4.1	4.6	3.2	3.1		3.9			3.6
						0.8	255.8	28.4	28.3	21.6	22.1	7.8	7.8	62.6	59.9	4.3	4.1	4.6	3.4	3.7		3.3			3.6
					B	0.8	178.6	27.1	27.1	28.3	28.3	7.8	7.8	52.2	49.2	3.5	3.3	3.3	8.0	7.9		8.0			7.8
						0.3	172.2	27.1	27.1	28.3	28.3	7.8	7.8	46.2	49.2	3.1	3.3	3.3	7.8	7.9		7.5			7.8
IM16A	Cloudy	Calm	10:26	7.5	S	0.3	185.7	29.1	29.1	18.2	18.2	7.8	7.8	76.3	76.6	5.3	5.3	4.7	3.0	3.0	5.4	3.0	6.3	3.0	
						0.3	185.7	29.1	29.1	18.2	18.2	7.8	7.8	76.8	76.6	5.3	5.3	4.7	3.1	3.0		2.9			3.0
					M	1.3	223.3	28.2	28.2	23.1	22.9	7.8	7.8	59.9	60.8	4.1	4.2	4.7	3.8	3.5		3.8			4.3
						0.4	109.5	28.2	28.2	22.7	22.9	7.8	7.8	61.8	60.8	4.3	4.2	4.7	3.3	3.5		4.5			4.3
					B	0.4	179.9	27.4	27.4	26.7	26.7	7.8	7.8	52.2	48.7	3.6	3.3	3.3	9.2	9.7		11.8			11.6
						0.3	158.3	27.4	27.4	26.7	26.7	7.8	7.8	45.1	48.7	3.1	3.3	3.3	10.2	9.7		11.3			11.6
IM17	Cloudy	Calm	09:28	5.5	S	0.6	198.2	28.5	28.5	20.5	20.4	7.8	7.8	64.2	64.7	4.5	4.5	4.5	4.1	3.9	5.4	3.9	5.1	3.5	
						0.3	123.9	28.5	28.5	20.4	20.4	7.8	7.8	65.2	64.7	4.5	4.5	4.5	3.7	3.9		3.0			3.5
					B	0.5	158.3	27.9	27.9	23.7	23.7	7.8	7.8	56.0	54.4	3.9	3.7	3.7	6.7	6.8		6.9			6.8
						0.9	134.0	27.9	27.9	23.7	23.7	7.8	7.8	52.7	54.4	3.6	3.7	3.7	7.0	6.8		6.6			6.8
					S	0.5	93.5	28.8	28.8	19.0	18.8	7.8	7.8	70.3	72.9	4.9	5.1	4.4	3.5	3.4		3.5			3.2
						0.5	93.5	28.9	28.8	18.7	18.8	7.8	7.8	75.4	72.9	5.2	5.1	4.4	3.3	3.4		2.9			3.2
M	0.5	275.2	27.2	27.2	25.9	26.0	7.8	7.8	53.1	53.2	3.7	3.7	3.7	4.6	4.7	5.6	5.6								
	0.7	141.2	27.1	27.2	26.1	26.0	7.8	7.8	53.2	53.2	3.7	3.7	3.7	4.9	4.7	5.5	5.6								
B	0.8	83.6	26.0	26.0	29.4	29.4	7.8	7.8	48.9	48.3	3.4	3.3	3.3	7.2	7.1	9.6	9.4								
	0.3	114.2	26.0	26.0	29.3	29.4	7.8	7.8	47.6	48.3	3.3	3.3	3.3	6.9	7.1	9.2	9.4								
IM19	Cloudy	Calm	09:08	18.5	S	0.9	206.3	28.4	28.4	21.3	21.4	7.8	7.8	68.3	68.4	4.7	4.7	4.2	3.3	3.3	15.4	8.0	18.9	8.4	
						1.0	227.7	28.4	28.4	21.4	21.4	7.8	7.8	68.5	68.4	4.7	4.7	4.2	3.3	3.3		8.7			8.4
					M	1.1	213.5	27.2	27.3	26.5	26.1	7.8	7.8	51.3	52.6	3.5	3.6	4.2	16.4	15.0		22.5			22.4
						0.6	177.8	27.4	27.3	25.7	26.1	7.8	7.8	54.0	52.6	3.7	3.6	4.2	13.5	15.0		22.3			22.4
					B	0.5	96.2	25.6	25.7	30.4	30.3	7.8	7.8	41.8	42.1	2.9	2.9	2.9	30.4	28.1		25.4			25.8
						0.4	203.9	25.7	25.7	30.2	30.3	7.8	7.8	42.4	42.1	2.9	2.9	2.9	25.8	28.1		26.2			25.8
IM20A	Cloudy	Calm	08:11	5.0	S	0.2	259.9	28.7	28.7	20.1	19.9	7.7	7.7	66.9	68.3	4.6	4.7	4.7	3.0	2.8	5.6	4.5	7.8	4.7	
						0.2	259.9	28.8	28.7	19.7	19.9	7.7	7.7	69.7	68.3	4.8	4.7	4.7	2.6	2.8		4.8			4.7
					B	0.3	325.0	27.1	27.1	26.6	26.6	7.7	7.7	56.4	54.5	3.9	3.7	3.7	8.9	8.3		11.6			11.0
						0.3	325.0	27.1	27.1	26.6	26.6	7.7	7.7	52.5	54.5	3.6	3.7	3.7	7.7	8.3		10.4			11.0
					S	0.7	297.5	27.7	27.9	24.6	24.0	7.7	7.7	57.2	57.7	3.9	4.0	4.0	9.0	9.0		8.0			8.7
						1.3	221.6	28.1	27.9	23.5	24.0	7.7	7.7	58.2	57.7	4.0	4.0	4.0	9.1	9.0		9.3			8.7
B	0.3	300.8	26.8	26.8	27.3	27.4	7.7	7.7	53.0	51.2	3.6	3.5	3.5	14.3	14.9	24.0	23.4								
	0.4	202.2	26.8	26.8	27.4	27.4	7.7	7.7	49.4	51.2	3.4	3.5	3.5	15.6	14.9	22.8	23.4								
IM22A	Cloudy	Calm	08:26	5.5	S	0.7	228.4	28.5	28.5	25.5	25.5	7.8	7.8	63.0	62.9	4.2	4.2	4.2	11.6	11.6	13.2	16.2	19.0	15.9	
						0.7	228.4	28.4	28.5	25.5	25.5	7.8	7.8	62.8	62.9	4.2	4.2	4.2	11.6	11.6		15.6			15.9
					B	0.4	203.6	28.2	28.2	26.3	26.2	7.8	7.8	64.1	62.8	4.3	4.2	4.2	15.4	14.7		23.0			22.1
						0.4	265.9	28.2	28.2	26.2	26.2	7.8	7.8	61.4	62.8	4.1	4.2	4.2	14.1	14.7		21.1			22.1

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Fine	Calm	15:15	8.0	S	0.6	226.0	26.6	26.5	27.3	27.4	7.9	7.9	69.9	69.4	4.8	4.8	4.6	6.1	6.3	6.0	5.6					
						0.6	226.0	26.5	26.5	27.5	27.4	7.9	7.9	68.8	68.4	4.7	4.8	4.6	6.4	6.3	5.1	5.6					
					M	0.7	192.2	26.1	26.1	28.6	28.8	7.8	7.8	63.2	62.8	4.4	4.3	4.3	7.1	7.2	9.8	9.7					
						0.6	226.0	26.0	26.0	29.0	29.0	7.8	7.8	62.4	62.4	4.3	4.3	4.2	7.2	7.2	9.5	9.7					
					B	0.4	190.0	25.9	25.9	29.7	29.7	7.7	7.7	62.0	61.6	4.3	4.2	4.2	10.7	11.2	10.7	10.7					
						0.5	221.2	25.9	25.9	29.7	29.7	7.7	7.7	61.2	61.2	4.2	4.2	4.2	11.7	11.2	10.6	10.7					
E2	Fine	Calm	20:33	8.8	S	0.4	68.9	29.0	29.0	25.3	25.2	8.5	8.5	169.3	175.8	11.3	11.8	9.2	1.8	1.7	2.1	2.6					
						0.3	47.9	29.1	29.0	25.0	25.2	8.5	8.5	182.3	175.8	12.2	11.8	9.2	1.6	1.7	3.0	2.6					
					M	0.3	25.5	27.3	27.3	28.6	28.6	8.1	8.1	96.3	96.8	6.5	6.5	6.5	2.4	2.4	2.4	2.9					
						0.3	25.5	27.3	27.3	28.5	28.6	8.1	8.1	97.2	96.8	6.6	6.5	6.5	2.5	2.4	3.4	2.9					
					B	0.5	331.2	26.8	26.8	30.0	30.0	7.9	7.9	63.3	63.5	4.3	4.3	4.3	4.9	4.9	4.7	5.3					
						0.5	331.2	26.8	26.8	30.0	30.0	7.9	7.9	63.6	63.5	4.3	4.3	4.3	5.0	4.9	5.8	5.3					
E3	Fine	Calm	19:27	16.5	S	0.4	320.7	28.8	28.9	20.3	19.7	7.9	7.9	71.4	70.9	4.9	4.9	4.7	3.5	3.4	2.4	2.8					
						0.4	320.7	28.9	28.9	19.0	19.7	7.9	7.9	70.5	70.9	4.9	4.9	4.7	3.3	3.4	3.1	2.8					
					M	1.0	302.4	26.9	27.0	29.7	29.6	8.0	8.0	65.5	66.3	4.4	4.5	4.5	6.8	6.7	7.9	7.4					
						1.0	302.4	27.0	27.0	29.5	29.6	8.0	8.0	67.1	66.3	4.5	4.5	4.5	6.6	6.7	6.9	7.4					
					B	0.3	311.2	26.0	26.0	32.2	32.2	7.9	7.9	44.9	44.5	3.0	3.0	3.0	29.1	29.3	36.0	35.8					
						0.9	328.4	26.0	26.0	32.2	32.2	7.9	7.9	44.1	44.5	3.0	3.0	3.0	29.6	29.3	35.5	35.8					
E4	Cloudy	Calm	16:27	10.5	S	0.5	60.5	29.1	29.1	20.1	20.1	7.8	7.8	68.4	68.6	4.7	4.7	4.4	7.0	6.6	5.8	5.4					
						0.5	27.3	29.1	29.1	20.1	20.1	7.8	7.8	68.9	68.6	4.7	4.7	4.4	6.3	6.6	4.9	5.4					
					M	0.9	26.8	28.1	28.1	24.1	24.2	7.8	7.8	59.5	59.6	4.1	4.1	4.1	8.8	9.4	8.8	9.3					
						0.9	26.8	28.0	28.1	24.3	24.2	7.8	7.8	59.8	59.6	4.1	4.1	4.1	8.6	9.4	9.8	9.3					
					B	0.2	250.7	27.0	27.0	28.2	28.2	7.8	7.8	48.2	47.9	3.3	3.3	3.3	93.0	91.3	182.0^	-					
						0.1	279.1	27.0	27.0	28.2	28.2	7.8	7.8	47.6	47.9	3.2	3.3	3.3	89.6	91.3	168.0^	-					
E5	Cloudy	Calm	17:29	5.5	S	0.7	346.1	29.3	29.2	16.8	16.9	7.7	7.7	69.1	69.1	4.8	4.8	4.8	9.2	8.9	7.6	7.1					
						0.7	346.1	29.2	29.2	17.0	16.9	7.7	7.7	69.1	69.1	4.8	4.8	4.8	8.7	8.9	6.6	7.1					
					B	0.7	359.2	28.6	28.6	19.7	19.8	7.7	7.7	64.8	64.2	4.5	4.5	4.5	29.1	26.4	37.4	40.4					
						0.6	339.6	28.6	28.6	19.9	19.8	7.7	7.7	63.5	64.2	4.4	4.5	4.5	23.8	26.4	43.3	40.4					
					E6	Cloudy	Calm	19:23	5.5	S	1.5	1.1	27.5	27.7	24.2	23.2	7.7	7.7	45.4	46.2	3.1	3.2	3.2	14.7	13.4	24.8	23.2
											1.6	291.2	27.9	27.7	22.3	23.2	7.7	7.7	46.9	46.2	3.3	3.2	3.2	12.0	13.4	21.5	23.2
B	0.7	316.6	26.9	26.9						26.9	27.0	7.7	7.7	46.9	45.6	3.2	3.1	3.1	22.8	23.8	28.4	26.9					
	0.3	15.7	26.9	26.9						27.0	27.0	7.7	7.7	44.2	45.6	3.0	3.1	3.1	24.7	23.8	25.3	26.9					
S	0.7	36.7	29.4	29.4						17.8	18.0	7.8	7.8	72.9	74.3	5.0	5.1	5.1	6.7	6.1	3.8	3.6					
	0.7	36.7	29.4	29.4						18.1	18.0	7.8	7.8	75.8	74.3	5.2	5.1	5.1	5.6	6.1	3.3	3.6					
B	0.2	195.7	27.8	27.7	24.2	24.5	7.8	7.8	65.2	62.1	4.5	4.3	4.3	8.3	9.1	10.5	11.0										
	0.2	195.7	27.6	27.7	24.9	24.5	7.8	7.8	58.9	62.1	4.0	4.3	4.3	9.8	9.1	11.4	11.0										
F1	Fine	Calm	16:08	19.4	S	0.6	42.5	28.0	27.9	27.4	27.6	8.4	8.4	178.1	168.6	12.0	11.3	6.7	2.1	2.2	4.0	3.5					
						0.6	42.5	27.8	27.9	27.7	27.6	8.3	8.4	159.1	168.6	10.7	11.3	6.7	2.2	2.2	3.0	3.5					
					M	0.3	333.2	24.7	24.7	33.8	33.8	7.8	7.8	31.0	30.6	2.1	2.1	2.1	3.2	2.9	2.2	2.7					
						0.3	8.7	24.7	24.7	33.9	33.8	7.9	7.8	30.2	30.6	2.1	2.1	2.1	2.7	2.9	3.2	2.7					
					B	0.1	349.6	23.6	23.6	34.5	34.5	7.8	7.8	33.3	32.5	2.3	2.3	2.3	8.7	8.7	13.5	12.9					
						0.4	342.7	23.6	23.6	34.5	34.5	7.8	7.8	31.7	32.5	2.2	2.3	2.3	8.7	8.7	12.2	12.9					
F2	Fine	Calm	16:38	18.6	S	0.6	209.8	29.5	29.5	25.5	25.5	8.6	8.6	207.8	209.5	13.8	13.9	7.9	2.0	2.0	2.8	3.1					
						0.6	209.8	29.5	29.5	25.5	25.5	8.6	8.6	211.1	209.5	14.0	13.9	7.9	2.0	2.0	3.4	3.1					
					M	0.2	284.9	25.1	25.2	34.0	33.9	7.8	7.8	29.7	29.4	2.0	2.0	2.0	3.8	3.7	3.1	3.6					
						0.3	164.5	25.3	25.2	33.8	33.9	7.8	7.8	29.1	29.4	2.0	2.0	2.0	3.5	3.7	4.1	3.6					
					B	0.3	274.4	23.8	23.8	34.5	34.5	7.8	7.8	41.7	41.1	2.9	2.8	2.8	9.7	10.0	10.0	9.6					
						0.3	77.2	23.8	23.8	34.5	34.5	7.9	7.8	40.4	41.1	2.8	2.8	2.8	10.2	10.0	9.1	9.6					

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	Value	Average
F3	Fine	Calm	18:02	17.1	S	0.2	268.2	30.5	30.5	23.5	23.5	8.7	8.7	219.9	220.2	14.5	14.5	8.5	1.7	1.7	3.2	3.4	7.3
						0.2	268.2	30.6	23.5	23.5	8.7	8.7	220.4	14.5	14.5	1.7	1.7	3.5	5.6	14.0			
						0.3	286.5	25.3	25.4	33.8	33.7	7.9	7.9	35.8	2.4	2.4	3.1	4.1					
					0.3	277.4	25.4	24.4	33.7	34.4	7.9	7.8	36.3	2.5	2.5	2.9	5.1						
					B	0.3	282.6	24.4	24.4	34.4	34.4	7.8	7.8	36.7	2.5	2.5	11.9	13.0	4.7	16.3			
						0.3	268.0	24.4	24.4	34.4	34.4	7.8	7.8	35.1	2.4	2.4	12.4	15.0					
0.4	303.7	29.0	29.0	26.1		26.1	8.4	8.4	169.1	11.3	11.3	2.2	2.2										
F4	Fine	Calm	20:06	13.4	S	0.4	303.7	29.0	29.0	26.1	26.1	8.4	8.4	169.1	169.4	11.3	11.3	7.9	2.2	2.2	1.8	2.2	4.8
						0.4	303.7	29.0	29.0	26.1	26.1	8.4	8.4	169.7	169.4	11.3	11.3	7.9	2.1	2.2	1.8	2.2	
						0.3	284.5	27.0	27.0	29.9	29.9	8.0	8.0	66.7	67.8	4.5	4.6	4.5	5.5	5.0			
					M	0.6	298.5	27.1	27.0	29.8	29.9	8.0	8.0	68.8	67.8	4.6	4.6	4.5	4.5	5.0	11.7	28.9	
						0.1	211.5	25.6	25.6	33.4	33.4	7.8	7.8	27.6	26.9	1.9	1.8	1.8	7.5	7.4			
						0.3	251.5	25.6	25.6	33.4	33.4	7.8	7.8	26.3	26.9	1.8	1.8	1.8	7.3	7.4			
B	0.1	211.5	25.6	25.6	33.4	33.4	7.8	7.8	27.6	26.9	1.9	1.8	1.8	7.5	7.4	12.3	16.3						
	0.3	251.5	25.6	25.6	33.4	33.4	7.8	7.8	26.3	26.9	1.8	1.8	1.8	7.3	7.4								
	1.0	51.8	29.1	29.1	20.0	19.9	7.8	7.8	69.9	70.4	4.8	4.8	4.8	9.8	9.6								
F5	Cloudy	Calm	16:56	5.5	S	0.7	89.0	29.1	29.1	19.8	19.9	7.8	7.8	70.8	70.4	4.9	4.8	4.8	9.5	9.6	8.3	7.8	12.1
						1.3	29.9	28.2	28.0	24.4	25.3	7.9	7.8	70.7	65.8	4.8	4.5	4.5	16.6	14.9			
						0.6	58.5	27.8	28.0	26.1	25.3	7.8	7.8	60.9	65.8	4.1	4.5	4.5	13.2	14.9			
					M	0.5	343.0	29.8	29.8	16.4	16.4	7.8	7.8	79.4	79.8	5.5	5.5	5.4	5.3	11.7	28.9		
						0.5	343.0	29.8	29.8	16.4	16.4	7.8	7.8	80.2	79.8	5.6	5.5	5.4	5.3				
						0.9	311.6	27.9	27.9	24.7	24.7	7.9	7.9	76.3	77.4	5.2	5.3	5.2	5.2				
B	1.7	327.0	27.9	27.9	24.7	24.7	7.9	7.9	78.4	77.4	5.4	5.3	5.3	5.2	12.3	16.3							
	1.0	301.8	27.0	27.0	26.6	26.6	7.8	7.8	67.6	67.0	4.6	4.6	4.6	24.4			24.7						
	0.6	328.3	27.0	27.0	26.5	26.6	7.8	7.8	66.4	67.0	4.6	4.6	4.6	24.9			24.7						
IM1	Fine	Calm	15:49	9.1	S	1.0	348.8	30.1	30.1	25.9	26.0	8.5	8.5	186.5	187.5	12.2	12.3	8.5	1.4	1.5	4.0	3.6	7.1
						1.0	348.8	30.0	30.1	26.1	26.0	8.5	8.5	188.5	187.5	12.4	12.3	8.5	1.5	1.5	3.2	3.6	
						0.5	314.5	26.4	26.5	31.4	31.3	8.0	8.0	70.3	70.1	4.8	4.7	4.7	1.6	1.5	2.4	2.7	
					M	0.6	70.2	26.5	26.5	31.2	31.3	8.0	8.0	70.0	70.1	4.7	4.7	4.7	1.6	1.5	3.0	2.7	
						0.3	356.3	24.0	24.0	34.2	34.2	7.8	7.8	41.2	38.4	2.9	2.7	2.7	9.8	9.0	15.1	14.9	
						0.4	357.3	24.0	24.0	34.2	34.2	7.8	7.8	35.7	38.4	2.5	2.7	2.7	8.2	9.0			
B	0.3	190.7	26.6	26.6	28.0	28.0	8.0	8.0	76.7	77.0	5.3	5.3	5.2	3.8	3.8	5.4	5.9						
	0.3	190.7	26.6	26.6	28.0	28.0	8.0	8.0	77.4	77.0	5.3	5.3	5.2	3.9	3.8	6.3	6.2						
	0.7	215.4	26.6	26.6	28.0	28.0	7.9	7.9	75.8	75.7	5.2	5.2	5.2	4.7	4.3	8.0	8.2						
IM2	Fine	Calm	15:26	10.8	S	0.6	70.2	26.5	26.5	31.2	31.3	8.0	8.0	70.0	70.1	4.7	4.7	4.7	1.6	1.5	3.0	2.7	8.6
						0.3	356.3	24.0	24.0	34.2	34.2	7.8	7.8	41.2	38.4	2.9	2.7	2.7	9.8	9.0	15.1	14.9	
						0.4	357.3	24.0	24.0	34.2	34.2	7.8	7.8	35.7	38.4	2.5	2.7	2.7	8.2	9.0			
					M	0.3	190.7	26.6	26.6	28.0	28.0	8.0	8.0	76.7	77.0	5.3	5.3	5.2	3.8	3.8	5.4	5.9	
						0.3	190.7	26.6	26.6	28.0	28.0	8.0	8.0	77.4	77.0	5.3	5.3	5.2	3.9	3.8	6.3	6.2	
						0.7	215.4	26.6	26.6	28.0	28.0	7.9	7.9	75.8	75.7	5.2	5.2	5.2	4.7	4.3	8.0	8.2	
B	0.6	216.0	26.6	26.6	28.0	28.0	7.9	7.9	75.5	75.7	5.2	5.2	5.2	3.9	3.8	8.3	8.2						
	0.6	207.5	26.6	26.6	28.1	28.1	7.9	7.9	76.7	76.4	5.3	5.2	5.2	6.3	5.6	12.0	11.8						
	0.5	210.0	26.6	26.6	28.1	28.1	7.9	7.9	76.2	76.4	5.2	5.2	5.2	4.8	5.6	11.6	11.8						
IM3	Fine	Calm	17:02	14.3	S	0.8	297.8	28.4	28.4	26.8	26.8	8.4	8.4	161.4	162.6	10.8	10.9	8.3	2.3	2.3	5.5	5.1	5.6
						0.8	297.8	28.4	28.4	26.8	26.8	8.4	8.4	163.8	162.6	11.0	10.9	8.3	2.3	2.3	4.6	5.1	
						0.4	270.2	26.6	26.5	29.3	29.3	8.0	8.0	82.1	82.8	5.6	5.6	5.6	3.4	3.6	5.0	5.5	
					M	0.5	274.4	26.5	26.5	29.3	29.3	8.0	8.0	83.5	82.8	5.7	5.6	5.6	3.8	3.6	6.0	5.5	
						0.3	257.5	25.0	25.0	33.6	33.6	7.8	7.8	23.3	22.4	1.6	1.5	1.5	3.2	3.2	5.7	6.2	
						0.4	201.2	25.0	25.0	33.7	33.6	7.8	7.8	21.5	22.4	1.5	1.5	1.5	3.2	3.2	6.7	6.2	
B	1.5	241.1	30.2	30.2	24.6	24.6	8.6	8.6	206.6	207.9	13.6	13.7	9.9	1.8	1.8	4.5	5.0						
	1.5	241.1	30.2	30.2	24.6	24.6	8.6	8.6	209.2	207.9	13.8	13.7	9.9	1.8	1.8	5.5	5.0						
	1.3	306.9	27.2	27.2	28.4	28.4	8.1	8.1	88.8	89.4	6.0	6.1	6.1	1.9	1.9	5.0	4.6						
M	0.8	301.5	27.2	27.2	28.5	28.4	8.1	8.1	90.0	89.4	6.1	6.1	6.1	2.0	1.9	4.1	4.6						
	0.3	240.6	25.2	25.2	34.1	34.1	7.8	7.8	28.1	27.3	1.9	1.9	1.9	6.6	6.6	7.0	6.5						
	0.4	257.6	25.2	25.2	34.1	34.1	7.8	7.8	26.5	27.3	1.8	1.9	1.9	6.7	6.6	6.0	6.5						
B	0.2	267.0	29.3	29.5	25.3	25.2	8.5	8.5	200.1	204.2	13.3	13.6	8.5	2.1	2.1	5.9	6.4						
	0.2	267.0	29.6	29.5	25.2	25.2	8.6	8.5	208.3	204.2	13.8	13.6	8.5	2.0	2.1	6.8	6.4						
	0.1	326.3	26.6	26.6	30.6	30.6	7.9	7.9	51.1	51.3	3.5	3.5	3.5	1.9	1.9	1.2	1.8						
M	0.1	326.3	26.6	26.6	30.7	30.6	7.9	7.9	51.6	51.3	3.5	3.5	3.5	1.9	1.9	2.3	1.8						
	0.4	257.5	25.0	25.0	34.1	34.1	7.8	7.8	33.8	33.1	2.3	2.3	2.3	7.6	7.6	12.1	11.4						
	0.2	245.4	25.0	25.0	34.1	34.1	7.8	7.8	32.4	33.1	2.2	2.3	2.3	7.7	7.6	10.6	11.4						

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		DA*	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value
IM6	Fine	Calm	18:13	15.9	S	0.4	285.3	29.9	29.9	24.4	24.3	8.6	8.6	214.4	215.8	14.2	14.3	8.8	1.9	1.9	4.3	7.4	
						0.4	285.3	29.9	24.3	24.3	8.6	8.6	217.1	215.8	14.4	14.3	8.8	1.9	1.9	3.3	3.8		
						0.1	29.3	26.4	26.5	31.7	31.4	7.9	7.9	44.7	47.8	3.0	3.2	3.8	6.5	6.0			
					0.4	241.3	26.6	24.7	31.1	34.3	8.0	7.9	51.0	37.8	3.4	2.6	2.9	5.5	12.3				
					0.1	270.4	24.7	24.7	34.3	34.3	7.9	7.9	38.8	37.8	2.7	2.6	9.3	13.0	11.6				
					0.1	243.0	24.7	24.7	34.3	34.3	7.9	7.9	36.9	37.8	2.5	2.6	9.3	9.3					
IM7	Fine	Calm	18:40	12.6	S	0.8	274.2	28.3	28.3	26.0	25.9	8.2	8.2	120.1	120.7	8.1	8.1	5.5	1.8	1.8	2.2	6.6	
						0.8	274.2	28.3	28.3	25.8	32.5	32.5	7.9	7.9	42.7	43.0	2.9	2.9	3.5	2.9	3.4		
						0.3	274.9	26.2	26.1	32.6	32.6	7.9	7.9	43.2	43.0	2.9	2.9	3.2	3.8	3.4			
					0.3	235.5	25.2	25.2	34.1	34.1	7.9	7.9	47.5	47.0	3.2	3.2	9.7	13.1	13.7				
					0.4	225.0	25.2	25.2	34.1	34.1	7.9	7.9	46.6	47.0	3.2	3.2	9.3	14.2					
					0.3	235.5	25.2	25.2	34.1	34.1	7.9	7.9	47.5	47.0	3.2	3.2	9.7	13.1	13.7				
0.4	225.0	25.2	25.2	34.1	34.1	7.9	7.9	46.6	47.0	3.2	3.2	9.3	14.2										
IM8	Fine	Calm	18:29	14.2	S	0.5	259.3	29.4	29.2	24.6	24.8	8.6	8.5	212.9	204.9	14.2	13.7	8.1	1.9	1.9	3.7	5.6	
						0.5	259.3	29.1	29.2	24.9	24.8	8.5	8.5	197.0	204.9	13.2	13.7	8.1	1.9	1.9	4.7		4.2
						0.2	272.4	25.9	25.9	33.3	33.3	7.9	7.9	36.6	37.2	2.5	2.5	4.0	4.1	4.3			
					0.2	272.4	25.9	25.9	33.2	33.3	7.9	7.9	37.8	37.2	2.6	2.5	3.9	4.4	4.3				
					0.3	242.0	25.0	25.0	34.3	34.3	7.9	7.9	42.8	42.2	2.9	2.9	10.6	8.5	8.3				
					0.3	242.0	25.0	25.0	34.3	34.3	7.9	7.9	41.7	42.2	2.8	2.9	10.6	8.1					
0.7	277.0	28.4	28.4	23.6	23.7	8.1	8.1	90.7	91.4	6.2	6.2	2.4	2.4	2.2									
0.7	277.0	28.4	28.4	23.8	23.7	8.1	8.1	92.1	91.4	6.3	6.2	2.4	2.4	2.2									
0.7	274.6	27.3	27.4	29.1	28.8	8.1	8.1	83.2	84.0	5.6	5.7	2.8	2.8	3.3									
0.7	288.1	27.4	27.4	28.6	28.8	8.1	8.1	84.7	84.0	5.7	5.7	2.8	2.8	3.3									
0.4	329.8	25.2	25.2	34.0	33.9	7.9	7.9	48.2	47.8	3.3	3.3	26.9	37.7	38.6									
0.6	287.9	25.2	25.2	33.9	33.9	7.9	7.9	47.4	47.8	3.2	3.3	23.9	39.4										
0.5	265.7	26.2	26.3	32.5	32.3	7.9	7.9	51.1	49.6	3.4	3.3	6.5	6.2	6.7									
1.1	243.6	26.4	26.3	32.1	32.3	7.9	7.9	48.1	49.6	3.2	3.3	6.5	7.2	6.7									
0.8	256.4	25.5	25.5	33.8	33.8	7.8	7.8	37.8	37.6	2.6	2.5	2.9	23.2	27.7									
1.2	244.8	25.5	25.5	33.8	33.8	7.8	7.8	37.4	37.6	2.5	2.5	17.5	25.7										
0.5	286.3	25.4	25.4	33.9	33.9	7.8	7.8	41.8	40.5	2.8	2.7	47.3	76.0	82.3									
1.0	259.4	25.4	25.4	33.9	33.9	7.8	7.8	39.3	40.5	2.7	2.7	47.7	88.6										
0.2	149.4	28.9	28.9	21.5	21.2	7.9	7.9	73.0	72.7	5.0	5.0	5.0	12.0	13.3									
0.2	149.4	29.0	28.9	21.0	21.2	7.9	7.9	72.3	72.7	5.0	5.0	11.4	14.8										
0.5	263.9	28.7	28.7	23.2	23.7	7.9	7.9	78.3	77.7	5.3	5.3	10.8	13.8	14.3									
0.5	263.9	28.6	28.7	24.2	23.7	7.9	7.9	77.1	77.7	5.2	5.3	12.0	13.8										
0.7	148.3	29.4	29.4	18.4	18.3	7.9	7.8	74.0	73.9	5.1	5.1	5.0	7.5	7.3									
0.7	148.3	29.4	29.4	18.3	18.3	7.8	7.8	73.8	73.9	5.1	5.1	4.7	7.1										
0.4	211.2	28.0	28.0	25.9	25.9	7.9	7.9	72.0	72.9	4.9	4.9	9.9	14.3	13.4									
0.3	356.2	28.0	28.0	26.0	25.9	8.0	7.9	73.8	72.9	5.0	4.9	9.3	12.4										
0.5	248.9	28.0	27.9	28.0	28.4	8.0	8.0	86.2	87.8	5.8	5.9	15.4	96.3	104.2									
0.7	357.2	27.9	27.9	28.8	28.4	8.0	8.0	89.3	87.8	6.0	5.9	12.6	112.0										
0.8	142.6	29.6	29.6	18.9	19.0	7.8	7.8	61.7	62.0	4.2	4.3	12.2	17.8	19.2									
0.8	142.6	29.6	29.6	19.0	19.0	7.8	7.8	62.3	62.0	4.3	4.3	12.8	20.5										
0.4	291.1	27.3	27.2	27.1	27.5	7.8	7.8	49.7	49.6	3.4	3.4	11.6	38.5	35.4									
0.5	20.4	27.1	27.2	28.0	27.5	7.8	7.8	49.6	49.6	3.4	3.4	11.5	32.2										
0.4	6.5	25.9	25.9	32.5	32.5	7.8	7.8	41.5	40.1	2.8	2.7	24.5	34.2	32.1									
0.6	51.2	25.9	25.9	32.5	32.5	7.8	7.8	38.7	40.1	2.6	2.7	26.1	29.9										
0.4	342.6	29.2	29.2	19.4	19.5	7.8	7.8	70.9	70.9	4.9	4.9	4.9	6.2	5.7									
0.4	342.6	29.2	29.2	19.5	19.5	7.8	7.8	70.9	70.9	4.9	4.9	5.1	5.2										
0.2	235.5	29.0	29.0	21.7	21.7	7.8	7.8	69.5	69.8	4.7	4.8	7.2	7.6	8.0									
0.2	26.8	28.9	29.0	21.8	21.7	7.8	7.8	70.1	69.8	4.8	4.8	6.4	8.3										
0.3	4.2	26.8	26.8	29.1	29.0	7.8	7.8	50.7	49.0	3.4	3.3	30.6	29.6	31.9									
0.3	73.3	26.8	26.8	29.0	29.0	7.8	7.8	47.4	49.0	3.2	3.3	29.7	34.2										

Water Quality Monitoring Data Log Sheet

Date: 2019/08/28

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)			
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	17:19	5.5	S	0.9	45.9	29.3	29.3	18.9	19.2	7.8	7.8	75.5	75.2	5.2	5.2	5.2	5.6	5.5	8.4	6.2	10.2		
						0.9	45.9	29.2	19.6	19.2	7.8	7.8	75.0	75.2	5.2	5.2	5.2	5.6	5.5	8.4	7.1				
						0.9	324.6	28.3	23.9	23.8	7.8	7.8	63.7	63.3	4.4	4.3	4.3	12.6	11.3	8.4	14.3				
						0.2	337.0	28.3	23.8	23.8	7.8	7.8	63.0	63.3	4.3	4.3	4.3	10.0	11.3	8.4	13.2				
IM16A	Cloudy	Calm	17:42	6.5	S	0.1	359.2	29.0	29.0	18.3	18.3	7.7	7.7	56.8	56.9	4.0	4.0	3.9	8.7	8.7	12.2	9.9	13.0		
						0.4	12.4	29.1	18.3	18.3	7.7	7.7	57.0	56.9	4.0	4.0	3.9	8.8	8.7	10.0					
					M	0.1	326.6	28.5	28.5	20.0	20.1	7.7	7.7	55.7	55.9	3.9	3.9	3.9	10.6	10.5	3.9	10.6		12.2	10.3
						0.1	326.6	28.5	28.5	20.2	20.1	7.7	7.7	56.1	55.9	3.9	3.9	3.9	10.4	10.5		10.6			10.3
					B	0.4	316.7	28.2	28.2	21.3	21.4	7.7	7.7	54.9	53.7	3.8	3.7	3.7	17.1	17.4	3.7	17.1		12.2	18.8
						0.4	336.2	28.1	28.2	21.4	21.4	7.7	7.7	52.5	53.7	3.6	3.7	3.7	17.7	17.4		17.7			18.8
IM17	Cloudy	Calm	18:45	4.5	S	0.8	324.6	29.4	29.4	16.7	16.7	7.7	7.7	58.5	58.6	4.1	4.1	4.1	7.8	7.2	14.7	12.7	19.5		
						0.8	324.6	29.4	16.7	16.7	7.7	7.7	58.8	58.6	4.1	4.1	4.1	6.6	7.2	11.3					
					B	0.8	15.7	28.5	28.5	20.3	20.2	7.7	7.7	53.7	53.4	3.7	3.7	3.7	22.4	22.3	3.7	22.4		14.7	27.0
						0.2	317.6	28.5	28.5	20.2	20.2	7.7	7.7	53.0	53.4	3.7	3.7	3.7	22.3	22.3		22.3			27.0
IM18	Cloudy	Calm	18:32	17.0	S	0.2	19.2	29.6	29.7	15.3	14.9	7.7	7.7	55.7	57.3	3.9	4.0	3.8	6.9	19.5	7.3	20.6			
						0.2	19.2	29.8	14.5	14.9	7.7	7.7	58.8	57.3	4.1	4.0	3.8		6.3						
					M	0.6	305.9	27.3	27.3	25.3	25.3	7.8	7.8	50.8	50.9	3.5	3.5	3.1	8.7	19.5	8.6		19.5	9.1	
						0.6	48.8	27.3	27.3	25.2	25.3	7.8	7.8	51.1	50.9	3.5	3.5		3.1		7.1			9.1	
					B	0.8	61.9	26.6	26.6	27.7	27.7	7.8	7.8	45.9	45.4	3.2	3.1	3.1	41.4	19.5	49.2		19.5	46.0	
						1.4	309.2	26.6	26.6	27.7	27.7	7.8	7.8	44.9	45.4	3.1	3.1		3.1		46.7			44.1	46.7
IM19	Cloudy	Calm	19:04	17.5	S	0.8	345.0	29.6	29.6	16.9	16.8	7.8	7.8	73.4	74.2	5.1	5.2	4.4	6.3	16.7	19.5	21.3			
						0.8	345.0	29.6	16.7	16.8	7.8	7.8	75.0	74.2	5.2	5.2	4.4		6.5						
					M	1.1	333.0	27.7	27.7	23.9	23.9	7.8	7.7	53.6	53.5	3.7	3.7	3.1	7.1	16.7	16.5		16.7	16.8	
						1.6	0.4	27.7	27.7	23.9	23.9	7.7	7.7	53.3	53.5	3.7	3.7		3.1		6.0			16.8	
					B	0.4	40.1	25.7	25.7	30.1	30.1	7.8	7.8	48.2	45.7	3.3	3.1	3.1	34.8	16.7	28.5		16.7	28.8	
						0.3	351.3	25.7	25.7	30.2	30.1	7.8	7.8	43.3	45.7	3.0	3.1		3.1		39.6			37.2	39.6
IM20A	Cloudy	Calm	20:01	4.5	S	0.7	344.6	29.7	29.7	17.9	17.7	7.8	7.8	71.1	73.0	4.9	5.0	5.0	8.5	9.5	17.7	18.1			
						0.6	111.9	29.7	17.6	17.7	7.8	7.8	74.9	73.0	5.2	5.0	5.0		7.6						
					B	0.5	183.4	27.7	27.7	25.2	25.2	7.8	7.8	63.7	61.3	4.4	4.2	4.2	10.6	9.5	18.2		9.5	18.4	
						0.2	88.0	27.7	27.7	25.2	25.2	7.8	7.8	58.9	61.3	4.0	4.2		4.2		11.3			10.9	11.3
IM21A	Cloudy	Calm	19:52	4.5	S	0.5	302.2	29.3	29.4	19.4	19.9	7.7	7.8	64.7	66.8	4.5	4.6	4.6	13.7	13.9	18.1	19.6			
						0.5	302.2	29.6	29.4	20.3	19.9	7.7	7.8	68.9	66.8	4.7	4.6		4.6		14.7				
					B	0.5	263.8	27.6	27.5	25.2	25.4	7.7	7.7	60.9	57.6	4.2	3.9	3.9	13.5	13.9	23.7		13.9	22.3	
						0.4	198.9	27.4	27.5	25.5	25.4	7.7	7.7	54.3	57.6	3.7	3.9		3.9		13.8			13.6	13.8
IM22A	Cloudy	Calm	19:46	4.5	S	0.5	201.8	28.8	29.0	23.4	22.9	7.8	7.8	65.8	65.8	4.5	4.5	4.5	17.4	17.0	18.5	22.1			
						0.2	76.4	29.2	29.0	22.4	22.9	7.8	7.8	65.8	65.8	4.5	4.5		4.5		16.9		17.2	16.9	19.9
					B	0.2	272.7	27.8	27.9	24.7	24.6	7.8	7.8	66.0	64.9	4.5	4.4	4.4	16.2	17.0	24.0		17.0	24.2	
						0.6	4.0	28.1	27.9	24.4	24.6	7.8	7.8	63.8	64.9	4.4	4.4		4.4		17.4			16.8	17.4

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Cloudy	Calm	15:06	7.8	S	0.7	239.8	26.0	26.0	30.0	30.0	7.9	7.9	72.6	72.5	5.0	5.0	5.0	5.0	10.4	10.4	14.3	21.9
						0.6	220.5	26.0	26.0	30.0	30.0	7.9	7.9	72.4	72.5	5.0	5.0	5.0	5.0	10.4	10.4	13.4	
						0.6	200.7	26.0	26.0	30.1	30.1	7.9	7.9	72.4	72.2	5.0	4.9	4.9	4.9	15.7	16.3	21.8	
					M	0.5	201.8	26.0	26.0	30.1	30.1	7.9	7.9	72.0	72.0	4.9	4.9	4.9	4.9	17.0	16.3	23.2	
						0.6	213.3	26.0	26.0	30.1	30.1	7.9	7.9	73.4	73.1	5.0	5.0	5.0	5.0	18.3	19.8	29.2	
						0.5	210.0	26.0	26.0	30.1	30.1	7.9	7.9	72.8	72.8	5.0	5.0	5.0	5.0	21.2	19.8	29.2	
E2	Cloudy	Calm	09:38	9.7	S	0.3	37.6	27.7	27.7	27.8	27.8	8.2	8.2	119.9	119.9	8.1	8.1	8.1	8.1	2.3	2.3	3.3	8.2
						0.3	37.6	27.7	27.7	27.8	27.8	8.2	8.2	119.9	119.9	8.1	8.1	8.1	8.1	2.3	2.3	3.2	
						0.3	300.5	27.8	27.8	27.9	27.9	8.2	8.2	116.8	118.2	7.9	7.9	7.9	7.9	2.4	2.3	5.3	
					M	0.1	112.9	27.8	27.8	27.9	27.9	8.2	8.2	119.6	118.2	8.0	7.9	8.0	7.9	2.2	2.3	5.0	
						0.2	55.0	27.0	27.0	29.3	29.2	7.9	7.9	77.9	77.2	5.3	5.2	5.2	5.2	11.0	11.2	16.5	
						0.2	55.0	27.0	27.0	29.2	29.2	7.9	7.9	76.6	77.2	5.2	5.2	5.2	5.2	11.4	11.2	15.6	
B	0.2	55.0	27.0	27.0	29.3	29.2	7.9	7.9	77.9	77.2	5.3	5.2	5.2	5.2	11.0	11.2	16.5						
	0.2	55.0	27.0	27.0	29.2	29.2	7.9	7.9	76.6	77.2	5.2	5.2	5.2	5.2	11.4	11.2	15.6						
	0.2	55.0	27.0	27.0	29.2	29.2	7.9	7.9	76.6	77.2	5.2	5.2	5.2	5.2	11.4	11.2	15.6						
E3	Cloudy	Calm	10:41	17.4	S	0.1	325.2	27.5	27.5	26.7	26.7	8.1	8.1	106.2	106.4	7.2	7.2	7.2	7.2	3.0	2.9	4.3	43.7
						0.2	84.7	27.5	27.5	26.7	26.7	8.1	8.1	106.7	106.4	7.3	7.2	7.2	7.2	2.8	2.9	5.1	
						0.3	105.8	27.0	27.0	29.9	29.9	8.0	8.0	78.8	78.9	5.3	5.3	5.3	5.3	13.9	13.5	19.7	
					M	0.4	111.9	27.0	27.0	30.0	29.9	8.0	8.0	79.1	78.9	5.3	5.3	5.3	5.3	13.1	13.5	20.2	
						0.7	140.4	26.0	26.0	32.2	32.2	7.9	7.9	54.7	54.6	3.7	3.7	3.7	3.7	75.4	78.6	109.0	
						0.7	140.4	26.0	26.0	32.2	32.2	7.9	7.9	54.6	54.6	3.7	3.7	3.7	3.7	81.8	78.6	104.0	
B	1.7	215.9	27.8	27.8	25.2	25.2	7.9	7.9	69.8	69.8	4.8	4.8	4.8	4.8	6.5	5.9	6.3						
	1.7	215.9	27.8	27.8	25.2	25.2	7.9	7.9	69.8	69.8	4.8	4.8	4.8	4.8	6.5	5.9	6.0						
	0.9	200.5	27.3	27.3	27.7	27.7	7.9	7.9	69.5	69.4	4.7	4.7	4.7	4.7	44.8	44.5	55.9						
E4	Cloudy	Moderate	13:37	11.0	S	1.2	221.7	27.3	27.3	27.7	27.7	7.9	7.9	69.4	69.4	4.7	4.7	4.7	4.7	44.3	44.5	59.1	31.8
						0.9	189.5	27.3	27.3	28.1	28.1	7.9	7.9	70.1	69.8	4.8	4.7	4.7	4.7	176.2	177.8	276.0^A	
						1.4	193.3	27.3	27.3	28.1	28.1	7.9	7.9	69.6	69.8	4.7	4.7	4.7	4.7	179.4	177.8	253.0^A	
					M	1.6	180.0	28.5	28.5	17.3	18.4	7.8	7.8	74.1	72.5	5.2	5.1	5.1	5.1	5.7	5.8	5.2	
						1.0	225.7	28.4	28.5	19.6	18.4	7.8	7.8	71.0	72.5	5.0	5.1	5.1	5.1	5.9	5.8	5.7	
						1.0	186.8	27.7	27.7	24.1	24.4	7.9	7.9	75.5	76.2	5.2	5.2	5.2	5.2	7.2	6.4	6.1	
B	0.9	229.5	27.6	27.6	24.6	24.4	7.9	7.9	77.0	76.2	5.3	5.2	5.2	5.2	5.7	5.8	6.3						
	0.2	110.5	27.4	27.4	26.6	26.7	7.8	7.9	69.2	67.5	4.7	4.6	4.6	4.6	24.8	26.2	36.5						
	0.8	207.9	27.4	27.4	26.7	26.7	7.9	7.9	65.9	67.5	4.5	4.6	4.6	4.6	27.6	26.2	38.4						
E5	Cloudy	Moderate	12:35	6.0	S	1.1	176.8	28.2	28.2	21.4	21.4	7.8	7.8	67.8	68.3	4.7	4.7	4.7	4.7	12.4	12.2	16.7	16.4
						1.1	176.8	28.2	28.2	21.3	21.4	7.8	7.8	68.8	68.3	4.8	4.7	4.7	4.7	12.1	12.2	16.2	
						0.3	205.8	27.9	27.8	23.6	23.7	7.8	7.8	64.8	64.5	4.5	4.4	4.4	4.4	13.0	12.8	21.2	
					M	0.3	205.8	27.8	27.8	23.8	23.7	7.8	7.8	64.3	64.5	4.4	4.4	4.4	4.4	12.7	12.8	21.9	
						0.3	42.1	27.4	27.4	25.5	25.4	7.8	7.8	64.3	63.4	4.4	4.4	4.4	4.4	20.7	18.6	33.0	
						0.2	213.4	27.4	27.4	25.3	25.4	7.8	7.8	62.5	63.4	4.3	4.4	4.4	4.4	16.5	18.6	32.8	
B	0.7	215.0	28.2	28.1	22.4	22.5	7.7	7.7	68.1	68.0	4.7	4.7	4.7	4.7	5.6	5.6	7.1						
	0.7	215.0	28.1	28.1	22.6	22.5	7.7	7.7	67.9	68.0	4.7	4.7	4.7	4.7	5.7	5.6	7.2						
	0.3	5.4	28.0	28.0	23.1	23.1	7.7	7.7	66.4	66.7	4.6	4.6	4.6	4.6	7.5	7.5	8.5						
E6	Cloudy	Moderate	10:30	6.5	S	0.7	215.0	28.2	28.1	22.4	22.5	7.7	7.7	68.1	68.0	4.7	4.7	4.7	4.7	5.6	5.6	7.1	14.6
						0.7	215.0	28.1	28.1	22.6	22.5	7.7	7.7	67.9	68.0	4.7	4.7	4.7	4.7	5.7	5.6	7.2	
						0.3	5.4	28.0	28.0	23.1	23.1	7.7	7.7	66.4	66.7	4.6	4.6	4.6	4.6	7.5	7.5	8.5	
					M	0.8	152.9	28.0	28.0	23.2	23.1	7.7	7.7	67.0	66.7	4.6	4.6	4.6	4.6	7.4	7.5	8.8	
						0.7	126.5	27.6	27.6	25.0	25.0	7.6	7.6	64.3	63.2	4.4	4.3	4.3	4.3	20.5	19.8	25.8	
						0.4	8.3	27.6	27.6	25.0	25.0	7.6	7.6	62.2	63.2	4.3	4.3	4.3	4.3	19.2	19.8	29.9	
B	0.6	109.2	27.8	27.8	28.1	28.1	8.4	8.4	155.4	155.4	10.4	10.4	10.4	10.4	1.6	1.6	2.6						
	0.6	109.2	27.8	27.8	28.1	28.1	8.4	8.4	155.4	155.4	10.4	10.4	10.4	10.4	1.6	1.6	2.6						
	0.4	150.5	27.8	27.8	28.9	28.9	8.2	8.2	113.2	113.5	7.6	7.6	7.6	7.6	1.7	1.7	3.9						
E7A	Cloudy	Moderate	09:38	6.5	S	0.4	146.4	27.8	27.8	28.9	28.9	8.2	8.2	113.7	113.5	7.6	7.6	7.6	7.6	1.6	1.7	3.5	5.0
						0.4	146.4	27.8	27.8	28.9	28.9	8.2	8.2	113.7	113.5	7.6	7.6	7.6	7.6	1.6	1.7	3.5	
						0.2	157.3	27.6	27.7	31.4	31.3	8.1	8.1	94.9	96.1	6.3	6.4	6.4	6.4	6.7	6.5	9.5	
					M	0.3	141.2	27.7	27.7	31.3	31.3	8.2	8.1	97.4	96.1	6.4	6.4	6.4	6.4	6.4	6.5	8.1	
						0.6	136.7	28.1	28.1	28.5	28.5	8.3	8.3	135.5	136.0	9.0	9.1	9.1	9.1	1.3	1.3	2.4	
						0.6	136.7	28.1	28.1	28.5	28.5	8.3	8.3	136.4	136.0	9.1	9.1	9.1	9.1	1.3	1.3	2.6	
B	0.3	121.6	27.1	27.2	30.9	30.9	8.0	8.0	67.8	69.5	4.5	4.7	4.7	4.7	3.1	2.9	3.5						
	0.3	121.6	27.2	27.2	30.8	30.9	8.0	8.0	71.3	69.5	4.8	4.7	4.7	4.7	2.7	2.9	3.4						
	0.1	162.4	24.8	24.8	33.9	33.9	7.8	7.8	35.6	34.6	2.4	2.4	2.4	2.4	10.7	11.0	10.5						
F2	Cloudy	Calm	13:41	18.7	S	0.1	162.4	24.8	24.8	33.9	33.9	7.8	7.8	33.7	34.6	2.3	2.4	2.4	2.4	11.3	11.0	11.3	
						0.1	162.4	24.8	24.8	33.9	33.9	7.8	7.8	33.7	34.6	2.3	2.4	2.4	2.4	11.3	11.0	11.3	
						0.1	162.4	24.8	24.8	33.9	33.9	7.8	7.8	33.7	34.6	2.3	2.4	2.4	2.4	11.3	11.0	11.3	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
F3	Cloudy	Calm	12:15	17.6	S	0.6	157.7	27.9	27.9	28.1	28.2	8.2	8.2	118.7	116.6	8.0	7.8	6.6	1.7	1.8	1.6	1.7
						0.6	157.7	27.9	27.9	28.3	28.2	8.2	8.2	114.5	116.6	7.7	7.8	6.6	1.8	1.8	1.8	1.7
						0.6	104.3	27.2	27.1	29.8	29.8	8.0	8.0	80.2	80.3	5.4	5.4	6.6	2.7	2.8	2.3	2.3
					M	0.7	126.0	27.1	27.1	29.8	29.8	8.0	8.0	80.4	80.3	5.4	5.4	6.6	2.8	2.8	2.3	2.3
						0.4	131.5	25.8	25.8	32.4	32.4	7.8	7.8	37.3	36.1	2.5	2.5	2.5	17.5	19.7	2.2	2.4
						0.4	116.6	25.8	25.8	32.4	32.4	7.8	7.8	35.0	36.1	2.4	2.5	2.5	21.8	19.7	2.2	2.4
F4	Cloudy	Calm	10:04	14.3	S	0.3	150.7	27.9	27.9	27.7	27.7	8.2	8.2	118.2	117.9	8.0	7.9	7.8	2.2	2.9	2.2	2.3
						0.3	150.7	27.9	27.9	27.6	27.7	8.2	8.2	117.6	117.9	7.9	7.9	7.8	2.9	2.9	2.4	2.3
						0.5	38.0	27.9	27.9	28.0	28.0	8.2	8.2	113.9	114.2	7.6	7.7	7.7	2.2	2.1	2.4	2.5
					M	0.2	128.9	27.9	27.9	28.0	28.0	8.2	8.2	114.6	114.2	7.7	7.7	7.7	2.0	2.1	2.5	2.5
						0.1	241.6	26.7	26.7	30.5	30.5	7.9	7.9	56.3	55.3	3.8	3.7	3.7	10.5	11.5	14.8	14.9
						0.1	167.2	26.7	26.7	30.5	30.5	7.9	7.9	54.4	55.3	3.7	3.7	3.7	12.5	11.5	14.9	14.9
B	0.1	167.2	26.7	26.7	30.5	30.5	7.9	7.9	54.4	55.3	3.7	3.7	3.7	12.5	11.5	14.9	14.9					
	0.3	162.9	27.7	27.8	24.9	24.7	7.9	7.9	71.9	73.0	4.9	5.0	5.0	6.4	6.5	8.9	8.5					
	0.2	294.3	27.8	27.8	24.6	24.7	7.9	7.9	74.0	73.0	5.1	5.0	5.0	6.5	6.5	8.0	8.5					
F5	Cloudy	Moderate	13:11	5.5	S	0.7	176.3	27.6	27.6	26.4	26.4	7.9	7.9	70.5	69.7	4.8	4.7	4.7	23.2	23.5	29.9	30.2
						0.8	201.1	27.6	27.6	26.4	26.4	7.9	7.9	68.8	69.7	4.7	4.7	4.7	23.8	23.5	30.4	30.2
						0.9	134.4	28.1	28.1	22.3	22.3	7.8	7.8	72.8	74.0	5.0	5.1	5.1	5.9	5.4	4.6	5.1
					M	0.9	134.4	28.1	28.1	22.2	22.3	7.8	7.8	75.2	74.0	5.2	5.1	5.1	5.0	5.4	5.6	5.1
						0.8	125.2	27.8	27.8	24.1	24.1	7.8	7.8	65.1	65.2	4.5	4.5	4.5	10.1	10.1	11.5	12.0
						1.1	157.1	27.8	27.8	24.1	24.1	7.8	7.8	65.3	65.2	4.5	4.5	4.5	10.0	10.1	12.4	12.0
B	0.2	357.7	27.2	27.2	26.1	26.1	7.8	7.8	62.5	62.3	4.3	4.3	4.3	47.4	45.7	38.8	39.6					
	0.7	130.1	27.2	27.2	26.1	26.1	7.8	7.8	62.2	62.3	4.3	4.3	4.3	44.1	45.7	40.3	39.6					
	0.1	318.2	28.9	28.9	29.4	29.4	8.2	8.2	125.9	127.7	8.2	8.4	8.0	3.0	2.8	5.6	5.9					
IM1	Cloudy	Calm	14:30	8.8	S	0.1	318.2	28.8	28.8	29.4	29.4	8.2	8.2	129.6	127.7	8.5	8.4	8.0	2.5	2.8	6.2	5.9
						0.1	292.0	28.3	28.1	29.8	29.9	8.2	8.2	117.2	115.6	7.7	7.7	7.7	3.7	3.7	5.9	6.1
						0.4	333.2	27.9	28.1	30.0	29.9	8.2	8.2	114.1	115.6	7.6	7.7	7.7	3.6	3.7	6.2	6.1
					M	0.1	292.0	28.3	28.1	29.8	29.9	8.2	8.2	117.2	115.6	7.7	7.7	7.7	3.7	3.7	5.9	6.1
						0.4	333.2	27.9	28.1	30.0	29.9	8.2	8.2	114.1	115.6	7.6	7.7	7.7	3.6	3.7	6.2	6.1
						0.1	254.8	27.6	27.6	30.4	30.4	8.1	8.1	99.9	99.6	6.6	6.6	6.6	5.1	4.9	8.4	8.3
B	0.3	86.0	27.6	27.6	30.4	30.4	8.1	8.1	99.3	99.6	6.6	6.6	6.6	4.8	4.9	8.2	8.3					
	0.9	208.8	26.3	26.3	29.4	29.4	8.0	8.0	86.6	86.3	5.9	5.9	5.9	4.1	4.0	10.0	9.5					
	0.9	208.8	26.3	26.3	29.4	29.4	8.0	8.0	85.9	86.3	5.9	5.9	5.9	4.0	4.0	9.0	9.5					
IM2	Cloudy	Calm	14:53	10.6	S	0.9	209.0	26.3	26.3	29.5	29.5	8.0	8.0	84.8	84.9	5.8	5.8	5.8	6.9	7.1	13.9	13.1
						0.9	209.0	26.3	26.3	29.5	29.5	8.0	8.0	84.9	84.9	5.8	5.8	5.8	7.3	7.1	12.3	13.1
						0.8	198.5	26.3	26.3	29.6	29.6	8.0	8.0	86.6	86.3	5.9	5.9	5.9	16.5	16.2	22.4	23.7
					M	0.9	209.0	26.3	26.3	29.5	29.5	8.0	8.0	84.8	84.9	5.8	5.8	5.8	6.9	7.1	13.9	13.1
						0.9	209.0	26.3	26.3	29.5	29.5	8.0	8.0	84.9	84.9	5.8	5.8	5.8	7.3	7.1	12.3	13.1
						0.8	198.5	26.3	26.3	29.6	29.6	8.0	8.0	86.6	86.3	5.9	5.9	5.9	16.5	16.2	22.4	23.7
B	0.9	194.1	26.3	26.3	29.6	29.6	8.0	8.0	86.1	86.3	5.9	5.9	5.9	15.9	16.2	24.9	23.7					
	0.4	124.5	27.6	27.6	28.0	28.0	8.2	8.2	111.3	112.2	7.5	7.6	7.6	5.1	5.2	8.4	8.2					
	0.4	124.5	27.6	27.6	28.0	28.0	8.2	8.2	113.1	112.2	7.6	7.6	7.6	5.3	5.2	8.0	8.2					
IM3	Cloudy	Calm	13:17	14.4	S	0.4	124.5	27.6	27.6	28.0	28.0	8.2	8.2	111.3	112.2	7.5	7.6	7.6	5.1	5.2	8.4	8.2
						0.4	124.5	27.6	27.6	28.0	28.0	8.2	8.2	113.1	112.2	7.6	7.6	7.6	5.3	5.2	8.0	8.2
						0.3	119.5	26.5	26.5	30.6	30.6	8.0	8.0	61.9	62.0	4.2	4.2	4.2	11.0	11.0	15.5	15.0
					M	0.2	135.8	26.5	26.5	30.7	30.6	8.0	8.0	62.1	62.0	4.2	4.2	4.2	11.1	11.0	14.4	15.0
						0.2	113.7	26.1	26.1	31.9	31.9	7.9	7.9	49.2	49.0	3.3	3.3	3.3	16.4	16.2	22.3	22.7
						0.1	359.6	26.1	26.1	31.9	31.9	7.9	7.9	48.9	49.0	3.3	3.3	3.3	15.9	16.2	23.1	22.7
IM4	Cloudy	Calm	12:55	16.2	S	0.4	113.7	27.9	27.9	28.1	28.1	8.3	8.3	127.3	127.8	8.5	8.6	7.6	1.8	1.9	3.7	3.5
						0.4	113.7	27.9	27.9	28.1	28.1	8.3	8.3	128.4	127.8	8.6	8.6	7.6	2.0	1.9	3.3	3.5
						0.5	93.0	27.6	27.6	28.5	28.5	8.2	8.1	99.3	99.4	6.7	6.7	6.7	3.2	3.3	5.2	5.2
					M	0.5	106.7	27.6	27.6	28.5	28.5	8.1	8.1	99.5	99.4	6.7	6.7	6.7	3.3	3.3	5.2	5.2
						0.3	81.8	26.1	26.1	31.7	31.8	7.9	7.9	46.8	45.3	3.2	3.1	3.1	31.2	34.4	55.2	56.9
						0.3	142.1	26.0	26.0	32.0	31.8	7.9	7.9	43.8	45.3	3.0	3.1	3.1	37.5	34.4	58.6	56.9
B	0.3	142.1	26.0	26.0	32.0	31.8	7.9	7.9	43.8	45.3	3.0	3.1	3.1	37.5	34.4	58.6	56.9					
	0.1	166.0	28.0	28.0	28.2	28.2	8.2	8.2	116.8	117.0	7.8	7.8	7.8	1.6	1.6	2.1	2.0					
	0.1	166.0	28.0	28.0	28.2	28.2	8.2	8.2	117.2	117.0	7.8	7.8	7.8	1.6	1.6	1.9	2.0					
IM5	Cloudy	Calm	12:36	15.3	S	0.5	94.3	27.3	27.3	29.3	29.4	8.0	8.0	79.2	77.1	5.3	5.2	6.5	2.5	2.4	4.7	5.1
						0.4	52.4	27.2	27.3	29.4	29.4	8.0	8.0	75.1	77.1	5.1	5.2	6.5	2.3	2.4	5.4	5.1
						0.3	117.5	25.9	25.9	32.0	32.0	7.8	7.8	36.1	35.1	2.5	2.4	2.4	28.5	30.7	25.1	26.4
					M	0.5	94.3	27.3	27.3	29.3	29.4	8.0	8.0	79.2	77.1	5.3	5.2	6.5	2.5	2.4	4.7	5.1
						0.4	52.4	27.2	27.3	29.4	29.4	8.0	8.0	75.1	77.1	5.1	5.2	6.5	2.3	2.4	5.4	5.1
						0.3	117.5	25.9	25.9	32.0	32.0	7.8	7.8	36.1	35.1	2.5	2.4	2.4	28.5	30.7	25.1	26.4
B	0.3	117.5	25.9	25.9	32.0	32.0	7.8	7.8	36.1	35.1	2.5	2.4	2.4	28.5	30.7	25.1	26.4					
	0.3	117.5	25.9	25.9	32.0	32.0	7.8	7.8	34.1	35.1	2.3	2.4	2.4	33.0	30.7	27.6	26.4					
	0.3	117.5	25.9	25.9	3																	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average
IM6	Cloudy	Calm	12:03	16.4	S	0.6	106.4	27.7	27.7	27.7	27.6	8.1	8.1	111.0	111.5	7.5	7.5	6.7	2.6	2.5	3.4	3.5	16.0
						0.6	106.4	27.7	27.6	8.1	8.1	111.9	7.6	7.5	2.6	2.5	3.6	3.5					
						0.4	96.7	27.4	27.4	29.2	29.2	8.1	8.1	85.9	86.2	5.8	5.8	2.7	2.7	4.7	4.9		
					M	0.2	262.2	27.4	29.3	29.3	8.1	8.1	86.5	86.2	5.8	5.8	2.6	2.6	5.1	5.1	39.9	39.9	
						0.3	148.7	25.7	32.5	32.5	7.8	7.8	29.2	28.7	2.0	1.9	1.9	25.5	25.1	39.9	39.9		
						0.4	121.3	25.8	32.5	32.5	7.8	7.8	28.1	28.1	1.9	1.9	24.6	24.6	39.3	39.3			
IM7	Cloudy	Calm	11:34	13.3	S	0.2	121.5	27.7	27.7	28.0	28.0	8.1	8.1	105.6	105.6	7.1	7.1	6.9	2.6	2.7	3.6	3.6	11.3
						0.2	121.5	27.7	28.1	28.0	8.1	8.1	105.5	7.1	7.1	2.8	2.7	3.5	3.5				
						0.4	79.9	28.0	28.2	29.4	29.5	8.1	8.1	99.3	102.1	6.6	6.8	2.5	2.3	3.4	3.6		
					M	0.4	86.5	28.4	29.6	29.6	8.2	8.1	104.9	102.1	6.9	6.8	2.1	2.3	3.8	3.6			
						0.2	114.8	27.9	30.9	30.9	8.1	8.1	89.5	89.9	5.9	5.9	5.9	17.1	17.1	26.5	26.7		
						0.5	62.2	27.9	30.9	30.9	8.1	8.1	90.3	89.9	6.0	5.9	5.9	17.0	17.1	26.9	26.7		
IM8	Cloudy	Calm	11:47	15.2	S	0.5	127.6	27.6	27.6	27.5	27.6	8.1	8.1	107.0	107.0	7.2	7.2	6.3	2.7	2.7	3.2	3.7	8.8
						0.5	127.6	27.6	27.7	27.7	27.6	8.1	8.1	107.0	107.0	7.2	7.2	2.7	2.7	4.2	3.7		
						0.6	108.8	27.2	27.2	30.1	30.1	8.0	8.0	79.3	79.3	5.3	5.3	8.3	8.3	11.6	10.9		
					M	0.6	108.8	27.2	27.2	30.1	30.1	8.0	8.0	79.3	79.3	5.3	5.3	8.4	8.3	10.1	10.9		
						0.4	71.4	26.0	26.0	32.1	32.0	7.9	7.9	50.3	48.6	3.4	3.3	3.3	23.8	24.3	11.9	11.7	
						0.4	84.1	26.0	32.0	32.0	7.9	7.9	46.9	48.6	3.2	3.3	3.3	24.7	24.3	11.5	11.7		
IM9	Cloudy	Calm	11:12	15.3	S	0.5	153.6	27.5	27.5	27.0	26.9	8.1	8.1	111.0	111.3	7.5	7.6	6.9	2.4	2.4	3.6	3.9	10.7
						0.5	153.6	27.4	27.5	26.9	26.9	8.1	8.1	111.5	111.3	7.6	7.6	2.5	2.4	4.2	3.9		
						0.6	119.8	27.6	27.6	29.2	29.2	8.1	8.1	92.0	92.3	6.2	6.2	3.6	3.6	4.7	4.5		
					M	0.5	137.1	27.6	27.6	29.2	29.2	8.1	8.1	92.6	92.3	6.2	6.2	3.5	3.6	4.2	4.5		
						0.4	117.0	27.1	27.0	30.0	30.0	8.0	8.0	77.8	77.5	5.2	5.2	5.2	17.1	17.5	23.6	23.7	
						0.3	108.8	27.0	27.0	30.0	30.0	8.0	8.0	77.3	77.5	5.2	5.2	5.2	18.0	17.5	23.7	23.7	
IM10	Cloudy	Moderate	14:51	11.0	S	0.5	152.1	27.3	27.3	28.9	28.9	8.0	8.0	79.7	80.0	5.4	5.4	4.9	9.8	9.7	13.4	12.7	39.2
						0.4	201.7	27.3	27.3	28.9	28.9	8.0	8.0	80.3	80.0	5.4	5.4	9.6	9.7	12.0	12.7		
						0.4	9.9	26.9	26.9	29.8	29.8	8.0	8.0	65.0	65.0	4.4	4.4	27.6	27.7	42.4	40.9		
					M	1.0	241.4	26.9	26.9	29.8	29.8	8.0	8.0	65.0	65.0	4.4	4.4	27.8	27.7	39.3	39.3		
						0.4	250.5	26.9	26.9	30.1	30.2	8.0	8.0	65.1	64.1	4.4	4.3	4.3	49.4	49.4	64.3	63.9	
						0.8	231.2	26.8	26.8	30.3	30.2	8.0	8.0	63.2	64.1	4.3	4.3	4.3	53.2	49.4	63.5	63.9	
IM11A	Cloudy	Moderate	14:37	4.0	S	0.4	116.6	27.2	27.2	28.4	28.4	7.9	7.9	65.0	64.9	4.4	4.4	4.4	60.3	61.7	70.9	69.9	99.7
						0.3	165.8	27.2	27.2	28.4	28.4	7.9	7.9	64.8	64.9	4.4	4.4	4.4	63.0	61.7	68.9	69.9	
						0.5	133.5	27.2	27.2	28.7	28.7	7.9	7.9	68.6	68.6	4.6	4.6	4.6	69.6	68.9	129.0	129.5	
					B	0.4	141.8	27.2	27.2	28.7	28.7	7.9	7.9	67.8	68.2	4.6	4.6	4.6	82.8	76.2	130.0	129.5	
						1.2	150.2	27.3	27.3	27.8	27.8	7.9	7.9	67.4	67.4	4.6	4.6	4.6	76.0	71.5	83.7	78.5	
						1.2	150.2	27.3	27.3	27.8	27.8	7.9	7.9	67.4	67.4	4.6	4.6	4.6	76.0	71.5	73.3	78.5	
IM12	Cloudy	Moderate	14:25	12.5	S	0.9	145.8	27.2	27.2	28.3	28.3	7.9	7.9	67.0	67.0	4.5	4.5	4.6	171.6	172.9	198.0^	-	78.5
						0.9	145.8	27.2	27.2	28.3	28.3	7.9	7.9	67.0	67.0	4.5	4.5	4.5	171.6	172.9	207.0^	-	
						0.7	163.9	27.2	27.2	28.3	28.3	7.9	7.9	66.7	66.7	4.5	4.5	4.5	175.5	176.8	280.0^	-	
					M	0.9	145.8	27.2	27.2	28.3	28.3	7.9	7.9	67.0	67.0	4.5	4.5	4.5	171.6	172.9	174.2	172.9	
						0.9	145.8	27.2	27.2	28.3	28.3	7.9	7.9	67.0	67.0	4.5	4.5	4.5	171.6	172.9	174.2	172.9	
						0.9	145.8	27.2	27.2	28.3	28.3	7.9	7.9	67.0	67.0	4.5	4.5	4.5	171.6	172.9	174.2	172.9	
IM13	Cloudy	Moderate	14:04	16.0	S	1.3	210.9	27.8	27.8	25.0	25.0	7.9	7.9	73.5	73.5	5.0	5.0	5.1	5.1	6.0	5.9	12.0	
						1.7	225.4	27.8	27.8	25.1	25.0	7.9	7.9	73.5	73.5	5.0	5.0	5.0	5.0	5.8	5.9		
						1.5	197.8	27.5	27.4	26.7	26.7	8.0	8.0	75.4	75.2	5.1	5.1	5.1	12.2	12.8	17.2		18.0
					M	1.5	209.6	27.4	27.4	26.7	26.7	8.0	8.0	75.0	75.2	5.1	5.1	5.1	13.4	12.8	18.8		18.0
						1.2	197.5	27.3	27.3	27.6	27.6	8.0	8.0	71.5	71.0	4.9	4.8	4.8	201.9	200.1	254.0^		-
						1.2	192.7	27.3	27.3	27.6	27.6	7.9	7.9	70.6	71.0	4.8	4.8	4.8	201.9	200.1	261.0^		-
IM14	Cloudy	Moderate	13:48	10.0	S	1.6	219.7	27.7	27.7	26.0	26.1	7.9	7.9	65.7	65.2	4.5	4.4	4.5	17.7	18.2	21.3	22.3	22.3
						1.6	219.7	27.6	27.7	26.2	26.1	7.9	7.9	64.8	65.2	4.4	4.4	4.4	18.7	18.2	23.2	22.3	
						1.1	209.6	27.4	27.4	27.6	27.6	7.9	7.9	66.2	66.1	4.5	4.5	4.5	134.1	130.3	188.0^	-	
					M	1.1	220.2	27.4	27.4	27.6	27.6	7.9	7.9	66.1	66.1	4.5	4.5	4.5	126.5	130.3	196.0^	-	
						0.8	217.0	27.3	27.3	27.8	27.8	7.9	7.9	66.2	66.1	4.5	4.5	4.5	255.4	258.6	288.0^	-	
						0.4	216.5	27.3	27.3	27.8	27.8	7.9	7.9	65.9	66.1	4.5	4.5	4.5	261.9	258.6	293.0^	-	

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity (NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM15	Cloudy	Moderate	12:48	6.5	S	1.1	243.7	27.6	27.6	25.0	25.0	7.9	7.9	73.7	74.0	5.1	5.1	4.8	6.6	5.8	28.5	5.6	35.9		
						0.8	229.7	27.6	27.6	25.0	25.0	7.9	7.9	74.3	74.0	5.1	5.1	4.8	6.6	5.8	28.5	5.6			
					M	0.5	194.0	27.4	27.4	26.7	26.7	7.9	7.9	66.4	66.3	4.5	4.5	4.5	4.5	4.5	33.7	32.9		28.5	37.8
						0.7	265.9	27.4	27.4	26.7	26.7	7.9	7.9	66.2	66.3	4.5	4.5	4.5	4.5	4.5	32.0	32.9		28.5	37.8
					B	0.7	232.2	27.4	27.4	26.9	26.9	7.9	7.9	67.1	66.6	4.6	4.5	4.5	4.5	4.5	47.0	46.9		28.5	61.8
						0.9	223.4	27.4	27.4	26.9	26.9	7.9	7.9	66.1	66.6	4.5	4.5	4.5	4.5	4.5	46.8	46.9		28.5	64.0
IM16A	Cloudy	Moderate	12:20	7.5	S	1.1	172.8	28.4	28.4	19.5	19.6	7.8	7.8	72.1	71.5	5.0	5.0	5.0	5.9	5.9	18.4	5.9	43.4		
						0.8	136.5	28.4	28.4	19.8	19.6	7.8	7.8	70.8	71.5	4.9	5.0	5.0	5.9	5.9	18.4	5.9			
					M	1.3	180.4	27.7	27.7	24.4	24.2	7.9	7.9	70.8	71.7	4.9	4.9	4.9	4.9	4.9	11.2	9.9		18.4	53.1
						0.5	162.5	27.7	27.7	23.9	24.2	7.9	7.9	72.6	71.7	5.0	4.9	4.9	4.9	4.9	8.5	9.9		18.4	52.5
					B	0.2	185.5	27.5	27.5	26.0	26.0	7.8	7.8	65.1	64.2	4.5	4.4	4.4	4.4	4.4	39.6	39.5		18.4	69.8
						0.9	197.4	27.5	27.5	25.9	26.0	7.9	7.8	63.3	64.2	4.3	4.4	4.4	4.4	4.4	39.3	39.5		18.4	72.7
IM17	Cloudy	Moderate	11:16	5.5	S	1.0	120.4	28.0	28.0	22.1	22.1	7.8	7.8	69.8	69.7	4.8	4.8	4.8	7.2	7.1	10.4	7.2	9.3		
						0.9	102.9	28.0	28.0	22.2	22.1	7.8	7.8	69.6	69.7	4.8	4.8	4.8	7.2	7.1	10.4	7.2			
					B	0.7	156.7	27.8	27.9	24.0	23.7	7.8	7.8	68.0	66.5	4.7	4.6	4.6	4.6	4.6	14.6	13.7		10.4	11.7
						0.4	58.4	27.9	27.9	23.5	23.7	7.8	7.8	65.1	66.5	4.5	4.6	4.6	4.6	4.6	12.7	13.7		10.4	11.3
IM18	Cloudy	Moderate	11:31	18.0	S	0.1	75.5	27.9	27.9	22.8	22.8	7.8	7.8	71.3	71.4	4.9	4.9	4.9	7.9	7.4	30.8	7.9	51.2		
						0.6	257.0	27.9	27.9	22.8	22.8	7.8	7.8	71.5	71.4	4.9	4.9	4.9	4.9	4.9	7.0	7.4		30.8	12.9
					M	0.6	132.3	28.0	28.0	22.9	22.9	7.8	7.8	69.2	69.5	4.8	4.8	4.8	4.8	4.8	9.6	9.4		30.8	13.8
						0.6	145.6	28.0	28.0	22.9	22.9	7.8	7.8	69.8	69.5	4.8	4.8	4.8	4.8	4.8	9.2	9.4		30.8	14.4
					B	1.2	136.8	27.1	27.1	26.5	26.5	7.8	7.8	58.6	58.3	4.0	4.0	4.0	4.0	4.0	78.7	75.6		30.8	125.0
						0.6	181.1	27.1	27.1	26.4	26.5	7.8	7.8	58.1	58.3	4.0	4.0	4.0	4.0	4.0	72.5	75.6		30.8	128.0
IM19	Cloudy	Moderate	10:58	18.5	S	0.6	118.5	28.1	28.1	23.1	23.0	7.8	7.8	62.6	62.8	4.3	4.3	4.3	14.5	14.3	21.3	14.5	30.5		
						0.6	118.5	28.2	28.1	23.0	23.0	7.8	7.8	63.0	62.8	4.3	4.3	4.3	4.3	4.3	14.2	14.3		21.3	14.2
					M	0.1	106.1	27.7	27.7	24.3	24.2	7.8	7.8	62.3	62.3	4.3	4.3	4.3	4.3	4.3	19.7	18.3		21.3	26.0
						0.1	106.1	27.8	27.7	24.2	24.2	7.8	7.8	62.4	62.3	4.3	4.3	4.3	4.3	4.3	16.9	18.3		21.3	26.2
					B	1.1	144.5	26.8	26.7	27.4	27.4	7.8	7.8	59.7	58.7	4.1	4.0	4.0	4.0	4.0	29.2	31.4		21.3	45.6
						0.6	104.6	26.7	26.7	27.5	27.4	7.8	7.8	57.7	58.7	4.0	4.0	4.0	4.0	4.0	33.6	31.4		21.3	48.4
IM20A	Cloudy	Moderate	09:54	5.5	S	0.5	200.4	28.5	28.5	20.0	20.0	7.7	7.7	68.3	68.4	4.7	4.8	4.8	6.8	6.7	21.8	6.8	29.9		
						0.5	200.4	28.6	28.5	19.9	20.0	7.7	7.7	68.5	68.4	4.8	4.8	4.8	4.8	4.8	6.6	6.7		21.8	9.5
					B	0.3	278.2	27.9	27.9	23.7	23.6	7.7	7.7	63.6	62.9	4.4	4.3	4.3	4.3	4.3	39.5	36.9		21.8	51.1
						0.9	146.9	27.9	27.9	23.6	23.6	7.7	7.7	62.3	62.9	4.3	4.3	4.3	4.3	4.3	34.3	36.9		21.8	50.0
IM21A	Cloudy	Moderate	10:05	5.5	S	0.4	186.7	28.0	28.0	23.3	23.4	7.7	7.7	62.6	62.6	4.3	4.3	4.3	31.8	32.7	47.7	31.8	55.6		
						0.4	186.7	28.0	28.0	23.4	23.4	7.7	7.7	62.6	62.6	4.3	4.3	4.3	4.3	4.3	33.5	32.7		47.7	35.4
					B	0.7	208.1	28.0	28.0	23.7	23.7	7.7	7.7	64.2	63.4	4.4	4.4	4.4	4.4	4.4	67.6	62.7		47.7	74.1
						0.4	356.1	28.0	28.0	23.7	23.7	7.7	7.7	62.5	63.4	4.3	4.4	4.4	4.4	4.4	57.8	62.7		47.7	76.6
IM22A	Cloudy	Moderate	10:11	5.5	S	1.1	190.7	29.4	29.4	23.6	23.6	7.8	7.8	68.8	68.8	4.6	4.6	4.6	40.7	40.4	40.4	40.7	57.1		
						1.1	190.7	29.4	29.4	23.6	23.6	7.8	7.8	68.8	68.8	4.6	4.6	4.6	4.6	4.6	40.2	40.4		40.4	40.2
					B	0.6	359.5	29.4	29.4	23.6	23.6	7.7	7.7	70.7	69.9	4.7	4.7	4.7	4.7	4.7	39.9	40.3		40.4	55.4
						0.4	83.8	29.4	29.4	23.6	23.6	7.7	7.7	69.2	69.9	4.6	4.7	4.7	4.7	4.7	40.8	40.3		40.4	57.6

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
E1	Fine	Calm	16:44	7.7	S	0.9	172.9	26.4	26.4	28.1	28.2	7.8	7.8	66.7	66.5	4.6	4.6	4.5	8.3	8.4	21.2	10.1	26.7	
						0.9	172.9	26.4	28.2	28.2	7.8	7.8	66.4	66.5	4.6	4.6	4.5	8.3	8.4	10.7	10.4			
						0.5	230.1	26.2	26.2	28.6	28.7	7.7	7.7	64.1	64.1	4.4	4.4	4.4	16.1	23.3				
					M	0.6	228.8	26.2	26.2	28.7	28.7	7.8	7.7	64.2	64.2	4.4	4.4	4.4	15.8	16.1	22.7	23.0		
						0.5	219.4	26.1	26.1	29.0	29.0	7.7	7.7	64.3	64.0	4.4	4.4	4.4	38.3	39.2	44.2			46.8
						0.3	219.1	26.1	26.1	29.0	29.0	7.7	7.7	63.8	64.0	4.4	4.4	4.4	40.0	49.4				
E2	Fine	Calm	22:02	8.8	S	0.3	313.7	27.5	27.5	28.3	28.2	8.2	8.2	99.9	100.1	6.7	6.8	6.4	5.9	5.8	10.0	7.6	17.8	
						0.3	311.6	27.5	27.5	28.2	28.2	8.2	8.2	100.4	100.1	6.8	6.8	6.4	5.7	5.8	5.7	7.3		
						0.1	2.6	27.2	27.2	29.0	29.0	8.1	8.1	90.3	90.8	6.1	6.1	6.1	7.5	7.0	9.7			9.8
					M	0.1	346.0	27.2	27.2	29.0	29.0	8.1	8.1	91.2	90.8	6.2	6.1	6.1	6.6	7.0	9.9	36.3		
						0.3	338.5	27.1	27.1	29.3	29.3	8.1	8.1	83.9	83.4	5.7	5.6	5.6	16.7	17.2	36.5			36.3
						0.3	338.5	27.1	27.1	29.3	29.3	8.1	8.1	83.0	83.4	5.6	5.6	5.6	17.8	17.2	36.1			
E3	Fine	Calm	20:59	16.7	S	0.3	353.5	27.8	27.8	23.1	23.4	7.9	7.9	72.5	72.2	5.0	5.0	5.2	6.9	7.0	14.2	15.4	23.7	
						0.3	353.5	27.8	27.8	23.8	23.4	7.9	7.9	71.9	72.2	5.0	5.0	5.2	7.1	7.0	14.7	15.1		
						0.7	297.5	27.3	27.3	28.9	28.8	8.1	8.1	79.0	79.1	5.3	5.3	5.3	11.7	11.4	16.7			17.0
					M	0.7	299.5	27.3	27.3	28.8	28.8	8.1	8.1	79.2	79.2	5.3	5.3	5.3	11.0	11.4	17.2	39.0		
						0.6	293.4	27.2	27.2	29.1	29.1	8.1	8.1	76.4	76.3	5.2	5.1	5.1	24.0	24.3	38.5			39.0
						0.6	293.4	27.2	27.2	29.1	29.1	8.1	8.1	76.2	76.3	5.1	5.1	5.1	24.6	24.3	39.5			
E4	Cloudy	Moderate	17:55	10.5	S	0.5	268.8	28.1	28.1	22.9	22.8	7.8	7.8	70.4	70.6	4.8	4.9	4.8	15.0	14.8	24.9	20.0	36.7	
						0.5	268.8	28.1	28.1	22.8	22.8	7.8	7.8	70.8	70.6	4.9	4.9	4.8	14.7	14.8	21.1	20.6		
						1.1	39.5	27.8	27.8	24.9	24.9	7.9	7.9	68.4	68.4	4.7	4.7	4.7	17.7	17.4	26.2			26.1
					M	0.4	16.3	27.8	27.8	24.9	24.9	7.9	7.9	68.4	68.4	4.7	4.7	4.7	17.1	17.4	26.0	63.4		
						0.4	355.3	27.7	27.7	25.5	25.5	7.9	7.9	67.5	67.2	4.6	4.6	4.6	43.2	42.6	65.3			63.4
						1.3	3.5	27.7	27.7	25.5	25.5	7.9	7.9	66.9	67.2	4.6	4.6	4.6	42.1	42.6	61.4			
E5	Cloudy	Moderate	19:00	5.5	S	1.1	344.8	28.5	28.5	19.5	19.5	7.7	7.7	62.0	62.0	4.3	4.3	4.3	22.3	22.2	28.8	25.6	38.4	
						1.1	344.8	28.5	28.5	19.6	19.5	7.7	7.7	62.0	62.0	4.3	4.3	4.3	22.0	22.2	29.5	27.6		
						0.5	2.3	28.5	28.5	19.8	19.7	7.7	7.7	63.2	62.6	4.4	4.4	4.4	37.2	35.5	47.8			49.2
					B	0.3	309.3	28.5	28.5	19.7	19.7	7.7	7.7	62.0	62.6	4.3	4.4	4.4	33.9	35.5	50.5	69.2		
						0.5	13.0	27.9	28.1	22.9	21.4	7.7	7.7	55.6	55.6	3.8	3.9	3.9	41.1	37.5	32.3			34.4
						0.5	13.0	28.2	28.1	20.0	21.4	7.7	7.7	55.5	55.6	3.9	3.9	3.9	33.8	37.5	36.5			
E6	Cloudy	Moderate	21:07	5.5	S	0.7	340.9	27.7	27.7	23.8	23.8	7.7	7.7	55.9	55.6	3.9	3.8	3.8	60.9	61.9	49.7	101.0	104.0	
						0.9	10.1	27.7	27.7	23.8	23.8	7.7	7.7	55.4	55.6	3.8	3.8	3.8	62.9	61.9	107.0	104.0		
						0.6	339.4	28.7	28.7	18.9	18.9	7.7	7.7	64.1	64.0	4.5	4.5	4.5	9.1	8.8	14.2			14.5
					B	0.4	58.9	28.7	28.7	19.0	18.9	7.7	7.7	63.8	64.0	4.4	4.5	4.5	8.5	8.8	14.8	36.3		
						0.7	14.7	28.2	28.2	22.1	22.1	7.7	7.7	64.9	63.8	4.5	4.4	4.4	24.1	26.4	38.1			36.3
						0.1	37.8	28.2	28.2	22.2	22.1	7.7	7.7	62.8	63.8	4.3	4.4	4.4	28.6	26.4	34.5			
F1	Fine	Calm	17:38	19.4	S	0.2	296.7	27.6	27.6	28.2	28.2	8.4	8.4	142.7	143.2	9.6	9.6	7.8	2.3	2.2	28.1	4.6	39.6	
						0.2	296.7	27.6	27.6	28.2	28.2	8.4	8.4	143.7	143.2	9.7	9.6	7.8	2.2	2.2	5.3	5.0		
						0.3	268.1	27.9	27.9	31.0	31.0	8.2	8.2	87.4	89.2	5.8	5.9	5.9	8.1	7.6	8.6			8.9
					M	0.3	299.5	27.9	27.9	31.0	31.0	8.2	8.2	90.9	89.2	6.0	6.0	6.0	7.2	7.6	9.2	105.0		
						0.4	286.1	24.0	24.0	34.1	34.1	7.8	7.8	31.5	30.9	2.2	2.1	2.1	77.8	74.4	106.0			105.0
						0.4	289.7	24.0	24.0	34.1	34.1	7.8	7.8	30.3	30.9	2.1	2.1	2.1	70.9	74.4	104.0			
F2	Fine	Calm	18:07	18.8	S	0.5	272.5	27.8	27.9	28.1	28.1	8.3	8.3	123.9	126.3	8.3	8.5	7.0	3.0	3.0	7.2	3.3	9.5	
						0.5	272.5	27.9	27.9	28.1	28.1	8.3	8.3	128.7	126.3	8.6	8.5	7.0	3.0	3.0	3.4	3.4		
						0.1	262.0	27.3	27.3	29.2	29.1	8.1	8.1	80.8	81.5	5.4	5.5	5.5	2.8	2.7	4.2			4.2
					M	0.1	262.0	27.3	27.3	29.1	29.1	8.1	8.1	82.2	81.5	5.5	5.5	5.5	2.7	2.7	4.1	21.0		
						0.2	31.0	24.6	24.6	34.1	34.1	7.8	7.8	31.9	31.3	2.2	2.1	2.1	15.9	15.9	21.9			21.0
						0.2	31.0	24.6	24.6	34.1	34.1	7.8	7.8	30.7	31.3	2.1	2.1	2.1	15.9	15.9	20.0			

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
F3	Fine	Calm	19:33	17.3	S	1.6	314.2	27.9	27.9	27.7	27.7	8.4	8.4	146.4	146.9	9.8	9.9	7.2	2.4	2.4	3.0	3.2	15.6	
						1.6	314.2	27.9	27.7	27.7	8.4	8.4	147.5	146.9	9.9	9.9	2.4	2.4	3.4	3.2				
					M	0.7	292.1	27.1	27.1	30.5	30.3	8.1	8.1	67.9	68.5	4.6	4.6	4.8	4.5	5.5	5.7			
						0.4	284.5	27.2	27.1	30.1	30.1	8.1	8.1	69.1	68.5	4.6	4.6	4.3	4.5	5.8	5.7			
					B	0.5	269.2	25.2	25.2	33.5	33.5	7.8	7.8	32.2	31.5	2.2	2.1	2.1	2.1	25.6	26.9	35.7		37.8
						0.6	263.7	25.2	25.2	33.5	33.5	7.8	7.8	30.8	31.5	2.1	2.1	2.1	2.1	28.3	26.9	39.9		37.8
F4	Fine	Calm	21:36	13.4	S	0.6	312.4	27.7	27.7	28.0	28.0	8.3	8.3	110.7	110.9	7.5	7.5	6.7	4.1	4.0	7.1	6.9	16.2	
						0.6	312.4	27.7	27.7	28.0	28.0	8.3	8.3	111.0	110.9	7.5	7.5	6.7	4.0	4.0	6.6	6.9		
					M	0.4	276.4	27.4	27.4	28.6	28.6	8.1	8.1	87.0	87.2	5.9	5.9	5.3	5.1	7.3	7.5			
						0.5	268.2	27.5	27.4	28.6	28.6	8.1	8.1	87.5	87.2	5.9	5.9	5.0	5.1	7.7	7.5			
					B	0.4	212.8	26.8	26.8	30.1	30.1	7.9	7.9	51.1	50.3	3.5	3.4	3.4	3.4	23.2	23.8	35.9		34.3
						0.0	358.5	26.8	26.8	30.1	30.1	7.9	7.9	49.6	50.3	3.4	3.4	3.4	3.4	24.4	23.8	32.6		34.3
F5	Cloudy	Moderate	18:27	5.0	S	0.4	83.7	28.1	28.1	22.5	22.7	7.8	7.8	69.6	69.2	4.8	4.8	4.8	17.6	17.9	24.9	23.7	26.6	
						0.4	83.7	28.0	28.1	23.0	22.7	7.8	7.8	68.7	69.2	4.7	4.8	4.8	17.6	17.9	22.4	23.7		
					B	0.9	4.0	27.9	27.8	25.2	25.2	7.9	7.9	71.7	70.5	4.9	4.8	4.8	4.8	18.5	20.5	30.4		29.5
						0.9	2.5	27.8	27.8	25.3	25.2	7.9	7.9	69.4	70.5	4.7	4.8	4.8	4.8	22.4	20.5	28.5		29.5
F6	Cloudy	Moderate	19:38	13.5	S	0.7	2.2	28.8	28.8	18.6	18.6	7.7	7.7	65.7	65.9	4.6	4.6	4.4	8.8	8.5	10.6	11.2	52.0	
						0.5	6.7	28.8	28.8	18.6	18.6	7.7	7.7	66.0	65.9	4.6	4.6	4.4	8.3	8.5	11.8	11.2		
					M	1.1	341.2	28.2	28.2	21.8	21.7	7.7	7.7	61.9	62.0	4.3	4.3	4.3	4.3	14.4	14.0	20.7		20.2
						1.1	347.8	28.2	28.2	21.7	21.7	7.7	7.7	62.2	62.0	4.3	4.3	4.3	4.3	13.5	14.0	19.6		20.2
					B	0.4	314.4	26.9	26.9	27.0	27.0	7.8	7.8	56.8	56.7	3.9	3.9	3.9	3.9	80.1	82.5	127.0		124.5
						0.7	248.5	26.9	26.9	26.9	27.0	7.8	7.8	56.5	56.7	3.9	3.9	3.9	3.9	84.9	82.5	122.0		124.5
IM1	Fine	Calm	17:18	9.0	S	0.4	86.5	28.3	28.3	29.5	29.5	8.3	8.3	133.1	133.7	8.8	8.8	7.1	2.2	2.2	4.7	4.8	12.8	
						0.4	86.5	28.3	28.3	29.5	29.5	8.3	8.3	134.4	133.7	8.9	8.8	7.1	2.2	2.2	4.9	4.8		
					M	0.4	20.5	27.2	27.2	30.9	30.9	8.1	8.1	80.1	80.3	5.4	5.4	5.4	5.4	6.8	6.5	6.2		7.3
						0.4	20.5	27.2	27.2	30.9	30.9	8.1	8.1	80.6	80.3	5.4	5.4	5.4	5.4	6.2	6.5	7.6		7.3
					B	0.2	293.5	26.9	26.9	31.3	31.3	8.0	8.0	75.0	74.6	5.0	5.0	5.0	5.0	17.5	17.9	27.8		26.4
						0.2	293.5	26.9	26.9	31.3	31.3	8.0	8.0	74.2	74.6	5.0	5.0	5.0	5.0	18.3	17.9	25.0		26.4
IM2	Fine	Calm	16:55	10.7	S	0.7	220.4	26.5	26.5	28.2	28.2	7.9	7.9	68.7	68.7	4.7	4.7	4.7	6.3	6.2	7.1	7.0	9.1	
						0.7	220.4	26.5	26.5	28.2	28.2	7.9	7.9	68.8	68.7	4.7	4.7	4.7	4.7	6.2	6.2	6.9		7.0
					M	0.7	226.3	26.3	26.3	28.8	28.8	7.9	7.9	67.9	67.8	4.7	4.7	4.7	4.7	6.9	6.8	8.6		8.9
						0.7	214.1	26.3	26.3	28.8	28.8	7.9	7.9	67.6	67.8	4.6	4.7	4.7	4.7	6.8	6.8	9.1		8.9
					B	0.6	237.4	26.3	26.3	28.9	28.9	7.9	7.9	68.9	68.6	4.7	4.7	4.7	4.7	9.1	8.9	10.9		11.6
						0.4	223.6	26.3	26.3	28.9	28.9	7.9	7.9	68.3	68.6	4.7	4.7	4.7	4.7	8.7	8.9	12.2		11.6
IM3	Fine	Calm	18:30	14.4	S	0.4	263.2	27.2	27.2	28.9	28.9	8.1	8.1	94.2	93.0	6.4	6.3	5.8	4.5	4.6	4.5	4.8	13.4	
						0.4	263.2	27.2	27.2	28.9	28.9	8.1	8.1	91.8	93.0	6.2	6.3	5.8	4.8	4.6	5.1	4.8		
					M	0.4	273.9	26.5	26.5	29.1	29.1	8.0	8.0	76.7	76.7	5.2	5.2	5.2	5.2	8.1	8.2	13.6		14.4
						0.5	268.6	26.5	26.5	29.1	29.1	8.0	8.0	76.8	76.7	5.2	5.2	5.2	5.2	8.2	8.2	15.1		14.4
					B	0.4	267.2	26.7	26.7	31.1	31.1	8.0	8.0	62.9	62.6	4.2	4.2	4.2	4.2	14.0	14.1	21.4		21.0
						0.4	267.2	26.7	26.7	31.1	31.1	8.0	8.0	62.4	62.6	4.2	4.2	4.2	4.2	14.3	14.1	20.5		21.0
IM4	Fine	Calm	18:52	16.4	S	0.5	259.0	27.5	27.5	28.3	28.3	8.2	8.2	96.7	97.0	6.5	6.5	5.6	4.2	4.2	5.9	6.0	19.7	
						0.5	259.0	27.5	27.5	28.3	28.3	8.2	8.2	97.4	97.0	6.6	6.5	5.6	4.2	4.2	6.1	6.0		
					M	0.4	274.7	27.0	27.0	29.4	29.4	8.0	8.0	69.6	68.7	4.7	4.7	4.7	4.7	7.3	7.6	8.8		8.6
						0.6	268.2	26.9	26.9	29.5	29.4	8.0	8.0	67.8	68.7	4.6	4.7	4.7	4.7	7.8	7.6	8.3		8.6
					B	0.6	283.4	26.0	26.0	31.9	31.9	7.9	7.9	38.3	38.1	2.6	2.6	2.6	2.6	34.4	30.9	44.8		44.5
						0.3	203.6	26.0	26.0	31.9	31.9	7.9	7.9	37.9	38.1	2.6	2.6	2.6	2.6	27.3	30.9	44.2		44.5
IM5	Fine	Calm	19:11	15.4	S	0.1	24.0	27.7	27.7	28.3	28.3	8.3	8.3	120.9	120.5	8.1	8.1	6.1	2.6	2.6	3.5	3.6	16.2	
						0.1	24.0	27.7	27.7	28.3	28.3	8.3	8.3	120.1	120.5	8.1	8.1	6.1	2.6	2.6	3.6	3.6		
					M	0.4	296.9	26.9	26.9	29.9	29.8	8.0	8.0	59.8	60.0	4.0	4.1	4.1	4.1	5.5	5.5	5.6		5.8
						0.4	288.7	26.9	26.9	29.8	29.8	8.0	8.0	60.2	60.0	4.1	4.1	4.1	4.1	5.5	5.5	5.9		5.8
					B	0.2	247.3	26.0	26.0	31.9	31.9	7.8	7.8	31.6	30.8	2.1	2.1	2.1	2.1	48.1	49.5	40.6		39.4
						0.2	247.3	26.0	26.0	32.0	31.9	7.8	7.8	29.9	30.8	2.0	2.1	2.1	2.1	50.8	49.5	38.1		39.4

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Fine	Calm	19:45	15.9	S	0.4	299.8	28.1	28.1	28.0	28.0	8.4	8.4	142.6	142.8	9.5	9.6	7.6	2.0	1.9	3.4	3.6					
						0.4	299.8	28.1	28.1	28.0	28.0	8.4	8.4	142.9	142.8	9.6	9.6	7.6	2.0	1.9	3.4	3.6					
					M	0.4	258.3	27.6	27.6	29.3	29.3	8.1	8.1	85.1	85.2	5.7	5.7	7.6	3.4	3.3	4.9	4.9					
						0.5	332.9	27.6	27.6	29.3	29.3	8.1	8.1	85.4	85.4	5.7	5.7	7.6	3.2	3.3	4.9	4.9					
					B	0.5	296.4	26.0	25.9	32.4	32.5	7.9	7.9	43.1	40.6	2.9	2.7	7.6	10.7	11.0	11.6	11.3					
						0.5	296.4	25.9	25.9	32.5	32.5	7.9	7.9	38.1	40.6	2.6	2.7	7.6	11.2	11.0	10.9	11.3					
IM7	Fine	Calm	20:12	12.7	S	1.3	277.9	27.9	27.9	28.0	28.0	8.3	8.3	131.6	131.4	8.8	8.8	7.8	2.2	2.2	3.8	4.1					
						1.3	277.9	27.9	27.9	28.0	28.0	8.3	8.3	131.2	131.4	8.8	8.8	7.8	2.2	2.2	4.3	4.1					
					M	0.7	285.4	27.7	27.7	28.8	28.7	8.2	8.2	96.2	100.0	6.5	6.7	7.8	3.6	3.3	4.5	4.7					
						0.7	285.4	27.8	27.7	28.6	28.7	8.2	8.2	103.9	100.0	7.0	6.7	7.8	3.0	3.3	4.8	4.7					
					B	0.3	309.1	26.4	26.4	31.9	31.9	8.0	8.0	54.9	54.0	3.7	3.6	3.6	13.1	13.5	17.1	16.7					
						0.3	309.1	26.4	26.4	31.9	31.9	8.0	8.0	53.2	54.0	3.6	3.6	3.6	13.9	13.5	16.3	16.7					
IM8	Fine	Calm	20:01	14.3	S	0.5	297.6	27.8	27.8	28.0	28.0	8.2	8.2	109.7	110.4	7.4	7.4	6.7	3.0	2.9	4.7	4.7					
						0.5	297.6	27.8	27.8	28.1	28.0	8.2	8.2	111.1	110.4	7.5	7.4	6.7	2.8	2.9	4.6	4.7					
					M	0.6	273.4	27.6	27.6	29.2	29.2	8.1	8.1	87.2	88.2	5.8	5.9	6.7	4.0	3.8	5.8	6.0					
						0.6	273.4	27.6	27.6	29.1	29.2	8.1	8.1	89.3	88.2	6.0	5.9	6.7	3.6	3.8	6.2	6.0					
					B	0.1	2.0	26.1	26.1	32.4	32.4	7.9	7.9	49.8	49.0	3.4	3.3	3.3	15.2	15.6	17.8	17.3					
						0.1	2.0	26.1	26.1	32.4	32.4	7.9	7.9	48.1	49.0	3.3	3.3	3.3	15.9	15.6	16.7	17.3					
IM9	Fine	Calm	20:32	14.8	S	0.8	263.1	27.8	27.8	28.2	28.2	8.2	8.2	106.7	106.8	7.2	7.2	6.6	2.7	2.7	4.1	3.8					
						0.8	263.1	27.8	27.8	28.2	28.2	8.2	8.2	106.9	106.8	7.2	7.2	6.6	2.7	2.7	3.5	3.8					
					M	0.7	279.1	27.5	27.5	28.9	28.9	8.1	8.1	88.7	89.5	6.0	6.0	6.6	7.4	7.2	7.8	8.3					
						0.7	279.1	27.5	27.5	28.9	28.9	8.1	8.1	90.2	89.5	6.1	6.0	6.6	7.0	7.2	8.8	8.3					
					B	0.5	288.0	26.7	26.7	30.7	30.8	8.0	8.0	61.1	60.6	4.1	4.1	4.1	20.1	20.2	27.2	28.2					
						0.5	305.1	26.7	26.7	30.8	30.8	8.0	8.0	60.0	60.6	4.1	4.1	4.1	20.3	20.2	29.2	28.2					
IM10	Cloudy	Moderate	16:44	10.5	S	1.3	231.8	27.2	27.3	29.3	29.1	8.0	8.0	76.4	78.4	5.2	5.3	4.7	9.9	9.6	12.5	12.2					
						1.7	251.3	27.4	27.3	28.9	29.1	8.0	8.0	80.3	78.4	5.4	5.3	4.7	9.4	9.6	11.9	12.2					
					M	0.5	302.4	26.9	26.8	30.2	30.2	7.9	7.9	62.0	61.8	4.2	4.2	4.7	17.5	18.3	26.8	26.5					
						0.4	202.0	26.8	26.8	30.3	30.2	7.9	7.9	61.7	61.8	4.2	4.2	4.7	19.1	18.3	26.1	26.5					
					B	0.5	208.4	26.9	26.9	30.1	30.2	7.9	7.9	63.9	63.1	4.3	4.3	4.3	33.6	34.4	48.5	49.2					
						0.9	265.9	26.9	26.9	30.2	30.2	7.9	7.9	62.3	63.1	4.2	4.3	4.3	35.1	34.4	49.9	49.2					
IM11A	Cloudy	Moderate	16:56	4.0	S	0.1	223.5	27.3	27.2	29.0	29.2	8.0	8.0	75.3	74.9	5.1	5.1	5.1	21.9	23.1	14.1	14.6					
						0.1	223.5	27.2	27.2	29.3	29.2	8.0	8.0	74.6	74.9	5.0	5.1	5.1	24.3	23.1	15.1	14.6					
					B	0.5	251.1	27.2	27.2	29.3	29.4	8.0	8.0	75.7	74.2	5.1	5.0	5.0	23.4	22.1	21.1	21.8					
						0.4	278.6	27.1	27.2	29.4	29.4	8.0	8.0	72.7	74.2	4.9	5.0	5.0	20.7	22.1	22.5	21.8					
					IM12	Cloudy	Moderate	17:06	11.5	S	0.4	352.6	27.8	27.8	25.4	25.4	7.9	7.9	71.2	71.4	4.9	4.9	4.8	11.0	10.7	15.3	15.4
											0.4	113.0	27.8	27.8	25.3	25.4	7.9	7.9	71.6	71.4	4.9	4.9	4.8	10.4	10.7	15.5	15.4
M	0.3	102.9	27.5	27.5						27.0	27.1	7.9	7.9	69.7	69.8	4.7	4.7	4.8	14.2	13.8	20.3	21.0					
	0.3	224.9	27.5	27.5						27.2	27.1	7.9	7.9	69.9	69.8	4.8	4.7	4.8	13.4	13.8	21.7	21.0					
B	0.6	311.7	26.9	26.9						30.0	30.0	7.9	7.9	63.6	63.3	4.3	4.3	4.3	145.5	152.2	179.0^	-					
	0.4	338.2	26.9	26.9						30.0	30.0	8.0	7.9	62.9	63.3	4.2	4.3	4.3	159.0	152.2	186.0^	-					
IM13	Cloudy	Moderate	17:33	15.5	S	1.0	114.2	28.4	28.5	20.4	19.6	7.8	7.8	69.1	69.0	4.8	4.8	4.9	15.8	14.8	12.0	12.2					
						1.0	114.2	28.6	28.5	18.8	19.6	7.8	7.8	68.9	69.0	4.8	4.8	4.9	13.8	14.8	12.4	12.2					
					M	0.4	140.4	28.1	28.1	23.0	22.8	7.9	7.9	71.5	71.6	4.9	4.9	4.9	11.6	11.3	16.2	16.4					
						0.8	215.7	28.1	28.1	22.7	22.8	7.9	7.9	71.6	71.6	4.9	4.9	4.9	10.9	11.3	16.5	16.4					
					B	0.2	11.4	27.6	27.6	25.8	25.7	7.9	7.9	68.2	67.8	4.7	4.6	4.6	32.9	33.8	49.7	47.8					
						0.6	278.5	27.6	27.6	25.7	25.7	7.9	7.9	67.5	67.8	4.6	4.6	4.6	34.6	33.8	45.8	47.8					
IM14	Cloudy	Moderate	17:43	9.5	S	0.4	139.1	28.1	28.1	23.2	23.2	7.8	7.8	70.8	71.0	4.9	4.9	4.8	13.2	13.3	17.0	17.6					
						0.4	139.1	28.1	28.1	23.2	23.2	7.8	7.8	71.2	71.0	4.9	4.9	4.8	13.4	13.3	18.1	17.6					
					M	0.5	285.9	27.9	27.9	24.2	24.2	7.8	7.8	69.0	69.0	4.7	4.7	4.7	14.1	14.3	18.5	18.6					
						0.5	285.9	27.9	27.9	24.2	24.2	7.8	7.8	69.0	69.0	4.7	4.7	4.7	14.5	14.3	18.7	18.6					
					B	0.4	5.6	27.8	27.8	25.0	25.1	7.8	7.8	69.3	68.9	4.7	4.7	4.7	14.9	14.8	20.6	20.8					
						0.2	158.0	27.8	27.8	25.1	25.1	7.9	7.8	68.5	68.9	4.7	4.7	4.7	14.7	14.8	21.0	20.8					

Water Quality Monitoring Data Log Sheet

Date: 2019/08/30

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM15	Cloudy	Moderate	18:49	5.5	S	0.7	346.7	28.2	28.2	22.2	22.2	7.8	7.8	69.3	69.2	4.8	4.8	4.8	11.7	11.5	12.8	13.8	17.2	
						1.4	0.9	28.2	22.2	22.2	7.8	7.8	69.1	69.2	4.8	4.8	4.8	11.7	11.5	12.8	14.3			
					B	1.2	21.1	27.9	27.9	24.4	24.4	7.9	7.9	71.7	71.0	4.9	4.9	4.9	14.2	14.2	12.8	14.8		20.0
						0.4	2.0	27.9	27.9	24.5	24.4	7.9	7.9	70.3	71.0	4.8	4.9	4.9	14.1	14.2	12.8	19.0		
IM16A	Cloudy	Moderate	19:14	6.5	S	1.4	271.1	28.5	28.5	19.4	19.4	7.7	7.7	58.0	58.0	4.0	4.0	4.1	24.5	23.5	22.9	35.9	37.3	
						1.4	271.1	28.5	28.5	19.3	19.4	7.7	7.7	58.0	58.0	4.0	4.0	4.1	22.5	23.5		22.9		35.1
					M	0.6	6.1	28.5	28.5	19.5	19.4	7.7	7.7	58.5	58.4	4.1	4.1	4.1	21.5	21.7	4.1	37.0		37.5
						0.6	6.1	28.5	28.5	19.4	19.4	7.7	7.7	58.3	58.4	4.1	4.1	4.1	21.9	21.7		4.1		
					B	0.2	76.2	28.5	28.5	19.7	19.7	7.7	7.7	60.3	60.0	4.2	4.2	4.2	22.5	23.4	4.2	39.8		38.9
						0.4	28.2	28.5	28.5	19.8	19.7	7.7	7.7	59.6	60.0	4.2	4.2	4.2	24.3	23.4		4.2		
IM17	Cloudy	Moderate	20:29	5.0	S	0.4	333.4	28.5	28.5	19.3	19.3	7.7	7.7	56.0	56.1	3.9	3.9	3.9	53.9	50.3	63.1	74.3	109.9	
						0.4	333.4	28.5	28.5	19.3	19.3	7.7	7.7	56.2	56.1	3.9	3.9	3.9	46.6	50.3		63.1		77.2
					B	0.6	78.6	28.5	28.5	19.6	19.5	7.7	7.7	55.6	55.6	3.9	3.9	3.9	79.7	75.9	3.9	150.0		144.0
						1.1	19.1	28.5	28.5	19.5	19.5	7.7	7.7	55.7	55.6	3.9	3.9	3.9	72.1	75.9		3.9		
IM18	Cloudy	Moderate	20:08	17.0	S	1.0	69.1	28.8	28.8	16.7	16.2	7.7	7.7	58.0	59.3	4.1	4.2	4.0	10.0	9.3	4.0	10.4	20.8	
						1.0	13.5	28.8	28.8	15.8	16.2	7.7	7.7	60.6	60.6	4.3	4.2	4.0	8.6	9.3		4.0		10.2
					M	0.9	331.0	27.7	27.7	23.7	23.7	7.8	7.8	56.7	56.7	3.9	3.9	3.9	22.4	21.8	3.9	31.1		31.2
						0.6	332.5	27.7	27.7	23.7	23.7	7.8	7.8	56.6	56.7	3.9	3.9	3.9	21.2	21.8		3.9		
					B	0.7	8.6	27.3	27.3	25.6	25.5	7.8	7.8	53.7	53.7	3.7	3.7	3.7	143.0	143.0	3.7	223.0^		-
						0.8	338.3	27.3	27.3	25.5	25.5	7.8	7.8	53.7	53.7	3.7	3.7	3.7	143.0	143.0		3.7		
IM19	Cloudy	Moderate	20:47	17.5	S	0.5	245.4	28.8	28.8	18.3	17.7	7.7	7.7	62.8	62.7	4.4	4.4	4.5	9.3	8.9	4.5	10.4	55.8	
						0.5	245.4	28.9	28.8	17.2	17.7	7.7	7.7	62.6	62.7	4.4	4.4	4.5	8.6	8.9		4.5		9.7
					M	0.8	53.1	28.4	28.4	21.3	21.3	7.8	7.8	65.3	65.4	4.5	4.5	4.5	10.1	9.7	4.5	11.6		11.4
						0.8	53.1	28.4	28.4	21.3	21.3	7.8	7.8	65.6	65.4	4.5	4.5	4.5	9.2	9.7		4.5		
					B	0.8	324.4	27.1	27.1	26.8	26.8	7.8	7.8	65.0	65.0	4.5	4.5	4.5	103.1	104.2	4.5	146.0		146.0
						0.5	326.8	27.1	27.1	26.8	26.8	7.8	7.8	65.0	65.0	4.5	4.5	4.5	105.4	104.2		4.5		
IM20A	Cloudy	Moderate	21:45	4.5	S	0.8	127.5	29.1	29.1	17.5	17.5	7.7	7.7	64.7	64.8	4.5	4.5	4.5	12.4	12.4	12.3	14.5	16.2	
						0.8	127.5	29.1	29.1	17.5	17.5	7.7	7.7	64.8	64.8	4.5	4.5	4.5	12.5	12.4		12.3		14.2
					B	0.3	56.0	28.9	28.9	18.2	18.6	7.7	7.7	66.5	65.4	4.6	4.5	4.5	11.1	12.1	4.5	17.6		18.0
						0.3	56.0	28.8	28.9	19.1	18.6	7.7	7.7	64.3	65.4	4.5	4.5	4.5	13.2	12.1		4.5		
IM21A	Cloudy	Moderate	21:36	4.5	S	0.5	282.1	29.9	29.9	19.4	19.5	7.7	7.7	69.6	69.3	4.7	4.7	4.7	33.5	32.7	35.1	36.0	39.6	
						0.5	282.1	29.8	29.9	19.6	19.5	7.7	7.7	68.9	69.3	4.7	4.7	4.7	31.9	32.7		35.1		34.0
					B	0.2	147.7	28.0	27.9	24.1	24.0	7.7	7.7	61.4	60.4	4.2	4.1	4.1	37.3	37.5	4.1	44.0		44.2
						0.5	182.8	27.9	27.9	24.0	24.0	7.7	7.7	59.3	60.4	4.1	4.1	4.1	37.7	37.5		4.1		
IM22A	Cloudy	Moderate	21:30	4.5	S	0.8	212.2	29.3	29.3	19.4	19.4	7.7	7.7	67.0	67.1	4.6	4.6	4.6	29.7	30.0	37.5	36.0	52.0	
						0.8	212.2	29.4	29.3	19.5	19.4	7.7	7.7	67.2	67.1	4.6	4.6	4.6	30.4	30.0		37.5		32.0
					B	0.1	12.8	28.9	28.8	22.5	22.7	7.7	7.7	67.9	66.1	4.6	4.5	4.5	43.0	44.9	4.5	68.8		70.0
						0.6	176.0	28.7	28.8	22.9	22.7	7.7	7.7	64.3	66.1	4.4	4.5	4.5	46.9	44.9		4.5		

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
E1	Cloudy	Moderate	18:04	8.7	S	0.1	183.7	27.0	27.0	28.8	28.8	8.0	8.0	74.1	74.1	5.0	5.0	5.0	5.0	5.9	5.9	6.5	6.1		
						0.1	183.7	27.0	27.0	28.8	28.8	8.0	8.0	74.2	74.1	5.0	5.0	5.0	5.0	5.9	5.9	5.6	6.1		
						0.3	154.9	27.0	27.0	29.0	29.0	8.0	8.0	73.0	72.7	4.9	4.9	4.9	4.9	6.1	5.9	5.8	6.1		
					M	0.3	227.8	27.0	27.0	28.9	28.9	8.0	8.0	72.4	72.4	4.9	4.9	4.5	4.5	6.1	5.9	5.1	5.9	5.1	5.6
						0.5	182.6	27.0	27.0	30.5	30.5	8.1	8.1	67.7	67.5	4.6	4.5	4.5	4.5	16.6	16.5	32.1	19.2	32.1	19.2
						0.4	181.2	27.1	27.0	30.5	30.5	8.1	8.1	67.3	67.5	4.5	4.5	4.5	4.5	16.5	16.5	6.2	19.2	6.2	19.2
E2	Rainy	Rough	17:33	8.4	S	0.1	76.0	27.4	27.4	29.2	29.2	8.0	8.0	89.0	89.0	6.0	6.0	6.0	6.0	1.8	1.8	4.6	4.7		
						0.1	77.0	27.4	27.4	29.2	29.2	8.0	8.0	89.0	89.0	6.0	6.0	6.0	6.0	1.8	1.8	4.8	4.7		
						0.2	70.0	27.4	27.4	29.2	29.2	8.0	8.0	88.6	88.6	6.0	6.0	6.0	6.0	1.8	1.8	5.1	5.4		
					M	0.2	72.0	27.4	27.4	29.2	29.2	8.0	8.0	88.6	88.6	6.0	6.0	6.0	6.0	1.8	1.8	5.7	5.4	5.7	5.4
						0.2	52.0	27.3	27.3	29.4	29.4	8.0	8.0	85.2	85.2	5.7	5.7	5.7	5.7	7.4	7.3	3.5	3.3	3.5	3.3
						0.2	53.0	27.3	27.3	29.4	29.4	8.0	8.0	85.2	85.2	5.7	5.7	5.7	5.7	7.2	7.3	3.1	3.3	3.1	3.3
E3	Cloudy	Rough	16:11	16.3	S	0.4	145.0	27.9	27.9	25.8	25.8	8.1	8.1	88.6	88.6	6.0	6.0	5.9	5.9	3.3	3.3	4.4	4.9		
						0.4	150.0	27.9	27.9	25.8	25.8	8.1	8.1	88.6	88.6	6.0	6.0	5.9	5.9	3.3	3.3	5.3	4.9		
						0.5	135.0	27.3	27.3	30.2	30.2	8.1	8.1	86.5	86.5	5.8	5.8	5.8	5.8	3.5	3.5	7.7	8.2		
					M	0.5	147.0	27.3	27.3	30.2	30.2	8.1	8.1	86.4	86.4	5.8	5.8	5.8	5.8	3.5	3.5	8.7	8.2	8.7	8.2
						0.3	112.0	27.3	27.3	30.4	30.4	8.1	8.1	86.2	86.3	5.8	5.8	5.8	5.8	5.8	5.7	8.8	9.2	5.8	9.2
						0.4	121.0	27.3	27.3	30.4	30.4	8.1	8.1	86.4	86.3	5.8	5.8	5.8	5.8	5.7	5.7	9.6	9.2	9.6	9.2
E4	Cloudy	Moderate	14:58	12.0	S	0.3	211.0	27.6	27.6	27.1	27.0	8.1	8.1	83.4	83.5	5.7	5.7	5.6	5.6	4.5	4.5	4.8	5.3		
						0.3	214.0	27.6	27.6	26.9	27.0	8.1	8.1	83.5	83.5	5.7	5.7	5.7	5.7	4.5	4.5	5.7	5.3		
						0.3	203.0	27.3	27.3	29.5	29.5	8.1	8.1	81.0	81.0	5.5	5.5	5.5	5.5	7.9	7.9	10.4	10.5		
					M	0.4	214.0	27.3	27.3	29.6	29.6	8.1	8.1	81.0	81.0	5.5	5.5	5.5	5.5	7.9	7.9	10.6	10.5	10.6	10.5
						0.3	185.0	27.3	27.3	30.1	30.1	8.1	8.1	80.9	80.9	5.4	5.4	5.4	5.4	27.6	26.1	20.5	20.5	20.5	20.5
						0.3	197.0	27.3	27.3	30.1	30.1	8.1	8.1	80.9	80.9	5.4	5.4	5.4	5.4	24.7	26.1	20.4	20.5	20.4	20.5
E5	Cloudy	Calm	17:15	5.5	S	1.1	212.8	28.2	28.2	22.6	22.8	8.1	8.0	82.0	81.9	5.6	5.6	5.6	5.6	5.2	4.9	5.6	6.1		
						0.6	295.0	28.2	28.2	23.0	22.8	8.0	8.0	81.9	81.9	5.6	5.6	5.6	5.6	4.6	4.9	6.6	6.1		
						0.5	289.6	27.8	27.8	26.9	26.9	8.1	8.1	82.2	81.2	5.6	5.5	5.5	5.5	13.7	14.9	20.5	19.5		
					B	0.8	183.1	27.8	27.8	26.9	26.9	8.1	8.1	80.2	80.2	5.4	5.4	5.4	5.4	16.0	14.9	18.5	19.5	18.5	19.5
						0.7	23.0	28.3	28.3	21.2	21.2	7.9	7.9	75.8	75.8	5.3	5.3	5.3	5.3	4.2	4.2	3.5	4.0	4.2	4.0
						0.7	23.0	28.3	28.3	21.1	21.2	7.9	7.9	75.8	75.8	5.3	5.3	5.3	5.3	4.2	4.2	4.4	4.0	4.4	4.0
E6	Cloudy	Calm	15:18	6.5	M	0.2	117.8	28.2	28.2	21.9	21.9	7.9	7.9	75.8	76.1	5.2	5.3	5.3	5.3	3.7	3.6	4.7	5.3		
						0.3	39.7	28.2	28.2	21.9	21.9	7.9	7.9	76.5	76.1	5.3	5.3	5.3	5.3	3.5	3.6	5.8	5.3		
						0.4	274.5	28.1	28.0	22.5	22.7	7.9	7.9	76.7	75.7	5.3	5.2	5.2	5.2	3.9	3.9	6.2	6.0		
					B	0.4	274.5	28.0	28.0	23.0	22.7	7.9	7.9	74.7	75.7	5.2	5.2	5.2	5.2	3.9	3.9	5.7	6.0	5.7	6.0
						0.6	123.6	28.8	28.8	19.2	19.3	7.7	7.7	78.0	78.4	5.4	5.4	5.4	5.4	4.3	4.1	2.2	2.6	2.2	2.6
						0.7	210.6	28.8	28.8	19.3	19.3	7.7	7.7	78.9	78.4	5.5	5.4	5.4	5.4	3.9	4.1	3.0	2.6	3.0	2.6
E7A	Cloudy	Calm	14:22	5.5	S	0.3	24.6	28.0	28.0	23.6	23.6	7.8	7.8	72.9	72.3	5.0	5.0	5.0	5.0	8.4	8.3	9.2	8.8		
						0.5	238.3	28.0	28.0	23.6	23.6	7.8	7.8	71.8	72.3	4.9	5.0	5.0	5.0	8.3	8.3	8.3	8.8		
						0.1	19.7	27.4	27.4	31.2	31.2	8.2	8.2	87.8	87.8	5.8	5.8	5.8	5.8	2.7	2.8	2.5	3.0		
					M	0.1	19.7	27.4	27.4	31.2	31.2	8.2	8.2	87.8	87.8	5.8	5.8	5.8	5.8	2.7	2.8	3.5	3.0	2.7	3.0
						0.3	3.3	27.5	27.5	31.2	31.2	8.2	8.2	87.8	87.7	5.8	5.8	5.8	5.8	2.6	2.6	3.6	3.1	3.6	3.1
						0.3	3.3	27.5	27.5	31.2	31.2	8.2	8.2	87.7	87.7	5.8	5.8	5.8	5.8	2.6	2.6	2.6	3.1	2.6	3.1
F1	Cloudy	Moderate	17:08	20.0	B	0.3	204.1	27.5	27.5	31.6	31.6	8.2	8.2	82.6	82.7	5.5	5.5	5.5	5.5	26.6	26.2	30.0	29.5		
						0.3	83.5	27.5	27.5	31.6	31.6	8.2	8.2	82.7	82.7	5.5	5.5	5.5	5.5	25.8	26.2	29.0	29.5		
						0.1	19.7	27.4	27.4	31.2	31.2	8.2	8.2	87.8	87.8	5.8	5.8	5.8	5.8	2.7	2.8	2.5	3.0		
					S	0.1	19.7	27.4	27.4	31.2	31.2	8.2	8.2	87.8	87.8	5.8	5.8	5.8	5.8	2.7	2.8	3.5	3.0	2.7	3.0
						0.1	276.1	27.5	27.5	30.6	30.6	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	2.3	2.8		
						0.1	276.1	27.5	27.5	30.6	30.6	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	3.3	2.8		
F2	Cloudy	Moderate	16:33	19.0	M	0.1	233.5	27.5	27.5	31.0	31.0	8.2	8.2	88.8	88.8	5.9	5.9	5.9	5.9	2.7	2.6	4.8	4.3		
						0.2	84.5	27.5	27.5	31.0	31.0	8.2	8.2	88.9	88.8	5.9	5.9	5.9	5.9	2.6	2.6	3.8	4.3		
						0.3	111.0	27.6	27.6	31.6	31.6	8.2	8.2	85.6	85.5	5.7	5.7	5.7	5.7	19.6	19.4	25.7	27.2		
					B	0.3	111.0	27.6	27.6	31.6	31.6	8.2	8.2	85.4	85.5	5.7	5.7	5.7	5.7	19.3	19.4	28.7	27.2	19.3	27.2
						0.1	276.1	27.5	27.5	30.6	30.6	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	2.3	2.8		
						0.1	276.1	27.5	27.5	30.6	30.6	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	3.3	2.8		

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
F3	Cloudy	Moderate	15:05	17.6	S	0.6	268.9	27.4	27.4	29.6	29.7	8.1	8.1	88.4	88.4	5.9	5.9	5.8	2.5	2.5	2.7	2.7		
						0.6	268.9	27.4	27.4	29.7	29.7	8.1	8.1	88.4	88.4	5.9	5.9	5.8	2.5	2.5	2.7	2.7		
					M	0.2	61.6	27.7	27.7	31.6	31.6	8.2	8.2	86.9	86.9	5.7	5.7	5.7	4.3	4.3	4.4	4.4	4.7	4.7
						0.3	62.8	27.7	27.7	31.6	31.6	8.2	8.2	87.0	87.0	5.7	5.7	5.7	4.1	4.1	5.0	5.0	19.1	19.1
					B	0.5	157.6	27.8	27.8	31.7	31.7	8.2	8.2	84.1	84.1	5.5	5.5	5.5	14.6	14.6	18.1	18.1	19.1	19.1
						0.2	115.5	27.8	27.8	31.7	31.7	8.2	8.2	84.0	84.0	5.5	5.5	5.5	14.9	14.9	14.7	14.7	19.1	19.1
F4	Cloudy	Rough	17:07	13.0	S	0.1	104.0	27.4	27.4	29.3	29.3	8.1	8.1	89.8	89.8	6.0	6.0	5.9	1.6	1.6	5.3	5.3		
						0.1	109.0	27.4	27.4	29.3	29.3	8.1	8.1	89.8	89.8	6.0	6.0	5.9	1.6	1.6	5.3	5.3		
					M	0.3	92.0	27.5	27.5	29.7	29.7	8.1	8.1	86.2	86.3	5.8	5.8	5.8	4.9	4.9	8.0	8.0	8.6	8.6
						0.3	101.0	27.5	27.5	29.7	29.7	8.1	8.1	86.3	86.3	5.8	5.8	5.8	4.9	4.9	9.2	9.2	8.6	8.6
					B	0.2	84.0	27.2	27.3	30.1	30.1	8.1	8.1	85.0	85.1	5.7	5.7	5.7	17.6	17.6	12.1	12.1	11.3	11.3
						0.2	90.0	27.3	27.3	30.1	30.1	8.1	8.1	85.2	85.1	5.7	5.7	5.7	17.5	17.5	10.4	10.4	11.3	11.3
F5	Cloudy	Moderate	14:29	6.9	S	0.0	305.0	28.0	28.0	24.6	24.6	8.0	8.0	85.8	85.8	5.9	5.9	5.7	3.1	3.1	3.6	3.6		
						0.0	310.0	28.0	28.0	24.6	24.6	8.0	8.0	85.8	85.8	5.9	5.9	5.7	3.2	3.2	3.6	3.6		
					M	0.2	67.0	27.5	27.5	26.6	26.6	8.1	8.1	81.0	81.0	5.5	5.5	5.5	4.1	4.1	5.0	5.0	4.7	4.7
						0.2	67.0	27.5	27.5	26.6	26.6	8.1	8.1	80.9	80.9	5.5	5.5	5.5	4.0	4.0	4.4	4.4	4.7	4.7
					B	0.0	34.0	27.3	27.3	29.0	29.0	8.1	8.1	79.3	79.3	5.3	5.3	5.3	6.5	6.5	9.1	9.1	8.6	8.6
						0.0	35.0	27.3	27.3	29.0	29.0	8.1	8.1	79.3	79.3	5.4	5.4	5.3	6.6	6.6	8.1	8.1	8.6	8.6
F6	Cloudy	Calm	16:37	14.0	S	1.4	157.1	28.2	28.2	22.1	22.1	8.0	8.0	79.1	79.6	5.5	5.5	5.3	4.4	4.0	5.0	5.0		
						1.2	197.9	28.2	28.2	22.1	22.1	8.0	8.0	80.2	79.6	5.5	5.5	5.3	3.7	4.0	5.7	5.7		
					M	0.6	101.2	27.8	27.8	25.5	25.5	8.0	8.0	75.3	75.2	5.1	5.1	5.1	15.0	15.1	18.2	18.2	17.5	17.5
						1.0	101.1	27.8	27.8	25.5	25.5	8.0	8.0	75.2	75.2	5.1	5.1	5.1	15.2	15.1	16.7	16.7	17.5	17.5
					B	0.5	99.0	27.9	27.9	25.9	25.9	8.1	8.1	80.7	80.7	5.5	5.5	5.5	34.6	36.2	59.3	59.3	56.8	56.8
						0.1	326.6	27.9	27.9	25.9	25.9	8.1	8.1	80.8	80.7	5.5	5.5	5.5	37.8	36.2	54.3	54.3	56.8	56.8
IM1	Cloudy	Moderate	17:28	9.7	S	0.5	315.5	27.5	27.5	31.1	31.1	8.2	8.2	86.1	86.1	5.7	5.7	5.7	3.9	4.2	4.7	4.7		
						0.5	315.5	27.5	27.5	31.1	31.1	8.2	8.2	86.1	86.1	5.7	5.7	5.7	4.5	4.2	5.7	5.7		
					M	0.1	183.0	27.5	27.5	31.2	31.2	8.2	8.2	84.6	84.6	5.6	5.6	5.6	4.4	4.3	4.9	4.9	5.4	5.4
						0.1	130.9	27.5	27.5	31.2	31.2	8.2	8.2	84.7	84.7	5.6	5.6	5.6	4.2	4.3	5.9	5.9	5.4	5.4
					B	0.2	127.3	27.2	27.2	31.3	31.3	8.2	8.2	80.3	80.1	5.4	5.3	5.3	20.1	18.1	26.5	26.5	26.3	26.3
						0.2	127.3	27.2	27.2	31.3	31.3	8.2	8.2	79.8	80.1	5.3	5.3	5.3	16.1	18.1	26.1	26.1	26.3	26.3
IM2	Cloudy	Moderate	17:51	11.3	S	0.4	200.0	27.1	27.1	29.4	29.4	8.1	8.1	83.2	83.1	5.6	5.6	5.5	3.0	3.0	3.1	3.1		
						0.4	200.0	27.1	27.1	29.4	29.4	8.1	8.1	83.0	83.1	5.6	5.6	5.6	3.0	3.0	2.1	2.1		
					M	0.4	190.5	27.3	27.3	30.1	30.1	8.1	8.1	81.2	81.3	5.4	5.5	5.5	4.5	4.4	3.0	3.0	3.5	3.5
						0.3	222.4	27.3	27.3	30.1	30.1	8.1	8.1	81.4	81.3	5.5	5.5	5.5	4.4	4.4	3.9	3.9	3.5	3.5
					B	0.2	106.2	27.2	27.2	31.3	31.3	8.2	8.2	75.8	75.4	5.1	5.0	5.0	13.1	13.4	21.1	21.1	19.9	19.9
						0.2	102.4	27.2	27.2	31.3	31.3	8.2	8.2	75.0	75.4	5.0	5.0	5.0	13.6	13.4	18.6	18.6	19.9	19.9
IM3	Cloudy	Moderate	16:09	15.0	S	0.1	32.5	27.3	27.3	29.0	29.0	8.0	8.0	85.8	85.9	5.8	5.8	5.6	4.0	3.9	5.1	5.1		
						0.1	32.5	27.3	27.3	29.0	29.0	8.0	8.0	86.0	85.9	5.8	5.8	5.8	3.9	3.9	4.1	4.1		
					M	0.2	84.9	27.2	27.2	30.4	30.4	8.1	8.1	79.7	79.6	5.3	5.3	5.3	5.9	5.8	9.1	9.1	8.7	8.7
						0.0	128.0	27.2	27.2	30.3	30.4	8.1	8.1	79.4	79.6	5.3	5.3	5.3	5.8	5.8	8.2	8.2	8.7	8.7
					B	0.2	22.5	27.4	27.4	31.4	31.4	8.2	8.2	82.6	82.5	5.5	5.5	5.5	19.2	19.9	21.5	21.5	23.2	23.2
						0.1	51.3	27.4	27.4	31.4	31.4	8.2	8.2	82.3	82.5	5.5	5.5	5.5	20.5	19.9	24.8	24.8	23.2	23.2
IM4	Cloudy	Moderate	15:46	16.5	S	0.2	176.9	27.3	27.3	29.0	29.0	8.0	8.0	86.5	86.5	5.8	5.8	5.8	3.7	3.7	2.9	2.9		
						0.2	176.9	27.3	27.3	29.0	29.0	8.0	8.0	86.6	86.5	5.8	5.8	5.8	3.6	3.7	3.9	3.9		
					M	0.1	174.6	27.4	27.4	30.7	30.7	8.2	8.2	85.5	85.4	5.7	5.7	5.7	4.0	4.0	2.5	2.5	3.0	3.0
						0.5	181.4	27.4	27.4	30.7	30.7	8.2	8.2	85.3	85.4	5.7	5.7	5.7	3.9	4.0	3.5	3.5	3.0	3.0
					B	0.3	63.8	27.4	27.4	31.2	31.1	8.2	8.2	85.0	85.0	5.7	5.6	5.6	7.8	7.3	13.3	13.3	9.3	9.3
						0.4	100.9	27.4	27.4	31.1	31.1	8.2	8.2	85.0	85.0	5.6	5.6	5.6	6.8	7.3	5.2	5.2	9.3	9.3
IM5	Cloudy	Moderate	15:26	15.7	S	0.2	259.6	27.3	27.3	29.0	29.0	8.0	8.0	86.7	86.6	5.8	5.8	5.9	2.9	2.9	1.3	1.3		
						0.2	259.6	27.3	27.3	29.1	29.0	8.0	8.0	86.5	86.6	5.8	5.8	5.8	2.9	2.9	2.1	2.1		
					M	0.3	165.6	27.8	27.8	31.6	31.6	8.3	8.3	89.4	89.6	5.9	5.9	5.9	3.8	3.7	3.4	3.4	2.9	2.9
						0.3	302.4	27.8	27.8	31.6	31.6	8.3	8.3	89.7	89.6	5.9	5.9	5.9	3.6	3.7	2.4	2.4		
					B	0.1	132.4	27.5	27.5	31.6	31.6	8.2	8.2	83.2	83.2	5.5	5.5	5.5	17.6	18.1	35.2	35.2	35.7	35.7
						0.3	104.1	27.5	27.5	31.6	31.6	8.2	8.2	83.1	83.2	5.5	5.5	5.5	18.6	18.1	36.1	36.1	35.7	35.7

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Cloudy	Moderate	14:52	16.2	S	0.3	261.8	27.3	27.3	29.1	29.1	8.0	8.0	87.6	87.6	5.9	5.9	5.9	5.9	2.7	2.8	1.7	2.2		
						0.3	261.8	27.3	27.3	29.1	29.1	8.0	8.0	87.6	87.6	5.9	5.9	5.9	5.9	2.7	2.8	1.7	2.2		
					M	0.3	77.4	27.7	27.7	31.7	31.6	8.2	8.2	88.2	88.2	5.8	5.8	5.8	5.8	4.6	4.5	4.6	4.7	4.6	4.7
						0.3	77.4	27.7	27.7	31.6	31.6	8.2	8.2	88.2	88.2	5.8	5.8	5.8	5.8	4.4	4.5	4.4	4.5	4.7	4.7
					B	0.1	339.0	27.7	27.7	31.7	31.7	8.2	8.2	83.8	83.6	5.5	5.5	5.5	5.5	12.6	13.1	12.6	13.1	13.5	14.4
						0.1	339.0	27.7	27.7	31.7	31.7	8.2	8.2	83.3	83.6	5.5	5.5	5.5	5.5	13.6	13.1	13.6	13.1	15.3	14.4
IM7	Cloudy	Moderate	14:21	13.4	S	0.4	325.5	27.7	27.7	30.3	30.3	8.1	8.1	94.0	94.0	6.3	6.3	6.3	6.3	2.2	2.2	1.3	1.6		
						0.4	325.5	27.7	27.7	30.3	30.3	8.1	8.1	94.0	94.0	6.3	6.3	6.3	6.3	2.2	2.2	1.3	1.6		
					M	0.3	275.5	27.7	27.7	31.2	31.2	8.2	8.2	91.8	91.9	6.1	6.1	6.1	6.1	3.4	3.3	3.4	3.3	1.9	2.0
						0.3	275.5	27.7	27.7	31.2	31.2	8.2	8.2	91.9	91.9	6.1	6.1	6.1	6.1	3.2	3.3	3.2	3.3	2.0	2.0
					B	0.2	238.5	27.7	27.7	31.5	31.5	8.2	8.2	89.0	88.8	5.9	5.9	5.9	5.9	7.4	7.7	7.4	7.7	3.6	10.5
						0.2	102.4	27.7	27.7	31.6	31.6	8.2	8.2	88.6	88.8	5.9	5.9	5.9	5.9	8.0	7.7	8.0	7.7	17.3	10.5
IM8	Cloudy	Moderate	14:33	14.5	S	0.1	191.9	27.4	27.4	29.2	29.2	8.0	8.0	88.9	88.9	6.0	6.0	6.0	6.0	2.7	2.7	3.5	3.6		
						0.1	191.9	27.4	27.4	29.3	29.2	8.0	8.0	88.9	88.9	6.0	6.0	6.0	6.0	2.7	2.7	3.6	3.6		
					M	0.2	269.7	27.7	27.7	31.3	31.3	8.2	8.2	90.7	90.8	6.0	6.0	6.0	6.0	3.5	3.4	3.5	3.4	2.7	2.7
						0.4	230.3	27.7	27.7	31.3	31.3	8.2	8.2	90.9	90.8	6.0	6.0	6.0	6.0	3.2	3.4	3.2	3.4	2.6	2.7
					B	0.0	98.1	27.7	27.7	31.6	31.6	8.2	8.2	86.3	86.1	5.7	5.7	5.7	5.7	16.6	17.4	16.6	17.4	23.6	24.3
						0.0	98.1	27.7	27.7	31.6	31.6	8.2	8.2	86.0	86.1	5.7	5.7	5.7	5.7	18.2	17.4	18.2	17.4	25.0	24.3
IM9	Cloudy	Rough	16:36	14.6	S	0.2	177.0	27.4	27.4	29.9	29.9	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	3.3	3.1		
						0.3	181.0	27.4	27.4	29.9	29.9	8.1	8.1	90.1	90.1	6.0	6.0	6.0	6.0	1.8	1.8	3.3	3.1		
					M	0.3	132.0	27.4	27.4	30.3	30.3	8.1	8.1	87.8	87.8	5.9	5.9	5.9	5.9	2.9	2.9	2.9	2.9	4.5	5.5
						0.3	142.0	27.4	27.4	30.3	30.3	8.1	8.1	87.8	87.8	5.9	5.9	5.9	5.9	2.9	2.9	2.9	2.9	6.4	5.5
					B	0.3	116.0	27.4	27.4	30.8	30.8	8.2	8.2	87.7	87.8	5.8	5.8	5.8	5.8	13.1	12.9	13.1	12.9	7.8	8.3
						0.3	119.0	27.4	27.4	30.8	30.8	8.2	8.2	87.8	87.8	5.9	5.9	5.8	5.8	12.8	12.9	12.8	12.9	8.7	8.3
IM10	Cloudy	Rough	15:56	11.8	S	0.3	63.0	27.6	27.6	28.1	28.1	8.1	8.1	84.5	84.5	5.7	5.7	5.7	5.7	15.4	15.2	21.8	23.1		
						0.3	65.0	27.6	27.6	28.1	28.1	8.1	8.1	84.4	84.5	5.7	5.7	5.7	5.7	15.1	15.2	24.4	23.1		
					M	0.4	60.0	27.3	27.3	30.3	30.3	8.1	8.1	83.8	83.8	5.6	5.6	5.6	5.6	16.0	15.9	16.0	15.9	21.1	21.2
						0.4	64.0	27.3	27.3	30.3	30.3	8.1	8.1	83.8	83.8	5.6	5.6	5.6	5.6	15.8	15.9	15.8	15.9	21.3	21.2
					B	0.5	62.0	27.3	27.3	30.3	30.3	8.1	8.1	84.2	84.2	5.6	5.6	5.6	5.6	18.5	18.5	18.5	18.5	24.9	37.9
						0.5	68.0	27.3	27.3	30.3	30.3	8.1	8.1	84.2	84.2	5.6	5.6	5.6	5.6	18.5	18.5	18.5	18.5	50.8	37.9
IM11A	Cloudy	Rough	15:46	6.3	S	0.4	168.0	28.0	28.0	25.3	25.3	8.1	8.1	87.9	87.9	6.0	6.0	6.0	6.0	5.1	5.1	7.2	6.9		
						0.5	175.0	28.0	28.0	25.3	25.3	8.1	8.1	87.9	87.9	6.0	6.0	6.0	6.0	5.0	5.1	6.0	6.9		
					M	0.5	126.0	27.7	27.7	25.3	25.3	8.1	8.1	87.5	87.5	5.9	5.9	5.9	5.9	4.4	4.4	4.4	4.4	6.0	6.1
						0.5	133.0	27.7	27.7	25.3	25.3	8.1	8.1	87.5	87.5	5.9	5.9	5.9	5.9	4.4	4.4	4.4	4.4	6.2	6.1
					B	0.4	141.0	27.7	27.7	27.3	27.3	8.1	8.1	87.3	87.4	5.9	5.9	5.9	5.9	4.2	4.4	4.2	4.4	17.5	18.8
						0.5	142.0	27.7	27.7	27.4	27.3	8.1	8.1	87.4	87.4	5.9	5.9	5.9	5.9	4.6	4.4	4.6	4.4	20.0	18.8
IM12	Cloudy	Moderate	15:36	15.4	S	0.5	163.0	28.0	28.0	24.9	24.9	8.1	8.1	86.9	86.9	5.9	5.9	5.9	5.9	3.8	3.8	5.6	6.1		
						0.5	166.0	28.0	28.0	24.9	24.9	8.1	8.1	86.9	86.9	5.9	5.9	5.9	5.9	3.8	3.8	6.6	6.1		
					M	0.5	161.0	27.3	27.3	30.1	30.1	8.1	8.1	82.8	82.8	5.6	5.6	5.6	5.6	6.8	6.8	6.8	6.8	8.7	8.3
						0.6	162.0	27.3	27.3	30.1	30.1	8.1	8.1	82.8	82.8	5.6	5.6	5.6	5.6	6.8	6.8	6.8	6.8	7.8	8.3
					B	0.5	145.0	27.3	27.3	30.2	30.2	8.1	8.1	83.4	83.4	5.6	5.6	5.6	5.6	20.5	20.5	20.5	20.5	10.8	11.4
						0.5	157.0	27.3	27.3	30.2	30.2	8.1	8.1	83.4	83.4	5.6	5.6	5.6	5.6	20.5	20.5	20.5	20.5	11.9	11.4
IM13	Cloudy	Moderate	15:17	16.7	S	0.4	219.0	28.0	28.0	24.0	24.0	8.1	8.1	85.7	85.7	5.9	5.9	5.9	5.9	2.6	2.6	2.0	2.5		
						0.4	228.0	28.0	28.0	24.0	24.0	8.1	8.1	85.7	85.7	5.9	5.9	5.9	5.9	2.6	2.6	3.0	2.5		
					M	0.2	173.0	27.3	27.3	30.1	30.1	8.1	8.1	82.4	82.4	5.5	5.5	5.5	5.5	5.7	5.7	5.7	5.7	6.4	6.2
						0.2	184.0	27.3	27.3	30.1	30.1	8.1	8.1	82.4	82.4	5.5	5.5	5.5	5.5	5.7	5.7	5.7	5.7	5.9	6.2
					B	0.3	184.0	27.3	27.3	30.4	30.4	8.1	8.1	81.3	81.3	5.4	5.4	5.4	5.4	10.2	10.2	10.2	10.2	5.5	6.0
						0.3	191.0	27.3	27.3	30.4	30.4	8.1	8.1	81.3	81.3	5.4	5.4	5.4	5.4	10.2	10.2	10.2	10.2	6.5	6.0
IM14	Cloudy	Moderate	15:06	11.3	S	0.5	209.0	27.6	27.6	26.6	26.6	8.1	8.1	82.6	82.7	5.6	5.6	5.6	5.6	4.9	4.9	4.1	4.6		
						0.5	209.0	27.6	27.6	26.5	26.6	8.1	8.1	82.7	82.7	5.6	5.6	5.6	5.6	5.0	4.9	5.0	4.9	5.1	4.6
					M	0.5	205.0	27.3	27.3	29.3	29.3	8.1	8.1	82.2	82.2	5.5	5.5	5.5	5.5	6.9	7.0	6.9	7.0	10.3	10.8
						0.5	216.0	27.3	27.3	29.3	29.3	8.1	8.1	82.2	82.2	5.5	5.5	5.5	5.5	7.0	7.0	7.0	7.0	11.2	10.8
					B	0.4	195.0	27.3	27.3	29.7	29.7	8.1	8.1	83.0	83.1	5.6	5.6	5.6	5.6	17.4	17.2	17.4	17.2	16.8	17.3
						0.4	210.0	27.3	27.3	29.7	29.7	8.1	8.1	83.1	83.1	5.6	5.6	5.6	5.6	17.0	17.2	17.0	17.2	17.7	17.3

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM15	Cloudy	Calm	17:28	6.0	S	0.9	238.2	28.3	28.3	21.7	21.7	8.0	8.0	84.1	84.1	5.8	5.8	5.8	5.8	3.3	3.3	2.8	2.4	
						0.6	191.7	28.3	28.3	21.7	21.7	8.0	8.0	84.2	84.1	5.8	5.8	5.8	5.8	3.3	3.3	2.0	2.4	
						1.1	231.0	28.3	28.3	22.5	22.7	8.1	8.1	84.4	84.5	5.8	5.8	5.8	5.8	4.3	3.9	2.6	3.1	
					M	1.0	181.9	28.3	28.3	23.0	22.7	8.1	8.1	84.6	84.5	5.8	5.8	5.8	5.8	3.5	3.9	3.6	3.1	6.6
						0.2	214.3	27.7	27.7	27.3	27.3	8.1	8.1	80.6	79.8	5.5	5.4	5.4	5.4	16.4	17.0	14.6	14.4	
						0.2	148.3	27.7	27.7	27.3	27.3	8.1	8.1	79.0	79.8	5.3	5.4	5.4	5.4	17.6	17.0	14.2	14.4	
IM16A	Cloudy	Calm	17:00	7.0	S	1.2	149.8	28.2	28.2	23.7	23.7	8.0	8.0	82.5	82.7	5.6	5.7	5.6	5.7	5.0	4.9	6.1	6.6	
						0.4	188.2	28.2	28.2	23.7	23.7	8.0	8.0	82.9	82.7	5.7	5.7	5.6	5.7	4.7	4.9	7.0	6.6	
						0.9	147.7	28.1	28.1	25.2	25.2	8.1	8.1	81.3	81.3	5.5	5.5	5.5	5.5	6.5	6.5	8.5	8.3	
					M	0.3	135.3	28.1	28.1	25.2	25.2	8.1	8.1	81.3	81.3	5.5	5.5	5.5	5.5	6.4	6.5	8.0	8.3	10.8
						0.2	3.9	27.8	27.8	26.7	26.7	8.1	8.1	80.8	79.5	5.5	5.4	5.4	5.4	12.9	14.1	18.7	17.6	
						0.4	124.8	27.8	27.8	26.7	26.7	8.1	8.1	78.3	79.5	5.3	5.4	5.4	5.4	15.2	14.1	16.5	17.6	
B	0.2	3.9	27.8	27.8	26.7	26.7	8.1	8.1	80.8	79.5	5.5	5.4	5.4	5.4	12.9	14.1	18.7	17.6						
	0.4	124.8	27.8	27.8	26.7	26.7	8.1	8.1	78.3	79.5	5.3	5.4	5.4	5.4	15.2	14.1	16.5	17.6						
	0.2	3.9	27.8	27.8	26.7	26.7	8.1	8.1	80.8	79.5	5.5	5.4	5.4	5.4	12.9	14.1	18.7	17.6						
IM17	Cloudy	Calm	16:01	5.5	S	0.4	241.8	28.1	28.1	21.6	21.6	7.9	7.9	76.1	76.0	5.3	5.3	5.3	5.3	8.1	7.6	7.9	8.4	
						0.7	188.2	28.1	28.1	21.6	21.6	7.9	7.9	75.8	76.0	5.3	5.3	5.3	5.3	7.2	7.6	8.8	8.4	
						0.7	174.5	27.9	27.9	24.0	24.0	8.0	8.0	79.5	78.8	5.5	5.4	5.4	5.4	15.8	16.5	25.7	25.8	
					B	0.5	146.9	27.9	27.9	24.0	24.0	8.0	8.0	78.2	78.8	5.4	5.4	5.4	5.4	17.1	16.5	25.9	25.8	17.1
						0.6	199.2	28.4	28.4	20.9	20.9	7.9	7.9	75.7	76.3	5.2	5.3	5.3	5.3	7.1	6.9	4.9	5.4	
						0.9	202.8	28.4	28.4	20.9	20.9	7.9	7.9	76.9	76.3	5.3	5.3	5.3	5.3	6.6	6.9	5.9	5.4	
M	0.5	97.9	27.7	27.7	24.3	24.3	7.9	7.9	67.8	67.8	4.7	4.7	4.7	4.7	10.2	10.2	14.3	13.4	11.9					
	0.6	161.2	27.7	27.7	24.3	24.3	7.9	7.9	67.8	67.8	4.7	4.7	4.7	4.7	10.1	10.2	12.5	13.4						
	0.4	132.3	27.3	27.3	26.5	26.5	8.0	8.0	67.6	67.1	4.6	4.6	4.6	4.6	12.1	11.9	16.3	17.0						
B	0.4	100.6	27.3	27.3	26.5	26.5	8.0	8.0	66.6	67.1	4.6	4.6	4.6	4.6	11.7	11.9	17.7	17.0						
	0.4	98.6	28.5	28.8	22.7	22.5	7.9	7.9	72.3	74.1	5.0	5.0	5.0	5.0	8.8	9.1	14.8	14.2						
	0.4	98.6	29.1	28.8	22.2	22.5	7.9	7.9	75.8	74.1	5.1	5.0	5.0	5.0	9.4	9.1	13.5	14.2						
IM19	Cloudy	Calm	15:44	17.5	S	0.4	98.6	28.5	28.8	22.7	22.5	7.9	7.9	72.3	74.1	5.0	5.0	5.0	5.0	8.8	9.1	14.8	14.2	
						0.4	98.6	29.1	28.8	22.2	22.5	7.9	7.9	75.8	74.1	5.1	5.0	5.0	5.0	9.4	9.1	13.5	14.2	
						0.4	145.7	27.7	27.7	24.8	24.8	8.0	8.0	73.1	73.3	5.0	5.0	5.0	5.0	5.4	5.5	7.7	8.1	
					M	0.1	113.6	27.7	27.7	24.8	24.8	8.0	8.0	73.5	73.3	5.0	5.0	5.0	5.0	5.5	5.5	8.5	8.1	14.2
						0.6	191.8	27.4	27.4	26.3	26.3	8.0	8.0	69.3	68.2	4.7	4.7	4.7	4.7	11.0	12.0	17.3	20.2	
						0.2	179.0	27.4	27.4	26.3	26.3	8.0	8.0	67.1	68.2	4.6	4.7	4.7	4.7	13.1	12.0	23.1	20.2	
B	0.6	191.8	27.4	27.4	26.3	26.3	8.0	8.0	69.3	68.2	4.7	4.7	4.7	4.7	11.0	12.0	17.3	20.2						
	0.2	179.0	27.4	27.4	26.3	26.3	8.0	8.0	67.1	68.2	4.6	4.7	4.7	4.7	13.1	12.0	23.1	20.2						
	0.4	102.2	28.5	28.6	18.8	18.5	7.8	7.8	72.5	73.8	5.1	5.2	5.2	5.2	7.8	7.2	9.6	9.1						
IM20A	Cloudy	Calm	14:37	4.5	S	0.4	102.2	28.5	28.6	18.8	18.5	7.8	7.8	72.5	73.8	5.1	5.2	5.2	5.2	7.8	7.2	9.6	9.1	
						0.4	102.2	28.7	28.6	18.3	18.5	7.8	7.8	75.1	73.8	5.2	5.2	5.2	5.2	6.6	7.2	8.6	9.1	
						1.0	132.0	28.0	28.0	22.8	22.9	7.8	7.8	72.9	71.0	5.0	4.9	4.9	4.9	10.5	11.0	11.8	12.7	
					B	1.0	282.1	27.9	28.0	23.0	22.9	7.8	7.8	69.2	71.0	4.8	4.9	4.9	4.9	11.5	11.0	13.5	12.7	10.9
						1.2	81.5	28.0	28.1	22.6	22.3	7.8	7.8	68.5	69.0	4.7	4.8	4.8	4.8	16.9	17.0	28.8	26.9	
						1.2	81.5	28.2	28.1	22.0	22.3	7.8	7.8	69.5	69.0	4.8	4.8	4.8	4.8	17.2	17.0	25.0	26.9	
M	0.4	140.2	27.9	27.9	23.5	23.5	7.8	7.8	70.6	69.6	4.9	4.8	4.8	4.8	19.2	20.1	26.2	24.8						
	0.7	198.9	27.9	27.9	23.6	23.5	7.8	7.8	68.7	69.6	4.7	4.8	4.8	4.8	21.1	20.1	23.4	24.8						
	0.3	95.4	29.2	29.2	23.2	23.2	7.9	7.9	76.3	76.1	5.1	5.1	5.1	5.1	15.0	14.6	18.1	17.7						
IM21A	Cloudy	Calm	14:46	5.5	S	0.3	95.4	29.2	29.2	23.2	23.2	7.9	7.9	76.3	76.1	5.1	5.1	5.1	5.1	15.0	14.6	18.1	17.7	
						0.3	95.4	29.2	29.2	23.2	23.2	7.9	7.9	76.3	76.1	5.1	5.1	5.1	5.1	14.3	14.6	17.2	17.7	
						0.2	36.8	28.4	28.4	23.8	23.9	7.9	7.9	74.3	73.4	5.1	5.0	5.0	5.0	17.9	18.0	20.8	19.4	
					B	0.2	36.8	28.4	28.4	23.8	23.9	7.9	7.9	74.3	73.4	5.1	5.0	5.0	5.0	17.9	18.0	20.8	19.4	18.5
						0.7	264.1	28.4	28.4	23.9	23.9	7.9	7.9	72.5	73.4	4.9	5.0	5.0	5.0	18.0	18.0	18.0	19.4	
						0.7	264.1	28.4	28.4	23.9	23.9	7.9	7.9	72.5	73.4	4.9	5.0	5.0	5.0	18.0	18.0	18.0	19.4	

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)								
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*						
E1	Rainy	Moderate	07:36	8.8	S	0.6	257.7	26.8	26.8	27.9	27.9	7.8	7.8	75.3	75.2	5.2	5.1	5.0	4.2	4.2	7.7	4.6	5.1	7.9						
						0.6	257.7	26.8	28.0	28.0	7.8	7.8	75.1	75.1	5.1	5.1	5.0	4.2	4.2	7.7	4.6	5.1								
						0.3	193.9	26.8	28.9	28.8	7.8	7.8	72.1	72.1	4.9	4.9	5.0	5.9	5.8	7.7	7.0	7.5								
					M	0.3	193.9	26.8	28.8	28.8	7.8	7.8	72.0	72.0	4.9	4.9	5.0	5.8	5.8	7.7	8.0	7.5								
						0.4	200.5	27.1	30.7	30.8	7.9	7.9	75.4	75.1	5.1	5.0	5.0	12.7	13.2	7.7	10.6	11.0								
						0.4	200.5	27.1	30.8	30.8	7.9	7.9	74.8	75.1	5.0	5.0	5.0	13.7	13.2	7.7	11.4	11.0								
E2	Cloudy	Moderate	08:06	8.4	S	0.2	267.0	27.0	27.0	29.4	29.4	8.0	8.0	87.2	87.2	5.9	5.9	5.8	1.9	1.9	5.5	1.5	2.0	5.1						
						0.2	276.0	27.0	29.4	29.4	8.0	8.0	87.1	87.2	5.9	5.9	5.8	1.9	1.9	5.5	2.5	2.0								
						0.1	288.0	27.0	29.6	29.6	8.0	8.0	85.6	85.6	5.8	5.8	5.8	2.9	2.9	5.5	3.2	3.7								
					M	0.1	303.0	27.0	29.6	29.6	8.0	8.0	85.5	85.6	5.8	5.8	5.8	2.9	2.9	5.5	4.1	3.7								
						0.1	317.0	27.1	29.9	29.9	8.0	8.0	83.1	83.1	5.6	5.6	5.6	11.5	11.7	5.5	9.6	9.8								
						0.1	336.0	27.1	29.9	29.9	8.0	8.0	83.1	83.1	5.6	5.6	5.6	12.0	11.7	5.5	9.9	9.8								
E3	Rainy	Moderate	09:34	16.6	S	0.3	332.0	27.5	27.5	26.2	26.2	8.0	8.0	85.1	85.1	5.8	5.8	5.7	2.9	2.9	9.4	4.3	3.9	7.9						
						0.3	344.0	27.5	26.2	26.2	8.0	8.0	85.1	85.1	5.8	5.8	5.7	2.9	2.9	9.4	3.4	3.9								
						0.4	302.0	27.4	28.4	28.4	8.1	8.1	82.9	83.0	5.6	5.6	5.6	3.8	3.8	9.4	4.1	3.6								
					M	0.4	317.0	27.4	28.4	28.4	8.1	8.1	83.0	83.0	5.6	5.6	5.6	3.8	3.8	9.4	3.1	3.6								
						0.7	284.0	27.3	30.1	30.1	8.1	8.1	82.2	82.2	5.5	5.5	5.5	21.8	21.6	9.4	17.5	16.4								
						0.7	306.0	27.3	30.1	30.1	8.1	8.1	82.2	82.2	5.5	5.5	5.5	21.4	21.6	9.4	15.2	16.4								
E4	Cloudy	Rough	10:52	12.0	S	0.2	54.0	27.9	27.9	22.0	22.0	8.0	8.0	80.7	80.7	5.6	5.6	5.6	3.5	3.4	11.0	4.7	4.3	10.5						
						0.2	55.0	27.9	22.0	22.0	8.0	8.0	80.7	80.7	5.6	5.6	5.6	3.4	3.4	11.0	3.9	4.3								
						0.4	30.0	27.6	25.6	25.6	8.0	8.0	81.0	81.0	5.5	5.5	5.5	7.4	7.5	11.0	6.4	6.9								
					M	0.4	32.0	27.6	25.6	25.6	8.0	8.0	81.0	81.0	5.5	5.5	5.5	7.5	7.5	11.0	7.3	6.9								
						0.4	23.0	27.2	29.6	29.6	8.1	8.1	81.4	81.4	5.5	5.5	5.5	22.1	22.1	11.0	19.8	20.4								
						0.4	25.0	27.2	29.6	29.6	8.1	8.1	81.4	81.4	5.5	5.5	5.5	22.1	22.1	11.0	20.9	20.4								
E5	Cloudy	Calm	08:09	5.5	S	1.0	248.7	28.1	28.1	18.5	18.4	7.8	7.8	70.3	70.1	5.0	4.9	4.9	7.8	7.7	11.9	8.0	8.0	13.5						
						1.1	215.5	28.1	18.3	18.3	7.8	7.8	69.9	70.1	4.9	4.9	4.9	7.6	7.6	11.9	8.0	8.0								
						0.9	7.7	27.9	24.0	24.0	7.9	7.9	76.1	76.2	5.2	5.2	5.2	15.2	16.1	11.9	18.1	19.0								
					B	1.1	271.4	27.9	24.2	24.1	7.9	7.9	76.3	76.2	5.2	5.2	5.2	17.1	16.1	11.9	19.9	19.0								
						0.9	347.1	28.3	19.3	19.1	7.7	7.7	64.8	64.7	4.5	4.5	4.5	8.5	7.7	26.8	8.2	7.8								
						0.9	347.1	28.3	18.9	18.9	7.7	7.7	64.7	64.7	4.5	4.5	4.5	6.9	7.7	26.8	7.3	7.8								
E6	Cloudy	Calm	10:25	5.5	S	1.0	5.3	27.8	27.8	24.1	24.1	7.8	7.8	66.6	65.6	4.6	4.5	4.5	42.8	45.8	26.8	60.1	61.0	34.4						
						0.6	347.9	27.8	24.1	24.1	7.8	7.8	64.5	65.6	4.4	4.5	4.5	48.9	45.8	26.8	61.8	61.0								
						0.9	347.1	28.3	19.3	19.1	7.7	7.7	64.8	64.7	4.5	4.5	4.5	8.5	7.7	26.8	8.2	7.8								
					E7A	Cloudy	Calm	11:19	5.0	S	0.6	168.1	28.3	28.3	19.5	19.5	7.8	7.8	70.3	70.3	4.9	4.9	4.9		7.2	6.8	26.9	6.2	6.4	44.1
											0.6	168.1	28.3	19.6	19.5	7.8	7.8	70.4	70.3	4.9	4.9	4.9	6.5		6.8	26.9	6.6	6.4		
											0.1	109.9	27.9	23.0	23.0	7.8	7.8	68.4	67.3	4.7	4.7	4.7	45.2		46.9	26.9	85.0	81.9		
B	0.2	49.1	27.9	23.0						23.0	7.8	7.8	66.3	67.3	4.6	4.6	4.6	48.6	46.9	26.9	78.7	81.9								
	0.3	286.0	26.9	29.3						29.3	7.8	7.8	82.0	81.9	5.6	5.6	5.6	4.0	4.0	6.1	2.9	3.1								
	0.3	286.0	26.9	29.3						29.3	7.8	7.8	81.8	81.9	5.6	5.6	5.6	4.0	4.0	6.1	3.3	3.1								
F1	Rainy	Moderate	08:31	19.8	M	0.2	10.1	27.3	27.3	31.0	31.1	8.0	8.0	89.6	89.5	6.0	6.0	6.0	2.2	2.3	6.1	2.2	2.3	7.0						
						0.2	10.1	27.3	31.0	31.1	8.0	8.0	89.5	89.5	6.0	6.0	6.0	2.3	2.3	6.1	2.4	2.3								
						0.1	294.4	27.4	31.5	31.5	8.0	8.0	86.5	86.5	5.7	5.7	5.7	12.5	12.2	6.1	14.4	15.5								
					B	0.4	343.6	27.4	31.5	31.5	8.0	8.0	86.4	86.5	5.7	5.7	5.7	11.9	12.2	6.1	16.6	15.5								
						0.2	279.0	27.0	29.3	29.3	7.9	7.9	86.5	86.3	5.9	5.8	6.0	3.0	3.0	6.1	1.4	1.8								
						0.2	279.0	27.0	29.4	29.3	7.9	7.9	86.2	86.3	5.8	5.8	6.0	3.0	3.0	6.1	2.2	1.8								
F2	Rainy	Moderate	09:00	19.3	M	0.3	72.9	27.4	27.4	30.9	30.9	8.0	8.0	91.8	92.0	6.1	6.1	6.1	2.2	1.9	6.1	1.1	1.3	5.6						
						0.4	339.8	27.4	30.9	30.9	8.0	8.0	92.2	92.0	6.1	6.1	6.1	1.7	1.9	6.1	1.5	1.3								
						0.4	288.0	27.6	31.6	31.6	8.1	8.1	90.1	90.1	6.0	6.0	6.0	13.0	13.4	6.1	12.7	13.7								
					B	0.4	288.0	27.6	31.6	31.6	8.1	8.1	90.0	90.1	6.0	6.0	6.0	13.9	13.4	6.1	14.6	13.7								

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Rainy	Moderate	10:24	17.5	S	0.1	286.5	27.2	27.2	29.8	29.9	7.9	7.9	92.6	92.6	6.2	6.2	6.2	2.5	2.4	6.4	2.2	2.2	7.7
						0.1	286.5	27.2	29.9	7.9		92.7		6.2		2.3								
						0.3	233.4	27.8	31.7	8.1		93.1		6.1		3.6								
					M	0.2	327.9	27.8	31.7	8.1	93.2	6.1	3.6	6.0	6.0	6.0	12.9	13.1	13.1	7.0	6.9			
						0.2	241.6	27.7	31.7	8.0	90.3	6.0	6.8											
						0.4	247.3	27.7	31.7	8.0	90.0	5.9	15.0											
F4	Cloudy	Rough	08:38	12.6	S	0.5	260.0	27.2	27.2	29.8	29.8	8.1	8.1	86.0	86.0	5.8	5.8	5.8	5.3	5.4	9.3	12.2	11.7	10.0
						0.5	284.0	27.2	29.8	8.1		86.0		5.8		11.1								
						0.4	273.0	27.2	29.9	8.1		85.5		5.8		9.1								
					M	0.4	287.0	27.2	29.9	8.1	85.5	5.8	4.6	5.6	5.6	5.6	4.6	4.6	17.9	8.6	8.9			
						0.3	280.0	27.2	30.2	8.1	83.4	5.6	9.9											
						0.4	289.0	27.2	30.2	8.1	83.5	5.6	9.1											
F5	Rainy	Rough	11:20	6.5	S	0.6	22.0	27.7	27.7	24.5	24.5	8.0	8.0	82.5	82.5	5.7	5.7	5.5	4.6	4.6	21.6	5.6	5.3	15.5
						0.6	23.0	27.7	24.5	8.0		82.5		5.7		5.0								
						0.5	27.0	27.5	26.3	8.0		79.3		5.4		17.8								
					M	0.6	29.0	27.5	26.3	8.0	79.3	5.4	18.2	5.4	5.4	5.4	22.0	22.2	22.2	24.8	18.0			
						0.3	21.0	27.5	26.8	8.0	79.2	5.4	23.2											
						0.3	22.0	27.5	26.8	8.0	79.3	5.4	21.5											
F6	Cloudy	Calm	08:47	13.5	S	0.9	36.7	28.3	28.3	18.9	18.9	7.7	7.7	73.2	73.4	5.1	5.1	4.9	5.5	5.4	26.6	6.6	7.1	30.3
						0.9	36.7	28.3	18.8	7.7		73.6		5.2		7.6								
						0.4	270.3	27.7	24.4	7.8		68.2		4.7		13.4								
					M	0.1	242.4	27.7	24.4	7.8	68.3	4.7	11.2	7.8	7.8	7.8	12.0	12.1	12.1	12.3	12.3			
						0.2	249.1	27.5	25.5	7.8	66.4	4.6	76.8											
						0.4	209.2	27.5	25.6	7.8	66.0	4.5	66.1											
IM1	Rainy	Moderate	08:11	9.6	S	0.1	311.7	27.4	27.4	30.7	30.7	7.9	7.9	86.2	86.1	5.7	5.7	5.7	3.7	3.7	5.5	3.5	3.6	6.6
						0.1	311.7	27.4	30.7	7.9		86.0		5.7		3.7								
						0.1	166.1	27.3	31.0	8.0		84.3		5.6		4.0								
					M	0.4	339.4	27.3	31.0	8.0	84.1	5.6	3.8	5.6	5.6	5.6	8.5	8.9	8.9	4.5	4.5			
						0.4	285.9	27.3	31.3	8.0	83.8	5.5	15.4											
						0.4	285.9	27.3	31.3	8.0	83.3	5.5	8.0											
IM2	Rainy	Moderate	07:49	11.3	S	0.3	238.3	26.7	26.7	28.5	28.5	7.8	7.8	75.1	75.1	5.1	5.1	5.1	4.7	4.8	10.2	6.0	6.1	11.1
						0.3	238.3	26.7	28.5	7.8		75.2		5.1		6.2								
						0.3	197.5	26.8	29.0	7.8		75.0		5.1		12.4								
					M	0.3	197.5	26.8	29.1	7.8	74.8	5.1	13.9	5.3	5.3	5.3	10.3	10.3	10.3	13.2	13.2			
						0.2	242.1	27.1	31.1	8.0	79.1	5.3	15.1											
						0.2	292.9	27.1	31.2	8.0	79.5	5.3	13.0											
IM3	Rainy	Moderate	09:24	14.8	S	0.5	264.5	26.8	26.8	28.1	28.1	7.8	7.8	81.8	81.7	5.6	5.6	5.4	4.3	4.2	8.4	2.8	2.8	9.7
						0.5	264.5	26.8	28.1	7.8		81.7		5.6		2.8								
						0.4	235.8	27.1	30.3	7.9		78.9		5.3		9.5								
					M	0.4	260.1	27.1	30.1	7.9	79.1	5.3	8.7	7.9	7.9	7.9	7.0	7.4	7.4	9.1	9.1			
						0.2	265.1	27.3	31.3	8.0	84.7	5.6	18.2											
						0.3	33.8	27.3	31.3	8.0	84.6	5.6	16.0											
IM4	Rainy	Moderate	09:44	16.7	S	0.6	260.8	27.0	27.0	29.0	29.0	7.8	7.8	84.9	84.8	5.8	5.8	5.8	4.0	4.1	8.0	2.1	2.6	8.5
						0.6	260.8	27.0	28.9	7.8		84.8		5.8		3.0								
						0.4	241.3	27.3	31.1	8.0		87.5		5.8		6.8								
					M	0.4	248.1	27.2	30.6	8.0	86.5	5.8	5.9	8.0	8.0	8.0	6.1	6.0	6.0	6.4	6.4			
						0.2	288.3	27.5	31.6	8.1	88.0	5.8	17.1											
						0.3	322.7	27.5	31.6	8.1	87.9	5.8	16.2											
IM5	Rainy	Moderate	10:03	15.7	S	0.3	306.8	27.1	27.1	29.5	29.5	7.8	7.8	89.1	89.0	6.0	6.0	6.0	3.5	3.5	7.5	3.4	3.5	7.9
						0.3	306.8	27.1	29.5	7.8		88.9		6.0		3.5								
						0.4	271.8	27.2	30.3	7.9		89.9		6.0		3.7								
					M	0.4	271.8	27.2	30.3	7.9	89.8	6.0	4.0	6.0	6.0	6.0	2.6	2.6	2.6	3.9	3.9			
						0.1	351.5	27.5	31.6	8.0	90.0	6.0	15.1											
						0.2	292.5	27.5	31.6	8.0	89.8	5.9	17.4											

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM6	Rainy	Moderate	10:37	16.3	S	0.6	293.6	27.2	27.2	29.9	29.9	7.9	7.9	92.7	92.7	6.2	6.2	6.2	14.8	14.7	16.4	2.1	1.8	3.9			
						0.6	293.6	27.2	27.2	29.9	29.9	7.9	7.9	92.7	92.7	6.2	6.2		14.7	14.7		1.5	1.5				
					M	0.4	220.9	27.6	27.6	31.5	31.5	8.1	8.1	93.5	93.6	6.2	6.2	6.0	15.1	15.1	6.0	19.2	19.4		6.0	3.2	2.7
						0.5	238.5	27.6	27.6	31.4	31.7	8.1	8.1	93.6	93.6	6.2	6.2		15.1	15.1		7.0	7.3				
					B	0.2	230.7	27.6	27.6	31.7	31.7	8.1	8.1	90.9	90.9	6.0	6.0	6.0	19.2	19.4	6.0	19.7	19.4		6.0	7.6	7.3
						0.3	258.3	27.6	27.6	31.7	31.7	8.1	8.1	90.9	90.9	6.0	6.0		19.7	19.4		7.6	7.3				
IM7	Rainy	Moderate	11:05	13.0	S	0.5	258.5	27.4	27.4	30.3	30.3	8.0	8.0	95.3	95.3	6.4	6.4	6.3	1.9	1.9	5.6	0.5	0.5	5.9			
						0.7	272.8	27.4	27.4	30.3	30.3	8.0	8.0	95.3	95.3	6.4	6.4		1.9	1.9		0.5	0.5				
					M	0.4	276.8	27.5	27.5	31.0	31.0	8.0	8.0	94.3	94.3	6.3	6.3	6.0	2.3	2.3	6.0	13.3	12.5		6.0	0.5	0.5
						0.4	276.8	27.5	27.5	31.0	31.0	8.0	8.0	94.2	94.3	6.3	6.3		2.3	2.3		0.5	0.5				
					B	0.2	255.1	27.6	27.6	31.6	31.6	8.1	8.1	90.7	90.7	6.0	6.0	6.0	13.3	12.5	6.0	17.9	16.8		6.0	15.7	16.8
						0.2	299.4	27.6	27.6	31.6	31.6	8.1	8.1	90.7	90.7	6.0	6.0		11.7	12.5		15.7	16.8				
IM8	Rainy	Moderate	10:54	14.8	S	0.6	285.4	27.2	27.2	29.8	29.8	7.9	7.9	93.3	93.3	6.3	6.3	6.2	79.5	79.5	81.6	0.5	0.5	6.5			
						0.6	285.4	27.2	27.2	29.8	29.8	7.9	7.9	93.4	93.3	6.3	6.3		79.5	79.5		0.5	0.5				
					M	0.3	223.4	27.5	27.5	31.3	31.3	8.0	8.0	92.5	92.6	6.1	6.1	5.9	80.6	80.3	5.9	80.0	80.3		5.9	0.5	0.5
						0.2	271.6	27.5	27.5	31.3	31.3	8.0	8.0	92.7	92.6	6.2	6.1		80.0	80.3		0.5	0.5				
					B	0.4	275.4	27.6	27.6	31.6	31.6	8.1	8.1	89.5	89.5	5.9	5.9	5.9	81.7	85.0	5.9	88.3	85.0		5.9	17.4	18.6
						0.5	291.7	27.6	27.6	31.6	31.6	8.1	8.1	89.4	89.5	5.9	5.9		88.3	85.0		19.7	18.6				
IM9	Rainy	Moderate	09:10	14.8	S	0.5	282.0	27.3	27.3	30.1	30.1	8.1	8.1	87.9	87.9	5.9	5.9	5.8	3.0	3.0	12.9	4.8	5.3	26.3			
						0.5	301.0	27.3	27.3	30.1	30.1	8.1	8.1	87.9	87.9	5.9	5.9		3.0	3.0		5.8	5.3				
					M	0.5	290.0	27.3	27.3	30.3	30.3	8.1	8.1	86.8	86.8	5.8	5.8	5.6	3.3	3.3	5.6	3.3	3.3		5.6	7.7	7.3
						0.5	317.0	27.3	27.3	30.3	30.3	8.1	8.1	86.8	86.8	5.8	5.8		3.3	3.3		6.8	6.8				
					B	0.4	293.0	27.4	27.4	30.7	30.7	8.1	8.1	84.5	84.5	5.6	5.6	5.6	32.4	32.5	5.6	32.7	32.5		5.6	62.9	66.4
						0.5	315.0	27.4	27.4	30.7	30.7	8.1	8.1	84.5	84.5	5.6	5.6		32.7	32.5		69.8	66.4				
IM10	Rainy	Rough	09:52	12.2	S	1.3	249.0	27.2	27.2	29.9	29.9	8.1	8.1	86.0	86.0	5.8	5.8	5.7	5.1	5.1	38.4	5.7	6.1	38.6			
						1.3	270.0	27.2	27.2	29.9	29.9	8.1	8.1	86.0	86.0	5.8	5.8		5.1	5.1		6.4	6.1				
					M	1.1	247.0	27.2	27.2	30.1	30.1	8.1	8.1	83.7	83.7	5.6	5.6	5.6	36.7	36.7	5.6	36.8	36.7		5.6	49.0	52.6
						1.1	253.0	27.2	27.2	30.1	30.1	8.1	8.1	83.7	83.7	5.6	5.6		36.8	36.7		56.2	52.6				
					B	0.9	246.0	27.2	27.2	30.1	30.1	8.1	8.1	83.1	83.1	5.6	5.6	5.6	73.9	73.4	5.6	73.9	73.4		5.6	52.8	57.0
						1.0	249.0	27.2	27.2	30.1	30.1	8.1	8.1	83.1	83.1	5.6	5.6		73.9	73.4		61.2	57.0				
IM11A	Rainy	Rough	10:01	6.2	S	0.7	312.0	27.2	27.2	29.9	29.9	8.1	8.1	83.5	83.5	5.6	5.6	5.6	74.9	74.7	73.3	92.5	92.5	92.5			
						0.8	319.0	27.2	27.2	29.9	29.9	8.1	8.1	83.5	83.5	5.6	5.6		74.6	74.7		156.0^	-				
					M	0.8	312.0	27.2	27.2	30.0	30.0	8.1	8.1	83.2	83.2	5.6	5.6	5.5	64.7	64.7	5.5	64.7	64.7		5.5	170.0^	-
						0.9	316.0	27.2	27.2	30.0	30.0	8.1	8.1	83.2	83.2	5.6	5.6		64.7	64.7		154.0^	-				
					B	0.7	317.0	27.2	27.2	30.1	30.1	8.1	8.1	81.9	81.9	5.5	5.5	5.5	80.9	80.5	5.5	80.0	80.5		5.5	278.0^	-
						0.8	327.0	27.2	27.2	30.1	30.1	8.1	8.1	81.9	81.9	5.5	5.5		80.0	80.5		238.0^	-				
IM12	Rainy	Rough	10:09	14.3	S	1.1	331.0	27.2	27.2	30.1	30.1	8.1	8.1	82.5	82.5	5.5	5.5	5.5	32.2	32.4	38.3	50.4	55.1	63.7			
						1.1	347.0	27.2	27.2	30.1	30.1	8.1	8.1	82.5	82.5	5.5	5.5		32.6	32.4		59.7	55.1				
					M	1.0	334.0	27.2	27.2	30.1	30.1	8.1	8.1	82.2	82.2	5.5	5.5	5.5	40.6	40.4	5.5	40.2	40.4		5.5	58.8	64.3
						1.0	359.0	27.2	27.2	30.1	30.1	8.1	8.1	82.2	82.2	5.5	5.5		40.2	40.4		69.7	64.3				
					B	0.9	337.0	27.2	27.2	30.1	30.1	8.1	8.1	82.1	82.1	5.5	5.5	5.5	42.1	42.2	5.5	42.2	42.2		5.5	67.1	71.7
						0.9	337.0	27.2	27.2	30.1	30.1	8.1	8.1	82.1	82.1	5.5	5.5		42.2	42.2		76.2	71.7				
IM13	Cloudy	Rough	10:33	16.6	S	0.3	340.0	27.9	27.9	22.5	22.5	8.0	8.0	80.2	80.2	5.6	5.6	5.5	4.2	4.2	5.8	7.2	7.1	10.0			
						0.3	358.0	27.9	27.9	22.5	22.5	8.0	8.0	80.2	80.2	5.6	5.6		4.2	4.2		6.9	7.1				
					M	1.0	9.0	27.4	27.4	27.6	27.5	8.1	8.1	81.4	81.4	5.5	5.5	5.4	6.4	6.5	5.4	6.5	6.5		5.4	10.4	11.0
						1.0	9.0	27.4	27.4	27.5	27.5	8.1	8.1	81.4	81.4	5.5	5.5		6.5	6.5		11.5	11.0				
					B	0.8	8.0	27.2	27.2	29.8	29.8	8.1	8.1	80.7	80.7	5.4	5.4	5.4	6.6	6.7	5.4	6.8	6.7		5.4	11.2	12.1
						0.8	8.0	27.2	27.2	29.8	29.8	8.1	8.1	80.7	80.7	5.4	5.4		6.8	6.7		12.9	12.1				
IM14	Cloudy	Moderate	10:41	11.0	S	0.2	32.0	27.9	27.9	21.5	21.5	7.9	7.9	80.4	80.4	5.6	5.6	5.6	3.5	3.5	6.7	8.1	7.8	11.7			
						0.2	34.0	27.9	27.9	21.5	21.5	7.9	7.9	80.4	80.4	5.6	5.6		3.5	3.5		7.5	7.8				
					M	0.5	35.0	27.7	27.7	23.8	23.8	8.0	8.0	80.4	80.5	5.5	5.5	5.4	5.1	5.1	5.4	5.1	5.1		5.4	7.9	8.4
						0.6	38.0	27.7	27.7	23.8	23.8	8.0	8.0	80.5	80.5	5.6	5.5		5.1	5.1		8.9	8.4				
					B	0.3	3.0	27.3	27.3	29.4	29.4	8.1	8.1	80.6	80.6	5.4	5.4	5.4	11.5	11.4	5.4	11.5	11.4		5.4	17.4	18.8
						0.3	3.0	27.3	27.3	29.4	29.4	8.1	8.1	80.6	80.6	5.4	5.4		11.4	11.4		20.2	18.8				

Water Quality Monitoring Data Log Sheet

Date: 2019/09/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM15	Cloudy	Calm	07:55	5.5	S	1.0	266.1	28.0	28.0	22.3	22.3	7.8	7.8	75.5	75.5	5.2	5.2	5.2	14.4	14.1	17.0	17.5	16.4	21.1			
						1.0	266.0	28.0	28.0	22.3	22.3	7.8	7.8	75.4	75.4	5.2	5.2	5.2	13.9	15.3							
					B	0.6	237.8	27.9	27.9	24.2	24.1	7.7	7.8	76.8	76.5	5.3	5.2	5.2	19.5	20.0		19.5			20.0	27.3	25.7
						0.8	242.0	27.9	27.9	24.0	24.0	7.8	7.8	76.2	76.5	5.2	5.2	5.2	20.4	20.0		20.4			20.0	24.1	25.7
IM16A	Cloudy	Calm	08:23	6.5	S	0.3	201.9	28.1	28.1	19.1	19.4	7.8	7.8	72.1	72.0	5.1	5.0	4.9	11.9	11.6	11.9	11.9	16.6	15.2			
						0.6	134.5	28.1	28.1	19.7	21.0	7.8	7.8	71.8	72.0	5.0	4.9	4.9	11.3	11.5							
					M	0.3	291.6	28.0	27.9	21.0	21.2	7.8	7.8	68.5	68.3	4.8	4.8	4.8	11.3	11.5		11.3			11.5	14.3	14.6
						0.2	259.3	27.9	27.9	21.4	21.4	7.8	7.8	68.1	68.3	4.7	4.8	4.8	11.8	11.5		11.8			11.5	14.8	14.6
					B	0.6	262.2	27.9	27.9	22.2	22.2	7.8	7.8	70.9	70.0	4.9	4.9	4.9	12.9	12.7		12.9			12.7	13.7	14.5
						0.7	248.9	27.9	27.9	22.2	22.2	7.8	7.8	69.1	70.0	4.8	4.9	4.9	12.5	12.7		12.5			12.7	15.3	14.5
IM17	Cloudy	Calm	09:37	4.5	S	0.9	278.7	28.4	28.4	15.7	15.6	7.7	7.7	67.0	67.4	4.8	4.8	4.8	7.0	6.7	8.7	8.0	8.5	11.3			
						0.9	278.7	28.4	28.4	15.5	15.6	7.7	7.7	67.8	67.4	4.8	4.8	4.8	6.4	6.7							
					B	0.6	295.0	28.2	28.2	18.3	18.1	7.7	7.7	64.9	64.5	4.6	4.6	4.6	11.5	10.7		11.5			10.7	14.8	14.2
						0.4	335.1	28.3	28.2	17.9	18.1	7.7	7.7	64.2	64.5	4.5	4.6	4.6	10.0	10.7		10.0			10.7	13.5	14.2
IM18	Cloudy	Calm	09:24	16.5	S	0.6	292.0	28.4	28.4	16.7	16.6	7.7	7.7	64.7	64.9	4.6	4.6	4.5	7.4	7.1	31.1	9.1	8.6	27.9			
						0.6	292.0	28.4	28.4	16.4	16.6	7.7	7.7	65.1	64.9	4.6	4.6	4.5	6.9	7.1							
					M	0.3	292.2	27.8	27.8	24.6	24.5	7.8	7.8	65.1	65.1	4.5	4.5	4.5	15.3	15.2		15.3			15.2	15.4	16.3
						0.2	80.6	27.8	27.8	24.3	24.5	7.8	7.8	65.1	65.1	4.5	4.5	4.5	15.1	15.2		15.1			15.2	17.1	16.3
					B	0.9	325.5	27.6	27.6	25.5	25.5	7.8	7.8	65.2	65.1	4.5	4.5	4.5	67.9	71.1		67.9			71.1	54.6	58.9
						0.7	334.3	27.6	27.6	25.5	25.5	7.9	7.8	65.1	65.1	4.5	4.5	4.5	74.3	71.1		74.3			71.1	63.2	58.9
IM19	Cloudy	Calm	10:04	17.0	S	0.2	347.6	28.4	28.4	16.8	16.8	7.7	7.7	68.3	67.9	4.8	4.8	4.8	5.9	5.8	21.9	7.8	8.1	34.6			
						0.5	354.0	28.4	28.4	16.8	16.8	7.7	7.7	67.6	67.9	4.8	4.8	4.8	5.6	5.8							
					M	1.4	13.9	28.1	28.0	23.7	23.9	7.8	7.8	70.9	70.8	4.9	4.9	4.9	7.9	7.4		7.9			7.4	8.9	8.4
						0.4	4.3	28.0	28.0	24.1	23.9	7.8	7.8	70.8	70.8	4.9	4.9	4.9	7.0	7.4		7.0			7.4	7.9	8.4
					B	0.8	346.8	27.5	27.5	25.7	25.7	7.8	7.8	65.4	65.4	4.5	4.5	4.5	53.8	52.6		53.8			52.6	92.5	87.2
						1.0	22.4	27.5	27.5	25.7	25.7	7.8	7.8	65.4	65.4	4.5	4.5	4.5	51.4	52.6		51.4			52.6	81.9	87.2
IM20A	Cloudy	Calm	11:05	4.5	S	0.4	96.2	29.0	29.1	17.2	17.3	7.7	7.7	74.8	75.5	5.2	5.3	5.3	11.6	12.0	14.5	9.9	9.4	15.7			
						0.9	26.7	29.2	29.1	17.5	17.3	7.7	7.7	76.3	75.5	5.3	5.3	5.3	12.4	12.0							
					B	0.2	316.5	28.1	28.1	21.2	21.3	7.7	7.7	70.6	70.0	4.9	4.9	4.9	16.1	17.1		16.1			17.1	23.1	21.9
						0.7	306.2	28.1	28.1	21.5	21.3	7.7	7.7	69.4	70.0	4.8	4.9	4.9	18.1	17.1		18.1			17.1	20.7	21.9
IM21A	Cloudy	Calm	10:56	4.0	S	0.8	192.2	29.7	29.7	18.9	18.9	7.7	7.7	78.9	79.0	5.4	5.4	5.4	27.9	28.4	28.9	35.8	38.2	40.1			
						0.2	202.0	29.7	29.7	18.9	18.9	7.7	7.7	79.2	79.0	5.4	5.4	5.4	28.8	28.4							
					B	0.2	179.7	29.6	29.7	19.2	19.1	7.7	7.7	79.6	79.2	5.5	5.4	5.4	29.0	29.5		29.0			29.5	45.0	42.0
						0.8	27.8	29.7	29.7	19.1	19.1	7.7	7.7	78.7	79.2	5.4	5.4	5.4	30.0	29.5		30.0			29.5	39.0	42.0
IM22A	Cloudy	Calm	10:50	4.5	S	0.5	233.0	28.4	28.4	17.1	17.2	7.7	7.7	70.8	70.7	5.0	5.0	5.0	7.7	7.0	30.5	11.2	11.8	47.7			
						0.5	233.0	28.4	28.4	17.2	17.2	7.7	7.7	70.5	70.7	5.0	5.0	5.0	6.3	7.0							
					B	0.4	56.4	28.0	28.0	22.5	22.4	7.8	7.8	68.5	68.3	4.7	4.7	4.7	57.7	53.9		57.7			53.9	81.0	83.6
						0.4	56.4	28.0	28.0	22.4	22.4	7.8	7.8	68.1	68.3	4.7	4.7	4.7	50.1	53.9		50.1			53.9	86.2	83.6

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
E1	Fine	Calm	07:50	8.5	S	0.3	169.3	27.1	27.1	28.6	28.6	7.9	7.9	75.5	75.4	5.1	5.1	4.9	4.2	4.2	9.2	4.0	4.4	10.4		
						0.3	169.3	27.1	27.1	28.6	28.6	7.9	7.9	75.3	75.3	5.1	5.1	4.9	4.2	4.2						
						0.4	201.6	27.2	27.2	28.9	28.9	7.9	7.9	70.2	70.2	4.7	4.7	4.9	4.2	4.2						
					M	0.3	194.2	27.2	27.2	29.0	29.0	7.9	7.9	70.2	70.2	4.7	4.7	4.5	4.5	4.5	4.2	4.2	18.4	5.8	5.9	20.9
						0.5	209.1	27.4	27.4	31.0	31.0	8.0	8.0	69.0	68.8	4.6	4.5	4.5	4.5	4.5	16.9	19.9				
						0.5	209.1	27.4	27.4	31.1	31.0	8.1	8.0	67.8	68.8	4.5	4.5	4.5	4.5	4.5	19.9	19.9				
E2	Fine	Calm	02:56	9.5	S	0.5	147.0	27.6	27.6	29.4	29.3	7.9	7.9	86.9	86.9	5.8	5.8	5.8	5.1	5.0	13.7	6.9	6.6	18.4		
						0.5	147.0	27.6	27.6	29.3	29.3	7.9	7.9	86.9	86.9	5.8	5.8	5.8	5.1	5.0						
						1.0	345.3	27.7	27.7	29.5	29.5	7.9	7.9	85.6	85.9	5.7	5.7	5.7	5.5	5.5						
					M	1.0	345.3	27.7	27.7	29.5	29.5	7.9	7.9	86.3	86.3	5.8	5.7	5.7	5.5	5.5	30.3	13.3	12.8	35.9		
						0.4	125.1	27.4	27.4	30.6	30.4	7.9	7.9	63.5	64.2	4.2	4.3	4.3	32.1	28.5						
						0.4	125.1	27.5	27.4	30.3	30.4	7.9	7.9	64.9	64.2	4.3	4.3	4.3	32.1	28.5						
E3	Fine	Calm	03:51	17.0	S	0.2	133.8	27.6	27.6	30.0	30.0	8.0	8.0	86.7	87.0	5.8	5.8	5.7	5.0	4.9	6.4	5.5	5.6	7.3		
						0.2	159.1	27.6	27.6	30.0	30.0	8.0	8.0	87.2	87.0	5.8	5.8	5.7	5.0	4.9						
						0.1	105.4	27.7	27.7	30.6	30.7	8.1	8.1	83.1	83.3	5.5	5.5	5.5	6.0	6.4						
					M	0.1	105.4	27.7	27.7	30.7	30.7	8.1	8.1	83.4	83.3	5.5	5.5	5.5	6.8	6.4	10.1	6.6	6.9	14.3		
						0.1	251.6	27.7	27.7	31.2	31.2	8.1	8.1	82.3	82.0	5.4	5.4	5.4	7.7	8.0						
						0.1	251.6	27.7	27.7	31.2	31.2	8.1	8.1	81.7	82.0	5.4	5.4	5.4	8.3	8.0						
E4	Cloudy	Calm	06:55	11.5	S	0.7	189.3	27.7	27.7	27.2	27.2	8.2	8.2	80.5	81.0	5.4	5.5	5.4	4.1	3.9	10.1	4.2	4.4	14.3		
						0.4	204.4	27.7	27.7	27.3	27.2	8.2	8.2	81.5	81.0	5.5	5.5	5.4	3.7	3.9						
						0.4	161.9	27.6	27.6	29.7	29.7	8.2	8.2	80.0	80.0	5.3	5.3	5.4	7.8	7.2						
					M	0.6	185.3	27.6	27.6	29.7	29.7	8.2	8.2	79.9	80.0	5.3	5.3	5.4	6.7	7.2	19.2	9.9	9.5	29.0		
						0.3	193.2	27.6	27.6	29.9	29.9	8.2	8.2	80.3	80.1	5.4	5.3	5.3	18.7	19.2						
						0.7	191.9	27.6	27.6	29.9	29.9	8.2	8.2	79.9	80.1	5.3	5.3	5.3	19.7	19.2						
E5	Cloudy	Calm	05:48	6.5	S	1.0	190.5	27.8	27.8	24.7	24.6	8.1	8.1	84.0	84.2	5.8	5.8	5.6	2.8	2.7	4.4	2.7	2.5	5.8		
						1.0	190.5	27.8	27.8	24.5	24.6	8.1	8.1	84.4	84.2	5.8	5.8	5.6	2.5	2.7						
						0.2	91.3	27.8	27.8	27.2	27.1	8.1	8.1	81.7	81.7	5.5	5.5	5.5	4.6	4.6						
					M	0.3	357.5	27.8	27.8	27.1	27.1	8.1	8.1	81.7	81.7	5.5	5.5	5.5	4.6	4.6	5.5	5.6	5.9	9.8		
						0.3	91.2	27.8	27.8	28.1	28.1	8.1	8.1	82.0	81.2	5.5	5.5	5.5	6.2	5.9						
						0.3	219.4	27.8	27.8	28.1	28.1	8.1	8.1	80.5	81.2	5.5	5.5	5.5	6.2	5.9						
E6	Cloudy	Calm	03:50	6.5	S	0.5	25.2	28.1	28.1	21.2	21.1	7.9	7.9	77.8	77.9	5.4	5.4	5.2	3.7	3.6	4.6	3.5	3.6	5.2		
						0.5	25.2	28.1	28.1	21.1	21.1	7.9	7.9	77.9	77.9	5.4	5.4	5.2	3.5	3.6						
						0.9	209.2	28.0	28.0	23.3	23.4	7.9	7.9	73.1	73.0	5.0	5.0	5.1	5.1	5.1						
					M	0.7	153.0	28.0	28.0	23.6	23.4	7.9	7.9	72.8	73.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1	7.4		
						0.9	197.7	27.9	27.9	24.8	24.5	7.9	7.9	75.5	74.0	5.2	5.1	5.1	4.8	5.2						
						0.2	290.1	27.9	27.9	24.2	24.5	7.9	7.9	72.5	74.0	5.0	5.1	5.1	5.5	5.2						
E7A	Cloudy	Calm	03:00	5.5	S	0.9	156.5	28.2	28.2	21.9	21.8	7.8	7.8	73.8	73.9	5.1	5.1	5.1	5.1	5.2	4.5	4.7	4.7	5.6		
						0.9	156.5	28.2	28.2	21.7	21.8	7.8	7.8	74.0	73.9	5.1	5.1	5.1	5.1	5.2						
						0.3	71.0	27.8	27.8	25.5	25.4	7.8	7.8	82.0	78.2	5.6	5.3	5.3	3.9	3.9						
					B	0.3	71.0	27.9	27.8	25.4	25.4	7.8	7.8	74.4	78.2	5.1	5.3	5.3	3.9	3.9	5.4	6.2	6.5	11.0		
						0.2	156.0	27.2	27.4	29.0	29.3	7.9	7.9	78.4	78.7	5.3	5.3	5.4	4.2	4.1						
						0.2	156.0	27.6	27.4	29.6	29.3	7.9	7.9	79.0	78.7	5.3	5.3	5.4	4.1	4.1						
F1	Fine	Calm	06:56	20.3	S	0.2	156.0	27.2	27.4	29.0	29.3	7.9	7.9	78.4	78.7	5.3	5.3	5.4	4.2	4.1	8.9	4.8	4.6	6.8		
						0.2	156.0	27.6	27.4	29.6	29.3	7.9	7.9	79.0	78.7	5.3	5.3	5.4	4.1	4.1						
						0.3	135.2	27.6	27.6	31.3	31.3	8.1	8.1	84.2	84.3	5.6	5.6	5.6	2.4	2.4						
					M	0.6	151.9	27.6	27.6	31.3	31.3	8.1	8.1	84.4	84.3	5.6	5.6	5.6	2.4	2.4	20.2	5.1	5.4	10.6		
						0.3	103.2	27.5	27.5	31.7	31.6	8.1	8.1	73.9	73.2	4.9	4.8	4.8	20.8	19.6						
						0.3	121.4	27.5	27.5	31.5	31.6	8.1	8.1	72.5	73.2	4.8	4.8	4.8	19.6	19.6						
F2	Fine	Calm	06:26	19.4	S	0.2	183.0	27.4	27.4	29.3	29.2	7.9	7.9	84.2	84.3	5.7	5.7	5.6	3.1	3.1	5.0	2.5	2.7	5.1		
						0.2	183.0	27.4	27.4	29.2	29.2	7.9	7.9	84.4	84.3	5.7	5.7	5.6	3.1	3.1						
						0.2	31.8	27.6	27.6	31.5	31.5	8.1	8.1	82.6	82.8	5.5	5.5	5.5	4.2	3.9						
					M	0.2	31.8	27.6	27.6	31.5	31.5	8.1	8.1	82.9	82.8	5.5	5.5	5.5	3.7	3.9	7.9	4.4	4.5	8.1		
						0.2	45.4	27.6	27.6	31.5	31.5	8.1	8.1	81.9	81.8	5.4	5.4	5.4	7.8	7.9						
						0.1	134.4	27.6	27.6	31.5	31.5	8.1	8.1	81.7	81.8	5.4	5.4	5.4	8.0	7.9						

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
F3	Fine	Calm	05:09	18.0	S	0.2	157.5	27.4	27.4	29.6	29.6	8.0	8.0	83.1	83.0	5.6	5.6	5.5	3.0	2.9	7.0	4.1	3.9	11.1
						0.2	305.6	27.4		29.5		82.8		5.6		2.8								
						0.1	326.3	27.6		31.5		81.2		5.4		5.1								
					M	0.1	68.5	27.6	31.5	81.1	81.2	5.4	4.9	5.1	5.5	5.3								
						0.2	105.2	27.6	31.5	81.1	81.4	5.4	4.7	5.1	5.5	24.0								
						0.2	105.2	27.6	31.5	81.1	81.4	5.1	5.1	5.1	13.7	24.8								
B	0.1	81.4	27.6	29.6	8.0	88.8	5.9	5.9	4.2	3.0	3.1													
	0.1	81.4	27.6	29.6	8.0	89.0	5.9	5.9	4.1	3.2	3.1													
	0.1	95.2	27.6	30.0	8.0	83.9	5.6	6.6	6.6	6.2	6.2													
F4	Fine	Calm	03:19	14.0	S	0.1	81.4	27.6	27.6	29.6	29.6	8.0	8.0	88.8	88.9	5.9	5.9	5.8	4.2	6.8	3.0	3.1	7.0	
						0.1	81.4	27.6		29.6		8.0		89.0		5.9		5.9	4.1		3.2			
						0.1	95.2	27.6		30.0		8.0		83.9		5.6		6.6	6.6		6.2			6.2
					M	0.1	95.2	27.6	30.0	8.0	84.0	5.6	6.6	6.6	6.2	6.2								
						0.1	154.2	27.6	30.1	8.0	82.9	5.5	9.3	11.2	11.6									
						0.1	154.2	27.6	30.1	8.0	82.6	5.5	9.6	12.0	11.6									
B	0.1	154.2	27.6	27.6	30.1	8.0	8.0	82.9	5.5	9.3	11.2													
	0.1	154.2	27.6	27.6	30.1	8.0	8.0	82.6	5.5	9.6	12.0													
	0.1	154.2	27.6	27.6	30.1	8.0	8.0	82.6	5.5	9.6	12.0													
F5	Cloudy	Calm	06:26	6.0	S	0.5	206.7	27.8	27.8	26.5	26.4	8.2	8.2	83.9	84.6	5.7	5.7	5.6	2.3	4.1	4.6	4.5	6.6	
						0.5	206.7	27.8		26.4		8.2		85.2		5.8		2.0	4.4					
						0.6	287.4	27.7		28.2		8.2		79.9		5.4		3.8	5.8		5.4			
					M	0.1	341.2	27.7	28.1	8.2	80.1	5.4	3.6	5.0	5.4									
						0.8	154.5	27.7	28.7	8.2	81.6	5.5	6.1	9.8	9.9									
						0.2	155.0	27.7	27.7	28.7	8.2	79.0	5.3	6.5	10.0									
B	0.2	155.0	27.7	27.7	28.7	8.2	8.2	79.0	5.3	6.5	10.0													
	0.5	130.3	28.2	28.2	23.3	7.9	7.9	77.0	5.3	3.6	7.3													
	0.5	130.3	28.2	28.2	23.7	7.9	7.9	76.7	5.2	2.9	6.8													
F6	Cloudy	Calm	05:09	14.5	S	0.2	194.9	27.8	27.8	26.4	26.4	8.1	8.1	77.4	77.4	5.3	5.3	5.3	14.2	28.2	20.6	21.3	43.5	
						1.1	220.3	27.8		26.4		8.1		77.5		5.3		13.4	22.0					
						0.9	168.0	27.5		27.0		8.0		69.0		4.7		74.7	100.0		102.0			
					M	0.7	80.5	27.5	27.1	8.0	68.6	4.7	60.3	104.0										
						0.1	240.0	28.4	28.3	30.3	8.0	81.3	5.3	5.6	5.0	5.1								
						0.1	240.0	28.2	30.7	8.0	80.8	5.3	5.6	5.1	5.1									
B	0.1	240.0	27.6	27.6	31.4	8.1	8.1	81.0	5.4	5.4	6.1													
	0.1	240.0	27.6	27.6	31.4	8.1	8.1	81.1	5.4	5.4	6.1													
	0.2	104.0	27.6	31.5	8.1	80.6	5.3	6.5	8.3	8.1														
IM1	Fine	Calm	07:16	9.8	S	0.1	240.0	28.4	28.3	30.3	30.5	8.0	8.0	81.3	81.1	5.3	5.3	5.3	5.6	5.7	5.0	5.1	6.4	
						0.1	240.0	28.2		30.7		8.0		80.8		5.3		5.6	5.1					
						0.1	240.0	27.6		27.6		31.4		8.1		8.1		81.0	5.4		5.4			5.9
					M	0.1	240.0	27.6	27.6	31.4	8.1	8.1	81.1	5.4	5.4	6.1								
						0.2	104.0	27.6	31.5	8.1	80.6	5.3	6.5	8.3	8.1									
						0.2	88.4	27.6	31.5	8.1	80.2	5.3	6.5	7.8	8.1									
B	0.2	88.4	27.6	27.6	31.5	8.1	8.1	80.2	5.3	6.5	7.8													
	0.3	169.2	27.2	27.2	28.9	7.9	7.9	74.3	5.0	4.5	3.2													
	0.3	169.2	27.2	27.2	28.9	7.9	7.9	74.2	5.0	4.6	3.3													
IM2	Fine	Calm	07:38	11.4	S	0.3	169.2	27.2	27.2	28.9	28.9	7.9	7.9	74.3	74.2	5.0	5.0	5.1	4.5	4.5	3.2	3.3	3.7	
						0.3	169.2	27.2		28.9		7.9		74.2		5.0		4.6	3.3					
						0.4	155.5	27.2		29.4		8.0		76.8		5.2		4.7	3.3					
					M	0.4	155.5	27.3	29.6	8.0	75.6	5.1	4.9	3.2	3.3									
						0.1	112.0	27.7	31.0	8.1	83.5	5.5	3.9	4.7	4.7									
						0.0	296.6	27.7	30.9	8.1	83.2	5.5	4.1	4.7	4.7									
B	0.0	296.6	27.7	30.9	8.1	83.2	5.5	4.1	4.7	4.7														
	0.5	67.5	27.5	27.5	29.5	7.9	7.9	80.3	5.4	5.4	4.3													
	0.5	67.5	27.5	27.5	29.5	7.9	7.9	80.8	5.4	5.4	4.3													
IM3	Fine	Calm	06:05	15.0	S	0.3	102.5	27.5	27.5	31.2	31.2	8.1	8.1	74.5	74.7	4.9	5.0	5.2	4.3	10.0	4.3	4.4	11.8	
						0.3	26.2	27.6		31.2		8.1		75.0		5.0		7.4	9.8		9.6			
						0.3	8.6	27.5		31.4		8.1		70.4		4.7		17.0	20.3		21.6			
					M	0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6								
						0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6								
						0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6								
B	0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6													
	0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6													
	0.3	8.6	27.5	27.5	31.4	8.0	8.0	69.5	4.6	4.6	18.6													
IM4	Fine	Calm	05:44	16.5	S	0.4	116.1	27.6	27.6	30.3	30.3	8.0	8.0	81.2	81.1	5.4	5.4	5.4	4.4	12.9	29.4	29.5	12.6	
						0.3	102.1	27.6		30.2		8.0		81.0		5.4		4.6	29.5					
						0.2	113.9	27.6		31.0		8.1		80.2		5.3		4.6	5.0		4.8			
					M	0.2	113.9	27.6	27.6	31.0	8.1	8.1	80.8	5.4	4.1	4.6								
						0.3	89.8	27.6	31.2	8.1	73.8	4.9	31.1	3.5	3.5									
						0.1	60.6	27.6	31.2	8.1	72.5	4.8	28.6	3.5	3.5									
B	0.1	60.6	27.6	27.6	31.2	8.1	8.1	72.5	4.8	4.8	29.9													
	0.2	95.5	27.6	27.5	30.2	8.0	8.0	83.6	5.6	5.6	2.8													
	0.2	95.5	27.5	27.5	30.2	8.0	8.0	83.5	5.6	5.6	2.8													
IM5	Fine	Calm	05:27	15.5	S	0.4	34.0	27.6	27.5	31.2	31.2	8.1	8.1	81.0	81.5	5.4	5.4	5.5	5.6	11.1	4.8	4.5	13.9	
						0.4	34.0	27.6		31.2		8.1		82.0		5.4		4.4	4.2					
						0.3	68.3	27.6		31.3		8.1		71.6		4.7		24.6	34.1					
					M	0.3	68.3	27.6	27.6	31.3	8.1	8.1	71.6	4.7	4.7	25.4								
						0.3	68.3	27.6	27.6	31.3	8.1	8.1	70.5	4.7	4.7	26.2								
						0.3	68.3	27.6	27.6	31.3	8.1	8.1	70.5	4.7	4.7	26.2								
B	0.3	68.3	27.6	27.6	31.3	8.1	8.1	70.5	4.7	4.7	26.2													
	0.3	68.3	27.6	27.6	31.3	8.1	8.1	70.5	4.7	4.7	26.2													
	0.3	68.3	27.6	27.6	31.3	8.1	8.1	70.5	4.7	4.7	26.2													

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)				
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
IM6	Fine	Calm	04:59	16.5	S	0.2	170.6	27.6	27.6	30.3	30.2	8.0	8.0	84.6	84.6	5.6	5.6	5.6	5.6	2.4	2.4	5.9	3.2	3.3	7.1
						0.2	170.6	27.6		30.2		8.0		84.5		5.6		2.3							
						0.3	232.1	27.6	31.3	8.1	83.7	5.5	3.6												
					M	0.0	148.7	27.6	31.3	8.1	84.1	5.6	3.1	12.0	3.3	4.4	13.8								
						0.4	223.3	27.6	31.4	8.1	77.8	5.1	11.9												
						0.4	223.3	27.6	31.4	8.1	77.2	5.1	12.2												
B	0.2	202.7	27.4	30.1	27.4	30.2	30.2	8.0	8.0	86.2	86.3	5.8	5.8	2.4	2.4	0.5	0.5								
	0.1	189.9	27.5	30.2		8.0		86.3		5.8		2.4													
	0.2	164.6	27.6	30.7	8.1	86.1	5.7	2.2																	
IM7	Fine	Calm	04:34	13.0	S	0.2	164.6	27.6	27.6	30.7	30.7	8.1	8.1	86.1	86.1	5.7	5.7	5.7	5.7	2.3	2.3	4.1	2.2	2.3	4.9
						0.2	164.6	27.6		30.7		8.1		86.1		5.7		2.2							
						1.0	129.2	27.6	31.2	8.1	84.7	5.6	7.3												
					M	1.0	129.2	27.6	31.2	8.1	84.7	5.6	7.3	7.7	5.5	5.5	5.5	5.5	8.0	8.0	12.1		11.9		
						1.0	129.2	27.6	31.2	8.1	82.8	5.5	8.0												
						0.2	229.1	27.4	29.9	27.4	29.8	29.8	8.0		8.0		84.8		84.8		5.7			5.7	
0.0	353.7	27.4	29.8	8.0	84.8	5.7	2.4																		
M	0.2	251.7	27.6	31.1	27.6	31.1	31.1	8.1	8.1	85.7	85.9	5.7	5.7	3.5	3.3	3.6	3.6								
	0.2	251.7	27.6	31.1		8.1		86.1		5.7		3.1													
	B	0.1	99.3	27.6	31.3	27.6	31.3	31.3	8.1	8.1	82.3	81.9	5.4	5.4	14.1	14.7	13.0	13.5							
0.1		97.1	27.6	31.3	8.1		81.5		5.4		15.2														
0.3		131.7	27.6	30.2	27.6	30.2	30.2	8.0	8.0	84.2	84.3	5.6	5.6	6.3	6.2	7.6	7.5								
0.3	131.7	27.6	30.2	8.0		84.4		5.6		6.0															
M	0.3	135.8	27.7	31.1	27.7	31.1	31.1	8.1	8.1	84.8	84.8	5.6	5.6	8.1	7.8	9.7	9.9								
	0.3	135.8	27.7	31.1		8.1		84.8		5.6		7.5													
	B	0.3	143.7	27.7	31.2	27.7	31.2	31.2	8.1	8.1	84.5	84.4	5.6	5.6	10.2	10.2	14.9	14.6							
0.3		143.7	27.7	31.2	8.1		84.3		5.6		10.2														
IM10		Cloudy	Calm	08:02	11.5	S	1.1	88.7	27.7	27.7	30.0	29.9	8.2	8.2	85.2	86.1	5.7	5.7	5.7	5.7	5.8	5.2	19.1	5.5	5.4
	1.1						88.7	27.7	29.9		8.2		87.0		5.8		4.6								
	0.7						180.8	27.6	30.5	8.2	80.1	5.3	14.2												
	M					0.3	4.2	27.6	30.5	27.6	30.5	30.5	8.2	8.2	80.1	80.1	5.3	5.3	14.2	14.2	24.2	24.4			
						0.8	33.6	27.6	30.6		8.2		80.6		5.4		38.8								
						0.2	218.9	27.6	30.6	8.2	80.2	5.3	36.8												
B	0.2	218.9	27.6	30.6	27.6	30.6	30.6	8.2	8.2	80.2	80.4	5.4	5.3	37.8	37.8	45.5	44.5								
	0.8	33.6	27.6	30.6		8.2		80.6		5.4		38.8													
	0.2	218.9	27.6	30.6	8.2	80.2	5.3	36.8																	
IM11A	Cloudy	Calm	07:52	4.5	S	1.4	166.3	27.8	27.8	26.5	25.9	8.2	8.2	83.0	83.3	5.6	5.7	5.7	5.7	22.2	21.2	35.6	28.0	29.4	46.2
						1.5	168.7	27.8		25.3		8.2		83.5		5.7		20.1							
						1.0	183.4	27.7	28.9	27.7	28.9	28.9	8.2	8.2	81.0	80.5	5.4	5.4	48.6	50.0	61.8		63.0		
					0.6	148.0	27.7	28.8	8.2		80.0		5.4		51.5										
					M	1.2	162.2	27.9	23.0	27.9	23.3	23.3	8.2	8.2	86.3	87.0	6.0	6.0	3.0	2.7	9.6		10.0		
						1.3	175.3	28.0	23.6		8.1		87.8		6.0		2.4								
0.7	146.4	27.7	28.7	27.7		28.8	28.8	8.2	8.2	80.0	80.1	5.4	5.4	19.7	18.9	22.1	21.5								
1.5	154.8	27.7	28.8		8.2	80.2		5.4		18.1															
B	1.0	151.8	27.6	30.0	27.6	30.0	30.0	8.2	8.2	79.2	79.0	5.3	5.3	76.7	80.3	98.8	100.9								
	0.8	108.4	27.6	30.0		8.2		78.9		5.3		84.0													
	0.8	108.4	27.6	30.0	8.2	78.9	5.3	84.0																	
IM13	Cloudy	Calm	07:22	16.5	S	1.1	161.6	28.1	28.1	19.5	19.2	8.1	8.1	84.6	85.1	5.9	6.0	6.0	6.0	3.2	2.8	14.4	4.2	4.1	23.2
						0.5	254.8	28.2		19.0		8.1		85.5		6.0		2.4							
						0.3	191.4	27.6	29.7	27.6	29.7	29.7	8.2	8.2	80.1	80.0	5.4	5.3	15.9	16.4	25.5		26.4		
					0.9	210.3	27.6	29.7	8.2		80.0		5.3		16.8										
					M	0.2	49.3	27.6	30.0	27.6	30.0	30.0	8.2	8.2	80.6	80.5	5.4	5.4	22.7	24.1	40.1		39.3		
						0.3	288.1	27.6	30.0		8.2		80.3		5.4		25.4								
1.2	185.5	27.7	26.9	27.7		26.3	26.3	8.2	8.2	81.8	83.4	5.5	5.7	3.3	3.0	4.7	4.6								
0.7	240.7	27.6	25.8		8.2	85.0		5.8		2.6															
B	1.4	173.8	27.6	29.7	27.6	29.7	29.7	8.2	8.2	78.8	78.8	5.3	5.3	10.3	11.2	10.9	11.1								
	1.3	202.7	27.6	29.8		8.2		78.8		5.3		12.1													
	0.9	173.0	27.6	29.8	27.6	29.8	29.8	8.2	8.2	79.4	79.2	5.3	5.3	26.7	27.6	39.4	39.9								
0.6	198.8	27.6	29.8	8.2		79.0		5.3		28.5															

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	06:01	6.5	S	0.4	186.5	27.9	28.0	23.1	23.3	8.0	8.0	78.3	78.0	5.4	5.4	5.4	3.0	2.9	4.1	5.7	5.9	5.7
						0.4	186.5	28.0	23.5	26.6	8.1	8.1	77.7	79.6	5.3	5.4	5.4	3.0	2.9	6.1				
						0.9	236.3	27.8	26.4	26.6	8.1	8.1	79.6	79.6	5.4	5.4	5.4	3.7	3.7	5.9				
					M	0.3	288.5	27.8	26.9	26.6	8.1	8.1	79.6	79.6	5.4	5.4	5.4	3.7	3.7	5.5		5.7		
						0.7	233.7	27.7	26.7	26.6	8.2	8.2	78.9	78.7	5.3	5.3	5.3	5.5	5.5	5.3		5.6		
						0.3	230.9	27.7	26.7	26.6	8.2	8.2	78.6	78.7	5.3	5.3	5.3	5.5	5.5	5.8				
IM16A	Cloudy	Calm	05:34	7.5	S	0.1	116.4	27.9	27.9	24.8	24.4	8.1	8.0	81.0	80.8	5.5	5.5	5.5	3.3	3.4	5.5	4.7	4.8	6.7
						0.1	116.4	27.8	24.0	26.8	26.8	8.1	8.1	80.5	79.9	5.5	5.5	5.5	3.4	3.4		4.8		
						0.7	251.2	27.8	26.8	26.8	8.1	8.1	79.7	79.9	5.4	5.4	5.4	4.7	4.7	5.2				
					M	0.8	219.8	27.8	26.8	26.8	8.1	8.1	80.1	79.9	5.4	5.4	5.4	4.5	4.5	5.6		5.4		
						0.4	188.4	27.8	27.1	27.1	8.1	8.1	78.5	78.1	5.3	5.3	5.3	8.2	8.4	9.3		9.9		
						0.4	188.4	27.8	27.1	27.1	8.1	8.1	77.8	78.1	5.3	5.3	5.3	8.6	8.4	10.4				
IM17	Cloudy	Calm	04:31	5.5	S	0.5	215.9	28.1	28.1	23.6	23.6	8.0	8.0	75.8	75.5	5.2	5.2	5.2	7.9	8.1	10.0	8.7	8.7	10.5
						0.5	180.7	28.1	23.7	25.1	25.1	8.0	8.0	75.1	75.4	5.2	5.1	5.1	8.3	11.9		8.6		
						0.2	217.1	27.9	25.1	25.1	8.0	8.0	75.7	75.4	5.2	5.1	5.1	11.7	11.9	12.8				
					B	0.3	159.3	27.9	25.1	25.1	8.0	8.0	75.1	75.4	5.1	5.1	5.1	12.1	11.9	12.0		12.4		
						0.4	72.1	28.1	22.2	22.2	7.9	7.9	76.3	76.5	5.3	5.3	5.1	3.8	3.7	4.6		4.9		
						0.5	139.2	28.1	22.2	22.2	7.9	7.9	76.8	76.5	5.3	5.3	5.1	3.6	3.7	5.1		4.9		
IM18	Cloudy	Calm	04:43	17.5	S	0.9	149.1	27.9	27.9	25.1	25.1	8.0	8.0	72.7	73.1	5.0	5.0	5.0	4.7	4.5	5.2	6.3	6.5	7.1
						0.9	170.0	27.9	25.1	25.1	8.0	8.0	73.5	73.1	5.0	5.0	5.0	4.3	4.5	6.6				
						0.7	223.9	27.4	27.3	27.3	7.9	7.9	64.1	63.3	4.4	4.3	4.3	7.3	7.5	10.3		9.9		
					M	0.2	198.2	27.5	27.2	27.2	7.9	7.9	67.3	66.8	4.6	4.5	4.5	9.1	9.3	12.9		9.9		
						0.7	114.0	27.5	27.2	27.2	7.9	7.9	66.4	66.8	4.5	4.5	4.5	9.5	9.3	13.1		13.0		
						0.5	255.4	28.5	28.5	23.1	23.2	7.9	7.9	74.0	73.9	5.1	5.0	5.0	5.0	5.1		4.7	4.7	
IM19	Cloudy	Calm	04:12	18.0	S	0.4	124.8	28.4	28.0	23.3	23.2	7.9	7.9	73.9	71.7	5.0	4.9	4.9	5.0	5.1	6.7	4.6	4.7	8.4
						0.9	68.6	28.0	25.7	25.8	7.9	7.9	71.5	71.7	4.9	4.9	4.9	5.9	5.9	7.2		7.5		
						0.5	340.3	27.9	25.9	25.9	7.9	7.9	71.9	71.7	4.9	4.9	4.9	5.9	5.9	7.7		7.5		
					M	0.2	198.2	27.5	27.2	27.2	7.9	7.9	67.3	66.8	4.6	4.5	4.5	9.1	9.3	12.9		9.9		
						0.7	114.0	27.5	27.2	27.2	7.9	7.9	66.4	66.8	4.5	4.5	4.5	9.5	9.3	13.1		13.0		
						0.6	246.6	28.5	21.4	21.4	7.8	7.8	76.7	77.2	5.3	5.3	5.3	5.0	4.8	6.2		6.5		
IM20A	Cloudy	Calm	03:15	5.0	S	0.3	304.8	28.5	28.5	21.4	21.4	7.8	7.8	77.7	77.2	5.4	5.3	5.3	4.6	4.8	5.3	6.8	6.5	7.1
						0.5	285.1	28.2	23.6	24.2	7.8	7.8	75.0	72.6	5.1	5.0	5.0	5.3	5.8	7.7		7.8		
						0.5	246.3	27.9	24.8	24.2	7.8	7.8	70.2	72.6	4.8	5.0	5.0	6.3	5.8	7.8		7.8		
					B	0.3	358.0	27.9	24.7	24.7	7.9	7.9	68.9	68.8	4.7	4.7	4.7	7.9	7.8	10.4		10.1		
						0.6	215.3	27.9	24.8	24.7	7.9	7.9	68.8	68.8	4.7	4.7	4.7	7.7	7.8	9.8		12.9		
						0.2	85.6	27.8	24.9	24.9	7.9	7.9	71.2	70.4	4.9	4.8	4.8	10.5	10.4	15.3		15.8		
IM21A	Cloudy	Calm	03:24	5.5	S	0.5	55.6	27.8	27.8	24.9	24.9	7.9	7.9	69.7	70.4	4.8	4.8	4.8	10.3	10.4	9.1	16.2	15.8	12.9
						0.5	269.9	28.6	24.5	24.5	7.9	7.9	75.9	75.8	5.1	5.1	5.1	11.5	11.6	15.5		15.7		
						0.5	269.9	28.6	24.5	24.5	7.9	7.9	75.6	75.8	5.1	5.1	5.1	11.6	11.6	15.9		15.7		
					B	0.3	304.6	28.5	24.6	24.6	7.9	7.9	76.9	76.3	5.2	5.2	5.2	12.7	12.5	16.9		17.3		
						0.2	155.4	28.5	24.6	24.6	7.9	7.9	75.8	76.3	5.1	5.2	5.2	12.3	12.5	17.6		17.3		
						0.2	155.4	28.5	24.6	24.6	7.9	7.9	75.8	76.3	5.1	5.2	5.2	12.3	12.5	17.6		17.3		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
E1	Fine	Calm	10:15	8.5	S	0.3	239.8	27.4	27.4	29.1	29.1	7.9	7.9	72.3	72.5	4.9	4.9	4.7	3.9	3.8	3.3	3.6		
						0.3	239.8	27.4	29.1	29.1	7.9	7.9	72.7	72.5	4.9	4.9	4.7	3.9	3.8	3.3	3.6			
						0.2	262.3	27.3	27.3	29.6	29.6	7.9	7.9	68.6	68.6	4.6	4.6	4.7	5.8	5.3	5.9	6.0		
					M	0.3	239.8	27.3	27.4	29.6	29.6	7.9	7.9	68.5	68.5	4.6	4.6	4.5	4.9	4.5	4.9	4.9	6.1	14.4
						0.0	0.0	27.4	27.4	30.7	30.8	7.9	7.9	68.5	68.1	4.6	4.5	4.5	14.9	16.1	15.1	14.4		
						0.3	237.0	27.4	27.4	31.0	30.8	8.0	7.9	67.7	68.1	4.5	4.5	4.5	17.3	16.1	13.7	14.4		
E2	Fine	Calm	15:07	8.8	S	0.3	282.3	28.4	28.4	29.5	29.5	8.1	8.1	108.2	108.5	7.1	7.2	6.4	4.9	4.8	4.9	5.9		
						0.9	322.7	28.4	28.4	29.5	29.5	8.1	8.1	108.9	108.5	7.2	7.2	6.4	4.7	4.8	6.0	5.9		
						0.1	255.3	27.7	27.7	30.0	30.0	8.1	8.1	83.1	83.5	5.5	5.6	5.6	6.8	6.6	7.3	7.6		
					M	0.4	270.2	27.7	27.7	30.0	30.0	8.1	8.1	83.9	83.5	5.6	5.6	4.9	4.9	4.9	6.4	6.6	7.8	7.6
						0.3	346.6	27.6	27.6	31.0	31.0	8.1	8.1	73.5	73.4	4.9	4.9	4.9	25.7	24.1	45.7	46.4		
						0.3	346.6	27.6	27.6	31.1	31.0	8.1	8.1	73.3	73.4	4.9	4.9	4.9	22.4	24.1	47.0	46.4		
E3	Fine	Calm	14:06	16.5	S	0.1	347.0	29.1	29.1	21.8	22.1	8.0	8.0	94.3	94.4	6.4	6.4	6.1	3.9	3.8	4.5	4.3		
						0.1	347.0	29.0	29.1	22.5	22.1	8.0	8.0	94.5	94.4	6.4	6.4	6.1	3.8	3.8	4.1	4.3		
						0.3	250.2	27.7	27.7	30.3	30.3	8.1	8.1	85.8	86.0	5.7	5.7	5.7	4.0	3.9	5.3	5.3		
					M	0.3	250.2	27.7	27.7	30.3	30.3	8.1	8.1	86.1	86.0	5.7	5.7	5.7	3.9	3.9	5.3	5.3		
						0.3	286.0	27.8	27.8	31.1	31.1	8.1	8.1	82.1	81.9	5.4	5.4	5.4	13.1	13.6	8.4	8.6		
						0.2	301.4	27.8	27.8	31.1	31.1	8.1	8.1	81.8	81.9	5.4	5.4	5.4	14.2	13.6	8.8	8.6		
E4	Cloudy	Calm	11:13	11.0	S	0.9	176.3	28.6	28.6	18.8	19.0	7.9	7.9	80.1	79.9	5.6	5.6	5.6	2.6	2.7	4.2	4.2		
						0.9	157.0	28.5	28.6	19.2	19.0	7.9	7.9	79.7	79.9	5.6	5.6	5.6	2.8	2.7	4.1	4.2		
						0.9	155.9	27.9	27.9	26.0	26.1	8.0	8.0	82.9	83.0	5.6	5.6	5.6	3.1	3.2	4.5	4.8		
					M	0.9	155.9	27.9	27.9	26.3	26.1	8.0	8.0	83.1	83.0	5.6	5.6	5.6	3.3	3.2	5.1	5.1		
						0.4	294.9	27.7	27.7	29.0	29.0	8.1	8.1	79.5	79.1	5.3	5.3	5.3	9.2	9.6	11.1	10.9		
						0.9	111.1	27.7	27.7	29.0	29.0	8.1	8.1	78.7	79.1	5.3	5.3	5.3	9.9	9.6	10.7	10.9		
E5	Cloudy	Calm	12:25	5.5	S	0.4	125.9	29.3	29.3	16.1	16.2	7.8	7.8	76.6	76.5	5.4	5.4	5.4	3.6	3.4	5.1	5.4		
						0.9	315.8	29.3	29.3	16.3	16.2	7.8	7.8	76.4	76.5	5.4	5.4	5.4	3.3	3.4	5.7	5.4		
						0.7	11.3	28.4	28.3	21.5	21.6	7.9	7.9	77.9	77.4	5.4	5.3	5.3	4.5	4.7	6.7	6.7		
					B	0.8	70.6	28.3	28.3	21.8	21.6	7.9	7.9	77.0	77.4	5.3	5.3	5.3	4.9	4.7	6.7	6.7		
						0.4	176.9	29.4	29.2	16.1	16.4	7.8	7.8	73.3	72.3	5.1	5.1	5.1	5.9	5.8	7.0	7.4		
						0.5	163.6	29.1	29.2	16.8	16.4	7.8	7.8	71.2	72.3	5.0	5.0	5.1	5.6	5.8	7.7	7.4		
E6	Cloudy	Calm	14:37	5.5	S	0.5	269.5	27.8	27.8	25.2	25.2	7.9	7.9	71.3	69.9	4.9	4.8	4.8	9.0	9.7	17.8	17.5		
						1.1	8.1	27.8	27.8	25.2	25.2	7.9	7.9	68.5	69.9	4.7	4.8	4.8	10.3	9.7	17.1	17.5		
						0.3	271.7	29.5	29.5	17.7	17.8	7.9	7.9	93.8	96.1	6.5	6.6	6.6	6.5	6.6	2.9	3.1		
					M	0.3	271.7	29.4	29.5	17.9	17.8	7.9	7.9	98.4	96.1	6.8	6.6	6.6	2.7	2.8	3.3	3.1		
						1.7	295.2	27.8	27.8	25.7	25.7	7.9	7.9	74.4	73.3	5.1	5.0	5.0	9.3	9.4	11.3	12.2		
						0.4	316.1	27.8	27.8	25.6	25.7	7.9	7.9	72.1	73.3	4.9	5.0	5.0	9.5	9.4	13.1	12.2		
E7A	Cloudy	Calm	15:30	5.0	S	0.0	0.0	27.8	27.8	30.3	30.2	8.1	8.1	84.5	83.8	5.6	5.6	5.5	3.0	3.2	4.4	4.7		
						0.3	211.5	27.8	27.8	30.0	30.2	8.1	8.1	83.1	83.8	5.5	5.5	5.5	3.4	3.2	5.0	4.7		
						0.1	290.3	27.5	27.5	31.4	31.4	8.2	8.2	82.3	83.1	5.5	5.5	5.5	3.8	3.4	5.0	5.1		
					M	0.1	290.3	27.5	27.5	31.4	31.4	8.2	8.2	84.0	83.1	5.6	5.5	5.5	2.9	3.4	5.1	5.1		
						0.3	330.8	27.6	27.6	32.0	32.0	8.1	8.1	67.4	66.7	4.4	4.4	4.4	17.0	16.9	21.6	20.6		
						0.3	330.8	27.6	27.6	32.0	32.0	8.1	8.1	66.1	66.7	4.4	4.4	4.4	16.7	16.9	19.6	20.6		
F1	Fine	Calm	11:01	20.0	S	0.2	214.2	27.7	27.7	29.0	28.9	8.0	8.0	84.2	84.1	5.6	5.6	5.6	3.7	3.7	4.6	4.6		
						0.2	192.9	27.7	27.7	28.9	28.9	8.0	8.0	84.0	84.1	5.6	5.6	5.6	3.8	3.7	4.5	4.6		
						0.4	26.0	27.6	27.6	31.4	31.4	8.2	8.2	83.5	83.5	5.5	5.5	5.5	3.9	3.8	5.9	5.7		
					M	0.1	23.6	27.6	27.6	31.4	31.4	8.2	8.2	83.6	83.5	5.5	5.5	5.5	3.6	3.8	5.5	5.7		
						0.4	36.4	27.6	27.6	31.5	31.5	8.2	8.2	82.6	82.5	5.5	5.5	5.5	9.3	10.2	12.5	12.9		
						0.4	36.4	27.6	27.6	31.5	31.5	8.2	8.2	82.3	82.5	5.4	5.5	5.5	11.1	10.2	13.2	12.9		

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average
F3	Fine	Calm	12:45	17.5	S	0.4	284.0	28.3	28.3	29.8	29.7	8.1	8.1	94.1	95.1	6.2	6.3	5.9	3.7	3.6	5.2	17.6
						0.3	222.0	28.3	28.3	29.7	29.7	8.1	8.1	96.0	95.1	6.3	6.3	5.9	3.6	3.6	5.1	
						0.2	28.8	27.6	27.6	31.3	31.3	8.2	8.2	84.0	84.1	5.6	5.6	5.9	4.7	4.3	5.5	
					0.2	28.8	27.6	27.6	31.3	31.3	8.2	8.2	84.2	84.1	5.6	5.6	5.3	3.9	3.9	5.8		
					0.3	124.4	27.6	27.6	31.5	31.5	8.1	8.1	80.2	79.9	5.3	5.3	5.3	29.5	29.8	41.0		
					0.2	3.9	27.6	27.6	31.5	31.5	8.1	8.1	79.5	79.9	5.3	5.3	5.3	30.1	29.8	42.8		
F4	Fine	Calm	14:42	13.3	S	0.2	264.5	28.5	28.4	29.4	29.4	8.1	8.1	113.0	113.4	7.5	7.5	6.5	4.5	4.5	7.2	13.2
						0.2	264.5	28.4	28.4	29.4	29.4	8.1	8.1	113.7	113.4	7.5	7.5	6.5	4.5	4.5	7.8	
						0.3	334.0	27.6	27.6	30.2	30.2	8.1	8.1	82.6	82.6	5.5	5.5	5.5	7.2	7.2	14.3	
					0.5	310.0	27.6	27.6	30.2	30.2	8.1	8.1	82.5	82.6	5.5	5.5	5.5	7.2	7.2	14.9		
					0.3	21.1	27.6	27.6	30.5	30.5	8.1	8.1	81.1	80.8	5.4	5.4	5.4	14.6	14.3	17.4		
					0.2	215.5	27.6	27.6	30.5	30.5	8.1	8.1	80.5	80.8	5.4	5.4	5.4	14.1	14.3	17.3		
F5	Cloudy	Calm	11:47	5.5	S	0.3	236.0	28.2	28.2	26.4	26.4	8.0	8.0	85.2	85.4	5.7	5.8	5.8	2.6	2.5	4.9	9.4
						0.2	88.5	28.3	28.2	26.5	26.4	8.0	8.0	85.7	85.4	5.8	5.8	5.8	2.5	2.5	4.9	
						0.5	64.7	27.8	27.8	28.3	28.3	8.1	8.1	82.8	81.5	5.6	5.5	5.5	9.8	10.7	13.8	
					0.7	124.6	27.8	27.8	28.4	28.3	8.1	8.1	80.2	81.5	5.4	5.5	5.5	11.6	10.7	14.1		
					0.7	324.0	28.7	28.7	21.1	20.9	7.9	7.8	80.5	80.7	5.5	5.6	5.6	2.6	2.7	4.6		
					0.7	324.0	28.7	28.7	20.7	20.9	7.8	7.8	80.9	80.7	5.6	5.6	5.6	2.7	2.7	4.9		
F6	Cloudy	Calm	13:20	13.5	M	0.8	284.9	27.9	27.9	25.2	25.3	7.9	7.9	73.3	73.4	5.0	5.0	5.3	4.2	4.0	8.5	12.8
						0.5	255.9	27.9	27.9	25.4	25.3	7.9	7.9	73.5	73.4	5.0	5.0	5.0	3.7	4.0	8.2	
						0.5	285.7	27.6	27.6	27.3	27.3	7.9	7.9	70.7	70.2	4.8	4.8	4.8	16.7	17.6	25.2	
					0.8	309.6	27.6	27.6	27.3	27.3	7.9	7.9	69.7	70.2	4.7	4.8	4.8	18.4	17.6	25.1		
					0.4	67.8	27.9	27.9	30.9	30.9	8.1	8.1	82.0	82.3	5.4	5.4	5.4	5.6	5.3	4.8		
					0.4	67.8	27.9	27.9	30.9	30.9	8.1	8.1	82.5	82.3	5.4	5.4	5.4	5.0	5.3	4.1		
IM1	Fine	Calm	10:44	9.5	M	0.2	64.9	27.6	27.6	31.2	31.2	8.1	8.1	80.1	80.0	5.3	5.3	5.4	8.5	8.7	10.2	10.6
						0.4	67.8	27.6	27.6	31.3	31.2	8.1	8.1	79.9	80.0	5.3	5.3	5.4	8.8	8.7	10.4	
						0.3	49.9	27.6	27.6	31.4	31.4	8.1	8.1	80.7	80.6	5.3	5.3	5.3	12.0	11.3	16.7	
					0.3	49.9	27.6	27.6	31.4	31.4	8.1	8.1	80.5	80.6	5.3	5.3	5.3	10.6	11.3	17.4		
					0.6	239.8	27.4	27.4	29.0	29.0	8.0	8.0	75.1	75.1	5.1	5.1	5.0	4.0	4.1	4.3		
					0.4	252.7	27.4	27.4	29.0	29.0	8.0	8.0	75.1	75.1	5.1	5.1	5.0	4.1	4.1	3.6		
IM2	Fine	Calm	10:25	11.5	M	0.4	247.7	27.3	27.3	29.4	29.4	8.0	8.0	74.5	74.4	5.0	5.0	5.0	5.9	5.7	9.2	11.2
						0.4	247.7	27.3	27.3	29.4	29.4	8.0	8.0	74.3	74.4	5.0	5.0	5.0	5.6	5.7	9.9	
						0.0	293.6	27.5	27.5	31.4	31.4	8.0	8.0	75.6	75.4	5.0	5.0	5.0	16.5	16.7	19.3	
					0.2	17.2	27.5	27.5	31.4	31.4	8.0	8.0	75.2	75.4	5.0	5.0	5.0	17.0	16.7	20.8		
					0.6	251.0	27.6	27.6	28.8	28.8	8.0	8.0	81.0	81.1	5.4	5.5	5.5	5.1	4.9	6.5		
					0.6	251.0	27.6	27.6	28.8	28.8	8.0	8.0	81.3	81.1	5.5	5.5	5.5	4.7	4.9	6.7		
IM3	Fine	Calm	11:49	15.0	M	0.3	132.4	27.6	27.6	31.2	31.2	8.1	8.1	79.3	79.3	5.3	5.3	5.4	7.8	7.7	14.0	15.6
						0.3	132.4	27.6	27.6	31.2	31.2	8.1	8.1	79.4	79.3	5.3	5.3	5.4	7.6	7.7	15.3	
						0.2	187.2	27.6	27.6	31.3	31.3	8.1	8.1	78.9	77.8	5.2	5.1	5.1	11.6	12.8	24.2	
					0.2	352.2	27.6	27.6	31.3	31.3	8.1	8.1	76.6	77.8	5.1	5.1	5.1	13.9	12.8	26.9		
					0.3	208.4	27.8	27.8	30.0	30.0	8.1	8.1	86.6	85.9	5.8	5.7	5.7	5.2	5.2	11.0		
					0.3	208.4	27.8	27.8	30.0	30.0	8.1	8.1	85.2	85.9	5.7	5.7	5.7	5.2	5.2	11.0		
IM4	Fine	Calm	12:08	16.5	M	0.4	151.1	27.6	27.6	31.1	31.2	8.2	8.2	80.4	80.7	5.3	5.3	5.5	6.3	5.9	12.0	13.4
						0.1	290.6	27.6	27.6	31.2	31.2	8.2	8.2	81.0	80.7	5.4	5.3	5.3	5.5	5.9	11.9	
						0.4	272.7	27.6	27.6	31.3	31.3	8.1	8.1	77.6	77.3	5.1	5.1	5.1	12.9	13.0	16.8	
					0.1	315.9	27.6	27.6	31.3	31.3	8.1	8.1	76.9	77.3	5.1	5.1	5.1	13.0	13.0	17.5		
					0.1	250.9	28.5	28.5	29.7	29.7	8.1	8.1	95.5	95.8	6.3	6.3	6.0	3.6	3.5	9.2		
					0.1	205.4	28.5	28.5	29.7	29.7	8.1	8.1	96.2	95.8	6.3	6.3	6.0	3.5	3.5	9.4		
IM5	Fine	Calm	12:28	15.0	M	0.1	118.8	27.6	27.6	30.7	30.7	8.1	8.1	85.1	85.3	5.7	5.7	6.0	3.6	3.2	10.1	12.0
						0.2	173.9	27.6	27.6	30.7	30.7	8.1	8.1	85.5	85.3	5.7	5.7	6.0	2.9	3.2	10.4	
						0.4	84.3	27.6	27.6	31.3	31.3	8.1	8.1	83.5	83.3	5.5	5.5	5.5	10.5	11.3	16.8	
					0.3	16.3	27.6	27.6	31.3	31.3	8.1	8.1	83.0	83.3	5.5	5.5	5.5	12.2	11.3	16.0		

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Fine	Calm	12:55	16.0	S	0.2	260.3	28.3	28.3	29.9	29.8	8.1	8.1	92.5	93.1	6.1	6.1	5.9	3.6	3.6	7.6	7.5	14.7
						0.2	267.7	28.4	28.3	29.8	29.8	8.1	8.1	93.6	93.1	6.2	6.1	5.9	3.6	3.6	7.4	7.5	
					M	0.2	296.7	27.6	27.6	31.2	31.2	8.2	8.2	84.0	84.3	5.6	5.6	5.5	3.9	3.9	8.3	8.2	
						0.2	335.6	27.6	27.6	31.2	31.2	8.2	8.2	84.6	84.3	5.6	5.6	5.5	3.9	3.9	8.1	8.2	
					B	0.1	55.0	27.6	27.6	31.5	31.5	8.1	8.1	88.1	83.7	5.8	5.5	5.5	22.1	22.1	29.1	28.4	
						0.5	48.0	27.6	27.6	31.5	31.5	8.1	8.1	79.4	83.7	5.3	5.5	5.5	22.0	22.1	27.6	28.4	
IM7	Fine	Calm	13:20	12.9	S	0.1	25.7	28.2	28.2	29.8	29.8	8.1	8.1	92.6	92.5	6.1	6.1	5.9	2.9	2.9	4.5	4.2	8.4
						0.1	25.7	28.1	28.2	29.8	29.8	8.1	8.1	92.4	92.5	6.1	6.1	5.9	2.9	2.9	3.9	4.2	
					M	0.3	104.6	27.7	27.7	30.6	30.6	8.1	8.1	84.5	84.4	5.6	5.6	5.4	5.1	5.0	8.0	8.0	
						0.2	314.6	27.7	27.7	30.7	30.6	8.1	8.1	84.2	84.4	5.6	5.6	5.4	4.9	5.0	7.9	8.0	
					B	0.3	28.9	27.8	27.8	31.4	31.4	8.1	8.1	82.5	82.3	5.4	5.4	5.4	14.3	15.2	14.0	13.2	
						0.3	28.9	27.8	27.8	31.4	31.4	8.1	8.1	82.1	82.3	5.4	5.4	5.4	16.2	15.2	12.3	13.2	
IM8	Fine	Calm	13:10	14.1	S	0.4	333.8	28.3	28.3	29.7	29.7	8.1	8.1	96.4	96.5	6.4	6.4	6.0	3.1	3.1	3.2	3.4	8.1
						0.1	351.9	28.3	28.3	29.7	29.7	8.1	8.1	96.7	96.5	6.4	6.4	6.0	3.0	3.1	3.6	3.4	
					M	0.1	279.9	27.6	27.6	30.5	30.5	8.1	8.1	84.6	84.6	5.6	5.6	5.6	4.5	4.4	4.9	5.1	
						0.1	305.6	27.6	27.6	30.5	30.5	8.1	8.1	84.6	84.6	5.6	5.6	5.6	4.3	4.4	5.3	5.1	
					B	0.4	320.5	27.8	27.8	31.4	31.4	8.1	8.1	82.3	82.0	5.4	5.4	5.4	17.5	17.0	15.0	15.8	
						0.3	13.2	27.8	27.8	31.4	31.4	8.1	8.1	81.7	82.0	5.4	5.4	5.4	17.5	17.0	16.6	15.8	
IM9	Fine	Calm	13:40	14.7	S	0.3	272.1	28.6	28.6	30.0	30.0	8.1	8.1	94.8	94.9	6.2	6.2	5.9	4.0	4.0	6.1	5.9	8.9
						0.3	272.1	28.6	28.6	30.0	30.0	8.1	8.1	94.8	94.9	6.2	6.2	5.9	4.0	4.0	6.1	5.9	
					M	0.8	304.5	27.9	27.8	30.9	30.9	8.1	8.1	84.9	84.7	5.6	5.6	5.6	5.0	4.9	5.6	6.4	
						0.2	151.1	27.8	27.8	30.9	30.9	8.1	8.1	84.5	84.7	5.6	5.6	5.6	4.8	4.9	6.8	6.6	
					B	0.5	344.1	27.8	27.8	31.3	31.3	8.1	8.1	81.5	81.3	5.4	5.4	5.4	11.0	11.2	14.2	14.3	
						0.2	16.1	27.8	27.8	31.3	31.3	8.1	8.1	81.2	81.3	5.4	5.4	5.4	11.5	11.2	14.3	14.3	
IM10	Cloudy	Calm	10:04	5.0	S	0.5	199.2	28.1	28.0	29.9	29.9	8.0	8.0	85.8	86.0	5.7	5.7	5.5	5.4	5.2	7.9	8.1	20.0
						0.5	199.2	28.0	28.0	29.9	29.9	8.0	8.0	86.2	86.0	5.7	5.7	5.5	5.1	5.2	8.2	8.1	
					M	1.0	235.4	27.7	27.7	30.6	30.7	8.1	8.1	80.5	80.4	5.3	5.3	5.3	9.7	9.9	16.0	16.4	
						0.3	240.8	27.7	27.7	30.7	30.7	8.1	8.1	80.3	80.4	5.3	5.3	5.4	10.1	16.3	16.8	16.4	
					B	0.6	234.2	27.7	27.7	30.7	30.7	8.0	8.0	80.9	80.6	5.4	5.4	5.4	14.6	16.3	34.9	35.6	
						1.4	252.2	27.7	27.7	30.7	30.7	8.0	8.0	80.3	80.6	5.3	5.4	5.4	17.9	16.3	36.2	35.6	
IM11A	Cloudy	Calm	10:15	4.5	S	0.3	300.5	28.1	28.1	27.4	27.7	8.1	8.1	86.6	86.6	5.8	5.8	5.8	8.0	8.0	12.4	13.1	36.4
						0.3	300.5	28.1	28.1	27.4	27.7	8.1	8.1	86.6	86.6	5.8	5.8	5.8	8.0	8.0	13.7	13.1	
					B	1.2	320.0	27.7	27.7	30.5	30.5	8.1	8.1	83.2	82.4	5.5	5.5	5.5	35.1	38.8	58.2	59.8	
						0.8	18.7	27.7	27.7	30.5	30.5	8.1	8.1	81.5	82.4	5.4	5.5	5.5	42.4	38.8	61.4	59.8	
					S	0.4	289.4	28.0	28.0	26.5	26.3	8.1	8.1	84.3	85.1	5.7	5.7	5.6	5.4	5.0	6.4	6.6	
						0.4	289.4	28.1	28.0	26.1	26.3	8.1	8.1	86.0	85.1	5.8	5.8	5.6	4.6	5.0	6.7	6.6	
M	0.1	251.4	27.6	27.6	30.3	30.3	8.1	8.1	80.6	80.6	5.4	5.4	5.4	9.3	9.0	14.0	13.6						
	0.2	6.1	27.6	27.6	30.3	30.3	8.1	8.1	80.6	80.6	5.4	5.4	5.4	8.7	9.0	13.1	13.6						
B	0.5	220.6	27.7	27.7	31.0	31.0	8.1	8.1	80.3	80.1	5.3	5.3	5.3	20.8	19.9	31.6	30.7						
	0.4	128.6	27.7	27.7	31.0	31.0	8.1	8.1	79.8	80.1	5.3	5.3	5.3	19.0	19.9	29.8	30.7						
IM12	Cloudy	Calm	10:25	12.5	S	0.7	261.6	28.6	28.6	18.6	18.8	8.0	8.0	81.8	81.7	5.7	5.7	5.5	4.0	3.7	5.8	5.8	14.3
						0.7	261.6	28.5	28.6	19.0	18.8	8.0	8.0	81.7	81.7	5.7	5.7	5.5	3.3	3.7	5.7	5.8	
					M	1.0	7.1	27.6	27.6	29.8	29.7	8.1	8.1	79.7	79.7	5.3	5.3	5.3	12.4	12.0	14.2	14.3	
						0.9	6.8	27.6	27.6	29.6	29.7	8.1	8.1	79.6	79.7	5.3	5.3	5.3	11.5	12.0	14.4	14.3	
					B	0.3	7.9	27.6	27.6	30.0	30.0	8.1	8.1	80.2	80.0	5.4	5.4	5.4	14.8	14.6	23.0	22.9	
						1.1	312.2	27.6	27.6	30.0	30.0	8.1	8.1	79.8	80.0	5.3	5.3	5.3	14.5	14.6	22.8	22.9	
IM13	Cloudy	Calm	10:49	16.5	S	1.5	186.8	28.7	28.7	19.1	19.1	8.0	7.9	81.9	82.0	5.7	5.7	5.6	3.0	2.9	5.8	5.7	14.3
						0.1	179.6	28.7	28.7	19.2	19.1	7.9	7.9	82.1	82.0	5.7	5.7	5.6	2.9	2.9	5.5	5.7	
					M	0.5	11.2	27.8	27.8	27.8	27.8	8.1	8.1	81.1	81.1	5.5	5.5	5.5	6.3	6.1	11.7	11.4	
						0.6	0.1	27.8	27.8	27.9	27.8	8.1	8.1	81.2	81.1	5.5	5.5	5.5	5.9	6.1	11.1	11.4	
					B	0.6	350.0	27.6	27.6	29.4	29.3	8.1	8.1	79.0	78.9	5.3	5.3	5.3	16.0	14.4	25.5	25.8	
						0.5	293.2	27.6	27.6	29.3	29.3	8.1	8.1	78.8	78.9	5.3	5.3	5.3	12.7	14.4	26.0	25.8	

Water Quality Monitoring Data Log Sheet

Date: 2019/09/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average
IM15	Cloudy	Calm	12:14	5.5	S	0.3	356.0	28.6	28.6	20.0	19.7	7.9	7.9	78.9	78.6	5.5	5.5	5.5	3.7	3.6	5.0	4.7	7.7		
						0.3	356.0	28.7	19.5	19.7	7.9	7.9	78.2	78.6	5.4	5.5	5.5	3.6	3.6	5.0	4.8				
					B	0.4	32.4	27.8	27.4	27.4	8.1	8.1	80.5	80.0	5.4	5.4	5.4	6.2	6.4	5.0	10.9	10.6			
						0.3	84.9	27.8	27.4	27.4	8.1	8.1	79.5	79.5	5.4	5.4	5.4	6.5	6.4	5.0	10.2				
IM16A	Cloudy	Calm	12:56	7.0	S	0.9	158.1	29.4	29.3	15.7	15.7	7.8	7.8	72.2	72.0	5.1	5.0	5.1	4.1	4.2	5.1	6.0	7.0	10.5	
						0.1	269.1	29.3	15.8	15.7	7.8	7.8	71.8	72.0	5.0	5.0	5.0	4.2	4.2	5.1		6.4			
					M	0.1	115.7	28.0	28.0	23.6	23.6	7.9	7.9	74.2	74.2	5.1	5.1	5.1	7.3	7.4	5.1	10.4			10.1
						0.3	239.4	28.0	28.0	23.6	23.6	7.9	7.9	74.1	74.2	5.1	5.1	5.1	7.4	7.4		5.1			
					B	0.4	9.8	28.0	28.0	24.3	24.3	7.9	7.9	76.6	76.1	5.2	5.2	5.2	9.1	9.5	5.2	15.6			15.2
						0.4	9.8	28.0	28.0	24.3	24.3	7.9	7.9	75.6	76.1	5.2	5.2	5.2	9.8	9.5		5.2			
IM17	Cloudy	Calm	13:59	5.0	S	2.0	6.2	29.7	29.7	15.3	15.3	7.8	7.8	72.4	72.3	5.1	5.1	5.1	5.1	5.0	5.1	7.8	11.0	16.5	
						0.3	107.3	29.7	15.2	15.3	7.8	7.8	72.2	72.3	5.0	5.1	5.1	4.8	5.0	5.1		7.7			
					B	0.3	346.2	28.0	28.0	23.1	23.1	7.9	7.9	72.7	72.4	5.0	5.0	5.0	17.6	17.0	5.0	24.3			25.3
						0.2	311.5	28.0	28.0	23.1	23.1	7.9	7.9	72.2	72.4	5.0	5.0	5.0	16.5	17.0		5.0			
IM18	Cloudy	Calm	13:46	17.0	S	0.5	102.6	28.3	28.3	20.8	21.0	7.8	7.8	69.3	69.1	4.8	4.8	4.8	6.1	5.9	4.8	7.2	13.7	23.3	
						0.5	102.6	28.3	21.2	21.0	7.8	7.8	68.9	69.1	4.8	4.8	4.8	5.8	5.9	4.8		6.4			
					M	0.1	97.8	27.8	27.8	25.9	25.9	7.9	7.9	70.6	70.8	4.8	4.8	4.8	6.4	5.8	4.8	8.4			8.4
						1.5	274.2	27.8	27.8	25.9	25.9	7.9	7.9	71.0	70.8	4.8	4.8	4.8	5.2	5.8		4.8			
					B	0.6	354.5	27.5	27.5	26.9	26.9	7.9	7.9	67.9	67.3	4.6	4.6	4.6	27.8	29.4	4.6	52.7			54.7
						0.2	331.9	27.5	27.5	26.9	26.9	7.9	7.9	66.6	67.3	4.5	4.6	4.6	31.1	29.4		4.6			
IM19	Cloudy	Calm	14:17	17.5	S	0.3	32.5	28.3	28.3	22.3	22.5	7.9	7.8	74.9	74.9	5.2	5.1	5.0	2.9	3.0	5.0	4.7	5.9	11.0	
						0.3	32.5	28.3	28.3	22.7	22.5	7.8	7.8	74.9	74.9	5.1	5.1	5.0	3.1	3.0		5.0			5.0
					M	0.3	318.7	27.9	27.9	25.4	25.4	7.9	7.9	72.1	72.7	4.9	4.9	4.9	3.7	3.4	4.9	8.8			8.5
						1.5	333.7	28.0	27.9	25.4	25.4	7.9	7.9	73.3	72.7	5.0	4.9	4.9	3.1	3.4		4.9			
					B	0.1	170.3	27.5	27.5	27.3	27.3	7.9	7.9	65.0	64.7	4.4	4.4	4.4	11.4	11.3	4.4	20.0			19.8
						0.5	100.8	27.5	27.5	27.3	27.3	7.9	7.9	64.3	64.7	4.4	4.4	4.4	11.2	11.3		4.4			
IM20A	Cloudy	Calm	15:16	4.5	S	0.7	174.3	29.0	29.0	22.4	22.4	7.8	7.8	76.3	77.0	5.2	5.2	5.2	6.4	6.5	5.2	8.9	7.4	12.2	
						0.7	174.3	29.0	29.0	22.3	22.4	7.8	7.8	77.7	77.0	5.3	5.2	5.2	6.7	6.5		5.2			8.3
					B	0.9	210.6	28.1	28.2	24.7	24.5	7.8	7.8	72.2	71.7	4.9	4.9	4.9	8.8	8.3	4.9	16.1			15.9
						0.3	142.4	28.3	28.2	24.4	24.5	7.8	7.8	71.2	71.7	4.8	4.9	4.9	7.8	8.3		4.9			
IM21A	Cloudy	Calm	15:06	4.5	S	0.3	34.2	30.0	30.0	20.3	20.3	7.8	7.8	82.1	84.1	5.6	5.7	5.7	6.5	5.8	5.7	7.2	18.2	25.4	
						0.8	165.5	30.0	30.0	20.4	20.3	7.8	7.8	86.1	84.1	5.8	5.7	5.7	5.0	5.8		5.7			6.7
					B	0.3	246.9	28.1	28.4	24.7	24.2	7.8	7.8	71.3	72.5	4.9	4.9	4.9	32.9	30.7	4.9	45.8			43.8
						0.3	294.8	28.8	28.4	23.7	24.2	7.8	7.8	73.7	72.5	5.0	4.9	4.9	28.4	30.7		4.9			
IM22A	Cloudy	Calm	15:01	4.5	S	1.0	92.2	29.0	29.0	20.5	21.0	7.8	7.8	80.3	79.7	5.5	5.5	5.5	4.3	4.0	5.5	4.0	5.8	8.3	
						0.6	56.7	29.0	29.0	21.5	21.0	7.8	7.8	79.1	79.7	5.4	5.5	5.5	3.8	4.0		5.5			4.2
					B	0.6	52.6	28.0	28.0	25.2	25.0	7.8	7.8	70.1	69.7	4.8	4.7	4.7	7.4	7.6	4.7	13.0			12.4
						0.4	34.0	28.1	28.0	24.9	25.0	7.8	7.8	69.3	69.7	4.7	4.7	4.7	7.8	7.6		4.7			

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
E1	Fine	Calm	11:50	8.3	S	0.2	198.4	29.3	29.3	27.7	27.7	8.0	8.0	111.8	112.3	7.4	7.4	6.5	3.0	3.0	2.8	2.4	7.4		
						0.2	198.4	29.3	29.3	27.7	27.7	8.0	8.0	112.8	112.3	7.4	7.4	6.5	3.0	3.0	1.9			4.8	
						0.2	198.4	28.3	28.3	29.0	29.0	7.9	7.9	84.0	84.4	5.6	5.6	4.1	4.1	7.5	4.6				15.2
					M	0.2	198.4	28.3	28.3	29.1	29.1	7.9	7.9	84.8	84.8	5.6	5.6	4.1	4.1	7.5	4.6	4.6		2.3	
						0.2	198.4	28.3	28.3	29.1	29.1	7.9	7.9	84.8	84.8	5.6	5.6	4.1	4.1	7.5	4.6	4.6			2.3
						0.4	173.3	27.8	27.9	30.0	30.2	7.9	7.9	59.7	61.4	4.0	4.1	4.1	4.1	7.5	4.6	23.9			
E2	Fine	Calm	06:44	9.5	S	0.3	52.9	29.8	29.8	28.8	28.8	8.2	8.2	150.5	151.4	9.7	9.8	8.8	2.3	2.3	2.0	2.3	10.5		
						0.2	99.6	29.8	29.8	28.8	28.8	8.2	8.2	152.3	151.4	9.9	9.8	8.8	2.3	2.3	2.6				
						0.5	106.2	28.8	28.8	29.8	29.8	8.0	8.0	118.9	119.6	7.8	7.8	1.8	1.8	16.3	16.2			4.7	
					M	0.7	154.4	28.7	28.8	29.8	29.8	8.0	8.0	120.3	119.6	7.9	7.8	1.8	1.8	16.2	16.2	4.8		24.5	
						0.2	19.4	27.7	27.7	31.1	31.1	7.7	7.7	27.7	26.5	1.8	1.8	1.8	1.8	16.3	16.2	24.0			
						0.4	17.3	27.7	27.7	31.1	31.1	7.7	7.7	25.3	26.5	1.7	1.8	1.8	1.8	16.2	16.2	25.0			
E3	Fine	Calm	07:45	17.0	S	0.3	76.1	29.4	29.4	19.3	19.3	8.2	8.2	112.6	112.9	7.7	7.8	6.6	4.9	4.9	5.3	4.9	7.0		
						0.4	104.3	29.4	29.4	19.3	19.3	8.2	8.2	113.3	112.9	7.8	7.8	6.6	4.9	4.9	4.5				
						0.2	12.5	28.1	28.1	31.2	31.2	8.0	8.0	81.0	81.4	5.3	5.4	4.8	4.8	4.9	4.7			5.8	
					M	0.2	12.5	28.1	28.1	31.3	31.3	8.0	8.0	81.9	81.4	5.4	5.4	4.8	4.8	4.9	4.7	6.7		6.3	
						0.1	46.7	28.1	28.1	31.7	31.7	8.0	8.0	74.4	73.9	4.9	4.8	4.8	4.8	9.5	9.7	10.3			
						0.4	127.8	28.1	28.1	31.7	31.7	8.0	8.0	73.3	73.9	4.8	4.8	4.8	4.8	9.8	9.7	9.3			
E4	Cloudy	Calm	10:37	11.0	S	0.3	133.1	29.9	29.9	16.9	16.9	8.4	8.4	139.6	141.7	9.6	9.8	7.7	2.1	2.1	4.2	4.2	9.4		
						1.5	90.2	29.8	29.8	16.9	16.9	8.4	8.4	143.8	141.7	9.9	9.8	7.7	2.1	2.1	4.1				
						1.0	259.2	28.5	28.5	27.6	27.5	8.1	8.1	83.6	83.9	5.6	5.6	5.1	5.1	12.9	13.1			5.3	
					M	0.3	180.2	28.5	28.5	27.5	27.5	8.1	8.1	84.3	83.9	5.6	5.6	5.1	5.1	13.2	13.1	6.2		18.2	
						0.5	168.8	28.1	28.1	30.5	30.5	8.1	8.1	78.9	77.5	5.2	5.1	5.1	5.1	12.9	13.1	17.5			
						0.5	168.8	28.1	28.1	30.5	30.5	8.1	8.1	76.2	77.5	5.0	5.1	5.1	5.1	13.2	13.1	18.9			
E5	Cloudy	Calm	09:34	6.0	S	0.3	114.9	29.7	29.7	14.7	15.0	8.2	8.2	101.9	105.5	7.1	7.4	6.1	2.7	2.6	5.5	5.0	6.1		
						0.3	114.9	29.7	29.7	15.4	15.0	8.2	8.2	109.1	105.5	7.6	7.4	6.1	2.5	2.6	4.5				
						1.5	240.3	28.4	28.4	25.7	25.5	8.0	8.0	70.9	71.0	4.8	4.8	5.0	5.0	4.7	4.4			6.6	
					M	0.7	178.9	28.4	28.4	25.4	25.4	8.0	8.0	71.2	74.2	4.8	4.8	5.0	5.0	4.1	4.4	5.7		6.2	
						0.5	45.6	28.2	28.2	27.5	27.6	8.0	8.0	77.2	74.2	5.2	5.0	5.0	5.0	5.8	6.0	6.8			
						0.3	135.1	28.1	28.2	27.7	27.6	8.0	8.0	71.2	74.2	4.8	4.8	5.0	5.0	6.3	6.0	7.5			
E6	Cloudy	Calm	07:38	6.5	S	0.7	130.8	29.6	29.6	14.5	14.4	8.0	8.0	94.2	94.3	6.6	6.6	6.1	3.2	3.2	3.0	3.5	3.6		
						0.1	154.5	29.6	29.6	14.3	14.4	8.0	8.0	94.5	94.3	6.7	6.6	6.1	3.2	3.2	3.9				
						0.3	144.8	29.0	29.2	22.0	19.4	7.9	7.9	78.2	81.6	5.3	5.6	5.0	5.0	2.2	2.4			4.2	
					M	0.3	16.1	29.4	29.2	16.7	19.4	8.0	7.9	85.1	81.6	6.0	5.6	5.0	5.0	2.3	2.2	3.1		3.6	
						0.3	164.3	28.4	28.5	25.9	25.5	7.9	7.9	75.5	74.1	5.1	5.0	5.0	5.0	2.3	2.2	4.0			
						0.4	67.7	28.6	28.5	25.1	25.5	7.9	7.9	72.8	74.1	4.9	5.0	5.0	5.0	2.0	2.2	4.0			
E7A	Cloudy	Calm	06:46	5.5	S	0.5	238.3	29.5	29.7	16.9	16.0	7.9	7.9	83.2	87.4	5.8	6.1	6.1	2.9	2.8	4.1	3.6	3.3		
						0.5	238.3	29.8	29.7	15.2	16.0	7.9	7.9	91.6	87.4	6.4	6.1	6.1	2.6	2.8	3.1				
						0.3	222.6	28.8	28.7	23.7	23.9	7.8	7.8	74.1	71.8	5.0	4.9	4.9	4.9	3.5	3.7			2.5	
					B	0.2	158.3	28.7	28.7	24.0	23.9	7.8	7.8	69.5	71.8	4.7	4.9	4.9	4.9	3.5	3.7	3.5		3.0	
						0.3	163.5	29.4	29.4	28.7	28.7	8.2	8.2	154.0	155.3	10.1	10.1	7.5	7.5	2.8	2.8	3.4			
						0.3	163.5	29.4	29.4	28.7	28.7	8.2	8.2	156.7	155.3	10.2	10.1	7.5	7.5	2.8	2.8	3.9			
F1	Fine	Calm	10:55	19.6	M	0.2	116.5	27.8	27.8	31.5	31.5	8.0	8.0	73.1	72.9	4.8	4.8	4.8	3.8	3.7	3.7	4.2	7.8		
						0.4	92.9	27.9	27.8	31.5	31.5	8.0	8.0	72.8	72.9	4.8	4.8	4.8	3.7	3.7	4.7				
						0.3	92.1	28.1	28.1	32.3	32.3	8.0	8.0	69.2	68.7	4.5	4.5	4.5	4.5	11.3	11.5			15.6	
					B	0.1	217.1	28.1	28.1	32.3	32.3	8.0	8.0	68.3	68.7	4.5	4.5	4.5	4.5	11.6	11.5	15.3		15.5	
						0.3	104.8	29.6	29.5	27.7	27.8	8.2	8.2	150.8	149.2	9.9	9.8	7.6	7.6	2.2	2.3	5.9			
						0.3	104.8	29.5	29.5	27.9	27.8	8.2	8.2	147.7	149.2	9.7	9.8	7.6	7.6	2.3	2.3	4.9			
F2	Fine	Calm	10:25	19.0	M	0.2	132.4	28.2	28.2	31.5	31.4	8.0	8.0	81.3	82.5	5.3	5.4	4.5	4.5	2.8	2.6	7.2	6.7	7.2	
						0.4	145.7	28.2	28.2	31.4	31.4	8.0	8.0	83.6	82.5	5.5	5.4	4.5	4.5	2.4	2.6	6.2			
						0.0	9.5	28.1	28.1	32.1	32.1	8.0	8.0	69.0	68.3	4.5	4.5	4.5	4.5	10.9	11.5	9.3			
					B	0.1	46.3	28.1	28.1	32.1	32.1	8.0	8.0	67.5	68.3	4.4	4.5	4.5	4.5	12.1	11.5	9.9	9.6		
						0.1	46.3	28.1	28.1	32.1	32.1	8.0	8.0	67.5	68.3	4.4	4.5	4.5	4.5	12.1	11.5	9.9			
						0.1	46.3	28.1	28.1	32.1	32.1	8.0	8.0	67.5	68.3	4.4	4.5	4.5	4.5	12.1	11.5	9.9			

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
F3	Fine	Calm	09:04	18.0	S	0.5	95.3	29.8	29.7	26.1	26.5	8.2	8.2	149.3	152.2	9.8	10.0	7.7	2.7	2.6	5.0	5.2	20.2				
						0.5	95.3	29.7	29.7	26.9	26.5	8.2	8.2	155.1	152.2	10.2	10.0	7.7	2.5	2.6	5.4	5.2					
					M	0.3	109.4	28.2	28.2	31.7	31.7	8.0	8.0	81.0	81.5	5.3	5.3	4.4	3.7	3.2	2.5	2.6		2.7	2.6		
						0.3	75.3	28.2	28.1	31.7	31.7	8.0	8.0	82.0	81.5	5.4	5.3	4.4	2.8	3.2	2.7	2.6		2.7		2.6	
					B	0.5	113.7	28.1	28.1	32.4	32.4	8.0	8.0	68.8	68.2	4.5	4.4	4.4	19.5	20.5	4.4	21.6		52.1	52.7		52.7
						0.5	113.7	28.1	28.1	32.4	32.4	8.0	8.0	67.6	68.2	4.4	4.4	4.4	21.6	20.5	4.4	21.6		53.3	52.7	52.7	
F4	Fine	Calm	07:10	14.0	S	0.2	33.9	30.2	30.2	26.6	26.5	8.1	8.1	131.6	131.8	8.6	8.6	7.0	3.4	3.4	3.2	3.7	9.1				
						0.2	33.9	30.2	30.2	26.4	26.5	8.1	8.1	132.0	131.8	8.6	8.6	7.0	3.4	3.4	4.2	3.7		4.2	3.7		
					M	0.2	77.6	28.2	28.1	30.3	30.3	7.9	7.9	81.2	81.4	5.4	5.4	4.2	3.1	3.1	3.0	5.6		5.9		6.1	5.9
						0.4	143.6	28.1	28.1	30.4	30.3	7.9	7.9	81.6	81.4	5.4	5.4	4.2	3.0	3.1	3.0	6.1		5.9	6.1	5.9	
					B	0.2	138.5	28.0	28.0	31.6	31.6	7.9	7.9	64.4	63.7	4.2	4.2	4.2	13.0	12.7	4.2	12.4		19.0	17.8		16.5
						0.1	136.6	28.0	28.0	31.6	31.6	7.9	7.9	63.0	63.7	4.1	4.2	4.2	12.4	12.7	4.1	12.4		16.5	17.8	16.5	17.8
F5	Cloudy	Calm	10:09	5.5	S	3.9	185.8	29.7	29.7	15.0	15.0	8.4	8.4	136.7	139.9	9.6	9.8	9.8	2.1	2.1	4.3	4.6	5.2				
						3.9	185.8	29.7	29.7	15.0	15.0	8.4	8.4	143.2	139.9	10.0	9.8	9.8	2.1	2.1	4.8	4.6		4.8	4.6		
					B	1.0	194.1	28.8	28.8	25.0	25.0	8.1	8.0	94.8	91.1	6.4	6.1	6.1	2.5	2.6	5.3	5.8		5.3		5.8	
						0.5	225.2	28.9	28.8	25.0	25.0	8.0	8.0	87.4	91.1	5.9	6.1	6.1	2.8	2.6	6.2	5.8		6.2	5.8		
F6	Cloudy	Calm	08:55	14.0	S	0.6	0.1	29.6	29.6	16.3	17.1	8.1	8.1	101.0	99.6	7.0	6.9	5.7	2.1	2.1	3.0	3.5	5.8				
						0.6	0.1	29.5	29.6	17.8	17.1	8.0	8.1	98.3	99.6	6.8	6.9	5.7	2.1	2.1	3.9	3.5		3.9	3.5		
					M	0.5	112.1	28.4	28.5	26.8	26.7	7.9	7.9	66.3	68.3	4.4	4.6	4.6	2.2	2.4	5.1	4.7		5.1		4.7	
						0.6	24.5	28.5	28.5	26.5	26.7	7.9	7.9	70.4	68.3	4.7	4.6	4.6	2.2	2.4	4.2	4.7		4.2	4.7		4.7
					B	1.4	154.5	27.9	27.9	28.8	28.8	7.9	7.9	61.5	59.6	4.1	4.0	4.0	5.9	6.2	8.9	9.4		8.9	9.4	9.4	
						0.7	144.2	27.9	27.9	28.8	28.8	7.9	7.9	57.7	59.6	3.9	4.0	4.0	6.4	6.2	9.9	9.4		9.9	9.4		9.4
IM1	Fine	Calm	11:14	9.3	S	0.1	64.6	29.7	29.7	30.0	30.0	8.1	8.1	114.1	115.9	7.4	7.5	6.1	3.5	3.5	2.7	3.2	6.9				
						0.1	64.6	29.7	29.7	30.0	30.0	8.1	8.1	117.7	115.9	7.6	7.5	6.1	3.5	3.5	3.6	3.2		3.6	3.2		
					M	0.2	58.8	27.7	27.7	31.5	31.5	8.0	8.0	70.0	70.3	4.6	4.6	4.6	4.3	4.2	4.3	3.7		4.1		3.7	3.7
						0.1	222.3	27.7	27.7	31.5	31.5	8.0	8.0	70.6	70.3	4.7	4.6	4.6	4.2	4.2	4.1	3.7		4.1	3.7	3.7	
					B	0.2	351.7	27.9	27.9	31.9	31.9	8.0	8.0	72.6	72.2	4.8	4.7	4.7	14.5	14.1	13.0	14.0		13.0	14.0		14.0
						0.3	50.0	27.9	27.9	31.9	31.9	8.0	8.0	71.8	72.2	4.7	4.7	4.7	13.7	14.1	14.9	14.0		14.9	14.0	14.0	
IM2	Fine	Calm	11:36	11.0	S	0.4	166.7	29.4	29.4	28.0	28.0	8.1	8.1	125.3	125.8	8.2	8.2	6.9	3.0	3.0	3.8	3.7	9.8				
						0.5	173.7	29.4	29.4	28.0	28.0	8.1	8.1	126.3	125.8	8.3	8.2	6.9	3.0	3.0	3.5	3.7		3.5	3.7		
					M	0.6	210.2	28.3	28.3	29.4	29.4	7.9	7.9	84.2	84.7	5.6	5.6	5.6	3.7	3.6	4.0	3.8		4.0		3.8	
						0.5	188.9	28.3	28.3	29.4	29.4	7.9	7.9	85.3	84.7	5.6	5.6	5.6	3.5	3.6	3.6	3.8		3.6	3.8		
					B	0.2	258.8	27.8	27.8	31.9	31.9	7.9	7.9	64.5	63.8	4.2	4.2	4.2	12.5	12.8	23.1	22.0		23.1		22.0	
						0.2	258.8	27.8	27.8	31.9	31.9	7.9	7.9	63.1	63.8	4.2	4.2	4.2	13.2	12.8	20.9	22.0		20.9	22.0		
IM3	Fine	Calm	10:02	14.5	S	0.5	136.3	29.0	29.0	29.1	29.1	8.1	8.1	125.7	125.9	8.2	8.3	6.4	2.8	2.8	2.7	3.2	6.7				
						0.5	136.3	29.0	29.0	29.1	29.1	8.1	8.1	126.2	125.9	8.3	8.3	6.4	2.9	2.8	3.6	3.2		3.6	3.2		
					M	0.5	68.8	27.9	27.9	31.2	31.2	8.0	8.0	69.2	69.3	4.6	4.6	4.6	4.8	4.7	8.2	7.7		8.2		7.7	
						0.5	56.1	27.9	27.9	31.2	31.2	8.0	8.0	69.4	69.3	4.6	4.6	4.6	4.7	4.7	7.2	7.7		7.2	7.7		
					B	0.3	44.5	28.0	28.0	31.8	31.8	8.0	8.0	67.2	66.6	4.4	4.4	4.4	12.3	12.8	9.7	9.1		9.7		9.1	
						0.3	44.5	28.0	28.0	31.8	31.8	8.0	8.0	66.0	66.6	4.3	4.4	4.4	13.2	12.8	8.5	9.1		8.5	9.1		
IM4	Fine	Calm	09:40	16.3	S	0.2	102.9	28.8	28.8	29.6	29.7	8.1	8.1	128.9	130.4	8.4	8.5	6.5	2.9	2.8	3.6	3.2	15.0				
						0.2	102.9	28.8	28.8	29.7	29.7	8.1	8.1	131.9	130.4	8.6	8.5	6.5	2.8	2.8	2.7	3.2		2.7	3.2		
					M	0.5	107.1	28.0	28.0	31.3	31.3	8.0	8.0	68.5	69.1	4.5	4.5	4.5	6.7	6.6	7.6	8.1		7.6		8.1	
						0.2	71.7	28.0	28.0	31.3	31.3	8.0	8.0	69.6	69.1	4.6	4.5	4.5	6.5	6.6	8.6	8.1		8.6	8.1		
					B	0.3	113.3	28.0	28.0	31.9	31.9	7.9	7.9	60.9	60.5	4.0	4.0	4.0	26.4	26.0	31.2	33.7		31.2		33.7	
						0.2	87.7	28.0	28.0	31.9	31.9	7.9	7.9	60.1	60.5	3.9	4.0	4.0	25.7	26.0	36.1	33.7		36.1	33.7		
IM5	Fine	Calm	09:22	15.5	S	0.4	117.5	29.7	29.7	27.0	27.1	8.2	8.2	146.1	145.7	9.6	9.5	7.4	2.4	2.3	1.5	1.7	8.0				
						0.1	141.8	29.7	29.7	27.1	27.1	8.2	8.2	145.3	145.7	9.5	9.5	7.4	2.3	2.3	1.8	1.7		1.8	1.7		
					M	0.4	106.3	28.2	28.2	31.0	31.0	8.0	8.0	80.1	81.5	5.3	5.4	5.4	3.5	3.1	2.2	2.5		2.2		2.5	
						0.4	104.5	28.2	28.2	31.0	31.0	8.0	8.0	83.0	81.5	5.5	5.4	5.4	2.7	3.1	2.7	2.5		2.7	2.5		
					B	0.3	32.3	28.1	28.1	32.3	32.3	7.9	7.9	68.2	67.6	4.5	4.4	4.4	13.1	13.3	18.5	19.8		18.5		19.8	
						0.3	32.3	28.1	28.1	32.3	32.3	8.0	8.0	66.9	67.6	4.4	4.4	4.4	13.5	13.3	21.0	19.8		21.0	19.8		

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM6	Fine	Calm	08:53	16.0	S	0.4	30.6	29.8	29.8	25.6	25.7	8.2	8.2	145.3	145.9	9.6	9.6	7.5	2.7	2.7	1.9	2.2	
						0.4	30.6	29.8	29.8	25.8	25.7	8.2	8.2	146.4	145.9	9.6	9.6	7.5	2.7	2.7	2.4	2.2	
					M	0.4	134.0	28.1	28.1	31.5	31.4	8.0	8.0	81.5	81.8	5.3	5.4	5.1	5.1	7.2	7.2	2.6	3.1
						0.5	92.4	28.1	28.1	31.4	31.4	8.0	8.0	82.0	81.8	5.4	5.4	5.1	5.1	7.2	7.2	3.6	3.1
					B	0.1	15.8	28.1	28.1	32.4	32.4	8.0	8.0	69.7	69.0	4.5	4.5	4.5	4.5	12.8	13.0	14.6	15.8
						0.1	15.8	28.1	28.1	32.4	32.4	8.0	8.0	68.4	69.0	4.5	4.5	4.5	4.5	13.2	13.0	16.9	15.8
IM7	Fine	Calm	08:29	13.0	S	0.2	82.4	29.4	29.4	26.5	26.5	8.2	8.2	138.2	138.4	9.1	9.1	7.5	2.5	2.6	2.1	2.2	
						0.1	87.4	29.4	29.4	26.5	26.5	8.2	8.2	138.7	138.4	9.2	9.1	7.5	2.6	2.6	2.2	2.2	
					M	0.1	73.1	28.3	28.2	30.5	30.7	8.0	8.0	88.7	88.6	5.8	5.8	5.1	5.1	7.2	7.2	1.3	1.5
						0.3	41.4	28.2	28.2	30.8	30.7	8.0	8.0	88.4	88.6	5.8	5.8	5.1	5.1	7.2	7.2	1.6	1.5
					B	0.3	54.7	28.2	28.2	32.1	32.1	8.0	8.0	79.3	78.7	5.2	5.1	5.1	5.1	7.2	7.2	8.7	9.1
						0.3	54.7	28.2	28.2	32.1	32.1	8.0	8.0	78.2	78.7	5.1	5.1	5.1	5.1	7.2	7.2	9.4	9.1
IM8	Fine	Calm	08:38	15.0	S	0.4	107.1	29.5	29.5	24.1	24.1	8.2	8.2	135.7	136.1	9.1	9.1	7.3	3.0	3.0	2.4	2.6	
						0.4	107.1	29.5	29.5	24.1	24.1	8.2	8.2	136.6	136.1	9.1	9.1	7.3	3.0	3.0	2.7	2.6	
					M	0.6	223.4	28.2	28.2	31.5	31.4	8.0	8.0	84.8	84.3	5.6	5.5	5.5	5.5	3.4	3.2	2.4	2.2
						0.4	77.0	28.2	28.2	31.4	31.4	8.0	8.0	83.8	84.3	5.5	5.5	5.5	5.5	3.0	3.2	2.0	2.2
					B	0.3	57.7	28.2	28.2	32.0	32.0	8.0	8.0	79.9	79.3	5.2	5.2	5.2	5.2	7.0	7.0	7.8	8.3
						0.4	65.4	28.2	28.2	32.0	32.0	8.0	8.0	78.8	79.3	5.1	5.1	5.2	5.2	7.1	7.0	8.7	8.3
IM9	Fine	Calm	08:09	15.0	S	0.3	110.0	29.1	29.1	23.2	23.1	8.1	8.1	116.7	117.3	7.9	7.9	6.8	3.2	3.2	2.0	2.4	
						0.4	110.0	29.0	29.1	23.0	23.1	8.1	8.1	117.8	117.3	8.0	7.9	6.8	3.2	3.2	2.8	2.4	
					M	0.4	105.9	28.2	28.2	30.8	30.9	8.0	8.0	89.0	87.0	5.9	5.7	5.7	5.7	3.0	2.8	2.2	2.1
						0.2	135.0	28.1	28.2	31.1	30.9	8.0	8.0	85.1	87.0	5.6	5.7	5.7	5.7	2.7	2.8	2.0	2.1
					B	0.2	136.7	28.1	28.1	31.9	31.9	8.0	8.0	71.8	71.3	4.7	4.7	4.7	4.7	15.1	15.2	16.8	16.8
						0.2	113.2	28.1	28.1	31.9	31.9	8.0	8.0	70.8	71.3	4.6	4.7	4.7	4.7	15.4	15.2	16.8	16.8
IM10	Cloudy	Calm	11:47	11.0	S	0.5	11.0	28.6	28.6	27.7	27.6	8.1	8.1	78.0	83.8	5.2	5.6	5.1	19.8	18.1	20.9	22.3	
						0.5	11.0	28.7	28.6	27.5	27.6	8.1	8.1	89.5	83.8	6.0	5.6	5.1	16.4	18.1	23.7	22.3	
					M	0.3	71.0	28.1	28.1	31.6	31.6	8.1	8.1	71.5	71.4	4.7	4.7	4.7	4.7	55.0	58.9	113.0	122.0
						0.3	71.0	28.1	28.1	31.6	31.6	8.1	8.1	71.4	71.4	4.7	4.7	4.7	4.7	62.7	58.9	131.0	122.0
					B	0.6	96.1	28.1	28.1	31.6	31.6	8.1	8.1	71.5	71.5	4.7	4.7	4.7	4.7	101.3	102.5	191.0^A	176.0
						0.6	183.7	28.1	28.1	31.6	31.6	8.1	8.1	71.4	71.4	4.7	4.7	4.7	4.7	103.7	102.5	176.0	176.0
IM11A	Cloudy	Calm	11:35	4.5	S	0.3	218.5	30.1	30.0	17.6	18.0	8.5	8.5	150.6	150.2	10.3	10.3	10.3	12.3	11.8	14.8	15.5	
						0.3	218.5	30.0	30.0	18.5	18.0	8.5	8.5	149.8	150.2	10.2	10.3	10.3	10.3	11.4	11.8	16.1	15.5
					B	0.3	58.1	28.8	28.8	24.9	24.9	8.2	8.2	103.2	102.5	6.9	6.9	6.9	6.9	43.2	45.2	86.0	92.9
						0.3	95.8	28.8	28.8	24.9	24.9	8.2	8.2	101.9	102.5	6.9	6.9	6.9	6.9	47.2	45.2	99.8	92.9
IM12	Cloudy	Calm	11:24	12.5	S	1.5	151.2	29.5	29.6	17.6	17.4	8.4	8.5	142.7	147.2	9.9	10.2	7.5	3.3	3.0	6.1	6.2	
						1.1	175.9	29.6	29.6	17.1	17.4	8.5	8.5	151.8	147.2	10.5	10.2	7.5	2.7	3.0	6.3	6.2	
					M	1.0	151.0	28.1	28.1	30.8	30.8	8.1	8.1	73.6	73.6	4.8	4.8	4.8	4.8	32.6	32.6	61.7	59.2
						1.2	150.3	28.1	28.1	30.8	30.8	8.1	8.1	73.6	73.6	4.8	4.8	4.8	4.8	32.5	32.6	56.6	59.2
					B	0.3	131.0	28.1	28.1	31.1	31.1	8.1	8.1	69.9	69.5	4.6	4.6	4.6	4.6	360.5	382.5	576.0^A	-
						0.2	121.0	28.1	28.1	31.1	31.1	8.1	8.1	69.2	69.5	4.6	4.6	4.6	4.6	404.5	382.5	511.0^A	-
IM13	Cloudy	Calm	11:00	16.5	S	0.3	160.3	29.8	29.8	17.2	17.2	8.5	8.5	153.6	155.2	10.6	10.7	8.9	1.8	1.8	3.2	3.3	
						0.3	160.3	29.8	29.8	17.2	17.2	8.5	8.5	156.9	155.2	10.8	10.7	8.9	1.8	1.8	3.3	3.3	
					M	0.7	235.3	29.2	29.2	18.7	19.3	8.1	8.1	99.0	101.9	6.9	7.0	7.0	7.0	2.2	2.0	3.4	3.9
						1.1	252.0	29.2	29.2	19.9	19.3	8.1	8.1	104.7	101.9	7.2	7.0	7.0	7.0	1.9	2.0	4.3	3.9
					B	0.9	201.0	28.1	28.1	30.6	30.6	8.1	8.1	76.0	75.8	5.0	5.0	5.0	5.0	26.8	25.9	45.2	42.3
						0.5	196.2	28.1	28.1	30.6	30.6	8.1	8.1	75.6	75.8	5.0	5.0	5.0	5.0	25.0	25.9	39.4	42.3
IM14	Cloudy	Calm	10:48	10.5	S	0.5	160.1	30.2	30.2	15.9	15.8	8.6	8.6	163.3	168.0	11.3	11.6	9.9	2.5	2.5	5.8	5.5	
						0.7	208.1	30.2	30.2	15.8	15.8	8.6	8.6	172.6	168.0	11.9	11.6	9.9	2.5	2.5	5.1	5.5	
					M	1.3	132.7	29.5	29.5	18.0	18.0	8.2	8.2	117.7	118.0	8.1	8.1	8.1	8.1	2.8	2.5	3.2	3.0
						1.3	198.3	29.5	29.5	18.0	18.0	8.2	8.2	118.3	118.0	8.2	8.1	8.1	8.1	2.2	2.5	2.2	3.0
					B	0.8	169.4	28.2	28.2	29.7	29.7	8.1	8.1	79.3	78.5	5.3	5.2	5.2	5.2	24.5	24.7	32.4	32.2
						0.8	137.4	28.2	28.2	29.7	29.7	8.1	8.1	77.7	78.5	5.1	5.2	5.2	5.2	24.9	24.7	31.9	32.2

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
IM15	Cloudy	Calm	09:46	6.5	S	0.6	209.0	29.6	29.7	15.1	15.0	8.2	8.2	112.7	117.0	7.9	8.2	6.9	2.2	2.3	2.4	2.9	6.1
						0.3	267.7	29.8	29.7	14.9	15.0	8.3	8.2	121.2	117.0	8.5	8.2	6.9	2.4	2.3	3.4	2.9	
					M	0.9	215.6	28.9	28.9	22.5	22.2	8.0	8.0	82.8	81.0	5.6	5.5	5.1	3.5	3.7	7.0	7.5	
						0.9	215.6	28.8	28.9	21.9	22.2	8.0	8.0	79.3	81.0	5.4	5.5	5.1	3.8	3.7	8.0	7.5	
					B	0.4	236.5	28.1	28.1	28.2	28.2	8.0	8.0	79.4	76.1	5.3	5.1	5.1	5.6	5.9	7.4	7.9	
						0.3	169.5	28.1	28.1	28.2	28.2	8.0	8.0	72.8	76.1	4.9	5.1	5.1	6.1	5.9	8.3	7.9	
IM16A	Cloudy	Calm	09:21	7.5	S	0.1	306.4	30.0	30.0	12.9	13.0	8.2	8.2	110.5	111.2	7.8	7.8	6.3	4.3	4.3	4.3	4.8	7.3
						0.2	306.9	29.9	30.0	13.1	13.0	8.2	8.2	111.8	111.2	7.9	7.8	6.3	4.4	4.3	4.3	4.8	
					M	0.2	155.9	28.5	28.5	25.0	25.1	8.0	7.9	71.6	72.1	4.8	4.9	4.9	5.0	4.6	5.0	4.9	
						0.2	155.9	28.5	28.5	25.2	25.1	7.9	7.9	72.5	72.1	4.9	4.9	4.9	4.2	4.6	4.8	4.9	
					B	1.0	223.8	28.1	28.1	27.3	27.3	8.0	8.0	70.9	69.5	4.8	4.7	4.7	9.2	9.3	12.3	12.1	
						0.5	92.4	28.1	28.1	27.3	27.3	8.0	8.0	68.2	69.5	4.6	4.7	4.7	9.5	9.3	11.9	12.1	
IM17	Cloudy	Calm	08:19	5.5	S	0.5	147.7	29.9	29.9	12.9	13.3	8.1	8.1	99.7	100.7	7.0	7.1	7.1	4.9	5.5	4.2	4.3	4.2
						0.3	59.6	29.8	29.9	13.6	13.3	8.1	8.1	101.6	100.7	7.2	7.1	7.1	6.0	5.5	4.4	4.3	
					B	0.0	91.3	28.8	28.7	23.5	23.5	7.9	7.9	79.8	77.8	5.4	5.3	5.3	2.4	2.3	4.6	4.1	
						0.4	146.5	28.7	28.7	23.5	23.5	7.9	7.9	75.8	77.8	5.1	5.3	5.3	2.2	2.3	3.6	4.1	
					S	1.2	337.7	29.6	29.7	14.3	14.1	8.1	8.1	92.4	95.7	6.5	6.7	6.7	3.5	3.8	3.3	3.8	
						0.3	260.3	29.7	29.7	13.8	14.1	8.1	8.1	98.9	95.7	7.0	6.7	6.7	4.0	3.8	4.3	3.8	
IM18	Cloudy	Calm	08:31	17.5	M	0.3	175.9	28.5	28.5	26.5	26.6	7.9	7.9	69.9	70.3	4.7	4.7	5.7	2.1	2.0	4.5	4.0	5.7
						0.7	22.7	28.5	28.5	26.7	26.6	7.9	7.9	70.6	70.3	4.7	4.7	5.7	1.8	2.0	3.5	4.0	
					B	0.5	152.8	27.9	27.9	29.0	29.0	7.9	7.9	60.1	59.8	4.0	4.0	4.0	8.6	8.2	9.6	9.2	
						0.5	33.3	27.9	27.9	29.0	29.0	7.9	7.9	59.6	59.8	4.0	4.0	4.0	7.9	8.2	8.7	9.2	
					S	0.8	205.1	29.3	29.3	15.2	15.1	8.1	8.1	90.9	93.7	6.4	6.6	6.6	3.0	3.1	3.4	3.2	
						0.8	205.1	29.3	29.3	15.0	15.1	8.1	8.1	96.5	93.7	6.8	6.6	6.6	3.2	3.1	3.0	3.2	
IM19	Cloudy	Calm	08:00	18.0	M	0.9	149.1	28.2	28.2	27.4	27.4	7.9	7.9	62.8	62.7	4.2	4.2	5.4	3.2	3.1	5.7	5.8	8.0
						0.9	194.7	28.2	28.2	27.4	27.4	7.9	7.9	62.6	62.7	4.2	4.2	5.4	3.1	3.1	5.9	5.8	
					B	0.2	121.5	28.0	28.0	29.3	29.3	7.9	7.9	63.4	62.6	4.2	4.2	4.2	11.4	10.6	14.1	15.1	
						0.2	219.6	28.0	28.0	29.3	29.3	7.9	7.9	61.8	62.6	4.1	4.2	4.2	9.8	10.6	16.0	15.1	
					S	0.4	314.7	29.8	29.8	16.0	15.7	7.9	7.9	90.5	91.8	6.3	6.4	6.4	2.9	3.1	4.8	5.3	
						1.0	205.7	29.8	29.8	15.5	15.7	7.9	7.9	93.1	91.8	6.5	6.4	6.4	3.3	3.1	5.8	5.3	
IM20A	Cloudy	Calm	06:59	4.5	B	1.1	137.4	28.6	29.0	24.9	22.7	7.8	7.8	73.2	73.5	4.9	5.0	5.0	4.1	4.4	7.4	7.3	6.3
						0.5	352.4	29.4	29.0	20.6	22.7	7.8	7.8	73.8	73.5	5.0	5.0	5.0	4.7	4.4	7.2	7.3	
					S	1.2	138.2	29.9	29.9	16.3	16.3	7.9	7.9	93.0	93.1	6.5	6.4	6.4	2.8	2.7	5.3	5.1	
						1.2	138.2	29.9	29.9	16.4	16.3	7.9	7.9	93.1	93.1	6.4	6.4	6.4	2.6	2.7	4.8	5.1	
					B	0.3	300.1	30.0	30.0	18.0	18.9	7.9	7.9	93.6	92.4	6.4	6.3	6.3	3.6	4.0	7.2	6.8	
						0.2	111.5	30.0	30.0	19.7	18.9	7.9	7.9	91.3	92.4	6.2	6.3	6.3	4.4	4.0	6.3	6.8	
IM22A	Cloudy	Calm	07:18	5.0	S	0.5	355.5	29.8	29.7	16.5	16.3	8.0	8.0	92.2	93.5	6.4	6.5	6.5	2.6	2.6	5.1	4.8	6.5
						0.5	355.5	29.7	29.7	16.0	16.3	8.0	8.0	94.9	93.5	6.6	6.5	6.5	2.5	2.6	4.5	4.8	
					B	1.2	355.1	29.3	29.3	22.2	22.1	7.9	7.9	82.5	82.1	5.6	5.6	5.6	3.4	3.2	5.3	8.2	
						0.5	234.6	29.4	29.3	21.9	22.1	7.9	7.9	81.7	82.1	5.5	5.6	5.6	3.1	3.2	11.0	8.2	

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
E1	Fine	Calm	14:36	8.4	S	0.2	245.0	28.8	28.8	27.0	27.0	8.1	8.1	105.6	104.9	7.0	7.0	6.5	4.2	4.2	4.9	4.6
						0.2	245.0	28.8	28.8	27.0	27.0	8.1	8.1	104.2	104.9	6.9	7.0	6.5	4.2	4.2	4.2	4.6
					M	0.4	196.7	28.5	28.5	28.6	28.6	8.0	8.0	88.7	89.5	5.9	5.9	9.3	4.7	4.8	4.0	4.2
						0.4	196.7	28.5	28.5	28.6	28.6	8.0	8.0	90.3	89.5	6.0	5.9	9.3	4.8	4.8	4.4	4.2
					B	0.1	266.0	28.1	28.1	30.0	30.0	7.9	7.9	72.8	72.3	4.8	4.8	4.8	7.0	7.0	6.9	7.4
						0.3	249.5	28.1	28.1	30.0	30.0	7.9	7.9	71.8	72.3	4.8	4.8	4.8	7.1	7.0	7.9	7.4
E2	Fine	Calm	19:42	8.7	S	0.3	331.8	30.5	30.5	28.1	28.2	8.4	8.4	157.2	158.7	10.1	10.2	9.3	2.8	2.8	3.4	3.3
						0.5	4.1	30.4	30.5	28.4	28.2	8.4	8.4	160.2	158.7	10.3	10.2	9.3	2.9	2.8	3.2	3.3
					M	0.4	355.9	28.9	28.9	29.8	29.8	8.3	8.3	126.7	127.6	8.3	8.3	9.3	4.1	3.9	4.4	4.6
						0.1	234.0	28.9	28.9	29.8	29.8	8.3	8.3	128.5	127.6	8.4	8.3	9.3	3.8	3.9	4.8	4.6
					B	0.3	250.8	27.8	27.8	31.0	31.0	7.8	7.8	30.7	29.1	2.0	1.9	1.9	17.9	17.5	20.3	20.3
						0.1	215.8	27.8	27.8	31.0	31.0	7.9	7.8	27.5	29.1	1.8	1.9	1.9	17.1	17.5	20.2	20.3
E3	Fine	Calm	18:43	16.4	S	0.2	268.2	29.5	29.4	20.3	20.4	8.4	8.4	132.2	131.7	9.0	9.0	7.1	5.2	5.2	4.1	4.5
						0.2	268.2	29.4	29.4	20.4	20.4	8.4	8.4	131.2	131.7	9.0	9.0	7.1	5.2	5.2	4.9	4.5
					M	0.7	304.7	28.2	28.2	30.7	30.7	8.1	8.1	78.1	78.1	5.1	5.1	5.0	15.7	15.6	24.7	26.0
						0.7	298.5	28.2	28.2	30.7	30.7	8.1	8.1	78.2	78.1	5.1	5.1	5.0	15.5	15.6	27.3	26.0
					B	0.7	319.6	28.1	28.1	31.2	31.2	8.1	8.1	76.6	76.4	5.0	5.0	5.0	28.8	29.0	38.0	41.1
						0.6	311.9	28.1	28.1	31.2	31.2	8.1	8.1	76.2	76.4	5.0	5.0	5.0	29.3	29.0	44.1	41.1
E4	Cloudy	Calm	15:47	10.5	S	0.4	9.2	31.2	31.3	13.1	13.0	8.5	8.5	157.5	158.6	10.9	10.9	8.1	4.5	4.3	4.7	5.2
						0.1	60.7	31.4	31.3	12.8	13.0	8.5	8.5	159.7	158.6	11.0	10.9	8.1	4.1	4.3	5.7	5.2
					M	0.7	356.2	28.4	28.4	26.5	26.7	8.0	8.0	78.4	78.5	5.3	5.3	8.1	8.9	8.4	9.5	9.7
						0.0	341.6	28.4	28.4	26.8	26.7	8.0	8.0	78.7	78.5	5.3	5.3	8.1	8.0	8.4	9.8	9.7
					B	0.8	20.9	28.1	28.1	29.9	29.9	8.0	8.0	74.2	73.2	4.9	4.8	4.8	28.2	28.8	56.8	53.7
						0.7	56.3	28.1	28.1	29.9	29.9	8.0	8.0	72.2	73.2	4.8	4.8	4.8	29.4	28.8	50.6	53.7
E5	Cloudy	Calm	16:53	5.5	S	1.0	13.6	29.8	29.8	17.6	17.7	8.1	8.1	114.2	114.0	7.9	7.9	7.9	3.9	3.8	4.2	4.7
						1.0	16.6	29.7	29.8	17.8	17.7	8.1	8.1	113.8	114.0	7.8	7.9	7.9	3.7	3.8	5.1	4.7
					B	0.6	24.3	29.2	29.2	20.5	20.4	8.0	7.9	92.9	91.4	6.4	6.3	6.3	12.6	13.8	18.7	17.5
						0.1	7.0	29.2	29.2	20.4	20.4	7.9	7.9	89.9	91.4	6.2	6.3	6.3	14.9	13.8	16.3	17.5
					S	1.3	306.6	30.7	30.7	11.9	12.0	8.1	8.1	102.0	104.7	7.1	7.3	7.3	5.8	5.4	5.8	6.0
						0.7	305.0	30.7	30.7	12.0	12.0	8.1	8.1	107.4	104.7	7.5	7.3	7.3	5.0	5.4	6.2	6.0
E6	Cloudy	Calm	18:52	5.5	B	0.2	301.0	28.3	28.3	26.3	26.3	7.9	7.9	69.7	67.6	4.7	4.5	4.5	12.7	13.3	18.9	17.7
						0.4	256.0	28.3	28.3	26.3	26.3	7.9	7.9	65.5	67.6	4.4	4.5	4.5	13.9	13.3	16.4	17.7
					S	0.5	335.2	30.6	30.6	11.9	11.8	8.1	8.1	100.5	103.3	7.1	7.2	7.2	5.6	5.5	5.4	4.9
						0.5	335.2	30.6	30.6	11.8	11.8	8.1	8.1	106.1	103.3	7.4	7.2	7.2	5.4	5.5	4.4	4.9
					B	0.3	136.6	28.7	28.7	26.4	26.0	7.8	7.8	76.8	73.4	5.1	4.9	4.9	6.4	6.6	9.5	9.6
						0.7	278.7	28.7	28.7	25.6	26.0	7.9	7.8	69.9	73.4	4.7	4.9	4.9	6.7	6.6	9.7	9.6
F1	Fine	Calm	15:25	19.8	S	0.1	145.5	29.5	29.4	28.3	28.3	8.4	8.4	180.0	182.0	11.8	11.9	8.3	3.5	3.5	3.7	4.2
						0.1	145.5	29.4	29.4	28.3	28.3	8.4	8.4	184.1	182.0	12.0	11.9	8.3	3.4	3.5	4.6	4.2
					M	0.1	51.8	28.0	28.0	31.7	31.7	8.1	8.1	73.2	73.3	4.8	4.8	8.3	4.3	4.1	3.9	4.4
						0.1	51.8	28.0	28.0	31.7	31.7	8.1	8.1	73.4	73.3	4.8	4.8	8.3	4.0	4.1	4.9	4.4
					B	0.1	133.9	28.2	28.2	32.4	32.4	8.0	8.0	70.4	69.7	4.6	4.5	4.5	11.8	12.3	14.8	16.2
						0.2	109.3	28.2	28.2	32.4	32.4	8.0	8.0	69.1	69.7	4.5	4.5	4.5	12.8	12.3	17.6	16.2
F2	Fine	Calm	15:53	19.2	S	0.4	4.1	30.8	30.9	27.7	27.7	8.4	8.4	175.9	176.2	11.3	11.3	8.0	2.7	2.7	2.4	2.6
						0.1	296.1	31.0	30.9	27.6	27.7	8.4	8.4	176.4	176.2	11.3	11.3	8.0	2.6	2.7	2.7	2.6
					M	0.2	330.8	28.2	28.1	31.8	31.8	8.1	8.1	72.6	72.8	4.8	4.8	8.0	5.0	4.8	3.1	3.6
						0.2	286.9	28.1	28.1	31.8	31.8	8.1	8.1	73.1	72.8	4.8	4.8	8.0	4.6	4.8	4.1	3.6
					B	0.3	316.6	28.2	28.2	32.4	32.4	8.1	8.1	70.3	70.1	4.6	4.6	4.6	17.3	15.5	21.5	20.0
						0.3	316.6	28.2	28.2	32.4	32.4	8.1	8.1	70.0	70.1	4.6	4.6	4.6	13.7	15.5	18.5	20.0

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value
IM6	Fine	Calm	17:22	15.8	S	0.1	61.3	29.8	29.9	26.9	26.5	8.4	8.4	164.7	165.9	10.8	10.9	8.0	2.7	2.8	1.8	1.6		
						0.1	61.3	30.1	26.0	26.5	8.4	8.4	167.1	165.9	10.9	10.9	8.0	2.9	2.8	1.4	1.6			
						0.0	130.2	28.2	28.2	31.5	31.5	8.1	8.1	78.1	78.4	5.1	5.1	8.0	5.3	5.1	6.4	6.7		
					M	0.0	130.2	28.2	28.2	31.5	31.5	8.1	8.1	78.6	78.4	5.2	5.1	4.7	4.7	4.7	4.8	4.8	7.0	7.0
						0.2	219.2	28.2	28.2	32.4	32.4	8.1	8.1	72.4	71.9	4.7	4.7	4.7	4.7	4.7	18.1	18.8	26.5	25.7
						0.2	219.2	28.2	28.2	32.4	32.4	8.1	8.1	71.4	71.9	4.7	4.7	4.7	19.6	18.8	24.9	25.7		
IM7	Fine	Calm	17:48	12.6	S	0.4	311.2	30.6	30.4	22.3	22.0	8.6	8.5	172.6	170.3	11.4	11.3	8.2	4.0	3.9	4.0	4.3		
						0.4	311.2	30.2	21.8	22.0	8.5	8.5	168.0	170.3	11.2	11.3	8.2	3.9	3.9	4.5	4.3			
						0.3	296.5	28.2	28.2	31.7	31.7	8.1	8.1	77.4	77.3	5.1	5.1	5.1	5.9	5.9	6.2	6.0		
					M	0.3	296.5	28.2	28.2	31.7	31.7	8.1	8.1	77.2	77.3	5.1	5.1	5.1	5.9	5.9	5.8	5.8	6.0	6.0
						0.2	53.8	28.2	28.2	32.2	32.2	8.1	8.1	78.0	77.5	5.1	5.1	5.1	8.3	8.4	10.2	9.7		
						0.0	68.2	28.2	28.2	32.2	32.2	8.1	8.1	77.0	77.5	5.0	5.1	5.1	8.5	8.4	9.2	9.7		
B	0.2	53.8	28.2	28.2	32.2	32.2	8.1	8.1	78.0	77.5	5.1	5.1	5.1	8.3	8.4	10.2	9.7							
	0.0	68.2	28.2	28.2	32.2	32.2	8.1	8.1	77.0	77.5	5.0	5.1	5.1	8.5	8.4	9.2	9.7							
	0.0	68.2	28.2	28.2	32.2	32.2	8.1	8.1	77.0	77.5	5.0	5.1	5.1	8.5	8.4	9.2	9.7							
IM8	Fine	Calm	17:37	14.0	S	0.3	330.8	29.3	29.2	27.6	27.9	8.3	8.3	132.2	133.1	8.7	8.7	6.9	3.3	3.3	3.1	3.5		
						0.3	330.8	29.2	28.2	27.6	27.9	8.3	8.3	134.0	133.1	8.8	8.7	6.9	3.2	3.3	3.8	3.5		
						0.3	245.2	28.2	28.2	31.7	31.7	8.1	8.1	77.7	77.7	5.1	5.1	5.1	5.8	5.7	7.0	6.5		
					M	0.2	123.2	28.2	28.2	31.7	31.7	8.1	8.1	77.8	77.8	5.1	5.1	5.1	5.6	5.7	6.0	6.0		
						0.2	309.2	28.2	28.2	32.3	32.3	8.1	8.1	76.4	75.9	5.0	5.0	5.0	11.2	11.4	11.6	12.3		
						0.3	11.1	28.2	28.2	32.3	32.3	8.1	8.1	75.5	75.9	4.9	5.0	5.0	11.6	11.4	13.0	12.3		
B	0.4	314.5	30.6	30.6	16.8	16.8	8.8	8.8	217.9	214.6	14.9	14.6	9.9	5.7	5.7	5.6	5.6							
	0.4	314.5	30.6	30.6	16.8	16.8	8.8	8.8	211.2	214.6	14.4	14.6	9.9	5.7	5.7	6.0	5.8							
	0.4	320.5	28.2	28.2	31.5	31.5	8.1	8.1	79.8	79.8	5.2	5.2	5.2	6.1	6.2	5.2	4.7							
IM9	Fine	Calm	18:09	14.5	S	0.4	314.5	30.6	30.6	16.8	16.8	8.8	8.8	211.2	214.6	14.4	14.6	9.9	5.7	5.7	6.0	5.8		
						0.4	320.5	28.2	28.2	31.5	31.5	8.1	8.1	79.8	79.8	5.2	5.2	5.2	6.1	6.2	5.2	4.7		
						0.4	334.9	28.2	28.2	31.5	31.5	8.1	8.1	79.8	79.8	5.2	5.2	5.2	6.4	6.2	4.2	4.7		
					M	0.3	311.2	28.2	28.2	32.2	32.2	8.1	8.1	76.8	76.3	5.0	5.0	5.0	17.3	17.0	24.0	25.9		
						0.3	270.4	28.2	28.2	32.2	32.2	8.1	8.1	75.9	76.3	5.0	5.0	5.0	16.8	17.0	27.7	25.9		
						0.3	311.2	28.2	28.2	32.2	32.2	8.1	8.1	76.8	76.3	5.0	5.0	5.0	17.3	17.0	24.0	25.9		
B	0.3	270.4	28.2	28.2	32.2	32.2	8.1	8.1	75.9	76.3	5.0	5.0	5.0	16.8	17.0	27.7	25.9							
	0.4	314.5	30.6	30.6	16.8	16.8	8.8	8.8	217.9	214.6	14.9	14.6	9.9	5.7	5.7	5.6	5.6							
	0.4	314.5	30.6	30.6	16.8	16.8	8.8	8.8	211.2	214.6	14.4	14.6	9.9	5.7	5.7	6.0	5.8							
IM10	Cloudy	Calm	14:37	10.5	S	0.7	253.5	28.4	28.6	31.3	31.0	8.0	8.0	79.0	82.5	5.2	5.4	5.0	6.8	6.6	7.5	7.0		
						0.7	253.5	28.8	28.6	30.8	31.0	8.0	8.0	86.0	82.5	5.6	5.4	5.0	6.3	6.6	6.5	7.0		
						0.5	223.0	28.1	28.1	31.5	31.5	8.0	8.0	71.5	71.5	4.7	4.7	4.7	9.7	9.7	15.1	14.2		
					M	0.8	217.9	28.1	28.1	31.5	31.5	8.0	8.0	71.5	71.5	4.7	4.7	4.7	9.7	9.7	9.8	9.7		
						0.6	265.9	28.1	28.1	31.6	31.6	7.9	7.9	70.7	70.5	4.6	4.6	4.6	30.8	32.8	52.7	55.2		
						0.5	258.3	28.1	28.1	31.6	31.6	7.9	7.9	70.4	70.5	4.6	4.6	4.6	34.8	32.8	57.7	55.2		
B	0.6	265.9	28.1	28.1	31.6	31.6	7.9	7.9	70.7	70.5	4.6	4.6	4.6	30.8	32.8	52.7	55.2							
	0.5	258.3	28.1	28.1	31.6	31.6	7.9	7.9	70.4	70.5	4.6	4.6	4.6	34.8	32.8	57.7	55.2							
	0.5	258.3	28.1	28.1	31.6	31.6	7.9	7.9	70.4	70.5	4.6	4.6	4.6	34.8	32.8	57.7	55.2							
IM11A	Cloudy	Calm	14:49	4.5	S	1.4	188.6	31.2	31.1	14.5	14.8	8.7	8.7	190.7	192.2	13.1	13.1	13.1	6.5	6.6	8.7	8.2		
						0.8	173.4	31.1	31.1	15.2	14.8	8.7	8.7	193.6	192.2	13.2	13.1	13.1	6.7	6.6	7.7	8.2		
						0.2	310.5	30.2	30.2	22.0	21.4	8.3	8.4	146.3	147.5	9.8	9.9	9.9	7.7	8.0	25.6	23.9		
					B	0.3	157.9	30.2	30.2	20.7	21.4	8.4	8.4	148.7	147.5	10.0	9.9	9.9	8.3	8.0	22.2	23.9		
						1.4	191.6	30.3	30.4	14.6	14.6	8.5	8.5	166.8	171.5	11.6	11.9	9.0	4.4	4.3	4.3	4.7		
						0.9	206.7	30.5	30.4	14.5	14.6	8.5	8.5	176.2	171.5	12.2	11.9	9.0	4.1	4.3	5.1	4.7		
M	0.3	88.6	28.6	28.6	26.7	26.7	8.1	8.1	92.8	92.9	6.2	6.2	6.2	10.9	10.3	15.7	17.3							
	0.6	250.6	28.6	28.6	26.8	26.7	8.1	8.1	93.0	92.9	6.2	6.2	6.2	9.8	10.3	18.9	17.3							
	1.6	5.8	28.2	28.2	31.5	31.4	8.0	8.0	73.5	73.2	4.8	4.8	4.8	57.7	64.5	113.0	122.0							
B	1.1	312.0	28.2	28.2	31.2	31.2	8.0	8.0	73.0	73.0	4.8	4.8	4.8	71.4	64.5	131.0	122.0							
	0.4	123.4	31.3	31.3	11.8	11.7	8.4	8.4	144.5	146.3	10.0	10.1	7.5	4.2	4.1	6.8	7.3							
	0.4	123.4	31.4	31.3	11.5	11.7	8.4	8.4	148.1	146.3	10.3	10.1	7.5	4.1	4.1	7.8	7.3							
M	0.9	357.9	28.1	28.1	29.8	29.8	8.0	8.0	73.6	73.5	4.9	4.9	4.9	13.3	12.5	17.4	17.3							
	0.6	345.6	28.1	28.1	29.8	29.8	8.0	8.0	73.4	73.5	4.9	4.9	4.9	11.6	12.5	17.1	17.3							
	0.4	338.0	28.1	28.1	30.4	30.4	8.0	8.0	76.0	75.2	5.0	5.0	5.0	30.4	30.7	57.0	55.3							
B	0.4	338.0	28.1	28.1	30.4	30.4	8.0	8.0	74.3	75.2	4.9	5.0	5.0	30.9	30.7	53.5	55.3							
	0.4	50.1	31.0	31.0	13.9	13.8	8.6	8.6	174.6	181.1	12.0	12.5	9.3	4.7	4.6	21.5	20.9							
	0.4	50.1	31.0	31.0	13.8	13.8	8.6	8.6	187.5	181.1	12.9	12.5	9.3	4.5	4.6	20.2	20.9							
M	0.9	160.3	29.2	29.0	21.1	22.8	8.1	8.1	90.2	90.5	6.2	6.1	6.1	17.3	16.0	15.4	16.2							
	0.7	234.5	28.8	28.8	24.6	22.8	8.1	8.1	90.8	90.5	6.1	6.1	6.1	14.7	16.0	17.0	16.2							
	0.4	354.3	28.1	28.1	30.0	30.0	8.0	8.0	77.1	75.0	5.1	5.0	5.0	56.0	56.8	86.4	89.7							
B	1.0	16.2	28.1	28.1	30.0	30.0	8.0	8.0	72.9	75.0	4.8	5.0	5.0	57.5	56.8	93.0	89.7							
	0.4	50.1	31.0	31.0	13.9	13.8	8.6	8.6	174.6	181.1	12.0	12.5	9.3	4.7	4.6	21.5	20.9							
	0.4	50.1	31.0	31.0	13.8	13.8	8.6	8.6	187.5	181.1														

Water Quality Monitoring Data Log Sheet

Date: 2019/09/09

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	16:41	5.5	S	0.1	301.2	30.8	30.7	16.6	16.4	8.5	8.5	175.1	173.6	11.9	11.8	11.8	4.9	5.0	5.9	6.2	7.6	
						0.4	334.5	30.7	16.2	16.4	8.5	8.5	172.1	173.6	11.8	11.8	11.8	4.9	5.0	5.9	6.2			
					B	0.5	288.5	29.5	29.6	22.7	22.5	8.2	8.2	128.9	132.5	8.7	8.9	8.9	7.1	6.9	6.8	9.9		9.5
						0.5	37.2	29.6	22.4	22.5	8.3	8.2	136.0	132.5	9.2	8.9	8.9	6.8	6.9	6.8	9.9	9.5		
IM16A	Cloudy	Calm	17:06	6.5	S	0.4	6.6	30.6	30.5	14.5	14.7	8.2	8.2	123.4	123.4	8.5	8.5	8.2	4.9	4.9	8.2	5.0	5.5	
						0.8	237.6	30.5	14.9	14.7	8.2	8.2	123.5	123.4	8.5	8.5	8.2	4.8	4.9	6.0				
					M	0.4	35.2	29.9	29.9	17.6	17.6	8.1	8.1	113.5	114.8	7.8	7.9	7.9	4.7	4.7	4.7	6.7	6.9	
						1.0	131.6	29.9	29.9	17.5	17.6	8.1	8.1	116.0	114.8	8.0	7.9	7.9	4.7	4.7	4.7	7.0		
					B	0.5	242.8	28.8	28.8	23.4	23.4	7.9	7.9	79.1	77.0	5.4	5.2	5.2	10.2	10.8	10.2	15.8	16.5	
						0.5	242.8	28.8	28.8	23.4	23.4	7.9	7.9	74.9	77.0	5.1	5.2	5.2	11.5	10.8	11.5	17.2		
IM17	Cloudy	Calm	18:09	4.5	S	0.9	307.0	30.6	30.6	14.5	15.1	8.2	8.2	125.3	128.1	8.7	8.8	8.8	4.6	4.4	4.9	4.5	4.3	
						0.9	307.0	30.5	30.6	15.6	15.1	8.2	8.2	130.9	128.1	9.0	8.8	8.8	4.2	4.4		4.2		
					B	0.7	346.7	29.5	29.5	18.9	18.4	7.9	7.9	92.6	91.8	6.4	6.3	6.3	5.9	5.4	5.9	4.2	3.8	
						1.2	337.5	29.5	29.5	18.0	18.4	7.9	7.9	90.9	91.8	6.3	6.3	6.3	4.9	5.4	4.9	4.2		
IM18	Cloudy	Calm	17:57	16.5	S	0.2	200.8	30.6	30.5	14.2	14.4	8.2	8.1	119.3	119.6	8.3	8.3	6.4	4.8	5.2	6.4	5.7	5.7	
						0.9	30.5	30.4	14.6	14.4	8.1	8.1	120.0	119.6	8.3	8.3	6.4	5.5	5.2	5.6				
					M	0.7	292.6	28.5	28.5	25.7	25.8	7.8	7.8	66.4	66.1	4.5	4.4	4.4	6.6	7.0	6.6	7.7	8.0	
						0.7	292.6	28.4	28.5	25.9	25.8	7.8	7.8	65.9	66.1	4.4	4.4	4.4	7.4	7.0	7.4	8.3		
					B	0.5	320.4	28.3	28.3	27.7	27.5	7.9	7.9	65.0	65.2	4.3	4.4	4.4	9.8	9.4	9.8	13.6	13.9	
						0.9	351.1	28.4	28.3	27.4	27.5	7.9	7.9	65.4	65.2	4.4	4.4	4.4	8.9	9.4	8.9	14.2		
IM19	Cloudy	Calm	18:32	17.5	S	0.5	333.0	30.4	30.5	16.9	16.5	8.2	8.2	119.3	123.7	8.2	8.5	6.6	3.4	3.5	6.6	3.5	3.8	
						0.5	333.0	30.6	16.1	16.5	8.2	8.2	128.2	123.7	8.8	8.5	6.6	3.7	3.5	4.0				
					M	1.5	283.1	28.6	28.6	25.9	25.8	7.9	7.9	69.4	69.4	4.7	4.7	4.7	3.5	3.1	3.5	6.2	5.7	
						0.3	318.6	28.5	28.6	25.8	25.8	7.9	7.9	69.5	69.4	4.7	4.7	4.7	2.7	3.1	2.7	5.2		
					B	0.4	88.9	28.0	28.0	28.9	28.9	7.9	7.9	62.3	61.3	4.2	4.1	4.1	15.6	16.0	15.6	23.4	24.3	
						0.2	340.8	28.0	28.0	29.0	28.9	7.9	7.9	60.4	61.3	4.0	4.1	4.1	16.4	16.0	16.4	25.1		
IM20A	Cloudy	Calm	19:29	4.0	S	0.9	282.1	30.6	30.8	17.3	16.4	8.0	8.1	93.0	102.5	6.3	7.0	7.0	6.2	6.0	6.2	13.2	12.3	
						0.2	113.4	31.0	15.6	16.4	8.1	8.1	111.9	102.5	7.6	7.0	7.0	5.7	6.0	5.7		11.3		
					B	0.3	315.4	29.4	29.3	24.5	24.7	7.9	7.9	83.0	80.6	5.5	5.4	5.4	6.4	6.4	6.4	10.1	9.8	
						0.5	55.1	29.2	29.3	24.9	24.7	7.9	7.9	78.1	80.6	5.2	5.4	5.4	6.4	6.4	6.4	9.5		
IM21A	Cloudy	Calm	19:20	4.5	S	1.1	97.5	31.1	31.1	18.5	18.3	8.0	8.0	101.5	102.0	6.8	6.9	6.9	7.1	6.9	10.0	9.1	8.8	
						1.1	97.5	31.1	31.1	18.1	18.3	8.0	8.0	102.6	102.0	6.9	6.9	6.9	6.8	6.9		6.8		8.4
					B	0.6	233.5	29.0	28.9	26.0	26.2	7.8	7.8	72.6	70.4	4.8	4.7	4.7	12.1	13.1	12.1	15.2	16.3	
						0.5	132.4	28.8	28.9	26.3	26.2	7.8	7.8	68.2	70.4	4.6	4.7	4.7	14.0	13.1	14.0	17.3		
IM22A	Cloudy	Calm	19:14	4.5	S	0.5	197.8	29.9	30.0	20.6	20.3	7.9	8.0	83.7	89.2	5.7	6.0	6.0	7.0	6.6	7.4	8.7	9.2	
						0.5	197.8	30.2	20.1	20.3	8.0	8.0	94.7	89.2	6.4	6.0	6.0	6.3	6.6	6.3		9.7		
					B	0.5	68.0	28.8	28.7	25.6	26.0	7.8	7.8	73.1	70.4	4.9	4.7	4.7	8.2	8.2	8.2	13.5	12.7	
						1.1	22.9	28.6	28.7	26.3	26.0	7.8	7.8	67.7	70.4	4.5	4.7	4.7	8.3	8.2	8.3	11.8		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value
E1	Fine	Calm	13:39	8.1	S	0.6	165.4	29.7	29.7	27.9	27.9	8.3	8.3	141.6	141.8	9.2	9.2	8.5	3.6	3.6	11.1	5.1	5.6	15.0
						0.6	165.4	29.7		27.9		141.9		9.3		3.6								
						0.2	251.6	29.0		28.5		118.1		7.8		4.1								
					M	0.2	157.9	29.0	28.5	8.2	8.2	118.3	7.8	7.8	3.8	3.9	6.2							
						0.3	193.7	28.5	28.5	8.1		78.4	5.2	26.8										
						0.5	183.5	28.5	30.0	8.1		77.9	5.1	24.9	30.8									
B	0.1	121.2	29.7	24.4	30.0	8.4	8.1	78.2	5.1	5.1	26.8	32.7												
	0.1	121.2	29.7	24.4		8.4		126.7	8.4	2.2	2.7													
	0.3	116.6	30.0	30.0		26.4		26.4	8.3	8.3	142.8	9.3	2.6	8.0										
E2	Fine	Calm	08:17	9.5	S	0.3	37.9	30.0	30.0	26.4	26.4	8.3	8.3	145.9	144.4	9.5	9.4	8.9	2.4	2.5	7.7	2.1	7.5	11.1
						0.6	346.6	28.4		28.4		30.3		7.7		32.6			2.1			20.0		
						0.6	55.8	28.4		28.4		30.2		7.7		38.7			2.5			17.0		
					M	0.1	121.2	29.7	24.4	30.0	8.4	8.1	78.2	5.1	5.1	26.8	32.7							
						0.1	121.2	29.7	24.4		8.4		126.7	8.4	2.2	2.7								
						0.3	116.6	30.0	30.0		26.4		26.4	8.3	8.3	142.8	9.3	2.6	8.0					
B	0.6	346.6	28.4	28.4	30.3	7.7	32.6	2.1	20.0															
	0.6	55.8	28.4	28.4	30.2	7.7	38.7	2.5	17.0															
	0.2	90.0	29.5	29.5	24.7	24.3	8.4	8.4	119.8	8.0	8.2	3.4	3.1	11.2	8.7	8.2	16.2							
0.2	90.0	29.5	29.5	23.9	8.4		125.3		8.4	2.9		7.6												
0.3	110.2	28.3	28.3	30.7	8.1		69.0		4.5	10.9		15.9												
M	0.3	110.2	28.3	28.3	30.7	8.1	69.2	4.5	11.1	14.1	15.0													
	0.5	137.5	28.1	28.1	32.0	8.1	60.7	4.0	19.5	25.6	25.6													
	0.5	155.9	28.1	28.1	32.0	8.1	60.6	4.0	19.7	25.5	25.6													
E4	Cloudy	Calm	12:03	11.0	S	0.6	242.8	29.6	29.6	21.8	21.9	8.4	8.4	130.2	139.7	8.8	9.4	7.4	3.8	3.6	22.5	19.9	19.6	45.3
						0.6	242.8	29.6		22.0		8.4		149.2		10.1			3.4			19.3		
						0.8	184.1	28.7		28.7		27.4		8.1		80.4			5.3			8.4		
					M	0.7	329.0	28.7	28.7	27.6	8.1	80.4	5.3	7.6	33.2	31.0								
						0.6	218.5	28.4	28.4	29.8	8.0	71.5	4.7	53.6	87.4	85.3								
						0.8	208.4	28.4	28.4	29.8	8.0	70.2	4.6	58.5	83.2	85.3								
E5	Cloudy	Calm	10:59	6.0	S	0.7	189.0	30.1	29.9	18.4	18.7	8.4	8.3	141.0	143.7	9.6	9.8	8.2	3.8	3.7	6.5	8.3	7.8	11.2
						0.3	166.3	29.8		19.1		8.3		146.5		10.0			3.7			7.3		
						0.7	191.9	29.1		23.5		8.1		96.1		6.5			5.1			9.0		
					M	1.0	129.0	29.1	29.1	23.8	8.1	8.1	96.9	6.5	6.5	4.4	4.8	9.4	9.2					
						0.2	31.1	28.7	28.7	26.6	8.0	80.3	5.4	11.4	15.6	16.7								
						0.4	180.5	28.7	28.7	26.4	8.0	77.2	5.2	10.6	17.7	16.7								
B	0.7	117.9	29.4	29.4	20.2	20.1	8.3	8.3	123.8	8.5	8.5	4.9	4.7	8.2	4.9	4.7	5.2	11.3	10.8	11.8				
	0.7	117.9	29.4	29.4	20.1		8.3		126.3	8.6		4.5			10.3									
	0.2	85.4	29.4	29.4	20.8		8.2		114.6	7.8		7.1			13.4									
M	0.4	157.3	29.4	29.4	20.8	8.2	115.3	7.9	7.1	14.8	14.1													
	0.3	156.2	29.1	29.2	25.2	8.0	94.0	6.3	4.0	10.8	10.4													
	0.7	83.6	29.2	29.2	24.7	8.0	90.1	6.0	4.0	9.9	10.4													
E7A	Cloudy	Calm	08:18	5.5	S	0.7	205.3	29.7	29.7	20.8	20.6	8.1	8.1	103.9	106.7	7.0	7.2	7.2	3.0	2.8	4.7	5.6	6.1	9.2
						0.7	205.3	29.7		20.3		8.1		109.5		7.4			2.5			6.5		
						0.2	285.8	28.9		28.9		26.1		8.0		86.8			5.8			6.4		
					B	0.2	285.8	28.9	28.9	26.2	7.9	80.7	5.4	6.8	11.3	12.4								
						0.4	167.3	30.1	30.1	27.1	8.5	156.3	10.2	2.4	1.8	1.5								
						0.4	167.3	30.1	30.1	27.1	8.5	157.5	10.2	2.4	1.2	1.5								
F1	Fine	Calm	12:48	19.6	S	0.4	130.4	28.2	28.2	30.8	30.7	8.1	8.0	61.3	62.2	4.0	4.1	7.1	3.2	3.1	6.4	3.9	3.8	7.5
						0.4	81.0	28.2		30.7		8.0		63.2		4.2			3.0			3.7		
						0.1	101.0	28.1		28.1		32.3		8.0		52.9			3.5			14.1		
					M	0.1	101.0	28.1	28.1	32.3	8.0	51.8	3.4	13.5	15.9	17.2								
						0.3	115.1	29.9	29.9	27.0	8.4	139.4	9.1	2.3	0.5	0.5								
						0.3	115.1	29.9	29.9	27.0	8.4	139.9	9.1	2.3	0.5	0.5								
F2	Fine	Calm	12:19	18.8	M	0.3	102.1	28.3	28.3	30.7	30.7	8.1	8.1	85.0	87.8	5.6	5.8	7.4	2.9	2.7	5.2	1.8	1.9	5.6
						0.3	102.1	28.3		30.7		8.1		90.5		5.9			2.6			1.9		
						0.3	101.0	28.1		28.1		32.3		8.0		51.8			3.4			10.0		
					B	0.3	124.3	28.2	28.2	32.3	8.0	51.3	3.4	10.0	15.1	14.3								
						0.5	76.9	28.2	28.2	32.4	8.0	50.1	3.3	11.1	13.5	14.3								
						0.5	76.9	28.2	28.2	32.4	8.0	50.1	3.3	11.1	13.5	14.3								

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
F3	Fine	Calm	11:00	17.5	S	0.3	127.7	29.8	29.8	24.6	24.6	8.5	8.5	125.3	125.9	8.3	8.4	6.7	2.2	2.2	6.0	2.4	2.0	5.9			
						0.3	127.7	29.8		24.6		8.5		126.5		8.4			2.2			1.6					
					M	0.3	96.6	28.2	28.2	31.5	31.5	8.1	8.1	74.8	76.3	4.9	5.0	4.0	4.0	2.8		3.2			3.6	12.1	2.0
						0.4	104.2	28.2		31.5		8.1		77.7		5.1				2.8					3.0		
					B	0.2	111.9	28.2	28.2	32.5	32.5	8.1	8.1	62.2	61.2	4.1	4.0	4.0	4.0	12.1		12.6			12.1	13.2	13.5
						0.2	111.9	28.2		32.5		8.1		60.2		3.9				13.0					13.3		
F4	Fine	Calm	08:42	14.0	S	0.1	211.4	29.8	29.8	24.3	24.1	8.4	8.4	134.6	132.2	8.9	8.8	7.1	2.3	2.2	6.5	0.5	0.5	7.1			
						0.1	195.6	29.7		23.9		8.5		129.8		8.6			2.2			0.5					
					M	0.2	110.9	28.5	28.6	30.6	30.5	8.1	8.1	80.2	83.2	5.3	5.4	3.5	3.5	4.5		4.2			3.8	12.6	4.2
						0.2	110.9	28.6		30.3		8.1		86.2		5.6				3.8					4.3		
					B	0.0	208.5	28.2	28.2	31.1	31.1	7.9	7.9	54.5	53.3	3.6	3.5	3.5	3.5	12.6		13.2			12.6	13.8	17.3
						0.3	130.1	28.2		31.1		7.9		52.1		3.4				13.8					15.6		
F5	Cloudy	Calm	11:35	5.5	S	1.4	208.0	29.8	29.8	22.9	23.0	8.3	8.3	135.2	134.9	9.0	9.0	9.0	1.8	1.7	5.8	1.8	2.4	8.1			
						1.4	208.0	29.7		23.0		8.3		134.7		9.0			1.6			2.9					
					B	0.4	265.1	28.7	28.7	27.5	27.5	8.1	8.1	84.9	83.2	5.6	5.5	5.5	5.5	9.6		9.8			9.6	10.0	14.8
						0.3	279.3	28.7		27.5		8.1		81.4		5.4				13.0					13.9		
F6	Cloudy	Calm	10:23	14.5	S	0.4	185.8	30.0	30.1	20.3	20.2	8.3	8.4	135.2	141.4	9.1	9.6	7.9	2.8	2.5	10.2	5.2	5.7	15.2			
						0.7	84.5	30.1		20.2		8.4		147.6		10.0			2.2			6.2					
					M	0.4	109.2	29.1	29.1	23.9	23.9	8.1	8.1	93.3	93.8	6.3	6.3	6.3	6.3	5.5		5.5			5.5	5.5	8.1
						0.6	123.0	29.1		23.9		8.1		94.3		6.3				7.5							
					B	0.4	118.1	28.6	28.6	28.7	28.7	8.0	8.0	76.8	76.0	5.1	5.0	5.0	5.0	21.8		22.5			21.8	23.2	33.9
						0.5	151.6	28.6		28.7		8.0		75.2		5.0				30.3					32.1		
IM1	Fine	Calm	13:06	9.4	S	0.3	142.8	30.8	30.8	29.2	29.2	8.3	8.3	130.0	130.5	8.3	8.3	7.3	3.4	3.4	4.8	5.2	5.7	7.6			
						0.3	142.8	30.9		29.2		8.3		130.9		8.3			3.4			6.1					
					M	0.2	313.6	28.9	28.9	30.7	30.7	8.2	8.2	97.6	97.9	6.3	6.4	6.4	6.4	5.1		5.0			5.1	5.0	6.8
						0.2	313.6	29.0		30.7		8.2		98.1		6.4				7.8							
					B	0.3	309.8	28.3	28.3	31.6	31.6	8.1	8.1	76.3	75.9	5.0	5.0	5.0	5.0	5.9		5.9			5.9	5.9	9.5
						0.3	309.8	28.3		31.6		8.1		75.5		4.9				10.4					10.0		
IM2	Fine	Calm	13:27	11.0	S	1.0	206.2	29.5	29.5	28.0	28.0	8.4	8.4	144.1	144.5	9.4	9.4	8.2	3.6	3.6	8.3	6.0	5.6	12.0			
						1.0	206.2	29.5		28.0		8.4		144.9		9.5			5.1								
					M	0.3	209.6	28.8	28.8	28.9	28.9	8.2	8.2	104.8	105.2	6.9	6.9	6.9	6.9	4.7		4.6			4.7	4.5	7.0
						0.3	209.6	28.8		28.9		8.2		105.5		6.9				7.9							
					B	0.3	212.5	28.3	28.3	30.8	30.8	8.1	8.1	65.8	65.3	4.3	4.3	4.3	4.3	15.9		16.7			15.9	17.5	24.8
						0.3	212.5	28.3		30.8		8.1		64.7		4.2				21.1							
IM3	Fine	Calm	11:56	14.6	S	0.2	132.8	30.3	30.1	25.7	26.1	8.4	8.4	134.8	135.1	8.8	8.8	6.8	2.6	2.6	5.6	5.3	4.8	8.4			
						0.2	132.8	29.9		26.4		8.4		135.4		8.9			2.6			4.3					
					M	0.3	114.8	28.3	28.3	31.1	31.1	8.1	8.1	72.1	72.6	4.7	4.8	4.8	4.8	3.4		3.3			3.4	3.2	5.1
						0.3	114.8	28.3		31.2		8.1		73.0		4.8				6.0							
					B	0.1	320.5	28.0	28.0	32.0	32.0	8.0	8.0	41.4	40.8	2.7	2.7	2.7	2.7	11.3		10.9			11.3	10.6	15.9
						0.3	69.8	28.0		32.0		8.0		40.2		2.6				13.7							
IM4	Fine	Calm	11:35	16.4	S	0.5	143.5	30.1	30.1	25.6	25.6	8.5	8.5	137.0	137.1	9.0	9.0	7.1	2.3	2.3	8.7	3.0	3.5	12.2			
						0.3	62.5	30.1		25.6		8.5		137.3		9.0			2.3			4.0					
					M	0.5	140.6	28.6	28.6	30.1	30.1	8.1	8.1	78.8	79.9	5.2	5.2	5.2	5.2	5.9		5.8			5.9	5.7	9.4
						0.4	42.8	28.6		30.1		8.1		80.9		5.3				10.4							
					B	0.3	84.8	28.1	28.1	31.8	31.8	8.0	8.0	50.1	49.2	3.3	3.2	3.2	3.2	17.1		17.8			17.1	18.5	22.6
						0.4	3.2	28.1		31.9		8.0		48.4		3.2				24.0							
IM5	Fine	Calm	11:18	15.0	S	0.3	129.6	30.1	30.1	24.8	24.8	8.5	8.5	130.8	130.1	8.6	8.6	7.4	2.2	2.2	7.3	3.8	3.4	11.9			
						0.2	112.9	30.1		24.8		8.5		129.4		8.5			2.1			3.0					
					M	0.2	116.4	28.6	28.7	30.4	30.4	8.2	8.2	89.4	96.8	5.8	6.3	6.3	6.3	3.8		3.5			3.8	3.2	5.5
						0.2	116.4	28.7		30.3		8.2		104.2		6.8				6.5							
					B	0.4	111.5	28.2	28.2	32.0	32.0	8.1	8.1	59.7	58.9	3.9	3.8	3.8	3.8	16.0		16.3			16.0	16.7	27.6
						0.4	111.5	28.2		32.0		8.1		58.0		3.8				24.7							

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*			
IM6	Fine	Calm	10:50	16.0	S	0.4	127.8	29.9	29.9	24.6	24.6	8.5	8.5	126.8	127.3	8.4	8.4	6.5	2.2	2.2	6.1	0.5	0.5	6.8			
						0.2	90.3	29.9	24.6	24.6	8.5	8.5	127.9	127.3	8.5	8.5	6.5	2.2	2.2	0.5		0.5					
						0.4	129.0	28.3	28.3	31.2	31.2	8.1	8.1	70.2	70.7	4.6	4.6	6.5	3.3	4.1		4.0					
					M	0.2	102.0	28.3	28.3	31.2	31.2	8.1	8.1	71.3	71.3	4.7	4.7	4.1	4.1	4.1		12.7	3.1		3.3	4.1	4.0
						0.4	138.3	28.2	28.2	32.3	32.3	8.1	8.1	63.4	62.5	4.1	4.1	4.1	4.1	4.1		12.7	12.1		12.7	14.7	15.8
						0.2	93.4	28.2	28.2	32.3	32.3	8.1	8.1	61.5	62.5	4.0	4.0	4.1	4.1	4.1		12.7	13.3		12.7	16.9	15.8
IM7	Fine	Calm	10:25	13.0	S	0.1	112.8	29.7	29.7	24.4	24.4	8.4	8.4	123.9	123.7	8.2	8.2	7.9	2.3	2.3	5.1	4.9	5.4	8.7			
						0.1	124.3	29.7	29.7	24.4	24.4	8.4	8.4	123.6	123.7	8.2	8.2	7.9	2.3	2.3		4.9	5.4				
						0.3	93.0	28.8	28.8	30.0	30.0	8.2	8.2	113.0	114.5	7.4	7.5	7.9	2.8	2.8		6.1	6.5				
					M	0.3	93.0	28.8	28.8	30.0	30.0	8.2	8.2	116.1	114.5	7.6	7.5	7.9	2.8	2.8		6.1	6.5				
						0.5	76.6	28.2	28.2	31.7	31.7	8.1	8.1	70.9	69.0	4.6	4.5	4.5	9.6	10.1		13.9	14.4				
						0.4	70.2	28.2	28.2	31.7	31.7	8.1	8.1	67.2	69.0	4.4	4.5	4.5	10.6	10.1		14.9	14.4				
IM8	Fine	Calm	10:35	14.5	S	-1.0	-1.0	29.8	29.8	24.3	24.3	8.5	8.5	128.0	128.1	8.5	8.5	7.0	2.4	2.3	6.8	1.3	1.5	8.5			
						-1.0	-1.0	29.8	29.8	24.3	24.3	8.5	8.5	128.3	128.1	8.5	8.5	7.0	2.3	2.3		1.6	1.5				
						-1.0	-1.0	28.5	28.5	30.7	30.6	8.1	8.1	82.0	83.1	5.4	5.4	4.1	5.6	5.6		8.2	8.2				
					M	-1.0	-1.0	28.5	28.5	30.6	30.6	8.1	8.1	84.1	83.1	5.5	5.4	4.1	5.6	5.6		8.2	8.2				
						-1.0	-1.0	28.2	28.2	31.9	31.9	8.1	8.1	63.8	63.0	4.2	4.1	4.1	13.0	12.6		15.0	16.0				
						-1.0	-1.0	28.2	28.2	31.9	31.9	8.1	8.1	62.2	63.0	4.1	4.1	4.1	12.1	12.6		16.9	16.0				
IM9	Fine	Calm	10:05	15.0	S	0.3	103.9	29.6	29.6	23.7	23.7	8.5	8.5	125.2	125.5	8.4	8.4	7.9	2.5	2.5	5.9	1.7	1.5	6.7			
						0.5	96.5	29.6	29.6	23.7	23.7	8.5	8.5	125.8	125.5	8.4	8.4	7.9	2.4	2.5		1.2	1.5				
						0.4	106.8	29.2	29.1	28.5	28.6	8.3	8.3	112.5	112.7	7.4	7.4	7.9	4.0	3.9		4.0	4.3				
					M	0.5	107.0	29.1	29.1	28.7	28.7	8.3	8.3	112.9	112.7	7.4	7.4	7.9	3.8	3.9		4.5	4.3				
						0.5	146.8	28.2	28.2	31.5	31.5	8.1	8.1	67.5	66.6	4.4	4.4	4.4	11.4	11.4		14.8	14.3				
						0.5	146.8	28.2	28.2	31.5	31.5	8.1	8.1	65.7	66.6	4.3	4.4	4.4	11.4	11.4		13.8	14.3				
IM10	Cloudy	Calm	13:13	11.0	S	0.3	33.9	30.4	30.4	24.3	24.3	8.4	8.4	122.2	122.9	8.0	8.1	6.1	0.5	0.5	20.3	3.4	3.9	27.8			
						0.3	283.7	30.4	30.4	24.3	24.3	8.4	8.4	123.7	122.9	8.1	8.1	6.1	0.6	0.5		4.4	3.9				
						0.9	69.1	28.2	28.2	31.4	31.4	8.0	8.0	62.6	62.6	4.1	4.1	4.1	18.0	17.7		25.1	25.9				
					M	0.1	97.7	28.2	28.2	31.4	31.4	8.0	8.0	62.6	62.6	4.1	4.1	4.1	17.5	17.7		26.6	25.9				
						0.2	154.3	28.2	28.2	31.5	31.5	8.0	8.0	64.7	63.8	4.2	4.2	4.2	41.3	42.7		57.3	53.6				
						0.4	312.6	28.2	28.2	31.5	31.5	8.0	8.0	63.0	63.8	4.1	4.2	4.2	44.0	42.7		49.8	53.6				
IM11A	Cloudy	Calm	13:00	4.5	S	0.5	110.9	29.8	29.8	22.3	22.3	8.4	8.4	144.2	145.6	9.7	9.8	9.8	37.5	36.8	37.6	86.7	82.1	78.8			
						0.8	132.6	29.8	29.8	22.3	22.3	8.4	8.4	147.0	145.6	9.9	9.8	9.8	36.1	36.8		77.4	82.1				
						0.2	237.6	29.5	29.5	23.7	23.7	8.3	8.3	126.5	126.7	8.5	8.5	8.5	37.3	38.4		72.0	75.6				
					B	0.9	138.6	29.5	29.5	23.7	23.7	8.3	8.3	126.9	126.7	8.5	8.5	8.5	39.6	38.4		79.2	75.6				
						0.3	163.1	30.2	30.2	21.1	20.7	8.5	8.5	165.3	172.6	11.1	11.6	10.1	2.8	2.9		6.9	7.4				
						2.0	151.6	30.3	30.2	20.4	20.4	8.5	8.5	179.9	172.6	12.1	11.6	10.1	2.9	2.9		7.8	7.4				
IM12	Cloudy	Calm	12:50	12.5	M	0.1	125.9	29.5	29.4	23.8	23.8	8.3	8.3	127.8	127.5	8.6	8.5	10.1	8.3	7.6	24.0	12.5	13.4	38.6			
						1.0	167.5	29.4	29.4	23.8	23.8	8.3	8.3	127.2	127.5	8.5	8.5	10.1	6.9	7.6		14.2	13.4				
						0.6	156.9	28.3	28.3	30.4	30.4	8.0	8.0	65.3	65.6	4.3	4.3	4.3	61.9	61.7		96.4	95.2				
					B	0.2	256.1	28.3	28.3	30.4	30.4	8.0	8.0	66.0	65.6	4.3	4.3	4.3	61.5	61.7		94.0	95.2				
						1.8	199.1	29.9	29.9	20.7	20.8	8.4	8.4	149.0	153.7	10.1	10.4	8.5	3.3	3.4		8.2	8.7				
						1.8	199.1	29.8	29.8	20.9	20.8	8.4	8.4	158.3	153.7	10.7	10.4	8.5	3.4	3.4		9.2	8.7				
IM13	Cloudy	Calm	12:27	16.5	S	1.2	180.2	29.0	29.0	25.9	25.9	8.2	8.2	96.8	98.0	6.5	6.5	8.5	5.3	4.9	24.2	8.9	9.4	23.8			
						0.9	163.1	29.0	29.0	25.8	25.9	8.2	8.2	99.3	98.0	6.6	6.5	8.5	4.6	4.9		9.9	9.4				
						1.0	159.4	28.4	28.4	29.9	29.9	8.0	8.0	70.5	69.9	4.7	4.6	4.6	68.8	64.2		57.2	53.4				
					M	1.4	219.2	28.4	28.4	29.8	29.8	8.0	8.0	69.3	69.9	4.6	4.6	4.6	59.6	64.2		49.5	53.4				
						1.0	101.2	29.9	29.8	21.4	21.4	8.4	8.4	155.6	156.4	10.5	10.5	9.2	3.0	2.9		6.1	5.6				
						2.3	223.8	29.8	29.8	21.5	21.4	8.4	8.4	157.2	156.4	10.6	10.5	9.2	2.9	2.9		5.1	5.6				
IM14	Cloudy	Calm	12:15	10.5	M	1.1	206.0	29.3	29.3	23.7	24.0	8.3	8.2	116.1	118.1	7.8	7.9	9.2	11.5	10.6	40.5	11.0	11.7	47.6			
						0.9	214.1	29.2	29.3	24.4	24.0	8.2	8.2	120.1	118.1	8.0	7.9	9.2	9.8	10.6		12.3	11.7				
						0.3	261.9	28.5	28.5	28.7	28.7	8.1	8.1	74.3	74.1	4.9	4.9	4.9	106.0	108.0		125.0	125.5				
					B	0.5	196.0	28.5	28.5	28.7	28.7	8.1	8.1	74.0	74.1	4.9	4.9	4.9	110.0	108.0		126.0	125.5				

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	11:12	6.5	S	0.2	224.3	29.9	29.8	18.9	19.4	8.4	8.4	88.5	88.3	6.0	6.0	5.9	4.3	4.1	6.4	6.9	6.4	8.9
						0.7	132.7	29.8		19.9		8.4		88.0		6.0			3.9			5.9		
						0.4	183.8	28.9		25.8		8.1		85.3		5.7			5.4			7.7		
					M	0.4	170.9	28.9	28.9	25.7	25.8	8.1	8.1	87.3	86.3	5.8	5.8	5.3	5.3	10.1	10.1	6.8	7.3	
						0.2	245.2	28.6	28.6	27.3	27.3	8.0	8.0	82.1	80.3	5.5	5.3	5.3	5.3	10.1	10.1	14.0	13.1	
						0.4	105.2	28.6	28.6	27.3	27.3	8.0	8.0	78.5	80.3	5.2	5.3	5.3	5.3	10.1	10.1	12.2	13.1	
IM16A	Cloudy	Calm	10:47	7.5	S	1.2	162.2	30.3	30.3	17.3	17.3	8.4	8.4	146.2	148.5	10.0	10.2	8.1	3.4	3.3	8.9	9.2	9.1	10.9
						1.2	162.2	30.3		17.3		8.4		150.8		10.3			3.2			9.0		
						0.5	240.5	29.1		29.1		23.8		23.8		8.1			8.1			87.5		
					M	0.5	211.7	29.1	29.1	23.8	23.8	8.1	8.1	89.7	88.6	6.0	6.0	6.0	6.0	7.4	6.9	8.6	9.1	
						0.4	159.5	28.7	28.7	26.2	26.2	8.0	8.0	78.2	76.8	5.2	5.1	5.1	14.8	15.9	10.2	14.4		
						0.3	133.9	28.7	28.7	26.2	26.2	8.0	8.0	75.5	76.8	5.1	5.1	5.1	17.0	15.9	18.5	14.4		
IM17	Cloudy	Calm	09:48	5.5	S	1.1	57.8	29.6	29.6	17.5	17.5	8.2	8.2	116.5	119.8	8.1	8.3	8.3	3.6	3.4	5.0	6.6	7.1	8.5
						1.1	57.8	29.5		17.6		8.2		123.2		8.5			3.2			7.5		
					B	0.3	63.9	29.2	29.2	23.0	23.1	8.1	8.1	96.6	95.5	6.5	6.4	6.4	6.4	6.6	6.3	9.5	10.0	
						0.4	108.6	29.2	29.2	23.1	23.1	8.1	8.1	94.4	95.5	6.4	6.4	6.4	6.6	6.6	10.4	10.0		
IM18	Cloudy	Calm	09:58	17.5	S	0.4	90.4	29.6	29.6	18.4	18.3	8.3	8.3	123.5	131.3	8.5	9.0	7.8	3.4	3.3	7.2	6.8	6.4	12.0
						0.4	90.4	29.6		18.1		8.3		139.1		9.6			3.2			5.9		
					M	0.4	211.2	29.3	29.3	24.0	24.2	8.1	8.1	97.9	97.8	6.6	6.6	6.6	6.6	2.6	2.9	6.6	7.1	
						0.6	96.3	29.2	29.3	24.4	24.2	8.1	8.1	97.8	97.8	6.6	6.6	6.6	6.6	2.6	2.4	7.5	7.1	
					B	0.2	192.7	28.5	28.5	28.7	28.7	8.0	8.0	67.4	67.1	4.5	4.4	4.4	4.4	15.7	15.8	20.9	22.5	
						0.1	210.5	28.5	28.5	28.8	28.7	8.0	8.0	66.8	67.1	4.4	4.4	4.4	4.4	15.8	15.8	24.1	22.5	
IM19	Cloudy	Calm	09:29	18.0	S	0.8	203.2	29.9	29.9	21.8	21.8	8.2	8.2	109.7	112.4	7.4	7.6	6.6	5.5	5.3	15.3	8.7	8.2	20.5
						0.8	203.2	29.9		21.8		8.2		115.0		7.7			5.0			7.7		
					M	0.5	134.3	29.3	29.3	25.0	25.0	8.0	8.0	84.8	85.1	5.7	5.7	5.7	5.7	8.2	8.4	11.3	11.5	
						1.0	198.8	29.3	29.3	25.1	25.0	8.0	8.0	85.4	85.1	5.7	5.7	5.7	5.7	8.2	8.0	11.7	11.5	
					B	0.3	164.0	28.7	28.7	28.5	28.5	8.0	8.0	71.5	70.9	4.7	4.7	4.7	4.7	32.3	31.1	38.6	41.7	
						0.4	151.6	28.7	28.7	28.5	28.5	8.0	8.0	70.4	70.9	4.7	4.7	4.7	4.7	32.3	33.5	44.7	41.7	
IM20A	Cloudy	Calm	08:32	5.0	S	0.6	225.5	29.9	29.9	19.5	19.5	8.1	8.1	110.8	111.7	7.5	7.6	7.6	3.8	3.7	5.8	8.8	8.3	11.1
						0.6	225.5	29.9		19.5		8.1		112.7		7.7			3.6			7.8		
					B	0.3	161.0	29.1	29.1	25.6	25.5	8.0	8.0	82.8	82.2	5.5	5.5	5.5	5.5	7.8	7.8	13.4	14.0	
						0.5	227.4	29.1	29.1	25.4	25.5	8.0	8.0	81.6	82.2	5.5	5.5	5.5	5.5	7.8	7.8	14.5	14.0	
IM21A	Cloudy	Calm	08:41	5.5	S	0.2	213.6	29.5	29.5	22.9	22.8	8.1	8.1	101.0	99.1	6.8	6.7	6.7	9.6	10.2	13.4	10.2	9.8	16.5
						0.4	343.8	29.5		22.8		8.1		97.3		6.6			10.8			9.4		
					B	0.1	85.7	28.9	28.9	26.3	26.3	7.9	7.9	78.9	77.8	5.3	5.2	5.2	5.2	16.6	16.2	23.3	23.3	
						0.1	85.7	28.9	28.9	26.3	26.3	7.9	7.9	76.8	77.8	5.1	5.2	5.2	5.2	16.6	17.0	23.2	23.3	
IM22A	Cloudy	Calm	08:48	5.0	S	1.0	196.6	30.5	30.4	24.2	23.7	8.0	8.0	95.6	95.0	6.3	6.3	6.3	15.1	14.7	15.0	23.5	21.9	22.4
						1.0	196.6	30.2		23.3		23.7		8.1		8.0			94.4			95.0		
					B	0.3	247.7	30.3	30.1	24.3	24.5	8.0	8.0	92.9	92.0	6.1	6.1	6.1	6.1	15.2	15.2	24.4	22.8	
						0.3	247.7	30.0	30.1	24.7	24.5	8.0	8.0	91.1	92.0	6.0	6.1	6.1	6.1	15.3	15.2	21.2	22.8	

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E1	Fine	Calm	15:52	8.0	S	0.5	179.4	29.3	29.3	27.0	26.9	8.2	8.2	110.7	111.7	7.3	7.4	6.9	4.0	3.7	9.2	4.0	4.2	13.7
						0.7	180.0	29.3		26.9		8.2		112.8		7.4			3.4					
						0.6	201.3	29.0	28.0	8.1	98.0	6.5	9.1											
					M	0.6	181.3	29.0	28.0	28.0	8.1	99.3	6.6	8.5	8.8	14.3								
						0.5	228.6	28.9	28.8	28.8	8.1	91.0	6.0	15.1	23.2									
						0.5	228.6	28.9	28.8	28.8	8.1	90.8	6.0	14.9	24.2									
B	0.2	281.0	30.7	28.9	25.7	8.5	137.1	8.9	5.2	1.3														
	0.2	231.8	30.7	30.7	25.7	8.5	136.9	8.9	5.2	1.2														
	0.1	124.9	30.6	30.6	25.9	8.5	136.7	8.9	0.5	1.0														
E2	Fine	Calm	20:57	8.7	S	0.3	298.4	30.7	30.6	25.9	25.9	8.5	8.5	137.4	137.1	8.9	8.9	8.9	5.2	0.5	6.8	1.4	1.2	5.3
						0.4	337.7	29.0		29.3		8.2		87.6		5.7			14.7					
						0.2	221.5	29.1	29.1	29.3	8.2	85.4	5.6	14.8										
					M	0.4	337.7	29.0	29.1	29.3	8.2	87.6	5.7	14.7	12.6									
						0.2	221.5	29.1	29.1	29.3	8.2	85.4	5.6	14.8	13.6									
						0.3	298.4	30.7	30.6	25.9	8.5	136.7	8.9	0.4	1.4									
B	0.4	337.7	29.0	29.1	29.3	8.2	87.6	5.7	14.7	12.6														
	0.2	221.5	29.1	29.1	29.3	8.2	85.4	5.6	14.8	13.6														
	0.4	337.7	29.0	29.1	29.3	8.2	87.6	5.7	14.7	12.6														
E3	Fine	Calm	19:53	16.4	S	0.3	307.8	29.5	29.5	21.0	20.8	8.4	8.4	129.4	128.4	8.8	8.7	7.6	2.6	2.6	9.6	5.3	4.9	14.9
						0.7	293.5	29.3		27.9		8.3		98.3		6.5			4.7					
						0.6	314.7	29.3	28.0	8.3	98.1	6.4	4.6											
					M	0.4	266.3	28.7	28.7	30.0	8.1	72.0	4.7	37.1										
						0.4	266.3	28.7	28.7	30.0	8.1	71.8	4.7	32.5										
						0.4	266.3	28.7	28.7	30.0	8.1	71.8	4.7	21.2										
B	0.7	93.5	31.2	31.2	15.6	8.5	182.8	12.4	12.2															
	0.5	340.8	31.2	31.2	15.6	8.6	187.1	12.7	12.2															
	0.2	325.1	29.8	29.8	21.7	8.3	145.9	9.8	10.8															
E4	Cloudy	Calm	16:40	10.5	S	0.7	93.5	31.2	31.2	15.6	15.6	8.5	8.5	182.8	184.9	12.4	12.6	11.3	5.1	5.1	19.7	12.2	12.2	32.1
						0.5	340.8	31.2		31.2		15.6		8.6		187.1			12.7			5.0		
						0.2	325.1	29.8	29.8	21.7	8.3	145.9	9.8	7.2										
					M	0.9	41.3	29.8	29.8	21.8	8.3	149.8	10.1	6.0										
						0.4	166.9	28.7	28.7	27.5	8.0	81.2	5.6	69.3										
						0.7	339.8	28.7	28.7	27.5	8.0	81.2	5.4	77.6										
B	0.4	166.9	28.7	28.7	27.5	8.0	81.2	5.6	69.3															
	0.7	339.8	28.7	28.7	27.5	8.0	81.2	5.4	77.6															
	0.4	166.9	28.7	28.7	27.5	8.0	81.2	5.6	69.3															
E5	Cloudy	Calm	17:43	5.5	S	0.4	104.6	29.9	30.0	20.7	20.6	8.1	8.1	115.4	115.1	7.8	7.8	7.8	7.1	7.0	9.0	10.3	10.8	10.8
						0.4	104.6	30.0		20.5		8.1		114.7		7.8			6.9					
						0.5	32.8	29.4	22.5	8.1	100.7	6.8	12.4											
					M	0.8	63.1	29.6	29.5	21.9	8.1	101.6	6.9	11.6										
						1.1	2.7	30.0	30.1	18.4	8.0	87.8	6.0	6.5										
						1.2	19.8	30.2	30.1	16.8	8.0	92.3	6.3	5.7										
B	1.1	323.3	29.0	29.0	25.6	7.9	73.6	4.9	30.5															
	0.3	52.3	29.0	29.0	25.7	7.9	71.1	4.8	35.3															
	0.4	104.6	29.9	30.0	20.5	8.1	114.7	7.8	6.9															
E6	Cloudy	Calm	19:45	5.5	S	1.1	2.7	30.0	30.1	18.4	17.6	8.0	8.0	87.8	90.0	6.0	6.2	6.2	6.3	5.8	15.5	6.5	6.1	19.5
						1.2	19.8	30.2		30.1		16.8		8.0		92.3			6.3			5.2		
						1.1	323.3	29.0	29.0	25.6	7.9	73.6	4.9	30.5										
					M	0.3	52.3	29.0	29.0	25.7	7.9	71.1	4.8	35.3										
						0.4	104.6	29.9	30.0	20.5	8.1	114.7	7.8	6.9										
						0.5	32.8	29.4	22.5	8.1	100.7	6.8	12.4											
B	0.8	63.1	29.6	29.5	21.9	8.1	101.6	6.9	11.6															
	1.1	2.7	30.0	30.1	18.4	8.0	87.8	6.0	6.5															
	1.2	19.8	30.2	30.1	16.8	8.0	92.3	6.3	5.2															
E7A	Cloudy	Calm	20:35	5.0	S	0.6	47.2	30.2	30.1	21.1	19.1	8.1	8.1	101.4	102.8	6.8	7.0	7.0	6.2	5.6	8.7	15.0	10.6	9.7
						1.2	358.0	30.1		17.1		8.1		104.1		7.2			5.0					
						1.1	20.9	29.5	29.5	25.0	8.0	92.0	6.1	11.1										
					M	0.9	31.5	29.5	29.5	25.1	8.0	87.9	5.8	12.7										
						0.4	202.9	30.1	30.2	27.2	8.5	155.8	10.1	2.7										
						0.3	267.8	30.2	30.2	27.2	8.5	159.3	10.4	2.7										
B	0.2	324.9	28.2	28.2	31.8	8.1	48.5	3.2	5.0															
	0.9	259.6	28.3	28.2	31.8	8.1	50.6	3.3	4.4															
	0.4	292.5	28.2	28.2	32.4	8.0	45.8	3.0	12.3															
F1	Fine	Calm	16:42	19.5	S	0.4	202.9	30.1	30.2	27.2	27.2	8.5	8.5	155.8	157.5	10.1	10.2	6.7	2.7	2.7	6.6	4.1	4.3	11.9
						0.3	267.8	30.2		27.2		8.5		159.3		10.4			2.7					
						0.2	324.9	28.2	28.2	31.8	8.1	48.5	3.2	5.0										
					M	0.9	259.6	28.3	28.2	31.8	8.1	50.6	3.3	4.4										
						0.4	292.5	28.2	28.2	32.4	8.0	45.8	3.0	12.3										
						0.3	65.1	28.2	28.2	32.4	8.0	44.3	2.9	12.2										
B	0.2	299.1	30.3	30.3	26.4	8.5	151.2	9.8	2.5															
	0.2	299.1	30.4	30.3	26.4	8.5	151.0	9.8	2.4															
	0.2	341.4	28.7	28.7	30.5	8.2	89.7	5.9	1.8															
F2	Fine	Calm	17:10	19.0	M	0.2	341.4	28.7	28.7	30.5	30.5	8.2	8.2	91.6	90.7	6.0	5.9	7.9	1.7	1.7	4.5	2.9	3.1	5.4
						0.2	341.4	28.7		30.5		8.2		91.6		6.0			1.7					
						0.3	24.9	27.9	27.9	32.5	8.0	50.7	3.3	9.3										
					B	0.3	24.9	27.9	27.9	32.5	8.0	50.7	3.3	9.3										
						0.3	24.9	27.9	27.9	32.5	8.0	48.1	3.2	9.6										
						0.3	24.9	27.9	27.9	32.5	8.0	48.1	3.2	9.6										

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
F3	Fine	Calm	18:28	17.2	S	0.3	298.0	30.0	30.0	24.0	24.0	8.5	8.5	137.9	138.2	9.1	9.2	8.0	0.5	0.5	5.6	3.0	2.5	9.7		
						0.3	298.0	30.0	30.0	24.0	24.0	8.5	8.5	138.4	138.2	9.2	9.2	8.0	0.5	0.5		2.0	2.5			
						0.1	154.8	29.0	29.0	29.9	29.9	8.3	8.3	103.2	105.1	6.7	6.9	8.0	1.7	1.7		3.8	3.7			
					M	0.1	154.8	29.0	29.0	29.9	29.9	8.3	8.3	106.9	105.1	7.0	6.9	8.0	1.8	1.7		3.6	3.7			
						0.2	324.1	28.3	28.3	32.2	32.2	8.1	8.1	56.2	55.7	3.7	3.6	3.6	14.1	14.5		24.2	22.8			
						0.2	324.1	28.3	28.3	32.2	32.2	8.1	8.1	55.2	55.7	3.6	3.6	3.6	14.8	14.5		21.4	22.8			
F4	Fine	Calm	20:29	13.3	S	0.6	306.6	30.5	30.5	24.9	24.9	8.5	8.5	129.4	129.4	8.5	8.5	7.4	0.4	0.4	5.4	3.1	3.5	9.5		
						0.6	306.6	30.5	30.5	24.9	24.9	8.5	8.5	129.4	129.4	8.5	8.5	7.4	0.3	0.4		3.9	3.5			
						0.2	267.8	29.1	29.1	29.5	29.5	8.2	8.2	96.3	97.2	6.3	6.3	7.4	3.1	3.0		7.7	7.2			
					M	0.2	267.8	29.1	29.1	29.5	29.5	8.2	8.2	98.0	97.2	6.4	6.3	7.4	2.9	3.0		6.7	7.2			
						0.2	278.4	28.3	28.3	31.1	31.1	8.0	8.0	37.6	36.8	2.5	2.4	2.4	12.7	13.0		17.8	17.7			
						0.2	278.4	28.3	28.3	31.1	31.1	8.0	8.0	36.0	36.8	2.4	2.4	2.4	13.2	13.0		17.5	17.7			
F5	Cloudy	Calm	17:09	5.5	S	1.1	69.8	30.5	30.5	21.0	21.0	8.4	8.4	170.6	170.8	11.4	11.4	11.4	4.4	4.4	6.2	5.7	5.8	7.4		
						1.0	1.9	30.5	30.5	21.0	21.0	8.4	8.4	170.9	170.8	11.4	11.4	11.4	4.4	4.4		5.9	5.8			
					B	0.8	5.0	29.3	29.4	24.8	24.2	8.2	8.2	117.7	120.2	7.9	8.0	8.0	8.0	8.0		8.9	8.0		8.5	9.0
						0.4	359.3	29.6	29.4	23.7	23.7	8.2	8.2	122.8	120.2	8.2	8.0	8.0	8.0	8.0		7.1	8.0		9.5	9.0
F6	Cloudy	Calm	18:23	13.5	S	0.1	4.4	30.6	30.6	17.2	17.2	8.2	8.2	131.5	132.9	9.0	9.0	7.7	4.2	4.1	8.9	5.0	5.3	12.9		
						0.1	4.4	30.6	30.6	17.2	17.2	8.3	8.2	134.3	132.9	9.1	9.0	7.7	4.1	4.1		5.5	5.3			
					M	0.2	5.1	29.3	29.3	24.1	24.0	8.0	8.0	95.6	96.2	6.4	6.5	6.5	5.5	5.5		7.7	7.3			
						1.2	308.2	29.3	29.3	23.9	24.0	8.0	8.0	96.8	96.2	6.5	6.5	6.5	5.5	5.5		6.8	7.3			
					B	0.2	248.6	29.0	28.9	26.7	26.8	8.0	8.0	82.6	82.2	5.5	5.5	5.5	16.7	17.0		27.7	26.1			
						1.4	347.7	28.9	28.9	26.8	26.8	8.0	8.0	81.8	82.2	5.4	5.5	5.5	17.4	17.0		24.5	26.1			
IM1	Fine	Calm	16:24	9.0	S	0.5	105.8	31.0	31.0	28.3	28.3	8.4	8.4	147.5	148.3	9.4	9.4	8.3	0.8	0.8	6.2	4.3	3.8	11.9		
						0.5	105.8	31.0	31.0	28.3	28.3	8.4	8.4	149.0	148.3	9.5	9.4	8.3	0.8	0.8		3.3	3.8			
						0.5	105.8	29.1	29.2	30.3	30.3	8.3	8.3	110.1	111.5	7.2	7.2	7.2	1.6	1.5		5.0	4.6			
					M	0.5	105.8	29.2	29.2	30.3	30.3	8.3	8.3	113.0	111.5	7.3	7.3	7.2	1.4	1.5		4.1	4.6			
						0.3	18.7	28.4	28.4	31.5	31.5	8.1	8.1	66.9	66.0	4.4	4.3	4.3	15.9	16.3		25.6	27.3			
						0.3	18.7	28.4	28.4	31.5	31.5	8.1	8.1	65.0	66.0	4.2	4.3	4.3	16.7	16.3		28.9	27.3			
IM2	Fine	Calm	16:04	11.0	S	0.3	159.3	29.4	29.4	27.5	27.5	8.3	8.3	116.1	115.7	7.6	7.6	7.8	1.7	1.8	5.1	5.6	5.2	8.7		
						0.3	159.3	29.4	29.4	27.5	27.5	8.3	8.3	115.3	115.7	7.6	7.6	7.8	1.9	1.8		4.8	5.2			
					M	0.4	177.8	29.4	29.4	28.3	28.3	8.3	8.3	121.1	121.9	7.9	8.0	8.0	1.7	1.5		4.6	5.1			
						0.6	175.8	29.4	29.4	28.3	28.3	8.3	8.3	122.8	121.9	8.0	8.0	8.0	1.4	1.5		5.5	5.1			
					B	0.2	99.2	28.8	28.8	29.7	29.7	8.1	8.1	93.2	91.5	6.1	6.0	6.0	12.2	12.0		15.4	15.9			
						0.2	99.2	28.8	28.8	29.7	29.7	8.1	8.1	89.9	91.5	5.9	6.0	6.0	11.8	12.0		16.4	15.9			
IM3	Fine	Calm	17:32	14.5	S	0.5	280.0	30.3	30.3	26.1	26.1	8.5	8.5	149.0	148.6	9.7	9.7	9.0	0.2	0.2	4.1	1.5	1.7	7.5		
						0.2	270.3	30.3	30.3	26.0	26.0	8.5	8.5	148.2	148.6	9.7	9.7	9.0	0.2	0.2		1.8	1.7			
					M	0.3	278.7	29.3	29.4	28.1	28.0	8.3	8.4	126.0	126.6	8.3	8.3	8.3	1.4	1.3		4.0	4.4			
						0.3	278.7	29.5	29.4	27.9	28.0	8.4	8.4	127.3	126.6	8.3	8.3	8.3	1.3	1.3		4.8	4.4			
					B	0.2	255.9	28.2	28.2	31.8	31.8	8.0	8.0	38.9	37.3	2.5	2.4	2.4	10.7	10.7		16.3	16.5			
						0.3	312.5	28.2	28.2	31.8	31.8	8.0	8.0	35.7	37.3	2.3	2.4	2.4	10.6	10.7		16.7	16.5			
IM4	Fine	Calm	17:52	16.0	S	0.5	275.8	30.7	30.7	25.4	25.4	8.5	8.5	140.7	140.1	9.2	9.1	8.1	2.4	2.4	6.5	0.5	0.5	9.0		
						0.3	283.1	30.7	30.7	25.4	25.4	8.5	8.5	139.5	140.1	9.1	9.1	8.1	2.3	2.4		0.5	0.5			
					M	0.4	253.3	29.2	29.2	29.1	29.1	8.3	8.3	107.5	108.9	7.0	7.1	7.1	2.4	2.3		4.1	4.1			
						0.7	249.5	29.2	29.2	29.1	29.1	8.3	8.3	110.4	108.9	7.2	7.1	7.1	2.3	2.3		4.0	4.1			
					B	0.4	286.9	28.3	28.3	31.8	31.8	8.1	8.1	47.9	46.8	3.1	3.1	3.1	15.1	15.0		22.3	22.4			
						0.4	286.9	28.3	28.3	31.8	31.8	8.1	8.1	45.6	46.8	3.0	3.1	3.1	14.9	14.9		22.5	22.4			
IM5	Fine	Calm	18:10	15.0	S	0.3	293.3	30.5	30.5	24.7	24.7	8.5	8.5	137.6	135.2	9.0	8.8	7.7	2.5	2.5	6.4	1.6	1.9	6.1		
						0.5	294.9	30.5	30.5	24.7	24.7	8.5	8.5	132.8	135.2	8.7	8.8	7.7	2.4	2.5		2.1	1.9			
					M	0.4	267.5	29.0	29.1	29.6	29.5	8.3	8.3	97.3	101.1	6.3	6.6	6.6	4.4	4.3		2.2	2.7			
						0.5	328.2	29.2	29.2	29.4	29.5	8.3	8.3	104.8	101.1	6.8	6.6	6.6	4.2	4.3		3.2	2.7			
					B	0.3	276.6	28.3	28.3	31.7	31.7	8.1	8.1	59.7	58.0	3.9	3.8	3.8	11.5	12.5		12.7	13.7			
						0.3	329.1	28.3	28.3	31.7	31.7	8.1	8.1	56.4	58.0	3.7	3.8	3.8	13.5	12.5		14.6	13.7			

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM6	Fine	Calm	18:40	15.7	S	0.3	318.6	30.3	30.3	22.7	22.7	8.6	8.6	144.2	144.1	9.6	9.6	9.5	0.3	0.3	6.4	0.5	0.8	9.8
						0.3	318.6	30.3	22.7	22.7	8.6	8.6	144.0	144.0	9.6	9.6	9.5	0.3	0.3	6.4	1.1	0.8		
						0.6	243.5	29.3	29.3	29.4	29.3	8.4	8.4	140.6	145.5	9.2	9.5	9.5	0.9	0.8	6.4	4.1	4.5	
					0.3	13.4	29.3	29.3	29.3	29.3	8.4	8.4	150.5	145.5	9.8	9.5	9.5	0.7	0.8	6.4	4.8	4.5		
					0.2	347.3	28.3	28.3	32.1	32.1	8.1	8.1	57.1	56.5	3.7	3.7	3.7	18.2	18.2	3.7	18.2	18.2	24.2	
					0.2	347.3	28.3	28.3	32.1	32.1	8.1	8.1	55.8	56.5	3.6	3.7	3.7	18.2	18.2	3.7	18.2	18.2	24.2	
IM7	Fine	Calm	19:06	12.9	S	0.4	270.0	30.0	30.0	24.7	24.7	8.5	8.5	133.3	133.7	8.8	8.8	7.2	0.9	0.8	6.3	3.9	4.4	11.5
						0.4	270.0	30.0	30.0	24.7	24.7	8.5	8.5	134.1	133.7	8.9	8.8	7.2	0.8	0.8	6.3	4.9	4.4	
						0.6	299.5	28.8	28.8	29.4	29.3	8.2	8.2	81.4	83.4	5.3	5.5	7.2	4.2	4.1	6.3	7.5	7.1	
					0.6	299.5	28.9	28.8	29.3	29.3	8.2	8.2	85.4	83.4	5.6	5.5	7.2	4.0	4.1	6.3	6.6	7.1		
					0.2	313.1	28.3	28.3	31.7	31.7	8.1	8.1	65.0	64.4	4.2	4.2	4.2	14.0	14.0	4.2	14.0	14.0	23.0	
					0.2	313.1	28.3	28.3	31.7	31.7	8.1	8.1	63.9	64.4	4.2	4.2	4.2	14.0	14.0	4.2	14.0	14.0	23.0	
IM8	Fine	Calm	18:56	14.3	S	0.2	244.2	30.0	30.0	24.4	24.5	8.5	8.5	138.7	138.5	9.2	9.2	8.5	0.8	0.9	6.5	6.3	5.9	13.4
						0.2	244.2	30.0	30.0	24.6	24.5	8.5	8.5	138.3	138.5	9.1	9.2	8.5	0.9	0.9	6.5	5.5	5.9	
						0.5	326.0	29.3	29.3	28.9	28.9	8.3	8.3	118.7	120.1	7.8	7.8	8.5	1.5	1.4	6.5	7.2	6.7	
					0.5	326.0	29.3	29.3	29.0	29.0	8.3	8.3	121.4	120.1	7.9	7.8	8.5	1.3	1.4	6.5	6.2	6.7		
					0.6	296.2	28.3	28.3	31.8	31.8	8.1	8.1	61.8	60.9	4.0	4.0	4.0	16.8	17.2	4.0	16.8	17.2	27.6	
					0.6	296.2	28.3	28.3	31.8	31.8	8.1	8.1	60.0	60.9	3.9	4.0	4.0	17.5	17.2	4.0	17.5	17.2	27.0	
IM9	Fine	Calm	19:27	14.7	S	0.5	309.9	30.0	30.0	22.6	23.1	8.6	8.6	149.1	143.7	10.0	9.6	8.5	1.3	1.1	12.0	4.3	4.2	21.3
						0.5	309.9	29.9	30.0	23.7	23.1	8.5	8.6	138.4	143.7	9.2	9.6	8.5	1.0	1.1	12.0	4.1	4.2	
						0.4	350.9	29.5	29.5	26.7	26.8	8.4	8.4	111.3	111.4	7.3	7.3	8.5	2.1	2.0	12.0	4.4	3.9	
					0.7	325.5	29.5	29.5	26.9	26.8	8.4	8.4	111.6	111.4	7.3	7.3	8.5	1.9	2.0	12.0	3.4	3.9		
					0.2	327.0	28.4	28.4	31.3	31.3	8.1	8.1	66.1	65.6	4.3	4.3	4.3	33.0	32.9	4.3	33.0	32.9	55.9	
					0.2	327.0	28.4	28.4	31.3	31.3	8.1	8.1	65.0	65.6	4.2	4.3	4.3	32.8	32.9	4.3	32.8	32.9	55.9	
IM10	Cloudy	Calm	15:36	10.5	S	0.4	236.1	30.7	30.7	24.4	24.4	8.3	8.4	115.3	119.6	7.5	7.8	5.9	2.3	2.1	20.9	1.6	1.7	22.1
						0.8	212.8	30.7	30.7	24.4	24.4	8.4	8.4	123.9	119.6	8.1	7.8	5.9	1.8	2.1	20.9	1.8	1.7	
						0.8	213.7	28.3	28.3	31.4	31.4	7.9	7.9	62.2	61.8	4.1	4.0	4.0	13.4	13.4	4.0	13.4	13.4	
					1.2	211.6	28.2	28.3	31.4	31.4	7.9	7.9	61.5	61.8	4.0	4.0	4.0	13.4	13.4	4.0	13.4	13.4	15.7	
					0.6	295.6	28.2	28.2	31.6	31.6	7.9	7.9	61.7	61.1	4.0	4.0	4.0	44.4	47.1	4.0	44.4	47.1	49.0	
					0.7	273.9	28.2	28.2	31.6	31.6	7.9	7.9	60.5	61.1	4.0	4.0	4.0	49.7	47.1	4.0	49.7	47.1	52.1	
IM11A	Cloudy	Calm	15:48	4.0	S	0.9	94.9	30.5	30.5	21.2	21.1	8.5	8.5	157.7	159.6	10.5	10.7	10.7	12.4	12.7	11.6	25.9	24.3	21.6
						0.9	94.9	30.5	30.5	21.1	21.1	8.5	8.5	161.6	159.6	10.8	10.7	10.7	12.9	12.7	11.6	22.7	24.3	
						0.6	38.1	30.5	30.6	23.0	23.1	8.4	8.4	144.9	143.4	9.6	9.5	9.5	11.5	10.6	9.5	11.5	10.6	
IM12	Cloudy	Calm	15:56	12.0	S	1.7	131.1	31.3	31.4	16.6	16.3	8.6	8.6	185.5	187.6	12.5	12.7	10.2	4.7	4.5	15.7	7.7	7.3	22.3
						1.7	131.1	31.5	31.4	15.9	16.3	8.6	8.6	189.7	187.6	12.8	12.7	10.2	4.2	4.5	15.7	6.9	7.3	
						0.4	77.8	29.4	29.4	25.0	25.0	8.2	8.2	114.3	115.1	7.6	7.7	7.7	16.6	16.3	7.7	16.6	16.3	
					0.7	61.4	29.4	29.4	25.0	25.0	8.2	8.2	115.8	115.1	7.7	7.7	7.7	16.1	16.3	7.7	16.1	16.3	24.9	
					0.7	302.4	28.8	28.8	29.3	29.4	8.1	8.1	90.0	85.3	5.9	5.6	5.6	24.4	26.3	5.6	24.4	26.3	34.4	
					0.5	323.8	28.7	28.8	29.6	29.4	8.1	8.1	80.5	85.3	5.3	5.6	5.6	28.1	26.3	5.6	28.1	26.3	46.6	
IM13	Cloudy	Calm	16:21	16.0	S	1.0	116.3	31.0	30.9	15.5	15.8	8.4	8.4	160.8	161.1	11.0	11.0	8.9	5.0	4.9	14.8	7.3	7.2	18.5
						1.3	126.2	30.9	30.9	16.2	15.8	8.4	8.4	161.4	161.1	11.0	11.0	8.9	4.8	4.9	14.8	7.1	7.2	
						0.4	60.8	29.1	29.2	24.9	24.5	8.1	8.2	91.2	100.9	6.1	6.8	8.9	9.8	9.0	8.9	9.8	9.0	
					0.9	347.0	29.3	29.2	24.2	24.5	8.2	8.2	110.7	100.9	7.4	6.8	8.9	8.3	9.0	8.9	8.3	9.0	11.6	
					0.4	1.5	28.4	28.4	29.7	29.7	8.0	8.0	75.0	73.1	5.0	4.8	4.8	30.4	30.5	4.8	30.4	30.5	36.3	
					1.1	255.6	28.4	28.4	29.7	29.7	8.0	8.0	71.1	73.1	4.7	4.8	4.8	30.6	30.5	4.8	30.6	30.5	38.9	
IM14	Cloudy	Calm	16:30	9.5	S	0.8	146.9	31.3	31.3	15.9	15.8	8.6	8.6	187.5	188.3	12.7	12.8	12.0	5.8	5.3	15.9	10.0	9.5	25.3
						1.6	246.1	31.3	31.3	15.7	15.8	8.6	8.6	189.1	188.3	12.8	12.8	12.0	4.8	5.3	15.9	9.0	9.5	
						0.8	82.2	30.2	30.2	20.4	20.5	8.4	8.4	164.0	165.2	11.0	11.1	11.1	11.2	10.4	11.1	11.2	10.4	
					0.3	295.7	30.2	30.2	20.5	20.5	8.4	8.4	166.5	165.2	11.2	11.1	11.1	9.7	10.4	11.1	9.7	10.4	23.3	
					0.5	309.5	28.8	28.7	27.4	27.4	8.1	8.1	86.2	84.8	5.7	5.6	5.6	32.1	31.9	5.6	32.1	31.9	47.2	
					0.9	46.0	28.7	28.7	27.4	27.4	8.1	8.1	83.4	84.8	5.5	5.6	5.6	31.7	31.9	5.6	31.7	31.9	42.0	

Water Quality Monitoring Data Log Sheet

Date: 2019/09/11

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
IM15	Cloudy	Calm	17:32	5.5	S	1.0	327.4	30.1	30.2	21.3	20.7	8.3	8.3	138.5	143.1	9.3	9.6	9.6	8.6	8.0	10.9	13.2	13.5	17.0
						1.0	327.4	30.3	20.1	20.7	8.3	8.3	147.7	143.1	10.0	9.6	9.6	7.4						
					B	0.4	359.0	29.3	29.3	24.8	24.8	8.1	8.1	104.7	104.6	7.0	7.0	7.0	13.8	13.9	7.3	18.9	20.4	
						0.3	19.8	29.3	24.8	24.8	8.1	8.1	104.4	104.6	7.0	7.0	7.0	14.0						
IM16A	Cloudy	Calm	18:00	6.5	S	0.9	78.4	30.3	30.3	18.0	18.0	8.0	8.0	101.0	101.2	6.9	6.9	6.8	5.7	5.6	7.3	8.5	8.1	10.1
						0.9	78.4	30.3	18.0	18.0	8.0	8.0	101.3	101.2	6.9	6.9	6.8	5.6						
					M	0.8	276.6	30.1	30.1	18.7	18.8	8.0	8.0	95.6	97.6	6.5	6.6	6.8	7.6	7.2	7.3	9.4	9.2	
						0.2	258.6	30.1	29.5	18.8	18.8	8.0	8.0	99.6	97.6	6.8	6.6	6.7	6.7					
					B	0.7	223.1	29.5	29.5	21.9	22.0	8.0	8.0	91.0	89.1	6.2	6.0	6.0	8.7	9.1	7.3	12.1	12.9	
						0.7	223.1	29.5	29.5	22.2	22.0	8.0	8.0	87.1	89.1	5.9	6.0	6.0	9.6					
IM17	Cloudy	Calm	19:03	4.5	S	1.2	21.8	30.2	30.2	18.7	18.9	8.1	8.1	112.5	107.7	7.6	7.3	7.3	7.5	7.0	18.8	10.0	9.9	13.9
						1.2	21.8	30.1	30.2	19.1	18.9	8.0	8.1	102.9	107.7	7.0	7.3	7.3	6.5					
					B	0.4	5.4	29.7	29.7	21.0	21.0	7.9	7.9	89.1	88.0	6.0	6.0	6.0	29.7	30.6	7.3	16.6	17.9	
						0.9	38.3	29.7	29.7	20.9	21.0	7.9	7.9	87.0	88.0	5.9	6.0	6.0	31.5					
IM18	Cloudy	Calm	18:50	17.0	S	0.3	103.2	30.2	30.2	17.6	17.3	8.0	8.0	92.7	94.1	6.3	6.4	5.8	6.5	6.2	21.3	9.7	9.3	31.4
						0.3	103.2	30.2	17.1	17.3	8.0	8.0	95.6	94.1	6.6	6.4	5.8	5.9						
					M	0.7	313.3	29.1	29.1	25.7	25.7	7.9	7.9	76.1	76.2	5.1	5.1	5.1	7.5	7.6	7.3	13.4	13.1	
						1.1	299.3	29.1	29.1	25.7	25.7	7.9	7.9	76.2	76.2	5.1	5.1	5.1	7.6					
					B	0.8	352.1	28.8	28.8	27.1	27.0	7.9	7.9	70.1	69.4	4.7	4.6	4.6	49.6	50.2	7.3	70.2	71.9	
						0.6	250.6	28.8	28.8	27.0	27.0	7.9	7.9	68.8	69.4	4.6	4.6	4.6	50.7					
IM19	Cloudy	Calm	19:23	17.5	S	0.6	322.5	30.6	30.6	18.4	18.7	8.2	8.2	119.3	120.3	8.1	8.1	7.0	4.9	4.9	14.5	7.6	7.2	23.8
						0.6	322.5	30.6	30.6	19.0	18.7	8.2	8.2	121.3	120.3	8.2	8.1	7.0	4.9					
					M	0.9	4.3	29.2	29.3	24.8	24.8	8.0	8.0	88.0	88.8	5.9	5.9	5.9	4.3	4.0	7.3	7.2	7.7	
						0.6	358.1	29.3	29.3	24.8	24.8	8.0	8.0	89.6	88.8	6.0	5.9	5.9	3.7					
					B	0.5	325.6	28.8	28.8	27.8	27.8	7.9	7.9	74.7	73.1	4.9	4.8	4.8	31.2	34.6	7.3	53.8	56.6	
						0.6	349.5	28.8	28.8	27.8	27.8	7.9	7.9	71.6	73.1	4.7	4.8	4.8	38.1					
IM20A	Cloudy	Calm	20:22	4.5	S	0.4	316.0	31.2	31.4	20.4	20.2	8.1	8.1	101.6	105.8	6.7	7.0	7.0	15.3	15.4	14.6	21.5	20.1	19.3
						0.4	316.0	31.6	31.4	20.4	20.2	8.1	8.1	110.1	105.8	7.3	7.0	7.0	15.5					
					B	0.4	117.9	30.1	29.8	23.6	24.0	8.0	8.0	96.9	94.8	6.4	6.3	6.3	14.8	13.8	7.3	18.8	18.5	
						1.3	103.6	29.6	29.8	24.4	24.0	8.0	8.0	92.7	94.8	6.2	6.3	6.3	12.8					
IM21A	Cloudy	Calm	20:13	4.5	S	1.1	164.9	31.0	31.1	20.7	20.5	8.0	8.0	97.5	98.9	6.5	6.6	6.6	18.4	17.5	20.3	23.6	25.7	33.4
						1.1	164.9	31.1	31.1	20.4	20.5	8.0	8.0	100.3	98.9	6.7	6.6	6.6	16.6					
					B	0.4	93.6	29.8	29.8	24.4	24.4	8.0	8.0	93.2	90.6	6.2	6.0	6.0	21.1	23.2	7.3	39.7	41.1	
						0.5	19.9	29.8	29.8	24.4	24.4	8.0	8.0	87.9	90.6	5.8	6.0	6.0	25.2					
IM22A	Cloudy	Calm	20:07	4.5	S	0.6	28.6	30.7	30.8	21.1	20.9	8.1	8.1	109.6	112.0	7.3	7.4	7.4	14.2	14.2	20.4	16.9	15.8	20.2
						0.6	28.6	31.0	30.8	20.8	20.9	8.1	8.1	114.3	112.0	7.6	7.4	7.4	14.2					
					B	0.3	333.4	29.5	29.4	24.8	25.0	8.0	8.0	88.3	85.2	5.9	5.7	5.7	24.1	26.7	7.3	26.4	24.6	
						0.5	217.6	29.3	29.4	25.3	25.0	7.9	8.0	82.0	85.2	5.5	5.7	5.7	29.2					

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/14

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E1	Fine	Rough	11:08	9.6	S	0.3	135.0	29.4	29.4	28.5	28.5	8.1	8.1	105.8	105.7	6.9	6.9	6.1	2.1	2.1	4.5	2.5	2.3	6.8
						0.3	136.0	29.4		28.5		8.1		105.6		6.9			2.1			2.0		
						0.2	147.0	29.2	29.7	8.1	82.9	5.4	5.3	6.5										
					M	0.2	152.0	29.2	29.2	29.7	8.1	83.2	5.4	4.9	5.9									
						0.1	124.0	28.6		31.0	8.2	64.7	4.2	6.4	12.3									
						0.1	131.0	28.6	31.0	8.2	64.7	4.2	6.4	12.1										
B	0.2	136.0	30.2	30.2	28.7	8.1	139.3	9.0	1.3	2.2														
	0.2	141.0	30.2		28.7	8.1	139.2	9.0	1.3	1.8														
	0.2	130.0	28.2	28.2	32.0	8.0	71.5	4.7	1.4	2.4														
IM1	Fine	Rough	11:45	7.2	S	0.2	130.0	28.2	28.2	32.0	32.0	8.0	8.0	71.8	71.7	4.7	4.7	6.8	1.3	1.3	2.0	2.2	2.0	2.7
						0.2	130.0	28.2		32.0		8.0		71.8		4.7			1.4			1.9		
						0.2	148.0	27.4	27.4	32.8	8.1	46.1	3.0	3.5	4.0									
					M	0.2	153.0	27.4	27.4	32.8	8.1	46.2	3.1	3.5	4.5									
						0.1	131.0	29.7		28.5	8.0	134.9	8.8	1.7	2.5									
						0.1	136.0	29.7	28.5	8.0	134.7	8.8	1.7	2.0										
B	0.1	115.0	28.6	28.6	31.2	7.9	85.1	5.5	1.8	2.0														
	0.1	118.0	28.6		31.2	7.9	85.3	5.6	1.2	2.2														
	0.1	114.0	27.8	27.8	32.3	7.9	51.7	3.4	3.7	3.8														
IM2	Fine	Moderate	11:19	11.5	S	0.1	131.0	29.7	29.7	28.5	28.5	8.0	8.0	134.9	134.8	8.8	8.8	7.2	1.7	1.7	2.7	2.5	2.3	2.7
						0.1	136.0	29.7		28.5		8.0		134.7		8.8			1.7			2.0		
						0.1	115.0	28.6	31.2	7.9	85.1	5.5	1.2	1.8										
					M	0.1	118.0	28.6	28.6	31.2	7.9	85.3	5.6	1.2	2.2									
						0.1	114.0	27.8		32.3	7.9	51.7	3.4	3.7	3.8									
						0.1	122.0	27.8	27.8	32.3	7.9	51.7	3.4	3.9	3.8									
B	0.5	170.0	29.3	29.3	26.4	8.3	71.8	4.8	41.1	30.7														
	0.5	178.0	29.3		26.4	8.3	71.8	4.8	43.8	32.8														
	0.1	104.0	29.2	29.2	26.7	8.5	70.6	4.7	32.3	30.6														
IM11A	Fine	Moderate	14:21	5.8	S	0.1	111.0	29.2	29.2	26.7	26.7	8.5	8.5	70.7	70.7	4.7	4.7	4.8	41.1	42.4	59.5	28.6	30.7	30.7
						0.5	178.0	29.3		26.4		8.3		71.8		4.8			43.8			32.8		
						0.1	104.0	29.2	29.2	26.7	8.5	70.6	4.7	32.3	30.6									
					M	0.1	111.0	29.2	29.2	26.7	8.5	70.7	4.7	28.9	30.6									
						0.1	111.0	29.2		26.7	8.5	70.7	4.7	28.9	30.6									
						0.7	158.0	28.7	28.7	29.0	8.1	59.7	3.9	42.9	45.6									
0.7	171.0	28.7	29.0	8.1	59.8	3.9	60.0	48.2																
B	1.3	141.0	29.7	29.7	25.2	8.0	80.2	5.3	3.8	4.8														
	1.3	153.0	29.7		25.2	8.0	80.2	5.3	3.8	5.3														
	1.0	152.0	28.8	28.8	28.8	8.0	59.6	3.9	37.9	44.0														
M	1.1	166.0	28.8	28.8	28.8	8.0	59.6	3.9	38.5	47.2														
	0.7	158.0	28.7		29.0	8.1	59.7	3.9	59.2	42.9														
	0.7	171.0	28.7	29.0	8.1	59.8	3.9	60.0	48.2															

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/14

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)					
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
E1	Cloudy	Moderate	19:47	9.2	S	0.2	255.0	28.8	28.9	28.0	28.0	7.9	7.9	73.4	73.4	4.9	4.9	4.8	3.2	3.2	6.5	6.3	6.8	6.4		
						0.2	256.0	28.9		28.0		7.9		73.4		4.9			3.2			7.3				
					M	0.2	303.0	28.7	28.7	29.1	29.1	7.9	7.9	71.3	71.3	4.7	4.7	4.5	4.1	4.1		4.1	4.1		7.4	6.9
						0.2	311.0	28.7		29.1		7.9		71.3		4.7			4.1			6.4				
					B	0.3	328.0	28.5	28.5	30.6	30.6	7.9	7.9	69.3	69.4	4.5	4.5	4.5	12.2	12.2		12.2	12.2		5.9	5.5
						0.3	332.0	28.5		30.6		7.9		69.4		4.6			12.1			5.0				
E2	Fine	Moderate	18:06	8.5	S	0.3	289.0	30.0	30.0	28.1	28.1	8.2	8.2	106.4	106.3	6.9	6.9	6.4	2.2	2.2	6.7	6.0	5.9	8.7		
						0.4	290.0	30.0		28.1		8.2		106.2		6.9			2.2			5.8				
					M	0.3	290.0	29.6	29.6	28.7	28.7	8.2	8.2	90.5	90.5	5.9	5.9	3.6	3.2	3.2		5.3	5.4			
						0.3	315.0	29.6		28.7		8.2		90.5		5.9			3.2			5.4				
					B	0.2	277.0	29.1	29.1	29.6	29.6	8.2	8.2	55.6	55.7	3.6	3.6	3.6	14.7	14.7		14.7	14.7		13.8	14.9
						0.2	279.0	29.1		29.6		8.2		55.7		3.6			14.7			15.9				
E7A	Cloudy	Calm	19:44	5.8	S	0.1	52.0	30.3	30.3	19.2	19.2	7.9	7.9	82.1	82.1	5.6	5.6	5.6	6.2	6.2	7.3	3.0	3.3	14.7		
						0.1	54.0	30.3		19.2		7.9		82.1		5.6			6.2			3.6				
					B	0.2	26.0	30.0	30.0	22.2	22.2	8.0	8.0	83.6	83.6	5.6	5.6	5.6	8.3	8.3		25.2	26.2			
						0.2	27.0	30.0		22.2		8.0		83.6		5.6			8.3			27.1				
IM2	Cloudy	Moderate	19:27	11.7	S	0.1	326.0	30.8	30.8	29.2	29.1	7.9	7.9	106.0	106.0	6.7	6.7	5.9	1.8	1.8	5.3	2.7	3.1	7.5		
						0.1	349.0	30.8		29.1		7.9		105.9		6.7			1.8			3.5				
					M	0.1	356.0	28.8	28.8	30.6	30.6	8.0	8.0	78.0	78.0	5.1	5.1	4.2	3.8	3.8		4.2	4.7			
						0.1	356.0	28.8		30.6		8.0		77.9		5.1			3.8			5.2				
					B	0.5	5.0	28.2	28.2	31.9	31.9	8.0	8.0	63.8	63.8	4.2	4.2	4.2	10.5	10.3		15.1	14.6			
						0.5	5.0	28.2		31.9		8.0		63.8		4.2			10.2			14.1				
IM10	Fine	Moderate	17:09	14.4	S	0.6	246.0	29.7	29.7	28.4	28.4	8.0	8.0	83.5	83.5	5.4	5.4	4.6	4.2	4.2	9.3	6.7	6.7	13.6		
						0.6	264.0	29.7		28.4		8.0		83.4		5.4			4.1			6.7				
					M	0.7	241.0	28.7	28.7	30.0	30.0	8.1	8.1	58.8	58.8	3.9	3.9	3.4	6.7	6.7		8.6	9.1			
						0.7	244.0	28.7		30.0		8.1		58.7		3.9			6.6			9.5				
					B	0.6	243.0	28.3	28.3	31.0	31.0	8.2	8.2	51.4	51.5	3.4	3.4	3.4	17.1	17.1		23.2	25.0			
						0.7	243.0	28.3		31.0		8.2		51.5		3.4			17.1			26.8				

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/09/17

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
E2	Cloudy	Rough	07:39	9.1	S	0.2	269.0	28.7	28.7	29.3	29.3	8.0	8.0	108.2	108.1	7.1	7.1	6.8	1.3	1.3	3.3	3.8	4.1	8.2
						0.2	291.0	28.7	29.3	8.0		108.0	7.1	1.3		4.4								
						0.2	277.0	28.6	29.4	8.0		98.8	6.5	1.7		3.7								
					M	0.2	282.0	28.6	28.6	29.4	8.0	8.0	98.6	98.7	6.5	6.5	1.7	1.7	4.3	16.4	4.0	8.2		
						0.2	281.0	28.3	30.4	7.8	59.0	3.9	6.8		15.9									
						0.2	295.0	28.3	30.4	7.8	59.0	3.9	6.8		16.9									
					B	0.2	281.0	28.3	28.3	30.4	7.8	7.8	59.0	59.0	3.9	3.9	3.9	6.8	6.8	16.4	4.0	8.2		
						0.2	295.0	28.3	30.4	7.8	59.0	3.9	6.8		16.9									
						0.2	281.0	28.3	30.4	7.8	59.0	3.9	6.8		16.9									
E7A	Cloudy	Calm	10:45	5.7	S	0.1	49.0	29.2	29.2	21.7	21.7	7.9	7.9	71.6	71.6	4.9	4.9	4.9	4.8	4.7	6.5	5.0	4.7	8.1
						0.1	50.0	29.2	21.7	7.9		71.6	4.9	4.7		4.3								
						0.1	55.0	28.9	24.1	7.9		67.8	4.6	8.3		11.2								
					B	0.1	55.0	28.9	28.9	24.1	7.9	7.9	67.8	67.8	4.6	4.6	4.6	8.3	8.3	11.5	11.5	8.1		
						0.1	56.0	28.9	24.1	7.9	67.8	4.6	8.3		11.8									
						0.1	56.0	28.9	24.1	7.9	67.8	4.6	8.3		11.8									

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Cloudy	Calm	03:12	8.0	S	0.6	96.4	20.9	20.9	32.5	32.5	8.0	8.0	88.3	88.3	6.5	6.5	6.5	6.6	8.1	9.8	11.8	11.8	0.015
						0.2	239.8	20.9		32.5		8.0		88.3		6.5					6.7			
						0.1	123.9	20.9		32.5		8.0		88.1		6.5					7.2			
					M	0.4	305.8	20.9	32.5	8.0	88.1	6.5	7.4	7.3	11.0	10.9								
						0.3	214.8	20.9	32.5	8.0	89.2	6.6	11.0	10.5	14.7	15.0								
						0.4	182.7	20.9	32.5	8.0	88.5	6.5	9.9	15.3										
B	1.0	162.4	21.0	32.9	32.8	8.1	8.1	102.3	102.3	7.5	7.5	7.5	2.7	2.8	5.4	5.3								
	0.7	120.9	21.0	32.8	32.8	8.1	8.1	102.3	102.3	7.5	7.5	7.5	2.9	2.9	5.2	5.3								
	0.2	46.5	21.0	32.9	32.9	8.1	8.1	102.1	102.1	7.5	7.5	7.5	2.9	2.9	6.2	6.4								
E2	Cloudy	Calm	23:22	9.0	S	0.2	286.9	21.0	21.0	32.9	32.8	8.1	8.1	102.1	102.1	7.5	7.5	7.5	7.5	3.0	6.2	5.9	5.9	0.009
						0.7	49.7	21.0		32.8		8.1		102.8		7.6					2.8			
						0.8	208.9	21.0		32.9		8.1		102.0		7.5					3.6			
					M	0.8	208.9	21.0	32.9	32.9	8.1	8.1	102.0	102.4	7.5	7.5	7.5	2.9	3.3	6.3	6.2			
						0.9	106.0	19.7	33.9	33.9	8.1	8.1	100.4	100.4	7.5	7.5	7.5	5.2	5.2	10.8	11.1			
						1.0	106.0	19.7	33.9	33.9	8.1	8.1	100.4	100.4	7.5	7.5	7.5	5.3	5.2	11.3	11.1			
B	0.8	98.0	20.0	33.8	33.8	8.1	8.1	100.6	100.6	7.5	7.5	7.5	5.7	5.7	12.7	12.6								
	0.9	104.0	20.0	33.8	33.8	8.1	8.1	100.6	100.6	7.5	7.5	7.5	5.7	5.7	12.5	12.6								
	0.6	88.0	20.0	33.8	33.8	8.1	8.1	101.4	101.5	7.6	7.6	7.6	8.9	9.0	15.2	15.0								
E3	Fine	Rough	00:55	16.3	S	1.2	188.0	20.0	20.0	31.6	31.6	8.1	8.1	98.2	98.3	7.4	7.4	7.5	15.4	15.4	30.5	28.0	28.0	0.030
						1.3	190.0	20.0		31.6		8.1		98.3		7.4					15.4			
						1.0	179.0	20.0		31.5		8.1		99.7		7.5					17.0			
					M	1.0	195.0	20.0	31.5	8.1	99.8	7.5	17.0	17.0										
						1.1	176.0	19.7	32.2	32.2	8.1	8.1	98.9	98.9	7.5	7.5	7.5	17.6	17.5	26.5	26.5			
						1.2	190.0	19.7	32.2	32.2	8.1	8.1	98.9	98.9	7.5	7.5	7.5	17.5	17.5	26.5	26.5			
B	0.8	203.0	20.5	29.2	29.2	8.0	8.0	95.1	95.1	7.2	7.2	7.2	37.4	37.5	74.3	73.7								
	0.8	203.0	20.5	29.2	29.2	8.0	8.0	95.1	95.1	7.2	7.2	7.2	37.5	37.5	73.0	73.7								
	0.6	212.0	20.6	29.7	29.7	8.0	8.0	95.2	95.2	7.2	7.2	7.2	44.2	44.2	87.4	89.2								
E4	Fine	Rough	02:55	10.9	S	0.9	146.0	20.6	20.6	29.6	29.6	7.9	7.9	93.1	93.2	7.0	7.0	7.0	12.0	12.0	18.6	21.8	21.8	0.059
						0.9	150.0	20.6		29.6		7.9		93.2		7.0					11.9			
						0.6	140.0	20.6		29.8		8.0		93.5		7.1					14.6			
					B	0.7	143.0	20.6	29.8	8.0	93.6	7.1	14.6	14.6										
						0.4	191.0	20.9	28.8	28.8	7.9	7.9	93.2	93.2	7.0	7.0	7.0	8.9	9.0	13.4	14.1			
						0.5	199.0	20.9	28.8	28.8	7.9	7.9	93.2	93.2	7.0	7.0	7.0	9.1	9.1	14.7	14.1			
B	0.4	191.0	20.9	28.8	28.8	7.9	7.9	93.7	93.7	7.1	7.1	7.1	12.8	12.8	21.6	22.3								
	0.4	198.0	20.9	28.8	28.8	7.9	7.9	93.7	93.7	7.1	7.1	7.1	12.9	12.9	22.9	22.3								
	0.3	66.4	20.4	32.7	32.7	8.2	8.2	101.4	101.4	7.6	7.6	7.6	1.5	1.5	3.6	3.5								
E5	Fine	Rough	03:09	5.4	S	0.8	203.0	20.5	20.5	29.2	29.2	8.0	8.0	95.1	95.2	7.2	7.2	7.2	40.8	40.8	74.3	81.4	81.4	0.030
						0.8	203.0	20.5		29.2		8.0		95.1		7.2					37.5			
						0.6	220.0	20.6		29.7		8.0		95.2		7.2					44.2			
					M	0.6	220.0	20.6	29.7	29.7	8.0	8.0	95.2	95.2	7.2	7.2	7.2	44.3	44.2	90.9	89.2			
						0.9	150.0	20.6	29.6	29.6	7.9	7.9	93.1	93.2	7.0	7.0	7.0	12.0	12.0	18.6	18.9			
						0.6	140.0	20.6	29.8	29.8	8.0	8.0	93.5	93.6	7.1	7.1	7.1	14.6	14.6	24.6	24.7			
B	0.7	143.0	20.6	29.8	29.8	8.0	8.0	93.6	93.6	7.1	7.1	7.1	14.6	14.6	24.6	24.7								
	0.4	191.0	20.9	28.8	28.8	7.9	7.9	93.2	93.2	7.0	7.0	7.0	8.9	9.0	13.4	14.1								
	0.5	199.0	20.9	28.8	28.8	7.9	7.9	93.2	93.2	7.0	7.0	7.0	9.1	9.1	14.7	14.1								
E6	Fine	Moderate	02:18	4.9	S	0.4	191.0	20.9	20.9	28.8	28.8	7.9	7.9	93.7	93.7	7.1	7.1	7.1	10.9	10.9	21.6	18.2	18.2	0.030
						0.4	191.0	20.9		28.8		7.9		93.7		7.1					12.8			
						0.4	198.0	20.9		28.8		7.9		93.7		7.1					12.9			
					M	0.3	66.4	20.4	32.7	32.7	8.2	8.2	101.4	101.4	7.6	7.6	7.6	1.5	1.5	3.6	3.5			
						0.5	250.9	20.4	32.7	32.7	8.2	8.2	101.4	101.4	7.6	7.6	7.6	1.5	1.5	3.4	3.5			
						1.2	122.3	20.4	32.7	32.7	8.2	8.2	100.7	100.7	7.5	7.5	7.5	1.8	1.7	4.8	4.6			
B	0.6	160.0	20.4	32.7	32.7	8.2	8.2	100.7	100.7	7.5	7.5	7.5	1.5	1.5	4.4	4.6								
	0.3	66.4	20.4	32.7	32.7	8.2	8.2	100.3	100.3	7.5	7.5	7.5	1.5	1.5	5.1	5.1								
	0.4	177.9	20.4	32.7	32.7	8.2	8.2	100.3	100.3	7.5	7.5	7.5	1.5	1.5	5.0	5.1								
E7A	Fine	Moderate	02:00	4.8	S	1.0	225.5	20.1	20.1	32.6	32.6	8.2	8.2	101.1	101.1	7.6	7.6	7.5	1.1	1.1	5.1	4.2	4.2	0.030
						0.7	182.6	20.1		32.6		8.2		101.1		7.6					1.1			
						0.2	179.3	20.1		32.6		8.2		100.4		7.5					1.2			
					M	0.2	179.3	20.1	32.6	32.6	8.2	8.2	100.5	100.5	7.5	7.5	7.5	1.1	1.2	4.1	4.1			
						0.2	179.3	20.1	32.6	32.6	8.2	8.2	100.5	100.5	7.5	7.5	7.5	1.1	1.2	4.1	4.1			
						1.0	138.1	20.1	32.6	32.6	8.2	8.2	100.0	100.0	7.5	7.5	7.5	1.4	1.5	3.0	3.3			
B	0.6	94.7	20.1	32.6	32.6	8.2	8.2	100.0	100.0	7.5	7.5	7.5	1.5	1.5	3.5	3.3								

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
F3	Cloudy	Calm	00:58	17.2	S	0.8	179.9	20.0	20.0	32.5	32.5	8.2	8.2	101.2	101.3	7.6	7.6	7.6	1.8	2.0	1.8	7.2	7.0	6.0	<0.001			
						0.8	179.9	20.0		32.5	32.5	8.2		101.3	7.6	1.8			6.7		0.008							
						1.4	262.5	20.0		32.5	32.5	8.2		100.5	7.5	2.0			6.3		<0.001							
					M	1.4	262.5	20.0	32.5	32.5	8.2	100.5	7.5	7.5	1.9	2.0	2.0	5.6	6.0	5.1	<0.001							
						B	0.9	319.0	20.0	32.5	32.5	8.2	100.3	100.2	7.5	7.5	7.5	2.3	2.3	2.3	4.8	5.0	4.8		<0.001			
							1.0	272.5	20.0	32.5	32.5	8.2	100.1	7.5	7.5	2.2	2.2	2.2	5.1	5.0	4.8	<0.001						
F4	Cloudy	Calm	23:51	13.3	S	0.7	86.2	21.1	21.1	33.0	33.0	8.1	8.1	102.3	102.4	7.5	7.5	7.5	5.4	5.3	5.5	10.5	10.8	9.1	<0.001			
						0.7	86.2	21.1		33.0	33.0	8.1		102.4	7.5	5.6			11.1		9.6							
						0.3	38.4	21.1		33.0	33.0	8.1		101.9	7.5	5.5			9.6		8.8							
					M	0.2	354.6	21.1	33.0	33.0	8.1	101.9	7.5	5.3	7.6	7.3	5.0	5.0	5.0	7.0	7.0	7.0	54.1		54.2	67.0		
						B	0.6	138.5	21.1	33.0	33.0	8.1	101.9	7.5	7.5	7.5	7.5	35.2	35.1	35.1	77.6	79.8	81.9		18.1	18.6		
							0.4	189.2	21.1	33.0	33.0	8.1	101.7	7.5	5.0	5.0	5.0	13.0	13.0	13.0	19.0	20.2	22.7		20.8	20.6		
F5	Fine	Rough	03:40	4.9	S	0.4	178.0	20.4	20.4	30.6	30.6	8.0	8.0	96.4	96.4	7.3	7.3	7.3	31.1	31.5	31.5	54.1	54.2	67.0	<0.001			
						0.4	182.0	20.4		30.6	30.6	8.0		96.4	7.3	31.9			54.2									
						0.2	184.0	20.4		30.6	30.6	8.0		96.7	7.3	35.0			77.6									
					M	0.2	194.0	20.4	30.6	30.6	8.0	96.7	7.3	7.3	7.3	7.3	35.2	35.1	35.1	81.9	79.8	81.9	18.1		18.6			
						B	0.6	132.0	20.6	30.3	30.3	7.9	95.7	7.2	7.2	7.2	7.2	13.0	13.0	13.0	19.0	20.2	22.7		20.8	20.6		
							0.6	133.0	20.6	30.3	30.3	7.9	95.7	7.2	7.2	7.2	7.2	13.0	13.0	13.0	19.0	20.2	22.7		20.8	20.6		
F6	Fine	Rough	23:50	11.8	S	0.4	117.0	20.7	20.7	30.8	30.8	7.9	7.9	93.4	93.3	7.0	7.0	7.0	13.6	13.7	13.7	19.5	20.2	20.6	<0.001			
						0.4	119.0	20.7		30.8	30.8	7.9		93.2	7.0	13.6			19.5									
						0.2	99.0	20.8		31.7	31.7	7.9		89.5	6.7	5.9			23.2									
					M	0.2	100.0	20.8	31.7	31.7	7.9	89.5	6.7	5.9	22.7	23.0	22.7	23.0	23.0	23.0	23.0	23.0	23.0		23.0	23.0	23.0	
						B	0.8	87.0	20.7	32.7	32.7	8.1	99.8	7.4	7.4	7.4	7.4	2.5	2.7	2.7	4.0	4.0	4.0		4.0	4.0		
							0.4	142.2	20.7	32.7	32.7	8.1	99.8	7.4	7.4	7.4	7.4	2.5	2.7	2.7	4.0	4.0	4.0		4.0	4.0		
IM1	Cloudy	Calm	02:31	9.1	S	0.3	248.1	20.7	20.7	32.7	32.7	8.1	8.1	99.6	99.6	7.4	7.4	7.4	2.9	2.7	2.7	4.9	5.1	5.7	<0.001			
						0.2	241.1	20.7		32.7	32.7	8.1		99.6	7.4	2.9			5.2									
						0.3	17.3	20.7		32.7	32.7	8.1		100.4	7.4	3.1			7.7									
					M	0.3	17.3	20.7	32.7	32.7	8.1	100.4	7.4	7.4	7.4	7.4	3.1	3.1	3.1	7.7	7.9	8.1	7.7		7.9			
						B	1.0	168.2	20.8	32.6	32.6	8.1	91.5	6.8	6.8	6.8	6.8	4.7	4.7	4.7	8.1	8.2	8.1		8.2			
							1.0	204.0	20.8	32.6	32.6	8.1	91.5	6.8	6.8	6.8	6.8	4.7	4.7	4.7	8.1	8.2	8.1		8.2			
IM2	Cloudy	Calm	02:57	10.3	S	0.5	164.3	20.8	20.8	32.6	32.6	8.0	8.0	91.3	91.3	6.8	6.8	6.8	5.5	6.0	6.0	9.3	9.3	9.5	<0.001			
						0.7	229.5	20.8		32.6	32.6	8.0		91.2	6.7	6.9			10.9									
						0.7	229.5	20.8		32.6	32.6	8.0		91.1	6.7	8.3			11.1									
					M	1.0	204.0	20.8	32.6	32.6	7.9	102.4	7.6	7.6	7.6	7.6	1.4	1.4	1.4	4.4	4.7	4.4	4.7					
						B	0.6	108.0	20.8	32.6	32.6	7.9	102.5	7.6	7.6	7.6	7.6	1.4	1.4	1.4	4.4	4.7	4.4		4.7			
							1.4	61.9	20.8	32.6	32.6	7.9	101.4	7.5	7.5	7.5	7.5	1.7	1.6	1.6	5.4	5.6	5.4		5.6			
IM3	Cloudy	Calm	22:26	16.0	S	0.4	357.5	20.8	20.8	32.6	32.6	8.0	8.0	101.8	101.6	7.5	7.5	7.5	1.4	1.6	1.6	5.7	5.9	5.4	<0.001			
						0.4	341.0	20.6		32.6	32.6	8.0		99.4	7.4	3.3			5.7									
						0.4	341.0	20.6		32.6	32.6	8.0		99.4	7.4	3.1			6.0									
					M	0.9	265.9	20.8	32.7	32.7	8.1	100.4	7.4	7.4	7.4	7.4	2.7	2.7	2.7	5.7	5.6	5.7	5.6					
						B	0.9	265.9	20.8	32.7	32.7	8.1	100.4	7.4	7.4	7.4	7.4	2.7	2.7	2.7	5.4	6.1	5.4		6.1			
							1.1	114.4	20.8	32.7	32.7	8.1	99.9	7.4	7.4	7.4	7.4	2.7	2.7	2.7	6.0	6.1	6.0		6.1			
IM4	Cloudy	Calm	22:51	17.0	S	0.6	81.5	20.8	20.8	32.7	32.7	8.1	8.1	99.2	99.4	7.4	7.4	7.4	3.4	3.7	3.7	7.7	7.9	6.5	<0.001			
						0.7	90.5	20.8		32.7	32.7	8.1		99.2	7.3	3.9			8.1									
						0.2	66.4	20.3		32.6	32.6	8.1		102.3	7.6	7.6			7.6		7.6	1.6			1.7	1.7	2.6	2.8
					M	0.2	268.7	20.2	32.6	32.6	8.1	102.3	7.6	7.6	7.6	7.6	1.6	1.7	1.7	2.6	2.8							
						B	0.3	6.6	20.3	32.6	32.6	8.1	101.8	7.6	7.6	7.6	7.6	1.8	1.7	1.7	3.1	3.3						
							0.3	6.6	20.3	32.6	32.6	8.1	101.8	7.6	7.6	7.6	7.6	1.5	1.7	1.7	3.4	3.3						
IM5	Cloudy	Calm	00:26	15.1	S	0.4	291.0	20.3	20.3	32.6	32.6	8.1	8.1	101.3	101.3	7.6	7.6	7.6	2.0	2.0	2.0	3.7	3.7	3.2	<0.001			
						0.4	291.0	20.3		32.6	32.6	8.1		101.3	7.6	7.6			7.6		7.6	2.0			2.0	2.0	3.6	3.7
						0.2	66.4	20.3		32.6	32.6	8.1		102.3	7.6	7.6			7.6		7.6	1.6			1.7	1.7	2.6	2.8
					M	0.2	268.7	20.2	32.6	32.6	8.1	102.3	7.6	7.6	7.6	7.6	1.6	1.7	1.7	2.6	2.8							
						B	0.3	6.6	20.3	32.6	32.6	8.1	101.8	7.6	7.6	7.6	7.6	1.8	1.7	1.7	3.1	3.3						
							0.3	6.6	20.3	32.6	32.6	8.1	101.8	7.6	7.6	7.6	7.6	1.5	1.7	1.7	3.4	3.3						

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM6	Cloudy	Calm	00:44	16.0	S	0.4	108.2	20.1	20.1	32.5	32.5	8.2	8.2	101.6	101.6	7.6	7.6	7.6	2.0	2.1	2.3	5.1	5.3	56.0
						0.4	89.7	20.1	20.1	32.5	32.5	8.2	8.2	101.6	101.6	7.6	7.6	7.6	2.2	2.1	2.3	5.5	5.3	56.0
						0.2	233.5	20.1	20.1	32.5	32.5	8.2	8.2	101.0	101.0	7.6	7.6	7.6	2.3	2.3	2.3	5.2	5.2	56.0
					M	0.2	80.4	20.1	20.1	32.5	32.5	8.2	8.2	101.0	101.0	7.6	7.6	7.6	2.3	2.3	2.3	5.1	5.2	56.0
						0.7	106.1	20.1	20.1	32.5	32.5	8.2	8.2	100.4	100.4	7.5	7.5	7.5	2.3	2.5	2.5	6.2	6.5	56.0
						0.3	26.5	20.1	20.1	32.5	32.5	8.2	8.2	100.4	100.4	7.5	7.5	7.5	2.7	2.5	2.5	6.7	6.5	56.0
IM7	Fine	Rough	23:42	15.2	S	0.1	80.0	19.5	19.5	33.7	33.7	8.0	8.0	102.2	102.2	7.7	7.7	7.7	1.6	1.6	1.6	2.3	2.4	35.0
						0.1	84.0	19.5	19.5	33.7	33.7	8.0	8.0	102.2	102.2	7.7	7.7	7.7	1.6	1.6	1.6	2.5	2.4	35.0
						0.1	73.0	19.6	19.6	33.7	33.7	8.0	8.0	102.5	102.5	7.7	7.7	7.7	3.7	3.7	3.7	3.8	3.7	35.0
					M	0.1	73.0	19.6	19.6	33.7	33.7	8.0	8.0	102.5	102.5	7.7	7.7	7.7	3.8	3.7	3.7	3.6	3.7	35.0
						0.2	51.0	19.5	19.5	33.6	33.6	8.0	8.0	102.7	102.7	7.7	7.7	7.7	2.9	2.9	2.9	4.2	4.4	35.0
						0.2	54.0	19.5	19.5	33.6	33.6	8.0	8.0	102.7	102.7	7.7	7.7	7.7	2.9	2.9	2.9	4.5	4.4	35.0
IM8	Fine	Rough	23:52	13.6	S	0.2	107.0	19.8	19.8	33.7	33.7	8.2	8.2	103.9	103.9	7.8	7.8	7.8	0.9	0.9	0.9	4.1	4.0	41.0
						0.3	107.0	19.8	19.8	33.7	33.7	8.2	8.2	103.9	103.9	7.8	7.8	7.8	0.9	0.9	0.9	3.9	4.0	41.0
						0.2	61.0	19.8	19.8	33.7	33.7	8.1	8.1	103.3	103.3	7.7	7.7	7.7	1.0	1.0	1.0	4.1	4.0	41.0
					M	0.2	63.0	19.8	19.8	33.7	33.7	8.1	8.1	103.2	103.2	7.7	7.7	7.7	1.0	1.0	1.0	3.9	4.0	41.0
						0.0	110.0	19.8	19.8	33.8	33.8	8.1	8.1	103.1	103.1	7.7	7.7	7.7	2.0	2.0	2.0	4.0	4.2	41.0
						0.0	114.0	19.8	19.8	33.8	33.8	8.1	8.1	103.2	103.2	7.7	7.7	7.7	2.0	2.0	2.0	4.4	4.2	41.0
IM9	Fine	Rough	00:17	15.3	S	0.6	124.0	20.1	20.1	33.9	33.9	8.2	8.2	100.8	100.8	7.5	7.5	7.5	3.1	3.1	3.1	7.2	7.3	79.0
						0.6	128.0	20.1	20.1	33.9	33.9	8.2	8.2	100.8	100.8	7.5	7.5	7.5	3.1	3.1	3.1	7.4	7.3	79.0
						0.4	127.0	20.1	20.1	33.9	33.9	8.1	8.1	101.1	101.1	7.5	7.5	7.5	3.2	3.2	3.2	7.6	7.8	79.0
					M	0.4	131.0	20.1	20.1	33.9	33.9	8.1	8.1	101.1	101.1	7.5	7.5	7.5	3.2	3.2	3.2	8.0	7.8	79.0
						0.4	120.0	20.0	20.0	33.9	33.9	8.1	8.1	101.6	101.6	7.6	7.6	7.6	4.0	4.0	4.0	8.3	8.6	79.0
						0.5	123.0	20.0	20.0	33.9	33.9	8.1	8.1	101.7	101.7	7.6	7.6	7.6	4.0	4.0	4.0	8.8	8.6	79.0
IM10	Fine	Rough	01:15	8.7	S	0.5	84.0	20.2	20.2	33.8	33.8	8.2	8.2	101.6	101.6	7.5	7.5	7.5	11.4	11.3	11.3	22.1	23.1	26.5
						0.5	84.0	20.2	20.2	33.8	33.8	8.2	8.2	101.6	101.6	7.5	7.5	7.5	11.3	11.3	11.3	24.0	23.1	26.5
						0.4	52.0	20.2	20.2	33.8	33.8	8.1	8.1	101.6	101.6	7.6	7.6	7.6	12.3	12.3	12.3	27.6	27.7	26.5
					M	0.4	54.0	20.2	20.2	33.8	33.8	8.1	8.1	101.6	101.6	7.6	7.6	7.6	12.3	12.3	12.3	27.7	27.7	26.5
						0.3	59.0	20.0	20.0	33.7	33.7	8.1	8.1	102.0	102.0	7.6	7.6	7.6	12.0	12.0	12.0	28.4	28.7	26.5
						0.3	63.0	20.0	20.0	33.7	33.7	8.1	8.1	102.1	102.1	7.6	7.6	7.6	11.9	12.0	12.0	28.9	28.7	26.5
IM11A	Fine	Rough	01:35	5.7	S	0.6	165.0	20.1	20.1	33.5	33.5	8.1	8.1	100.8	100.9	7.5	7.5	7.5	25.0	25.2	25.2	48.2	49.2	56.2
						0.6	166.0	20.1	20.1	33.5	33.5	8.1	8.1	101.0	101.0	7.5	7.5	7.5	25.3	25.2	25.2	50.2	49.2	56.2
						0.4	163.0	19.8	19.8	33.4	33.4	8.1	8.1	101.8	101.9	7.6	7.6	7.6	22.9	22.9	22.9	63.8	63.2	56.2
					B	0.4	173.0	19.8	19.8	33.4	33.4	8.1	8.1	101.9	101.9	7.6	7.6	7.6	23.0	22.9	22.9	62.6	63.2	56.2
						0.6	122.0	19.9	19.9	33.5	33.5	8.1	8.1	99.4	99.4	7.4	7.4	7.4	17.4	17.3	17.3	44.4	44.0	52.7
						0.6	134.0	19.9	19.9	33.5	33.5	8.1	8.1	99.3	99.3	7.4	7.4	7.4	17.3	17.3	17.3	43.6	44.0	52.7
IM12	Fine	Rough	01:48	14.3	M	0.4	114.0	19.9	19.9	33.4	33.4	8.1	8.1	99.2	99.2	7.4	7.4	7.4	18.7	18.7	18.7	57.0	55.6	52.7
						0.4	125.0	19.9	19.9	33.4	33.4	8.1	8.1	99.2	99.2	7.4	7.4	7.4	18.6	18.7	18.7	54.1	55.6	52.7
						0.2	320.0	19.7	19.7	33.5	33.5	8.1	8.1	99.7	99.7	7.5	7.5	7.5	19.2	19.2	19.2	59.8	58.6	52.7
					B	0.2	332.0	19.7	19.7	33.4	33.5	8.1	8.1	100.1	99.9	7.5	7.5	7.5	19.4	19.3	19.3	57.4	58.6	52.7
						1.2	136.0	20.0	20.0	32.0	32.0	8.1	8.1	98.7	98.7	7.4	7.4	7.4	20.1	20.1	20.1	15.6	15.4	17.6
						1.3	136.0	20.0	20.0	32.0	32.0	8.1	8.1	98.7	98.7	7.4	7.4	7.4	20.1	20.1	20.1	15.2	15.4	17.6
IM13	Fine	Rough	02:24	15.3	M	1.2	140.0	20.0	20.0	32.2	32.2	8.1	8.1	98.8	98.8	7.4	7.4	7.4	15.2	15.2	15.2	16.5	16.7	17.6
						1.2	143.0	20.0	20.0	32.2	32.2	8.1	8.1	98.8	98.8	7.4	7.4	7.4	15.2	15.2	15.2	16.8	16.7	17.6
						0.8	134.0	19.7	19.7	32.1	32.1	8.1	8.1	99.1	99.1	7.5	7.5	7.5	9.2	9.2	9.2	20.0	20.6	17.6
					B	0.9	137.0	19.7	19.7	32.1	32.1	8.1	8.1	99.2	99.2	7.5	7.5	7.5	9.2	9.2	9.2	21.2	20.6	17.6
						1.3	176.0	20.0	20.0	32.4	32.4	8.1	8.1	98.4	98.5	7.4	7.4	7.4	23.6	23.7	23.7	48.5	48.1	56.0
						1.4	176.0	20.0	20.0	32.4	32.4	8.1	8.1	98.6	98.5	7.4	7.4	7.4	23.8	23.7	23.7	47.7	48.1	56.0
IM14	Fine	Rough	02:39	10.3	S	1.1	176.0	19.9	19.9	32.4	32.4	8.1	8.1	98.4	98.4	7.4	7.4	7.4	31.6	31.6	31.6	49.7	50.6	56.0
						1.2	177.0	19.9	19.9	32.4	32.4	8.1	8.1	98.4	98.4	7.4	7.4	7.4	31.7	31.6	31.6	51.4	50.6	56.0
						1.1	164.0	19.8	19.8	32.5	32.5	8.1	8.1	100.3	100.5	7.6	7.6	7.6	30.4	31.9	31.9	70.6	69.4	56.0
					M	1.2	170.0	19.8	19.8	32.5	32.5	8.1	8.1	100.6	100.6	7.6	7.6	7.6	33.4	31.9	31.9	68.1	69.4	56.0

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
IM15	Fine	Moderate	03:18	5.0	S	1.0	210.0	20.5	30.0	30.0	8.0	8.0	95.1	95.1	7.2	7.2	7.2	29.3	29.6	31.5	65.9	66.1	70.0
						1.0	217.0	20.5	30.0	30.0	8.0	8.0	95.1	95.1	7.2	7.2	7.2	30.0					
					B	0.8	213.0	20.5	30.0	30.0	8.0	8.0	95.0	95.1	7.2	7.2	7.2	33.7	33.4		72.9		
						0.9	225.0	20.5	30.0	30.0	8.0	8.0	95.1	95.1	7.2	7.2	7.2	33.1			74.9		
IM16A	Fine	Rough	02:58	6.2	S	0.7	194.0	20.5	29.4	29.4	7.9	7.9	94.0	94.0	7.1	7.1	7.1	31.7	31.6	33.7	65.3	65.9	69.7
						0.8	194.0	20.5	29.4	29.4	7.9	7.9	94.0	94.0	7.1	7.1	7.1	31.5					
					M	0.7	197.0	20.5	29.4	29.4	7.9	7.9	94.1	94.1	7.1	7.1	7.1	32.5	32.6		68.2		
						0.8	197.0	20.5	29.4	29.4	7.9	7.9	94.1	94.1	7.1	7.1	7.1	32.8			68.4		
					B	0.6	199.0	20.5	29.4	29.4	7.9	7.9	94.7	94.8	7.2	7.2	7.2	36.9	36.8		74.2		
						0.6	212.0	20.5	29.4	29.4	7.9	7.9	94.8	94.8	7.2	7.2	7.2	36.7			75.7		
IM17	Fine	Moderate	02:38	4.7	S	0.5	163.0	20.3	29.2	29.2	8.0	8.0	95.1	95.1	7.2	7.2	7.2	26.4	26.3	26.8	45.5	46.9	55.6
						0.5	179.0	20.3	29.2	29.2	8.0	8.0	95.1	95.1	7.2	7.2	7.2	26.3					
					B	0.4	165.0	20.3	29.2	29.2	8.0	8.0	95.7	95.8	7.3	7.3	7.3	27.0	27.2		48.3		
						0.5	179.0	20.3	29.2	29.2	8.0	8.0	95.6	95.6	7.3	7.3	7.3	27.3			46.9		
IM18	Fine	Rough	00:23	17.5	S	0.5	167.0	20.5	29.2	29.2	7.9	7.9	95.6	95.6	7.0	7.0	7.0	9.1	9.1	8.1	15.0	15.5	15.8
						0.5	177.0	20.5	29.2	29.2	7.9	7.9	95.6	95.6	7.0	7.0	7.0	9.2					
					M	0.3	174.0	20.8	30.4	30.4	7.9	7.9	92.8	92.8	7.0	7.0	7.0	8.2	8.2		14.9		
						0.3	179.0	20.8	30.4	30.4	7.9	7.9	92.8	92.8	7.0	7.0	7.0	8.2			15.1		
					B	0.2	115.0	20.8	31.6	31.6	7.9	7.9	89.6	89.6	6.7	6.7	6.7	7.0	6.9		15.8		
						0.3	117.0	20.8	31.6	31.6	7.9	7.9	89.7	89.7	6.7	6.7	6.7	7.0			16.9		
IM19	Fine	Rough	00:37	17.2	S	0.9	188.0	20.9	29.8	29.8	7.9	7.9	94.3	94.3	7.1	7.1	7.1	5.9	6.0	7.5	8.5	9.6	9.3
						0.9	202.0	20.9	29.8	29.8	7.9	7.9	94.3	94.3	7.1	7.1	7.1	6.0					
					M	0.6	172.0	20.9	30.4	30.4	7.9	7.9	93.1	93.1	7.0	7.0	7.0	5.9	5.9		9.5		
						0.7	172.0	20.9	30.4	30.4	7.9	7.9	93.1	93.1	7.0	7.0	7.0	5.9			9.7		
					B	0.5	142.0	20.8	31.6	31.6	7.9	7.9	88.8	88.8	6.6	6.6	6.6	10.5	10.5		9.6		
						0.6	147.0	20.8	31.6	31.6	7.9	7.9	88.8	88.8	6.6	6.6	6.6	10.6			10.1		
IM20A	Fine	Moderate	01:24	4.3	S	0.4	241.0	21.3	28.9	28.9	7.9	7.9	99.2	99.2	7.4	7.4	7.4	9.9	10.0	12.5	19.3	20.1	23.0
						0.5	250.0	21.3	28.9	28.9	7.9	7.9	99.2	99.2	7.4	7.4	7.4	10.1					
					B	0.4	242.0	21.2	28.9	28.9	7.9	7.9	99.3	99.3	7.4	7.4	7.4	14.9	15.0		25.8		
						0.4	244.0	21.2	28.9	28.9	7.9	7.9	99.3	99.3	7.5	7.4	7.4	15.1			26.0		
IM21A	Fine	Moderate	01:10	5.2	S	0.4	204.0	21.6	29.0	29.0	7.9	7.9	102.3	102.3	7.6	7.6	7.6	16.9	17.1	25.2	43.8	44.3	58.9
						0.4	215.0	21.6	29.0	29.0	7.9	7.9	102.2	102.2	7.6	7.6	7.6	17.2					
					B	0.2	221.0	21.6	29.0	29.0	7.9	7.9	101.4	101.4	7.6	7.6	7.6	33.5	33.4		72.0		
						0.2	240.0	21.6	29.0	29.0	7.9	7.9	101.4	101.4	7.6	7.6	7.6	33.2			73.5		
IM22A	Fine	Moderate	00:55	5.1	S	0.5	218.0	21.6	29.2	29.2	7.9	7.9	97.4	97.4	7.2	7.2	7.2	12.7	12.6	12.8	23.8	24.1	22.9
						0.5	221.0	21.6	29.2	29.2	7.9	7.9	97.4	97.4	7.2	7.2	7.2	12.6					
					B	0.3	223.0	21.4	29.6	29.6	7.9	7.9	95.9	96.0	7.1	7.1	7.1	12.9	12.9		22.0		
						0.4	229.0	21.4	29.6	29.6	7.9	7.9	96.0	96.0	7.1	7.1	7.1	13.0			21.2		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
E1	FINE	Calm	05:34	7.8	S	0.7	236.6	20.7	20.7	32.5	32.5	7.9	7.9	89.8	89.9	6.7	6.7	6.6	8.1	7.5	9.5	16.0	15.6	19.4			
						0.6	289.1	20.7		32.5	32.5	7.9		89.9	89.9	6.7			6.8								
						0.6	174.2	20.7		32.5	32.5	7.9		89.5	89.5	6.6			6.6								
					M	0.3	324.0	20.7	32.5	32.5	7.9	89.5	89.5	6.6	6.6	10.0	10.1	10.1	10.1								
						0.8	194.8	20.7	32.5	32.5	7.9	90.9	90.2	6.7	6.7	11.1	11.1	11.1	11.1								
						0.5	228.5	20.7	32.5	32.5	7.9	89.4	89.4	6.6	6.6	11.0	11.0	11.0	11.0								
B	0.4	242.0	20.6	32.9	32.9	8.1	99.3	99.4	7.4	7.4	2.7	2.8	2.8	2.8													
	0.4	242.0	20.6	32.9	32.9	8.1	99.4	99.4	7.4	7.4	2.8	2.8	2.8	2.8													
	0.3	130.1	20.6	32.9	32.9	8.1	99.3	99.2	7.4	7.3	4.0	3.9	3.9	3.9													
E2	FINE	Calm	08:58	8.2	S	0.3	130.1	20.6	20.6	32.9	32.9	8.1	8.1	99.3	99.2	7.4	7.3	7.4	7.3	3.1	8.1	8.0	7.5	0.004			
						0.4	125.2	20.6		32.9	32.9	8.1		99.0	99.0	7.3					7.3			3.8	3.8	3.8	3.8
						0.5	349.7	20.6		32.9	32.9	8.1		99.9	99.7	7.4					7.4			2.6	2.6	2.6	2.6
					M	0.5	349.7	20.6	32.9	32.9	8.1	99.4	99.4	7.4	7.4	2.6	2.6	2.6	2.6								
						0.4	242.0	20.6	32.9	32.9	8.1	99.3	99.4	7.4	7.4	2.7	2.8	2.8	2.8								
						0.4	242.0	20.6	32.9	32.9	8.1	99.4	99.4	7.4	7.4	2.8	2.8	2.8	2.8								
B	0.5	349.7	20.6	32.9	32.9	8.1	99.9	99.7	7.4	7.4	2.6	2.6	2.6	2.6													
	0.5	349.7	20.6	32.9	32.9	8.1	99.4	99.4	7.4	7.4	2.6	2.6	2.6	2.6													
	0.5	349.7	20.6	32.9	32.9	8.1	99.4	99.4	7.4	7.4	2.6	2.6	2.6	2.6													
E3	Fine	Rough	06:49	15.3	S	0.4	288.0	19.8	19.8	33.4	33.4	8.1	8.1	100.5	100.6	7.5	7.6	7.5	7.3	7.3	6.4	6.4	16.5	14.7			
						0.5	303.0	19.8		33.4	33.4	8.1		100.6	100.6	7.5					7.5			6.3	6.3	6.3	6.3
						0.5	297.0	19.8		33.4	33.4	8.1		102.5	102.6	7.7					7.7			7.5	7.5	7.5	7.5
					M	0.5	321.0	19.8	33.4	33.4	8.1	102.7	102.6	7.7	7.7	7.6	7.5	7.5	7.5								
						0.6	289.0	18.7	33.5	33.5	8.1	102.9	102.9	7.9	7.9	7.9	7.9	7.9	7.9								
						0.6	301.0	18.6	33.5	33.5	8.1	102.9	102.9	7.9	7.9	7.9	7.9	7.9	7.9								
B	0.6	301.0	18.6	33.5	33.5	8.1	102.9	102.9	7.9	7.9	7.9	7.9	7.9	7.9													
	0.6	301.0	18.6	33.5	33.5	8.1	102.9	102.9	7.9	7.9	7.9	7.9	7.9	7.9													
	0.6	301.0	18.6	33.5	33.5	8.1	102.9	102.9	7.9	7.9	7.9	7.9	7.9	7.9													
E4	Fine	Rough	05:26	10.2	S	0.6	215.0	18.9	18.9	31.7	31.7	8.1	8.1	97.5	97.5	7.5	7.6	7.5	7.5	14.1	13.9	13.9	24.9	22.4			
						0.7	219.0	18.9		31.7	31.7	8.1		97.5	97.5	7.5					7.5			13.9	13.9	13.9	13.9
						0.5	207.0	18.8		31.8	31.8	8.1		98.6	98.7	7.6					7.6			13.6	13.7	13.7	13.7
					M	0.6	224.0	18.7	31.8	31.8	8.1	98.7	98.7	7.6	7.6	13.7	13.7	13.7	13.7								
						0.4	211.0	18.1	31.7	31.7	8.1	98.5	98.5	7.7	7.7	14.9	14.9	14.9	14.9								
						0.4	220.0	18.1	31.7	31.7	8.1	98.4	98.5	7.7	7.7	14.8	14.8	14.8	14.8								
B	0.4	211.0	18.1	31.7	31.7	8.1	98.5	98.5	7.7	7.7	14.9	14.9	14.9	14.9													
	0.4	220.0	18.1	31.7	31.7	8.1	98.4	98.5	7.7	7.7	14.8	14.8	14.8	14.8													
	0.3	257.0	20.5	30.1	30.1	7.9	92.4	92.4	7.0	7.0	14.0	14.0	14.0	14.0													
E5	Fine	Moderate	06:46	5.0	S	0.3	257.0	20.5	20.5	30.1	30.1	7.9	7.9	92.4	92.4	7.0	7.0	7.0	7.0	15.3	14.1	14.0	24.6	21.1			
						0.3	257.0	20.5		30.1	30.1	7.9		92.4	92.4	7.0					7.0			14.1	14.1	14.1	14.1
						0.2	269.0	20.5		30.1	30.1	7.9		93.6	93.7	7.1					7.1			16.0	16.6	16.6	16.6
					M	0.3	288.0	20.5	30.1	30.1	7.9	93.8	93.7	7.1	7.1	17.1	17.1	17.1	17.1								
						0.2	269.0	20.5	30.1	30.1	7.9	93.6	93.7	7.1	7.1	16.0	16.6	16.6	16.6								
						0.3	288.0	20.5	30.1	30.1	7.9	93.8	93.7	7.1	7.1	17.1	17.1	17.1	17.1								
B	0.2	269.0	20.5	30.1	30.1	7.9	93.6	93.7	7.1	7.1	16.0	16.6	16.6	16.6													
	0.3	288.0	20.5	30.1	30.1	7.9	93.8	93.7	7.1	7.1	17.1	17.1	17.1	17.1													
	0.3	288.0	20.5	30.1	30.1	7.9	93.8	93.7	7.1	7.1	17.1	17.1	17.1	17.1													
E6	Fine	Moderate	07:48	5.1	S	0.6	335.0	20.4	20.4	29.7	29.7	7.9	7.9	91.3	91.3	6.9	6.9	6.9	19.5	16.5	16.5	32.1	30.2				
						0.6	6.0	20.4		29.7	29.7	7.9		91.3	91.3	6.9				6.9			16.6	16.6	16.6	16.6	
						0.5	337.0	20.4		29.7	29.7	7.9		91.9	92.0	7.0				7.0			22.7	22.6	22.6	22.6	
					M	0.6	6.0	20.4	29.7	29.7	7.9	92.0	92.0	7.0	7.0	22.4	22.4	22.4	22.4								
						0.6	6.0	20.4	29.7	29.7	7.9	92.0	92.0	7.0	7.0	22.4	22.4	22.4	22.4								
						0.4	14.0	20.4	29.0	29.0	7.9	92.2	92.2	7.0	7.0	6.4	6.4	6.4	6.4								
B	0.4	14.0	20.4	29.0	29.0	7.9	92.2	92.2	7.0	7.0	6.4	6.4	6.4	6.4													
	0.3	22.0	20.6	29.3	29.3	7.9	91.2	91.3	6.9	6.9	10.0	10.0	10.0	10.0													
	0.3	22.0	20.6	29.3	29.3	7.9	91.3	91.3	6.9	6.9	10.0	10.0	10.0	10.0													
E7A	Fine	Moderate	08:08	4.3	S	0.5	271.4	20.4	20.4	32.6	32.6	8.1	8.1	100.2	100.2	7.5	7.4	7.4	1.6	1.3	1.4	3.7	3.2				
						0.3	236.7	20.4		32.6	32.6	8.1		100.2	100.2	7.5				7.5			1.3	1.4	1.4	1.4	
						0.7	353.1	20.4		32.6	32.6	8.1		99.5	99.6	7.4				7.4			1.5	1.5	1.5	1.5	
					M	1.0	266.2	20.4	32.6	32.6	8.1	99.6	99.6	7.4	7.4	1.5	1.5	1.5	1.5								
						0.2	258.3	20.4	32.6	32.6	8.1	99.0	99.0	7.4	7.4	2.0	2.0	2.0	2.0								
						0.1	344.3	20.4	32.6	32.6	8.1	98.9	99.0	7.4	7.4	2.0	2.0	2.0	2.0								
B	0.6	145.9	20.5	32.7	32.7	8.1	100.1	100.1	7.4	7.4	1.8	1.8	1.8	1.8													
	1.2	200.4	20.5	32.7	32.7	8.1	100.1	100.1	7.4	7.4	1.8	1.8	1.8	1.8													
	1.0	271.8	20.5	32.8	32.7	8.1	99.6	99.6	7.4	7.4	2.0	2.1	2.1	2.1													
F1	FINE	Calm	06:33	19.3	S	0.1	260.7	20.5	20.5	32.8	32.7	8.1	8.1	99.3	99.2	7.4	7.4	7.4	2.2	2.6	2.8	5.6	4.9				
						0.6	145.9	20.5		32.7	32.7	8.1		100.1	100.1	7.4				7.4			1.8	1.8	1.8	1.8	
						1.2	200.4	20.5		32.7	32.7	8.1		100.1	100.1	7.4				7.4			1.8	1.8	1.8	1.8	
					M	1.0	271.8	20.5	32.8	32.7	8.1	99.6	99.6	7.4	7.4	2.0	2.1	2.1	2.1								
						1.0	271.8	20.5	32.7	32.7	8.1	99.5	99.5	7.4	7.4	2.1	2.1	2.1	2.1								
						0.1	260.7	20.5	32.8	32.7	8.1	99.3	99.2	7.4	7.4	2.6	2.8	2.8	2.8								
B	0.1	260.7	20.5	32.8	32.7	8.1	99.3	99.2	7.4	7.4	2.6	2.8	2.8	2.8													
	0.1	260.7	20.5	32.8	32.7	8.1	99.3	99.2	7.4	7.4	2.6	2.8	2.8	2.8													
	0.1	260.7	20.5	32.8	32.7	8.1	99.3	99.2	7.4	7.4	2.6	2.8	2.8	2.8													
F2	FINE	Calm	07:03	19.0	S	0.6	145.9	20.5	20.5	32.7	32.7	8.1	8.1	100.1	100.1	7.4	7.4	7.4	2.2	2.6	2.8	5.6	4.8				
						1.2	200.4	20.5		32.7	32.7	8.1		100.1	100.1	7.4				7.4			1.8	1.8	1.8	1.8	
						1.0																					

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*	Value	Average	DA*
F3	FINE	Calm	07:37	16.3	S	0.7	279.9	19.9	19.9	32.6	32.6	8.1	8.1	100.6	100.6	7.6	7.6	7.5	2.0	1.9	2.3	5.3	5.5	4.5	0.013			
						1.3	334.4	19.9	19.9	32.6	32.6	8.1	8.1	100.6	100.6	7.6	7.6	7.5	2.3	2.1	2.3	4.2	4.4	4.5	0.037			
						0.1	14.8	19.9	19.9	32.6	32.6	8.1	8.1	100.0	100.0	7.5	7.5	7.5	1.9	2.1	2.3	4.6	4.4	4.5	0.035			
					M	0.2	212.5	19.9	19.9	32.6	32.6	8.1	8.1	100.0	100.0	7.5	7.5	7.5	2.7	2.9	7.5	3.1	2.9	2.3	3.6	4.5	<0.001	
						0.4	70.1	19.9	19.9	32.6	32.6	8.1	8.1	99.9	99.8	7.5	7.5	7.5	2.7	2.9	7.5	3.1	2.9	3.2	3.6	4.5	0.003	
						0.4	70.1	19.9	19.9	32.6	32.6	8.1	8.1	99.7	99.7	7.5	7.5	7.5	2.7	2.9	7.5	3.1	2.9	3.9	3.6	4.5	0.029	
F4	FINE	Calm	08:32	13.0	S	0.8	299.0	20.6	20.6	32.8	32.8	8.1	8.1	99.4	99.4	7.4	7.4	7.4	2.9	2.8	4.0	7.1	7.0	8.7	0.013			
						1.2	267.4	20.6	20.6	32.8	32.8	8.1	8.1	99.4	99.4	7.4	7.4	7.4	2.9	2.8	4.0	7.1	7.0	8.7	0.037			
						0.5	289.1	20.6	20.6	32.9	32.8	8.1	8.1	98.9	98.9	7.3	7.3	7.3	3.1	3.4	4.0	6.6	6.0	4.0	7.3	7.5	8.7	0.035
					M	0.3	273.1	20.6	20.6	32.8	32.8	8.1	8.1	98.9	98.9	7.3	7.3	7.3	3.1	3.4	4.0	6.6	6.0	4.0	7.3	7.5	8.7	0.035
						0.4	310.8	20.6	20.6	32.9	32.9	8.1	8.1	98.8	98.7	7.3	7.3	7.3	3.1	3.4	4.0	6.6	6.0	4.0	7.3	7.5	8.7	0.035
						0.5	295.1	20.6	20.6	32.9	32.9	8.1	8.1	98.6	98.6	7.3	7.3	7.3	3.1	3.4	4.0	6.6	6.0	4.0	7.3	7.5	8.7	0.035
F5	Fine	Rough	06:07	5.1	S	0.1	95.0	20.4	20.4	30.4	30.4	8.0	8.0	94.9	95.0	7.2	7.2	7.2	22.9	22.9	22.5	38.6	39.9	34.9	0.013			
						0.1	101.0	20.4	20.4	30.4	30.4	8.0	8.0	95.0	95.0	7.2	7.2	7.2	23.0	22.9	22.5	41.1	39.9	34.9	0.037			
						0.2	44.0	20.4	20.4	30.5	30.5	8.0	8.0	95.6	95.7	7.2	7.2	7.2	22.1	22.1	22.5	28.9	29.9	34.9	0.035			
					B	0.2	46.0	20.4	20.4	30.5	30.5	8.0	8.0	95.7	95.7	7.2	7.2	7.2	22.1	22.1	22.5	28.9	29.9	34.9	0.035			
						0.4	309.0	20.5	20.5	30.5	30.5	7.9	7.9	92.9	92.9	7.0	7.0	7.0	11.8	11.8	24.6	11.8	11.8	24.6	23.2	38.5	0.035	
						0.4	322.0	20.5	20.5	30.5	30.5	7.9	7.9	92.9	92.9	7.0	7.0	7.0	11.7	11.8	24.6	11.7	11.8	24.6	23.2	38.5	0.035	
F6	Fine	Moderate	09:48	13.8	M	0.4	318.0	20.5	20.5	30.5	30.5	7.9	7.9	92.7	92.7	7.0	7.0	7.0	17.6	17.6	24.6	23.1	23.2	38.5	0.013			
						0.4	339.0	20.5	20.5	30.5	30.5	7.9	7.9	92.7	92.7	7.0	7.0	7.0	17.7	17.6	24.6	23.2	23.2	38.5	0.037			
						0.5	312.0	20.5	20.5	30.5	30.5	8.0	8.0	93.5	93.6	7.0	7.0	7.0	44.6	44.4	24.6	74.9	75.0	38.5	0.035			
					B	0.5	336.0	20.5	20.5	30.5	30.5	8.0	8.0	93.7	93.6	7.1	7.0	7.0	44.2	44.4	24.6	75.1	75.0	38.5	0.035			
						0.3	145.8	20.6	20.6	32.6	32.6	8.0	8.0	95.9	95.9	7.1	7.1	7.1	3.5	3.3	3.7	6.6	6.6	6.8	6.6	6.8	9.3	0.013
						0.3	145.8	20.6	20.6	32.6	32.6	8.0	8.0	95.9	95.9	7.1	7.1	7.1	3.1	3.3	3.7	6.5	6.6	6.8	6.5	6.8	9.3	0.037
IM1	FINE	Calm	06:11	9.1	S	0.7	291.6	20.6	20.6	32.6	32.6	8.0	8.0	95.6	95.6	7.1	7.1	7.1	3.8	3.6	3.7	6.2	6.5	6.8	9.3			
						0.5	15.6	20.6	20.6	32.6	32.6	8.0	8.0	95.6	95.6	7.1	7.1	7.1	3.4	3.6	3.7	6.7	6.5	6.8	9.3			
						0.9	10.6	20.6	20.6	32.6	32.6	8.0	8.0	96.2	95.9	7.1	7.1	7.1	4.5	4.3	3.7	7.6	7.5	6.8	9.3			
					M	0.9	10.6	20.6	20.6	32.6	32.6	8.0	8.0	96.2	95.9	7.1	7.1	7.1	4.1	4.3	3.7	7.3	7.5	6.8	9.3			
						0.4	273.3	20.7	20.7	32.4	32.4	7.9	7.9	86.1	85.8	6.4	6.4	6.4	3.9	3.9	5.0	8.7	8.7	9.3	8.7	9.3		
						1.1	185.1	20.7	20.7	32.4	32.4	7.9	7.9	85.5	85.4	6.3	6.3	6.3	3.9	3.9	5.0	8.7	8.7	9.3	8.7	9.3		
IM2	FINE	Calm	05:47	10.3	M	0.2	331.9	20.7	20.6	32.4	32.4	7.9	7.9	85.1	85.4	6.3	6.3	6.3	4.1	3.9	5.0	9.8	9.6	9.3	0.013			
						0.6	252.1	20.6	20.6	32.4	32.4	7.9	7.9	85.6	85.4	6.4	6.3	6.3	3.6	3.9	5.0	9.3	9.6	9.3	0.037			
						1.1	237.6	20.7	20.7	32.3	32.3	7.9	7.9	85.4	84.8	6.3	6.3	6.3	6.6	7.1	5.0	9.9	9.7	9.3	0.035			
					B	0.8	177.9	20.7	20.7	32.3	32.3	7.9	7.9	84.1	84.1	6.2	6.2	6.2	7.6	7.1	5.0	9.5	9.5	9.3	0.035			
						0.8	257.8	20.7	20.7	32.6	32.6	7.9	7.9	91.5	91.5	6.8	6.8	6.8	5.8	5.9	7.0	8.5	8.4	11.0	8.4	11.0		
						0.2	349.2	20.7	20.7	32.6	32.6	7.9	7.9	92.1	91.8	6.8	6.8	6.8	8.1	7.8	7.0	10.5	10.9	11.0	10.9	11.0		
IM3	FINE	Calm	09:49	14.9	M	0.2	31.5	20.7	20.5	32.6	32.7	8.0	8.0	96.0	96.0	7.1	7.1	7.1	6.7	7.3	7.0	11.2	13.7	11.0	0.013			
						0.8	40.2	20.5	20.5	32.7	32.7	8.0	8.0	96.0	96.0	7.1	7.1	7.1	6.7	7.3	7.0	11.2	13.7	11.0	0.037			
						0.3	250.9	20.5	20.5	32.7	32.7	8.0	8.0	96.0	96.0	7.1	7.1	7.1	6.7	7.3	7.0	11.2	13.7	11.0	0.035			
					S	0.4	33.9	20.5	20.5	32.8	32.8	8.1	8.1	100.0	100.1	7.4	7.4	7.4	2.7	2.7	3.7	6.5	6.8	8.5	8.5	8.5		
						0.6	226.6	20.5	20.5	32.8	32.8	8.1	8.1	100.1	100.1	7.4	7.4	7.4	2.6	2.7	3.7	7.0	6.8	8.5	8.5	8.5		
						0.7	286.1	20.5	20.5	32.8	32.8	8.1	8.1	99.2	99.2	7.4	7.4	7.4	3.2	3.5	3.7	8.0	8.1	8.5	8.5	8.5		
IM4	FINE	Calm	09:25	16.3	M	0.3	210.3	20.5	20.6	32.8	32.8	8.1	8.1	99.2	99.2	7.4	7.4	7.4	3.8	4.9	3.7	8.1	8.1	8.5	0.013			
						0.5	275.2	20.6	20.6	32.8	32.8	8.1	8.1	99.1	99.1	7.4	7.4	7.4	3.2	4.9	3.7	8.0	8.1	8.5	0.037			
						0.4	317.1	20.6	20.6	32.8	32.8	8.1	8.1	98.7	98.9	7.3	7.3	7.3	4.9	4.9	3.7	10.4	10.8	8.5	0.035			
					B	0.6	125.3	20.0	20.0	32.6	32.6	8.1	8.1	101.0	101.0	7.6	7.6	7.6	1.7	1.7	1.9	4.6	4.8	6.5	6.5	6.5		
						0.1	249.7	20.0	20.0	32.6	32.6	8.1	8.1	101.0	101.0	7.6	7.6	7.6	1.7	1.7	1.9	4.9	4.8	6.5	6.5	6.5		
						0.9	306.4	20.0	20.0	32.6	32.6	8.1	8.1	100.4	100.4	7.5	7.5	7.5	2.1	1.9	1.9	6.3	6.5	6.5	6.5	6.5		
IM5	FINE	Calm	08:04	15.0	M	0.3	18.1	20.0	20.0	32.6	32.6	8.1	8.1	100.4	100.4	7.5	7.5	7.5	1.7	1.9	1.9	6.7	6.5	6.5	0.013			
						0.2	104.8	20.0	20.0	32.6	32.6	8.1	8.1	100.4	100.3	7.5	7.5	7.5	2.1	2.2	1.9	6.7	6.5	6.5	0.037			
						0.3	154.4	20.0	20.0	32.6	32.6	8.1	8.1	100.1	100.3	7.5	7.5	7.5	2.2	2.2	1.9	8.2	8.3	6.5	6.5	6.5		

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
IM6	FINE	Calm	07:50	15.2	S	0.1	256.5	19.9	19.9	32.5	32.5	8.1	8.1	100.6	100.6	7.6	7.6	7.5	2.2	2.2	4.6	4.5	0.002
						0.1	340.0	19.9	32.5	32.5	8.1	8.1	100.6	100.6	7.6	7.6	7.5	2.1	2.1	4.3	4.5	<0.001	
						0.6	167.2	19.9	32.5	32.5	8.1	8.1	100.1	100.1	7.5	7.5	7.5	2.3	2.3	3.4	3.5	<0.001	
					M	0.3	124.3	19.9	19.9	32.5	32.5	8.1	8.1	100.1	100.1	7.5	7.5	7.5	2.3	2.3	3.6	3.5	<0.001
						0.5	314.9	19.9	19.9	32.5	32.5	8.1	8.1	100.0	100.0	7.5	7.5	7.5	4.1	3.8	2.9	3.0	<0.001
						0.5	314.9	19.9	19.9	32.5	32.5	8.1	8.1	99.7	99.7	7.5	7.5	7.5	3.4	3.0	3.1	3.0	0.009
IM7	Fine	Rough	07:54	14.2	S	0.3	281.0	19.4	19.4	33.7	33.7	8.2	8.2	102.3	102.4	7.7	7.7	7.7	2.7	2.7	7.9	7.5	
						0.3	306.0	19.4	19.4	33.7	33.7	8.2	8.2	102.4	102.4	7.7	7.7	7.7	2.7	2.7	7.0	7.5	
						0.4	276.0	19.3	19.3	33.8	33.8	8.2	8.2	102.4	102.4	7.7	7.7	7.7	4.5	4.5	5.4	5.3	
					M	0.4	297.0	19.2	19.2	33.8	33.8	8.2	8.2	102.4	102.4	7.7	7.7	7.7	4.5	4.5	5.1	5.3	
						0.3	302.0	19.2	19.2	33.3	33.3	8.2	8.2	102.1	102.2	7.8	7.8	7.8	3.1	3.0	3.5	3.2	
						0.3	303.0	19.2	19.2	33.3	33.3	8.2	8.2	102.2	102.2	7.8	7.8	7.8	3.0	3.0	2.9	3.2	
IM8	Fine	Rough	07:45	12.2	S	0.4	276.0	19.5	19.5	33.7	33.7	8.2	8.2	102.6	102.6	7.7	7.7	7.7	3.5	3.5	9.1	9.0	
						0.4	303.0	19.5	19.5	33.7	33.7	8.2	8.2	102.6	102.6	7.7	7.7	7.7	3.5	3.5	8.9	9.0	
						0.3	267.0	19.4	19.4	33.7	33.7	8.2	8.2	103.0	103.0	7.8	7.8	7.8	3.5	3.4	7.8	7.8	
					M	0.3	273.0	19.4	19.4	33.7	33.7	8.2	8.2	103.0	103.0	7.8	7.8	7.8	3.2	3.4	7.8	7.8	
						0.2	249.0	19.2	19.2	33.7	33.7	8.2	8.2	103.7	103.7	7.9	7.9	7.9	3.6	3.6	6.1	5.8	
						0.2	268.0	19.2	19.2	33.7	33.7	8.2	8.2	103.8	103.8	7.9	7.9	7.9	3.5	3.6	5.4	5.8	
IM9	Fine	Rough	07:21	14.0	S	0.4	259.0	19.6	19.6	33.9	33.9	8.2	8.2	100.8	100.9	7.6	7.6	7.6	2.8	2.8	11.2	11.5	
						0.4	268.0	19.6	19.6	33.9	33.9	8.2	8.2	100.9	100.9	7.6	7.6	7.6	2.8	2.8	11.7	11.5	
						0.4	251.0	19.4	19.4	33.9	33.9	8.2	8.2	102.4	102.5	7.7	7.7	7.7	4.1	4.1	8.4	8.0	
					M	0.4	263.0	19.4	19.4	34.0	33.9	8.2	8.2	102.5	102.5	7.7	7.7	7.7	4.2	4.1	7.6	8.0	
						0.6	253.0	19.2	19.2	33.8	33.8	8.2	8.2	103.1	103.3	7.8	7.8	7.8	3.9	3.8	7.9	7.6	
						0.6	270.0	19.2	19.2	33.8	33.8	8.2	8.2	103.4	103.3	7.8	7.8	7.8	3.7	3.8	7.3	7.6	
IM10	Fine	Rough	06:33	8.5	S	0.8	213.0	19.6	19.6	33.9	33.9	8.1	8.1	100.6	100.7	7.6	7.6	7.6	6.1	6.1	17.8	17.5	
						0.8	230.0	19.6	19.6	33.9	33.9	8.1	8.1	100.7	100.7	7.6	7.6	7.6	6.1	6.1	17.1	17.5	
						0.9	225.0	19.1	19.1	34.1	34.1	8.1	8.1	101.2	101.3	7.7	7.7	7.7	7.3	7.4	15.1	15.6	
					M	0.9	225.0	19.1	19.1	34.2	34.1	8.1	8.1	101.4	101.3	7.7	7.7	7.7	7.4	7.4	16.0	15.6	
						0.8	206.0	18.8	18.8	33.6	33.6	8.1	8.1	102.1	102.2	7.8	7.8	7.8	8.6	8.6	12.2	12.7	
						0.9	214.0	18.8	18.8	33.6	33.6	8.1	8.1	102.3	102.2	7.8	7.8	7.8	8.6	8.6	13.2	12.7	
IM11A	Fine	Rough	06:18	5.6	S	0.6	316.0	19.7	19.7	33.7	33.7	8.1	8.1	100.6	100.6	7.5	7.5	7.5	12.0	12.0	30.8	30.3	
						0.7	343.0	19.7	19.7	33.7	33.7	8.1	8.1	100.6	100.6	7.5	7.5	7.5	12.0	12.0	29.8	29.8	
						0.7	313.0	18.9	18.9	33.6	33.6	8.1	8.1	102.5	102.6	7.8	7.8	7.8	13.9	13.9	29.5	29.8	
					B	0.7	336.0	18.9	18.9	33.6	33.6	8.1	8.1	102.6	102.6	7.8	7.8	7.8	13.9	13.9	30.0	29.8	
						0.5	309.0	19.9	19.9	33.4	33.4	8.1	8.1	100.7	100.8	7.5	7.5	7.5	10.4	10.4	22.1	21.8	
						0.6	338.0	19.8	19.8	33.5	33.4	8.1	8.1	100.9	100.9	7.6	7.6	7.6	10.4	10.4	21.4	21.8	
IM12	Fine	Rough	06:07	15.2	M	0.5	310.0	19.6	19.6	33.4	33.4	8.1	8.1	102.0	102.1	7.7	7.7	7.7	11.9	11.9	27.7	27.7	
						0.5	332.0	19.6	19.6	33.4	33.4	8.1	8.1	102.1	102.1	7.7	7.7	7.7	11.9	11.9	27.6	27.7	
						0.4	319.0	18.6	18.6	33.0	33.0	8.1	8.1	103.0	103.1	7.9	7.9	7.9	18.9	19.0	32.3	32.1	
					B	0.4	342.0	18.6	18.6	33.0	33.0	8.1	8.1	103.2	103.1	7.9	7.9	7.9	19.1	19.0	31.9	32.1	
						0.2	246.0	19.7	19.7	32.0	32.0	8.1	8.1	97.9	98.0	7.4	7.4	7.4	18.1	18.1	27.3	27.5	
						0.3	262.0	19.7	19.7	32.0	32.0	8.1	8.1	98.0	98.0	7.4	7.4	7.4	18.1	18.1	27.6	27.5	
IM13	Fine	Rough	05:47	14.9	M	0.3	243.0	19.6	19.6	31.9	31.9	8.0	8.0	99.3	99.3	7.5	7.5	7.5	17.7	17.7	31.5	31.0	
						0.3	245.0	19.5	19.6	31.9	31.9	8.0	8.0	99.3	99.3	7.6	7.5	7.5	17.6	17.7	30.4	31.0	
						0.1	200.0	19.0	19.0	31.8	31.8	8.0	8.0	100.9	101.0	7.8	7.8	7.8	17.0	17.0	33.2	33.5	
					B	0.1	203.0	19.0	19.0	31.8	31.8	8.0	8.0	101.0	101.0	7.8	7.8	7.8	17.0	17.0	33.7	33.5	
						0.1	209.0	20.2	20.2	31.8	31.8	8.1	8.1	98.1	98.2	7.4	7.4	7.4	18.0	18.0	28.2	28.6	
						0.1	226.0	20.2	20.2	31.8	31.8	8.1	8.1	98.2	98.2	7.4	7.4	7.4	18.0	18.0	29.0	28.6	
IM14	Fine	Rough	05:38	9.7	S	0.0	222.0	19.5	19.5	31.9	31.9	8.1	8.1	98.4	98.5	7.5	7.5	7.5	15.6	15.5	27.2	26.8	
						0.0	225.0	19.5	19.5	31.9	31.9	8.1	8.1	98.5	98.5	7.5	7.5	7.5	15.3	15.5	26.4	26.8	
						0.0	169.0	19.6	19.6	31.7	31.7	8.1	8.1	100.9	101.2	7.7	7.7	7.7	14.7	14.7	24.2	24.3	
					M	0.0	222.0	19.5	19.5	31.9	31.9	8.1	8.1	98.4	98.5	7.5	7.5	7.5	15.6	15.5	27.2	26.8	
						0.0	225.0	19.5	19.5	31.9	31.9	8.1	8.1	98.5	98.5	7.5	7.5	7.5	15.3	15.5	26.4	26.8	
						0.0	169.0	19.6	19.6	31.7	31.7	8.1	8.1	100.9	101.2	7.7	7.7	7.7	14.7	14.7	24.2	24.3	
B	0.0	222.0	19.5	19.5	31.9	31.9	8.1	8.1	98.4	98.5	7.5	7.5	7.5	15.6	15.5	27.2	26.8						
	0.0	225.0	19.5	19.5	31.9	31.9	8.1	8.1	98.5	98.5	7.5	7.5	7.5	15.3	15.5	26.4	26.8						
	0.0	169.0	19.6	19.6	31.7	31.7	8.1	8.1	100.9	101.2	7.7	7.7	7.7	14.7	14.7	24.2	24.3						

Water Quality Monitoring Data Log Sheet

Date: 2019/12/26

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
IM15	Fine	Moderate	06:33	5.2	S	0.4	260.0	20.6	20.6	29.8	29.8	7.9	7.9	92.9	93.0	7.0	7.0	7.0	31.7	31.8	33.2	69.7	70.2	71.8			
						0.4	277.0	20.6	20.6	29.8	29.8	7.9	7.9	93.0	93.0	7.0	7.0	7.0	31.9	31.8							
					B	0.4	274.0	20.6	20.6	29.8	29.8	7.9	7.9	93.8	93.9	7.1	7.1	7.1	35.0	34.6					33.2	72.1	73.4
						0.4	278.0	20.6	20.6	29.8	29.8	7.9	7.9	93.9	93.9	7.1	7.1	7.1	34.3	34.6					33.2	74.7	73.4
IM16A	Fine	Moderate	07:02	5.7	S	0.2	271.0	20.5	20.5	30.1	30.1	7.9	7.9	91.8	91.8	6.9	6.9	6.9	14.2	14.3	14.9	26.3	27.0	30.2			
						0.2	292.0	20.5	20.5	30.1	30.1	7.9	7.9	91.8	91.8	6.9	6.9	6.9	14.5	14.3							
					B	0.1	310.0	20.5	20.5	30.1	30.1	8.0	8.0	92.3	92.4	7.0	7.0	7.0	15.3	15.5					14.9	33.8	33.4
						0.1	314.0	20.5	20.5	30.1	30.1	8.0	8.0	92.4	92.4	7.0	7.0	7.0	15.8	15.5					14.9	32.9	33.4
IM17	Fine	Moderate	07:22	4.1	S	0.4	304.0	20.6	20.6	30.1	30.1	7.9	7.9	91.6	91.6	6.9	6.9	6.9	9.7	9.6	12.3	11.8	12.4	18.4			
						0.5	319.0	20.6	20.6	30.1	30.1	7.9	7.9	91.6	91.6	6.9	6.9	6.9	9.5	9.6							
					B	0.4	314.0	20.7	20.7	30.3	30.3	7.9	7.9	91.5	91.6	6.9	6.9	6.9	15.2	14.9					12.3	24.6	24.4
						0.4	340.0	20.7	20.7	30.3	30.3	7.9	7.9	91.6	91.6	6.9	6.9	6.9	14.7	14.9					12.3	24.2	24.4
IM18	Fine	Rough	09:20	16.6	S	0.3	320.0	20.6	20.6	29.8	29.8	7.9	7.9	92.1	92.1	7.0	7.0	6.9	5.6	5.6	7.0	9.4	9.5	12.5			
						0.3	329.0	20.6	20.6	29.8	29.8	7.9	7.9	92.1	92.1	7.0	7.0	6.9	5.6	5.6							
					M	0.5	337.0	20.7	20.7	30.2	30.2	7.9	7.9	90.7	90.7	6.8	6.8	6.8	6.3	6.3					7.0	11.5	11.7
						0.5	337.0	20.7	20.7	30.2	30.2	7.9	7.9	90.7	90.7	6.8	6.8	6.8	6.2	6.3					7.0	11.9	11.7
					B	0.6	326.0	20.8	20.8	31.2	31.2	7.9	7.9	88.4	88.5	6.6	6.6	6.6	9.2	9.2					7.0	16.6	16.3
						0.6	342.0	20.8	20.8	31.2	31.2	7.9	7.9	88.5	88.5	6.6	6.6	6.6	9.1	9.2					7.0	15.9	16.3
IM19	Fine	Rough	09:05	17.0	S	0.6	337.0	20.5	20.5	29.8	29.8	7.9	7.9	93.1	93.1	7.0	7.0	6.9	4.8	4.8	5.8	7.6	7.8	8.3			
						0.6	1.0	20.5	20.5	29.9	29.8	7.9	7.9	93.1	93.1	7.0	7.0	6.9	4.8	4.8							
					M	0.8	344.0	20.8	20.8	30.4	30.4	7.9	7.9	90.6	90.7	6.8	6.8	6.8	5.7	5.7					5.8	7.6	7.6
						0.8	13.0	20.8	20.8	30.4	30.4	7.9	7.9	90.7	90.7	6.8	6.8	6.8	5.8	5.7					5.8	7.5	7.6
					B	0.7	341.0	20.8	20.8	30.7	30.7	7.9	7.9	91.3	91.4	6.8	6.8	6.8	7.0	7.0					6.8	9.8	9.7
						0.7	346.0	20.8	20.8	30.7	30.7	7.9	7.9	91.4	91.4	6.8	6.8	6.8	7.1	7.0					6.8	9.6	9.7
IM20A	Fine	Moderate	08:32	4.0	S	0.3	63.0	20.6	20.6	28.9	28.9	7.9	7.9	97.3	97.2	7.4	7.4	7.4	7.3	7.3	8.4	12.3	12.1	14.1			
						0.3	68.0	20.6	20.6	28.9	28.9	7.9	7.9	97.1	97.2	7.4	7.4	7.4	7.3	7.3							
					B	0.3	75.0	20.8	20.8	29.8	29.8	7.9	7.9	95.2	95.3	7.2	7.2	7.2	9.4	9.6					8.4	16.3	16.1
						0.3	77.0	20.8	20.8	29.8	29.8	7.9	7.9	95.3	95.3	7.2	7.2	7.2	9.8	9.6					8.4	15.8	16.1
IM21A	Fine	Moderate	08:42	4.7	S	0.3	262.0	21.2	21.2	29.2	29.2	7.9	7.9	100.0	100.0	7.5	7.5	7.5	10.3	10.2	11.2	15.1	15.3	16.0			
						0.3	266.0	21.2	21.2	29.2	29.2	7.9	7.9	100.0	100.0	7.5	7.5	7.5	10.1	10.2							
					B	0.2	298.0	21.1	21.1	29.4	29.4	7.9	7.9	99.2	99.3	7.4	7.4	7.4	12.3	12.1					11.2	16.8	16.7
						0.2	319.0	21.1	21.1	29.4	29.4	7.9	7.9	99.4	99.3	7.5	7.4	7.4	12.0	12.1					11.2	16.5	16.7
IM22A	Fine	Moderate	08:49	4.4	S	0.1	197.0	20.5	20.5	30.0	30.0	7.9	7.9	93.1	93.1	7.0	7.0	7.0	9.3	9.3	10.8	18.2	18.7	20.7			
						0.1	198.0	20.5	20.5	30.0	30.0	7.9	7.9	93.1	93.1	7.0	7.0	7.0	9.3	9.3							
					B	0.1	193.0	20.4	20.4	30.1	30.1	7.9	7.9	92.5	92.5	7.0	7.0	7.0	12.2	12.2					10.8	22.4	22.8
						0.1	200.0	20.4	20.4	30.1	30.1	7.9	7.9	92.5	92.5	7.0	7.0	7.0	12.3	12.2					10.8	23.1	22.8

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value
E1	Cloudy	Moderate	04:13	8.3	S	0.5	156.0	20.6	20.6	32.2	32.2	8.1	8.1	88.3	88.3	6.6	6.6	4.8	4.8	7.6	9.7		
						1.2	232.6	20.6		32.2	32.2	8.1		88.2	88.3	6.6		4.7					
						1.0	200.7	20.6		32.2	32.2	8.1		88.4	88.4	6.6		5.8					
					M	0.8	139.3	20.6	20.6	32.2	32.2	8.1	88.3	88.4	6.6	6.6	5.7	5.8	8.7				
						0.5	258.7	20.6	20.6	32.2	32.2	8.1	90.0	89.3	6.7	6.6	7.1	7.0	8.0				
						0.5	258.7	20.6	20.6	32.2	32.2	8.1	88.5	88.3	6.6	6.6	6.9	7.0	12.9				
B	0.3	251.3	20.5	20.5	32.5	32.5	8.0	96.0	96.0	7.1	7.1	3.6	3.7	13.3									
	0.2	170.2	20.5	20.5	32.5	32.5	8.0	96.0	96.0	7.1	7.1	3.7	3.7	5.3									
	0.3	73.8	20.6	20.6	32.6	32.5	8.0	94.9	95.1	7.1	7.1	4.3	4.1	5.3									
E2	Cloudy	Moderate	00:55	9.3	S	0.3	73.8	20.6	20.6	32.6	32.5	8.0	8.0	95.3	95.1	7.1	7.1	3.9	3.9	8.2	8.5		
						0.3	73.8	20.6		32.5	32.5	8.0		95.3	95.1	7.1		8.2					
						0.1	337.3	20.6		20.6	32.6	32.6		8.0	93.6	93.3		7.0		6.9			8.9
					M	0.8	113.1	20.6	20.6	32.6	32.6	8.0	92.9	93.3	6.9	6.9	9.5	9.2	11.5				
						0.7	112.0	19.7	19.7	33.1	33.1	8.1	102.2	102.2	7.7	7.7	2.0	2.0	12.3				
						0.7	119.0	19.7	19.7	33.1	33.1	8.1	102.2	102.2	7.7	7.7	2.0	2.0	3.0				
B	0.6	118.0	19.8	19.8	33.7	33.7	8.1	102.1	102.1	7.6	7.6	3.3	3.3	3.7									
	0.6	128.0	19.8	19.8	33.7	33.7	8.1	102.1	102.1	7.6	7.6	3.3	3.3	5.8									
	0.5	130.0	20.0	20.0	33.8	33.8	8.1	99.8	99.9	7.4	7.4	3.3	3.3	6.2									
E3	Foggy	Rough	02:23	16.8	S	1.0	182.0	19.9	19.9	32.9	32.9	8.1	8.1	98.2	98.2	7.4	7.4	10.6	10.6	14.5	5.9		
						1.1	198.0	19.9		32.9	32.9	8.1		98.2	98.2	7.4		13.5					
						0.9	177.0	19.9		19.9	33.0	33.0		8.1	98.1	98.1		7.4		13.5			
					M	0.9	179.0	19.9	19.9	33.0	33.0	8.1	98.1	98.1	7.4	7.4	14.1	14.3	14.8				
						0.8	174.0	19.9	19.9	33.0	33.0	8.1	98.2	98.2	7.4	7.4	14.4	14.3	22.3				
						0.8	183.0	19.9	19.9	33.0	33.0	8.1	98.2	98.2	7.4	7.4	14.1	14.3	22.3				
B	0.7	197.0	19.8	19.8	30.9	30.8	8.0	95.6	95.6	7.3	7.3	14.2	14.3	23.3									
	0.7	204.0	19.8	19.8	30.8	30.8	8.0	95.6	95.6	7.3	7.3	14.3	14.3	23.5									
	0.5	200.0	19.8	19.8	31.0	31.0	8.0	95.4	95.4	7.3	7.3	14.6	15.3	14.6									
E4	Foggy	Rough	04:18	11.2	S	0.7	197.0	19.8	19.8	30.9	30.8	8.0	8.0	95.6	95.6	7.3	7.3	14.2	14.2	15.9	20.1		
						0.7	204.0	19.8		30.8	30.8	8.0		95.6	95.6	7.3		14.3					
						0.5	200.0	19.8		19.8	31.0	31.0		8.0	95.4	95.4		7.3		7.3			14.3
					M	0.5	211.0	19.8	19.8	31.0	31.0	8.0	95.4	95.4	7.3	7.3	21.1	21.5	15.9				
						0.8	150.0	20.1	20.1	29.6	29.6	7.9	92.4	92.4	7.0	7.0	23.5	24.2	24.8				
						0.9	158.0	20.1	20.1	29.6	29.6	7.9	92.4	92.4	7.0	7.0	23.5	24.2	24.8				
B	0.6	148.0	20.2	20.2	30.8	30.8	7.9	92.1	92.1	7.0	7.0	8.8	8.8	9.6									
	0.6	160.0	20.2	20.2	30.8	30.8	7.9	92.1	92.1	7.0	7.0	8.8	8.8	9.6									
	0.4	193.0	20.4	20.4	30.0	30.0	7.9	90.6	90.6	6.9	6.9	4.0	4.0	9.6									
E5	Foggy	Moderate	03:54	5.8	S	0.4	198.0	20.4	20.4	30.0	30.0	7.9	7.9	90.6	90.6	6.8	6.8	4.0	4.0	7.4	12.0		
						0.3	179.0	20.4		20.4	30.4	30.4		7.9	90.6	90.6		6.8		4.6			
						0.3	196.0	20.4		20.4	30.4	30.4		7.9	90.6	90.6		6.8		4.6			
					M	0.1	77.3	19.9	19.9	32.3	32.3	8.2	97.7	97.7	7.3	7.3	2.4	2.3	4.3				
						0.1	77.3	19.9	19.9	32.3	32.3	8.2	97.7	97.7	7.3	7.3	2.2	2.3	3.9				
						0.8	124.8	19.9	19.9	32.4	32.4	8.2	97.1	97.2	7.3	7.3	5.7	5.3	6.5				
B	0.3	201.3	19.9	19.9	32.4	32.4	8.2	97.3	97.2	7.3	7.3	4.9	5.3	6.0									
	0.5	74.8	19.9	19.9	32.4	32.4	8.2	96.6	96.6	7.3	7.3	9.2	9.5	16.2									
	0.5	122.8	19.9	19.9	32.4	32.4	8.2	96.5	96.6	7.3	7.3	9.7	9.5	15.9									
E6	Foggy	Moderate	03:01	5.9	S	0.4	193.0	20.4	20.4	30.0	30.0	7.9	7.9	90.6	90.6	6.9	6.9	4.0	4.0	7.4	9.0		
						0.4	198.0	20.4		30.0	30.0	7.9		90.6	90.6	6.9		4.0					
						0.3	179.0	20.4		20.4	30.4	30.4		7.9	90.6	90.6		6.8		4.6			
					M	0.3	196.0	20.4	20.4	30.4	30.4	7.9	90.6	90.6	6.8	6.8	4.6	4.6	10.9				
						0.1	77.3	19.9	19.9	32.3	32.3	8.2	97.7	97.7	7.3	7.3	4.6	4.6	10.5				
						0.1	77.3	19.9	19.9	32.3	32.3	8.2	97.7	97.7	7.3	7.3	4.6	4.6	10.5				
B	0.5	74.8	19.9	19.9	32.4	32.4	8.2	96.6	96.6	7.3	7.3	9.2	9.5	15.9									
	0.5	122.8	19.9	19.9	32.4	32.4	8.2	96.5	96.6	7.3	7.3	9.7	9.5	15.9									
	0.4	168.2	19.8	19.8	32.3	32.3	8.2	98.5	98.5	7.4	7.4	3.5	3.3	3.8									
E7A	Foggy	Moderate	02:42	5.5	S	0.2	93.1	19.8	19.8	32.3	32.3	8.2	8.2	97.7	97.7	7.4	7.4	3.1	3.1	3.5	9.7		
						0.3	88.2	19.8		19.8	32.3	32.3		8.2	97.7	97.7		7.4		4.6			
						0.8	103.8	19.8		19.8	32.3	32.3		8.2	97.7	97.7		7.4		4.4			
					M	0.3	201.3	19.9	19.9	32.4	32.4	8.2	97.3	97.2	7.3	7.3	4.9	5.3	9.7				
						0.5	74.8	19.9	19.9	32.4	32.4	8.2	96.6	96.6	7.3	7.3	9.2	9.5	10.5				
						0.5	122.8	19.9	19.9	32.4	32.4	8.2	96.5	96.6	7.3	7.3	9.7	9.5	10.5				
B	0.3	49.0	19.9	19.9	32.3	32.3	8.2	97.1	97.1	7.3	7.3	9.9	9.1	15.6									
	0.2	296.7	19.9	19.9	32.3	32.3	8.2	97.1	97.1	7.3	7.3	8.3	9.1	14.8									
	0.2	296.7	19.9	19.9	32.3	32.3	8.2	97.1	97.1	7.3	7.3	8.3	9.1	14.8									
F1	Cloudy	Moderate	03:21	20.0	S	0.1	77.3	19.9	19.9	32.3	32.3	8.2	8.2	97.7	97.7	7.4	7.4	2.2	2.2	4.3	8.8		
						0.1	77.3	19.9		19.9	32.3	32.3		8.2	97.7	97.7		7.4		2.2			
						0.8	124.8	19.9		19.9	32.4	32.4		8.2	97.1	97.2		7.3		7.3			5.7
					M	0.3	201.3	19.9	19.9	32.4	32.4	8.2	97.3	97.2	7.3	7.3	4.9	5.3	6.0				
						0.5	74.8	19.9	19.9	32.4	32.4	8.2	96.6	96.6	7.3	7.3	9.2	9.5	16.2				
						0.5	122.8	19.9	19.9	32.4	32.4	8.2	96.5	96.6	7.3	7.3	9.7	9.5	15.9				
B	0.4	168.2	19.8	19.8	32.3	32.3	8.2	98.5	98.5	7.4	7.4	3.5	3.3	3.8									
	0.2	93.1	19.8	19.8	32.3	32.3	8.2	98.5	98.5	7.4	7.4	3.1	3.3	3.5									
	0.3	88.2	19.8	19.8	32.3	32.3	8.2	97.7	97.7	7.4	7.4	4.6	4.5	9.7									
F2	Cloudy	Moderate	02:52	19.3	S	0.8	103.8	19.8	19.8	32.3	32.3	8.2	8.2	97.7	97.7	7.4	7.4	4.4	4.4	10.5	9.7		
						0.3	201.3	19.9		19.9	32.4	32.4		8.2	97.3	97.2		7.3		7.3			4.9
						0.5	74.8	19.9		19.9	32.4	32.4		8.2	96.6	96.6		7.3		7.3			9.2
					M	0.3	201.3	19.9	19.9	32.4	32.4	8.2	97.3	97.2	7.3	7.3	4.9	5.3	6.0				
						0.5	74.8	19.9	19.9	32.4	32.4	8.2	96.6	96.6	7.3	7.3	9.2	9.5	16.2				
						0.5	122.8	19.9	19.9	32.4	32.4	8.2	96.5	96.6	7.3	7.3	9.7	9.5	15.9				
B	0.4	168.2	19.8	19.8	32.3	32.3</																	

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average		DA*	Value	Average	DA*		
																												Value	Average
F3	Cloudy	Moderate	02:17	18.0	S	0.6	17.4	19.9	19.9	32.4	32.4	8.2	8.2	100.1	100.1	7.5	7.5	7.5	1.8	1.7	5.4	5.2	6.8	<0.001					
						0.3	226.3	19.9		32.4	32.4	8.2		100.1		7.5			1.6		4.9			<0.001					
						0.9	354.0	19.9		32.4	32.4	8.2		99.2		7.5			2.1		6.5			<0.001					
					M	1.2	66.3	19.9	32.4	32.4	8.2	99.3	7.5	1.9	7.0	6.8	0.009												
						B	0.5	213.3	20.0	32.4	32.4	8.2	98.6	7.4	4.7	8.5	8.2	<0.001											
							0.8	129.8	20.0	32.4	32.4	8.2	98.5	7.4	4.1		8.7	<0.001											
F4	Cloudy	Moderate	01:21	14.0	S	1.6	147.2	20.5	20.5	32.6	32.6	8.1	8.1	98.6	98.7	7.3	7.3	7.3	3.8	3.9	8.2	8.1	10.0	<0.001					
						1.6	147.2	20.5		32.6	32.6	8.1		98.7		7.3			4.0		8.0			<0.001					
						0.2	41.8	20.4		32.6	32.6	8.1		98.6		7.3			4.4		8.3			<0.001					
					M	0.8	56.2	20.4	32.6	32.6	8.1	98.6	7.3	4.2	8.4	8.4	0.009												
						0.8	80.3	20.4	32.6	32.6	8.1	98.3	7.3	9.1	13.0	13.7	0.009												
						1.4	32.8	20.4	32.6	32.6	8.1	98.2	7.3	9.8	14.3	13.7	0.009												
F5	Foggy	Moderate	03:40	5.7	S	0.5	199.0	19.8	19.8	31.6	31.6	8.0	8.0	97.0	97.0	7.4	7.4	7.4	11.2	11.2	15.2	15.6	17.7	<0.001					
						0.5	215.0	19.8		31.6	31.6	8.0		97.0		7.4			11.3		16.0			<0.001					
					B	0.4	202.0	19.8	31.6	31.6	8.0	96.9	7.3	13.4	19.3	19.7	0.009												
						0.4	220.0	19.8	31.6	31.6	8.0	96.9	7.3	13.1	20.1	19.7	0.009												
F6	Foggy	Moderate	00:57	13.4	S	0.5	129.0	20.0	20.0	31.0	31.0	7.9	7.9	94.4	94.4	7.2	7.1	7.1	7.3	7.4	6.2	6.4	22.6	<0.001					
						0.5	132.0	20.0		31.0	31.0	7.9		94.3		7.1			7.4		6.5			<0.001					
						0.5	121.0	20.1		31.4	31.4	7.9		92.4		7.0			21.0		30.4			30.2	0.009				
					M	0.5	128.0	20.1	20.1	31.4	31.4	7.9	92.4	7.0	21.0	21.0	13.6	30.8	31.4	0.009									
						0.4	119.0	20.3	20.3	31.6	31.6	7.8	88.9	6.7	12.7	12.5	6.7	12.3	12.5	32.0	31.4	0.009							
						0.5	119.0	20.3	20.3	31.6	31.6	7.8	88.9	6.7	12.3	12.5	6.7	12.3	12.5	32.0	31.4	0.009							
IM1	Cloudy	Moderate	03:39	9.3	S	0.3	158.2	20.2	20.2	32.4	32.4	8.2	8.2	98.5	98.6	7.4	7.4	7.4	4.3	4.0	5.7	5.5	8.5	<0.001					
						0.1	217.7	20.2		32.4	32.4	8.2		98.6		7.4			3.7		5.3			<0.001					
						0.8	53.5	20.0		32.4	32.4	8.2		98.0		7.4			6.4		9.1			8.8	0.009				
					M	0.4	79.9	20.0	20.0	32.4	32.4	8.2	98.0	7.4	6.3	6.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8		
						B	0.8	41.4	20.0	20.0	32.4	32.4	8.2	98.1	7.4	6.8	7.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
							0.6	108.7	20.0	20.0	32.4	32.4	8.2	97.9	7.4	7.4	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
IM2	Cloudy	Moderate	04:01	11.2	S	0.7	198.3	20.6	20.6	32.3	32.3	8.1	8.1	89.7	89.7	6.7	6.7	6.7	3.6	3.5	5.0	4.8	6.1	<0.001					
						0.4	170.5	20.6		32.3	32.3	8.1		89.7		6.7			3.4		4.6			<0.001					
						0.6	241.8	20.5		32.3	32.3	8.1		90.6		6.7			4.3		6.2			6.0	0.009				
					M	0.3	224.3	20.5	20.5	32.3	32.3	8.1	89.8	6.7	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
						B	0.1	27.5	20.5	20.5	32.4	32.4	8.1	91.6	6.8	4.8	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
							0.7	260.7	20.5	20.5	32.4	32.4	8.1	91.7	6.8	4.8	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
IM3	Cloudy	Moderate	00:08	15.3	S	0.3	283.6	20.3	20.3	32.4	32.4	7.9	7.9	96.1	96.1	7.2	7.2	7.2	5.3	5.2	6.5	6.4	13.8	<0.001					
						0.5	320.4	20.4		32.4	32.4	7.9		96.1		7.2			5.1		6.3			<0.001					
						0.3	2.5	20.3		32.4	32.4	7.9		95.6		7.1			4.6		6.3			6.4	0.009				
					M	0.6	53.3	20.3	20.3	32.4	32.4	7.9	95.8	7.2	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
						B	0.8	78.0	20.4	20.4	32.4	32.4	7.9	93.4	7.0	24.2	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
							0.8	78.0	20.4	20.4	32.4	32.4	7.9	93.3	7.0	23.1	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
IM4	Cloudy	Moderate	00:29	17.3	S	0.4	281.0	20.5	20.5	32.5	32.5	8.0	8.0	95.9	96.0	7.1	7.1	7.1	4.8	4.8	6.1	6.3	10.3	<0.001					
						0.3	53.1	20.5		32.5	32.5	8.0		96.1		7.1			4.8		6.4			<0.001					
						0.6	76.5	20.5		32.5	32.5	8.0		95.1		7.1			6.9		10.9			11.2	0.009				
					M	0.5	38.1	20.5	20.5	32.5	32.5	8.0	95.0	7.1	7.2	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
						B	0.9	311.1	20.5	20.5	32.5	32.5	8.0	94.3	7.0	10.4	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
							0.9	311.1	20.5	20.5	32.5	32.5	8.0	94.2	7.0	9.2	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
IM5	Cloudy	Moderate	01:50	15.3	S	1.2	100.1	20.1	20.1	32.4	32.4	8.2	8.2	100.0	100.1	7.5	7.5	7.5	1.7	1.7	2.3	2.2	12.3	<0.001					
						1.2	100.1	20.1		32.4	32.4	8.2		100.1		7.5			1.6		2.1			<0.001					
						0.6	86.2	20.0		32.4	32.4	8.2		98.9		7.4			2.1		5.2			5.6	0.009				
					M	0.7	335.9	20.0	20.0	32.4	32.4	8.2	99.0	7.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
						B	1.4	117.7	20.3	20.2	32.5	32.5	8.1	96.6	7.2	18.6	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
							1.1	102.8	20.2	20.2	32.5	32.5	8.1	96.6	7.2	16.3	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*	
																										Value
IM6	Cloudy	Moderate	02:06	16.2	S	0.2	123.9	19.9	19.9	32.4	32.4	8.2	8.2	100.5	100.5	7.6	7.6	7.5	1.7	1.7	2.6	3.9	3.9	6.4	<0.001	
						0.2	123.9	19.9		32.4	32.4	8.2		100.5		7.6			1.7			3.9			<0.001	
						0.2	124.4	20.0		32.5	32.4	8.2		100.0		7.5			2.2			6.7			<0.001	
					M	0.2	124.4	20.0	20.0	32.4	32.4	8.2	8.2	100.0	100.0	7.5	7.5	7.5	1.8	2.0	2.6	6.7	6.8	6.4	0.002	
						0.2	124.4	20.0	32.4	32.4	8.2	100.0		7.5		1.8			6.9			<0.001				
						0.6	222.9	20.1	20.1	32.5	32.5	8.2		99.4		7.5			4.0			8.7			<0.001	
B	0.6	173.9	20.1	20.1	32.5	32.5	8.2	8.2	99.3	99.4	7.5	7.5	7.5	3.9	4.0	2.6	8.1	8.4	6.4	<0.001						
	0.1	46.0	19.7	19.7	33.8	33.8	8.1		103.0		7.7			1.4			5.9			<0.001						
	0.1	47.0	19.7	19.7	33.8	33.8	8.1		102.9		7.7			1.4			5.4			<0.001						
IM7	Foggy	Rough	01:07	15.1	S	0.3	121.0	19.7	19.7	33.8	33.8	8.1	8.1	102.7	102.7	7.7	7.7	7.7	1.6	1.6	1.8	4.3	4.0	4.2	4.2	
						0.3	124.0	19.7		33.8	33.8	8.1		102.7		7.7			1.6			3.6				2.9
						0.2	158.0	19.8		19.8	33.8	33.8		8.1		102.1			7.6			2.3				
					M	0.2	159.0	19.8	19.8	33.8	33.8	8.1	8.1	102.1	102.1	7.6	7.6	7.6	2.3	2.3	1.8	2.7	2.9	4.2	4.2	
						0.1	74.0	19.6	19.6	33.7	33.7	8.1		103.1		7.8			1.3			2.1				
						0.1	74.0	19.6	19.6	33.7	33.7	8.1		103.1		7.7			1.3			2.0				
B	0.2	61.0	19.6	19.6	33.7	33.7	8.1	8.1	103.0	103.0	7.7	7.7	7.7	1.5	1.5	1.5	2.5	2.5	4.2	4.2						
	0.2	62.0	19.6	19.6	33.7	33.7	8.1		103.0		7.7			1.5			2.5									
	0.2	85.0	19.7	19.7	33.8	33.8	8.1		102.9		7.7			1.9			3.4									
IM8	Foggy	Rough	01:16	13.5	S	0.1	74.0	19.6	19.6	33.7	33.7	8.1	8.1	103.1	103.1	7.8	7.7	7.7	1.3	1.3	1.5	2.1	2.1	2.8	2.8	
						0.1	74.0	19.6		33.7	33.7	8.1		103.1		7.7			1.3			2.0				
						0.2	61.0	19.6		19.6	33.7	33.7		8.1		103.0			7.7			1.5				2.5
					M	0.2	62.0	19.6	19.6	33.7	33.7	8.1	8.1	103.0	103.0	7.7	7.7	7.7	1.5	1.5	1.5	2.5	2.5	2.8	2.8	
						0.2	85.0	19.7	19.7	33.8	33.8	8.1		102.9		7.7			1.9			3.4				
						0.2	92.0	19.7	19.7	33.8	33.8	8.1		102.9		7.7			1.8			4.1				
B	0.3	112.0	19.8	19.8	33.8	33.8	8.1	8.1	102.9	102.9	7.7	7.7	7.7	1.9	1.9	2.4	4.1	4.3	4.0	4.0						
	0.3	119.0	19.8	19.8	33.8	33.8	8.1		102.9		7.7			1.9			4.4									
	0.3	132.0	19.8	19.8	33.8	33.8	8.1		102.5		7.7			2.5			4.0									
IM9	Foggy	Rough	01:48	15.1	S	0.3	140.0	19.8	19.8	33.8	33.8	8.1	8.1	102.5	102.5	7.7	7.7	7.7	2.5	2.5	2.4	3.8	3.9	4.0	4.0	
						0.3	129.0	19.9		19.9	33.8	33.8		8.1		102.3			7.6			2.9				3.8
						0.3	141.0	19.9		19.9	33.8	33.8		8.1		102.3			7.6			2.9				3.7
					M	0.6	83.0	20.1	20.1	33.8	33.8	8.1	8.1	99.0	99.0	7.4	7.4	7.4	12.7	12.8	23.6	25.3	26.1	34.7	34.7	
						0.7	83.0	20.1	20.1	33.8	33.8	8.1		99.0		7.4			12.8			26.8				
						0.5	86.0	20.1	20.1	33.8	33.8	8.1		98.9		7.4			28.3			35.8				
B	0.5	88.0	20.1	20.1	33.8	33.8	8.1	8.1	98.9	98.9	7.4	7.4	7.4	28.7	28.5	23.6	36.2	36.0	34.7	34.7						
	0.6	76.0	20.1	20.1	33.8	33.8	8.1		99.1		7.4			29.3			41.5									
	0.6	81.0	20.1	20.1	33.8	33.8	8.1		99.1		7.4			29.7			42.6									
IM10	Foggy	Rough	02:42	8.2	S	1.0	141.0	20.1	20.1	33.7	33.7	8.1	8.1	99.3	99.3	7.4	7.4	7.4	19.5	19.4	22.4	19.1	19.0	30.6	30.6	
						1.1	146.0	20.1		20.1	33.7	33.7		8.1		99.3			7.4			19.3				18.9
						0.9	134.0	20.1		20.1	33.7	33.7		8.1		99.5			7.4			24.6				40.5
					M	1.0	144.0	20.1	20.1	33.7	33.7	8.1	8.1	99.6	99.6	7.4	7.4	7.4	26.1	25.3	22.4	43.8	42.2	30.6	30.6	
						1.0	182.0	20.0	20.0	33.5	33.5	8.1		98.8		7.4			11.4			32.9				
						1.1	193.0	20.0	20.0	33.5	33.5	8.1		98.8		7.4			11.4			33.7				
B	0.9	178.0	20.1	20.1	33.6	33.6	8.1	8.1	98.8	98.8	7.4	7.4	7.4	21.8	21.6	22.2	33.3	32.8	31.3	31.3						
	1.0	182.0	20.1	20.1	33.6	33.6	8.1		98.8		7.4			21.5			32.3									
	0.7	171.0	20.1	20.1	33.6	33.6	8.1		99.2		7.4			32.0			28.1									
IM11	Foggy	Rough	03:00	5.4	S	0.8	187.0	20.1	20.1	33.6	33.6	8.1	8.1	99.5	99.4	7.4	7.4	7.4	35.0	33.5	22.2	27.5	27.8	31.3	31.3	
						1.1	229.0	19.8		19.8	32.9	32.9		8.1		98.5			7.4			4.1				11.8
						1.2	231.0	19.8		19.8	32.9	32.9		8.1		98.6			7.4			4.1				11.6
					M	1.0	212.0	19.8	19.8	33.4	33.4	8.1	8.1	99.2	99.2	7.4	7.4	7.4	14.8	14.7	21.8	13.8	13.8	13.5	13.5	
						1.1	214.0	19.8	19.8	33.4	33.4	8.1		99.2		7.4			14.7			13.8				
						0.8	206.0	19.8	19.8	33.5	33.5	8.1		99.3		7.4			46.9			15.2				
B	0.8	215.0	19.8	19.8	33.5	33.5	8.1	8.1	99.3	99.3	7.4	7.4	7.4	46.5	46.7	21.8	15.0	15.1	13.5	13.5						
	1.0	206.0	19.9	19.9	33.1	33.1	8.1		98.1		7.4			15.7			22.4									
	1.1	215.0	19.9	19.9	33.1	33.1	8.1		98.1		7.4			15.2			23.4									
IM12	Foggy	Rough	03:12	15.6	S	1.0	200.0	19.9	19.9	33.2	33.2	8.1	8.1	98.1	98.1	7.4	7.4	7.4	19.9	19.5	22.2	25.1	24.6	26.8	26.8	
						1.0	210.0	19.9		19.9	33.2	33.2		8.1		98.1			7.4			19.2				24.0
						0.8	195.0	19.9		19.9	33.2	33.2		8.1		98.1			7.4			46.2				32.2
					M	0.8	195.0	19.9	19.9	33.2	33.2	8.1	8.1	98.1	98.1	7.4	7.4	7.4	46.2	46.5	21.8	33.7	33.0	26.8	26.8	
						1.0	206.0	19.9	19.9	33.1	33.1	8.1		98.1		7.4			15.7			22.4				
						1.1	215.0	19.9	19.9	33.1	33.1	8.1		98.1		7.4			15.2			23.4				
B	1.0	200.0	19.9	19.9	33.2	33.2	8.1	8.1	98.1	98.1	7.4	7.4	7.4	19.9	19.5	22.2	25.1	24.6	26.8	26.8						
	1.0	210.0	19.9	19.9	33.2	33.2	8.1		98.1		7.4			19.2			24.0									
	0.8	195.0	19.9	19.9	33.2	33.2	8.1		98.1		7.4			46.2			32.2									
IM13	Foggy	Rough	03:42	15.3	S	1.0	206.0	19.9	19.9	33.1	33.1	8.1	8.1	98.1	98.1	7.4	7.4	7.4	46.2	46.5	21.8	33.7	33.0	26.8	26.8	
						1.1	215.0	19.9		19.9	33.1	33.1		8.1		98.1			7.4			15.7				22.4
						1.1	214.0	19.8		19.8	33.4	33.4		8.1		99.2			7.4			14.7				13.8
IM14	Foggy	Rough	03:57	10.1	M	0.8	206.0	19.9	19.9	33.1	33.1	8.1	8.1	98.1	98.1	7.4	7.4	7.4	46.9	46.5	21.8	15.2	15.1	13.5	13.5	
						0.8	215.0	19.8		19.8	33.5	33.5		8.1		99.3			7.4			46.5				15.0
						1.0	206.0	19.9		19.9	33.1	33.1		8.1		98.1			7.4			15.7				22.4
					B	1.1	215.0	19.9	19.9	33.1	33.1	8.1	8.1	98.1	98.1	7.4	7.4	7.4	15.2	15.4	22.2	23.4	22.9	26.8	26.8	
						1.0	200.0	19.9	19.9	33.2	33.2	8.1		98.1		7.4			19.9			25.1				
						1.0	210.0	19.9	19.9	33.2	33.2	8.1		98.1												

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Foggy	Moderate	04:06	5.3	S	0.8	205.0	19.8	19.8	31.2	31.2	8.0	8.0	96.5	96.5	7.3	7.3	7.3	14.4	14.3	16.4	13.9	14.0	16.5
						0.8	221.0	19.8		31.2	8.0	96.5		7.3		14.1			14.1					
					B	0.7	205.0	19.8	31.2	8.0	96.1	7.3	18.4	18.5	18.3	18.9								
						0.8	221.0	19.8	31.2	8.0	96.1	7.3	18.7		18.7									
IM16A	Foggy	Moderate	03:43	6.7	S	0.6	184.0	19.8	19.8	30.5	30.5	8.0	8.0	94.9	94.9	7.2	7.2	7.2	10.0	10.0	14.2	10.5	10.8	15.9
						0.6	190.0	19.8		30.5	8.0	94.9		7.2		9.9			11.0					
					M	0.5	188.0	19.8	19.8	30.6	30.6	8.0	8.0	94.9	94.9	7.2	7.2	12.2	12.4	12.6	13.7	13.4		
						0.5	192.0	19.8		30.6		8.0		94.9		7.2		13.0		13.0				
					B	0.4	192.0	19.8	19.8	30.6	30.6	8.0	8.0	94.8	94.8	7.2	7.2	20.5	20.2	24.0	23.6			
						0.4	205.0	19.8		30.6		8.0		94.7		7.2		20.0		23.1				
IM17	Foggy	Moderate	03:23	5.4	S	0.6	161.0	19.9	19.9	29.9	29.9	7.9	7.9	93.6	93.6	7.2	7.2	7.2	12.5	12.3	13.4	14.3	14.1	14.9
						0.6	161.0	19.9		29.9	7.9	93.6		7.2		12.2			13.9					
					B	0.5	162.0	19.9	19.9	29.9	29.9	7.9	7.9	93.6	93.6	7.1	7.1	14.5	14.4	16.0	15.7			
						0.5	175.0	19.9		29.9		7.9		93.6		7.1		14.3		15.3				
IM18	Foggy	Moderate	01:30	18.2	S	0.5	127.0	19.9	19.9	30.1	30.1	7.9	7.9	93.0	92.9	7.1	7.1	6.9	5.8	5.8	5.8	5.0	4.8	7.3
						0.5	128.0	19.9		30.1	7.9	92.8		7.1		5.9			4.6					
					M	0.4	154.0	20.3	20.3	31.4	31.4	7.9	7.9	88.6	88.6	6.7	6.7	5.5	5.5	8.4	8.3			
						0.4	155.0	20.3		31.4		7.9		88.6		6.7		5.5		8.2				
					B	0.3	166.0	20.3	20.3	31.5	31.5	7.9	7.9	89.2	89.2	6.7	6.7	6.1	6.1	8.5	8.8			
						0.3	173.0	20.3		31.5		7.9		89.2		6.7		6.1		9.1				
IM19	Foggy	Moderate	01:43	18.6	S	0.5	156.0	20.1	20.1	30.2	30.2	7.9	7.9	93.2	93.2	7.1	7.1	7.0	4.6	4.6	5.8	5.4	5.5	6.2
						0.5	158.0	20.1		30.2	7.9	93.1		7.1		4.6			5.5					
					M	0.5	168.0	20.4	20.4	31.0	31.0	7.9	7.9	91.0	91.0	6.9	6.9	5.0	5.0	5.5	5.8			
						0.5	169.0	20.4		31.0		7.9		91.0		6.9		6.0		5.8				
B	0.5	167.0	20.4	20.4	31.2	31.2	7.9	7.9	90.7	90.8	6.8	6.8	6.8	6.8	7.7	7.4								
	0.5	173.0	20.4		31.2		7.9		90.8		6.8		7.6		7.1									
IM20A	Foggy	Moderate	02:21	4.6	S	0.5	242.0	20.6	20.6	30.2	30.2	7.8	7.8	89.6	89.6	6.8	6.8	6.8	5.9	5.9	6.6	7.5	7.8	9.5
						0.5	245.0	20.6		30.2	7.8	89.6		6.8		6.0			8.0					
					B	0.4	233.0	20.5	20.5	30.6	30.6	7.9	7.9	89.4	89.5	6.7	6.7	6.7	7.3	11.1	11.2			
						0.4	250.0	20.5		30.6		7.9		89.5		6.7		7.3		11.1				
IM21A	Foggy	Moderate	02:07	5.7	S	0.3	200.0	20.6	20.6	30.8	30.8	7.9	7.9	89.5	89.5	6.7	6.7	6.7	8.2	8.2	9.4	9.6	9.5	11.6
						0.3	209.0	20.6		30.8	7.9	89.5		6.7		8.2			9.3					
					B	0.2	193.0	20.6	20.6	30.8	30.8	7.9	7.9	89.5	89.6	6.7	6.7	10.6	10.5	13.4	13.8			
						0.2	194.0	20.6		30.8		7.9		89.6		6.7		10.4		14.2				
IM22A	Foggy	Moderate	02:00	5.4	S	0.4	217.0	21.0	21.0	30.8	30.8	7.9	7.9	91.2	91.2	6.8	6.8	6.8	8.3	8.3	8.5	16.2	16.2	15.0
						0.4	228.0	21.0		30.8	7.9	91.2		6.8		8.2			16.1					
					B	0.4	212.0	20.8	20.8	30.8	30.8	7.9	7.9	90.8	90.8	6.8	6.8	8.7	8.8	13.9	13.9			
						0.4	227.0	20.8		30.8		7.9		90.8		6.8		8.8		13.9				

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)			Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*		
E1	Cloudy	Moderate	07:36	8.1	S	1.0	213.5	20.6	20.6	32.0	32.0	7.8	7.8	87.3	87.3	6.5	6.5	6.5	6.5	4.6	4.6	5.5	5.5	8.8	10.5	10.5	0.012
						0.2	190.0	20.6		32.0	32.0	7.8		87.3	87.3	6.5		6.5		4.6		8.2					
						1.6	169.0	20.6		32.0	32.0	7.8		87.0	87.0	6.5		6.5		6.1		10.8					
					M	0.3	333.7	20.6	32.0	32.0	7.8	87.0	87.0	6.5	6.5	5.5	5.8	10.1	10.5								
						B	0.3	177.8	20.6	32.0	32.0	7.8	88.1	87.5	6.6	6.5	6.5	6.0	6.0	12.5	12.5						
							0.7	38.2	20.6	32.0	32.0	7.8	86.8	86.5	6.5	6.5	6.0	6.0	12.5	12.5							
E2	Cloudy	Moderate	10:53	8.3	S	0.3	2.4	20.6	20.6	32.6	32.6	8.1	8.1	94.5	94.6	7.0	7.0	7.0	7.0	5.1	5.1	5.1	5.1	7.6	9.3	8.0	0.012
						0.3	293.5	20.6		32.6	32.6	8.1		94.6	94.6	7.0		7.0		5.0		8.4					
						0.0	72.9	20.6		32.6	32.6	8.1		94.6	94.6	7.0		7.0		4.8		8.6					
					M	1.0	329.9	20.6	32.6	32.6	8.1	94.5	94.6	7.0	7.0	4.9	9.2	8.9									
						B	0.8	216.1	20.6	32.6	32.6	8.1	94.6	94.5	7.0	7.0	6.8	6.2	10.9	11.1							
							1.2	343.9	20.6	32.6	32.6	8.1	94.3	94.3	7.0	7.0	5.5	5.5	11.2	11.2							
E3	Foggy	Rough	10:34	16.3	S	0.3	19.0	19.8	19.8	30.7	30.8	8.1	8.1	98.4	98.4	7.5	7.5	7.5	7.5	5.4	5.4	5.4	5.4	7.3	11.4	7.7	0.001
						0.3	19.0	19.8		30.8	30.8	8.1		98.4	98.4	7.5		7.5		5.4		8.1					
						0.4	301.0	19.9		32.4	32.4	8.1		99.1	99.1	7.5		7.5		6.8		9.5					
					M	0.4	310.0	19.9	32.4	32.4	8.1	99.1	99.1	7.5	7.5	6.8	9.9	9.7									
						B	0.7	278.0	19.9	32.7	32.7	8.1	98.8	98.8	7.4	7.4	9.1	16.5	16.9								
							0.7	278.0	19.9	32.6	32.6	8.1	98.8	98.8	7.4	7.4	8.9	17.2	17.2								
E4	Foggy	Rough	09:05	10.6	S	0.3	74.0	19.9	19.9	30.5	30.6	8.0	8.0	95.5	95.6	7.3	7.3	7.3	7.3	11.4	11.5	11.4	11.5	17.8	19.8	17.7	0.001
						0.3	79.0	19.9		30.6	30.6	8.0		95.6	95.6	7.3		7.3		11.5		17.6					
						0.3	14.0	19.9		31.9	31.9	8.1		96.5	96.6	7.3		7.3		9.1		20.3					
					M	0.3	14.0	19.9	32.0	31.9	8.1	96.6	96.6	7.3	7.3	9.2	20.8	20.6									
						B	0.5	12.0	19.9	32.6	32.6	8.1	96.8	96.8	7.3	7.3	15.2	21.0	21.3								
							0.5	12.0	19.9	32.6	32.6	8.1	96.8	96.8	7.3	7.3	15.6	21.5	21.3								
E5	Foggy	Moderate	08:12	5.1	S	0.4	252.0	20.1	20.1	30.5	30.5	7.9	7.9	91.4	91.4	6.9	6.9	6.9	6.9	17.1	17.1	17.1	17.1	23.6	33.4	24.2	0.001
						0.4	253.0	20.1		30.5	30.5	7.9		91.3	91.4	6.9		6.9		17.1		24.8					
						0.3	254.0	20.1		30.5	30.5	7.9		91.1	91.1	6.9		6.9		27.1		42.4					
					B	0.3	255.0	20.1	30.5	30.5	7.9	91.1	91.1	6.9	6.9	27.6	42.7	42.6									
						S	0.4	349.0	20.3	27.7	27.7	7.8	90.5	90.5	7.0	6.9	6.9	5.3	5.3	8.5	8.5						
							0.4	12.0	20.3	27.8	27.8	7.8	90.4	90.5	6.9	6.9	5.3	8.4									
B	0.3	338.0	20.4	28.8	28.8	7.8	89.1	89.1	6.8	6.8	8.6	10.0	10.1														
	0.3	343.0	20.4	28.8	28.8	7.8	89.1	89.1	6.8	6.8	8.7	10.1	10.1														
	0.4	13.0	20.4	29.3	29.3	7.8	88.9	88.9	6.8	6.8	9.0	8.8	8.8														
E7A	Foggy	Moderate	09:31	4.4	S	0.5	13.0	20.4	20.4	29.3	29.3	7.8	7.8	88.9	88.9	6.8	6.8	6.8	6.8	8.7	8.7	8.7	8.7	7.4	16.1	7.4	0.001
						0.3	4.0	20.4		29.6	29.6	7.8		88.5	88.5	6.7		6.7		16.9		25.3					
					0.4	4.0	20.4	29.6	29.6	7.8	88.5	88.5	6.7	6.7	17.1	24.1	24.7										
F1	Cloudy	Moderate	08:27	20.1	S	0.4	241.6	20.4	20.4	32.3	32.3	8.0	8.0	97.1	96.8	7.3	7.3	7.2	7.2	2.0	2.0	2.0	2.0	2.9	12.2	3.1	0.001
						0.8	273.2	20.4		32.3	32.3	8.0		96.5	96.8	7.2		7.2		1.9		3.2					
						0.7	67.4	19.9		32.3	32.3	8.1		97.8	98.0	7.4		7.4		3.3		4.9					
					M	0.5	92.3	19.9	32.3	32.3	8.1	98.1	98.0	7.4	7.4	2.9	4.3	4.6									
						B	0.6	126.5	19.9	32.3	32.3	8.1	97.0	96.8	7.3	7.3	14.3	30.1	28.9								
							0.1	321.8	19.9	32.3	32.3	8.1	96.6	96.8	7.3	7.3	15.4	27.6	27.6								
F2	Cloudy	Moderate	09:00	18.3	S	0.5	149.8	20.4	20.4	32.4	32.4	8.0	8.0	97.5	97.6	7.3	7.3	7.3	7.3	2.0	1.9	2.0	1.9	6.4	9.4	8.4	0.001
						0.5	149.8	20.4		32.4	32.4	8.0		97.6	97.6	7.3		7.3		1.8		6.1					
						0.9	82.8	20.0		32.3	32.3	8.1		97.3	97.3	7.3		7.3		3.8		8.2					
					M	0.4	222.2	20.0	32.3	32.3	8.1	97.3	97.3	7.3	7.3	3.2	8.6	8.4									
						B	0.4	74.1	19.9	32.3	32.3	8.1	96.8	96.8	7.3	7.3	9.4	13.2	13.5								
							0.9	75.6	19.9	32.3	32.3	8.1	96.7	96.8	7.3	7.3	8.1	13.7	13.5								

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
F3	Cloudy	Moderate	09:37	17.2	S	0.3	64.8	20.1	20.1	32.4	32.4	8.2	8.2	102.7	103.0	7.7	7.7	7.7	2.2	2.1	4.4	4.4	4.8	0.025
						0.6	272.4	20.1		32.4		8.2		103.2		7.7			2.0		4.4			
						0.7	286.1	20.1		32.5		8.1		101.4		7.6			2.7		4.4			
					M	0.5	296.0	20.1	32.5	8.1	101.4	7.6	2.6	4.1										
						0.7	230.8	20.1	32.5	8.1	100.7	7.5	4.0	5.9										
						0.4	153.3	20.1	32.5	8.1	100.6	7.5	3.8	5.6										
B	1.1	39.5	20.6	32.5	8.1	97.6	7.3	6.7	10.0															
	1.1	310.8	20.6	32.5	8.1	97.9	7.3	6.8	9.4															
	0.7	292.8	20.5	32.5	8.1	96.0	7.1	12.7	19.0															
F4	Cloudy	Moderate	10:29	13.2	S	0.4	269.6	20.5	20.5	32.5	32.5	8.1	8.1	96.1	96.1	7.1	7.1	7.1	11.6	12.2	21.4	20.2	19.3	0.019
						0.2	269.7	20.5		32.5		8.1		95.9		7.1			16.9		28.8			
						0.2	269.7	20.5		32.5		8.1		95.8		7.1			15.9		27.2			
					M	0.1	75.0	19.9	31.0	31.0	7.9	7.9	94.7	7.2	7.2	7.2	17.2	22.4						
						0.2	79.0	19.9	31.0	31.0	7.9	7.9	94.7	7.2	7.2	7.2	16.9	22.5						
						0.1	62.0	19.9	31.1	31.1	7.9	7.9	94.7	7.2	7.2	7.2	30.0	40.5						
B	0.1	63.0	19.9	31.1	31.1	7.9	7.9	94.6	7.2	7.2	7.2	30.6	41.7											
	0.4	332.0	20.3	30.3	30.3	7.9	7.9	90.5	6.8	6.8	6.8	10.6	12.7											
	0.4	355.0	20.3	30.3	30.3	7.9	7.9	90.5	6.9	6.8	6.8	10.8	12.8											
F5	Foggy	Moderate	07:34	5.2	S	0.3	328.0	20.3	20.3	30.3	30.3	7.9	7.9	90.0	90.0	6.8	6.8	6.8	18.3	18.3	26.2	26.9	29.1	0.001
						0.4	328.0	20.3		30.3		7.9		90.0		6.8			18.3					
						0.4	317.0	20.3		31.3		7.9		88.6		6.7			34.8		46.4			
					M	0.3	329.0	20.3	31.3	31.3	7.9	7.9	88.6	6.7	6.7	6.7	35.1	47.7						
						0.6	247.4	20.3	32.3	32.3	8.0	8.0	96.0	7.2	7.2	7.2	2.9	6.2						
						0.8	43.2	20.3	32.3	32.3	8.0	8.0	96.2	7.2	7.2	7.2	2.7	6.4						
B	0.2	294.5	20.3	32.4	32.4	8.0	8.0	95.7	7.2	7.2	7.2	4.0	8.5											
	0.4	33.5	20.3	32.4	32.4	8.0	8.0	95.7	7.2	7.2	7.2	3.4	8.6											
	0.3	130.3	20.2	32.3	32.3	8.0	8.0	96.4	7.2	7.2	7.2	5.0	10.1											
F6	Foggy	Moderate	11:12	14.0	S	0.3	328.0	20.3	20.3	30.3	30.3	7.9	7.9	90.0	90.0	6.8	6.8	6.8	18.3	18.3	26.2	26.9	29.1	0.010
						0.4	328.0	20.3		30.3		7.9		90.0		6.8			18.3					
						0.3	317.0	20.3		31.3		7.9		88.6		6.7			34.8		46.4			
					M	0.3	329.0	20.3	31.3	31.3	7.9	7.9	88.6	6.7	6.7	6.7	35.1	47.7						
						0.6	247.4	20.3	32.3	32.3	8.0	8.0	96.0	7.2	7.2	7.2	2.9	6.2						
						0.8	43.2	20.3	32.3	32.3	8.0	8.0	96.2	7.2	7.2	7.2	2.7	6.4						
B	0.2	294.5	20.3	32.4	32.4	8.0	8.0	95.7	7.2	7.2	7.2	4.0	8.5											
	0.4	33.5	20.3	32.4	32.4	8.0	8.0	95.7	7.2	7.2	7.2	3.4	8.6											
	0.3	130.3	20.2	32.3	32.3	8.0	8.0	96.4	7.2	7.2	7.2	5.0	10.1											
IM1	Cloudy	Moderate	08:09	9.2	S	0.4	241.7	20.6	20.6	32.1	32.1	7.9	7.9	88.7	88.7	6.6	6.6	6.6	3.9	4.0	6.9	7.1	8.2	0.001
						0.6	271.4	20.6		32.1		7.9		88.7		6.6			4.1		7.3			
						0.6	283.5	20.6		32.1		7.9		88.3		6.6			5.1		7.2			
					M	1.1	284.6	20.6	32.1	32.1	7.9	7.9	88.2	6.6	6.6	6.6	4.6	4.9						
						0.5	291.4	20.6	32.1	32.1	7.9	7.9	88.8	6.6	6.6	6.6	9.1	10.5						
						1.0	248.2	20.6	32.1	32.1	7.9	7.9	88.5	6.6	6.6	6.6	11.0	9.9						
B	0.6	29.6	20.6	32.3	32.3	8.1	8.1	94.7	7.0	7.1	7.0	3.9	6.4											
	0.6	29.6	20.6	32.3	32.3	8.1	8.1	95.0	7.1	7.1	7.0	3.5	6.4											
	0.7	355.1	20.5	32.4	32.4	8.1	8.1	93.9	7.0	7.0	7.0	5.6	10.2											
IM2	Cloudy	Moderate	07:48	11.0	S	0.7	355.1	20.5	20.5	32.4	32.4	8.1	8.1	93.9	93.9	7.0	7.0	7.0	5.6	5.6	9.6	9.9	11.6	0.001
						0.2	192.0	20.5		32.5		8.1		93.5		7.0			10.3		18.2			
						0.9	87.8	20.5		32.5		8.1		93.2		6.9			12.4		18.6			
					M	0.7	266.4	20.5	32.5	32.5	8.1	8.1	95.1	7.1	7.1	7.1	6.7	9.7						
						0.4	339.1	20.6	32.5	32.5	8.1	8.1	95.6	7.1	7.1	7.1	5.3	9.3						
						0.3	254.4	20.5	32.5	32.5	8.1	8.1	94.2	7.0	7.0	7.0	8.3	12.4						
B	0.3	224.1	20.5	32.5	32.5	8.1	8.1	94.1	7.0	7.0	7.0	9.0	11.5											
	0.5	283.2	20.5	32.5	32.5	8.1	8.1	93.4	7.0	6.9	6.9	17.4	26.1											
	0.6	233.1	20.5	32.5	32.5	8.1	8.1	93.3	6.9	6.9	6.9	16.5	26.8											
IM3	Cloudy	Moderate	11:42	14.3	S	0.7	276.0	20.2	20.2	32.5	32.5	8.1	8.1	100.1	100.2	7.5	7.5	7.5	3.2	3.2	6.8	6.5	9.3	0.001
						1.0	70.5	20.2		32.5		8.1		100.3		7.5			3.2		6.2			
						0.9	346.4	20.2		32.5		8.1		98.8		7.4			4.8		8.4			
					M	0.5	330.5	20.2	32.5	32.5	8.1	8.1	98.7	7.4	7.4	7.4	4.8	8.9						
						0.9	298.4	20.2	32.5	32.5	8.1	8.1	98.3	7.4	7.4	7.4	7.1	12.9						
						0.9	298.4	20.2	32.5	32.5	8.1	8.1	98.0	7.3	7.3	7.3	8.3	12.6						

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
IM6	Cloudy	Moderate	09:48	15.3	S	0.6	141.3	20.2	20.2	32.5	32.5	8.1	8.1	101.8	101.9	7.6	7.6	2.6	2.5	3.1	3.7	6.5	0.025
						0.4	18.0	20.2		32.5	32.5	8.1		102.0	7.6	2.4		3.5					
						0.6	239.9	20.2		32.5	32.5	8.1		100.9	7.6	3.0		7.1					
					M	0.4	252.2	20.2	32.5	32.5	8.1	101.0	7.6	2.8	6.7								
						0.6	338.0	20.2	32.5	32.5	8.1	100.3	7.5	3.9	9.1								
						0.6	338.0	20.2	32.5	32.5	8.1	100.2	7.5	4.0	8.7								
IM7	Foggy	Rough	11:36	14.8	S	0.2	307.0	19.8	19.8	33.7	33.7	8.1	8.1	103.2	103.1	7.7	7.6	2.4	2.5	3.7	5.4	6.7	0.010
						0.2	318.0	19.8		33.7	33.7	8.1		103.0	7.7	2.5		5.6					
						0.2	299.0	19.9		33.9	33.9	8.1		100.6	7.5	3.6		6.0					
					M	0.2	315.0	19.9	33.9	33.9	8.1	100.5	7.5	3.6	5.9								
						0.1	289.0	19.9	33.8	33.8	8.1	100.2	7.5	4.8	8.7								
						0.1	314.0	19.9	33.8	33.8	8.1	100.2	7.5	4.9	8.8								
IM8	Foggy	Rough	11:27	13.2	S	0.2	294.0	19.7	19.7	33.7	33.7	8.1	8.1	103.5	103.5	7.8	7.7	2.4	2.4	4.5	8.6	8.2	0.019
						0.2	309.0	19.7		33.7	33.7	8.1		103.4	7.8	2.4		8.1					
						0.3	320.0	19.7		33.7	33.7	8.1		101.3	7.6	3.4		8.3					
					M	0.3	329.0	19.7	33.7	33.7	8.1	101.3	7.6	3.4	8.1								
						0.2	294.0	19.7	33.7	33.7	8.1	100.5	7.5	7.9	8.0								
						0.2	296.0	19.7	33.8	33.7	8.1	100.5	7.5	7.6	8.0								
IM9	Foggy	Rough	11:03	14.6	S	0.4	319.0	19.9	19.9	33.6	33.6	8.1	8.1	102.5	102.5	7.7	7.6	4.6	4.6	6.7	5.5	8.0	0.015
						0.4	347.0	19.9		33.6	33.6	8.1		102.4	7.7	4.7		5.1					
						0.5	305.0	19.8		33.7	33.7	8.1		101.6	7.6	4.6		6.7					
					M	0.5	329.0	19.8	33.7	33.7	8.1	101.6	7.6	4.4	6.5								
						0.4	299.0	19.8	33.8	33.8	8.1	101.3	7.6	11.2	12.2								
						0.4	317.0	19.8	33.8	33.8	8.1	101.3	7.6	11.1	12.0								
IM10	Foggy	Rough	10:19	9.2	S	0.7	279.0	20.1	20.1	33.6	33.6	8.1	8.1	98.9	98.9	7.4	7.3	9.5	9.5	20.5	18.9	34.9	0.015
						0.8	297.0	20.1		33.6	33.6	8.1		98.8	7.4	9.4		18.7					
						0.9	279.0	20.1		33.6	33.6	8.1		98.2	7.3	19.5		39.1					
					M	0.9	286.0	20.1	33.6	33.6	8.1	98.2	7.3	19.0	40.1								
						0.7	274.0	20.1	33.7	33.7	8.1	97.8	7.3	32.9	47.5								
						0.7	292.0	20.1	33.7	33.7	8.1	97.9	7.3	32.8	45.3								
IM11A	Foggy	Rough	10:01	5.5	S	1.1	283.0	20.1	20.1	33.7	33.7	8.1	8.1	97.6	97.6	7.3	7.3	42.3	42.3	46.5	71.0	62.1	0.015
						1.1	297.0	20.1		33.7	33.7	8.1		97.6	7.3	42.4		69.6					
						1.0	293.0	20.1		33.7	33.7	8.1		98.2	7.3	50.7		52.8					
					B	1.0	299.0	20.1	33.7	33.7	8.1	98.3	7.3	50.8	54.9								
						1.0	312.0	20.0	33.6	33.6	8.1	98.3	7.3	32.2	64.6								
						1.0	323.0	20.0	33.6	33.6	8.1	98.3	7.3	31.6	63.0								
IM12	Foggy	Rough	09:49	14.3	S	1.0	307.0	20.1	20.1	33.1	33.1	8.1	8.1	99.1	99.1	7.4	7.4	37.4	37.4	36.4	46.8	48.1	0.015
						1.0	333.0	20.1		33.1	33.1	8.1		99.1	7.4	37.4		45.7					
						0.9	315.0	20.0		33.6	33.6	8.1		98.2	7.3	39.8		35.6					
					B	0.9	323.0	20.0	33.6	33.6	8.1	98.3	7.3	39.9	32.8								
						0.4	78.0	19.8	29.5	29.5	8.1	96.3	7.4	8.8	12.3								
						0.4	78.0	19.8	29.5	29.5	8.1	96.3	7.4	8.9	13.3								
IM13	Foggy	Rough	09:25	15.7	M	0.3	352.0	19.9	19.9	32.3	32.3	8.1	8.1	96.8	96.8	7.3	7.3	10.1	10.2	17.2	14.5	15.5	0.015
						0.3	3.0	19.9		32.3	32.3	8.1		96.8	7.3	10.2		15.0					
						0.5	353.0	19.9		33.0	33.0	8.1		96.4	7.2	32.9		19.3					
					B	0.5	18.0	19.9	33.0	33.0	8.1	96.4	7.2	32.1	18.3								
						0.6	17.0	19.8	32.4	32.4	8.1	98.6	7.4	7.2	13.6								
						0.6	17.0	19.8	32.4	32.4	8.1	98.6	7.4	7.5	13.0								
IM14	Foggy	Rough	09:16	10.4	S	0.7	7.0	19.9	19.9	32.9	32.9	8.1	8.1	97.2	97.2	7.3	7.4	9.0	8.6	15.4	15.7	17.8	0.015
						0.8	7.0	19.9		32.9	32.9	8.1		97.2	7.3	8.1		15.6					
						0.6	3.0	19.9		33.1	33.1	8.1		97.4	7.3	30.4		24.5					
					M	0.6	17.0	19.8	32.4	32.4	8.1	98.6	7.4	7.4	13.3								
						0.7	7.0	19.9	32.9	32.9	8.1	97.2	7.3	9.0	15.7								
						0.8	7.0	19.9	32.9	32.9	8.1	97.2	7.3	8.1	15.6								
B	0.6	3.0	19.9	33.1	33.1	8.1	97.4	7.3	30.4	24.5													
	0.7	3.0	19.9	33.1	33.1	8.1	97.4	7.3	30.5	24.3													

Water Quality Monitoring Data Log Sheet

Date: 2019/12/29

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Foggy	Moderate	08:00	5.6	S	0.5	247.0	20.2	20.2	30.5	30.5	7.9	7.9	91.2	91.2	6.9	6.9	6.9	16.3	16.4	19.3	28.2	27.9	30.3
						0.5	251.0	20.2		30.5	30.5	7.9		91.2	91.2	6.9			16.5			27.6		
					B	0.4	250.0	20.2	30.5	30.5	7.9	7.9	91.0	91.0	6.9	6.9	22.0	22.3	19.3	33.1	32.8	30.3		
						0.4	269.0	20.2	30.5	30.5	7.9	91.0	91.0	6.9	6.9	22.6	32.4							
IM16A	Foggy	Moderate	08:28	5.3	S	0.5	269.0	20.2	20.2	30.4	30.4	7.9	7.9	90.8	90.8	6.9	6.9	6.9	14.3	14.3	16.5	20.5	19.9	22.4
						0.5	291.0	20.2		30.4	30.4	7.9		90.8	90.8	6.9			14.4			19.2		
					B	0.4	275.0	20.2	30.4	30.4	7.9	7.9	90.6	90.6	6.9	6.9	18.5	18.7	16.5	25.6	25.0	22.4		
						0.4	295.0	20.2	30.4	30.4	7.9	90.6	90.6	6.9	6.9	18.9	24.4							
IM17	Foggy	Moderate	08:49	4.2	S	0.3	317.0	20.2	20.2	29.1	29.1	7.9	7.9	90.1	90.1	6.9	6.9	6.9	7.7	7.7	9.4	11.8	11.7	16.9
						0.3	344.0	20.2		29.1	29.1	7.9		90.1	90.1	6.9			7.7			11.6		
					B	0.3	314.0	20.4	20.4	30.4	30.5	7.9	7.9	89.2	89.2	6.7	6.7	6.7	11.0	9.4	21.9	22.1	16.9	
						0.3	339.0	20.4	30.5	30.5	7.9	89.2	89.2	6.7	6.7	11.1	22.2							
IM18	Foggy	Moderate	10:43	16.8	S	0.4	1.0	20.4	20.4	29.7	29.7	7.9	7.9	89.7	89.7	6.8	6.8	6.8	4.6	4.6	10.6	7.2	7.5	12.7
						0.4	1.0	20.4		29.7	29.7	7.9		89.7	89.7	6.8			4.6			7.8		
					M	0.5	348.0	20.4	20.4	30.4	30.4	7.9	7.9	88.9	88.9	6.7	6.7	6.7	9.1	10.6	11.2	11.6	12.7	
						0.5	352.0	20.4	30.4	30.4	7.9	88.9	88.9	6.7	6.7	9.1	11.9							
					B	0.5	326.0	20.4	20.4	30.7	30.7	7.9	7.9	89.1	89.1	6.7	6.7	6.7	18.1	10.6	18.3	19.0	12.7	
						0.6	334.0	20.4	30.7	30.7	7.9	89.1	89.1	6.7	6.7	17.8	18.4							
IM19	Foggy	Moderate	10:29	17.4	S	0.5	339.0	20.4	20.4	29.7	29.7	7.8	7.8	90.1	90.1	6.8	6.8	6.8	4.7	4.7	10.2	7.6	7.8	15.7
						0.5	2.0	20.4		29.7	29.7	7.8		90.1	90.1	6.8			4.7			7.9		
					M	0.7	339.0	20.6	20.6	30.6	30.6	7.9	7.9	90.7	90.7	6.8	6.8	6.8	9.2	10.2	15.6	16.0	15.7	
						0.7	2.0	20.6	30.6	30.6	7.9	90.7	90.7	6.8	9.1	16.4								
					B	0.6	342.0	20.6	20.6	30.6	30.6	7.9	7.9	90.4	90.4	6.8	6.8	6.8	16.7	10.2	22.5	23.2	15.7	
						0.6	351.0	20.6	30.6	30.6	7.9	90.5	90.5	6.8	6.8	16.5	23.9							
IM20A	Foggy	Moderate	09:53	3.9	S	0.5	56.0	20.3	20.3	29.3	29.3	7.8	7.8	87.9	87.9	6.7	6.7	6.7	8.9	9.0	11.4	15.5	15.9	20.3
						0.5	61.0	20.3		29.3	29.3	7.8		87.9	87.9	6.7			9.1			16.2		
					B	0.4	55.0	20.3	20.3	29.3	29.3	7.8	7.8	87.7	87.7	6.7	6.7	6.7	13.8	11.4	25.5	24.8	20.3	
						0.4	57.0	20.3	29.3	29.3	7.8	87.8	87.8	6.7	6.7	13.8	24.0							
IM21A	Foggy	Moderate	10:06	4.7	S	0.4	28.0	21.6	21.6	30.0	30.0	7.8	7.8	92.5	92.5	6.8	6.8	6.8	13.4	13.4	13.3	19.2	19.6	21.7
						0.4	30.0	21.6		30.0	30.0	7.8		92.5	92.5	6.8			13.4			20.0		
					B	0.3	27.0	21.6	21.6	30.0	30.0	7.8	7.8	92.4	92.4	6.8	6.8	6.8	13.2	13.3	24.4	23.8	21.7	
						0.3	27.0	21.6	30.0	30.0	7.8	92.4	92.4	6.8	6.8	13.2	23.1							
IM22A	Foggy	Moderate	10:13	5.0	S	0.1	147.0	20.4	20.4	30.0	30.0	7.8	7.8	88.2	88.2	6.7	6.7	6.7	13.6	13.8	15.5	18.9	18.3	24.6
						0.1	154.0	20.4		30.0	30.0	7.8		88.2	88.2	6.7			14.1			17.6		
					B	0.1	188.0	20.4	20.4	30.1	30.1	7.8	7.8	87.8	87.8	6.6	6.6	6.6	17.2	15.5	30.8	30.9	24.6	
						0.1	206.0	20.4	30.1	30.1	7.8	87.9	87.9	6.6	6.6	17.3	31.0							

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Cloudy	Calm	06:09	8.2	S	0.7	210.6	20.4	20.4	32.1	32.1	8.1	8.1	90.0	90.0	6.7	6.7	6.7	4.9	4.9	5.3	7.2	7.4	8.7
						0.7	210.6	20.4		32.1		8.1		89.9		6.7			4.9			7.6		
						0.2	276.1	20.4		32.1		8.1		89.9		6.7			5.3			8.5		
					M	0.2	166.6	20.4	20.4	32.1	32.1	8.1	8.1	89.9	89.9	6.7	6.7	6.7	4.9	5.1	5.3	8.5	8.5	
						0.4	179.6	20.4	20.4	32.1		8.1		91.7		6.9		5.9	10.5					
						0.5	193.0	20.4	20.4	32.1		8.1		91.7		6.9		5.9	9.8					
B	0.9	182.7	20.2	20.2	32.3	32.3	8.1	8.1	95.7	95.7	7.2	7.2	7.2	7.3	7.5	7.3	9.5	9.3	9.5	10.2				
	0.6	350.5	20.2		32.3		8.1		95.7		7.2		7.7	9.0										
	0.6	356.6	20.2		20.2		32.3		8.1		95.5		7.1	7.5		9.8								
E2	Cloudy	Calm	02:50	9.1	S	0.6	182.0	19.7	20.2	32.3	32.3	8.1	8.1	95.5	95.5	7.1	7.1	7.1	7.5	7.5	7.2	7.5	9.9	10.6
						0.2	12.4	20.2		32.3		8.1		95.5		7.1			7.4			9.9		
						0.5	61.1	20.3		20.3		32.3		8.1		95.7			7.2			7.2		
					M	0.7	75.2	20.3	20.3	32.3	32.3	8.1	8.1	95.5	95.6	7.1	7.2	7.2	11.7	11.2	12.4	12.9	12.7	
						0.3	192.0	19.7	19.7	33.4		8.1		99.1		7.4		2.4	4.5					
						0.3	209.0	19.7	19.7	33.4		8.1		99.0		7.4		2.4	4.7					
B	0.3	146.0	19.9	19.9	33.7	33.7	8.1	8.1	97.1	97.2	7.3	7.3	7.3	4.6	4.8	4.9	5.0	5.0						
	0.3	155.0	19.9	19.9	33.7		8.1		97.2		7.3		4.9	5.0										
	0.2	217.0	19.8	19.8	33.7		8.1		98.2		7.3		6.7	8.5										
E3	Cloudy	Rough	03:48	17.2	S	0.2	228.0	19.8	20.3	33.7	33.7	8.1	8.1	98.4	98.4	7.4	7.4	7.4	6.5	6.6	4.6	9.1	6.1	
						0.7	181.0	19.7		32.5		8.1		97.6		7.4			2.5			4.6		
						0.7	182.0	19.7		32.5		8.1		97.6		7.4			2.5			4.7		
					M	0.6	181.0	19.9	19.9	33.0	33.0	8.1	8.1	96.5	96.5	7.2	7.2	7.2	3.6	3.6	5.2	5.3		
						0.7	182.0	19.9	19.9	33.0		8.1		96.5		7.2		3.6	5.4					
						0.4	180.0	20.0	20.0	33.2		8.1		96.6		7.2		6.8	6.5					
B	0.5	191.0	20.0	20.0	33.2	33.2	8.1	8.1	96.7	96.7	7.2	7.2	7.2	10.3	10.4	6.2	6.5	6.2						
	0.4	183.0	19.7	19.7	30.4		8.0		95.5		7.3		3.9	4.4										
	0.4	185.0	19.7	19.7	30.4		8.0		95.5		7.3		3.9	5.0										
E4	Cloudy	Moderate	05:30	11.8	S	0.3	185.0	19.7	19.7	30.5	30.5	8.0	8.0	95.7	95.7	7.3	7.3	7.3	5.1	5.1	7.3	5.5	5.6	
						0.3	203.0	19.7		30.5		8.0		95.6		7.3			5.1			5.5		
						0.3	190.0	19.7		19.7		30.6		8.0		95.7			7.3			5.7		6.3
					M	0.3	208.0	19.7	19.7	30.6	30.6	8.0	8.0	95.8	95.8	7.3	7.3	7.3	5.6	5.6	6.7	6.5		
						0.5	157.0	20.0	20.0	29.7		7.9		92.0		7.0		3.0	5.2					
						0.5	159.0	20.0	20.0	29.7		7.9		92.0		7.0		3.2	5.7					
B	0.4	146.0	20.0	20.0	30.1	30.1	7.9	7.9	91.8	91.7	7.0	7.0	7.0	4.3	4.4	4.5	7.3	6.9						
	0.4	156.0	20.0	20.0	30.1		7.9		91.6		7.0		4.5	7.6										
	0.3	154.0	20.1	20.1	30.6		7.9		92.0		7.0		7.9	9.5										
E5	Fine	Moderate	05:19	6.2	S	0.3	159.0	20.1	20.1	30.6	30.6	7.9	7.9	92.1	92.1	7.0	7.0	7.0	7.9	7.9	4.6	9.3	7.4	
						0.3	207.0	20.2		29.3		7.8		88.9		6.8			4.8			4.5		
						0.3	218.0	20.2		29.4		7.8		88.7		6.8			4.9			4.2		
					M	0.3	185.0	20.4	20.4	30.1	30.1	7.7	7.7	89.3	89.5	6.8	6.8	6.8	4.3	4.3	6.6	7.0		
						0.3	197.0	20.4	30.1	7.7		89.6		6.8		4.4		7.3						
						0.5	99.1	19.8	19.8	32.4		8.3		100.7		7.6		3.4	5.8					
B	0.4	175.5	19.8	19.8	32.4	32.4	8.3	8.3	100.7	100.7	7.6	7.6	7.6	3.4	3.4	5.6	5.7							
	0.7	275.6	19.8	19.8	32.4		8.3		100.2		7.6		3.4	7.4										
	0.4	174.0	19.8	19.8	32.4		8.3		100.2		7.6		3.5	7.9										
E6	Fine	Moderate	04:25	6.8	S	0.2	54.0	19.8	19.8	32.4	32.4	8.3	8.3	99.8	99.8	7.5	7.5	7.5	3.8	4.1	3.6	10.1	7.8	
						1.1	140.0	19.8		32.4		8.3		99.7		7.5			3.8			9.7		
						0.4	197.8	19.8		19.8		32.4		8.3		101.2			7.6			2.4		6.8
					M	1.0	132.1	19.8	19.8	32.3	32.3	8.3	8.3	101.3	101.3	7.6	7.6	7.6	2.5	2.5	6.5	6.7		
						0.6	98.6	19.8	19.8	32.4		8.3		100.6		7.6		2.7	8.5					
						0.3	346.3	19.8	19.8	32.4		8.3		100.7		7.6		2.5	8.1					
B	0.6	316.7	19.8	19.8	32.4	32.4	8.3	8.3	100.2	100.2	7.6	7.6	7.6	2.8	2.9	10.1	10.4							
	1.1	59.5	19.8	19.8	32.4		8.3		100.1		7.6		3.0	10.7										
	0.3	346.3	19.8	19.8	32.4		8.3		100.7		7.6		2.5	8.1										
E7A	Fine	Calm	04:08	5.2	S	0.3	207.0	20.2	20.2	29.3	29.3	7.8	7.8	88.9	88.9	6.8	6.8	6.8	4.8	4.9	4.6	4.4	5.7	
						0.3	218.0	20.2		29.4		7.8		88.7		6.8			4.9			4.2		
						0.3	185.0	20.4		20.4		30.1		7.7		89.3			6.8			4.3		6.6
					M	0.3	159.0	20.1	20.1	30.6	30.6	7.9	7.9	92.0	92.1	7.0	7.0	7.0	7.9	7.9	9.5	9.4		
						0.3	159.0	20.1	30.6	7.9		92.0		7.0		7.9		9.3						
						0.3	207.0	20.2	29.3	7.8		88.9		6.8		4.8		4.4						
B	0.3	185.0	20.4	20.4	30.1	30.1	7.7	7.7	89.3	89.5	6.8	6.8	6.8	4.3	4.3	6.6	7.0							
	0.3	197.0	20.4	30.1	7.7		89.6		6.8		4.4		7.3											
	0.5	99.1	19.8	19.8	32.4		8.3		100.7		7.6		3.4	5.8										
E8	Cloudy	Calm	05:19	20.1	S	0.4	175.5	19.8	19.8	32.4	32.4	8.3	8.3	100.7	100.7	7.6	7.6	7.6	3.4	3.4	3.6	5.8	7.8	
						0.7	275.6	19.8		32.4		8.3		100.2		7.6			3.4			5.6		
						0.4	174.0	19.8		19.8		32.4		8.3		100.2			7.6			3.5		7.4
					M	0.2	54.0	19.8	19.8	32.4	32.4	8.3	8.3	99.8	99.8	7.5	7.5	7.5	4.3	4.1	10.1	9.9		
						1.1	140.0	19.8	19.8	32.4		8.3		99.7		7.5		3.8	9.7					
						0.4	197.8	19.8	19.8	32.4		8.3		101.2		7.6		2.4	6.8					
B	1.0	132.1	19.8	19.8	32.3	32.3	8.3	8.3	101.3	101.3	7.6	7.6	7.6	2.5	2.5	6.5	6.7							
	0.6	98.6	19.8	19.8	32.4		8.3		100.6		7.6		2.7	8.5										
	0.3	346.3	19.8	19.8	32.4		8.3		100.7		7.6		2.5	8.1										
E9	Cloudy	Calm	04:49	19.3	S	0.6	316.7	19.8	19.8	32.4	32.4	8.3	8.3	100.2	100.2	7.6	7.6	7.6	2.8	2.9	2.7	10.1	8.5	
						1.1	59.5	19.8		19.8		32.4		8.3		100.1			7.6			3.0		10.7
						0.3	346.3	19.8		19.8		32.4		8.3		100.7			7.6			2.5		8.1

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
																										Value	Average	Value
F3	Cloudy	Calm	04:13	17.9	S	0.5	280.9	19.8	19.8	32.3	32.3	8.3	8.3	101.3	101.3	7.6	7.6	7.6	2.8	2.8	7.2	7.4	9.5	<0.001				
						0.4	156.5	19.8	19.8	32.3	32.3	8.3	8.3	101.3	101.3	7.6	7.6	7.6	2.7	2.7	7.6	7.4	7.6	7.4	<0.001			
						0.8	336.2	19.8	19.8	32.3	32.3	8.3	8.3	100.7	100.7	7.6	7.6	7.6	2.7	2.7	7.6	7.4	9.6	9.8	<0.001			
					M	0.9	196.7	19.8	19.8	32.3	32.3	8.3	8.3	100.7	100.7	7.6	7.6	7.6	2.7	2.7	7.6	7.4	9.9	9.8	9.5	<0.001		
						1.2	82.0	19.8	19.8	32.3	32.3	8.3	8.3	100.2	100.2	7.6	7.6	7.6	3.4	3.6	7.6	7.4	11.2	11.4	9.5	<0.001		
						0.3	96.4	19.8	19.8	32.3	32.3	8.3	8.3	100.2	100.2	7.6	7.6	7.6	3.7	3.6	7.6	7.4	11.5	11.4	9.5	<0.001		
F4	Cloudy	Calm	03:14	13.3	S	1.4	36.8	20.2	20.2	32.3	32.3	8.1	8.1	95.8	95.8	7.2	7.2	7.2	7.7	7.8	9.6	9.9	11.3	<0.001				
						1.4	36.8	20.2	20.2	32.3	32.3	8.1	8.1	95.8	95.8	7.2	7.2	7.2	7.7	7.8	9.6	9.9	11.3	11.3	<0.001			
						0.6	118.6	20.2	20.2	32.3	32.3	8.1	8.1	95.4	95.4	7.1	7.1	7.1	7.6	7.7	7.7	7.7	11.7	11.5	11.3	<0.001		
					M	0.3	163.0	20.2	20.2	32.3	32.3	8.1	8.1	95.4	95.4	7.1	7.1	7.1	7.7	7.7	7.1	7.7	11.3	11.3	11.3	11.3	<0.001	
						0.6	174.4	20.2	20.2	32.3	32.3	8.1	8.1	95.4	95.3	7.1	7.1	7.1	9.8	10.0	7.1	9.8	12.4	12.6	11.3	11.3	<0.001	
						0.6	112.9	20.2	20.2	32.3	32.3	8.1	8.1	95.1	95.1	7.1	7.1	7.1	10.1	10.1	7.1	10.1	12.7	12.6	11.3	11.3	<0.001	
F5	Cloudy	Moderate	05:51	6.1	S	0.5	208.0	19.6	19.6	31.4	31.4	8.0	8.0	96.8	96.8	7.4	7.4	7.4	3.2	3.2	6.2	6.4	7.3	<0.001				
						0.5	212.0	19.6	19.6	31.4	31.4	8.0	8.0	96.8	96.8	7.4	7.4	7.4	3.2	3.2	6.5	6.4	6.5	6.4	7.3	<0.001		
						0.4	209.0	19.6	19.6	31.4	31.4	8.0	8.0	96.8	96.9	7.4	7.4	7.4	3.4	3.5	6.9	6.7	6.9	6.7	7.3	<0.001		
					M	0.4	229.0	19.6	19.6	31.5	31.4	8.0	8.0	96.9	96.9	7.4	7.4	7.4	3.5	3.5	6.4	6.7	6.4	6.7	7.3	<0.001		
						0.3	208.0	19.6	19.6	31.6	31.6	8.0	8.0	97.9	97.9	7.4	7.4	7.4	4.2	4.2	8.7	8.9	4.2	4.2	7.3	<0.001		
						0.3	223.0	19.6	19.6	31.6	31.6	8.0	8.0	98.4	98.2	7.5	7.5	7.5	4.3	4.3	9.0	8.9	4.3	4.3	7.3	<0.001		
F6	Fine	Moderate	02:36	12.8	S	0.1	103.0	20.0	20.0	30.4	30.4	7.9	7.9	93.6	93.6	7.1	7.1	7.1	3.6	3.6	7.5	7.6	8.2	<0.001				
						0.1	108.0	20.0	20.0	30.4	30.4	7.9	7.9	93.6	93.6	7.1	7.1	7.1	3.6	3.6	7.7	7.6	7.7	7.6	8.2	<0.001		
						0.2	118.0	20.0	20.0	30.5	30.5	7.9	7.9	93.1	93.1	7.1	7.1	7.1	4.1	4.0	7.7	8.0	4.1	4.0	8.2	<0.001		
					M	0.2	129.0	20.0	20.0	30.5	30.5	7.9	7.9	93.1	93.1	7.1	7.1	7.1	4.0	4.0	7.7	8.0	4.0	4.0	8.2	<0.001		
						0.3	124.0	20.2	20.2	31.2	31.2	7.8	7.8	89.2	89.4	6.7	6.7	6.7	3.5	3.5	9.2	9.2	3.5	3.5	9.2	9.2	8.2	<0.001
						0.3	134.0	20.2	20.2	31.2	31.2	7.8	7.8	89.5	89.5	6.8	6.8	6.8	3.6	3.5	9.1	9.2	3.6	3.5	9.1	9.2	8.2	<0.001
IM1	Cloudy	Calm	05:37	9.8	S	0.3	71.1	20.1	20.1	32.4	32.4	8.2	8.2	96.4	96.7	7.2	7.3	7.2	4.0	3.9	4.8	5.0	6.6	<0.001				
						0.7	176.2	20.1	20.1	32.4	32.4	8.2	8.2	97.0	97.0	7.3	7.3	7.3	3.8	3.9	5.2	5.0	5.2	5.0	6.6	<0.001		
						1.9	234.0	20.0	20.0	32.4	32.4	8.2	8.2	96.4	96.4	7.2	7.2	7.2	5.1	5.2	6.2	6.5	5.1	5.2	6.6	<0.001		
					M	1.9	234.0	20.0	20.0	32.4	32.4	8.2	8.2	96.4	96.4	7.2	7.2	7.2	5.3	5.2	6.8	6.5	5.3	5.2	6.8	6.5	6.6	<0.001
						0.8	89.4	20.0	20.0	32.4	32.4	8.2	8.2	96.7	96.7	7.3	7.3	7.3	5.3	5.5	8.0	8.2	5.3	5.5	8.0	8.2	6.6	<0.001
						0.2	49.5	20.0	20.0	32.4	32.4	8.2	8.2	96.3	96.5	7.2	7.2	7.2	5.6	5.5	8.3	8.2	5.6	5.5	8.3	8.2	6.6	<0.001
IM2	Cloudy	Calm	05:57	11.3	S	0.3	58.0	20.3	20.3	32.1	32.1	8.1	8.1	89.6	89.7	6.7	6.7	6.7	3.4	3.4	7.6	7.5	6.3	<0.001				
						0.3	58.0	20.3	20.3	32.1	32.1	8.1	8.1	89.7	89.7	6.7	6.7	6.7	3.3	3.4	7.3	7.5	7.3	7.5	6.3	<0.001		
						1.2	130.5	20.4	20.4	32.1	32.1	8.1	8.1	90.4	90.0	6.8	6.7	6.7	3.7	3.7	6.3	6.3	3.7	3.7	6.3	6.3	6.3	<0.001
					M	0.6	123.9	20.4	20.4	32.1	32.1	8.1	8.1	89.6	89.6	6.7	6.7	6.7	3.7	3.7	6.3	6.3	6.3	6.3	6.3	6.3	6.3	<0.001
						0.2	121.5	20.2	20.2	32.3	32.3	8.2	8.2	93.5	93.7	7.0	7.0	7.0	4.1	4.1	5.2	5.1	5.2	5.1	5.2	5.1	6.3	<0.001
						0.5	31.9	20.3	20.3	32.3	32.3	8.2	8.2	93.9	93.9	7.0	7.0	7.0	4.0	4.1	5.0	5.1	4.0	4.1	5.0	5.1	6.3	<0.001
IM3	Cloudy	Calm	02:02	15.3	S	1.0	291.7	20.1	20.1	32.2	32.2	7.9	7.9	95.4	95.4	7.2	7.2	7.2	7.2	7.3	8.8	8.6	12.6	<0.001				
						1.0	291.7	20.1	20.1	32.2	32.2	7.9	7.9	95.4	95.4	7.2	7.2	7.2	7.3	7.3	8.3	8.6	8.3	8.6	12.6	<0.001		
						0.4	19.5	20.1	20.1	32.2	32.2	7.9	7.9	95.6	95.6	7.2	7.2	7.2	5.9	6.0	9.7	9.5	5.9	6.0	9.7	9.5	12.6	<0.001
					M	0.4	50.3	20.1	20.1	32.2	32.2	7.9	7.9	95.5	95.6	7.2	7.2	7.2	6.1	6.0	9.2	9.5	6.1	6.0	9.2	9.5	12.6	<0.001
						0.2	125.5	20.0	20.0	32.3	32.3	7.9	7.9	95.7	95.7	7.2	7.2	7.2	17.4	16.9	20.4	19.9	17.4	16.9	20.4	19.9	12.6	<0.001
						0.4	304.7	20.0	20.0	32.3	32.3	7.9	7.9	95.7	95.7	7.2	7.2	7.2	16.4	16.9	19.3	19.9	16.4	16.9	19.3	19.9	12.6	<0.001
IM4	Cloudy	Calm	02:24	17.2	S	0.9	60.5	20.2	20.2	32.3	32.3	8.0	8.0	95.2	95.0	7.1	7.1	7.1	7.5	7.3	11.5	11.3	19.5	<0.001				
						0.5	121.1	20.2	20.2	32.3	32.3	8.0	8.0	94.8	95.0	7.1	7.1	7.1	7.0	7.3	11.0	11.3	7.0	7.3	11.0	11.3	19.5	<0.001
						0.1	153.1	20.1	20.1	32.3	32.3	8.1	8.1	95.2	95.3	7.1	7.1	7.1	12.0	12.1	20.5	20.9	12.0	12.1	20.5	20.9	19.5	<0.001
					M	0.5	341.7	20.1	20.1	32.3	32.3	8.1	8.1	95.3	95.3	7.2	7.1	7.1	12.1	12.1	21.2	20.9	12.1	12.1	21.2	20.9	19.5	<0.001
						0.4	322.8	20.1	20.1	32.3	32.3	8.0	8.0	95.3	95.3	7.2	7.1	7.1	14.0	14.6	26.7	26.3	14.0	14.6	26.7	26.3	19.5	<0.001
						0.4	5.4	20.1	20.1	32.3	32.3	8.0	8.0	95.1	95.2	7.1	7.1	7.1	15.1	14.6	25.9	26.3	15.1	14.6	25.9	26.3	19.5	<0.001
IM5	Cloudy	Calm	03:42	15.2	S	0.2	142.0	20.1	20.1	32.3	32.3	8.2	8.2	95.8	95.8	7.2	7.2	7.2	5.5	5.5	10.6	10.7	10.0	<0.001				
						0.5	309.9	20.1	20.1	32.3	32.3	8.2	8.2	95.8	95.8	7.2	7.2	7.2	5.5	5.5	10.8	10.7	5.5	5.5	10.8	10.7	10.0	<0.001
						0.5	74.0	20.1	20.1	32.3	32.3	8.2	8.2	95.6	95.6	7.2	7.2	7.2	5.4	5.6	9.7	9.7	5.4	5.6	9.7	9.7	10.0	<0.001
					M	0.6	120.6	20.1	20.1	32.3	32.3	8.2	8.2	95.5	95.6													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*					
IM6	Cloudy	Calm	03:58	16.3	S	0.5	199.4	19.8	19.8	32.4	32.4	8.3	8.3	100.5	100.5	7.6	7.6	7.6	4.1	4.0	7.6	6.5	6.5	8.0	<0.001					
						0.2	26.2	19.8		32.4	32.4	8.3		100.5		7.6			3.9			6.5								
						0.4	243.8	19.8		32.4	32.4	8.3		100.0		7.5			4.1			7.0								
					M	0.2	55.8	19.8	32.4	32.4	8.3	100.0	7.5	4.6	7.4	4.4	4.5	7.7	7.4	7.4	7.7									
						B	0.3	46.8	19.8	32.4	32.4	8.2	99.8	7.5	7.5	7.5	7.5	4.9	5.0	9.7	10.2	9.7								
							0.3	110.8	19.8	32.4	32.4	8.3	99.6	7.5	5.1	10.7	10.2	10.7	10.2	10.7	10.2									
IM7	Cloudy	Rough	02:43	15.1	S	0.1	228.0	19.5	19.5	33.7	33.7	8.1	8.1	101.3	101.3	7.6	7.6	7.6	3.1	3.0	7.6	8.6	8.3	6.9	<0.001					
						0.1	245.0	19.5		33.7	33.7	8.1		101.3		7.6			3.0			8.0								
					M	0.1	173.0	19.5	33.7	33.7	8.1	101.1	7.6	3.0	7.0	3.0	3.0	7.7	7.4	7.7										
						0.1	186.0	19.5	33.7	33.7	8.1	101.1	7.6	3.1	4.8	5.0	4.8	5.0	4.8											
					B	0.1	242.0	19.5	33.7	33.7	8.1	100.9	7.6	2.9	5.1	2.9	2.9	5.1	5.0	5.1										
						0.1	258.0	19.5	33.7	33.7	8.1	100.9	7.6	2.9	5.1	2.9	2.9	5.1	5.0	5.1										
IM8	Cloudy	Rough	02:54	13.3	S	0.2	243.0	19.4	19.4	33.7	33.7	8.2	8.2	101.4	101.4	7.6	7.6	7.6	3.1	3.1	7.6	4.0	4.3	5.0	<0.001					
						0.2	253.0	19.4		33.7	33.7	8.2		101.4		7.6			3.0			4.5								
					M	0.2	275.0	19.4	33.7	33.7	8.2	101.2	7.6	3.1	4.4	3.1	3.1	4.4	4.7	4.4										
						0.2	283.0	19.4	33.7	33.7	8.2	101.2	7.6	3.2	4.9	3.1	3.1	4.9	4.7	4.9										
					B	0.0	39.0	19.4	33.7	33.7	8.1	101.1	7.6	3.0	5.9	3.0	3.0	5.9	6.2	3.0										
						0.0	39.0	19.4	33.7	33.7	8.1	101.1	7.6	3.0	6.5	3.0	3.0	6.5	6.2	3.0										
IM9	Cloudy	Rough	03:16	15.3	S	0.2	223.0	19.6	19.6	33.7	33.7	8.1	8.1	98.0	98.0	7.4	7.4	7.4	4.7	4.7	7.4	6.3	6.7	7.6	<0.001					
						0.2	242.0	19.6		33.7	33.7	8.1		98.0		7.4			4.7			7.0								
					M	0.1	179.0	19.6	33.7	33.7	8.1	98.0	7.4	4.8	7.3	4.8	4.8	7.4	7.4	7.3										
						0.1	192.0	19.6	33.7	33.7	8.1	98.0	7.4	4.8	7.4	4.8	4.8	7.4	7.4	7.4										
					B	0.2	143.0	19.5	33.7	33.7	8.1	98.8	7.4	5.7	8.9	5.7	5.7	8.9	8.7	5.7										
						0.2	153.0	19.5	33.7	33.7	8.1	98.9	7.4	5.6	8.5	5.7	5.7	8.5	8.7	5.6										
IM10	Cloudy	Rough	04:06	10.2	S	0.4	103.0	19.8	19.8	33.3	33.3	8.1	8.1	97.1	97.1	7.3	7.3	7.3	4.7	4.7	7.3	6.2	6.3	7.3	<0.001					
						0.4	103.0	19.8		33.3	33.3	8.1		97.1		7.3			4.7			6.3								
					M	0.4	96.0	19.8	33.4	33.4	8.1	96.7	7.3	4.9	7.2	5.0	5.0	7.2	7.1	7.2										
						0.4	99.0	19.8	33.4	33.4	8.1	96.7	7.2	5.0	7.0	5.0	5.0	7.0	7.1	7.0										
					B	0.5	86.0	19.9	33.6	33.6	8.0	97.4	7.3	8.8	8.7	7.1	7.3	7.1	8.8	8.7	7.1									
						0.5	88.0	19.9	33.6	33.6	8.0	97.6	7.3	7.5	8.5	7.3	7.3	7.5	8.7	7.5										
IM11A	Cloudy	Rough	04:21	5.4	S	0.6	164.0	20.0	20.0	33.5	33.5	8.1	8.1	96.1	96.1	7.2	7.2	7.2	10.6	10.7	7.2	16.2	16.7	21.8	<0.001					
						0.7	169.0	20.0		33.5	33.5	8.1		96.1		7.2			10.7			17.1								
					B	0.5	142.0	20.0	33.5	33.5	8.1	96.7	7.2	9.3	27.0	8.9	8.9	27.0	27.0	9.3										
						0.5	151.0	20.0	33.5	33.5	8.1	96.8	7.2	8.5	26.2	8.9	8.9	26.2	27.0	8.5										
					IM12	Cloudy	Moderate	04:34	15.4	S	0.9	183.0	19.9	19.9	33.1	33.1	8.1	8.1	96.8	96.8	7.3	7.3	7.3	3.4	3.4	7.3	5.6	6.0	7.5	<0.001
											1.0	188.0	19.9		33.1	33.1	8.1		96.8		7.3			3.3			6.3			
M	0.6	168.0	20.0	33.5						33.5	8.1	96.3	7.2	8.1	7.1	8.2	8.1	7.1	7.2	7.1	8.1									
	0.6	179.0	20.0	33.5						33.5	8.1	96.3	7.2	8.3	7.0	9.5	8.3	7.0	9.5	7.0										
B	0.6	163.0	20.0	33.5						33.5	8.1	96.5	7.2	9.1	9.5	12.9	12.9	9.1	9.5	9.1										
	0.6	177.0	20.0	33.5						33.5	8.1	96.6	7.2	12.8	9.9	12.9	12.8	9.9	9.9	12.8										
IM13	Cloudy	Moderate	05:04	15.9	S	0.7	197.0	19.7	19.7	32.6	32.6	8.1	8.1	97.8	97.8	7.4	7.4	7.3	2.5	2.5	7.3	4.3	4.5	5.7	<0.001					
						0.7	198.0	19.7		32.6	32.6	8.1		97.8		7.4			2.5			4.7								
					M	0.7	190.0	19.9	33.2	33.2	8.1	96.4	7.2	5.5	5.2	5.4	5.4	5.5	5.2	5.5										
						0.7	192.0	19.9	33.2	33.2	8.1	96.4	7.2	5.4	5.1	5.4	5.4	5.1	5.4											
					B	0.5	192.0	19.9	33.3	33.3	8.1	97.5	7.3	8.8	7.4	8.8	8.8	8.8	7.4	8.8										
						0.5	209.0	19.9	33.3	33.3	8.1	97.8	7.3	8.7	7.5	8.8	8.8	7.5	8.8											
IM14	Cloudy	Moderate	05:16	11.0	S	0.8	226.0	19.7	19.7	32.7	32.7	8.1	8.1	96.9	96.9	7.3	7.3	7.3	2.7	2.7	7.3	3.8	4.0	5.4	<0.001					
						0.9	234.0	19.7		32.7	32.7	8.1		96.8		7.3			2.7			4.2								
					M	0.7	225.0	19.9	33.1	33.1	8.1	96.5	7.2	4.8	4.6	5.7	5.7	4.8	4.6	5.7										
						0.8	237.0	19.9	33.1	33.1	8.1	96.5	7.2	4.3	4.6	5.7	5.7	4.3	4.6	5.7										
					B	0.6	223.0	19.9	33.2	33.2	8.1	97.0	7.3	7.2	7.6	14.7	14.6	7.2	7.6	14.7										
						0.6	241.0	19.9	33.2	33.2	8.1	97.1	7.3	7.9	7.6	14.6	14.6	7.9	7.6	14.6										

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value
IM15	Fine	Moderate	05:29	6.3	S	0.6	201.0	19.6	19.6	31.0	31.0	8.0	8.0	96.4	96.4	7.4	7.4	7.4	4.3	4.3	7.8	7.5	9.3
						0.6	215.0	19.6	19.6	31.0	31.0	8.0	8.0	96.4	96.4	7.4	7.4	7.4	4.3	4.3	7.2	7.5	
						0.5	203.0	19.6	19.6	31.1	31.1	8.0	8.0	96.5	96.5	7.4	7.4	7.4	5.5	5.5	9.8	9.5	
					M	0.5	209.0	19.6	19.6	31.1	31.1	8.0	8.0	96.5	96.5	7.4	7.4	7.4	5.5	5.5	9.1	9.5	
						0.5	206.0	19.6	19.6	31.1	31.1	8.0	8.0	97.0	97.1	7.4	7.4	7.4	6.6	6.6	10.8	10.9	
						0.5	216.0	19.6	19.6	31.1	31.1	8.0	8.0	97.2	97.2	7.4	7.4	7.4	6.7	6.6	10.9	10.9	
IM16A	Fine	Moderate	05:07	6.6	S	0.4	175.0	19.8	19.8	30.3	30.3	7.9	7.9	93.2	93.2	7.1	7.1	7.1	4.4	4.5	5.2	5.5	6.7
						0.4	187.0	19.8	19.8	30.3	30.3	7.9	7.9	93.1	93.1	7.1	7.1	7.1	4.6	4.5	5.7	5.5	
						0.3	173.0	19.9	19.9	30.4	30.4	7.9	7.9	93.1	93.1	7.1	7.1	7.1	5.1	5.1	6.2	6.2	
					M	0.4	177.0	19.9	19.9	30.4	30.4	7.9	7.9	93.1	93.1	7.1	7.1	7.1	5.1	5.1	6.2	6.2	
						0.3	172.0	19.9	19.9	30.4	30.4	7.8	7.8	93.2	93.3	7.1	7.1	7.1	5.8	5.8	8.4	8.3	
						0.3	177.0	19.9	19.9	30.4	30.4	7.8	7.8	93.3	93.3	7.1	7.1	7.1	5.7	5.7	8.2	8.3	
IM17	Fine	Moderate	04:48	5.8	S	0.3	152.0	19.9	19.9	29.7	29.7	7.9	7.9	92.7	92.7	7.1	7.1	7.1	5.3	5.3	7.6	7.6	7.5
						0.4	158.0	19.9	19.9	29.7	29.7	7.9	7.9	92.7	92.7	7.1	7.1	7.1	5.3	5.3	7.5	7.6	
						0.3	156.0	19.9	19.9	29.7	29.7	7.8	7.8	93.0	93.1	7.1	7.1	7.1	9.0	9.0	7.4	7.4	
					B	0.4	157.0	19.9	19.9	29.7	29.7	7.8	7.8	93.1	93.1	7.1	7.1	7.1	8.7	8.8	7.3	7.4	
						0.2	137.0	20.0	20.0	30.1	30.1	7.8	7.8	91.9	91.9	7.0	7.0	7.0	4.1	4.1	4.8	5.1	
						0.2	145.0	20.0	20.0	30.1	30.1	7.8	7.8	91.8	91.9	7.0	7.0	7.0	4.0	4.0	5.4	5.1	
IM18	Fine	Moderate	03:01	18.4	M	0.2	150.0	20.2	20.2	31.0	31.0	7.8	7.8	88.7	88.7	6.7	6.7	6.6	4.1	4.0	6.7	6.7	6.7
						0.2	153.0	20.2	20.2	31.0	31.0	7.8	7.8	88.8	88.8	6.7	6.7	6.6	4.0	4.0	6.7	6.7	
						0.2	164.0	20.2	20.2	31.1	31.1	7.8	7.8	87.4	87.4	6.6	6.6	6.6	4.5	4.5	8.2	8.4	
					B	0.2	179.0	20.2	20.2	31.1	31.1	7.8	7.8	87.5	87.5	6.6	6.6	6.6	4.4	4.4	8.5	8.4	
						0.2	136.0	20.2	20.2	30.5	30.5	7.9	7.9	90.7	90.7	6.9	6.9	6.9	3.0	2.9	6.2	6.1	
						0.2	147.0	20.2	20.2	30.5	30.5	7.9	7.9	90.6	90.6	6.9	6.9	6.9	2.9	2.9	5.9	6.1	
IM19	Fine	Moderate	03:15	16.8	M	0.2	141.0	20.3	20.3	30.7	30.7	7.8	7.8	89.4	89.4	6.7	6.7	6.7	3.0	3.0	5.4	5.1	5.2
						0.2	150.0	20.3	20.3	30.7	30.7	7.8	7.8	89.4	89.4	6.7	6.7	6.7	3.0	3.0	4.8	5.1	
						0.3	161.0	20.4	20.4	30.9	30.9	7.8	7.8	88.5	88.5	6.7	6.7	6.7	3.3	3.4	4.4	4.3	
					B	0.3	163.0	20.4	20.4	30.9	30.9	7.8	7.8	88.6	88.6	6.7	6.7	6.7	3.4	3.4	4.2	4.3	
						0.4	244.0	20.5	20.5	29.8	29.8	7.8	7.8	87.7	87.7	6.6	6.6	6.6	6.1	6.0	11.5	11.7	
						0.4	259.0	20.5	20.5	29.8	29.8	7.8	7.8	87.9	87.9	6.6	6.6	6.6	5.9	6.0	11.8	11.7	
IM20A	Fine	Calm	03:48	5.3	B	0.3	231.0	20.6	20.6	30.4	30.4	7.8	7.8	89.5	89.5	6.7	6.7	6.7	3.5	3.5	8.8	9.2	10.4
						0.3	244.0	20.6	20.6	30.4	30.4	7.8	7.8	89.6	89.6	6.7	6.7	6.7	3.5	3.5	9.5	9.2	
						0.2	213.0	20.5	20.5	30.6	30.6	7.8	7.8	88.7	88.7	6.7	6.7	6.7	3.5	3.5	6.6	6.1	
					S	0.2	232.0	20.5	20.5	30.6	30.6	7.8	7.8	88.8	88.8	6.7	6.7	6.7	3.5	3.5	5.5	5.7	
						0.2	202.0	20.5	20.5	30.6	30.6	7.8	7.8	89.0	89.1	6.7	6.7	6.7	3.7	3.7	5.4	5.4	
						0.2	215.0	20.5	20.5	30.6	30.6	7.8	7.8	89.1	89.1	6.7	6.7	6.7	3.7	3.7	5.4	5.4	
IM21A	Fine	Calm	03:36	5.6	S	0.3	216.0	21.2	21.2	30.6	30.6	7.8	7.8	93.2	93.2	6.9	6.9	6.9	4.2	4.2	5.8	5.5	6.5
						0.3	216.0	21.2	21.2	30.6	30.6	7.8	7.8	93.1	93.1	6.9	6.9	6.9	4.2	4.2	5.2	5.5	
						0.3	222.0	21.1	21.1	30.6	30.6	7.8	7.8	92.8	92.9	6.9	6.9	6.9	4.3	4.3	7.8	7.5	
					B	0.3	222.0	21.1	21.1	30.6	30.6	7.8	7.8	92.8	92.9	6.9	6.9	6.9	4.3	4.3	7.8	7.5	
						0.3	242.0	21.1	21.1	30.6	30.6	7.8	7.8	92.9	92.9	6.9	6.9	6.9	4.3	4.3	7.2	7.5	
						0.3	242.0	21.1	21.1	30.6	30.6	7.8	7.8	92.9	92.9	6.9	6.9	6.9	4.3	4.3	7.2	7.5	

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
E1	Fine	Calm	09:57	8.3	S	0.8	220.6	20.3	20.3	32.0	32.0	7.8	7.8	84.7	84.7	6.3	6.3	6.3	6.3	3.6	3.4	3.8	9.6	8.0	
						0.4	13.8	20.3		32.0	32.0	7.8		84.6	84.7	6.3		3.2		8.3					
						0.4	287.8	20.3		32.0	32.0	7.8		84.5	84.5	6.3		3.6		10.3					
					M	0.7	257.7	20.3	32.0	32.0	7.8	84.4	84.4	6.3	6.3	3.6	10.1	10.2							
						B	0.5	109.3	20.3	32.0	32.0	7.8	84.9	84.7	6.4	6.3	4.3	10.4	10.5						
							0.4	43.1	20.3	32.0	32.0	7.8	84.5	84.5	6.3	6.3	4.2	10.6							
E2	Fine	Calm	13:08	8.3	S	0.6	317.8	20.3	20.3	32.4	32.4	8.1	8.1	95.3	95.4	7.1	7.1	7.1	7.1	5.1	5.0	5.0	14.6	<0.001	
						0.6	317.8	20.3		32.4	32.4	8.1		95.5	95.4	7.1		4.9		9.5					
						0.4	199.0	20.2		32.4	32.4	8.1		94.4	94.6	7.1		6.7		11.4					
					M	0.4	199.0	20.2	32.4	32.4	8.1	94.7	94.6	7.1	7.1	6.1	11.1	11.3							
						B	0.4	349.8	20.2	32.4	32.4	8.1	94.0	93.8	7.0	7.0	14.4	23.3	23.1						
							0.3	181.5	20.2	32.4	32.4	8.1	93.5	93.8	7.0	7.0	15.0	22.9							
E3	Cloudy	Rough	11:55	16.3	S	0.2	26.0	19.7	19.7	30.8	30.8	8.1	8.1	98.2	98.2	7.5	7.4	7.5	7.5	3.2	3.2	3.2	9.0	8.0	
						0.2	27.0	19.7		30.8	30.8	8.1		98.2	98.2	7.5		3.2		8.6					
						0.3	335.0	19.8		32.4	32.4	8.1		97.3	97.3	7.3		3.5		8.9					
					M	0.3	355.0	19.8	32.4	32.4	8.1	97.2	97.3	7.3	7.3	3.6	9.0	9.0							
						B	0.5	323.0	19.9	33.4	33.4	8.1	96.6	96.6	7.2	7.2	9.9	10.0	9.8						
							0.5	326.0	19.9	33.4	33.4	8.1	96.6	96.6	7.2	7.2	9.2	9.6							
E4	Cloudy	Moderate	10:24	11.1	S	0.2	28.0	19.8	19.8	32.8	32.8	8.1	8.1	96.1	96.1	7.2	7.2	7.2	7.2	4.2	4.2	4.2	6.9	5.9	
						0.2	28.0	19.8		32.8	32.8	8.1		96.1	96.1	7.2		4.2		6.3					
						0.2	12.0	19.8		32.8	32.8	8.1		95.8	95.8	7.2		4.8		7.1					
					M	0.3	13.0	19.8	32.8	32.8	8.1	95.8	95.8	7.2	7.2	4.8	6.8	7.0							
						B	0.3	11.0	19.8	32.9	32.9	8.1	96.1	96.2	7.2	7.2	8.8	7.7	7.8						
							0.3	11.0	19.8	32.9	32.9	8.1	96.2	96.2	7.2	7.2	8.9	7.8							
E5	Cloudy	Moderate	10:36	5.6	S	0.1	303.0	19.9	19.9	29.9	29.9	7.9	7.9	92.3	92.4	7.0	7.0	7.0	7.0	8.1	8.1	8.1	13.4	12.3	
						0.1	328.0	19.9		29.9	29.9	7.9		92.4	92.4	7.1		7.1		8.1		12.5			
						0.2	334.0	19.9		30.2	30.2	7.9		93.8	94.1	7.2		7.2		8.9		14.2			
					B	0.2	355.0	19.9	30.2	30.2	7.9	94.3	94.1	7.2	7.2	9.0	14.4	14.3							
						S	0.2	341.0	20.2	26.4	26.4	7.8	91.4	91.4	7.1	7.1	3.3	4.4	4.5						
							0.2	356.0	20.2	26.4	26.4	7.8	91.4	91.4	7.1	7.1	3.3	4.6							
B	0.3	342.0	20.2	27.8	27.8	7.8	93.6	93.8	7.2	7.2	5.5	7.6	7.5												
	0.3	3.0	20.2	27.8	27.8	7.8	94.0	93.8	7.2	7.2	5.5	7.4													
	0.3	14.0	20.0	28.2	28.3	7.8	90.6	90.6	7.0	7.0	4.9	5.6													
E7A	Cloudy	Moderate	11:53	4.5	S	0.4	14.0	20.0	20.0	28.4	28.3	7.8	7.8	90.5	90.6	7.0	7.0	7.0	7.0	5.4	5.1	5.1	6.3	5.8	
						0.3	12.0	20.1		29.1	29.1	7.8		90.7	90.8	6.9		6.9		7.9		7.0			
						0.3	12.0	20.1		29.1	29.1	7.8		90.9	90.8	7.0		7.0		7.7		6.8			
					B	0.4	268.4	20.1	32.4	32.4	8.1	96.6	96.8	7.3	7.3	3.8	5.3	5.3							
						0.4	268.4	20.1	32.4	32.4	8.1	96.9	96.8	7.3	7.2	3.6	5.2								
						0.4	152.6	20.0	32.4	32.4	8.1	95.0	95.0	7.1	7.1	5.4	8.5								
M	0.4	152.6	20.0	32.4	32.4	8.1	95.0	95.0	7.1	7.1	5.3	8.9	8.7												
	B	0.4	93.2	20.0	32.4	32.4	8.1	95.3	95.3	7.2	7.2	6.4		10.3	10.5										
		0.8	95.9	20.0	32.4	32.4	8.1	95.2	95.3	7.2	7.2	7.4		10.6											
F1	Fine	Calm	10:46	20.0	S	0.3	190.7	19.8	19.8	32.4	32.4	8.1	8.1	100.6	100.7	7.6	7.6	7.6	7.6	2.1	2.1	2.1	7.8	4.8	
						0.5	288.8	19.8		32.4	32.4	8.1		100.8	100.7	7.6		2.1		5.2					
						0.6	284.7	19.8		32.4	32.4	8.1		99.9	100.0	7.5		2.4		6.8					
					M	0.4	11.9	19.8	32.4	32.4	8.1	100.0	100.0	7.5	7.5	2.3	6.5	6.7							
						B	0.4	299.2	19.8	32.4	32.4	8.1	100.2	99.6	7.6	7.5	6.6		11.7	11.9					
							1.0	36.8	19.8	32.4	32.4	8.1	99.0	99.6	7.5	7.5	7.4		12.0						
F2	Fine	Calm	11:14	19.0	S	0.3	190.7	19.8	19.8	32.4	32.4	8.1	8.1	100.6	100.7	7.6	7.6	7.6	7.6	2.1	2.1	2.1	7.8	4.8	
						0.5	288.8	19.8		32.4	32.4	8.1		100.8	100.7	7.6		2.1		5.2					
						0.6	284.7	19.8		32.4	32.4	8.1		99.9	100.0	7.5		2.4		6.8					
					M	0.4	11.9	19.8	32.4	32.4	8.1	100.0	100.0	7.5	7.5	2.3	6.5	6.7							
						B	0.4	299.2	19.8	32.4	32.4	8.1	100.2	99.6	7.6	7.5	6.6		11.7	11.9					
							1.0	36.8	19.8	32.4	32.4	8.1	99.0	99.6	7.5	7.5	7.4		12.0						

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Fine	Calm	11:49	17.3	S	0.6	273.1	19.9	19.9	32.5	32.5	8.1	8.1	97.8	97.9	7.4	7.4	7.3	4.1	4.2	4.6	10.2	10.6	<0.001	
						0.3	98.7	19.9	19.9	32.5	32.5	8.1	8.1	97.9	97.9	7.4	7.4	7.3	4.2	4.2	4.6	10.9	10.6	<0.001	
						0.5	243.8	19.9	19.9	32.5	32.5	8.1	8.1	97.1	97.2	7.3	7.3	7.3	4.4	4.5	4.6	11.3	11.5	<0.001	
					M	0.5	243.8	19.9	19.9	32.5	32.5	8.1	8.1	97.2	97.2	7.3	7.3	7.3	4.6	4.5	4.6	11.6	11.5	11.4	<0.001
						0.2	348.2	19.9	19.9	32.5	32.5	8.1	8.1	96.7	96.7	7.3	7.3	7.3	5.5	5.1	5.1	11.9	12.2	11.4	<0.001
						0.2	107.0	19.9	19.9	32.5	32.5	8.1	8.1	96.7	96.7	7.3	7.3	7.3	4.7	5.1	5.1	12.4	12.2	11.4	<0.001
F4	Fine	Calm	12:42	13.1	S	0.3	278.8	20.3	20.3	32.5	32.5	8.1	8.1	94.6	94.6	7.1	7.1	7.0	7.4	7.4	7.4	13.7	13.8	25.1	
						0.6	290.7	20.3	20.3	32.5	32.5	8.1	8.1	94.6	94.6	7.1	7.1	7.0	7.4	7.4	7.4	13.8	13.8	25.1	
						1.0	303.8	20.3	20.3	32.5	32.5	8.1	8.1	93.9	93.9	7.0	7.0	7.0	12.1	11.4	11.4	20.9	21.1	25.1	
					M	0.6	71.4	20.3	20.3	32.5	32.5	8.1	8.1	93.9	93.9	7.0	7.0	7.0	10.7	11.4	11.4	21.3	21.1	25.1	
						0.5	322.4	20.3	20.3	32.5	32.5	8.0	8.0	93.6	93.6	7.0	7.0	7.0	27.6	25.9	25.9	40.9	40.5	25.1	
						0.2	224.1	20.3	20.3	32.5	32.5	8.1	8.1	93.5	93.5	7.0	7.0	7.0	24.2	25.9	25.9	40.0	40.5	25.1	
F5	Cloudy	Moderate	10:00	5.4	S	0.1	89.0	19.7	19.7	31.0	31.0	8.0	8.0	95.3	95.3	7.3	7.3	7.3	7.9	8.1	8.1	11.7	11.5	12.8	
						0.1	95.0	19.7	19.7	31.0	31.0	8.0	8.0	95.3	95.3	7.3	7.3	7.3	8.4	8.1	8.1	11.3	11.5	12.8	
					B	0.2	53.0	19.6	19.6	31.3	31.2	8.0	8.0	95.5	95.6	7.3	7.3	7.3	10.0	10.1	10.1	14.0	14.1	12.8	
						0.2	56.0	19.6	19.6	31.2	31.2	8.0	8.0	95.6	95.6	7.3	7.3	7.3	10.1	10.1	10.1	14.2	14.1	12.8	
F6	Cloudy	Moderate	13:22	14.0	S	0.2	328.0	20.1	20.1	30.4	30.4	7.9	7.9	91.3	91.3	6.9	6.9	6.9	5.2	5.1	5.1	8.8	8.7	11.8	
						0.3	347.0	20.1	20.1	30.4	30.4	7.9	7.9	91.3	91.3	6.9	6.9	6.9	5.0	5.1	5.1	8.5	8.7	11.8	
						0.2	330.0	20.1	20.1	30.4	30.4	7.9	7.9	90.4	90.4	6.9	6.9	6.9	6.4	6.3	6.3	11.1	11.4	11.8	
					M	0.3	354.0	20.1	20.1	30.4	30.4	7.9	7.9	90.3	90.3	6.9	6.9	6.9	6.3	6.3	6.3	11.7	11.4	11.8	
						0.2	324.0	20.2	20.2	31.0	30.9	7.9	7.9	88.4	88.5	6.7	6.7	6.7	13.5	13.3	13.3	15.6	15.5	11.8	
						0.2	350.0	20.2	20.2	30.9	30.9	7.9	7.9	88.5	88.5	6.7	6.7	6.7	13.1	13.3	13.3	15.3	15.5	11.8	
IM1	Fine	Calm	10:28	9.2	S	0.1	278.6	20.3	20.3	32.4	32.4	8.0	8.0	97.6	97.7	7.3	7.3	7.3	3.1	3.1	3.1	6.4	6.3	7.6	
						1.2	59.5	20.3	20.3	32.4	32.4	8.0	8.0	97.7	97.7	7.3	7.3	7.3	3.1	3.1	3.1	6.1	6.3	7.6	
						0.2	266.3	20.3	20.3	32.4	32.4	8.0	8.0	97.1	97.2	7.3	7.3	7.3	4.0	3.8	3.8	7.7	7.5	7.6	
					M	0.2	266.3	20.3	20.3	32.4	32.4	8.0	8.0	97.2	97.2	7.3	7.3	7.3	3.5	3.8	3.8	7.3	7.5	7.6	
						1.2	27.3	20.2	20.2	32.4	32.4	8.0	8.0	97.3	97.0	7.3	7.3	7.3	5.1	5.3	5.3	9.4	9.2	7.6	
						0.0	35.5	20.2	20.2	32.4	32.4	8.0	8.0	96.7	97.0	7.2	7.2	7.3	5.5	5.3	5.3	8.9	9.2	7.6	
IM2	Fine	Calm	10:08	11.1	S	0.4	240.7	20.3	20.3	32.0	32.0	7.8	7.8	84.5	84.0	6.3	6.3	6.4	2.6	2.5	2.5	6.1	5.9	8.8	
						0.4	240.7	20.3	20.3	32.0	32.0	7.8	7.8	83.4	86.7	6.5	6.5	6.5	2.3	2.8	2.8	5.7	5.9	8.8	
						0.3	315.5	20.3	20.3	32.1	32.1	7.9	7.9	87.3	86.0	6.4	6.4	6.5	2.8	2.8	2.8	9.0	8.9	8.8	
					M	0.2	279.9	20.3	20.3	32.0	32.0	7.9	7.9	86.0	86.0	6.4	6.4	6.5	2.7	2.8	2.8	8.8	8.9	8.8	
						0.5	68.3	20.2	20.2	32.2	32.2	7.9	7.9	90.2	90.3	6.8	6.8	6.8	5.3	5.5	5.5	11.1	11.5	8.8	
						0.9	85.0	20.2	20.2	32.2	32.2	7.9	7.9	90.3	90.3	6.8	6.8	6.8	5.6	5.5	5.5	11.9	11.5	8.8	
IM3	Fine	Calm	13:53	15.0	S	0.5	284.4	20.5	20.5	32.2	32.2	8.0	8.0	93.5	93.5	7.0	7.0	7.0	4.7	4.7	4.7	8.5	8.3	14.3	
						0.6	353.1	20.5	20.5	32.2	32.2	8.0	8.0	93.4	93.4	7.0	7.0	7.0	4.6	4.7	4.7	8.0	8.3	14.3	
						0.1	241.0	20.2	20.2	32.3	32.3	8.1	8.1	95.0	94.6	7.1	7.1	7.1	5.7	5.3	5.3	11.2	11.4	14.3	
					M	0.5	191.6	20.2	20.2	32.3	32.3	8.1	8.1	94.1	94.6	7.1	7.1	7.1	4.8	5.3	5.3	11.5	11.4	14.3	
						1.2	61.0	19.9	19.9	32.4	32.4	8.2	8.2	95.8	95.9	7.2	7.2	7.2	16.4	17.1	17.1	23.0	23.3	14.3	
						1.2	61.0	19.9	19.9	32.4	32.4	8.2	8.2	95.9	95.9	7.2	7.2	7.2	17.7	17.1	17.1	23.5	23.3	14.3	
IM4	Fine	Calm	13:33	16.2	S	0.5	234.6	20.3	20.3	32.3	32.3	8.1	8.1	94.9	95.1	7.1	7.1	7.1	4.4	4.3	4.3	9.8	9.7	14.1	
						0.5	234.6	20.4	20.3	32.4	32.3	8.1	8.1	95.3	95.1	7.1	7.1	7.1	4.2	4.3	4.3	9.5	9.7	14.1	
						0.8	293.4	20.1	20.1	32.3	32.3	8.1	8.1	93.4	93.5	7.0	7.0	7.0	8.4	7.8	7.8	11.5	11.3	14.1	
					M	0.2	123.5	20.1	20.1	32.3	32.3	8.1	8.1	93.6	93.5	7.0	7.0	7.0	7.1	7.8	7.8	11.0	11.3	14.1	
						0.2	36.1	20.2	20.2	32.4	32.4	8.1	8.1	92.8	92.7	7.0	6.9	6.9	16.7	16.4	16.4	21.1	21.3	14.1	
						0.4	326.0	20.2	20.2	32.4	32.4	8.1	8.1	92.6	92.7	6.9	6.9	6.9	16.1	16.4	16.4	21.4	21.3	14.1	
IM5	Fine	Calm	12:13	15.0	S	0.4	125.5	20.2	20.2	32.4	32.4	8.1	8.1	95.1	95.1	7.1	7.1	7.1	4.9	4.9	4.9	7.1	7.4	9.4	
						1.2	248.8	20.2	20.2	32.4	32.4	8.1	8.1	95.1	95.1	7.1	7.1	7.1	4.9	4.9	4.9	7.6	7.4	9.4	
						1.1	312.6	20.1	20.1	32.4	32.4	8.1	8.1	94.9	94.9	7.1	7.1	7.1	4.5	4.5	4.5	9.5	9.3	9.4	
					M	0.6	164.9	20.1	20.1	32.4	32.4	8.1	8.1	94.8	94.9	7.1	7.1	7.1	4.4	4.5	4.5	9.1	9.3	9.4	
						0.7	253.3	20.0	20.0	32.4	32.4	8.1	8.1	95.2	95.1	7.2	7.1	7.1	6.8	7.0	7.0	11.7	11.5	9.4	
						0.6	89.4	20.0	20.0	32.4	32.4	8.1	8.1	94.9	95.1	7.1	7.1	7.1	7.2	7.0	7.0	11.3	11.5	9.4	

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*				
IM6	Fine	Calm	12:00	15.3	S	1.1	292.8	20.0	20.0	32.5	32.5	8.1	8.1	96.8	96.9	7.3	7.3	7.3	5.3	5.2	6.5	11.0	11.1	<0.001					
						0.7	321.4	20.0	32.5	32.5	8.1	8.1	96.9	96.9	7.3	7.3	7.3	5.0	5.2	6.5	11.1	11.1	<0.001						
						0.6	306.9	19.9	32.5	32.5	8.1	8.1	96.3	96.3	7.2	7.2	7.2	6.6	6.5	6.5	12.8	12.6	<0.001						
					M	0.2	333.3	19.9	32.5	32.5	8.1	8.1	96.2	96.3	7.2	7.2	7.2	6.4	6.5	6.5	6.5	6.5	6.5	12.4	12.6	<0.001			
						0.4	258.8	19.9	32.5	32.5	8.1	8.1	96.2	96.1	7.2	7.2	7.2	7.5	7.8	7.8	7.8	7.8	7.8	15.0	14.8	<0.001			
						0.7	41.5	19.9	32.5	32.5	8.1	8.1	95.9	96.1	7.2	7.2	7.2	8.0	7.8	7.8	7.8	7.8	7.8	14.6	14.8	<0.001			
IM7	Cloudy	Rough	13:03	14.6	S	0.3	233.0	19.7	19.7	33.7	33.7	8.1	8.1	99.2	99.2	7.4	7.4	7.4	3.2	3.2	3.0	8.8	8.5	<0.001					
						0.3	237.0	19.7	33.7	33.7	8.1	8.1	99.2	99.2	7.4	7.4	7.4	3.2	3.2	3.0	8.2	8.5	8.2	8.2	8.5	<0.001			
						0.3	296.0	19.5	33.7	33.7	8.2	8.2	99.9	100.0	7.5	7.5	7.5	2.6	2.6	2.6	7.9	7.8	7.6	7.6	7.8	7.7			
					M	0.3	314.0	19.5	33.7	33.7	8.2	8.2	100.0	100.0	7.5	7.5	7.5	2.6	2.6	2.6	7.6	7.8	7.6	7.6	7.8	7.7			
						0.2	274.0	19.4	33.7	33.7	8.2	8.2	100.5	100.6	7.6	7.6	7.6	3.1	3.1	3.1	7.2	7.0	7.2	7.2	7.0	7.7			
						0.2	290.0	19.4	33.7	33.7	8.2	8.2	100.6	100.6	7.6	7.6	7.6	3.0	3.1	3.1	6.7	7.0	3.0	3.0	6.7	7.0	7.7		
IM8	Cloudy	Rough	12:49	12.7	S	0.2	268.0	19.5	19.5	33.7	33.7	8.1	8.1	99.2	99.2	7.5	7.5	7.5	2.9	2.9	4.1	6.1	6.2	<0.001					
						0.2	276.0	19.5	33.7	33.7	8.1	8.1	99.2	99.2	7.5	7.5	7.5	2.9	2.9	2.9	6.3	6.2	2.9	2.9	6.2	<0.001			
						0.2	278.0	19.5	33.7	33.7	8.1	8.1	98.6	98.6	7.4	7.4	7.4	3.6	3.6	3.6	7.4	7.3	3.6	3.6	7.3	7.7			
					M	0.2	280.0	19.5	33.7	33.7	8.1	8.1	98.6	98.6	7.4	7.4	7.4	3.6	3.6	3.6	7.2	7.3	3.6	3.6	7.2	7.3	7.7		
						0.2	292.0	19.5	33.7	33.7	8.1	8.1	98.3	98.3	7.4	7.4	7.4	5.8	5.8	5.8	9.5	9.6	5.8	5.8	9.5	9.6	7.7		
						0.3	304.0	19.5	33.7	33.7	8.1	8.1	98.3	98.3	7.4	7.4	7.4	5.9	5.8	5.8	9.7	9.6	5.9	5.8	9.7	9.6	7.7		
IM9	Cloudy	Rough	12:25	14.7	S	0.3	258.0	19.8	19.8	33.6	33.6	8.1	8.1	96.9	96.9	7.3	7.3	7.3	7.7	7.7	10.5	14.4	14.2	<0.001					
						0.3	269.0	19.8	33.6	33.6	8.1	8.1	96.9	96.9	7.3	7.3	7.3	7.7	7.7	7.7	14.4	14.2	7.7	7.7	14.2	<0.001			
						0.4	274.0	19.7	33.7	33.7	8.1	8.1	96.9	96.9	7.3	7.3	7.3	11.5	11.6	11.6	16.4	16.2	11.5	11.5	16.2	15.8			
					M	0.4	277.0	19.7	33.7	33.7	8.1	8.1	96.9	96.9	7.3	7.3	7.3	11.6	11.6	11.6	15.9	16.2	11.6	11.6	15.9	16.2	15.8		
						0.3	283.0	19.6	33.7	33.7	8.1	8.1	97.1	97.1	7.3	7.3	7.3	12.2	12.4	12.4	17.0	17.2	12.2	12.2	17.0	17.2	15.8		
						0.3	289.0	19.6	33.7	33.7	8.1	8.1	97.1	97.1	7.3	7.3	7.3	12.6	12.4	12.4	17.3	17.2	12.6	12.6	17.3	17.2	15.8		
IM10	Cloudy	Moderate	11:40	11.4	S	0.8	237.0	20.0	20.0	33.5	33.5	8.1	8.1	96.7	96.7	7.2	7.2	7.2	5.2	5.6	8.6	10.3	10.2	<0.001					
						0.8	252.0	20.0	33.5	33.5	8.1	8.1	96.6	96.7	7.2	7.2	7.2	5.9	5.6	5.6	10.0	10.2	5.9	5.9	10.0	10.2	<0.001		
						0.6	232.0	19.9	33.6	33.6	8.1	8.1	96.0	96.1	7.2	7.2	7.2	11.4	11.5	11.5	14.8	14.7	11.4	11.4	14.7	15.1			
					M	0.6	233.0	19.9	33.7	33.6	8.1	8.1	96.1	96.1	7.2	7.2	7.2	11.5	11.5	11.5	14.5	14.7	11.5	11.5	14.5	14.7	15.1		
						0.7	235.0	19.9	33.7	33.7	8.0	8.0	97.1	97.1	7.3	7.3	7.3	8.9	8.7	8.7	20.3	20.6	8.9	8.9	20.3	20.6	15.1		
						0.7	239.0	19.9	33.7	33.7	8.0	8.0	97.3	97.2	7.3	7.3	7.3	8.5	8.7	8.7	20.9	20.6	8.5	8.5	20.9	20.6	15.1		
IM11A	Cloudy	Moderate	11:22	5.3	S	0.7	338.0	19.9	19.9	33.6	33.6	8.1	8.1	96.4	96.4	7.2	7.2	7.2	11.2	11.1	12.6	30.9	31.1	<0.001					
						0.8	350.0	19.9	33.6	33.6	8.1	8.1	96.4	96.4	7.2	7.2	7.2	11.1	11.1	11.1	31.2	31.1	11.1	11.1	31.2	31.1	<0.001		
						0.5	343.0	19.9	33.6	33.6	8.1	8.1	97.4	97.5	7.3	7.3	7.3	14.0	14.1	14.1	57.5	57.1	14.0	14.0	57.5	57.1	44.1		
					B	0.5	9.0	19.9	33.6	33.6	8.1	8.1	97.6	97.5	7.3	7.3	7.3	14.1	14.1	14.1	56.7	57.1	14.1	14.1	56.7	57.1	44.1		
						0.7	332.0	19.9	33.4	33.4	8.1	8.1	96.5	96.5	7.2	7.2	7.2	6.0	6.0	6.0	13.8	14.1	6.0	6.0	13.8	14.1	44.1		
						0.8	334.0	19.9	33.4	33.4	8.1	8.1	96.5	96.5	7.2	7.2	7.2	6.0	6.0	6.0	14.3	14.1	6.0	6.0	14.3	14.1	44.1		
IM12	Cloudy	Moderate	11:09	14.6	M	0.7	329.0	19.9	19.9	33.5	33.5	8.1	8.1	95.8	95.8	7.2	7.2	7.2	8.5	8.5	9.9	19.4	19.2	<0.001					
						0.7	337.0	19.9	33.5	33.5	8.1	8.1	95.8	95.8	7.2	7.2	7.2	8.5	8.5	8.5	18.9	19.2	8.5	8.5	18.9	19.2	<0.001		
						0.6	337.0	19.9	33.5	33.5	8.1	8.1	96.4	96.5	7.2	7.2	7.2	15.1	15.1	15.1	26.7	26.5	15.1	15.1	26.7	26.5	<0.001		
					B	0.6	347.0	19.9	33.6	33.5	8.1	8.1	96.5	96.5	7.2	7.2	7.2	15.1	15.1	15.1	26.3	26.5	15.1	15.1	26.3	26.5	<0.001		
						0.0	63.0	19.7	32.5	32.5	8.1	8.1	96.7	96.7	7.3	7.3	7.3	4.7	4.7	4.7	8.0	8.2	4.7	4.7	8.0	8.2	9.4		
						0.0	63.0	19.7	32.5	32.5	8.1	8.1	96.7	96.7	7.3	7.3	7.3	4.7	4.7	4.7	8.3	8.2	4.7	4.7	8.3	8.2	9.4		
IM13	Cloudy	Moderate	10:45	16.0	M	0.2	351.0	19.8	19.8	32.8	32.8	8.1	8.1	96.1	96.1	7.2	7.2	7.2	5.1	5.0	5.4	9.6	9.6	<0.001					
						0.2	13.0	19.8	32.8	32.8	8.1	8.1	96.1	96.1	7.2	7.2	7.2	5.0	5.0	5.0	9.6	9.6	5.0	5.0	9.6	9.6	9.4		
						0.2	350.0	19.8	32.9	32.9	8.1	8.1	96.8	96.9	7.3	7.3	7.3	6.4	6.3	6.3	10.5	10.3	6.4	6.3	10.5	10.3	9.4		
					B	0.3	15.0	19.8	32.9	32.9	8.1	8.1	97.0	96.9	7.3	7.3	7.3	6.3	6.3	6.3	10.1	10.3	7.3	7.3	6.3	6.3	10.1	10.3	9.4
						0.4	27.0	19.9	32.9	32.9	8.1	8.1	96.2	96.2	7.2	7.2	7.2	4.4	4.4	4.4	10.3	10.1	4.4	4.4	10.3	10.1	9.4		
						0.5	28.0	19.9	32.9	32.9	8.1	8.1	96.1	96.2	7.2	7.2	7.2	4.5	4.4	4.4	9.9	10.1	4.5	4.4	9.9	10.1	9.4		
IM14	Cloudy	Moderate	10:35	10.5	S	0.4	28.0	19.9	19.9	33.0	33.0	8.1	8.1	95.9	95.9	7.2	7.2	7.2	7.6	7.6	8.5	10.5	10.3	<0.001					
						0.5	30.0	19.9	33.0	33.0	8.1	8.1	95.9	95.9	7.2	7.2	7.2	7.6	7.6	7.6	10.0	10.3	7.6	7.6	10.0	10.3	<0.001		
						0.3	28.0	19.9	33.0	33.0	8.1	8.1	96.4	96.4	7.2	7.2	7.2	13.6	13.5	13.5	17.1	16.9	13.6	13.6	17.1	16.9	<0.001		
					M	0.4	27.0	19.9	32.9	32.9	8.1	8.1	96.2	96.2	7.2	7.2	7.2	4.4	4.4	4.4	10.3	10.1	7.2	7.2	4.4	4.4	10.3	10.1	<0.001
						0.5	28.0	19.9	33.0	33.0	8.1	8.1	95.9	95.9	7.2	7.2	7.2	7.6	7.6	7.6									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/02

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Cloudy	Moderate	10:25	5.8	S	0.3	287.0	20.1	20.1	30.1	30.1	7.9	7.9	91.4	91.5	6.9	6.9	6.9	6.6	6.7	7.2	12.3	12.5	13.6
						0.4	295.0	20.1	20.1	30.1	30.2	7.9	7.9	91.5	91.5	7.0	7.1	7.1	6.8	6.7	7.2	12.7	12.5	
					B	0.3	284.0	20.1	20.1	30.2	30.2	7.9	7.9	92.9	93.3	7.1	7.1	7.1	7.8	7.7	7.2	14.8	14.6	
						0.3	299.0	20.1	20.1	30.2	30.2	7.9	7.9	93.7	93.3	7.1	7.1	7.1	7.6	7.7	7.2	14.4	14.6	
IM16A	Cloudy	Moderate	10:50	6.4	S	0.2	293.0	19.9	19.9	29.5	29.5	7.9	7.9	92.6	92.6	7.1	7.1	7.1	5.7	5.8	7.1	13.4	13.2	12.2
						0.2	297.0	19.9	19.9	29.6	29.6	7.9	7.9	92.6	92.6	7.1	7.1	7.1	5.8	5.8				
					M	0.2	307.0	19.9	19.9	29.6	29.6	7.9	7.9	92.7	92.8	7.1	7.1	7.1	6.0	6.0	6.1	12.3	12.2	
						0.2	332.0	19.9	19.9	29.6	29.6	7.9	7.9	92.8	92.8	7.1	7.1	7.1	6.0	6.0				
					B	0.2	305.0	19.9	19.9	29.6	29.6	7.9	7.9	94.1	94.3	7.2	7.2	7.2	6.5	6.5	6.1	11.4	11.3	
						0.2	328.0	19.9	19.9	29.6	29.6	7.9	7.9	94.4	94.3	7.2	7.2	7.2	6.5	6.5				
IM17	Cloudy	Moderate	11:10	4.5	S	0.3	320.0	19.9	19.9	28.8	28.8	7.9	7.9	93.0	93.0	7.1	7.1	7.1	6.5	6.7	8.5	9.6	9.7	11.2
						0.4	336.0	19.9	19.9	28.9	28.9	7.9	7.9	93.0	93.0	7.1	7.1	7.1	7.0	7.0				
					B	0.3	313.0	20.0	20.0	29.5	29.5	7.9	7.9	95.3	95.5	7.3	7.3	7.3	10.1	10.2	6.1	12.9	12.7	
						0.3	328.0	20.0	20.0	29.5	29.5	7.9	7.9	95.7	95.5	7.3	7.3	7.3	10.4	10.2				
IM18	Cloudy	Moderate	12:57	16.2	S	0.1	255.0	20.2	20.2	27.9	27.9	7.8	7.8	91.9	91.9	7.1	7.1	6.9	2.6	2.6	6.9	6.0	5.8	8.4
						0.1	277.0	20.2	20.2	27.9	27.9	7.8	7.8	91.9	91.9	7.1	7.1	6.9	2.6	2.6				
					M	0.4	336.0	20.2	20.2	30.3	30.3	7.9	7.9	88.4	88.4	6.7	6.7	6.7	4.1	4.1	7.8	9.7	9.7	
						0.4	3.0	20.2	20.2	30.3	30.3	7.9	7.9	88.3	88.4	6.7	6.7	6.7	4.1	4.1				
					B	0.5	335.0	20.3	20.3	30.6	30.6	7.9	7.9	87.7	87.7	6.6	6.6	6.6	16.8	16.7	7.8	9.8	9.7	
						0.5	3.0	20.3	20.3	30.6	30.6	7.9	7.9	87.8	87.8	6.6	6.6	6.6	16.5	16.7				
IM19	Cloudy	Moderate	12:44	17.7	S	0.2	20.0	20.1	20.1	28.2	28.2	7.8	7.8	91.5	91.5	7.0	7.0	6.9	3.0	3.0	6.9	6.0	6.2	7.6
						0.2	21.0	20.1	20.1	28.2	28.2	7.8	7.8	91.4	91.5	7.0	7.0	6.9	3.0	3.0				
					M	0.5	345.0	20.4	20.4	30.3	30.3	7.9	7.9	89.6	89.6	6.8	6.8	6.8	3.0	3.0	5.4	6.6	6.9	
						0.5	3.0	20.4	20.4	30.3	30.3	7.9	7.9	89.6	89.6	6.8	6.8	6.8	3.0	3.0				
					B	0.6	334.0	20.4	20.4	30.8	30.8	7.9	7.9	89.8	89.9	6.8	6.8	6.8	10.1	10.2	5.4	10.1	9.8	
						0.6	349.0	20.4	20.4	30.8	30.8	7.9	7.9	89.9	89.9	6.8	6.8	6.8	10.4	10.2				
IM20A	Cloudy	Moderate	12:14	4.4	S	0.4	59.0	20.2	20.2	28.0	28.0	7.8	7.8	91.3	91.3	7.0	7.0	7.0	3.8	3.8	6.0	9.7	9.5	10.5
						0.5	62.0	20.2	20.2	28.0	28.0	7.8	7.8	91.2	91.3	7.0	7.0	7.0	3.8	3.8				
					B	0.3	50.0	21.2	21.2	29.3	29.3	7.8	7.8	93.1	93.2	7.0	7.0	7.0	8.3	8.2	6.0	11.5	11.4	
						0.3	52.0	21.2	21.2	29.3	29.3	7.8	7.8	93.2	93.2	7.0	7.0	7.0	8.2	8.2				
IM21A	Cloudy	Calm	12:24	4.8	S	0.0	358.0	21.2	21.2	27.9	28.0	7.8	7.8	94.4	94.4	7.1	7.1	7.1	4.4	4.6	7.0	11.0	11.2	13.6
						0.0	2.0	21.2	21.2	28.0	28.0	7.8	7.8	94.3	94.3	7.1	7.1	7.1	4.8	4.6				
					B	0.1	232.0	20.7	20.8	28.7	28.7	7.8	7.8	94.6	94.8	7.2	7.2	7.2	9.5	9.3	7.0	16.4	16.1	
0.1	246.0	20.8	20.8	28.7		28.7	7.8	7.8	95.0	94.8	7.2	7.2	7.2	9.1	9.3									
IM22A	Cloudy	Calm	12:29	4.4	S	0.2	62.0	20.2	20.2	27.4	27.4	7.8	7.8	92.5	92.6	7.1	7.1	7.1	3.4	3.4	3.6	9.0	8.9	9.4
						0.2	62.0	20.2	20.2	27.4	27.4	7.8	7.8	92.6	92.6	7.1	7.1	7.1	3.4	3.4				
					B	0.2	53.0	20.1	20.1	27.5	27.5	7.9	7.9	93.8	94.1	7.2	7.3	7.3	3.9	3.9	3.6	9.8	10.0	
						0.2	53.0	20.1	20.1	27.5	27.5	7.9	7.9	94.4	94.1	7.3	7.3	7.3	3.8	3.9				

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity (NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)								
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*							
E1	Cloudy	Moderate	07:42	9.0	S	0.9	27.2	20.5	20.5	32.0	32.0	8.0	8.0	86.3	86.3	6.4	6.4	6.4	3.4	3.5	4.7	4.7	4.6	7.0								
						0.9	27.2	20.5		32.0	32.0	8.0	8.0	86.3	86.3	6.4	6.4		3.4	3.5		4.7	4.6									
					M	0.4	115.3	20.5	20.5	32.0	32.0	8.0	8.0	86.5	86.5	6.5	6.5	6.4	4.5	4.4	4.7	6.6	6.2			6.4	7.0					
						0.4	115.3	20.5		32.0	32.0	8.0	8.0	86.5	86.5	6.5	6.5		4.5	4.4		6.6	6.2									
					B	0.8	149.2	20.5	20.5	32.0	32.0	8.0	8.0	87.6	87.3	6.5	6.5	6.5	5.8	6.3	6.5	9.5	10.5			10.0	7.0					
						0.8	149.2	20.5		32.0	32.0	8.0	8.0	87.6	87.0	6.5	6.5		5.8	6.3		9.5	10.5									
E2	Cloudy	Moderate	04:15	9.2	S	0.2	85.4	20.3	20.3	32.4	32.4	8.0	8.0	95.5	95.5	7.1	7.1	7.1	4.8	5.0	5.6	6.9	7.3	8.3	0.001							
						0.2	85.4	20.3		32.4	32.4	8.0	8.0	95.5	95.3	7.1	7.1		4.8	5.0		6.9	7.3		<0.001							
					M	0.4	171.9	20.3	20.3	32.4	32.4	8.0	8.0	95.3	95.3	7.1	7.1	7.2	5.7	5.5	7.2	8.9	8.9		9.1	<0.001						
						0.1	108.8	20.3		32.4	32.4	8.0	8.0	95.3	95.3	7.1	7.1		5.7	5.5		8.9	8.9			<0.001						
					B	0.4	229.3	20.3	20.3	32.4	32.4	8.0	8.0	96.2	95.8	7.2	7.2	7.2	6.1	6.4	7.2	9.3	9.3		9.1	<0.001						
						0.3	149.3	20.3		32.4	32.4	8.0	8.0	95.4	95.4	7.1	7.1		6.1	6.4		9.3	9.3			<0.001						
E3	Fine	Rough	05:55	16.5	S	0.2	139.0	19.5	19.5	33.2	33.2	8.1	8.1	100.7	100.7	7.6	7.6	7.6	1.7	1.7	2.0	3.5	3.4	2.4								
						0.2	148.0	19.5		33.2	33.2	8.1	8.1	100.7	100.7	7.6	7.6		1.7	1.7		3.5	3.4									
					M	0.2	137.0	19.5	19.5	33.3	33.3	8.1	8.1	100.7	100.7	7.6	7.6	7.6	2.1	2.2	7.6	2.1	2.1			2.3	2.4					
						0.2	140.0	19.5		33.3	33.3	8.1	8.1	100.7	100.7	7.6	7.6		2.1	2.2		2.1	2.1									
					B	0.2	136.0	19.5	19.5	33.3	33.3	8.1	8.1	101.1	101.2	7.6	7.6	7.6	2.3	2.3	7.6	1.6	1.4			7.6	1.5	2.4				
						0.2	148.0	19.5		33.3	33.3	8.1	8.1	101.2	101.2	7.6	7.6		2.3	2.3		1.6	1.4									
E4	Fine	Moderate	07:22	11.5	S	0.4	209.0	19.7	19.7	31.1	31.1	8.1	8.1	97.2	97.2	7.4	7.4	7.2	2.2	2.2	3.3	3.2	3.2	3.9								
						0.4	216.0	19.7		31.1	31.1	8.1	8.1	97.1	97.2	7.4	7.4		2.2	2.2		3.2	3.2									
					M	0.4	213.0	19.9	19.9	32.9	32.9	8.1	8.1	94.6	94.6	7.1	7.1	7.1	3.4	3.4	7.1	3.8	3.3			3.6	3.9					
						0.4	214.0	19.9		32.9	32.9	8.1	8.1	94.6	94.6	7.1	7.1		3.4	3.4		3.8	3.3									
					B	0.2	209.0	19.9	19.9	33.2	33.2	8.1	8.1	94.4	94.5	7.1	7.1	7.1	4.2	4.2	7.1	5.0	5.1			5.1	3.9					
						0.2	209.0	19.9		33.2	33.2	8.1	8.1	94.5	94.5	7.1	7.1		4.2	4.2		5.0	5.1									
E5	Cloudy	Moderate	07:43	5.8	S	0.5	182.0	19.7	19.8	26.8	26.8	8.0	8.0	92.2	92.3	7.2	7.2	7.2	2.9	3.0	4.3	3.6	3.5	5.3								
						0.5	199.0	19.8		26.8	26.8	8.0	8.0	92.3	92.3	7.2	7.2		2.9	3.0		3.6	3.5									
					B	0.2	183.0	19.8	19.8	30.7	30.7	8.1	8.1	92.3	92.4	7.0	7.0	7.0	5.5	5.6	7.0	7.4	6.7			7.1	5.3					
						0.2	191.0	19.7		30.7	30.7	8.1	8.1	92.4	92.4	7.1	7.1		5.5	5.6		7.4	6.7									
					E6	Cloudy	Moderate	06:51	6.2	S	0.4	147.0	20.1	20.1	25.7	25.6	8.0	8.0	90.3	90.3	7.0	7.0	7.0			2.4	2.4	2.5	4.8	4.7	4.0	
											0.4	148.0	20.1		25.6	25.6	8.0	8.0	90.2	90.3	7.0	7.0				2.4	2.4		4.8	4.7		
M	0.3	156.0	20.2	20.2						28.5	28.5	8.0	8.0	89.9	89.9	6.9	6.9	6.9	2.7	2.7	6.9	4.3	4.3	4.1	4.0							
	0.3	169.0	20.2							28.6	28.5	8.0	8.0	89.8	89.9	6.9	6.9		2.7	2.7		4.3	4.3									
B	0.2	162.0	20.2	20.2						29.8	29.8	8.0	8.0	89.6	89.8	6.8	6.8	6.8	2.5	2.5	6.8	2.9	3.5	3.2	4.0							
	0.2	164.0	20.2							29.8	29.8	8.0	8.0	89.9	89.8	6.8	6.8		2.5	2.5		2.9	3.5									
E7A	Cloudy	Moderate	06:31	5.0	S	0.2	195.0	20.0	20.0	29.1	29.1	7.9	7.9	87.3	87.3	6.7	6.7	6.7	3.8	4.0	5.3	4.7	5.1	4.2								
						0.2	197.0	20.0		29.2	29.1	7.9	7.9	87.2	87.3	6.7	6.7		3.8	4.0		4.7	5.1									
					B	0.2	197.0	20.1	20.1	29.6	29.6	7.9	7.9	87.7	87.9	6.7	6.7	6.7	6.5	6.8	6.7	3.2	3.9			3.6	4.2					
						0.2	207.0	20.1		29.6	29.6	7.9	7.9	88.1	87.9	6.7	6.7		6.5	6.8		3.2	3.9									
					F1	Cloudy	Moderate	06:47	20.5	S	0.5	329.6	20.2	20.2	32.4	32.4	8.1	8.1	96.7	96.7	7.2	7.2	7.3			2.0	2.1	2.7	1.7	2.0	3.0	
											0.5	329.6	20.2		32.4	32.4	8.1	8.1	96.6	96.7	7.2	7.2				2.0	2.1		1.7	2.0		
M	0.3	155.4	20.1	20.1						32.4	32.4	8.1	8.1	97.0	96.9	7.3	7.3	7.3	2.5	2.3	7.3	3.1	2.7	2.9	3.0							
	0.4	245.1	20.1							32.4	32.4	8.1	8.1	96.7	96.9	7.3	7.3		2.5	2.3		3.1	2.7									
B	0.3	100.7	20.0	20.0						32.4	32.4	8.2	8.2	97.9	98.0	7.4	7.4	7.4	3.3	3.6	7.4	4.3	4.4	3.6	3.0							
	0.8	39.8	20.0							32.4	32.4	8.2	8.2	98.1	98.0	7.4	7.4		3.3	3.6		4.3	4.4									
F2	Cloudy	Moderate	06:16	19.5	S	0.3	302.5	19.7	19.7	32.4	32.4	8.2	8.2	102.6	102.7	7.7	7.7	7.7	1.0	1.1	1.2	1.5	1.8	2.3								
						0.3	302.5	19.8		32.4	32.4	8.2	8.2	102.7	102.7	7.7	7.7		1.0	1.1		1.5	1.8									
					M	0.9	163.9	19.7	19.7	32.4	32.4	8.2	8.2	101.9	101.9	7.7	7.7	7.7	1.1	1.2	7.7	1.9	1.6			1.8	2.3					
						0.9	163.9	19.8		32.4	32.4	8.2	8.2	101.9	101.9	7.7	7.7		1.1	1.2		1.9	1.6									
					B	0.3	91.8	19.8	19.8	32.4	32.4	8.2	8.2	101.3	101.3	7.6	7.6	7.6	1.5	1.5	7.6	3.6	3.3			3.5	2.3					
						0.9	326.7	19.8		32.4	32.4	8.2	8.2	101.3	101.3	7.6	7.6		1.5	1.5		3.6	3.3									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*
F3	Cloudy	Moderate	05:39	18.1	S	0.3	51.9	19.8	19.8	32.4	32.4	8.2	8.2	102.3	102.4	7.7	7.7	7.7	1.6	1.5	3.0	2.5	2.3	3.9	<0.001
						0.5	316.1	19.8		32.4	32.4	8.2	8.2	102.4	102.4	7.7	7.7		1.4	1.5		2.1	2.3		<0.001
						0.4	230.4	19.8		32.4	32.4	8.2	8.2	101.6	101.7	7.7	7.7		1.8	1.8		3.4	3.5		<0.001
					M	0.4	230.4	19.8	19.8	32.4	32.4	8.2	8.2	101.7	101.7	7.7	7.7	1.7	1.8	3.6	3.5	3.9	<0.001		
						0.4	336.6	19.8	19.8	32.4	32.4	8.2	8.2	101.1	101.1	7.6	7.6	5.5	5.8	5.6	5.8	<0.001			
						0.4	336.6	19.8	19.8	32.4	32.4	8.2	8.2	101.0	101.0	7.6	7.6	6.0	6.0	6.0	6.0	<0.001			
F4	Cloudy	Moderate	04:41	13.5	S	0.9	38.3	20.3	20.3	32.5	32.5	8.1	8.1	98.1	98.1	7.3	7.3	7.3	3.7	3.8	5.3	4.4	4.5	6.2	<0.001
						0.4	67.5	20.3		32.5	32.5	8.1	8.1	98.1	98.1	7.3	7.3		3.8	3.8		4.5	4.5		<0.001
						0.4	187.6	20.3		32.5	32.5	8.1	8.1	97.8	97.8	7.3	7.3		3.7	3.8		5.7	5.8		<0.001
					M	0.5	115.5	20.3	20.3	32.5	32.5	8.1	8.1	97.8	97.8	7.3	7.3	3.9	3.9	5.8	5.8	6.2	6.2	<0.001	
						0.4	344.0	20.3	20.3	32.5	32.5	8.1	8.1	97.4	97.4	7.3	7.3	8.7	8.5	8.2	8.4	6.2	6.2	<0.001	
						1.2	5.5	20.3	20.3	32.5	32.5	8.1	8.1	97.4	97.4	7.3	7.3	8.2	8.5	8.5	8.5	6.2	6.2	<0.001	
F5	Fine	Moderate	08:20	5.7	S	0.3	200.0	19.5	19.5	30.5	30.5	8.1	8.1	95.4	95.3	7.3	7.3	7.3	2.6	2.6	3.7	3.0	3.1	3.3	<0.001
						0.3	217.0	19.5		30.5	30.5	8.1	8.1	95.1	95.3	7.3	7.3		2.6	2.6		3.1	3.1		<0.001
						0.1	196.0	19.8		31.4	31.4	8.1	8.1	93.2	93.4	7.1	7.1		4.8	4.9		3.8	3.6		<0.001
					B	0.1	211.0	19.8	19.8	31.4	31.4	8.1	8.1	93.5	93.4	7.1	7.1	4.9	4.9	3.4	3.6	3.3	3.3	<0.001	
						0.3	140.0	20.2	20.2	29.6	29.6	7.9	7.9	93.4	93.4	7.1	7.1	2.3	2.4	3.4	3.4	<0.001			
						0.3	149.0	20.2	20.2	29.5	29.5	7.9	7.9	93.4	93.4	7.1	7.1	2.4	2.4	3.3	3.4	<0.001			
F6	Cloudy	Moderate	04:48	12.4	S	0.2	115.0	20.1	20.1	30.0	30.0	7.9	7.9	93.1	93.1	7.1	7.1	7.1	2.4	2.3	3.1	3.8	3.9	3.9	<0.001
						0.2	119.0	20.1		30.0	30.0	7.9	7.9	93.1	93.1	7.1	7.1		2.3	2.3		3.9	3.9		<0.001
						0.2	110.0	20.0		20.0	30.7	30.7	8.0	8.0	91.2	91.2	6.9		6.9	4.5		4.6	4.3		4.4
					M	0.2	115.0	20.0	20.0	30.7	30.7	8.0	8.0	91.2	91.2	6.9	6.9	4.6	4.6	4.4	4.4	3.9	3.9	<0.001	
						0.2	110.0	20.0	20.0	30.7	30.7	8.0	8.0	91.2	91.2	6.9	6.9	4.5	4.6	4.3	4.4	3.9	3.9	<0.001	
						0.2	115.0	20.0	20.0	30.7	30.7	8.0	8.0	91.2	91.2	6.9	6.9	4.5	4.6	4.3	4.4	3.9	3.9	<0.001	
IM1	Cloudy	Moderate	07:06	10.3	S	1.3	8.3	20.5	20.6	32.4	32.4	8.1	8.1	97.0	97.1	7.2	7.2	7.2	2.5	2.5	3.1	2.8	3.1	3.7	<0.001
						1.3	8.3	20.6		32.4	32.4	8.1	8.1	97.1	97.1	7.2	7.2		2.4	2.4		3.4	3.1		<0.001
						0.3	65.2	20.3		20.3	32.4	32.4	8.2	8.2	97.0	97.0	7.3		7.2	2.6		2.7	3.6		3.6
					M	0.3	65.2	20.3	20.3	32.4	32.4	8.2	8.2	97.0	97.0	7.3	7.2	2.7	2.7	3.5	3.6	3.7	3.7	<0.001	
						0.8	104.8	20.1	20.1	32.4	32.4	8.2	8.2	97.0	96.6	7.3	7.2	3.8	4.1	4.6	4.5	3.7	3.7	<0.001	
						0.2	178.0	20.1	20.1	32.5	32.4	8.2	8.2	96.1	96.6	7.2	7.2	4.3	4.1	4.4	4.5	3.7	3.7	<0.001	
IM2	Cloudy	Moderate	07:29	11.5	S	0.4	125.1	20.5	20.5	32.1	32.1	8.0	8.0	89.2	89.2	6.7	6.7	6.7	3.4	3.5	3.9	4.3	4.3	4.8	<0.001
						0.8	236.5	20.5		32.1	32.1	8.0	8.0	89.2	89.2	6.7	6.7		3.5	3.5		4.2	4.3		<0.001
						0.2	351.1	20.5		20.5	32.1	32.1	8.0	8.0	89.5	89.3	6.7		6.7	3.7		3.7	4.3		4.5
					M	0.7	233.8	20.5	20.5	32.1	32.1	8.0	8.0	89.0	89.3	6.6	6.7	3.6	3.7	4.7	4.5	4.8	4.5	<0.001	
						0.5	86.7	20.3	20.3	32.4	32.4	8.1	8.1	92.1	92.4	6.9	6.9	4.2	4.5	5.8	5.7	4.8	4.5	<0.001	
						0.6	87.2	20.3	20.3	32.4	32.4	8.1	8.1	92.6	92.4	6.9	6.9	4.8	4.5	5.5	5.7	4.8	4.5	<0.001	
IM3	Cloudy	Moderate	03:22	15.5	S	0.7	125.7	20.4	20.4	32.3	32.3	7.9	7.9	95.9	96.2	7.2	7.2	7.1	2.9	2.8	7.3	2.1	2.2	10.1	<0.001
						0.7	125.7	20.4		32.3	32.3	7.9	7.9	96.5	96.2	7.2	7.2		2.7	2.7		2.2	2.2		<0.001
						0.1	257.6	20.3		20.3	32.3	32.3	7.9	7.9	94.2	94.0	7.0		7.0	6.3		6.4	8.1		7.8
					M	0.3	274.3	20.3	20.3	32.3	32.3	7.9	7.9	93.8	94.0	7.0	7.0	6.5	6.4	7.4	7.8	10.1	10.1	<0.001	
						0.8	266.4	20.2	20.2	32.4	32.4	7.9	7.9	95.3	95.3	7.1	7.1	13.4	12.7	20.8	20.4	<0.001			
						0.9	72.8	20.2	20.2	32.4	32.4	7.9	7.9	95.2	95.3	7.1	7.1	12.0	12.7	19.9	20.4	<0.001			
IM4	Cloudy	Moderate	03:47	17.3	S	0.4	133.0	20.2	20.2	32.4	32.4	8.0	8.0	95.2	95.3	7.1	7.1	7.1	4.6	4.8	6.7	5.7	6.0	9.6	<0.001
						0.4	133.0	20.2		32.4	32.4	8.0	8.0	95.3	95.3	7.1	7.1		5.0	5.0		6.2	6.0		<0.001
						0.5	111.7	20.2		20.2	32.4	32.4	8.0	8.0	94.6	94.7	7.1		7.1	5.2		5.0	6.8		7.1
					M	0.5	198.6	20.2	20.2	32.4	32.4	8.0	8.0	94.7	94.7	7.1	7.1	4.7	5.0	7.4	7.1	9.6	9.6	<0.001	
						0.3	146.4	20.2	20.2	32.4	32.4	8.0	8.0	93.8	93.8	7.0	7.0	10.2	10.4	16.1	15.7	<0.001			
						0.2	215.9	20.2	20.2	32.4	32.4	8.0	8.0	93.7	93.8	7.0	7.0	10.6	10.4	15.3	15.7	<0.001			
IM5	Cloudy	Moderate	05:11	15.5	S	0.1	24.8	19.9	19.9	32.4	32.4	8.2	8.2	99.7	99.7	7.5	7.5	7.5	3.8	3.8	4.0	5.2	5.5	5.0	<0.001
						0.1	154.8	19.9		32.4	32.4	8.2	8.2	99.7	99.7	7.5	7.5		3.8	3.8		5.7	5.5		<0.001
						0.3	72.3	19.9		19.9	32.4	32.4	8.2	8.2	99.5	99.5	7.5		7.5	3.8		3.8	5.0		5.0
					M	0.7	159.3	19.9	19.9	32.4	32.4	8.2	8.2	99.4	99.5	7.5	7.5	4.0	3.9	5.3	5.2	5.0	5.0	<0.001	
						0.7	157.8	19.9	19.9	32.4	32.4	8.2	8.2	99.1	99.1	7.5	7.5	4.5	4.5	4.4	4.5	5.0	5.0	<0.001	
						0.5	125.2	19.9	19.9	32.4	32.4	8.2	8.2	99.0	99.1	7.5	7.5	4.0	4.3	4.6	4.5	5.0	5.0	<0.001	

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity (NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*						
IM6	Cloudy	Moderate	05:26	16.5	S	2.6	106.6	19.9	19.9	32.4	32.4	8.2	8.2	102.0	102.1	7.7	7.7	7.7	3.2	3.3	5.3	4.1	4.5	6.9	<0.001						
						2.6	106.6	19.9	19.9	32.4	32.4	8.2	8.2	102.1	102.1	7.7	7.7		3.3	3.3		4.8	4.5		<0.001						
					M	0.2	77.3	19.9	19.9	32.4	32.4	8.2	8.2	101.4	101.4	7.6	7.6	7.6	3.4	3.6	4.3	4.4	<0.001								
						0.5	166.0	19.9	19.9	32.4	32.4	8.2	8.2	101.4	101.4	7.6	7.6		3.8	3.6	4.5	4.4	0.003								
					B	0.3	196.9	19.9	19.9	32.4	32.4	8.2	8.2	100.7	100.7	7.6	7.6	7.6	8.9	9.1	12.1	11.9	<0.001								
						0.3	196.9	19.9	19.9	32.4	32.4	8.2	8.2	100.6	100.6	7.6	7.6		9.2	9.1	11.6	11.9	<0.001								
IM7	Fine	Rough	04:52	14.7	S	0.2	155.0	19.5	19.5	33.6	33.6	8.1	8.1	102.9	102.9	7.8	7.8	7.8	1.3	1.3	1.4	1.4	1.3	1.0	<0.001						
						0.2	160.0	19.5	19.5	33.6	33.6	8.1	8.1	102.9	102.9	7.8	7.8		1.3	1.3		1.2	1.3		<0.001						
					M	0.2	134.0	19.5	19.5	33.6	33.6	8.1	8.1	103.4	103.4	7.8	7.8	7.8	1.3	1.4	1.1	1.2	<0.001								
						0.2	137.0	19.5	19.5	33.6	33.6	8.1	8.1	103.4	103.4	7.8	7.8		1.4	1.4	1.2	1.2	<0.001								
					B	0.1	149.0	19.5	19.5	33.7	33.7	8.1	8.1	102.9	102.9	7.8	7.8	7.8	1.6	1.6	0.5	0.5	0.5								
						0.1	153.0	19.5	19.5	33.7	33.7	8.1	8.1	102.9	102.9	7.8	7.8		1.6	1.6	0.5	0.5	0.5								
IM8	Fine	Rough	05:03	12.6	S	0.1	127.0	19.5	19.5	33.6	33.6	8.2	8.2	103.5	103.5	7.8	7.8	7.8	1.4	1.4	1.7	3.3	3.2	2.6	<0.001						
						0.1	135.0	19.5	19.5	33.6	33.6	8.2	8.2	103.5	103.5	7.8	7.8		1.4	1.4		3.1	3.2		<0.001						
					M	0.2	148.0	19.5	19.5	33.6	33.6	8.2	8.2	103.5	103.5	7.8	7.8	7.8	1.6	1.6	2.5	2.6	<0.001								
						0.2	153.0	19.5	19.5	33.6	33.6	8.2	8.2	103.5	103.5	7.8	7.8		1.7	1.6	2.7	2.6	<0.001								
					B	0.0	101.0	19.5	19.5	33.6	33.6	8.2	8.2	103.1	103.1	7.8	7.8	7.8	2.2	2.2	2.1	2.1	<0.001								
						0.0	107.0	19.5	19.5	33.6	33.6	8.2	8.2	103.1	103.1	7.8	7.8		2.2	2.2	2.0	2.1	<0.001								
IM9	Fine	Rough	05:25	14.9	S	0.3	120.0	19.7	19.7	33.2	33.2	8.1	8.1	99.9	99.9	7.5	7.5	7.5	1.6	1.6	2.5	7.2	6.8	4.9	<0.001						
						0.3	126.0	19.7	19.7	33.2	33.2	8.1	8.1	99.9	99.9	7.5	7.5		1.6	1.6		6.4	6.8		<0.001						
					M	0.2	91.0	19.8	19.8	33.6	33.6	8.1	8.1	99.5	99.5	7.5	7.5	7.5	2.7	2.7	4.4	4.5	<0.001								
						0.2	100.0	19.8	19.8	33.6	33.6	8.1	8.1	99.5	99.5	7.5	7.5		2.8	2.7	4.6	4.5	<0.001								
					B	0.2	94.0	19.8	19.8	33.6	33.6	8.1	8.1	99.5	99.5	7.5	7.5	7.5	3.2	3.3	3.0	3.3	<0.001								
						0.3	101.0	19.8	19.8	33.6	33.6	8.1	8.1	99.5	99.5	7.5	7.5		3.4	3.3	3.6	3.3	<0.001								
IM10	Fine	Moderate	06:12	8.4	S	0.4	72.0	20.0	20.0	33.2	33.2	8.1	8.1	97.5	97.5	7.3	7.3	7.3	3.7	3.7	3.8	4.0	4.2	5.0	<0.001						
						0.4	73.0	20.0	20.0	33.2	33.2	8.1	8.1	97.5	97.5	7.3	7.3		3.7	3.7		4.3	4.2		<0.001						
					M	0.4	57.0	20.0	20.0	33.4	33.4	8.1	8.1	98.3	98.3	7.3	7.3	7.5	3.6	3.6	4.4	4.4	<0.001								
						0.5	62.0	20.0	20.0	33.4	33.4	8.1	8.1	98.3	98.3	7.3	7.3		3.6	3.6	4.3	4.4	<0.001								
					B	0.3	47.0	19.9	19.9	33.5	33.5	8.1	8.1	99.8	99.8	7.5	7.5	7.5	4.2	4.2	6.0	6.4	<0.001								
						0.4	50.0	19.9	19.9	33.5	33.5	8.1	8.1	99.8	99.8	7.5	7.5		4.2	4.2	6.7	6.4	<0.001								
IM11A	Fine	Moderate	06:27	5.7	S	0.3	152.0	19.9	19.9	33.1	33.1	8.1	8.1	96.1	96.1	7.2	7.2	7.2	5.4	5.4	5.6	6.8	6.7	8.3	<0.001						
						0.3	163.0	19.9	19.9	33.1	33.1	8.1	8.1	96.1	96.1	7.2	7.2		5.4	5.4		6.6	6.7		<0.001						
					B	0.2	110.0	19.9	19.9	33.1	33.1	8.1	8.1	98.2	98.2	7.4	7.4	7.4	5.8	5.8	10.2	9.9	<0.001								
						0.2	116.0	19.9	19.9	33.1	33.1	8.1	8.1	98.4	98.3	7.4	7.4		5.8	5.8	9.5	9.9	<0.001								
					IM12	Fine	Moderate	06:37	14.8	S	0.5	151.0	19.5	19.5	31.4	31.4	8.1	8.1	97.2	97.2	7.4	7.4	7.3		2.2	2.2	4.1	3.4	3.6	4.5	<0.001
											0.6	161.0	19.5	19.5	31.4	31.4	8.1	8.1	97.1	97.2	7.4	7.4			2.2	2.2		3.7	3.6		<0.001
M	0.4	139.0	19.9	19.9						33.3	33.3	8.1	8.1	95.1	95.1	7.1	7.1	7.2	4.0	4.0	3.6	3.8	<0.001								
	0.4	145.0	19.9	19.9						33.3	33.3	8.1	8.1	95.1	95.1	7.1	7.1		4.0	4.0	4.0	3.8	<0.001								
B	0.2	129.0	19.8	19.8						33.5	33.5	8.1	8.1	95.9	96.0	7.2	7.2	7.2	6.1	6.1	6.0	6.3	<0.001								
	0.3	135.0	19.8	19.8						33.5	33.5	8.1	8.1	96.0	96.0	7.2	7.2		6.2	6.1	6.5	6.3	<0.001								
IM13	Fine	Moderate	07:03	16.4	S	0.4	192.0	19.6	19.6	30.4	30.4	8.1	8.1	95.7	95.7	7.3	7.3	7.3	2.5	2.5	3.2	3.0	3.3	4.0	<0.001						
						0.4	202.0	19.6	19.6	30.4	30.4	8.1	8.1	95.7	95.7	7.3	7.3		2.5	2.5		3.5	3.3		<0.001						
					M	0.3	196.0	19.8	19.8	32.6	32.6	8.1	8.1	95.5	95.5	7.2	7.2	7.1	2.7	2.7	3.5	3.7	<0.001								
						0.3	206.0	19.8	19.8	32.6	32.6	8.1	8.1	95.5	95.5	7.2	7.2		2.7	2.7	3.9	3.7	<0.001								
					B	0.2	204.0	19.9	19.9	33.2	33.2	8.1	8.1	94.1	94.1	7.1	7.1	7.1	4.4	4.4	5.0	5.0	<0.001								
						0.2	207.0	19.9	19.9	33.2	33.2	8.1	8.1	94.1	94.1	7.1	7.1		4.4	4.4	4.9	5.0	<0.001								
IM14	Fine	Moderate	07:12	10.7	S	0.4	188.0	19.7	19.7	31.5	31.6	8.1	8.1	95.7	95.7	7.3	7.3	7.2	2.4	2.4	3.3	3.1	3.4	3.7	<0.001						
						0.4	191.0	19.7	19.7	31.6	31.6	8.1	8.1	95.7	95.7	7.3	7.3		2.4	2.4		3.7	3.4		<0.001						
					M	0.3	206.0	19.8	19.8	32.3	32.3	8.1	8.1	94.6	94.6	7.1	7.1	7.1	3.1	3.1	3.7	3.7	<0.001								
						0.3	223.0	19.8	19.8	32.3	32.3	8.1	8.1	94.5	94.6	7.1	7.1		3.2	3.1	3.6	3.7	<0.001								
					B	0.2	171.0	19.9	19.9	33.0	33.0	8.1	8.1	94.5	94.5	7.1	7.1	7.1	4.3	4.2	4.0	3.9	<0.001								
						0.2	172.0	19.9	19.9	33.0	33.0	8.1	8.1	94.5	94.5	7.1	7.1		4.2	4.2	3.8	3.9	<0.001								

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value	Average	Value	Average	Value	Average
IM15	Cloudy	Moderate	07:56	6.2	S	0.4	190.0	20.0	20.0	27.9	27.8	8.0	8.0	94.4	94.3	7.3	7.3	7.2	7.2	3.2	3.2	2.7	2.8	5.8						
						0.4	197.0	19.9		27.8		8.0		94.2		7.3		3.1		2.8										
						0.3	199.0	19.9		30.5		8.1		93.1		7.1		3.9		3.8										
					M	0.3	205.0	19.9	30.5	8.1	92.8	7.1	7.1	3.6	3.8	4.0														
						B	0.2	205.0	19.8	30.8	8.1	92.0	7.0	8.9	8.9	11.0	10.7													
							0.2	211.0	19.8	30.8	8.1	92.0	7.0	8.9	8.9	10.4														
IM16A	Cloudy	Moderate	07:31	6.1	S	0.3	166.0	20.1	20.1	27.8	27.8	8.0	8.0	92.4	92.4	7.1	7.1	7.1	7.1	4.0	4.2	2.8	2.8	3.8						
						0.3	171.0	20.1		27.8		8.0		92.4		7.1		4.3		2.7										
						0.2	163.0	20.0		30.1		8.1		92.3		7.0		4.9		3.9										
					M	0.2	163.0	20.0	30.2	8.1	92.2	7.0	4.8	3.7	3.8	3.8														
						B	0.1	197.0	20.0	30.3	8.1	92.0	7.0	4.6	4.8	4.8	4.8													
							0.1	199.0	20.0	30.3	8.1	92.0	7.0	4.8	4.8															
IM17	Cloudy	Moderate	07:13	4.6	S	0.5	171.0	20.3	20.3	26.4	26.4	8.0	8.0	91.0	91.0	7.1	7.0	7.0	7.0	2.6	2.6	3.1	3.4	3.6						
						0.5	174.0	20.2		26.4		8.0		90.9		7.0		2.6		3.6										
						0.5	173.0	20.2		29.1		8.0		91.5		7.0		3.1		4.1										
					B	0.5	175.0	20.0	29.2	7.9	91.5	7.0	3.1	3.7	3.9															
						S	0.2	150.0	20.2	28.9	8.0	91.7	7.0	3.0	3.3	3.4														
							0.2	152.0	20.2	29.0	8.0	91.5	7.0	3.1	3.4															
IM18	Cloudy	Moderate	05:16	17.2	M	0.1	156.0	20.1	20.1	30.6	30.5	8.0	8.0	89.3	89.3	6.8	6.8	6.9	6.9	3.1	3.1	3.6	3.7	3.7						
						0.1	168.0	20.1		30.5		8.0		89.3		6.8		3.2		3.8										
						B	0.1	149.0		20.1		31.0		8.0		88.5		6.7		3.8		4.5			4.2					
					0.1		149.0	20.1	31.0	8.0	88.6	6.7	3.7	3.8																
					IM19		Cloudy	Moderate	05:32	17.6	S	0.2	176.0	20.3	20.3	29.5	29.5	8.0	8.0	92.5	92.5	7.0	7.0		6.9	6.9	2.2	2.2	2.5	2.6
						0.3						179.0	20.3	29.5		8.0		92.4		7.0		2.1			2.6					
M	0.2	146.0	20.2	30.6		8.0						89.4	6.8	2.1		3.0		3.0												
	0.2	153.0	20.2	30.6		8.0					89.3	6.8	2.1	2.9																
	B	0.2	157.0	20.1		31.0					8.0	88.9	6.7	2.8	3.1	3.3														
0.2		168.0	20.1	30.9		8.0					89.2	6.7	2.7	3.5																
IM20A		Cloudy	Moderate	06:09	4.7	S	0.2	248.0	20.7	20.7	29.3	29.4	7.9	7.9	90.4	90.5	6.8	6.8	6.8	6.8	4.2	4.1	7.4	7.1	6.5					
	0.2						264.0	20.7	29.4		7.9		90.6		6.8		4.0		6.8											
	B						0.2	242.0	20.7		29.6		7.9		91.6		6.9		3.3		6.2		6.0							
						0.2	255.0	20.7	29.6	7.9	91.8	6.9	3.4	5.7																
						IM21A	Cloudy	Calm	05:56	4.8	S	0.2	189.0	20.5	20.5	29.7	29.7	8.0	8.0	90.8	90.9	6.9	6.9	6.9		6.9	2.7	2.7	3.8	3.7
	0.2											204.0	20.5	29.7		8.0		90.9		6.9		2.7		3.5						
B	0.2	182.0	20.4	29.9	8.0							93.7	7.1	2.8		3.3		3.1												
	0.2	195.0	20.4	29.9	8.0						94.1	7.1	2.8	2.9																
	IM22A	Cloudy	Calm	05:49	5.4						S	0.1	222.0	21.4	21.4	29.8	29.8	8.0	8.0	93.1	93.1	6.9	6.9	6.9	6.9	2.8	2.8	5.1	5.0	4.1
0.1												231.0	21.3	29.8		8.0		93.0		6.9		2.8		4.9						
B						0.0	54.0	20.6	29.8	8.0		91.4	6.9	3.3		3.3		3.2												
						0.0	54.0	20.6	29.8	8.0	91.6	6.9	3.2	3.1																

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)		Current Direction		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)				Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
E1	Cloudy	Moderate	11:14	8.5	S	0.7	257.2	20.5	20.5	31.8	31.8	7.8	7.8	85.4	85.5	6.4	6.4	6.4	6.4	3.7	3.7	5.1	5.0	7.2				
						0.5	306.1	20.5	20.5	31.8	31.8	7.8	7.8	85.5	85.5	6.4	6.4	6.4	6.4	3.7	3.7	4.8	5.0					
						0.5	152.5	20.4	20.4	31.8	31.8	7.7	7.7	84.6	84.8	6.3	6.3	6.4	6.3	5.7	5.1	6.8	6.7					
					M	0.4	265.6	20.4	20.4	31.8	31.8	7.7	7.7	84.9	84.8	6.4	6.3	6.4	6.3	6.4	6.3	4.5	5.1			6.5	6.7	
						0.5	92.1	20.4	20.4	31.8	31.8	7.8	7.7	86.2	85.4	6.5	6.4	6.4	6.4	11.7	11.8	9.7	9.9					
						0.6	266.7	20.4	20.4	31.8	31.8	7.7	7.7	84.6	85.4	6.3	6.4	6.4	6.4	11.8	11.8	10.0	9.9					
E2	Cloudy	Moderate	14:35	8.5	S	1.2	40.8	20.7	20.7	32.5	32.5	8.0	8.0	99.7	99.8	7.4	7.4	7.3	7.3	3.4	3.4	2.9	2.9	4.6	4.6	<0.001		
						0.5	64.4	20.7	20.7	32.5	32.5	8.0	8.0	99.9	99.8	7.4	7.4	7.3	7.3	3.3	3.3	2.8	2.9			<0.001		
						0.1	267.1	20.5	20.5	32.5	32.5	8.0	8.0	97.8	97.9	7.3	7.3	7.3	7.3	3.7	3.7	3.7	3.9			<0.001		
					M	0.3	314.1	20.5	20.5	32.5	32.5	8.0	8.0	98.0	97.9	7.3	7.3	7.3	7.3	3.6	3.7	4.0	3.9			0.001		
						0.3	171.4	20.3	20.3	32.5	32.5	8.0	8.0	96.1	95.8	7.2	7.2	7.2	7.2	7.1	7.1	6.8	7.0			<0.001		
						0.3	178.4	20.3	20.3	32.5	32.5	8.0	8.0	95.4	95.8	7.1	7.2	7.2	7.2	6.3	6.7	7.2	7.0			0.002		
E3	Fine	Moderate	12:50	16.4	S	0.2	312.0	20.1	20.1	32.5	32.5	8.1	8.1	98.4	98.4	7.4	7.4	7.3	7.3	2.5	2.5	2.3	2.2	3.1	2.4			
						0.2	334.0	20.1	20.1	32.5	32.5	8.1	8.1	98.4	98.4	7.4	7.4	7.3	7.3	2.5	2.5	2.0	2.2					
						0.2	297.0	19.8	19.8	33.0	33.0	8.1	8.1	96.5	96.5	7.2	7.2	7.2	7.2	2.4	2.3	2.3	2.4					
					M	0.2	310.0	19.8	19.8	33.0	33.0	8.1	8.1	96.5	96.5	7.2	7.2	7.2	7.2	2.3	2.3	2.5	2.4					
						0.2	326.0	19.8	19.8	33.3	33.3	8.1	8.1	96.2	96.3	7.2	7.2	7.2	7.2	4.5	4.4	2.6	2.6					
						0.2	354.0	19.8	19.8	33.2	33.3	8.1	8.1	96.4	96.3	7.2	7.2	7.2	7.2	4.2	4.4	2.5	2.6					
E4	Fine	Moderate	11:29	11.2	S	0.3	188.0	20.4	20.4	28.4	28.4	8.0	8.0	96.9	96.9	7.4	7.4	7.2	7.2	2.7	2.7	2.6	2.9	3.7	4.1			
						0.3	189.0	20.4	20.4	28.4	28.4	8.0	8.0	96.9	96.9	7.4	7.4	7.2	7.2	2.7	2.7	3.1	2.9					
						0.1	323.0	19.9	19.9	32.6	32.6	8.1	8.1	93.8	93.8	7.1	7.1	7.1	7.1	3.8	3.8	4.2	4.3					
					M	0.1	325.0	19.9	19.9	32.6	32.6	8.1	8.1	93.7	93.8	7.1	7.1	7.1	7.1	3.8	3.8	4.4	4.3					
						0.2	353.0	19.9	19.9	33.2	33.2	8.1	8.1	93.6	93.7	7.0	7.0	7.0	7.0	4.6	4.6	5.0	5.1					
						0.2	5.0	19.9	19.9	33.2	33.2	8.1	8.1	93.7	93.7	7.0	7.0	7.0	7.0	4.6	4.6	5.2	5.1					
E5	Cloudy	Moderate	12:04	6.0	S	0.2	286.0	20.2	20.2	27.8	27.8	8.0	8.0	95.3	95.3	7.3	7.3	7.2	7.2	2.4	2.4	2.0	2.1	4.4	3.0			
						0.2	295.0	20.2	20.2	27.8	27.8	8.0	8.0	95.2	95.3	7.3	7.3	7.2	7.2	2.5	2.4	2.2	2.1					
						0.2	284.0	20.1	20.1	29.4	29.5	8.1	8.1	93.9	93.8	7.2	7.2	7.2	7.2	3.6	3.6	2.6	2.5					
					M	0.2	306.0	20.1	20.1	29.6	29.5	8.1	8.1	93.6	93.8	7.1	7.1	7.2	7.2	4.1	3.9	2.4	2.4					
						0.2	326.0	19.9	19.9	30.6	30.6	8.1	8.1	92.5	92.6	7.0	7.0	7.0	7.0	4.4	4.4	4.4	4.5					
						0.2	331.0	19.9	19.9	30.6	30.6	8.1	8.1	92.6	92.6	7.0	7.0	7.0	7.0	6.9	6.9	4.6	4.5					
E6	Cloudy	Moderate	13:12	5.1	S	0.3	337.0	20.5	20.5	23.5	23.5	8.0	8.0	91.7	91.5	7.2	7.2	7.2	7.2	2.8	2.9	2.7	2.6	4.1	2.8			
						0.3	356.0	20.5	20.5	23.5	23.5	8.0	8.0	91.3	91.5	7.2	7.2	7.2	7.2	3.0	3.0	2.4	2.6					
						0.4	327.0	20.3	20.3	29.0	29.0	8.0	8.0	89.5	89.6	6.8	6.8	6.8	6.8	5.3	5.3	3.0	3.1					
					B	0.4	347.0	20.3	20.3	29.0	29.0	8.0	8.0	89.6	89.6	6.8	6.8	6.8	6.8	5.4	5.3	3.2	3.1					
						0.4	16.0	20.3	20.3	28.0	28.0	7.9	7.9	92.2	92.1	7.1	7.1	7.1	7.1	3.0	3.0	3.5	3.3					
						0.4	16.0	20.3	20.3	28.1	28.0	7.9	7.9	91.9	92.1	7.0	7.1	7.1	7.1	3.0	3.0	3.1	3.3					
E7A	Cloudy	Moderate	13:31	4.9	S	0.2	2.0	20.1	20.1	29.3	29.3	7.9	7.9	89.3	89.4	6.8	6.8	6.8	6.8	8.8	8.7	4.3	4.5	5.9	3.9			
						0.2	2.0	20.1	20.1	29.3	29.3	7.9	7.9	89.5	89.4	6.8	6.8	6.8	6.8	8.7	8.7	4.7	4.5					
						0.1	61.5	20.3	20.3	32.2	32.2	7.9	7.9	95.4	95.5	7.1	7.1	7.1	7.1	1.9	1.9	2.2	2.3					
					M	0.1	61.5	20.3	20.3	32.2	32.2	7.9	7.9	95.5	95.5	7.1	7.1	7.1	7.1	1.9	1.9	2.4	2.3					
						1.0	309.1	20.2	20.2	32.3	32.3	7.9	7.9	95.5	95.2	7.2	7.1	7.1	7.1	2.0	2.0	3.0	2.8					
						0.6	324.3	20.2	20.2	32.3	32.3	8.0	7.9	94.9	95.2	7.1	7.1	7.1	7.1	2.0	2.0	2.6	2.8					
F1	Cloudy	Moderate	12:08	20.0	S	0.1	309.0	19.9	19.9	32.4	32.4	8.0	8.0	98.4	98.6	7.4	7.4	7.4	7.4	4.2	4.2	4.7	4.5	2.7	3.2			
						0.6	327.2	19.9	19.9	32.4	32.4	8.0	8.0	98.7	98.6	7.4	7.4	7.4	7.4	4.2	4.2	4.7	4.5					
						0.1	246.7	20.0	20.0	32.4	32.4	8.1	8.1	103.4	103.5	7.8	7.8	7.7	7.7	0.9	0.9	0.9	0.9					
					M	0.1	246.7	20.0	20.0	32.4	32.4	8.1	8.1	103.5	103.5	7.8	7.8	7.7	7.7	0.9	0.9	0.9	0.9					
						0.2	95.1	19.9	19.9	32.4	32.4	8.1	8.1	102.4	102.4	7.7	7.7	7.7	7.7	1.0	1.0	1.2	1.3					
						0.2	95.1	19.9	19.9	32.4	32.4	8.1	8.1	102.4	102.4	7.7	7.7	7.7	7.7	1.0	1.0	1.4	1.3					
F2	Cloudy	Moderate	12:39	19.0	S	0.5	173.7	19.8	19.8	32.4	32.4	8.1	8.1	101.5	101.5	7.7	7.7	7.6	7.6	1.4	1.4	2.1	2.2	1.1	1.3			
						0.2	231.2	19.8	19.8	32.4	32.4	8.1	8.1	101.4	101.5	7.6	7.6	7.6	7.6	1.3	1.4	2.1	2.2					
						0.1	246.7	20.0	20.0	32.4	32.4	8.1	8.1	103.4	103.5	7.8	7.8	7.7	7.7	0.9	0.9	0.5	0.5					
					M	0.1	246.7	20.0	20.0	32.4	32.4	8.1	8.1	103.5	103.5	7.8	7.8	7.7	7.7	0.9	0.9	0.5	0.5					
						0.2	95.1	19.9	19.9	32.4	32.4	8.1	8.1	102.4	102.4	7.7	7.7	7.7	7.7	1.0	1.0	1.2	1.3					
						0.2	95.1	19.9	19.9	32.4	32.4	8.1	8.1	102.4	102.4	7.7	7.7	7.7	7.7	1.0	1.0	1.4	1.3					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)		Current Direction		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*		
IM6	Cloudy	Moderate	13:27	16.0	S	0.8	298.5	20.1	20.1	32.4	32.4	8.1	8.1	106.0	106.2	8.0	8.0	7.8	2.4	2.4	2.1	2.3	<0.001					
						0.8	298.5	20.1	20.1	32.4	32.4	8.1	8.1	106.3	106.2	8.0	8.0	7.8	2.4	2.4	2.5	2.3	<0.001					
					M	0.1	204.8	19.9	20.0	32.4	32.4	8.1	8.1	102.5	102.9	7.7	7.7	7.6	2.6	2.6	2.4	2.6	2.6	<0.001				
						0.6	124.1	20.0	20.0	32.4	32.4	8.1	8.1	103.2	102.9	7.8	7.7	7.6	2.5	2.6	2.7	2.6	2.6	<0.001				
					B	0.4	342.4	19.9	19.9	32.4	32.4	8.1	8.1	101.2	100.8	7.6	7.6	7.6	5.2	5.5	4.6	4.4	4.6	4.4	<0.001			
						0.5	270.8	19.9	19.9	32.4	32.4	8.1	8.1	100.4	100.8	7.6	7.6	7.6	5.8	5.5	4.2	4.4	4.2	4.4	<0.001			
IM7	Fine	Rough	14:17	14.9	S	0.2	299.0	19.9	19.9	33.6	33.6	8.1	8.1	104.6	104.6	7.8	7.8	7.8	1.7	1.8	2.3	2.2	<0.001					
						0.2	320.0	19.9	19.9	33.6	33.6	8.1	8.1	104.5	104.6	7.8	7.8	7.8	1.8	1.8	2.0	2.2	<0.001					
					M	0.2	316.0	19.8	19.8	33.6	33.6	8.2	8.2	103.5	103.5	7.8	7.8	7.8	1.6	1.6	2.1	2.2	2.1	2.2	<0.001			
						0.2	340.0	19.7	19.8	33.6	33.6	8.2	8.2	103.4	103.5	7.8	7.8	7.8	1.7	1.6	2.3	2.2	2.3	2.2	<0.001			
					B	0.3	296.0	19.5	19.5	33.6	33.6	8.2	8.2	102.2	102.2	7.7	7.7	7.7	4.7	4.7	3.0	3.2	4.7	3.2	<0.001			
						0.3	307.0	19.5	19.5	33.6	33.6	8.2	8.2	102.2	102.2	7.7	7.7	7.7	4.6	4.7	3.4	3.2	4.6	3.2	<0.001			
IM8	Fine	Rough	13:50	12.9	S	0.3	300.0	19.9	19.9	33.6	33.6	8.2	8.2	104.7	104.7	7.8	7.8	7.8	1.5	1.5	2.5	2.4	<0.001					
						0.3	313.0	19.9	19.9	33.6	33.6	8.2	8.2	104.7	104.7	7.8	7.8	7.8	1.5	1.5	2.2	2.4	2.2	2.4	<0.001			
					M	0.3	293.0	19.6	19.6	33.6	33.6	8.2	8.2	104.8	104.8	7.9	7.9	7.9	1.4	1.4	2.6	2.7	2.6	2.7	<0.001			
						0.3	308.0	19.6	19.6	33.6	33.6	8.2	8.2	104.7	104.8	7.9	7.9	7.9	1.4	1.4	2.7	2.7	2.7	2.7	<0.001			
					B	0.2	336.0	19.5	19.5	33.6	33.6	8.2	8.2	102.1	102.1	7.7	7.7	7.7	2.1	2.0	3.1	3.1	2.1	2.0	3.1	3.1	<0.001	
						0.2	348.0	19.5	19.5	33.6	33.6	8.2	8.2	102.1	102.1	7.7	7.7	7.7	2.0	2.0	3.1	3.1	2.0	2.0	3.1	3.1	<0.001	
IM9	Fine	Rough	13:19	14.7	S	0.4	298.0	19.9	19.9	33.5	33.5	8.1	8.1	100.4	100.4	7.5	7.5	7.5	2.6	2.6	2.4	2.5	<0.001					
						0.4	299.0	19.9	19.9	33.5	33.5	8.1	8.1	100.4	100.4	7.5	7.5	7.5	2.6	2.6	2.6	2.6	2.6	2.6	<0.001			
					M	0.3	312.0	19.7	19.7	33.5	33.5	8.1	8.1	99.9	99.9	7.5	7.5	7.5	2.6	2.6	3.0	3.2	2.6	3.2	<0.001			
						0.3	329.0	19.7	19.7	33.5	33.5	8.1	8.1	99.9	99.9	7.5	7.5	7.5	2.6	2.6	3.3	3.2	2.6	3.2	<0.001			
					B	0.3	322.0	19.6	19.6	33.6	33.6	8.2	8.2	99.3	99.3	7.5	7.5	7.5	4.5	4.5	5.3	5.3	4.5	4.5	5.3	5.3	<0.001	
						0.3	338.0	19.6	19.6	33.6	33.6	8.2	8.2	99.2	99.3	7.5	7.5	7.5	4.5	4.5	5.2	5.3	4.5	4.5	5.2	5.3	<0.001	
IM10	Fine	Moderate	12:34	8.7	S	0.6	275.0	20.2	20.2	33.4	33.4	8.1	8.1	97.5	97.5	7.3	7.3	7.2	3.3	3.3	3.6	3.6	<0.001					
						0.6	283.0	20.2	20.2	33.4	33.4	8.1	8.1	97.5	97.5	7.3	7.3	7.2	3.3	3.3	3.5	3.6	3.3	3.3	<0.001			
					M	0.6	267.0	19.9	19.9	33.5	33.5	8.1	8.1	95.2	95.2	7.1	7.1	7.1	5.0	4.9	3.8	3.9	5.0	4.9	3.8	3.9	<0.001	
						0.6	291.0	19.9	19.9	33.5	33.5	8.1	8.1	95.2	95.2	7.1	7.1	7.1	4.9	4.9	3.9	3.9	4.9	4.9	3.9	3.9	<0.001	
					B	0.5	271.0	19.8	19.8	33.5	33.5	8.1	8.1	94.7	94.7	7.1	7.1	7.1	8.0	8.1	6.6	6.6	8.0	8.1	6.6	6.6	<0.001	
						0.5	280.0	19.8	19.8	33.5	33.5	8.1	8.1	94.7	94.7	7.1	7.1	7.1	8.1	8.1	6.6	6.6	8.1	8.1	6.6	6.6	<0.001	
IM11A	Fine	Moderate	12:19	5.6	S	0.4	342.0	20.2	20.2	32.0	32.0	8.1	8.1	99.2	99.2	7.5	7.5	7.5	2.5	2.5	3.8	3.6	<0.001					
						0.4	351.0	20.2	20.2	32.0	32.0	8.1	8.1	99.2	99.2	7.5	7.5	7.5	2.5	2.5	3.4	3.6	2.5	2.5	3.4	3.6	<0.001	
					B	0.3	336.0	20.1	20.1	33.0	33.0	8.1	8.1	98.1	98.1	7.3	7.3	7.3	5.8	5.8	6.2	6.0	5.8	5.8	6.2	6.0	<0.001	
						0.3	341.0	20.1	20.1	33.0	33.0	8.1	8.1	98.1	98.1	7.3	7.3	7.3	5.8	5.8	5.8	6.0	5.8	5.8	5.8	6.0	<0.001	
					IM12	Fine	Moderate	12:10	14.7	S	0.1	324.0	20.0	20.0	31.2	31.2	8.1	8.1	99.0	99.0	7.5	7.5	7.3	2.0	2.0	1.4	1.6	<0.001
											0.1	340.0	20.0	20.0	31.2	31.2	8.1	8.1	98.9	99.0	7.5	7.5	7.3	2.0	2.0	1.8	1.6	2.0
M	0.4	324.0	19.9	19.9						33.0	33.0	8.1	8.1	95.0	95.0	7.1	7.1	7.1	3.8	3.8	2.2	2.2	3.8	3.8	2.2	2.2	<0.001	
	0.5	338.0	19.9	19.9						33.0	33.0	8.1	8.1	94.9	95.0	7.1	7.1	7.1	3.9	3.8	2.1	2.2	3.9	3.8	2.1	2.2	<0.001	
B	0.3	304.0	19.7	19.7						33.5	33.5	8.1	8.1	93.8	93.8	7.0	7.0	7.0	13.3	13.3	3.0	3.2	13.3	13.3	3.0	3.2	<0.001	
	0.3	324.0	19.7	19.7						33.5	33.5	8.1	8.1	93.8	93.8	7.0	7.0	7.0	13.3	13.3	3.3	3.2	13.3	13.3	3.3	3.2	<0.001	
IM13	Fine	Moderate	11:48	16.4	S	0.3	196.0	20.1	20.1	27.9	27.8	8.0	8.0	96.8	96.8	7.5	7.5	7.3	2.7	2.6	1.9	1.9	<0.001					
						0.3	204.0	20.1	20.1	27.8	27.8	8.0	8.0	96.8	96.8	7.5	7.5	7.3	2.6	2.6	1.8	1.9	2.6	2.6	1.8	1.9	<0.001	
					M	0.2	8.0	19.9	19.9	32.8	32.8	8.1	8.1	94.5	94.5	7.1	7.1	7.1	2.8	2.8	2.6	2.7	2.8	2.8	2.6	2.7	<0.001	
						0.2	8.0	19.9	19.9	32.8	32.8	8.1	8.1	94.5	94.5	7.1	7.1	7.1	2.8	2.8	2.8	2.7	2.8	2.8	2.8	2.7	<0.001	
					B	0.1	34.0	19.9	19.9	33.2	33.2	8.1	8.1	94.4	94.5	7.1	7.1	7.1	5.4	5.6	4.7	4.6	5.4	5.6	4.7	4.6	<0.001	
						0.1	35.0	19.9	19.9	33.2	33.2	8.1	8.1	94.5	94.5	7.1	7.1	7.1	5.7	5.6	4.5	4.6	5.7	5.6	4.5	4.6	<0.001	
IM14	Fine	Moderate	11:38	10.7	S	0.2	153.0	20.1	20.1	29.6	29.6	8.0	8.0	98.1	98.1	7.5	7.5	7.3	2.7	2.7	2.1	2.9	<0.001					
						0.2	155.0	20.1	20.1	29.6	29.6	8.0	8.0	98.1	98.1	7.5	7.5	7.3	2.7	2.7	3.1	2.9	2.7	2.7	<0.001			
					M	0.3	18.0	19.8	19.8	31.9	32.0	8.1	8.1	94.8	94.7	7.2	7.2	7.2	3.7	3.7	3.7	3.8	3.7	3.7	3.8	<0.001		
						0.3	18.0	19.8	19.8	32.0	32.0	8.1	8.1	94.6	94.7	7.1	7.1	7.2	3.7	3.7	3.7	3.8	3.7	3.7	3.8	<0.001		
					B	0.2	39.0	19.9	19.9	32.9	32.9	8.1	8.1	94.4	94.5	7.1	7.1	7.1	4.4	4.4	4.2	4.3	4.4	4.4	4.2	4.3	<0.001	
						0.2	41.0	19.9	19.9	32.9	32.9	8.1	8.1	94.5	94.5	7.1	7.1	7.1	4.4	4.4	4.3	4.3	4.4	4.4	4.3	4.3	<0.001	

Water Quality Monitoring Data Log Sheet

Date: 2020/01/04

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level***	Current Velocity (m/s)		Current Direction		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*	
IM15	Cloudy	Moderate	11:50	5.8	S	0.2	280.0	20.3	20.3	27.9	27.9	8.0	8.0	96.0	96.0	7.4	7.4	7.4	2.3	2.3	6.2	3.3	3.1	4.2			
						0.2	281.0	20.3	20.3	27.8	27.8	8.0	8.0	96.0	96.0	7.4	7.4	7.4	2.3	2.3	6.2	2.9	2.9				
					B	0.2	307.0	20.0	20.0	29.4	29.4	8.0	8.0	94.5	94.5	7.2	7.2	7.2	10.1	10.1	7.3	5.2	5.3		5.0		
						0.2	333.0	20.0	20.0	29.4	29.4	8.0	8.0	94.5	94.5	7.2	7.2	7.2	10.1	10.1	7.3	5.4	5.3				
IM16A	Cloudy	Moderate	12:20	6.1	S	0.1	337.0	20.3	20.3	25.0	24.9	8.0	8.0	94.5	94.5	7.4	7.4	7.3	2.9	2.9	4.5	3.0	3.2	4.1			
						0.1	2.0	20.3	20.3	24.8	24.8	8.0	8.0	94.4	94.4	7.4	7.4	7.3	3.0	3.0							
					M	0.1	344.0	20.2	20.2	28.9	28.9	8.0	8.0	93.8	93.8	7.2	7.2	7.2	4.6	4.7		4.1	4.2		4.1		
						0.1	9.0	20.2	20.2	28.9	28.9	8.0	8.0	93.7	93.7	7.2	7.2	7.2	4.8	4.7							
					B	0.2	346.0	20.2	20.2	29.4	29.4	8.0	8.0	93.5	93.6	7.1	7.1	7.1	5.8	5.8		4.1	5.1		5.0		
						0.2	1.0	20.2	20.2	29.4	29.4	8.0	8.0	93.6	93.6	7.1	7.1	7.1	5.8	5.8							
IM17	Cloudy	Moderate	12:44	5.0	S	0.3	295.0	20.3	20.3	24.8	24.7	8.0	8.0	92.4	92.4	7.2	7.2	7.2	3.0	3.1	4.8	2.8	2.8	3.4			
						0.3	313.0	20.3	20.3	24.6	24.6	8.0	8.0	92.4	92.4	7.2	7.2	7.2	3.3	3.1							
					B	0.3	295.0	20.1	20.1	28.8	28.8	8.0	8.0	90.8	90.8	7.0	7.0	7.0	6.6	6.6		4.1	4.1		4.1		
						0.3	306.0	20.1	20.1	28.8	28.8	8.0	8.0	90.8	90.8	7.0	7.0	7.0	6.5	6.6							
IM18	Cloudy	Moderate	14:51	17.5	S	0.4	340.0	20.4	20.4	27.4	27.5	8.0	8.0	93.7	93.6	7.2	7.2	6.9	2.2	2.2	6.8	2.4	2.3	4.4			
						0.4	351.0	20.4	20.4	27.6	27.6	8.0	8.0	93.5	93.5	7.2	7.2		2.1	2.1							
					M	0.4	336.0	20.1	20.1	30.6	30.6	8.0	8.0	86.7	86.6	6.6	6.6		4.9	4.8		4.9					
						0.4	354.0	20.1	20.1	30.7	30.7	8.0	8.0	86.5	86.6	6.5	6.6			6.3		6.0					
					B	0.3	334.0	20.1	20.1	31.0	31.0	8.0	8.0	86.4	86.5	6.5	6.5		6.5	12.2		12.2	6.2		6.0	6.2	
						0.3	351.0	20.1	20.1	31.0	31.0	8.0	8.0	86.6	86.6	6.5	6.5			6.5		12.1			12.1		
IM19	Cloudy	Moderate	14:33	17.6	S	0.3	350.0	20.5	20.5	28.0	28.0	8.0	8.0	93.3	93.2	7.1	7.1	7.0	2.2	2.2	3.5	2.7	2.6	4.1			
						0.4	13.0	20.5	20.5	28.1	28.0	8.0	8.0	93.1	93.2	7.1	7.1		2.2	2.2							
					M	0.6	342.0	20.6	20.6	30.5	30.5	8.0	8.0	91.7	91.5	6.9	6.9		2.3	3.0		3.2					
						0.6	351.0	20.6	20.6	30.5	30.5	8.0	8.0	91.3	91.5	6.9	6.9			2.4		2.3					
					B	0.4	347.0	20.3	20.3	30.9	30.9	8.0	8.0	88.5	88.6	6.7	6.7		6.7	6.2		6.1	6.7		6.7	6.7	
						0.4	12.0	20.3	20.3	30.9	30.9	8.0	8.0	88.6	88.6	6.7	6.7			6.1		6.1					
IM20A	Cloudy	Moderate	13:54	4.5	S	0.4	49.0	21.3	21.2	26.6	26.8	7.9	7.9	93.9	93.7	7.1	7.1	4.2	3.6	3.8	4.2	4.9	4.7	4.3			
						0.5	51.0	21.1	21.2	26.9	26.9	7.9	7.9	93.5	93.7	7.1	7.1		3.9	3.8							
					B	0.3	48.0	20.8	20.8	28.0	28.0	8.0	8.0	92.1	92.2	7.0	7.0		4.7	4.7		4.7					
						0.3	50.0	20.8	20.8	28.0	28.0	8.0	8.0	92.2	92.2	7.0	7.0			4.0		3.9					
IM21A	Cloudy	Moderate	14:07	5.0	S	0.0	135.0	21.6	21.6	27.3	27.3	7.9	7.9	94.1	94.2	7.1	7.1	4.5	4.4	4.4	4.5	5.1	5.3	5.9			
						0.0	147.0	21.6	21.6	27.3	27.3	7.9	7.9	94.2	94.2	7.1	7.1		4.3	4.4							
					B	0.1	79.0	21.6	21.6	27.5	27.5	7.9	7.9	95.2	95.5	7.2	7.2		4.6	4.6		4.6	6.4		6.4	6.4	
						0.1	83.0	21.6	21.6	27.5	27.5	7.9	7.9	95.7	95.5	7.2	7.2			4.6		4.6					
IM22A	Cloudy	Moderate	14:14	5.4	S	0.2	42.0	20.8	20.8	26.7	26.7	7.9	7.9	92.5	92.4	7.1	7.1	3.8	2.8	2.8	3.8	2.9	3.3	4.5			
						0.2	44.0	20.8	20.8	26.7	26.7	7.9	7.9	92.3	92.4	7.1	7.1		2.9	2.8							
					B	0.1	56.0	20.6	20.6	29.5	29.4	7.9	7.9	89.0	89.1	6.7	6.7		4.9	5.8		5.8					
						0.1	60.0	20.6	20.6	29.4	29.4	7.9	7.9	89.1	89.1	6.7	6.7			4.8		4.9					

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
E1	FINE	Moderate	00:01	8.4	S	0.6	16.8	20.8	20.8	32.0	32.0	8.0	8.0	91.7	91.9	6.8	6.8	6.7	2.8	2.8	4.9	5.5	5.3	7.3	
						0.5	181.7	20.8		32.0	32.0	8.0		92.0	6.8	2.7			5.0						
						0.1	319.9	20.8		32.0	32.0	7.9		89.4	6.6	5.0			7.8						
					M	0.1	319.9	20.7	32.0	32.0	7.9	89.4	6.6	5.3	7.6										
						0.6	56.4	20.7	32.0	32.0	7.9	89.4	6.6	6.9	8.8										
						0.4	183.3	20.7	32.0	32.0	7.9	88.9	6.6	6.6	9.2										
B	0.7	97.2	20.8	32.4	32.4	8.0	101.3	7.5	3.0	5.3															
	0.7	97.2	20.8	32.4	32.4	8.0	101.4	7.5	2.9	5.2															
	1.0	329.4	20.8	32.4	32.4	8.0	100.9	7.5	3.0	6.8															
E2	FINE	Moderate	20:28	9.1	S	1.0	329.4	20.8	20.8	32.4	32.4	8.0	8.0	101.1	101.0	7.5	7.5	7.5	3.4	2.9	3.0	7.3	7.1	7.3	<0.001
						1.0	329.4	20.8		32.4	32.4	8.0		101.1	7.5	3.0				6.8					
						0.6	300.0	20.8		32.4	32.4	8.0		100.0	7.4	4.5				7.3					
					M	0.6	300.0	20.8	32.4	32.4	8.0	100.0	7.4	4.5	9.7										
						0.6	17.9	20.8	32.4	32.4	8.0	99.9	7.4	4.1	9.8										
						0.2	187.0	19.9	33.6	33.6	8.2	104.4	7.8	3.3	6.6										
E3	Cloudy	Rough	21:25	17.1	S	0.2	187.0	19.9	19.9	33.6	33.6	8.2	8.2	104.4	104.4	7.8	7.8	7.8	3.7	3.3	3.3	8.0	6.5	8.0	<0.001
						0.2	187.0	19.9		33.6	33.6	8.2		104.2	7.8	3.3				7.9					
						0.2	188.0	19.9		33.6	33.6	8.2		104.2	7.8	3.3				8.3					
					M	0.3	151.0	19.9	33.6	33.6	8.2	103.5	7.7	4.3	9.4										
						0.3	163.0	19.9	33.6	33.6	8.2	102.9	7.7	4.4	9.4										
						0.4	285.0	20.2	32.6	32.6	8.1	102.4	7.7	2.5	5.5										
E4	Cloudy	Rough	19:59	12.5	S	0.4	285.0	20.2	20.2	32.6	32.6	8.1	8.1	102.4	102.4	7.7	7.6	7.6	5.1	2.5	2.5	6.9	5.4	6.9	<0.001
						0.4	297.0	20.2		32.6	32.6	8.1		102.4	7.7	2.5				5.2					
						0.3	233.0	20.1		33.5	33.5	8.1		100.6	7.5	4.8				6.2					
					M	0.3	236.0	20.1	33.5	33.5	8.1	100.6	7.5	4.8	6.6										
						0.2	228.0	20.2	33.5	33.5	8.1	100.3	7.5	7.7	9.2										
						0.2	228.0	20.2	33.5	33.5	8.1	100.3	7.5	8.1	8.7										
E5	Cloudy	Rough	20:12	6.7	S	0.1	328.0	19.9	19.9	31.6	31.6	8.1	8.1	97.6	97.6	7.4	7.4	7.4	6.1	6.0	6.0	9.6	7.9	9.6	<0.001
						0.1	0.0	19.9		31.6	31.6	8.1		97.6	7.4	6.0				8.1					
						0.1	349.0	19.9		31.6	31.6	8.1		97.6	7.4	6.0				9.6					
					M	0.1	3.0	19.9	31.6	31.6	8.1	97.5	7.4	6.0	9.1										
						0.1	28.0	19.9	31.7	31.7	8.1	97.4	7.4	6.2	11.4										
						0.1	29.0	19.9	31.7	31.7	8.1	97.4	7.4	6.2	11.5										
E6	Cloudy	Moderate	21:16	6.4	S	0.3	164.0	20.6	20.6	26.9	26.9	8.0	8.0	98.3	98.3	7.5	7.3	7.3	2.1	1.3	1.3	6.3	4.8	6.3	<0.001
						0.3	171.0	20.6		26.9	26.9	8.0		98.3	7.5	1.3				4.6					
						0.3	150.0	20.5		28.6	28.6	8.0		92.0	7.0	2.3				5.9					
					M	0.3	156.0	20.5	28.6	28.6	8.0	92.1	7.0	2.2	5.7										
						0.3	130.0	20.4	30.3	30.3	8.0	88.0	6.7	2.6	8.6										
						0.3	135.0	20.4	30.3	30.3	8.0	88.3	6.7	2.6	8.2										
E7A	Cloudy	Moderate	21:38	5.5	S	0.2	196.0	20.7	20.7	28.1	28.0	8.0	8.0	94.1	94.2	7.2	7.2	7.2	4.9	4.1	4.0	6.8	4.4	6.8	<0.001
						0.2	202.0	20.7		28.0	28.0	8.0		94.2	7.2	3.8				4.6					
						0.2	175.0	20.5		29.0	29.0	8.0		89.6	6.8	5.9				9.2					
					B	0.2	179.0	20.5	29.0	29.0	8.0	89.8	6.8	5.8	9.4										
						0.2	250.4	20.1	32.5	32.5	8.1	101.0	7.6	4.3	4.8										
						0.2	250.4	20.1	32.5	32.5	8.1	101.1	7.6	4.2	5.2										
F1	FINE	Moderate	23:06	20.2	S	1.0	70.6	20.1	20.1	32.5	32.5	8.1	8.1	100.4	100.4	7.5	7.5	7.5	5.6	4.8	4.7	7.9	7.4	7.9	<0.001
						0.4	137.1	20.1		32.5	32.5	8.1		100.4	7.5	4.6				7.4					
						2.2	91.0	20.0		32.5	32.5	8.1		99.9	7.5	7.4				11.4					
					M	0.5	17.1	20.0	32.5	32.5	8.1	99.9	7.5	8.5	11.1										
						0.3	91.7	19.9	32.5	32.5	8.1	102.4	7.7	2.1	3.8										
						0.3	91.7	19.9	32.5	32.5	8.1	102.6	7.7	2.4	3.6										
F2	FINE	Moderate	22:32	19.2	S	1.3	94.0	19.9	19.9	32.5	32.5	8.1	8.1	101.7	101.8	7.7	7.7	7.7	3.2	2.4	2.4	5.3	5.1	5.3	<0.001
						0.4	154.0	19.9		32.5	32.5	8.1		101.8	7.7	2.3				4.8					
						0.3	141.0	19.9		32.5	32.5	8.1		100.9	7.6	4.7				7.1					
					M	0.4	154.0	19.9	32.5	32.5	8.1	101.8	7.7	2.3	5.3										
						0.3	141.0	19.9	32.5	32.5	8.1	100.9	7.6	4.7	7.1										
						0.3	141.0	19.9	32.5	32.5	8.1	100.7	7.6	5.2	7.3										

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	FINE	Moderate	21:52	17.9	S	0.4	77.5	19.9	19.9	32.4	32.4	8.1	8.1	102.6	102.7	7.7	7.7	7.7	2.1	2.1	2.9	3.6	3.5	5.6	<0.001
						0.4	77.5	19.9		32.4	32.4	8.1		102.7		7.7			2.1			3.4			<0.001
						0.2	97.4	19.9		32.4	32.4	8.1		101.5		7.6			2.6			5.3			0.006
					M	0.6	124.7	19.9	32.4	32.4	8.1	101.5	7.6	7.6	2.6	2.6	2.6	2.6	4.9	5.1	<0.001				
						B	0.5	278.8	19.9	32.4	32.4	8.1	100.7	7.6	7.6	7.6	7.6	3.9	4.1	8.3	8.2	<0.001			
							1.5	330.3	19.9	32.4	32.4	8.1	100.7	7.6	7.6	4.2	4.1	8.1	<0.001						
F4	FINE	Moderate	20:53	13.4	S	0.5	225.0	20.6	20.6	32.4	32.4	8.0	8.0	101.9	101.9	7.6	7.6	7.6	3.3	3.3	3.8	4.3	4.5	7.1	<0.001
						0.8	206.4	20.6		32.4	32.4	8.0		101.9		7.6			3.3			4.6			
					M	0.9	322.1	20.6	32.4	32.4	8.0	101.4	7.5	7.5	4.1	3.9	7.2	7.3	7.2	7.4	9.2	9.5			
						0.5	85.2	20.6	32.4	32.4	8.0	101.4	7.5	7.5	3.7	4.0	4.1	9.8	9.8						
					B	0.1	26.6	20.7	32.4	32.4	8.0	101.1	7.5	7.5	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1		
						0.2	291.1	20.7	32.4	32.4	8.0	101.1	7.5	7.5	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1		
F5	Cloudy	Moderate	19:33	6.9	S	0.1	56.0	19.9	19.9	31.3	31.3	8.1	8.1	100.4	100.4	7.6	7.6	7.6	2.3	2.3	4.7	4.6	4.8	6.4	<0.001
						0.1	58.0	19.9		31.2	31.2	8.1		100.4		7.6			2.3			4.9			
					M	0.1	37.0	20.0	31.6	31.6	8.1	98.8	7.5	7.5	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
						0.1	40.0	20.0	31.6	31.6	8.1	98.7	7.5	7.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
					B	0.0	355.0	20.0	31.8	31.8	8.1	97.6	7.4	7.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7		
						0.0	25.0	20.0	31.8	31.8	8.1	97.6	7.4	7.4	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8		
F6	Cloudy	Moderate	23:06	14.0	S	0.3	147.0	20.6	20.6	28.6	28.6	8.0	8.0	97.8	97.8	7.4	7.4	7.4	0.9	0.9	2.1	4.1	4.0	6.3	<0.001
						0.3	154.0	20.6		28.6	28.6	8.0		97.8		7.4			0.9			3.9			
					M	0.5	148.0	20.5	30.6	30.6	8.0	93.8	7.1	7.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
						0.6	156.0	20.5	30.6	30.6	8.0	93.7	7.1	7.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4			
					B	0.4	113.0	20.3	30.9	30.9	8.1	90.6	6.8	6.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
						0.4	113.0	20.3	30.9	30.9	8.1	90.7	6.8	6.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9			
IM1	FINE	Moderate	23:26	9.8	S	0.8	121.6	20.6	20.6	32.4	32.4	8.1	8.1	97.7	97.7	7.3	7.3	7.3	4.9	4.6	7.1	7.8	8.0	11.0	<0.001
						1.1	50.9	20.6		32.4	32.4	8.1		97.7		7.3			4.3			8.2			
					M	1.4	162.4	20.2	32.5	32.4	8.1	97.1	7.3	7.3	7.8	7.6	7.3	7.6	7.3	7.6	7.3	7.6			
						0.2	35.1	20.2	32.4	32.4	8.1	96.9	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3			
					B	0.7	124.6	20.1	32.5	32.5	8.1	97.0	7.3	7.3	9.4	9.1	9.1	9.1	9.1	9.1	9.1	9.1			
						0.7	124.6	20.1	32.5	32.5	8.1	96.9	7.3	7.3	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8			
IM2	FINE	Moderate	23:49	11.3	S	0.5	270.5	20.8	20.8	32.0	32.0	8.0	8.0	94.3	94.4	7.0	7.0	7.0	4.7	4.4	5.1	6.7	6.6	8.0	<0.001
						0.2	193.4	20.8		32.0	32.0	8.0		94.4		7.0			4.1			6.5			
					M	0.3	146.7	20.8	32.0	32.0	8.0	93.8	7.0	7.0	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3			
						0.3	146.7	20.8	32.0	32.0	8.0	93.9	7.0	7.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3			
					B	0.8	243.3	20.4	32.4	32.4	8.0	93.0	6.9	6.9	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6			
						0.4	56.4	20.4	32.4	32.4	8.0	93.2	6.9	6.9	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5			
IM3	FINE	Moderate	19:36	15.4	S	0.4	332.6	20.6	20.7	32.3	32.3	7.9	7.9	101.7	101.7	7.6	7.5	7.5	2.6	2.6	9.6	4.7	4.5	17.0	<0.001
						0.4	332.6	20.7		32.3	32.3	7.9		101.6		7.5			2.5			4.3			
					M	0.9	315.5	20.4	32.4	32.4	7.9	100.1	7.5	7.5	4.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4			
						0.7	125.9	20.5	32.4	32.4	7.9	100.6	7.5	7.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
					B	0.4	45.3	20.2	32.4	32.4	7.9	96.5	7.2	7.2	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8			
						0.6	90.1	20.2	32.4	32.4	7.9	96.4	7.2	7.2	23.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9			
IM4	FINE	Moderate	20:00	17.2	S	0.5	292.6	20.7	20.7	32.3	32.3	7.9	7.9	102.1	102.1	7.6	7.6	7.6	2.2	2.2	3.4	4.1	4.3	6.7	<0.001
						0.6	355.2	20.7		32.3	32.3	8.0		102.1		7.6			2.2			4.4			
					M	0.6	342.9	20.7	32.3	32.3	8.0	102.3	7.6	7.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7			
						0.2	356.2	20.7	32.3	32.3	8.0	102.3	7.6	7.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6			
					B	1.0	135.8	20.5	32.4	32.4	8.0	101.8	7.6	7.6	5.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4			
						0.2	320.8	20.5	32.4	32.4	8.0	101.7	7.6	7.6	5.6	5.4	5.4	5.4	5.4	5.4	5.4	5.4			
IM5	FINE	Moderate	21:23	15.3	S	0.4	3.6	20.1	20.1	32.4	32.4	8.1	8.1	102.3	102.2	7.7	7.7	7.7	8.1	8.1	10.7	12.4	12.2	15.6	<0.001
						0.4	3.6	20.1		32.4	32.4	8.1		102.1		7.7			8.1			12.0			
					M	0.7	126.5	20.1	32.4	32.4	8.1	102.1	7.7	7.7	11.5	11.2	11.2	11.2	11.2	11.2	11.2	11.2			
						0.6	138.5	20.1	32.4	32.4	8.1	102.1	7.7	7.7	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9			
					B	0.6	138.8	20.1	32.4	32.4	8.1	101.6	7.6	7.6	13.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7			
						0.4	65.8	20.1	32.4	32.4	8.1	101.9	7.6	7.6	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8			

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
IM6	FINE	Moderate	21:39	16.3	S	0.4	314.0	19.9	19.9	32.4	32.4	8.1	8.1	103.7	103.7	7.8	7.8	7.8	2.8	2.7	3.3	5.6	5.9	7.0	<0.001			
						0.4	290.0	19.9	19.9	32.4	32.4	8.1	8.1	103.7	103.7	7.8	7.8	7.8	2.6	2.7	3.3	6.1	5.9	7.0	0.004			
						0.3	226.1	19.9	19.9	32.4	32.4	8.1	8.1	103.1	103.2	7.8	7.8	7.8	3.0	2.9	3.3	6.7	6.8	7.0	0.002			
					M	0.3	226.1	19.9	19.9	32.4	32.4	8.1	8.1	103.2	103.2	7.8	7.8	7.8	2.8	2.9	3.3	6.8	6.8	7.0	6.8	6.8	7.0	<0.001
						0.8	189.9	19.9	19.9	32.4	32.4	8.1	8.1	102.4	102.5	7.7	7.7	7.7	4.5	4.3	3.3	8.1	8.5	7.0	8.1	8.5	7.0	<0.001
						0.2	184.6	19.9	19.9	32.4	32.4	8.1	8.1	102.5	102.5	7.7	7.7	7.7	4.0	4.3	3.3	8.8	8.5	7.0	8.8	8.5	7.0	0.003
IM7	Cloudy	Rough	22:34	14.6	S	0.2	93.0	19.7	19.7	33.6	33.6	8.2	8.2	103.9	103.9	7.8	7.8	7.8	3.2	3.2	5.0	5.1	6.5	5.0	5.1	6.5		
						0.2	93.0	19.7	19.7	33.6	33.6	8.2	8.2	103.9	103.9	7.8	7.8	7.8	3.2	3.2	5.0	5.1	6.5	5.0	5.1	6.5		
						0.2	97.0	19.7	19.7	33.6	33.6	8.2	8.2	103.6	103.6	7.8	7.8	7.8	3.3	3.4	5.0	6.1	6.3	6.5	6.1	6.3	6.5	
					M	0.2	102.0	19.7	19.7	33.6	33.6	8.2	8.2	103.6	103.6	7.8	7.8	7.8	3.5	3.4	5.0	6.4	6.3	6.5	6.4	6.3	6.5	
						0.1	57.0	19.7	19.7	33.6	33.6	8.2	8.2	103.1	103.1	7.7	7.7	7.7	8.4	8.5	5.0	8.0	8.2	6.5	8.0	8.2	6.5	
						0.1	59.0	19.7	19.7	33.6	33.6	8.2	8.2	103.1	103.1	7.7	7.7	7.7	8.5	8.5	5.0	8.4	8.2	6.5	8.4	8.2	6.5	
IM8	Cloudy	Rough	22:18	13.1	S	0.2	153.0	19.8	19.8	33.6	33.6	8.2	8.2	104.1	104.1	7.8	7.8	7.8	2.8	2.8	8.4	7.2	8.7	7.4	7.2	8.7		
						0.2	157.0	19.8	19.8	33.6	33.6	8.2	8.2	104.1	104.1	7.8	7.8	7.8	2.8	2.8	8.4	7.2	8.7	7.4	7.2	8.7		
						0.3	129.0	19.7	19.7	33.6	33.6	8.2	8.2	104.1	104.1	7.8	7.8	7.8	3.4	3.3	8.4	8.5	8.7	7.4	7.2	8.7		
					M	0.3	129.0	19.7	19.7	33.6	33.6	8.2	8.2	104.1	104.1	7.8	7.8	7.8	3.3	3.3	8.4	8.5	8.7	7.4	7.2	8.7		
						0.3	185.0	19.7	19.7	33.6	33.6	8.2	8.2	103.9	103.9	7.8	7.8	7.8	7.6	7.4	8.4	8.5	8.7	7.4	7.2	8.7		
						0.3	186.0	19.7	19.7	33.6	33.6	8.2	8.2	103.9	103.9	7.8	7.8	7.8	7.3	7.4	8.4	8.5	8.7	7.4	7.2	8.7		
IM9	Cloudy	Rough	21:53	15.0	S	0.4	169.0	20.0	20.0	33.6	33.6	8.1	8.1	102.0	102.1	7.6	7.6	7.6	2.6	2.6	10.4	7.3	8.2	7.3	7.3	8.2		
						0.5	178.0	20.0	20.0	33.6	33.6	8.1	8.1	102.1	102.1	7.6	7.6	7.6	2.6	2.6	10.4	7.3	8.2	7.3	7.3	8.2		
						0.4	152.0	20.0	20.0	33.6	33.6	8.1	8.1	101.7	101.7	7.6	7.6	7.6	2.9	2.9	10.4	8.1	8.5	8.2	8.1	8.5	8.2	
					M	0.4	164.0	20.0	20.0	33.6	33.6	8.1	8.1	101.6	101.6	7.6	7.6	7.6	2.9	2.9	10.4	8.8	8.5	8.2	8.8	8.5	8.2	
						0.2	164.0	20.0	20.0	33.6	33.6	8.1	8.1	101.1	101.1	7.5	7.5	7.5	5.5	5.3	10.4	8.7	8.9	8.2	8.7	8.9	8.2	
						0.2	165.0	20.0	20.0	33.6	33.6	8.1	8.1	101.1	101.1	7.5	7.5	7.5	5.2	5.3	10.4	9.0	8.9	8.2	9.0	8.9	8.2	
IM10	Cloudy	Rough	21:09	10.4	S	0.1	110.0	20.2	20.2	33.6	33.6	8.1	8.1	102.7	102.7	7.6	7.6	7.6	3.9	3.9	11.5	11.7	12.8	11.5	11.7	12.8		
						0.1	113.0	20.2	20.2	33.6	33.6	8.1	8.1	102.7	102.7	7.6	7.6	7.6	4.0	4.0	11.5	11.7	12.8	11.5	11.7	12.8		
						0.2	100.0	20.2	20.2	33.6	33.6	8.1	8.1	102.4	102.4	7.6	7.6	7.6	3.9	4.0	11.5	13.0	13.2	12.8	13.0	13.2	12.8	
					M	0.2	104.0	20.2	20.2	33.6	33.6	8.1	8.1	102.3	102.3	7.6	7.6	7.6	4.2	4.0	11.5	13.4	13.2	12.8	13.4	13.2	12.8	
						0.2	99.0	20.2	20.2	33.6	33.6	8.1	8.1	101.8	101.8	7.6	7.6	7.6	6.1	6.2	11.5	13.4	13.2	12.8	13.4	13.2	12.8	
						0.2	102.0	20.2	20.2	33.6	33.6	8.1	8.1	101.7	101.7	7.6	7.6	7.6	6.4	6.2	11.5	13.5	13.5	12.8	13.5	13.5	12.8	
IM11A	Cloudy	Rough	20:55	5.5	S	0.5	127.0	20.3	20.3	33.6	33.6	8.1	8.1	102.1	102.1	7.6	7.6	7.6	5.8	5.8	10.5	10.1	10.5	10.0	10.1	10.5		
						0.5	128.0	20.3	20.3	33.6	33.6	8.1	8.1	102.1	102.1	7.6	7.6	7.6	5.8	5.8	10.5	10.2	10.5	10.0	10.1	10.5		
						0.3	111.0	20.3	20.3	33.6	33.6	8.1	8.1	101.8	101.8	7.6	7.6	7.6	5.6	5.6	10.5	10.8	11.0	10.5	10.8	11.0	10.5	
					B	0.3	121.0	20.3	20.3	33.6	33.6	8.1	8.1	101.8	101.8	7.6	7.6	7.6	5.6	5.6	10.5	11.1	11.0	10.5	11.1	11.0	10.5	
						0.4	212.0	20.3	20.3	33.6	33.6	8.1	8.1	101.8	101.8	7.6	7.6	7.6	5.2	5.2	10.5	10.4	10.3	10.5	10.4	10.3	10.5	
						0.4	212.0	20.3	20.3	33.6	33.6	8.1	8.1	101.9	101.9	7.6	7.6	7.6	5.3	5.0	10.5	10.2	10.3	10.5	10.2	10.3	10.5	
IM12	Cloudy	Rough	20:43	15.3	M	0.3	180.0	20.3	20.3	33.6	33.6	8.1	8.1	102.2	102.2	7.6	7.6	7.6	5.1	5.0	10.8	10.7	10.8	10.8	10.7	10.8		
						0.3	180.0	20.2	20.2	33.6	33.6	8.1	8.1	102.2	102.2	7.6	7.6	7.6	5.0	5.0	10.8	10.7	10.8	10.8	10.7	10.8		
						0.2	192.0	20.2	20.2	33.6	33.6	8.1	8.1	101.7	101.7	7.6	7.6	7.6	5.4	5.5	10.8	11.6	11.5	10.8	11.6	11.5	10.8	
					B	0.2	203.0	20.2	20.2	33.6	33.6	8.1	8.1	101.6	101.6	7.6	7.6	7.6	5.5	5.5	10.8	11.4	11.5	10.8	11.4	11.5	10.8	
						0.6	281.0	20.3	20.3	32.6	32.6	8.1	8.1	103.3	103.3	7.7	7.7	7.7	2.6	2.6	5.6	5.2	5.3	5.6	5.3	5.6		
						0.6	302.0	20.3	20.3	32.6	32.6	8.1	8.1	103.3	103.3	7.7	7.7	7.7	2.6	2.6	5.6	5.4	5.3	5.6	5.4	5.3	5.6	
IM13	Cloudy	Rough	20:21	16.6	S	0.3	263.0	20.2	20.2	33.6	33.6	8.1	8.1	103.7	103.7	7.7	7.7	7.7	3.7	3.8	5.6	5.1	5.6	5.1	5.6			
						0.3	271.0	20.2	20.2	33.6	33.6	8.1	8.1	103.6	103.6	7.7	7.7	7.7	4.0	3.8	5.6	5.3	5.6	5.3	5.6			
						0.2	198.0	20.2	20.2	33.5	33.5	8.1	8.1	103.1	103.1	7.7	7.7	7.7	4.4	4.5	5.6	6.1	6.3	5.6	6.1	6.3		
					M	0.2	213.0	20.2	20.2	33.5	33.5	8.1	8.1	103.1	103.1	7.7	7.7	7.7	4.5	4.5	5.6	6.4	6.3	5.6	6.4	6.3		
						0.5	242.0	20.2	20.2	32.5	32.5	8.1	8.1	101.6	101.6	7.6	7.6	7.6	4.2	4.2	5.6	8.2	8.0	5.6	8.2	8.0		
						0.5	243.0	20.2	20.2	32.5	32.5	8.1	8.1	101.7	101.7	7.6	7.6	7.6	4.3	4.2	5.6	7.8	8.0	5.6	7.8	8.0		
IM14	Cloudy	Rough	20:12	11.8	S	0.3	222.0	20.3	20.3	33.6	33.6	8.1	8.1	101.5	101.5	7.5	7.5	7.5	4.4	4.4	7.0	6.8	7.0	6.6	6.8	7.0		
						0.4	239.0	20.2	20.2	33.6	33.6	8.1	8.1	101.4	101.4	7.5	7.5	7.5	4.4	4.4	7.0	6.8	7.0	6.6	6.8	7.0		
						0.3	194.0	20.2	20.2	33.6	33.6	8.1	8.1	100.9	100.9	7.5	7.5	7.5	6.3	6.5	7.0	6.4	6.3	7.0	6.4	6.3		
					M	0.3	222.0	20.3	20.3	33.6	33.6	8.1	8.1	101.5	101.5	7.5	7.5	7.5	4.4	4.4	7.0	6.8	7.0	6.6	6.8	7.0		
						0.4	239.0	20.2	20.2	33.6	33.6	8.1	8.1	101.4	101.4	7.5	7.5											

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value
IM15	Cloudy	Moderate	19:59	7.0	S	0.1	328.0	20.1	20.1	31.3	31.3	8.0	8.0	98.9	98.9	7.5	7.5	7.5	4.1	4.1	6.6	7.3	
						0.1	337.0	20.1	20.1	31.3	31.3	8.0	8.0	98.9	98.9	7.5	7.5	7.5	4.1	4.1	6.8		
					M	0.1	23.0	20.0	20.0	31.6	31.6	8.0	8.0	98.8	98.8	7.5	7.5	7.5	4.2	4.2	7.0		7.4
						0.1	23.0	20.0	20.0	31.6	31.6	8.0	8.0	98.8	98.8	7.5	7.5	7.5	4.2	4.2	7.4		
					B	0.1	45.0	20.0	20.0	31.7	31.7	8.0	8.0	98.2	98.3	7.4	7.4	7.4	5.5	5.5	8.1		8.0
						0.1	46.0	20.0	20.0	31.7	31.7	8.0	8.0	98.3	98.3	7.4	7.4	7.4	5.5	5.5	7.8		
IM16A	Cloudy	Rough	20:28	7.1	S	0.1	221.0	20.1	20.1	30.6	30.6	8.0	8.0	98.5	98.5	7.5	7.5	7.5	4.9	4.9	7.2	7.8	
						0.1	238.0	20.1	20.1	30.6	30.6	8.0	8.0	98.5	98.5	7.5	7.5	7.5	4.9	4.9	7.5		
					M	0.1	179.0	20.1	20.1	30.7	30.7	8.0	8.0	98.5	98.5	7.5	7.5	7.5	4.9	4.9	7.4		7.6
						0.1	196.0	20.1	20.1	30.7	30.7	8.0	8.0	98.5	98.5	7.5	7.5	7.5	4.9	4.9	7.7		
					B	0.1	109.0	20.1	20.1	31.0	31.0	8.0	8.0	98.5	98.5	7.5	7.5	7.5	6.1	6.1	8.6		8.6
						0.1	117.0	20.1	20.1	31.0	31.0	8.0	8.0	98.5	98.5	7.5	7.5	7.5	6.2	6.2	8.6		
IM17	Cloudy	Moderate	20:50	5.7	S	0.2	126.0	20.5	20.5	28.1	28.1	8.0	8.0	94.8	94.7	7.2	7.2	7.2	3.5	3.5	6.8	6.1	
						0.2	129.0	20.5	20.5	28.1	28.1	8.0	8.0	94.6	94.6	7.2	7.2	7.2	3.4	3.4	6.4		
					B	0.2	155.0	20.4	20.4	30.3	30.3	8.0	8.0	87.4	87.4	6.6	6.6	6.6	5.0	5.0	5.8		5.7
						0.2	169.0	20.4	20.4	30.3	30.3	8.0	8.0	87.7	87.6	6.6	6.6	6.6	5.0	5.0	5.5		
IM18	Cloudy	Moderate	22:43	17.0	S	0.5	170.0	20.5	20.5	27.5	27.5	8.0	8.0	96.6	96.6	7.4	7.4	7.4	1.5	1.5	3.6	6.2	
						0.5	179.0	20.5	20.5	27.5	27.5	8.0	8.0	96.5	96.5	7.4	7.4	7.4	1.5	1.5	3.9		
					M	0.6	158.0	20.5	20.5	29.1	29.1	8.0	8.0	92.1	92.1	7.0	7.0	7.0	1.9	1.9	5.8		5.6
						0.6	167.0	20.5	20.5	29.1	29.1	8.0	8.0	92.1	92.1	7.0	7.0	7.0	1.9	1.9	5.4		
					B	0.4	149.0	20.4	20.4	30.6	30.6	8.0	8.0	87.2	87.2	6.6	6.6	6.6	6.2	6.2	9.0		9.2
						0.4	158.0	20.4	20.4	30.6	30.6	8.0	8.0	87.2	87.2	6.6	6.6	6.6	6.4	6.4	9.3		
IM19	Cloudy	Moderate	22:31	18.2	S	0.6	176.0	20.9	20.9	28.3	28.3	8.0	8.0	96.8	96.8	7.3	7.3	7.3	2.2	2.2	6.3	6.6	
						0.6	178.0	20.9	20.9	28.3	28.3	8.0	8.0	96.8	96.8	7.3	7.3	7.3	2.2	2.2	6.1		
					M	0.5	165.0	20.7	20.7	30.3	30.3	8.0	8.0	94.5	94.5	7.1	7.1	7.1	1.2	1.2	6.5		6.6
						0.6	174.0	20.7	20.7	30.3	30.3	8.0	8.0	94.5	94.5	7.1	7.1	7.1	1.2	1.2	6.7		
					B	0.5	160.0	20.5	20.5	30.6	30.6	8.0	8.0	90.8	90.9	6.8	6.8	6.8	2.6	2.6	7.1		7.0
						0.5	168.0	20.5	20.5	30.6	30.6	8.0	8.0	90.9	90.9	6.8	6.8	6.8	2.5	2.5	6.8		
IM20A	Cloudy	Moderate	22:01	4.2	S	0.4	248.0	21.0	21.0	26.8	26.8	7.9	7.9	99.0	99.0	7.6	7.5	7.5	1.8	1.8	5.8	7.1	
						0.4	271.0	21.0	21.0	26.8	26.8	7.9	7.9	98.9	98.9	7.5	7.5	7.5	1.8	1.8	6.1		
					B	0.3	242.0	21.0	21.0	28.2	28.2	7.9	7.9	93.2	93.2	7.0	7.1	7.1	9.5	9.5	8.1		8.3
						0.3	246.0	21.0	21.0	28.2	28.2	7.9	7.9	93.4	93.3	7.1	7.1	7.1	9.6	9.6	8.5		
IM21A	Cloudy	Moderate	22:10	5.0	S	0.3	206.0	21.0	21.0	28.6	28.6	8.0	8.0	90.4	90.4	6.8	6.8	6.8	10.6	10.5	12.0	12.3	
						0.3	216.0	20.9	20.9	28.6	28.6	8.0	8.0	90.3	90.3	6.8	6.8	6.8	10.5	10.5	12.4		
					B	0.1	223.0	20.7	20.7	29.3	29.3	8.0	8.0	88.9	89.0	6.7	6.7	6.7	8.5	8.5	12.6		12.3
						0.2	233.0	20.7	20.7	29.3	29.3	8.0	8.0	89.0	89.0	6.7	6.7	6.7	8.5	8.5	12.0		
IM22A	Cloudy	Moderate	22:17	4.8	S	0.5	223.0	22.3	22.3	28.9	28.9	8.0	8.0	94.6	94.6	7.0	7.0	7.0	7.7	7.7	13.7	13.6	
						0.5	236.0	22.3	22.3	28.9	28.9	8.0	8.0	94.6	94.6	7.0	7.0	7.0	7.7	7.7	13.3		
					B	0.3	202.0	20.8	20.9	29.2	29.2	8.0	8.0	89.7	89.7	6.8	6.8	6.8	6.2	6.2	13.6		13.8
						0.3	213.0	20.9	20.9	29.2	29.2	8.0	8.0	89.7	89.7	6.8	6.8	6.8	6.3	6.2	13.9		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
E1	Fine	Moderate	12:25	8.9	S	0.2	2.5	20.8	20.8	31.8	31.8	7.8	7.8	92.1	92.3	6.8	6.8	2.4	2.4	4.1	5.8	8.4	8.4
						0.5	147.4	20.8		31.8	7.8	92.4		6.9	2.3								
						0.6	49.4	20.5		31.9	7.8	89.6		6.7	2.4								
					M	0.8	130.0	20.5	31.9	7.8	89.5	6.7	2.7	2.6	7.7	7.5							
						0.5	272.8	20.5	32.0	32.0	7.8	90.3	6.7	7.2	7.5	11.8	11.7						
						0.2	341.3	20.5	32.0	32.0	7.8	89.9	6.7	7.7	7.5	11.5	11.7						
B	0.6	239.9	20.9	32.4	32.4	8.1	101.4	7.5	3.4	3.4	4.9	5.0											
	0.6	239.9	20.9	32.4	32.4	8.1	101.5	7.5	3.3	3.4	5.1	5.0											
	0.3	33.7	20.8	32.4	32.4	8.1	99.8	7.4	3.9	3.8	5.8	5.7											
E2	Fine	Moderate	16:35	9.2	S	0.5	359.8	20.8	20.8	32.4	32.4	8.1	8.1	100.1	100.0	7.4	7.4	3.7	3.8	4.5	5.6	6.4	<0.001
						0.3	92.3	20.7		32.4	32.4	8.1		97.9	7.3	6.6		6.3			8.4		8.5
						0.3	28.9	20.7		32.4	32.4	8.1		98.1	7.3	6.0		6.3			8.5		8.5
					M	0.5	310.0	20.2	33.7	33.7	8.1	104.2	7.7	2.7	2.7	4.1	4.0						
						0.5	333.0	20.2	33.7	33.7	8.1	104.3	7.8	2.7	2.7	3.9	4.0						
						0.3	311.0	20.0	33.7	33.7	8.1	105.5	7.9	1.9	1.9	4.4	4.4						
B	0.3	316.0	20.0	33.7	33.7	8.1	105.4	7.9	2.0	1.9	4.3	4.4											
	0.4	312.0	19.9	33.7	33.7	8.2	104.0	7.8	2.8	2.8	4.9	5.1											
	0.5	317.0	19.9	33.7	33.7	8.2	103.9	7.8	2.8	2.8	5.2	5.1											
E3	Fine	Rough	14:29	14.8	S	0.3	45.0	20.4	20.4	30.8	30.9	8.1	8.1	106.5	106.5	8.0	7.8	2.0	2.0	2.5	7.2	4.5	<0.001
						0.4	49.0	20.3		31.1	30.9	8.1		106.4	8.0	2.0		2.0			7.3		7.3
						0.4	51.0	20.0		32.4	32.4	8.1		101.0	7.6	2.3		2.4			6.0		5.9
					M	0.4	55.0	20.0	32.4	32.4	8.1	100.6	7.6	2.5	2.4	5.7	5.9						
						0.3	62.0	19.9	33.1	33.0	8.1	98.9	7.4	9.1	9.1	6.1	6.0						
						0.3	62.0	20.0	33.0	33.0	8.1	99.1	7.4	9.2	9.1	5.8	6.0						
B	0.4	10.0	20.2	30.6	30.6	8.1	98.0	7.4	8.7	8.6	10.7	10.7											
	0.4	10.0	20.2	30.6	30.6	8.1	98.0	7.4	8.5	8.6	10.7	10.7											
	0.4	17.0	20.2	30.6	30.6	8.1	97.9	7.4	9.3	9.4	11.1	11.3											
E4	Fine	Moderate	15:44	11.8	S	0.4	10.0	20.2	20.2	30.6	30.6	8.1	8.1	98.0	98.0	7.4	7.4	8.7	8.6	9.3	10.7	11.8	<0.001
						0.4	10.0	20.2		30.6	30.6	8.1		98.0	7.4	8.5		8.6			10.7		10.7
						0.4	17.0	20.2		30.6	30.6	8.1		97.9	7.4	9.3		9.4			11.1		11.3
					M	0.4	17.0	20.2	30.6	30.6	8.1	97.9	7.4	9.4	9.4	11.4	11.3						
						0.4	17.0	20.2	30.7	30.7	8.1	98.1	7.4	9.9	9.9	13.2	13.6						
						0.4	17.0	20.2	30.7	30.7	8.1	98.2	7.4	9.9	9.9	13.9	13.6						
B	0.3	334.0	20.7	26.2	26.1	8.1	95.7	7.4	1.9	1.9	6.3	6.4											
	0.3	352.0	20.7	26.1	26.1	8.1	95.7	7.4	1.9	1.9	6.5	6.4											
	0.3	340.0	20.4	28.7	28.7	8.1	91.8	7.0	4.3	4.2	7.9	7.8											
E5	Fine	Moderate	16:28	7.0	S	0.4	10.0	20.2	20.2	30.6	30.6	8.1	8.1	98.0	98.0	7.4	7.4	8.7	8.6	3.1	10.7	7.1	<0.001
						0.4	10.0	20.2		30.6	30.6	8.1		98.0	7.4	8.5		8.6			10.7		10.7
						0.4	17.0	20.2		30.6	30.6	8.1		97.9	7.4	9.3		9.4			11.1		11.3
					M	0.4	17.0	20.2	30.6	30.6	8.1	97.9	7.4	9.4	9.4	11.4	11.3						
						0.4	17.0	20.2	30.7	30.7	8.1	98.1	7.4	9.9	9.9	13.2	13.6						
						0.4	17.0	20.2	30.7	30.7	8.1	98.2	7.4	9.9	9.9	13.9	13.6						
B	0.3	334.0	20.7	26.2	26.1	8.1	95.7	7.4	1.9	1.9	6.3	6.4											
	0.3	352.0	20.7	26.1	26.1	8.1	95.7	7.4	1.9	1.9	6.5	6.4											
	0.3	340.0	20.4	28.7	28.7	8.1	91.8	7.0	4.3	4.2	7.9	7.8											
E6	Fine	Moderate	15:18	5.9	S	0.3	23.0	21.0	21.0	27.6	27.6	8.0	8.0	99.2	99.2	7.5	7.5	2.3	2.3	3.5	6.7	7.4	<0.001
						0.4	25.0	21.0		27.6	27.6	8.0		99.1	7.5	2.3		2.3			6.7		6.7
						0.3	21.0	20.5		29.0	29.0	8.0		90.8	6.9	4.7		4.7			8.3		8.2
					M	0.3	21.0	20.5	29.0	29.0	8.0	90.8	6.9	4.7	4.7	8.3	8.2						
						0.3	21.0	20.5	29.0	29.0	8.0	90.8	6.9	4.7	4.7	8.0	8.2						
						0.3	21.0	20.5	29.0	29.0	8.0	90.8	6.9	4.7	4.7	8.0	8.2						
B	0.2	82.1	20.3	32.4	32.4	8.1	101.8	7.6	2.4	2.5	5.1	5.2											
	0.2	82.1	20.3	32.4	32.4	8.1	101.9	7.6	2.5	2.5	5.3	5.2											
	0.3	290.7	20.1	32.5	32.5	8.1	99.7	7.5	2.4	2.4	5.4	5.5											
E7A	Fine	Moderate	14:57	5.1	S	0.8	65.9	20.1	20.1	32.5	32.5	8.1	8.1	98.9	98.8	7.4	7.4	3.1	3.3	2.7	7.6	6.1	<0.001
						1.1	150.2	20.1		32.5	32.5	8.1		98.7	7.4	3.4		3.3			7.7		7.7
						0.1	168.6	20.2		32.5	32.5	8.2		101.9	7.6	2.6		2.7			6.6		6.7
					M	0.1	168.6	20.2	32.5	32.5	8.2	102.1	7.6	2.7	2.7	6.8	6.7						
						0.2	245.6	20.0	32.5	32.5	8.2	99.2	7.5	3.4	3.3	7.1	7.3						
						0.4	343.4	20.0	32.5	32.5	8.2	99.3	7.5	3.2	3.3	7.5	7.3						
B	0.5	29.8	20.0	32.5	32.5	8.1	98.3	7.4	6.9	7.1	9.1	9.3											
	0.5	88.9	20.0	32.5	32.5	8.1	97.9	7.4	7.3	7.1	9.5	9.3											
	0.5	88.9	20.0	32.5	32.5	8.1	97.9	7.4	7.3	7.1	9.5	9.3											
F1	FINE	Moderate	13:18	20.3	S	0.1	168.6	20.2	20.2	32.5	32.5	8.2	8.2	101.9	102.0	7.6	7.5	2.6	2.7	4.4	6.6	7.8	<0.001
						0.1	168.6	20.2		32.5	32.5	8.2		102.1	7.6	2.7		2.7			6.8		6.7
						0.2	245.6	20.0		32.5	32.5	8.2		99.2	7.5	3.4		3.3			7.1		7.3
					M	0.4	339.2	20.1	32.5	32.5	8.1	99.7	7.5	3.2	3.3	7.5	7.3						
						0.8	65.9	20.1	32.5	32.5	8.1	98.9	7.4	3.1	3.3	7.6	7.7						
						1.1	150.2	20.1	32.5	32.5	8.1	98.7	7.4	3.4	3.3	7.7	7.7						
B	0.1	168.6	20.2	32.5	32.5	8.2	101.9	7.6	2.6	2.7	6.6	6.7											
	0.1	168.6	20.2	32.5	32.5	8.2	102.1	7.6	2.7	2.7	6.8	6.7											
	0.2	245.6	20.0	32.5	32.5	8.2	99.2	7.5	3.4	3.3	7.1	7.3											
F2	FINE	Moderate	13:50	19.1	S	0.4	343.4	20.0	20.0	32.5	32.5	8.2	8.2	99.3	99.3	7.5	7.5	3.2	3.3	4.4	7.5	7.8	<0.001
						0.5	29.8	20.0		32.5	32.5	8.1		98.3	7.4	6.9		7.1			9.1		9.3
						0.5	88.9	20.0		32.5	32.5	8.1		97.9	7.4	7.3		7.1			9.5		9.3
					M	0.2	245.6	20.0	32.5	32.5	8.2	99.2	7.5	3.4	3.3	7.1	7.3						
						0.4	343.4	20.0	32.5	32.5	8.2	99.3	7.5	3.2	3.3	7.5	7.3						
						0.5	29.8	20.0	32.5	32.5	8.1	98.3	7.4	6.9	7.1	9.1	9.3						
B	0.5	88.9	20.0	32.5	32.5	8.1	97.9	7.4	7.3	7.1	9.5	9.3											
	0.5	88.9	20.0	32.5	32.5	8.1	97.9	7.4	7.3	7.1	9.5	9.3											
	0.5	88.9	20.0	32.5	32.5	8.1	97.9	7.4	7.3	7.1	9.5	9.3											

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
F3	FINE	Moderate	14:29	17.3	S	0.8	20.2	20.0	20.0	32.4	32.4	8.2	8.2	104.5	104.6	7.9	7.8	1.5	1.6	3.9	4.7	5.0	<0.001
						0.8	20.2	20.0		32.4	32.4	8.2		104.7	7.9	1.7		5.3		<0.001			
						1.2	286.7	19.9		32.4	32.4	8.2		102.6	7.7	1.9		5.7		<0.001			
					M	0.6	311.0	19.9	32.4	32.4	8.2	103.1	7.8	1.8	5.4	5.6	8.4	8.6	<0.001				
						0.6	59.5	19.9	32.4	32.4	8.2	100.6	7.6	7.6	7.6	8.1	8.7		<0.001				
						0.3	281.1	19.9	32.4	32.4	8.2	100.2	7.5	7.6	7.6	8.1	8.6		<0.001				
F4	FINE	Moderate	16:08	13.5	S	0.6	107.4	20.7	20.7	32.4	32.4	8.2	8.2	102.9	103.0	7.6	7.6	2.4	2.4	5.3	5.0	5.0	<0.001
						0.6	107.4	20.7		32.4	32.4	8.2		103.0	7.6	2.4		4.9		5.0			
						0.6	268.8	20.7		32.5	32.5	8.2		101.9	7.6	3.7		5.3		5.2			
					M	0.6	184.7	20.7	32.5	32.5	8.2	101.7	7.5	3.9	5.1	5.2	9.2	9.6	9.3	9.3	4.0		
						0.2	262.4	20.7	32.5	32.5	8.2	101.1	7.5	7.5	7.5	9.9	9.6		9.3	9.3	4.0		
						0.9	246.5	20.7	32.5	32.5	8.2	101.0	7.5	9.2	9.3	9.3	9.3		4.0				
F5	Fine	Moderate	03:40	6.7	S	0.3	22.0	20.4	20.4	30.4	30.4	8.2	8.2	106.6	106.6	8.0	7.9	1.9	1.9	3.9	2.1	2.3	<0.001
						0.3	22.0	20.4		30.4	30.4	8.2		106.5	8.0	1.9		2.4		2.3			
						0.3	24.0	20.1		31.5	31.5	8.2		102.0	7.7	3.0		3.6		3.4			
					M	0.3	24.0	20.1	31.4	31.5	8.2	102.1	7.7	7.7	7.7	3.0	3.0	3.0	3.4	4.0			
						0.2	10.0	19.9	31.9	31.9	8.2	97.6	7.4	7.4	7.4	6.8	6.2	6.0	6.2	4.0			
						0.2	10.0	19.9	31.9	31.9	8.2	97.7	7.4	7.4	7.4	7.0	6.9	6.4	6.2	4.0			
F6	Fine	Moderate	13:26	14.2	S	0.1	198.0	20.8	20.8	27.6	27.6	8.0	8.0	96.8	96.8	7.4	7.1	1.4	1.3	3.8	3.8	4.0	<0.001
						0.1	209.0	20.8		27.6	27.6	8.0		96.7	7.4	1.3		4.1		4.0			
						0.2	282.0	20.4		30.2	30.2	8.0		90.1	6.8	1.1		5.5		5.4			
					M	0.2	296.0	20.4	30.2	30.2	8.0	90.1	6.8	1.1	5.2	5.4	5.6	5.6					
						0.2	316.0	20.4	30.7	30.7	8.0	87.0	6.6	6.6	6.6	4.9	4.9	7.5	7.4				
						0.2	316.0	20.4	30.7	30.7	8.0	87.1	6.6	6.6	6.6	4.9	4.9	7.2	7.4				
IM1	FINE	Moderate	12:59	10.1	S	0.1	9.9	20.6	20.5	32.3	32.3	8.1	8.1	100.3	100.2	7.5	7.4	3.3	3.3	3.4	5.8	6.0	<0.001
						0.2	357.9	20.5		32.3	32.3	8.1		100.0	7.4	3.2		6.1		6.0			
						0.2	282.9	20.5		32.3	32.3	8.1		99.7	7.4	3.5		7.1		7.0			
					M	0.7	330.5	20.5	32.3	32.3	8.1	99.8	7.4	7.4	7.4	3.5	3.5	3.4	3.4	7.4			
						0.7	118.4	20.5	32.3	32.3	8.1	98.7	7.4	7.4	7.4	3.3	3.4	9.1	9.3				
						0.5	318.8	20.5	32.3	32.3	8.1	98.5	7.3	7.4	7.4	3.5	3.4	9.4	9.3				
IM2	FINE	Moderate	12:37	11.4	S	0.0	121.2	20.9	20.9	31.9	31.9	7.9	7.9	93.6	93.8	6.9	6.9	2.7	2.6	5.7	5.7	5.7	<0.001
						0.6	10.0	20.9		31.9	31.9	7.9		93.9	7.0	7.0		7.0		2.5	2.6		
						0.2	247.2	20.6		32.0	32.0	7.9		91.9	6.8	3.0		3.0		3.0	3.0		6.9
					M	0.2	247.2	20.6	32.0	32.0	7.9	91.4	6.8	3.0	3.0	3.0	3.0	6.7	6.9				
						0.7	18.0	20.5	32.2	32.2	7.9	93.0	6.9	7.0	7.0	3.6	3.6	8.9	9.1				
						0.2	90.9	20.5	32.2	32.2	7.9	93.6	7.0	7.0	7.0	3.6	3.6	9.3	9.1				
IM3	FINE	Moderate	17:26	15.3	S	0.3	35.0	20.6	20.6	32.4	32.4	8.2	8.2	100.8	100.8	7.5	7.5	2.4	2.4	5.2	5.3	5.3	<0.001
						0.3	35.0	20.6		32.4	32.4	8.2		100.7	7.5	2.3		5.4		5.3			
						0.4	348.2	20.7		32.4	32.4	8.2		100.7	7.5	2.9		7.2		7.5			
					M	0.5	116.9	20.7	32.4	32.4	8.2	101.0	7.5	7.5	7.5	3.0	3.0	7.7	7.5				
						0.3	288.2	20.2	32.4	32.4	8.2	98.8	7.4	7.4	7.4	3.4	3.4	9.2	9.0				
						0.8	95.3	20.2	32.4	32.4	8.2	98.7	7.4	7.4	7.4	3.4	3.4	8.7	9.0				
IM4	FINE	Moderate	17:03	17.2	S	0.5	282.5	20.8	20.8	32.4	32.4	8.2	8.2	102.9	103.0	7.6	7.5	2.3	2.3	5.3	5.6	5.6	<0.001
						0.5	282.5	20.8		32.4	32.4	8.2		103.0	7.6	2.2		5.9		5.6			
						0.7	307.8	20.4		32.4	32.4	8.2		100.2	7.5	2.5		6.4		6.6			
					M	0.7	238.8	20.4	32.4	32.4	8.2	100.2	7.5	7.5	7.5	2.4	2.5	6.8	6.6				
						0.6	276.9	20.3	32.4	32.4	8.2	99.1	7.4	7.4	7.4	6.1	5.8	11.6	11.9				
						0.3	321.4	20.3	32.4	32.4	8.2	98.5	7.4	7.4	7.4	5.4	5.8	12.1	11.9				
IM5	FINE	Moderate	15:38	15.1	S	0.3	356.1	20.4	20.4	32.4	32.4	8.2	8.2	102.7	102.8	7.7	7.6	2.7	2.7	5.3	5.2	5.2	<0.001
						1.7	21.0	20.4		32.4	32.4	8.2		102.9	7.7	2.6		5.1		5.2			
						0.7	305.7	20.4		32.4	32.4	8.2		101.2	7.6	4.6		8.7		9.0			
					M	0.9	279.2	20.4	32.4	32.4	8.2	100.9	7.5	7.5	7.5	5.3	5.0	9.2	9.0				
						0.2	297.1	20.4	32.4	32.4	8.2	98.6	7.4	7.3	7.3	17.1	17.4	14.1	14.0				
						0.3	95.9	20.4	32.4	32.4	8.2	98.3	7.3	7.3	7.3	17.7	17.4	13.8	14.0				

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
IM6	FINE	Moderate	15:19	16.2	S	0.2	65.1	20.0	20.0	32.5	32.5	8.2	8.2	104.2	104.6	7.8	7.8	7.8	3.6	3.4	6.3	7.1	6.9	7.7	0.001
						1.3	318.2	20.0		32.5	32.5	8.2		104.9		7.9			3.1			6.7			<0.001
					M	0.3	131.8	20.0	32.5	32.5	8.2	103.9	7.8	4.6	7.8	0.001									
						1.2	262.0	20.0	32.5	32.5	8.2	104.0	7.8	3.9	7.5	0.006									
					B	1.1	119.0	20.0	32.5	32.5	8.2	103.1	7.7	11.6	11.4	8.5	8.7	0.001							
						0.3	201.5	20.0	32.5	32.5	8.2	103.1	7.7	11.2	11.2	8.8	8.7	<0.001							
IM7	Fine	Rough	13:34	14.6	S	0.4	294.0	20.0	20.0	33.7	33.7	8.1	8.1	104.0	104.0	7.8	7.8	7.7	2.8	2.8	5.1	3.5	3.7	4.4	0.001
						0.4	313.0	20.0		33.7	33.7	8.1		104.0		7.8			2.7			3.9			<0.001
					M	0.2	276.0	19.8	19.8	33.7	33.7	8.1	103.1	7.7	2.0	1.9	4.6	4.4	0.001						
						0.2	296.0	19.8	19.8	33.7	33.7	8.1	103.1	7.7	1.9	1.9	4.1	4.4	0.001						
					B	0.2	279.0	19.7	19.7	33.7	33.7	8.1	101.0	7.6	10.6	10.6	5.2	5.0	0.001						
						0.2	287.0	19.7	19.7	33.7	33.7	8.1	101.1	7.6	10.6	10.6	4.8	5.0	0.001						
IM8	Fine	Rough	13:44	13.0	S	0.4	306.0	19.8	19.8	33.7	33.7	8.1	8.1	106.8	106.8	8.0	8.0	7.9	2.0	2.0	5.0	3.0	3.0	4.5	0.001
						0.5	311.0	19.8		33.7	33.7	8.1		106.8		8.0			2.0			2.9			<0.001
					M	0.3	295.0	19.8	19.8	33.7	33.7	8.1	105.8	7.9	2.0	2.0	3.7	3.9	0.001						
						0.3	299.0	19.8	19.8	33.7	33.7	8.1	105.8	7.9	2.0	2.0	4.1	3.9	0.001						
					B	0.2	341.0	19.7	19.7	33.7	33.7	8.1	102.6	7.7	10.8	11.0	6.9	6.7	0.001						
						0.3	342.0	19.7	19.7	33.7	33.7	8.1	102.6	7.7	11.2	11.0	6.5	6.7	0.001						
IM9	Fine	Rough	14:03	14.9	S	0.5	315.0	19.8	19.8	33.7	33.7	8.1	8.1	105.3	105.3	7.9	7.9	7.8	2.2	2.2	3.6	3.7	3.6	5.4	0.001
						0.5	329.0	19.8		33.7	33.7	8.1		105.2		7.9			2.2			3.4			<0.001
					M	0.3	298.0	19.7	19.7	33.7	33.7	8.2	103.7	7.8	2.3	2.3	5.1	5.1	0.001						
						0.3	327.0	19.7	19.7	33.7	33.7	8.2	103.7	7.8	2.3	2.3	5.0	5.1	0.001						
					B	0.2	315.0	19.6	19.6	33.7	33.7	8.2	102.3	7.7	6.4	6.2	7.4	7.5	0.001						
						0.3	341.0	19.6	19.6	33.7	33.7	8.2	102.2	7.7	6.1	6.2	7.5	7.5	0.001						
IM10	Fine	Rough	14:45	10.4	S	0.7	234.0	20.4	20.4	33.7	33.7	8.1	8.1	104.8	104.7	7.8	7.8	7.7	5.4	5.4	8.7	8.1	8.5	10.4	0.001
						0.7	243.0	20.4		33.7	33.7	8.1		104.6		7.7			5.5			8.8			<0.001
					M	0.6	234.0	20.3	20.3	33.7	33.7	8.1	102.7	7.6	7.6	7.6	9.2	9.1	0.001						
						0.6	235.0	20.3	20.3	33.7	33.7	8.1	102.5	7.6	7.6	7.6	9.0	9.1	0.001						
					B	0.7	242.0	20.3	20.3	33.7	33.7	8.1	101.6	7.5	13.0	12.9	13.6	13.7	0.001						
						0.7	245.0	20.3	20.3	33.7	33.7	8.1	101.7	7.5	12.9	12.9	13.8	13.7	0.001						
IM11A	Fine	Rough	14:58	5.6	S	0.8	331.0	20.4	20.4	33.7	33.7	8.1	8.1	102.8	102.8	7.6	7.6	7.6	8.9	9.0	10.9	20.5	20.4	22.2	0.001
						0.8	335.0	20.4		33.7	33.7	8.1		102.8		7.6			9.1			20.3			<0.001
					B	0.6	347.0	20.3	20.3	33.7	33.7	8.1	101.1	7.5	13.0	12.8	24.2	24.1	0.001						
						0.6	348.0	20.3	20.3	33.7	33.7	8.1	100.8	7.5	12.6	12.8	23.9	24.1	0.001						
					S	0.8	341.0	20.3	20.3	33.7	33.7	8.1	103.4	7.7	5.8	5.9	8.3	8.1	0.001						
						0.8	346.0	20.3	20.3	33.7	33.7	8.1	103.4	7.7	5.9	5.9	7.8	8.1	0.001						
IM12	Fine	Moderate	15:05	15.0	M	0.7	353.0	20.2	20.2	33.7	33.7	8.1	8.1	102.5	102.5	7.6	7.6	7.6	8.1	8.4	9.2	12.1	11.9	11.6	0.001
						0.7	27.0	20.2		33.7	33.7	8.1		102.5		7.6			8.7			11.7			<0.001
					B	0.6	358.0	20.2	20.2	33.7	33.7	8.1	101.8	7.6	13.8	13.4	14.7	14.9	0.001						
						0.6	6.0	20.2	20.2	33.7	33.7	8.1	101.7	7.6	13.1	13.4	15.1	14.9	0.001						
					S	0.4	42.0	20.1	20.1	32.5	32.6	8.1	101.3	7.6	2.5	2.5	3.0	3.1	0.001						
						0.4	44.0	20.1	20.1	32.7	32.6	8.1	101.1	7.6	2.5	2.5	3.2	3.1	0.001						
IM13	Fine	Moderate	15:26	17.8	M	0.5	38.0	20.0	20.0	33.5	33.5	8.1	8.1	100.0	100.0	7.5	7.5	7.5	8.6	11.3	8.4	5.2	5.2	7.9	0.001
						0.6	38.0	20.0		33.5	33.5	8.1		100.0		7.5			14.0			11.3			5.1
					B	0.4	27.0	20.1	20.1	33.5	33.5	8.1	99.7	7.4	11.3	11.3	15.1	15.4	0.001						
						0.4	27.0	20.1	20.1	33.5	33.5	8.1	99.7	7.4	11.3	11.3	15.6	15.4	0.001						
					S	0.2	10.0	20.4	20.4	31.4	31.5	8.1	104.2	7.8	2.0	2.0	37.5	37.6	0.001						
						0.3	10.0	20.4	20.4	31.7	31.5	8.1	103.8	7.8	2.0	2.0	37.6	37.6	0.001						
IM14	Fine	Moderate	15:35	11.2	M	0.4	12.0	20.3	20.3	33.0	33.0	8.1	8.1	102.6	102.6	7.6	7.6	7.6	6.7	6.7	9.9	11.8	11.7	18.1	0.001
						0.4	12.0	20.3		33.0	33.0	8.1		102.6		7.6			6.7			11.6			<0.001
					B	0.3	359.0	20.4	20.4	33.2	33.2	8.1	102.2	7.6	21.1	21.1	5.0	5.1	0.001						
						0.3	25.0	20.4	20.4	33.2	33.2	8.1	102.2	7.6	21.2	21.1	5.1	5.1	0.001						

Water Quality Monitoring Data Log Sheet

Date: 2020/01/06

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Fine	Moderate	16:42	6.8	S	0.5	5.0	20.2	20.2	31.2	31.2	8.1	8.1	100.9	100.9	7.6	7.6	7.6	6.4	6.4	7.0	9.2	9.1	10.8
						0.6	5.0	20.2		31.2	31.2	8.1		100.9		7.6			6.5					
						0.5	6.0	20.2		31.2	31.2	8.1		100.8		7.6			6.9					
					M	0.5	6.0	20.2	20.2	31.2	31.2	8.1	100.8	7.6	7.6	6.8	6.8	11.3						
						0.5	6.0	20.2	20.2	31.2	31.2	8.1	100.8	7.6	7.6	6.8	6.8	11.0						
						0.5	10.0	20.2	20.2	31.2	31.2	8.1	100.7	7.6	7.6	7.7	7.7	12.2						
B	0.6	10.0	20.2	20.2	31.2	31.2	8.1	100.7	7.6	7.6	7.7	7.7	12.3											
	0.4	352.0	20.9	20.9	28.7	28.7	8.1	101.1	7.6	7.6	7.6	7.6	1.4											
	0.4	358.0	20.9	20.9	28.7	28.7	8.1	101.0	7.6	7.6	7.5	7.5	1.4											
IM16A	Fine	Moderate	16:13	7.2	S	0.4	3.0	20.7	20.7	29.4	29.4	8.1	8.1	96.6	96.6	7.3	7.3	7.3	3.0	3.0	2.9	3.2	3.1	4.0
						0.5	3.0	20.7		29.4	29.4	8.1		96.6		7.3			3.0					
						0.4	7.0	20.6		20.6	29.4	29.4		8.1		96.1			7.3			7.3		
					M	0.4	7.0	20.6	20.6	29.4	29.4	8.1	96.1	7.3	7.3	4.5	4.5	6.3						
						0.4	7.0	20.6	20.6	29.4	29.4	8.1	96.1	7.3	7.3	4.5	4.5	6.4						
						0.4	334.0	20.9	20.9	26.8	26.8	8.1	98.5	7.5	7.5	2.5	2.5	5.4						
B	0.4	343.0	20.9	20.9	26.8	26.8	8.1	98.3	7.5	7.5	2.5	2.5	5.6											
	0.3	338.0	20.4	20.4	28.4	28.4	8.1	90.6	6.9	6.9	11.1	11.0	12.0											
	0.3	353.0	20.4	20.4	28.4	28.4	8.1	90.7	6.9	6.9	11.0	11.0	11.8											
IM17	Fine	Moderate	15:50	5.5	S	0.1	276.0	20.8	20.8	26.0	26.0	8.1	8.1	97.2	97.2	7.5	7.5	7.5	1.8	1.8	6.7	3.6	3.7	8.7
						0.1	288.0	20.8		25.9	26.0	8.1		97.1		7.5			1.8					
						0.1	324.0	20.3		20.3	29.6	29.6		8.1		87.2			6.6			6.6		
					M	0.1	353.0	20.3	20.3	29.6	29.6	8.1	87.2	6.6	6.6	1.7	1.8							
						0.3	344.0	20.3	20.3	30.7	30.7	8.1	83.7	6.3	6.3	5.6	5.7	3.2						
						0.3	0.0	20.3	20.3	30.7	30.7	8.1	83.8	6.3	6.3	5.8	5.7	3.2						
IM18	Fine	Moderate	13:53	18.0	S	0.1	87.0	20.8	20.8	26.1	26.1	8.1	8.1	97.2	97.2	7.5	7.5	7.1	1.6	1.6	3.1	3.6	3.4	3.5
						0.1	87.0	20.8		26.1	26.1	8.1		97.1		7.5			1.7					
						0.2	315.0	20.8		20.8	29.5	29.5		8.1		89.2			6.7			6.7		
					M	0.2	319.0	20.8	20.8	29.5	29.5	8.1	89.2	6.7	6.7	1.9	1.9	4.9						
						0.3	346.0	20.4	20.4	30.7	30.7	8.1	85.9	6.5	6.5	2.2	2.2	5.5						
						0.3	349.0	20.4	20.4	30.7	30.7	8.1	86.0	6.5	6.5	2.2	2.2	5.2						
IM19	Fine	Moderate	14:06	17.4	S	0.5	50.0	21.4	21.4	27.5	27.6	8.0	8.0	97.4	97.2	7.3	7.3	7.0	4.1	4.1	4.0	5.1	5.2	7.2
						0.5	51.0	21.4		27.6	27.6	8.0		97.0		7.3			4.2					
						0.3	61.0	21.1		21.1	28.8	28.8		8.0		93.1			7.0			7.0		
					B	0.4	66.0	21.1	21.1	28.8	28.8	8.0	93.1	7.0	7.0	4.0	4.0	9.4						
						0.3	34.0	22.6	22.6	27.2	27.2	8.0	102.6	7.6	7.6	2.6	2.6	5.7						
						0.3	34.0	22.6	22.6	27.2	27.2	8.0	102.6	7.6	7.6	2.6	2.6	5.1						
IM20A	Fine	Moderate	14:35	4.3	S	0.2	25.0	22.4	22.4	27.3	27.3	8.0	8.0	101.8	101.8	7.5	7.5	7.5	3.1	3.1	2.8	8.7	8.6	7.0
						0.2	27.0	22.4		27.3	27.3	8.0		101.8		7.5			3.1					
						0.3	41.0	21.3		21.3	26.5	26.5		8.0		101.3			7.7			7.7		
IM21A	Fine	Moderate	14:25	4.9	S	0.3	44.0	21.3	21.3	26.5	26.5	8.0	101.3	7.7	7.7	7.7	7.7	1.8	1.8	2.2	4.2	4.1		
						0.3	39.0	21.1	21.1	27.0	27.0	8.0	99.5	7.6	7.6	2.6	2.6	2.5						
						0.3	41.0	21.1	21.1	27.0	27.0	8.0	99.5	7.6	7.6	2.6	2.6	2.8						
IM22A	Fine	Moderate	14:20	5.1	B	0.3	41.0	21.1	21.1	27.0	27.0	8.0	99.5	7.6	7.6	7.6	7.6	2.6	2.6	2.2	4.0	2.7		
						0.3	41.0	21.1	21.1	27.0	27.0	8.0	99.5	7.6	7.6	2.6	2.6	2.5						
						0.3	41.0	21.1	21.1	27.0	27.0	8.0	99.5	7.6	7.6	2.6	2.6	2.8						

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Fine	Moderate	01:02	8.2	S	1.5	157.3	20.8	20.8	32.0	32.0	8.0	8.0	93.4	93.5	6.9	6.9	6.9	5.9	5.7	7.4	10.5	10.6	11.7
						1.3	198.0	20.8		32.0		8.0		93.5		6.9			5.5					
						0.8	205.0	20.8		32.0		8.0		93.1		6.9			6.2					
					M	0.8	232.8	20.8	32.0	8.0	93.2	6.9	6.3	6.3	11.1									
						0.4	231.4	20.8	32.0	7.9	93.6	6.9	9.9	10.2	13.6									
						0.9	218.2	20.8	32.0	8.0	92.8	6.9	10.4	13.2										
B	0.1	136.1	21.0	32.3	8.0	104.8	7.7	2.6	2.5	4.3														
	0.1	136.1	21.0	32.3	8.0	104.8	7.7	2.4	2.9	4.5														
	0.6	3.1	21.0	32.3	8.0	104.5	7.7	2.8	2.9	5.4														
E2	Fine	Moderate	21:29	9.3	S	0.6	140.2	21.0	21.0	32.3	32.3	8.0	8.0	104.6	104.6	7.7	7.7	7.7	2.8	2.9	2.8	5.6	5.5	5.3
						0.5	10.2	21.0		32.3		8.0		104.6		7.7			2.8					
						0.5	349.8	21.0		32.3		8.0		104.5		7.7			2.9			5.8		
					M	0.3	143.0	20.3	33.5	8.2	108.3	8.0	2.5	2.5	4.7									
						0.3	145.0	20.3	33.5	8.2	108.3	8.0	2.5	2.5	4.3									
						0.3	141.0	20.2	33.5	8.2	108.6	8.1	2.5	2.5	6.3									
B	0.3	151.0	20.2	33.5	8.2	108.7	8.1	2.5	2.5	5.8														
	0.2	112.0	20.0	33.5	8.2	106.1	7.9	3.4	3.4	6.6														
	0.2	117.0	20.0	33.5	8.2	105.9	7.9	3.3	3.4	7.4														
E3	Fine	Rough	22:00	16.9	S	0.3	214.0	20.5	20.5	33.1	33.2	8.1	8.1	103.7	103.7	7.7	7.7	7.7	5.1	5.0	5.4	7.6	7.7	8.4
						0.3	217.0	20.5		33.2		8.1		103.7		7.7			5.1					
						0.1	191.0	20.5		33.5		8.1		103.6		7.7			5.4					
					M	0.1	192.0	20.5	33.5	8.1	103.5	7.7	5.5	5.4	8.7									
						0.2	179.0	20.5	33.5	8.1	102.9	7.6	5.7	5.8	9.1									
						0.2	179.0	20.5	33.5	8.1	102.8	7.6	5.9	5.8	8.8									
B	0.1	277.0	20.5	29.7	8.1	100.9	7.6	3.7	3.7	7.6														
	0.1	302.0	20.5	29.6	8.1	100.9	7.6	3.7	3.7	7.4														
	0.1	44.0	20.2	31.2	8.2	101.6	7.7	5.7	5.6	8.3														
E4	Fine	Moderate	20:42	12.7	S	0.1	191.0	20.5	20.5	33.5	33.5	8.1	8.1	103.6	103.6	7.7	7.7	7.7	5.4	5.4	5.4	8.7	8.6	8.4
						0.1	192.0	20.5		33.5		8.1		103.5		7.7			5.5					
						0.2	179.0	20.5		33.5		8.1		102.9		7.6			5.7					
					M	0.1	102.0	20.2	31.6	8.2	100.6	7.6	9.4	9.5	9.5									
						0.1	106.0	20.2	31.6	8.2	100.6	7.6	9.6	9.9	9.9									
						0.3	149.0	20.5	29.6	8.1	99.3	7.5	7.5	7.5	7.9									
E5	Fine	Moderate	21:07	7.0	S	0.3	153.0	20.4	20.4	29.6	29.6	8.1	8.1	99.2	99.3	7.5	7.5	7.5	8.0	7.8	9.1	8.2	8.1	8.4
						0.2	130.0	20.4		29.9		8.1		98.9		7.5			8.6					
						0.3	138.0	20.4		29.9		8.1		98.9		7.5			10.5					
					B	0.4	137.0	20.7	28.9	8.0	96.0	7.3	4.5	4.6	5.2									
						0.4	147.0	20.7	28.9	8.0	95.6	7.2	4.6	4.6	5.5									
						0.3	160.0	20.6	29.8	8.0	92.5	7.0	5.0	5.0	7.8									
E6	Fine	Moderate	21:55	5.7	S	0.3	171.0	20.6	20.6	29.9	29.9	8.0	8.0	92.3	92.4	7.0	7.0	7.0	5.0	5.0	4.8	7.5	7.7	6.5
						0.3	136.0	20.4		29.9		8.1		98.9		7.5			8.7					
						0.4	137.0	20.7		28.9		8.0		96.0		7.3			4.5					
					M	0.3	320.5	20.3	32.5	8.1	105.1	7.9	0.9	0.9	3.8									
						1.1	302.6	20.3	32.5	8.1	105.2	7.9	0.9	0.9	3.5									
						0.5	217.0	20.3	32.5	8.1	104.3	7.8	1.0	1.0	4.6									
B	0.6	158.9	20.3	32.5	8.1	104.3	7.8	1.0	1.0	4.3														
	0.9	334.8	20.1	32.5	8.1	100.0	7.5	5.6	5.9	42.8														
	0.7	283.9	20.1	32.5	8.1	99.9	7.5	6.1	5.9	15.3														
E7A	Fine	Moderate	22:21	5.6	S	0.2	319.5	20.2	20.2	32.4	32.4	8.1	8.1	105.9	106.0	7.9	7.9	7.9	0.6	0.6	1.8	4.5	4.7	6.0
						0.2	319.5	20.2		32.4		8.1		106.0		7.9			0.6					
						1.0	170.4	20.2		32.4		8.1		104.6		7.8			0.7			0.7		
					M	0.2	192.6	20.2	32.4	8.1	105.1	7.9	0.6	0.7	4.9									
						0.9	149.8	20.1	32.5	8.1	99.6	7.5	4.0	4.3	8.3									
						0.9	270.0	20.1	32.5	8.1	99.1	7.4	4.5	4.3	8.7									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Fine	Moderate	22:52	18.0	S	1.2	195.2	20.1	20.1	32.3	32.3	8.1	8.1	104.1	104.2	7.8	7.8	7.8	1.5	1.5	7.8	2.8	2.6	4.0	<0.001
						0.3	313.1	20.1	20.1	32.3	32.3	8.1	8.1	104.2	104.2	7.8	7.8	7.8	1.5	1.5	7.8	2.4	2.6	4.0	<0.001
						1.2	97.3	20.1	20.1	32.3	32.3	8.1	8.1	103.2	103.3	7.7	7.8	7.8	1.5	1.5	7.8	3.3	3.1	4.0	<0.001
					M	0.2	93.0	20.1	20.1	32.3	32.3	8.1	8.1	103.4	103.3	7.8	7.8	7.8	1.5	1.5	7.8	2.9	3.1	4.0	<0.001
						1.0	237.9	20.1	20.1	32.3	32.3	8.1	8.1	102.7	102.7	7.7	7.7	7.7	1.9	1.9	7.7	6.1	6.3	4.0	0.004
						0.3	334.4	20.1	20.1	32.3	32.3	8.1	8.1	102.6	102.6	7.7	7.7	7.7	1.9	1.9	7.7	6.4	6.3	4.0	0.013
F4	Fine	Moderate	21:55	13.4	S	0.9	180.7	20.9	20.9	32.3	32.3	8.0	8.0	106.0	106.0	7.8	7.8	7.8	2.4	2.4	7.8	4.9	4.9	6.0	6.0
						1.7	125.7	20.9	20.9	32.3	32.3	8.0	8.0	105.9	105.9	7.8	7.8	7.8	2.4	2.4	7.8	4.8	4.9	6.0	6.0
						0.9	285.5	20.9	20.9	32.3	32.3	8.0	8.0	105.5	105.5	7.8	7.8	7.8	2.3	2.2	7.8	6.3	6.2	6.0	6.0
					M	0.1	44.1	20.9	20.9	32.3	32.3	8.0	8.0	105.5	105.5	7.8	7.8	7.8	2.1	2.2	7.8	6.1	6.2	6.0	6.0
						0.7	270.8	20.8	20.8	32.3	32.3	8.0	8.0	105.0	105.0	7.8	7.8	7.8	2.6	2.6	7.8	7.0	6.9	6.0	6.0
						0.8	174.1	20.8	20.8	32.3	32.3	8.0	8.0	105.0	105.0	7.8	7.8	7.8	2.6	2.6	7.8	6.8	6.9	6.0	6.0
F5	Cloudy	Moderate	20:38	7.0	S	0.0	56.0	20.4	20.4	31.4	31.4	8.1	8.1	101.2	101.0	7.6	7.6	7.6	4.9	5.2	7.5	9.2	9.5	13.6	13.6
						0.0	61.0	20.3	20.4	31.5	31.4	8.1	8.1	100.8	101.0	7.6	7.6	7.6	5.4	5.2	7.5	9.8	9.5	13.6	13.6
						0.0	66.0	20.2	20.2	32.1	32.1	8.1	8.1	99.4	99.4	7.5	7.5	7.5	8.0	7.9	7.5	13.6	13.9	13.6	13.6
					M	0.0	66.0	20.2	20.2	32.1	32.1	8.1	8.1	99.2	99.2	7.5	7.5	7.5	8.0	7.9	7.5	14.1	13.9	13.6	13.6
						0.1	111.0	20.1	20.1	32.1	32.1	8.0	8.0	99.3	99.2	7.4	7.4	7.4	8.3	8.2	7.4	17.2	17.5	13.6	13.6
						0.1	115.0	20.1	20.1	32.1	32.1	8.0	8.0	99.2	99.2	7.4	7.4	7.4	8.2	8.2	7.4	17.8	17.5	13.6	13.6
F6	Fine	Moderate	00:03	13.0	S	0.8	146.0	20.7	20.7	29.0	29.0	8.0	8.0	98.3	98.3	7.3	7.3	7.3	2.1	2.1	7.1	7.4	7.3	10.0	10.0
						0.8	147.0	20.7	20.7	29.0	29.0	8.0	8.0	96.2	96.3	7.3	7.3	7.3	2.1	2.1	7.1	7.2	7.3	10.0	10.0
						0.6	124.0	20.6	20.6	30.5	30.5	8.0	8.0	92.8	92.7	7.0	7.0	7.0	5.5	5.7	7.0	10.4	10.3	10.0	10.0
					M	0.6	125.0	20.6	20.6	30.6	30.6	8.0	8.0	92.6	92.6	7.0	7.0	7.0	6.0	5.7	7.0	10.2	10.3	10.0	10.0
						0.4	102.0	20.6	20.6	30.7	30.7	8.0	8.0	92.5	92.6	6.9	6.9	6.9	10.9	11.0	6.9	12.2	12.4	10.0	10.0
						0.5	106.0	20.6	20.6	30.7	30.7	8.0	8.0	92.6	92.6	7.0	6.9	6.9	11.2	11.0	6.9	12.6	12.4	10.0	10.0
IM1	Fine	Moderate	00:25	9.8	S	0.3	206.6	20.5	20.5	32.4	32.4	8.1	8.1	101.5	101.5	7.6	7.6	7.6	4.8	4.7	7.6	6.4	6.6	8.9	8.9
						0.4	346.7	20.5	20.5	32.4	32.4	8.1	8.1	101.4	101.5	7.6	7.6	7.6	4.5	4.7	7.6	6.8	6.6	8.9	8.9
						0.9	150.0	20.4	20.4	32.4	32.4	8.1	8.1	101.3	101.3	7.6	7.6	7.6	5.6	5.5	7.6	9.3	9.2	8.9	8.9
					M	0.9	104.8	20.4	20.4	32.4	32.4	8.1	8.1	101.3	101.3	7.6	7.6	7.6	5.3	5.5	7.6	9.1	9.2	8.9	8.9
						0.3	196.9	20.3	20.3	32.5	32.5	8.1	8.1	101.1	101.0	7.6	7.5	7.5	5.6	5.9	7.5	10.6	10.8	8.9	8.9
						0.3	196.9	20.3	20.3	32.5	32.5	8.1	8.1	100.8	101.0	7.5	7.5	7.5	6.2	5.9	7.5	11.0	10.8	8.9	8.9
IM2	Fine	Moderate	00:48	11.1	S	1.2	289.8	20.7	20.7	32.0	32.0	8.0	8.0	94.7	94.4	7.0	7.0	7.0	2.0	2.0	7.1	4.4	4.5	6.6	6.6
						1.0	337.2	20.7	20.7	32.1	32.0	8.0	8.0	94.1	94.4	7.0	7.0	7.0	1.9	2.0	7.1	4.6	4.5	6.6	6.6
						0.7	182.2	20.7	20.7	32.2	32.2	8.0	8.0	97.3	97.0	7.2	7.2	7.2	3.0	3.1	7.1	6.5	6.6	6.6	6.6
					M	0.6	240.5	20.7	20.7	32.2	32.2	8.0	8.0	96.7	97.0	7.2	7.2	7.2	3.2	3.1	7.1	6.7	6.6	6.6	6.6
						0.7	95.2	20.6	20.6	32.3	32.3	8.0	8.0	97.9	97.9	7.3	7.3	7.3	5.1	5.1	7.3	8.4	8.6	6.6	6.6
						1.2	274.0	20.6	20.6	32.3	32.3	8.0	8.0	97.8	97.9	7.3	7.3	7.3	5.1	5.1	7.3	8.7	8.6	6.6	6.6
IM3	Fine	Moderate	20:37	15.4	S	0.6	128.8	20.9	20.9	32.1	32.1	8.0	8.0	104.2	103.7	7.7	7.7	7.7	1.6	1.7	7.8	2.7	2.8	5.1	5.1
						0.6	128.8	20.9	20.9	32.1	32.1	8.0	8.0	103.1	103.7	7.6	7.6	7.6	1.8	1.7	7.8	2.9	2.8	5.1	5.1
						0.9	219.4	20.7	20.7	32.3	32.3	8.0	8.0	105.6	106.0	7.8	7.9	7.9	1.5	1.7	7.8	4.7	4.9	5.1	5.1
					M	0.9	219.4	20.7	20.7	32.3	32.3	8.0	8.0	106.3	106.0	7.9	7.9	7.9	1.5	1.7	7.8	5.1	4.9	5.1	5.1
						0.5	112.2	20.6	20.6	32.3	32.3	8.0	8.0	101.9	101.6	7.6	7.6	7.6	6.1	6.1	7.6	7.8	7.7	5.1	5.1
						0.7	129.1	20.5	20.5	32.3	32.3	8.0	8.0	101.2	101.6	7.5	7.6	7.6	6.0	6.1	7.6	7.6	7.7	5.1	5.1
IM4	Fine	Moderate	21:00	17.3	S	0.4	180.9	20.9	20.9	32.2	32.2	8.0	8.0	106.8	106.8	7.9	7.9	7.9	1.5	1.5	7.9	2.7	2.6	3.8	3.8
						0.4	180.9	20.8	20.9	32.2	32.2	8.0	8.0	106.8	106.8	7.9	7.9	7.9	1.5	1.5	7.9	2.5	2.6	3.8	3.8
						0.5	3.4	20.7	20.7	32.3	32.2	8.0	8.0	106.3	106.4	7.9	7.9	7.9	1.5	1.5	7.9	3.1	3.2	3.8	3.8
					M	0.4	267.8	20.7	20.7	32.2	32.2	8.0	8.0	106.5	106.4	7.9	7.9	7.9	1.5	1.5	7.9	3.2	3.2	3.8	3.8
						0.7	340.2	20.6	20.6	32.3	32.3	8.0	8.0	104.6	104.6	7.8	7.8	7.8	4.1	4.0	7.8	5.6	5.7	3.8	3.8
						0.5	193.8	20.5	20.5	32.3	32.3	8.0	8.0	104.6	104.6	7.8	7.8	7.8	3.8	4.0	7.8	5.8	5.7	3.8	3.8
IM5	Fine	Moderate	22:24	15.4	S	1.0	92.7	20.4	20.4	32.3	32.3	8.1	8.1	105.7	105.8	7.9	7.9	7.9	1.1	1.1	7.9	2.3	2.3	3.0	3.0
						1.0	92.7	20.4	20.4	32.3	32.3	8.1	8.1	105.8	105.8	7.9	7.9	7.9	1.1	1.1	7.9	2.2	2.3	3.0	3.0
						0.4	356.5	20.4	20.4	32.3	32.3	8.1	8.1	105.2	105.2	7.8	7.8	7.8	1.1	1.2	7.8	2.6	2.8	3.0	3.0
					M	0.4	130.9	20.4	20.4	32.3	32.3	8.1	8.1	105.2	105.2	7.8	7.8	7.8	1.2	1.2	7.8	3.0	2.8	3.0	3.0
						1.1	157.0	20.4	20.4	32.3	32.3	8.1	8.1	104.7	104.7	7.8	7.8	7.8	1.7	1.7	7.8	3.7	3.8	3.0	3.0
						0.3	309.8	20.4	20.4	32.3	32.3	8.1	8.1	104.7	104.7	7.8	7.8	7.8	1.6	1.7	7.8	3.9	3.8	3.0	3.0

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*				
IM6	Fine	Moderate	22:40	16.1	S	1.1	273.9	20.2	20.2	32.3	32.3	8.1	8.1	105.7	105.8	7.9	7.9	7.9	1.2	1.3	3.3	3.5	<0.001						
						1.1	273.9	20.2		32.3		8.1		105.8		7.9			1.3		3.6								
						0.6	174.9	20.2		32.3		8.1		105.1		7.9			1.2		4.5								
					M	0.2	295.9	20.2	32.3	8.1	105.1	7.9	1.2	4.8	4.7	<0.001													
						B	0.3	24.6	20.2	32.3	32.3	8.1	8.1	104.3	7.8	7.8	1.7	1.7	6.6	6.5	<0.001								
							0.4	60.6	20.2	32.3	8.1	104.3	7.8	7.8	1.6	6.3	<0.001												
0.2	96.0	19.9	33.5	33.5	8.2	107.2	8.0	8.0	1.4	4.0	0.008																		
IM7	Fine	Rough	23:35	14.9	S	0.2	97.0	19.9	19.9	33.5	33.5	8.2	8.2	107.2	107.2	8.0	8.0	8.0	1.4	1.5	4.0	4.0	3.4						
						0.3	115.0	19.9		33.5		8.2		106.9		8.0			8.0		1.4			3.4					
						0.3	117.0	19.9		33.5		8.2		106.9		8.0			1.3		3.8								
					M	0.2	80.0	19.9	33.5	33.5	8.2	8.2	106.1	7.9	7.9	2.7	2.7	2.3	2.7	5.5									
						0.3	81.0	19.9	33.5	33.5	8.2	8.2	106.0	7.9	7.9	2.8	3.1	2.7											
						B	0.1	156.0	19.8	19.8	33.5	33.5	8.2	8.2	107.2	8.0	8.0	1.3			1.3	2.9		2.8					
0.1	165.0	19.8	19.8	33.5	33.5		8.2	8.2	107.2	8.0	8.0	1.3	1.3	2.6															
IM8	Fine	Rough	22:56	13.0	M	0.2	172.0	19.8	19.8	33.5	33.5	8.2	8.2	106.8	106.8	8.0	8.0	8.0	1.1		1.1	5.8	5.7	3.4					
						0.2	187.0	19.8		33.5		8.2		106.8		8.0			1.1			5.5							
						0.2	296.0	19.8		33.5		8.2		106.3		8.0			8.0	1.5		7.8							
					B	0.2	308.0	19.8	19.8	33.5	33.5	8.2	8.2	106.2	8.0	8.0	1.5	1.5	8.1	8.0									
						0.4	125.0	20.1	20.1	33.5	33.5	8.2	8.2	107.5	8.0	8.0	1.7	1.7	4.4										
						0.4	130.0	20.1	20.1	33.5	33.5	8.2	8.2	107.5	8.0	8.0	1.7	1.7	4.5										
IM9	Fine	Rough	22:30	15.4	M	0.4	124.0	20.1	20.1	33.5	33.5	8.2	8.2	107.2	107.2	8.0	8.0	8.0	1.8	1.8	4.0	4.2	4.1						
						0.4	135.0	20.1		33.5		8.2		107.2		8.0			1.8		4.3								
						0.4	121.0	20.1		20.1		33.5		33.5		8.2			8.2		106.1			7.9	7.9	7.4	7.0	3.7	
					B	0.4	123.0	20.1	20.1	33.5	33.5	8.2	8.2	106.0	7.9	7.9	6.6	7.0	3.4	3.6									
						S	0.1	128.0	20.7	20.7	33.5	33.5	8.1	8.1	107.6	7.9	7.9	4.1	4.1		7.7	7.8							
							0.1	133.0	20.7	20.7	33.5	33.5	8.1	8.1	107.5	7.9	7.9	4.1	4.1		7.9								
IM10	Fine	Moderate	21:44	8.1	M	0.2	94.0	20.7	20.7	33.5	33.5	8.1	8.1	107.3	107.3	7.9	7.9	7.9	4.1	4.1	6.9	7.1	7.2						
						0.2	97.0	20.7		33.5		8.1		107.3		7.9			4.1		7.2								
						0.2	87.0	20.7		20.7		33.5		33.5		8.1			8.1		106.1			7.8	7.8	4.3	4.3	6.8	
					B	0.2	90.0	20.7	20.7	33.5	33.5	8.1	8.1	105.9	7.8	7.8	4.3	4.3	6.5	6.7									
						S	0.6	183.0	20.6	20.6	33.5	33.5	8.1	8.1	105.8	7.8	7.8	5.3	5.4		8.4	8.3							
							0.7	194.0	20.6	20.6	33.5	33.5	8.1	8.1	105.8	7.8	7.8	5.4	5.4		8.1								
IM11A	Fine	Moderate	21:32	5.8	B	0.4	162.0	20.6	20.6	33.5	33.5	8.1	8.1	105.5	105.5	7.8	7.8	7.8	5.5	5.6	9.7	9.6	8.9						
						0.4	176.0	20.6		33.5		8.1		105.4		7.8			5.6		9.5								
						0.5	198.0	20.7		20.7		33.5		33.5		8.2			8.2		106.5			7.9	7.9	4.6	4.6	7.1	
					M	0.5	206.0	20.7	20.7	33.5	33.5	8.2	8.2	106.5	7.9	7.9	4.6	4.6	6.9	7.0									
						0.4	176.0	20.6	20.6	33.5	33.5	8.2	8.2	106.6	7.9	7.9	4.1	4.1	8.1										
						0.4	191.0	20.6	20.6	33.5	33.5	8.2	8.2	106.7	7.9	7.9	4.2	4.1	7.9										
IM12	Fine	Moderate	21:22	15.3	B	0.3	174.0	20.4	20.4	33.5	33.5	8.2	8.2	106.0	106.0	7.8	7.8	7.8	4.9	5.0	8.3	8.2	7.7						
						0.3	189.0	20.4		33.5		8.2		105.9		7.8			5.0		8.1								
						S	0.1	224.0		20.7		20.7		33.5		33.5			8.1		8.1			106.9	7.9	7.9	4.4	4.5	6.9
					0.1		226.0	20.7	20.7	33.5	33.5	8.1	8.1	106.9	7.9	7.9	4.5	4.5	7.3										
					IM13	Fine	Moderate	21:01	17.2	M	0.1	215.0	20.7	20.7	33.5	33.5	8.1	8.1	106.7	106.7	7.9	7.9		7.9	5.0	5.0	8.5	8.7	8.5
											0.1	227.0	20.7		33.5		8.1		106.6		7.9				5.0		8.8		
0.1	167.0	20.7	20.7	33.5							33.5	8.1	8.1		105.9		7.8		7.8		5.1		5.1		10.0				
B	0.1	183.0	20.7	20.7						33.5	33.5	8.1	8.1	105.8	7.8	7.8	5.2	5.1	9.7	9.9									
	S	0.4	203.0	20.4						20.4	32.8	32.8	8.1	8.1	103.7	7.7	7.7	5.0	5.1		7.7	7.9							
		0.4	212.0	20.4						20.4	32.9	32.8	8.1	8.1	103.8	7.7	7.7	5.1	5.1		8.1								
IM14	Fine	Moderate	20:51	12.1	M	0.2	176.0	20.6	20.6	33.5	33.5	8.1	8.1	104.4	104.4	7.7	7.7	7.7	5.1	5.1	8.0	8.2	8.5						
						0.2	187.0	20.6		33.5		8.1		104.3		7.7			5.1		8.3								
						0.3	180.0	20.4		20.4		33.5		33.5		8.1			8.1		102.6			7.6	7.6	5.6	5.6	9.0	
					B	0.3	187.0	20.4	20.4	33.5	33.5	8.1	8.1	102.6	7.6	7.6	5.5	5.6	9.6	9.3									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value
IM15	Fine	Moderate	20:55	8.6	S	0.1	282.0	20.3	20.3	31.1	31.1	8.1	8.1	102.2	102.2	7.7	7.7	7.7	4.3	4.3	4.2	4.4	5.9
						0.1	309.0	20.3		31.1	31.1	8.1		102.2		7.7			4.3				
					M	0.1	96.0	20.2	20.2	31.5	31.5	8.1	8.1	101.4	101.4	7.6	7.6	7.6	5.7	5.7	5.1	5.1	
						0.1	99.0	20.2		31.5	31.5	8.1		101.3		7.6			5.8				
					B	0.1	115.0	20.1	20.1	31.7	31.7	8.1	8.1	100.8	100.8	7.6	7.6	7.6	7.0	7.0	7.8	8.1	
						0.1	116.0	20.1		31.7	31.7	8.1		100.8		7.6			7.0				
IM16A	Fine	Moderate	21:18	6.8	S	0.1	54.0	20.1	20.1	31.2	31.2	8.2	8.2	102.3	102.3	7.7	7.7	7.7	5.4	5.4	7.3	7.2	8.4
						0.1	56.0	20.1		31.2	31.2	8.2		102.3		7.7			5.3				
					M	0.1	62.0	20.2	20.2	31.3	31.3	8.1	8.1	101.5	101.5	7.7	7.7	7.7	6.8	6.9	8.5	8.4	
						0.1	62.0	20.2		31.3	31.3	8.1		101.5		7.7			8.3				
					B	0.1	90.0	20.2	20.2	31.3	31.3	8.1	8.1	101.6	101.6	7.7	7.7	7.7	8.1	8.4	9.2	9.5	
						0.1	94.0	20.2		31.3	31.3	8.1		101.6		7.7			8.7				
IM17	Fine	Moderate	21:34	7.1	S	0.1	127.0	20.4	20.4	30.6	30.6	8.1	8.1	101.1	101.1	7.6	7.6	7.6	6.7	6.8	8.1	8.3	8.9
						0.1	136.0	20.4		30.6	30.6	8.1		101.0		7.6			6.8				
					M	0.2	96.0	20.3	20.3	30.8	30.8	8.1	8.1	100.7	100.7	7.6	7.6	7.6	8.0	8.1	8.8	8.7	
						0.2	103.0	20.3		30.9	30.9	8.1		100.7		7.6			8.2				
					B	0.1	79.0	20.3	20.3	31.0	31.0	8.1	8.1	100.7	100.7	7.6	7.6	7.6	8.1	8.0	9.7	9.6	
						0.1	80.0	20.3		31.0	31.0	8.1		100.7		7.6			7.9				
IM18	Fine	Moderate	23:41	17.2	S	0.6	155.0	20.8	20.8	28.3	28.3	8.1	8.1	100.0	100.0	7.6	7.6	7.6	3.3	3.3	4.8	5.1	5.1
						0.7	163.0	20.8		28.3	28.3	8.1		100.0		7.6			3.3				
					M	0.5	163.0	20.8	20.8	29.7	29.7	8.0	8.0	94.4	94.4	7.1	7.1	7.1	5.3	5.3	5.4	5.2	
						0.5	169.0	20.8		29.7	29.7	8.0		94.4		7.1			4.9				
					B	0.4	159.0	20.7	20.7	29.9	29.9	8.0	8.0	93.4	93.5	7.0	7.0	7.0	28.6	26.3	4.7	5.1	
						0.4	163.0	20.7		29.9	29.9	8.0		93.5		7.0			23.9				
IM19	Fine	Moderate	23:29	18.3	S	0.8	188.0	20.9	20.9	28.9	28.9	8.0	8.0	95.8	95.9	7.2	7.2	7.2	3.9	3.9	6.3	6.0	4.6
						0.9	201.0	20.9		28.9	28.9	8.0		95.9		7.2			3.8				
					M	0.8	166.0	20.9	20.9	29.5	29.6	8.0	8.0	94.5	94.3	7.1	7.1	7.1	2.4	2.7	4.0	3.8	
						0.8	181.0	20.8		29.6	29.6	8.0		94.1		7.1			3.6				
					B	0.5	151.0	20.7	20.7	30.3	30.3	8.0	8.0	93.6	93.9	7.0	7.0	7.0	5.3	5.1	4.1	3.9	
						0.5	161.0	20.7		30.2	30.2	8.0		93.6		7.1			4.9				
S	0.3	198.0	20.8	20.8	28.3	28.3	8.0	8.0	96.3	96.4	7.3	7.3	7.3	2.7	2.7	5.8	5.7						
	0.3	199.0	20.8		28.3	28.3	8.0		96.4		7.3			5.6									
B	0.2	167.0	20.7	20.7	29.2	29.2	8.0	8.0	96.5	96.5	7.3	7.3	7.3	2.1	2.1	4.7	4.5						
	0.2	170.0	20.7		29.2	29.2	8.0		96.5		7.3			4.2									
IM21A	Fine	Moderate	23:10	5.2	S	0.4	216.0	21.1	21.1	28.8	28.8	8.0	8.0	93.7	93.8	7.0	7.0	7.0	11.8	11.8	12.2	12.0	13.2
						0.4	234.0	21.1		28.8	28.8	8.0		93.8		7.1			11.8				
					B	0.3	201.0	21.0	21.0	29.2	29.2	8.0	8.0	93.8	93.8	7.1	7.1	7.1	13.8	14.0	14.1	14.3	
						0.3	213.0	21.0		29.2	29.2	8.0		93.8		7.1			14.2				
IM22A	Fine	Moderate	23:18	5.8	S	0.5	224.0	21.4	21.4	29.2	29.2	8.0	8.0	95.4	95.4	7.1	7.1	7.1	11.8	11.8	16.3	16.2	17.2
						0.5	225.0	21.3		29.2	29.2	8.0		95.4		7.1			11.8				
					B	0.4	207.0	21.2	21.2	29.2	29.2	8.0	8.0	96.6	96.8	7.2	7.2	7.2	12.3	12.3	18.3	18.2	
						0.5	222.0	21.2		29.2	29.2	8.0		97.0		7.3			12.3				

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Fine	Calm	13:32	8.2	S	1.0	9.2	21.3	21.3	31.9	31.9	7.9	7.9	90.5	90.6	6.7	6.7	6.6	1.5	1.6	2.9	3.2	3.1	5.2
						1.3	305.3	21.3		31.9	31.9	7.9	7.9	90.7	90.6	6.7	6.7		1.6					
						0.3	200.4	20.9		31.9	31.9	7.9	7.9	88.8	88.9	6.6	6.6		2.2					
					M	0.8	67.2	20.9	31.9	31.9	7.9	7.9	88.9	88.9	6.6	6.6	1.9	2.1	6.0					
						0.7	231.1	20.8	32.0	32.0	7.9	7.9	88.9	88.7	6.6	6.6	5.3	5.2	6.2					
						0.3	78.5	20.8	32.0	32.0	7.9	7.9	88.4	88.4	6.6	6.6	5.1		6.4					
B	0.4	205.1	21.2	32.3	32.3	8.2	8.2	103.1	103.3	7.6	7.6	3.2	3.1	4.8										
	0.4	205.1	21.2	32.3	32.3	8.2	8.2	103.5	103.3	7.6	7.6	2.9		4.7										
	0.1	70.5	21.2	32.3	32.3	8.2	8.2	102.2	102.3	7.5	7.5	3.3		3.4	5.9									
M	0.3	218.4	21.2	32.4	32.4	8.2	8.2	102.4	102.3	7.5	7.5	3.5	5.5											
	0.4	48.6	21.2	32.4	32.4	8.2	8.2	101.5	101.5	7.5	7.5	3.8	6.4											
	B	1.1	333.2	21.2	32.4	32.4	8.2	8.2	101.5	101.5	7.5	7.5	3.7	6.7										
0.9		278.0	20.7	32.2	32.2	8.2	8.2	111.9	111.9	8.3	8.3	1.7	1.7	5.1										
1.0		304.0	20.7	32.2	32.2	8.2	8.2	111.8	111.9	8.3	8.3	1.7		5.0										
M	0.7	277.0	20.3	33.5	33.5	8.1	8.1	105.4	105.3	7.8	7.8	2.4		2.6	4.8									
	0.8	301.0	20.3	33.5	33.5	8.1	8.1	105.1	105.3	7.8	7.8	2.7	4.5											
	0.7	289.0	20.1	33.6	33.6	8.2	8.2	104.3	104.4	7.8	7.8	6.4	6.6											
B	0.8	316.0	20.2	33.6	33.6	8.2	8.2	104.4	104.4	7.8	7.8	6.0		6.2										
	0.7	8.0	20.3	33.2	33.2	8.2	8.2	103.9	103.9	7.7	7.7	5.2		5.7	8.5									
	S	0.7	8.0	20.2	33.2	33.2	8.2	8.2	103.8	103.9	7.7	7.7	6.3		8.6									
0.6		9.0	20.1	33.4	33.4	8.2	8.2	103.1	103.1	7.7	7.7	13.3	12.2		12.2									
M		0.6	9.0	20.1	33.4	33.4	8.2	8.2	103.1	103.1	7.7	7.7		11.1	12.4									
	0.5	15.0	20.0	33.4	33.4	8.2	8.2	102.8	102.8	7.7	7.7	14.7		21.2										
	B	0.6	15.0	20.0	33.4	33.4	8.2	8.2	102.8	102.8	7.7	7.7	15.1	21.3										
0.7		12.0	20.7	30.4	30.4	8.1	8.1	104.6	104.6	7.9	7.9	12.9	12.9	24.5										
0.7		12.0	20.7	30.4	30.4	8.1	8.1	104.6	104.6	7.9	7.9	12.9		23.8										
M	0.7	14.0	20.7	30.4	30.4	8.1	8.1	104.3	104.3	7.8	7.8	12.2		13.6	23.9									
	0.7	15.0	20.7	30.4	30.4	8.1	8.1	104.3	104.3	7.8	7.8	15.0	24.2											
	0.5	17.0	20.7	30.4	30.4	8.1	8.1	103.8	103.6	7.8	7.8	18.8	28.6											
B	0.6	18.0	20.7	30.4	30.4	8.1	8.1	103.4	103.6	7.8	7.8	18.6		28.6										
	0.8	336.0	21.0	28.1	28.1	8.1	8.1	97.0	97.0	7.3	7.3	1.9		2.0	5.0									
	S	0.8	349.0	21.0	28.1	28.1	8.1	8.1	98.9	97.0	7.3	7.3	2.1		5.4									
0.6		337.0	20.7	29.9	29.9	8.0	8.0	90.4	90.4	6.8	6.8	5.9	5.9		6.2									
M		0.7	356.0	20.7	29.9	29.9	8.0	8.0	90.4	90.4	6.8	6.8		5.9	6.5									
	0.5	338.0	20.7	30.1	30.1	8.0	8.0	90.8	90.9	6.8	6.8	9.0		9.0	8.6									
	B	0.6	353.0	20.7	30.1	30.1	8.0	8.0	91.0	90.9	6.9	6.9	9.1		8.8									
0.3		29.0	21.1	27.9	27.9	8.0	8.0	98.8	98.8	7.5	7.5	3.1	3.0		3.3									
S		0.3	30.0	21.1	28.0	28.0	8.0	8.0	98.7	98.8	7.5	7.5		3.0	3.1									
	0.2	20.0	20.9	29.1	29.1	8.0	8.0	93.7	93.8	7.1	7.1	13.2		13.1	8.7									
	B	0.2	20.0	20.9	29.1	29.1	8.0	8.0	93.8	93.8	7.1	7.1	13.0		8.5									
0.9		325.7	21.2	32.3	32.3	8.2	8.2	105.9	106.1	7.8	7.8	1.3	1.3		3.0									
S		1.0	318.5	21.1	32.3	32.3	8.2	8.2	106.2	106.1	7.8	7.8		1.2	3.2									
	0.3	74.2	20.0	32.4	32.4	8.2	8.2	98.9	99.5	7.4	7.5	1.2		1.2	3.4									
	M	0.3	2.4	20.0	32.4	32.4	8.2	8.2	100.0	99.5	7.5	7.5	1.1		4.1									
1.8		136.9	20.0	32.6	32.6	8.2	8.2	95.8	95.5	7.2	7.2	4.5	4.8		9.4									
B		0.4	17.6	20.0	32.6	32.6	8.2	8.2	95.1	95.5	7.1	7.2		5.0	9.2									
	1.1	263.5	20.9	32.4	32.4	8.2	8.2	106.7	107.0	7.9	7.9	0.8		0.8	2.1									
	S	1.1	263.5	20.9	32.4	32.4	8.2	8.2	107.3	107.0	7.9	7.9	0.8		2.3									
0.3		231.4	20.2	32.4	32.4	8.2	8.2	100.4	100.9	7.5	7.6	1.0	1.0		3.4									
M		0.4	52.1	20.2	32.4	32.4	8.2	8.2	101.4	100.9	7.6	7.6		0.9	3.5									
	0.4	145.0	20.0	32.6	32.6	8.2	8.2	95.9	95.6	7.2	7.2	4.4		4.4	7.1									
	B	0.4	144.3	20.0	32.6	32.6	8.2	8.2	95.3	95.6	7.2	7.2	4.4		7.3									
0.4		144.3	20.0	32.6	32.6	8.2	8.2	95.3	95.6	7.2	7.2	4.4	7.5											

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Fine	Calm	15:38	17.8	S	1.2	335.2	20.8	20.8	32.3	32.3	8.2	8.2	108.3	108.4	8.0	8.0	7.9	0.9	0.9	1.8	3.5	3.3	4.6	<0.001
						0.4	216.4	20.8		32.3	32.3	8.2		108.4		8.0			0.9			3.1			<0.001
						0.6	342.5	20.4		32.4	32.4	8.3		105.0		7.8			1.1			3.8			<0.001
					M	0.4	245.5	20.4	32.4	32.4	8.3	105.8	7.9	7.9	1.1	3.8	3.8	0.010							
						0.8	225.5	20.0	32.4	32.4	8.2	99.4	7.5	7.5	3.2	7.0	6.8	0.001							
						0.5	89.4	20.0	32.4	32.4	8.2	99.0	7.4	7.5	3.3	6.6	0.007								
F4	Fine	Calm	16:33	13.2	S	0.8	269.1	21.2	21.2	32.4	32.4	8.2	8.2	108.5	108.6	8.0	8.0	7.9	1.8	1.8	3.3	4.7	4.4	7.3	7.3
						0.3	299.5	21.2		32.4	32.4	8.2		108.7		8.0			1.7			4.1			
						1.4	290.4	21.1		32.4	32.4	8.2		105.1		7.7			2.8			7.1			
					M	0.6	243.3	21.1	32.4	32.4	8.2	105.8	7.8	2.4	7.3	7.2									
						0.5	284.4	21.0	32.4	32.4	8.2	103.2	7.6	5.3	10.0	10.2									
						0.6	231.5	21.0	32.4	32.4	8.2	102.7	7.6	5.6	10.4										
F5	Cloudy	Moderate	03:40	6.9	S	0.4	32.0	20.6	20.6	30.6	30.6	8.1	8.1	104.7	104.8	7.9	7.9	7.7	4.3	4.3	9.6	12.4	12.6	17.5	17.5
						0.4	32.0	20.6		30.7	30.7	8.1		104.7		7.9			4.3			12.7			
						0.3	35.0	20.2		31.9	31.9	8.1		100.2		7.5			10.1			17.5			
					M	0.3	38.0	20.2	31.9	31.9	8.1	100.2	7.5	7.5	10.9	17.0	17.3								
						0.2	34.0	20.2	32.0	32.0	8.1	100.3	7.5	7.5	16.0	22.9	22.6								
						0.2	36.0	20.2	32.0	32.0	8.1	100.7	7.6	7.5	12.0	22.3									
F6	Fine	Moderate	15:16	13.6	S	0.4	317.0	21.4	21.4	27.9	27.9	8.0	8.0	99.7	99.7	7.5	7.5	7.3	1.8	1.8	3.8	5.2	4.9	6.0	6.0
						0.4	322.0	21.4		27.9	27.9	8.0		99.7		7.5			1.8			4.6			
						0.2	331.0	20.6		29.9	29.9	8.0		94.6		7.1			5.8			6.0			
					M	0.2	333.0	20.6	29.9	29.9	8.0	94.6	7.1	7.1	5.7	6.2	6.0								
						0.2	304.0	20.4	30.9	30.9	7.9	86.3	6.5	6.5	3.8	7.4	7.2								
						0.3	310.0	20.4	30.9	30.9	7.9	86.3	6.5	6.5	3.9	7.0									
IM1	Fine	Calm	14:11	9.4	S	0.8	121.8	21.3	21.2	32.3	32.3	8.1	8.1	102.8	102.7	7.6	7.5	7.6	1.9	2.0	2.9	4.3	4.3	5.7	5.7
						0.8	121.8	21.2		32.3	32.3	8.1		102.5		7.5			2.0			4.2			
						0.4	9.6	20.8		32.3	32.3	8.1		101.8		7.5			2.0			5.1			
					M	0.5	25.4	20.8	32.3	32.3	8.1	102.6	7.6	7.6	1.8	5.4	5.3								
						0.7	332.1	20.1	32.5	32.5	8.2	98.7	7.4	7.4	4.8	7.3	7.6								
						0.2	21.3	20.1	32.5	32.5	8.2	98.2	7.4	7.4	4.9	7.9									
IM2	Fine	Calm	13:47	11.3	S	0.3	200.0	21.2	21.2	32.1	32.1	8.0	8.0	97.9	98.0	7.2	7.2	7.3	2.4	2.4	3.1	4.0	4.1	5.8	5.8
						1.0	117.0	21.2		32.1	32.1	8.0		97.9		7.2			2.3			4.2			
						0.2	209.7	20.7		32.3	32.3	8.1		98.8		7.3			2.6			5.5			
					M	0.2	17.9	20.9	32.3	32.3	8.0	100.1	7.4	7.4	2.6	5.3	5.4								
						0.9	327.3	20.3	32.3	32.3	8.1	96.6	7.2	7.2	4.2	7.6	7.8								
						0.8	145.4	20.3	32.3	32.3	8.1	96.3	7.2	7.2	4.4	8.0									
IM3	Fine	Calm	17:56	15.3	S	0.7	275.5	20.9	20.9	32.2	32.2	8.2	8.2	103.6	103.6	7.7	7.7	7.6	1.5	1.5	5.0	6.6	6.6	13.3	13.3
						0.7	275.5	20.9		32.2	32.2	8.2		103.6		7.7			1.4			6.5			
						0.7	317.3	20.9		32.2	32.2	8.2		101.0		7.5			1.7			6.9			
					M	0.7	178.5	20.9	32.2	32.2	8.2	102.1	7.6	7.5	1.5	19.0	13.0								
						0.3	56.4	20.1	32.3	32.3	8.2	93.7	7.0	7.0	22.6	20.4									
						0.2	196.0	20.2	32.3	32.3	8.2	93.7	7.0	7.0	12.0	18.2									
IM4	Fine	Calm	17:30	17.4	S	1.0	315.4	21.0	21.0	32.2	32.2	8.2	8.2	104.2	104.4	7.7	7.7	7.6	1.3	1.3	2.6	5.1	4.9	6.0	6.0
						1.0	315.4	21.0		32.2	32.2	8.2		104.5		7.7			1.3			4.6			
						1.0	271.5	20.9		32.2	32.2	8.2		102.5		7.6			1.6			5.6			
					M	0.4	220.9	20.9	32.3	32.3	8.2	102.6	7.6	7.6	1.5	5.9	5.8								
						0.4	43.1	20.5	32.4	32.3	8.2	99.9	7.4	7.4	4.9	7.4	7.3								
						0.4	255.2	20.5	32.3	32.3	8.2	99.7	7.4	7.4	4.9	7.1									
IM5	Fine	Calm	16:05	15.4	S	0.6	248.2	21.1	21.1	32.3	32.3	8.2	8.2	107.6	107.8	7.9	7.9	7.8	1.3	1.3	3.0	3.4	3.2	5.3	5.3
						1.3	219.1	21.1		32.3	32.3	8.2		108.0		8.0			1.3			3.0			
						1.1	343.8	20.6		32.4	32.4	8.2		101.9		7.6			2.1			5.1			
					M	0.2	81.8	20.5	32.4	32.4	8.2	102.4	7.6	7.6	1.9	5.0	5.1								
						0.4	323.5	20.2	32.4	32.4	8.2	97.9	7.3	7.3	5.5	7.7	7.5								
						0.4	24.5	20.2	32.4	32.4	8.2	97.3	7.3	7.3	6.0	7.3									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
IM6	Fine	Calm	15:50	16.3	S	1.1	301.9	20.8	20.8	32.3	32.3	8.2	8.2	108.7	108.7	8.0	8.0	8.0	1.0	1.0	3.3	3.5	<0.001
						0.5	31.0	20.8		32.3		8.2		108.7		8.0			1.0		3.7		
						0.5	299.0	20.5		32.4		8.3		106.4		7.9			1.1		4.4		
					M	0.2	166.5	20.6	32.3	8.3	107.4	8.0	1.0	4.3									
						0.4	271.4	20.0	32.4	8.3	101.5	7.6	2.5	4.9									
						0.7	216.7	20.0	32.4	8.3	100.6	7.6	2.9	4.6									
B	0.4	308.0	20.3	33.6	8.2	111.9	8.3	1.0	4.7														
	0.4	330.0	20.3	33.6	8.2	111.9	8.3	1.0	4.1														
	0.3	304.0	20.2	33.6	8.1	109.7	8.2	1.0	4.9														
IM7	Fine	Rough	15:31	14.1	S	0.3	319.0	20.2	20.2	33.6	33.6	8.1	8.1	109.7	109.7	8.2	8.2	8.2	1.0	1.0	5.1	5.0	<0.001
						0.3	298.0	19.8		33.6		8.2		105.7		7.9			2.1		5.4		
						0.3	318.0	19.8		33.6		8.2		105.7		7.9			2.1		5.7		
					M	0.5	272.0	20.2	33.6	8.2	112.5	8.4	0.9	3.0									
						0.5	298.0	20.2	33.6	8.2	112.5	8.4	0.9	2.7									
						0.6	252.0	20.1	33.6	8.2	110.9	8.3	0.8	3.9									
B	0.7	256.0	20.1	33.6	8.2	110.7	8.3	0.8	3.3														
	0.7	251.0	19.9	33.6	8.2	106.4	8.0	1.6	5.8														
	0.7	288.0	19.9	33.6	8.2	106.4	8.0	1.7	6.0														
IM8	Fine	Rough	15:47	12.7	S	1.0	278.0	20.8	20.8	33.1	33.1	8.2	8.2	116.6	116.6	8.6	8.6	8.0	1.1	1.1	2.1	2.2	<0.001
						1.0	288.0	20.8		33.1		8.2		116.6		8.6			1.1		2.3		
						0.8	273.0	20.3		33.6		8.2		112.0		8.3			1.1		2.5		
					M	0.8	276.0	20.2	33.6	8.2	111.6	8.3	1.2	2.9									
						0.7	273.0	19.8	33.6	8.2	107.3	8.0	4.3	3.0									
						0.7	288.0	19.9	33.6	8.2	107.2	8.0	4.1	3.0									
IM9	Fine	Rough	16:06	14.9	S	1.1	282.0	20.8	20.8	33.5	33.5	8.1	8.1	107.6	107.5	7.9	7.9	7.8	3.8	3.9	6.1	6.3	<0.001
						1.1	290.0	20.8		33.5		8.1		107.4		7.9			3.9		6.5		
						0.9	276.0	20.8		33.6		8.1		106.0		7.8			5.8		8.8		
					M	1.0	298.0	20.8	33.6	8.1	105.9	7.8	5.9	8.6									
						1.1	275.0	20.7	33.6	8.1	105.0	7.7	14.3	10.1									
						1.2	285.0	20.7	33.6	8.1	105.0	7.7	13.8	10.4									
IM10	Fine	Rough	16:47	8.8	S	0.8	311.0	21.0	21.0	33.3	33.3	8.1	8.1	109.7	109.6	8.1	8.0	8.0	13.2	13.3	22.0	21.8	<0.001
						0.8	321.0	21.0		33.3		8.1		109.4		8.0			13.4		21.5		
						0.8	311.0	20.8		33.5		8.1		106.8		7.9			44.4		38.4		
					M	0.9	320.0	20.8	33.5	8.1	106.7	7.9	33.7	39.0									
						1.3	307.0	21.1	33.2	8.1	111.6	8.2	5.2	21.0									
						1.3	327.0	21.1	33.2	8.1	111.3	8.2	5.3	21.4									
B	1.2	306.0	20.8	33.4	8.1	106.0	7.8	11.5	16.2														
	1.3	332.0	20.7	33.4	8.1	105.8	7.8	11.0	16.9														
	0.9	317.0	20.6	33.5	8.1	104.3	7.7	25.8	16.1														
IM11A	Fine	Moderate	16:55	5.8	S	0.8	321.0	21.0	21.0	33.3	33.3	8.1	8.1	109.7	109.6	8.1	8.0	8.0	13.2	13.3	22.0	21.8	<0.001
						0.8	321.0	21.0		33.3		8.1		109.4		8.0			13.4		21.5		
						0.8	311.0	20.8		33.5		8.1		106.8		7.9			44.4		38.4		
					M	0.9	320.0	20.8	33.5	8.1	106.7	7.9	33.7	39.0									
						1.3	307.0	21.1	33.2	8.1	111.6	8.2	5.2	21.0									
						1.3	327.0	21.1	33.2	8.1	111.3	8.2	5.3	21.4									
B	1.2	306.0	20.8	33.4	8.1	106.0	7.8	11.5	16.2														
	1.3	332.0	20.7	33.4	8.1	105.8	7.8	11.0	16.9														
	0.9	317.0	20.6	33.5	8.1	104.3	7.7	25.8	16.1														
IM12	Fine	Moderate	17:06	15.2	S	1.0	327.0	20.6	20.6	33.5	33.5	8.1	8.1	104.2	104.3	7.7	7.7	7.7	27.4	26.6	15.7	15.9	<0.001
						0.8	354.0	20.3		33.3		8.2		104.3		7.8			4.1		10.2		
						0.9	18.0	20.3		33.3		8.2		104.2		7.8			4.0		10.5		
					M	0.7	4.0	20.1	33.4	8.2	103.3	7.7	7.6	10.4									
						0.7	4.0	20.1	33.4	8.2	103.2	7.7	7.7	10.5									
						0.5	5.0	20.0	33.4	8.2	102.3	7.6	15.2	12.7									
B	0.6	5.0	20.0	33.4	8.2	102.3	7.6	14.2	12.4														
	0.6	2.0	20.4	33.2	8.2	103.6	7.7	6.2	13.0														
	0.6	2.0	20.4	33.2	8.2	103.6	7.7	6.3	13.5														
IM13	Fine	Moderate	17:24	16.8	S	0.6	2.0	20.4	20.4	33.2	33.2	8.2	8.2	103.6	103.6	7.7	7.7	7.7	6.2	6.3	13.0	13.3	<0.001
						0.6	2.0	20.4		33.2		8.2		103.6		7.7			6.3		13.5		
						0.6	7.0	20.3		33.4		8.2		103.1		7.7			11.8		13.9		
					M	0.6	7.0	20.3	33.4	8.2	103.1	7.7	11.3	14.3									
						0.4	11.0	20.2	33.4	8.2	102.8	7.7	18.7	22.3									
						0.5	11.0	20.2	33.4	8.2	102.8	7.7	12.5	21.7									
B	0.4	11.0	20.2	33.4	8.2	102.8	7.7	18.7	22.3														
	0.5	11.0	20.2	33.4	8.2	102.8	7.7	12.5	21.7														
	0.5	11.0	20.2	33.4	8.2	102.8	7.7	12.5	21.7														

Water Quality Monitoring Data Log Sheet

Date: 2020/01/08

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Fine	Moderate	18:24	7.1	S	0.9	9.0	20.8	20.8	30.0	30.0	8.1	8.1	106.6	106.6	8.0	8.0	7.9	4.3	4.2	9.1	11.6	11.7	14.7
						0.9	9.0	20.8		30.0	30.0	8.1		106.6		8.0			4.2			11.8		
						0.7	18.0	20.4		30.9	30.9	8.1		102.5		7.7			11.1			14.4		
					M	0.8	18.0	20.4	20.4	30.9	30.9	8.1	8.1	102.5	102.5	7.7	7.7	11.0	11.0	14.2	14.3			
						0.6	21.0	20.3	20.3	31.1	31.1	8.1		101.6		7.7		12.1		17.9				
						0.6	21.0	20.3	20.3	31.1	31.1	8.1		101.6		7.6		12.0		18.1				
IM16A	Fine	Moderate	17:55	6.8	S	0.6	352.0	20.7	20.7	29.5	29.5	8.1	8.1	101.2	101.2	7.6	7.6	7.6	8.8	8.9	13.5	15.4	15.5	23.3
						0.7	9.0	20.7		29.5	29.5	8.1		101.2		7.6			8.9			15.5		
						0.6	7.0	20.6		20.6	29.9	30.0		8.0		100.1			7.6			11.1		
					M	0.6	7.0	20.6	20.6	30.0	30.0	8.0	100.0	7.5	11.2	16.4								
						0.5	5.0	20.5	20.5	30.1	30.1	8.0	99.6	7.5	20.7	38.1								
						0.6	5.0	20.5	20.5	30.1	30.1	8.0	99.6	7.5	20.4	38.2								
IM17	Fine	Moderate	17:27	5.6	S	0.7	344.0	21.0	21.0	28.3	28.3	8.0	8.0	100.1	100.1	7.6	7.6	7.6	7.4	7.3	9.4	12.1	12.4	14.6
						0.7	350.0	21.0		28.3	28.3	8.0		100.1		7.6			7.3			12.6		
						0.5	351.0	21.0		21.0	28.3	28.3		8.0		99.7			7.5			12.6		
					B	0.5	15.0	21.0	21.0	28.3	28.3	8.0	99.7	7.5	10.4	17.0								
						0.5	15.0	21.0	21.0	28.3	28.3	8.0	99.7	7.5	10.4	17.0								
						0.5	15.0	21.0	21.0	28.3	28.3	8.0	99.7	7.5	10.4	17.0								
IM18	Fine	Moderate	15:37	16.9	S	0.5	314.0	21.3	21.3	27.1	27.1	8.0	8.0	100.8	100.6	7.6	7.6	7.2	2.0	2.1	5.9	2.9	3.1	3.8
						0.5	324.0	21.2		27.2	27.2	8.0		100.4		7.6			2.1			3.3		
						0.5	330.0	20.6		20.6	30.4	30.4		8.0		89.9			6.8			3.4		
					M	0.5	330.0	20.6	20.6	30.4	30.4	8.0	89.9	6.8	3.9	3.7								
						0.4	335.0	20.5	20.5	30.7	30.7	8.0	90.3	6.8	11.8	4.6								
						0.4	346.0	20.5	20.5	30.7	30.7	8.0	90.5	6.8	12.0	4.9								
IM19	Fine	Moderate	15:50	15.6	S	0.4	344.0	21.2	21.2	28.8	28.9	8.0	8.0	97.0	96.9	7.3	7.3	7.0	2.0	2.0	3.4	2.7	2.9	3.6
						0.4	13.0	21.1		29.0	29.0	8.0		96.8		7.3			1.9			3.0		
						0.4	354.0	20.7		20.7	30.0	30.0		8.0		90.6			6.8			3.0		
					M	0.4	6.0	20.7	20.7	30.0	30.0	8.0	90.4	6.8	3.3	3.9								
						0.4	357.0	20.6	20.6	30.3	30.3	8.0	90.7	6.8	4.1	4.2								
						0.4	15.0	20.6	20.6	30.3	30.3	8.0	90.9	6.8	4.3	4.2								
IM20A	Fine	Moderate	16:19	4.6	S	0.5	57.0	22.1	22.1	28.1	28.1	8.0	8.0	100.4	100.5	7.4	7.4	4.3	2.7	2.7	4.3	4.1	3.9	4.7
						0.5	61.0	22.1		28.1	28.1	8.0		100.5		7.4			2.8			3.7		
						0.4	65.0	21.3		21.3	28.5	28.5		8.0		97.9			7.4			5.8		
					B	0.4	65.0	21.3	21.3	28.5	28.5	8.0	98.1	7.4	5.9	5.5								
						0.5	28.0	22.4	22.4	28.3	28.3	8.0	100.4	7.4	4.0	8.0								
						0.5	28.0	22.4	22.4	28.3	28.3	8.0	100.4	7.4	4.0	8.0								
IM21A	Fine	Moderate	16:10	5.0	S	0.4	46.0	22.7	22.7	28.3	28.3	8.0	8.0	101.1	101.1	7.4	7.4	4.1	4.2	4.2	4.1	8.9	9.0	8.5
						0.4	49.0	22.7		28.3	28.3	8.0		101.1		7.4			4.3			9.1		
						0.3	58.0	21.4		21.4	27.8	27.8		8.0		100.9			7.6			1.4		
					B	0.3	58.0	21.4	21.4	27.8	27.8	8.0	100.9	7.6	1.5	4.9								
						0.1	67.0	21.1	21.1	28.5	28.5	8.0	97.6	7.4	2.8	7.8								
						0.1	72.0	21.1	21.1	28.5	28.5	8.0	97.8	7.4	2.8	7.4								

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
E1	Cloudy	Calm	02:30	8.1	S	0.1	209.1	20.5	20.5	31.9	31.9	8.1	8.1	91.6	91.6	6.8	6.8	9.4	9.0	10.3	16.5	16.4	18.9				
						0.1	209.1	20.5		31.9	31.9	8.2		91.6	91.6	6.8		8.6									
						0.5	120.9	20.5		31.9	31.9	8.1		91.5	91.5	6.8		9.8									
					M	0.2	120.0	20.5	20.5	31.9	31.9	8.1	91.5	91.5	6.8	6.8	9.0	9.4	16.3								
						0.3	184.5	20.5	20.5	31.9	31.9	8.1	91.8	91.7	6.9	6.8	11.7	12.6	18.7								
						0.3	184.5	20.5	20.5	31.9	31.9	8.1	91.5	91.7	6.8	6.8	13.4	12.6	18.3								
B	0.6	102.1	20.8	20.8	32.1	32.1	8.1	104.2	104.2	7.7	7.7	2.5	2.5	4.9	6.5	6.7	9.2	6.8	7.8	<0.001							
	0.6	102.1	20.8		32.1	32.1	8.1	104.1	104.1	7.7		2.4			6.8												
	0.7	34.9	20.8		20.8	32.2	32.2	8.1	103.2	103.5		7.7			7.7			3.2		3.0	7.7	7.8	0.002				
E2	Cloudy	Calm	23:03	9.3	S	0.4	29.5	20.8	20.8	32.2	32.2	8.1	8.1	103.8	103.8	7.4	7.4	2.7	3.0	4.9	7.8	7.8	<0.001				
						0.2	153.8	20.7		20.7	32.2	32.2		8.1	99.2	99.1		7.4			7.4		9.3	12.8			
						0.2	138.0	20.7		20.7	32.2	32.2		8.1	98.9	99.1		7.3			7.4		9.5	9.4	12.8	13.1	0.011
					M	0.9	160.0	20.3	20.3	33.4	33.4	8.2	102.0	102.0	7.6	7.6	3.8	3.8	19.5	7.5	7.3	8.2	7.1	8.2	0.004		
						1.0	171.0	20.3		20.3	33.4	33.4	8.2	102.0	102.0		7.6			7.6			3.8		3.8	7.1	7.3
						0.8	149.0	20.2		20.2	33.4	33.4	8.2	101.9	101.9		7.6			7.6			5.3		5.5	7.9	8.2
B	0.9	162.0	20.2	20.2	33.4	33.4	8.2	101.8	101.9	7.6	7.6	5.7	5.5	19.5	8.4	8.2	8.2	8.9	9.1	0.011							
	0.6	141.0	20.1		20.1	33.5	33.5	8.2	101.3	101.3		7.6			7.6			44.9		49.1	9.2						
	0.6	142.0	20.1		20.1	33.5	33.5	8.2	101.3	101.3		7.6			7.6			53.2		49.1	9.2						
E3	Fine	Moderate	00:48	16.8	S	1.2	227.0	20.4	20.4	32.0	32.0	8.2	8.2	100.8	100.8	7.5	7.5	12.6	12.6	27.5	21.8	21.5	57.3				
						1.3	237.0	20.4		20.4	32.0	32.0		8.2	100.7	100.8		7.5			7.5			12.6			
						1.1	225.0	20.4		20.4	32.1	32.1		8.1	100.4	100.4		7.5			7.5			34.8	35.2	65.1	
					M	1.2	234.0	20.4	20.4	32.2	32.1	8.1	100.4	100.4	7.5	7.5	35.7	35.2	27.5	65.6	65.4	57.3		65.6	65.4		
						0.9	219.0	20.4		20.4	32.2	32.2	8.1	100.3	100.3		7.5			7.5				32.5		34.7	85.7
						1.0	230.0	20.4		20.4	32.2	32.2	8.1	100.3	100.3		7.5			7.5				36.9		34.7	84.1
B	0.8	209.0	20.4	20.4	29.9	29.9	8.0	97.7	97.8	7.4	7.4	24.1	25.4	38.4	44.3	44.1	44.3	43.8	44.5	44.3							
	0.9	224.0	20.4		20.4	29.9	29.9	8.0	97.8	97.8		7.4			7.4			26.7		51.4	44.2						
	0.7	206.0	20.4		20.4	29.9	29.9	8.0	98.2	98.5		7.4			7.5			36.8		51.4	44.2						
E4	Fine	Moderate	02:39	10.8	S	0.8	209.0	20.4	20.4	29.9	29.9	8.0	8.0	97.7	97.8	7.4	7.4	24.1	25.4	38.4	44.3	44.1	44.3				
						0.9	224.0	20.4		20.4	29.9	29.9		8.0	97.8	97.8		7.4			7.4			26.7			
						0.7	206.0	20.4		20.4	29.9	29.9		8.0	98.2	98.5		7.4			7.5			36.8	51.4		
					M	0.7	209.0	20.4	20.4	29.9	29.9	8.0	97.7	97.8	7.4	7.4	24.1	25.4	38.4	44.3	44.1	44.3		43.8	44.5		
						0.9	219.0	20.4		20.4	29.9	29.9	8.0	98.2	98.5		7.4			7.5				36.8		51.4	
						1.0	230.0	20.4		20.4	29.9	29.9	8.0	97.7	97.8		7.4			7.4				26.7			
E5	Cloudy	Moderate	02:35	5.6	S	0.8	209.0	20.4	20.4	29.9	29.9	8.0	8.0	97.7	97.8	7.4	7.4	24.1	25.4	38.4	44.3	44.1	44.3				
						0.9	224.0	20.4		20.4	29.9	29.9		8.0	97.8	97.8		7.4			7.4			26.7			
						0.7	206.0	20.4		20.4	29.9	29.9		8.0	98.2	98.5		7.4			7.5			36.8	51.4		
					M	0.7	209.0	20.4	20.4	29.9	29.9	8.0	97.7	97.8	7.4	7.4	24.1	25.4	38.4	44.3	44.1	44.3		43.8	44.5		
						0.9	219.0	20.4		20.4	29.9	29.9	8.0	98.2	98.5		7.4			7.5				36.8		51.4	
						1.0	230.0	20.4		20.4	29.9	29.9	8.0	97.7	97.8		7.4			7.4				26.7			
E6	Cloudy	Moderate	01:43	6.3	S	1.1	153.0	20.7	20.7	28.4	28.4	8.0	8.0	92.9	92.9	7.1	7.1	7.5	7.6	12.0	9.1	8.9	13.8				
						1.1	161.0	20.7		20.7	28.5	28.5		8.0	92.8	92.9		7.1			7.1			7.8			
						0.9	154.0	20.6		20.6	29.4	29.4		8.0	92.4	92.5		7.0			7.0			11.5			
					M	1.0	162.0	20.6	20.6	29.4	29.4	8.0	92.5	92.5	7.0	7.0	11.7	11.6	12.0	11.4	11.6	13.8		11.8			
						0.8	155.0	20.6		20.6	29.6	29.6	8.0	93.4	93.5		7.1			7.1				17.9			
						0.8	161.0	20.6		20.6	29.6	29.6	8.0	93.6	93.5		7.1			7.1				15.7			
B	0.8	161.0	20.6	20.6	29.6	29.6	8.0	93.6	93.5	7.1	7.1	15.7	16.8	12.0	21.1	21.0	13.8	21.1									
	0.5	192.0	20.9		20.9	28.1	28.2	8.0	93.8	93.8		7.1			7.1			4.0	4.2								
	0.5	210.0	20.9		20.9	28.2	28.2	8.0	93.8	93.8		7.1			7.1			4.3	4.2								
E7A	Cloudy	Moderate	01:22	5.1	S	0.4	179.0	20.8	20.8	28.3	28.3	8.0	8.0	95.5	95.6	7.2	7.2	7.2	7.1	5.6	7.2	8.0	10.1				
						0.4	185.0	20.8		20.8	28.3	28.3		8.0	95.7	95.6		7.2			7.2			7.2			
						0.8	153.1	20.1		20.1	32.4	32.4		8.3	104.4	104.5		7.8			7.8			2.3	2.3		
					M	0.8	153.1	20.1	20.1	32.4	32.4	8.3	104.5	104.5	7.8	7.8	2.3	2.3	3.3	4.7	4.9	7.4		4.7			
						0.9	89.7	20.2		20.2	32.4	32.4	8.3	103.6	103.7		7.8			7.8				3.2	3.2		
						0.9	143.9	20.2		20.2	32.4	32.4	8.3	103.7	103.7		7.8			7.8				3.2	3.2		
B	0.2	14.4	20.2	20.2	32.4	32.4	8.3	103.0	103.0	7.7	7.7	4.4	4.3	1.4	10.3	10.0	5.1	10.3									
	0.6	199.5	20.2		20.2	32.4	32.4	8.3	103.0	103.0		7.7			7.7			4.2	4.3								
	0.6	189.7	20.1		20.1	32.4	32.4	8.3	105.1	105.2		7.9			7.9			1.2	1.2								
F1	Cloudy	Calm	01:32	20.0	S	0.7	107.2	20.1	20.1	32.4	32.4	8.3	8.3	105.2	105.2	7.9	7.9	1.2	1.2	1.4	3.8	4.0	5.1				
						0.5	104.5	20.1		20.1	32.4	32.4		8.3	104.4	104.5		7.8			7.8			1.3	1.3		
						0.6	89.7	20.1		20.1	32.4	32.4		8.3	104.5	104.5		7.8			7.8			1.2	1.3		
					M	0.5	104.5	20.1	20.1	32.4	32.4	8.3	104.4	104.5	7.8	7.8	1.3	1.3	1.4	5.2	5.1	5.1		5.2			
						0.6	89.7	20.1		20.1	32.4	32.4	8.3	104.5	104.5		7.8			7.8				1.2	1.3		
						0.4	202.2	20.1		20.1	32.4	32.4	8.3	103.7	103.7		7.8			7.8				1.6	1.6		
B	0.8	183.7	20.1	20.1	32.4	32.4	8.3	103.7	103.7	7.8	7.8	1.6	1.6	1.4	6.1	6.2	5.1	6.1									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
																										Value	Average	Value
F3	Cloudy	Calm	00:24	17.3	S	0.5	108.7	20.1	20.1	32.5	32.5	8.3	8.3	104.7	104.7	7.9	7.9	7.8	1.2	1.2	7.8	4.8	4.9	6.8	<0.001			
						0.5	108.7	20.1	20.1	32.5	32.5	8.3	8.3	104.7	104.7	7.9	7.9	7.8	1.2	1.2	7.8	5.0	4.9	6.8	<0.001			
						0.7	16.9	20.1	20.1	32.5	32.5	8.3	8.3	104.1	104.1	7.8	7.8	7.8	1.5	1.6	7.8	6.9	7.0	6.8	<0.001			
					M	0.3	125.9	20.1	20.1	32.5	32.5	8.3	8.3	104.1	104.1	7.8	7.8	7.8	1.6	1.6	7.8	1.6	1.6	7.8	7.1	7.0	6.8	0.014
						0.9	162.3	20.1	20.1	32.5	32.5	8.3	8.3	103.4	103.4	7.8	7.8	7.8	2.5	2.5	7.8	2.5	2.5	7.8	8.3	8.5	6.8	<0.001
						0.5	260.8	20.1	20.1	32.5	32.5	8.3	8.3	103.4	103.4	7.8	7.8	7.8	2.4	2.4	7.8	2.4	2.4	7.8	8.7	8.5	6.8	<0.001
F4	Cloudy	Calm	23:28	13.0	S	1.1	116.4	20.5	20.5	32.2	32.2	8.2	8.2	101.9	102.0	7.6	7.6	7.6	3.1	3.1	7.6	3.1	3.1	10.6	7.1	7.2		
						0.8	91.8	20.5	20.5	32.2	32.2	8.2	8.2	102.0	102.0	7.6	7.6	7.6	3.1	3.1	7.6	3.1	3.1	10.6	7.3	7.2		
						0.5	146.9	20.5	20.5	32.2	32.2	8.2	8.2	101.4	101.5	7.6	7.6	7.6	3.7	3.6	7.6	3.7	3.6	7.6	8.3	8.2	10.6	8.3
					M	0.4	94.6	20.5	20.5	32.2	32.2	8.2	8.2	101.5	101.5	7.6	7.6	7.6	3.5	3.6	7.6	3.5	3.6	7.6	8.0	8.2	10.6	8.0
						0.4	75.8	20.5	20.5	32.2	32.2	8.2	8.2	101.0	101.0	7.5	7.5	7.5	7.7	7.9	7.5	7.7	7.9	7.5	16.4	16.3	10.6	16.4
						0.5	299.4	20.5	20.5	32.2	32.2	8.2	8.2	100.9	100.9	7.5	7.5	7.5	8.1	8.1	7.5	8.1	8.1	7.5	16.2	16.3	10.6	16.2
F5	Fine	Moderate	03:40	5.1	S	0.4	198.0	20.3	20.3	31.1	31.1	8.0	8.0	99.5	99.5	7.5	7.5	7.5	12.0	13.7	7.5	12.0	19.5	20.6	19.5			
						0.4	205.0	20.3	20.3	31.1	31.1	8.0	8.0	99.5	99.5	7.5	7.5	7.5	15.3	13.7	7.5	15.3	19.4	20.6	19.5			
					B	0.3	199.0	20.3	20.3	31.1	31.1	8.0	8.0	99.8	100.1	7.5	7.5	7.5	15.3	16.2	7.5	15.3	21.8	21.7	20.6	21.8		
						0.3	207.0	20.3	20.3	31.1	31.1	8.0	8.0	100.4	100.1	7.6	7.5	7.5	17.1	16.2	7.5	17.1	21.7	21.7	20.6	21.6		
F6	Cloudy	Moderate	23:35	14.0	S	0.4	136.0	20.4	20.4	30.3	30.3	8.0	8.0	97.7	97.7	7.4	7.4	7.4	5.8	5.8	7.4	5.8	5.8	11.8	11.0	11.2		
						0.4	146.0	20.4	20.4	30.3	30.3	8.0	8.0	97.7	97.7	7.4	7.4	7.4	5.7	5.8	7.4	5.7	5.8	11.8	11.4	11.2		
						0.5	129.0	20.4	20.4	30.6	30.6	8.0	8.0	98.5	98.6	7.4	7.4	7.4	8.6	8.6	7.4	8.6	8.6	7.4	11.7	11.9	11.8	
					M	0.6	133.0	20.4	20.4	30.6	30.6	8.0	8.0	98.6	98.6	7.4	7.4	7.4	8.7	8.6	7.4	8.7	8.6	7.4	12.1	11.9	11.8	12.1
						0.5	102.0	20.4	20.4	31.1	31.1	8.0	8.0	99.7	99.7	7.5	7.5	7.5	7.7	7.6	7.5	7.7	7.6	7.5	11.9	12.2	11.8	11.9
						0.6	107.0	20.4	20.4	31.1	31.1	8.0	8.0	99.7	99.7	7.5	7.5	7.5	7.6	7.6	7.5	7.6	7.6	7.5	12.5	12.2	11.8	12.5
IM1	Cloudy	Calm	01:53	9.3	S	0.2	144.9	20.7	20.7	32.4	32.4	8.3	8.3	105.0	105.0	7.8	7.8	7.8	3.5	3.7	7.8	3.5	3.7	7.1	6.2	6.1		
						0.7	207.2	20.8	20.7	32.4	32.4	8.3	8.3	104.9	105.0	7.8	7.8	7.8	3.9	3.7	7.8	3.9	3.7	7.1	6.0	6.1		
						0.5	180.6	20.4	20.4	32.4	32.4	8.3	8.3	105.1	105.1	7.8	7.8	7.8	3.5	3.5	7.8	3.5	3.5	7.1	7.2	7.1	7.3	
					M	0.5	180.6	20.5	20.4	32.4	32.4	8.3	8.3	105.0	105.1	7.8	7.8	7.8	3.5	3.5	7.8	3.5	3.5	7.8	7.1	7.2	7.1	7.3
						0.4	146.0	20.4	20.4	32.4	32.4	8.3	8.3	104.6	104.7	7.8	7.8	7.8	3.7	3.6	7.8	3.7	3.6	7.8	8.0	7.9	7.1	8.0
						0.4	120.6	20.4	20.4	32.4	32.4	8.3	8.3	104.8	104.7	7.8	7.8	7.8	3.5	3.6	7.8	3.5	3.6	7.8	7.7	7.9	7.1	7.7
IM2	Cloudy	Calm	02:17	11.0	S	1.6	179.3	20.7	20.7	31.9	31.9	8.1	8.1	94.2	94.2	7.0	7.0	7.0	4.1	4.0	7.0	4.1	4.0	10.7	8.4	8.3		
						0.8	229.8	20.7	20.7	31.9	31.9	8.1	8.1	94.2	94.2	7.0	7.0	7.0	3.8	4.0	7.0	3.8	4.0	10.7	8.2	8.3		
						0.4	170.3	20.7	20.7	31.9	31.9	8.1	8.1	94.0	94.0	7.0	7.0	7.0	5.5	5.1	7.0	5.5	5.1	10.7	9.0	9.3		
					M	0.7	186.6	20.7	20.7	31.9	31.9	8.1	8.1	93.9	94.0	7.0	7.0	7.0	4.7	5.1	7.0	4.7	5.1	7.0	9.5	9.3	10.7	9.5
						0.6	230.2	20.7	20.7	31.9	31.9	8.1	8.1	94.2	94.1	7.0	7.0	7.0	8.8	9.4	7.0	8.8	9.4	7.0	14.6	14.7	10.7	14.6
						0.3	226.9	20.7	20.7	31.9	31.9	8.1	8.1	93.9	94.0	7.0	7.0	7.0	10.0	9.4	7.0	10.0	9.4	7.0	14.7	14.7	10.7	14.7
IM3	Cloudy	Calm	22:13	16.0	S	0.5	190.6	20.3	20.3	32.3	32.3	8.0	8.0	102.2	102.0	7.6	7.6	7.6	5.2	5.4	7.6	5.2	5.4	13.2	10.1	10.3		
						0.5	190.6	20.3	20.3	32.3	32.3	8.0	8.0	101.7	102.0	7.6	7.6	7.6	5.5	5.4	7.6	5.5	5.4	13.2	10.5	10.3		
						0.6	343.1	20.2	20.2	32.4	32.3	8.1	8.1	104.2	104.2	7.8	7.8	7.8	3.5	3.4	7.8	3.5	3.4	7.8	11.6	11.8	13.2	11.6
					M	0.3	50.9	20.2	20.2	32.3	32.3	8.1	8.1	104.1	104.2	7.8	7.8	7.8	3.3	3.4	7.8	3.3	3.4	7.8	12.0	11.8	13.2	12.0
						1.0	48.2	20.2	20.2	32.4	32.4	8.1	8.1	103.5	103.6	7.8	7.8	7.8	8.8	9.5	7.8	8.8	9.5	7.8	17.5	17.4	13.2	17.5
						1.0	48.2	20.2	20.2	32.4	32.4	8.1	8.1	103.6	103.6	7.8	7.8	7.8	10.1	9.5	7.8	10.1	9.5	7.8	17.2	17.4	13.2	17.2
IM4	Cloudy	Calm	22:35	17.2	S	0.2	168.9	20.7	20.7	32.1	32.1	8.1	8.1	100.7	100.7	7.5	7.5	7.5	4.2	4.2	7.5	4.2	4.2	9.7	6.4	6.5		
						0.2	168.9	20.7	20.7	32.1	32.1	8.1	8.1	100.7	100.7	7.5	7.5	7.5	4.2	4.2	7.5	4.2	4.2	9.7	6.5	6.5		
						0.9	31.0	20.6	20.6	32.2	32.2	8.1	8.1	100.6	100.6	7.5	7.5	7.5	6.6	6.6	7.5	6.6	6.6	9.7	9.4	9.3		
					M	0.9	31.0	20.6	20.6	32.2	32.2	8.1	8.1	100.1	100.4	7.5	7.5	7.5	6.5	6.6	7.5	6.5	6.6	7.5	9.1	9.3	9.7	9.1
						0.6	27.2	20.3	20.3	32.4	32.4	8.2	8.2	103.1	103.4	7.7	7.7	7.7	9.0	8.6	7.7	9.0	8.6	7.7	13.2	13.4	9.7	13.2
						0.5	324.2	20.3	20.3	32.4	32.4	8.2	8.2	103.6	103.4	7.8	7.7	7.7	8.1	8.6	7.7	8.1	8.6	7.7	13.5	13.4	9.7	13.5
IM5	Cloudy	Calm	00:00	15.3	S	0.3	126.9	20.4	20.4	32.3	32.3	8.2	8.2	101.7	101.5	7.6	7.6	7.6	3.3	3.3	7.6	3.3	3.3	12.9	4.4	4.4		
						0.6	153.6	20.4	20.4	32.3	32.3	8.2	8.2	101.2	101.5	7.6	7.6	7.6	3.3	3.3	7.6	3.3	3.3	12.9	4.3	4.4		
						0.3	262.8	20.3	20.3	32.3	32.3	8.2	8.2	104.0	104.0	7.8	7.8	7.8	3.2	3.3	7.8	3.2	3.3	12.9	5.9	6.1		
					M	0.2	145.6	20.3	20.3	32.3	32.3	8.2	8.2	104.0	104.0	7.8	7.8	7.8	3.3	3.3	7.8	3.3	3.3	7.8	6.2	6.1	12.9	6.2
						0.6	190.5	20.3	20.3	32.4	32.4	8.2	8.2	102.9	103.2	7.7	7.7	7.7	15.6	15.3	7.7	15.6						

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
IM6	Cloudy	Calm	00:12	16.3	S	0.6	72.2	20.1	20.1	32.5	32.5	8.3	8.3	104.2	104.1	7.8	7.8	7.8	1.5	1.5	2.0	3.9	3.8	5.5	<0.001			
						0.6	72.2	20.1		32.5		8.3		104.0		7.8			1.5			3.7			<0.001			
						0.6	48.2	20.1		32.5		8.3		104.7		7.9			2.0			5.3			<0.001			
					M	0.6	357.9	20.1	32.5	8.3	104.6	7.8	1.7	1.9	5.6	5.5	7.2	<0.001										
						B	0.9	154.7	20.1	32.5	8.3	103.9	7.8	2.5	2.6	7.3	7.2	<0.001										
							0.6	74.5	20.1	32.5	8.3	103.9	7.8	2.6	2.6	7.0	<0.001											
IM7	Fine	Rough	23:30	15.3	S	0.2	143.0	19.7	19.7	33.8	33.8	8.2	8.2	104.6	104.6	7.8	7.8	7.8	1.6	1.6	2.6	6.5	6.4	4.7	<0.001			
						0.2	145.0	19.7		33.8		8.2		104.6		7.8			1.6			6.3			<0.001			
						0.3	138.0	19.7		33.8		8.2		104.3		7.8			1.9			4.1			<0.001			
					M	0.3	141.0	19.7	33.8	8.2	104.3	7.8	1.9	4.3	4.2	4.2	4.7	<0.001										
						0.1	151.0	19.7	33.8	8.2	103.8	7.8	4.3	3.3	3.5	3.5	4.4	<0.001										
						0.1	153.0	19.7	33.8	8.2	103.8	7.8	4.5	3.7	3.5	3.7	4.4	<0.001										
IM8	Fine	Rough	23:41	13.2	S	0.3	76.0	19.8	19.8	33.7	33.7	8.2	8.2	104.5	104.5	7.8	7.8	7.8	2.2	2.2	2.4	3.5	3.7	4.4	<0.001			
						0.3	81.0	19.8		33.7		8.2		104.5		7.8			2.2			3.8			<0.001			
						0.3	96.0	19.7		33.8		8.2		104.4		7.8			2.0			4.4			<0.001			
					M	0.3	100.0	19.7	33.8	8.2	104.4	7.8	2.1	4.2	4.3	4.3	4.4	<0.001										
						B	0.1	100.0	19.7	33.8	8.2	103.8	7.8	2.8	2.9	5.4	5.1	5.1	4.8	<0.001								
							0.1	105.0	19.7	33.8	8.2	103.8	7.8	3.0	4.8	4.8	5.1	4.8	<0.001									
IM9	Fine	Rough	00:12	15.4	S	0.7	109.0	20.0	20.0	33.5	33.5	8.2	8.2	102.4	102.4	7.6	7.6	7.7	2.6	2.6	5.3	3.7	3.8	5.1	<0.001			
						0.8	115.0	20.0		33.5		8.2		102.4		7.6			2.6			3.8			<0.001			
						0.6	103.0	19.9		33.6		8.2		103.1		7.7			3.5			5.0			4.9	4.9	5.1	<0.001
					M	0.7	104.0	19.9	33.6	8.2	103.1	7.7	3.5	4.8	4.9	4.9	5.1	<0.001										
						B	0.5	90.0	19.9	33.7	8.2	102.7	7.7	8.1	6.8	6.8	6.8	6.8	<0.001									
							0.5	90.0	19.9	33.7	8.2	102.7	7.7	11.7	6.9	6.8	6.8	6.8	<0.001									
IM10	Fine	Moderate	01:07	8.6	S	0.5	88.0	20.3	20.3	33.4	33.4	8.2	8.2	101.2	101.2	7.5	7.5	7.5	15.4	15.2	35.0	39.5	39.9	66.0	<0.001			
						0.6	95.0	20.3		33.4		8.2		101.2		7.5			15.1			40.2			39.9	39.9	66.0	<0.001
						0.5	79.0	20.3		33.4		8.1		101.2		7.5			48.9			52.3			52.7	52.7	66.0	<0.001
					M	0.5	82.0	20.3	33.4	8.1	101.2	7.5	50.6	53.1	52.7	52.7	66.0	<0.001										
						B	0.4	71.0	20.3	33.4	8.2	100.9	7.5	41.5	105.0	105.5	105.5	105.5	<0.001									
							0.4	75.0	20.3	33.4	8.2	100.9	7.5	38.5	106.0	105.5	105.5	105.5	<0.001									
IM11A	Fine	Moderate	01:24	5.3	S	0.6	119.0	20.2	20.2	33.2	33.2	8.1	8.1	99.1	99.1	7.4	7.4	7.4	49.1	47.1	54.1	44.4	44.2	53.8	<0.001			
						0.6	124.0	20.2		33.2		8.1		99.1		7.4			45.0			43.9			44.2	44.2	53.8	<0.001
						0.5	71.0	20.2		33.2		8.1		99.2		7.4			42.5			63.7			63.5	63.5	63.5	<0.001
					B	0.5	76.0	20.2	33.2	8.1	99.2	7.4	79.9	63.2	63.5	63.5	63.5	<0.001										
						S	1.3	178.0	20.2	33.1	8.2	99.0	7.4	23.0	71.6	70.4	70.4	70.4	<0.001									
							1.3	181.0	20.2	33.1	8.2	99.0	7.4	27.5	69.2	70.4	70.4	70.4	<0.001									
IM12	Fine	Moderate	01:37	14.7	M	1.2	178.0	20.2	20.2	33.1	33.1	8.1	8.1	98.9	98.9	7.4	7.4	7.4	35.2	38.2	35.9	83.8	84.3	87.1	<0.001			
						1.3	178.0	20.2		33.1		8.1		98.9		7.4			41.2			84.7			84.3	84.3	87.1	<0.001
						1.0	167.0	20.2		33.1		8.1		99.2		7.4			40.3			106.0			106.5	106.5	106.5	<0.001
					B	1.0	172.0	20.2	33.1	8.1	99.3	7.4	48.1	107.0	106.5	106.5	106.5	<0.001										
						S	1.3	211.0	20.2	32.3	8.2	100.0	7.5	6.8	25.2	25.0	25.0	25.0	<0.001									
							1.3	211.0	20.2	32.3	8.2	99.9	7.5	6.8	24.8	25.0	25.0	25.0	<0.001									
IM13	Fine	Moderate	02:13	15.6	M	1.2	208.0	20.2	20.2	32.6	32.6	8.2	8.2	99.6	99.6	7.5	7.5	7.5	8.6	8.5	13.3	26.4	26.9	27.1	<0.001			
						1.2	225.0	20.2		32.6		8.2		99.6		7.5			8.5			27.3			26.9	26.9	26.9	<0.001
						1.1	209.0	20.2		32.6		8.2		99.4		7.4			25.1			29.1			29.5	29.5	29.5	<0.001
					B	1.2	211.0	20.2	32.6	8.2	99.4	7.4	24.1	29.6	29.5	29.5	29.5	<0.001										
						S	1.0	185.0	20.5	32.1	8.2	100.9	7.5	19.0	36.3	36.4	36.4	36.4	<0.001									
							1.1	201.0	20.5	32.1	8.2	100.9	7.5	20.9	36.4	36.4	36.4	36.4	<0.001									
IM14	Fine	Moderate	02:26	10.2	M	0.9	184.0	20.5	20.5	32.1	32.1	8.2	8.2	100.8	100.8	7.5	7.5	7.5	34.9	34.8	32.1	50.2	49.8	60.8	<0.001			
						1.0	196.0	20.5		32.1		8.2		100.8		7.5			34.8			49.4			49.8	49.8	49.8	<0.001
						0.7	183.0	20.3		32.1		8.2		100.5		7.5			40.4			95.8			96.2	96.2	96.2	<0.001
					B	0.7	186.0	20.3	32.1	8.2	100.5	7.5	42.4	96.5	96.2	96.2	96.2	<0.001										

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*					
IM15	Cloudy	Moderate	02:46	5.8	S	1.1	215.0	20.3	20.3	30.6	30.6	8.0	8.0	98.5	98.6	7.4	7.4	7.4	15.4	14.0	12.8	16.2	16.5	17.6						
						1.2	220.0	20.3	30.6	30.6	8.0	8.0	98.6	98.6	7.4	7.4	7.4	12.6	14.0	12.8	16.8	16.5								
					B	0.9	215.0	20.3	20.3	30.6	30.6	8.0	8.0	99.4	99.5	7.5	7.5	7.5	12.8	11.6	12.8	18.8	18.6							
						1.0	215.0	20.3	20.3	30.6	30.6	8.0	8.0	99.6	99.5	7.5	7.5	7.5	10.5	11.6	12.8	18.4	18.6							
IM16A	Cloudy	Moderate	02:25	6.1	S	0.7	196.0	20.6	20.6	29.4	29.4	8.0	8.0	96.4	96.4	7.3	7.3	7.3	17.8	18.9	7.3	25.0	25.4	38.3						
						0.8	199.0	20.6	20.6	29.4	29.4	8.0	8.0	96.4	96.4	7.3	7.3	7.3	20.1	18.9		25.8	25.4							
					M	0.6	200.0	20.6	20.6	29.4	29.4	8.0	8.0	96.4	96.5	7.3	7.3	7.3	18.5	22.2	7.3	38.8	38.9							
						0.6	213.0	20.6	20.6	29.4	29.4	8.0	8.0	96.5	96.5	7.3	7.3	7.3	25.8	22.2		39.0	38.9							
					B	0.6	199.0	20.6	20.6	29.5	29.5	8.0	8.0	96.9	97.1	7.3	7.3	7.3	58.2	54.7	7.3	49.9	50.7							
						0.6	213.0	20.6	20.6	29.5	29.5	8.0	8.0	97.2	97.2	7.4	7.4	7.4	51.2	54.7		51.5	50.7							
					IM17	Cloudy	Moderate	02:05	5.0	S	0.7	164.0	20.6	20.6	27.7	27.7	8.0	8.0	95.8	95.9	7.3	7.3	7.3		24.8	19.6	7.3	29.6	29.9	30.9
											0.7	173.0	20.6	20.6	27.7	27.7	8.0	8.0	95.9	95.9	7.3	7.3	7.3		14.4	19.6		24.8	29.9	
B	0.5	165.0	20.6	20.6						27.8	27.8	8.0	8.0	96.6	97.0	7.4	7.4	7.4	30.2	23.2	7.0	31.6	32.0							
	0.6	178.0	20.5	20.6						27.8	27.8	8.0	8.0	97.4	97.0	7.4	7.4	7.4	16.1	23.2		32.3	32.0							
IM18	Cloudy	Moderate	00:05	18.2	S	0.6	147.0	20.6	20.6	29.6	29.6	8.0	8.0	95.9	95.9	7.2	7.2	7.2	5.2	5.2	6.3	5.5	5.4	7.3						
						0.6	149.0	20.6	20.6	29.6	29.6	8.0	8.0	95.9	95.9	7.2	7.2	7.2	5.2	5.2		5.3	5.4							
					M	0.5	159.0	20.5	20.5	30.5	30.5	8.0	8.0	90.5	90.5	6.8	6.8	6.8	4.1	4.2	7.0	7.6	7.5							
						0.6	163.0	20.5	20.5	30.6	30.5	8.0	8.0	90.5	90.5	6.8	6.8	6.8	4.3	4.2		7.3	7.5							
					B	0.3	158.0	20.5	20.5	30.8	30.8	8.0	8.0	90.5	90.6	6.8	6.8	6.8	9.3	9.5	6.8	9.0	9.1							
						0.4	172.0	20.5	20.5	30.8	30.8	8.0	8.0	90.6	90.6	6.8	6.8	6.8	9.6	9.5		9.1	9.1							
					IM19	Cloudy	Moderate	00:19	17.8	S	0.8	185.0	20.9	20.9	29.2	29.2	8.0	8.0	94.6	94.6	7.1	7.1	7.1		4.0	3.9	7.1	8.2	8.1	
											0.8	198.0	20.9	20.9	29.2	29.2	8.0	8.0	94.6	94.6	7.1	7.1	7.1		3.9	3.9		8.0	8.1	
M	0.7	170.0	20.7	20.7						29.5	29.5	8.0	8.0	94.3	94.3	7.1	7.1	7.1	3.5	3.5	7.1	7.0	7.2							
	0.8	180.0	20.7	20.7						29.5	29.5	8.0	8.0	94.3	94.3	7.1	7.1	7.1	3.5	3.5		7.3	7.2							
B	0.6	151.0	20.6	20.6						30.1	30.1	8.0	8.0	94.3	94.5	7.1	7.1	7.1	6.5	6.3	7.1	6.8	6.8							
	0.6	162.0	20.6	20.6						30.1	30.1	8.0	8.0	94.7	94.5	7.1	7.1	7.1	6.1	6.3		6.7	6.8							
IM20A	Cloudy	Moderate	01:00	5.2	S	0.6	244.0	21.2	21.2	27.9	27.9	8.0	8.0	99.7	99.6	7.5	7.5	7.5	7.2	7.2	9.5	11.8	11.7							
						0.7	247.0	21.2	21.2	27.9	27.9	8.0	8.0	99.5	99.6	7.5	7.5	7.5	7.2	7.2		11.5	11.7							
					B	0.5	238.0	21.0	21.0	28.4	28.4	8.0	8.0	96.9	97.0	7.3	7.3	7.3	11.8	11.8	7.3	13.5	13.6							
						0.5	252.0	21.0	21.0	28.4	28.4	8.0	8.0	97.1	97.0	7.3	7.3	7.3	11.8	11.8		13.7	13.6							
IM21A	Cloudy	Moderate	00:46	5.5	S	0.4	211.0	21.2	21.2	28.6	28.6	8.0	8.0	93.0	93.1	7.0	7.0	7.0	14.6	14.7	18.2	19.7	19.7							
						0.4	224.0	21.2	21.2	28.6	28.6	8.0	8.0	93.1	93.1	7.0	7.0	7.0	14.9	14.7		19.6	19.7							
					B	0.2	206.0	21.2	21.2	28.7	28.7	8.0	8.0	93.6	93.7	7.0	7.0	7.0	21.4	21.7	7.0	41.9	41.6							
						0.2	211.0	21.2	21.2	28.7	28.7	8.0	8.0	93.7	93.7	7.1	7.1	7.1	21.9	21.7		41.2	41.6							
IM22A	Cloudy	Moderate	00:38	5.2	S	0.5	221.0	22.0	22.0	29.0	29.0	7.9	7.9	96.9	97.0	7.2	7.2	7.2	12.1	12.3	12.0	20.7	21.0							
						0.5	236.0	22.0	22.0	29.0	29.0	7.9	7.9	97.0	97.0	7.2	7.2	7.2	12.4	12.3		21.3	21.0							
					B	0.5	218.0	22.0	22.0	29.0	29.0	8.0	8.0	98.0	98.2	7.2	7.3	7.3	11.7	11.7	7.3	18.0	18.2							
						0.5	232.0	22.0	22.0	29.0	29.0	8.0	8.0	98.4	98.2	7.3	7.3	7.3	11.8	11.7		18.4	18.2							

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Cloudy	Calm	05:07	8.0	S	0.7	319.6	20.6	20.6	31.7	31.7	7.8	7.8	90.3	90.3	6.7	6.7	6.7	4.5	4.5	5.9	9.0	9.3	11.9
						0.7	319.6	20.6		31.7		7.8		90.3		6.7			4.5					
						1.2	278.0	20.6		31.7		7.8		90.3		6.7			5.8					
					M	0.6	284.6	20.6	31.7	7.8	90.2	6.7	6.1	6.0	11.3									
						0.1	72.9	20.6	31.7	7.8	91.4	6.8	6.4											
						0.4	267.0	20.6	31.7	7.8	90.5	6.8	8.3											
B	0.4	318.6	20.8	32.2	8.0	98.1	7.3	5.2	7.4	14.7														
	0.4	318.6	20.8	32.2	8.0	98.2	7.3	6.0																
	0.5	329.3	20.8	32.2	8.0	97.8	7.3	5.3																
E2	Cloudy	Calm	08:27	8.3	S	0.5	329.3	20.8	20.8	32.2	32.2	8.0	8.0	97.8	97.8	7.3	7.3	7.3	5.8	5.6	5.9	10.4	10.6	10.8
						0.5	329.3	20.8		32.2		8.0		97.8		7.3			5.8					
						0.6	278.2	20.8		32.2		8.1		97.6		7.2			6.4					
					M	0.4	170.2	20.8	32.2	8.0	97.5	7.2	6.7	6.6	11.2									
						0.4	318.6	20.8	32.2	8.0	98.2	7.3	6.0											
						0.5	329.3	20.8	32.2	8.0	97.8	7.3	5.3											
B	0.6	278.2	20.8	32.2	8.1	97.6	7.2	6.4	7.2	11.2														
	0.4	170.2	20.8	32.2	8.0	97.5	7.2	6.7																
	0.7	289.0	20.1	32.7	8.2	99.2	7.4	6.5																
E3	Fine	Moderate	07:12	16.3	S	0.8	314.0	20.1	20.1	32.7	32.7	8.2	8.2	99.2	99.2	7.4	7.4	7.4	6.5	6.5	16.2	13.1	12.9	16.8
						0.6	292.0	20.1		32.8		8.2		99.1		7.4			7.1					
						0.7	296.0	20.1		32.8		8.2		99.1		7.4			7.2					
					M	0.6	296.0	20.1	32.9	8.2	99.2	7.4	37.0	35.1	21.6									
						0.7	321.0	20.1	32.9	8.2	99.3	7.4	21.3											
						0.0	233.0	20.4	31.8	8.1	98.3	7.4	17.4											
B	0.0	246.0	20.4	31.8	8.1	98.3	7.4	17.5	19.1	25.7														
	0.0	356.0	20.4	31.9	8.1	98.8	7.4	19.0																
	0.0	5.0	20.4	31.9	8.1	98.8	7.4	19.4																
E4	Fine	Moderate	05:47	10.6	S	0.1	6.0	20.3	20.3	32.0	32.0	8.1	8.1	98.8	98.8	7.4	7.4	7.4	20.5	20.6	19.1	42.2	42.3	34.4
						0.2	6.0	20.3		32.0		8.1		98.8		7.4			20.7					
						0.5	247.0	20.6		28.9		8.0		92.1		7.0			16.5					
					M	0.5	256.0	20.6	28.9	8.0	92.1	7.0	17.9	25.2	28.0									
						0.4	246.0	20.6	29.1	8.0	92.0	7.0	40.7											
						0.4	259.0	20.6	29.1	8.0	92.6	7.0	25.8											
B	0.3	339.0	20.7	25.5	8.0	92.7	7.2	8.0	10.5	8.7														
	0.3	6.0	20.7	25.5	8.0	92.6	7.2	8.0																
	0.3	341.0	20.8	26.4	8.0	94.5	7.2	13.0																
E6	Fine	Moderate	06:50	4.1	B	0.3	355.0	20.8	26.4	8.0	94.9	7.3	7.3	13.0	13.0	10.6								
						0.5	21.0	20.8	27.3	8.0	93.1	7.1	8.3											
						0.5	21.0	20.8	27.3	8.0	93.3	7.1	8.4											
E7A	Fine	Moderate	07:08	4.2	S	0.4	14.0	20.8	20.8	27.5	27.5	8.0	8.0	96.4	96.6	7.4	7.4	7.4	11.4	11.5	9.9	14.7	14.4	13.0
						0.4	14.0	20.8		27.6		8.0		96.8		7.4			11.6					
						0.7	307.0	20.6		32.1		8.0		99.7		7.4			2.5					
F1	Cloudy	Calm	06:02	19.2	M	0.7	307.0	20.6	32.1	8.0	99.7	7.3	7.4	2.7	2.6	4.0								
						0.6	277.6	20.3	32.4	8.1	104.0	7.8	2.4											
						0.5	273.5	20.3	32.4	8.1	104.0	7.8	2.3											
B	0.4	28.5	20.2	32.5	8.1	102.8	7.7	3.2	2.7	5.2														
	0.5	73.4	20.2	32.5	8.1	102.8	7.7	3.3																
	0.7	236.5	20.6	32.1	8.0	99.8	7.4	2.5																
F2	Cloudy	Calm	06:32	18.3	S	0.7	236.5	20.6	32.1	8.0	99.2	7.4	7.4	2.5	2.5	2.1	2.1	6.2	6.3	6.6	6.4			
						0.4	36.0	20.4	32.3	8.1	102.2	7.6	1.8											
						0.5	184.4	20.4	32.3	8.1	101.5	7.6	2.0											
					M	0.7	270.3	20.1	32.5	8.2	102.7	7.7	1.6	1.8	6.5									
						0.2	9.2	20.1	32.5	8.2	103.1	7.7	6.8											
						0.2	9.2	20.1	32.5	8.2	103.1	7.7	6.8											

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
F3	Cloudy	Calm	07:06	17.0	S	0.8	249.8	20.2	20.2	32.4	32.4	8.1	8.1	102.5	102.3	7.7	7.7	7.7	7.7	2.0	2.0	3.0	3.0	4.4	4.3	5.8	<0.001
						1.1	287.1	20.2		32.4		8.1		102.0		7.6		1.9		4.1		<0.001					
						1.4	272.0	20.1		32.5		8.2		103.0		7.7		2.2		5.0		<0.001					
					M	0.3	327.7	20.1	32.5	8.2	102.9	7.7	7.7	2.2	4.6	4.8	8.6	<0.001									
						0.4	144.6	20.1	32.5	8.2	102.4	7.7	7.7	4.5	8.2		8.4	<0.001									
						0.4	144.6	20.1	32.5	8.2	102.5	7.7	7.7	5.1	8.2		<0.001										
B	1.0	287.6	20.6	32.3	20.6	32.3	32.3	8.1	8.1	100.8	100.8	7.5	7.5	7.5	7.5	6.1	6.3	10.9	10.8	10.8	10.8	10.8	<0.001				
	0.7	209.3	20.6	32.3		8.1		100.8		7.5		6.5		10.7													
	1.3	294.0	20.6	32.3		8.1		100.1		7.4		11.7		16.1													
F4	Cloudy	Calm	08:01	13.1	S	1.3	294.0	20.6	20.6	32.3	32.3	8.1	8.1	100.1	100.1	7.4	7.4	7.4	7.4	11.1	11.1	11.1	11.1	16.3	17.0	16.3	
						0.5	289.0	20.6		32.3		8.1		100.1		7.4		10.5		16.4							
						0.4	318.9	20.6		32.3		8.1		99.9		7.4		17.7		23.7							
					M	1.1	258.0	20.6	32.3	8.1	99.8	7.4	7.4	17.6	24.1	23.9	12.6	12.5	12.6	<0.001							
						0.1	151.0	20.3	30.9	8.0	99.4	7.5	7.5	7.0	6.8		12.3										
						0.0	132.0	20.3	31.1	8.0	100.5	7.6	7.6	6.3	10.8		10.5		10.8								
B	0.0	138.0	20.3	31.1	8.0	100.6	7.6	7.6	6.3	10.2	10.5	11.6	11.3	11.6	<0.001												
	0.4	328.0	20.7	28.4	8.0	91.8	7.0	7.0	9.2	9.2		11.0															
	0.4	337.0	20.7	28.4	8.0	91.8	7.0	7.0	9.1	11.0																	
F5	Fine	Moderate	05:08	4.9	S	0.4	336.0	20.7	20.7	28.6	28.6	8.0	8.0	91.4	91.4	6.9	6.9	6.9	6.9	7.0	7.0	12.7	12.6	13.9	16.0	13.9	
						0.4	339.0	20.7		28.6		8.0		91.4		6.9		12.4		14.1							
						0.4	306.0	20.5		30.2		8.0		91.0		6.9		16.9		23.1							
					M	0.5	307.0	20.5	30.2	8.0	91.3	6.9	6.9	17.4	17.2	22.6	22.9	22.6	<0.001								
						0.2	160.9	20.6	32.2	8.0	99.4	7.4	7.4	3.6		3.5		8.0									
						0.5	34.1	20.6	32.2	8.0	98.8	7.4	7.4	3.4		3.5		8.6									
B	0.7	333.9	20.5	32.2	8.0	99.8	7.4	7.4	3.9	4.2	4.0	8.6	8.5	8.6	<0.001												
	0.7	333.9	20.5	32.2	8.0	99.8	7.4	7.4	4.4	4.2		8.4															
	0.1	28.8	20.5	32.2	8.0	99.7	7.4	7.4	4.0	4.3		9.2															
F6	Fine	Moderate	08:47	13.9	S	0.4	337.0	20.7	20.7	28.4	28.4	8.0	8.0	91.8	91.8	7.0	7.0	7.0	7.0	9.2	9.2	9.2	9.2	11.3	16.0	11.3	
						0.4	336.0	20.7		28.6		8.0		91.4		6.9		12.7		13.7							
						0.4	339.0	20.7		28.6		8.0		91.4		6.9		12.4		14.1							
					M	0.4	306.0	20.5	30.2	8.0	91.0	6.9	16.9	23.1	22.9	22.6	22.9	22.6	<0.001								
						0.5	307.0	20.5	30.2	8.0	91.3	6.9	6.9	17.4		17.4											
						0.2	160.9	20.6	32.2	8.0	99.4	7.4	7.4	3.6		3.5		8.0									
B	0.5	34.1	20.6	32.2	8.0	98.8	7.4	7.4	3.4	3.5	4.0	8.6	8.5	8.6	<0.001												
	0.7	333.9	20.5	32.2	8.0	99.8	7.4	7.4	4.4	4.2		8.4															
	0.1	28.8	20.5	32.2	8.0	99.7	7.4	7.4	4.0	4.3		9.2															
IM1	Cloudy	Calm	05:43	9.1	S	0.8	236.6	20.6	20.6	31.7	31.7	7.9	7.9	91.8	91.5	6.9	6.8	6.8	6.9	3.3	3.3	3.3	3.3	7.3	8.0	7.3	
						0.8	236.6	20.6		31.7		7.9		91.1		6.8		3.2		7.1							
						1.2	132.6	20.6		31.9		7.9		92.2		6.9		3.7		8.0							
					M	0.5	145.6	20.6	31.9	7.9	93.3	7.0	3.9	8.9	4.1	8.7	8.9	8.7	<0.001								
						0.2	132.0	20.6	31.9	7.9	93.2	7.0	4.3	9.0													
						0.4	273.9	20.7	32.0	8.0	97.4	7.2	2.1	5.5													
B	0.2	206.4	20.7	32.0	8.0	96.2	7.2	7.4	2.0	2.1	2.1	5.5	5.6	5.5	<0.001												
	0.7	295.1	20.3	32.4	8.1	100.9	7.5	7.5	2.4	2.5		6.9															
	0.7	295.1	20.3	32.4	8.1	101.2	7.6	7.5	2.6	2.5		6.7															
IM2	Cloudy	Calm	05:22	10.3	S	0.4	243.6	20.7	20.7	32.1	32.1	8.0	8.0	99.4	99.4	7.4	7.4	7.4	7.4	2.9	2.9	2.9	2.9	6.2	7.7	6.2	
						0.4	243.6	20.7		32.1		8.0		99.2		7.4		2.9		6.1							
						0.6	92.8	20.5		32.3		8.1		100.0		7.5		3.7		7.5							
					M	1.0	296.5	20.5	32.3	8.1	100.0	7.5	7.5	3.6	3.7	3.7	7.2	7.4	7.2	<0.001							
						0.3	356.2	20.5	32.3	8.1	99.4	7.4	4.0	9.6													
						0.5	328.1	20.5	32.3	8.1	99.5	7.4	7.4	4.1	9.4												
B	1.0	154.6	20.4	32.3	8.1	100.4	7.5	7.5	3.7	3.7	3.7	7.2	7.2	7.2	<0.001												
	1.0	154.6	20.4	32.3	8.1	100.4	7.5	7.5	3.6	3.7		7.1															
	0.8	309.3	20.4	32.3	8.1	99.7	7.4	7.4	4.0	4.2		8.1															
IM3	Cloudy	Calm	09:20	15.3	S	0.8	236.6	20.6	20.6	31.7	31.7	7.9	7.9	91.8	91.5	6.9	6.8	6.8	6.9	3.3	3.3	3.3	3.3	7.3	8.0	7.3	
						0.8	236.6	20.6		31.7		7.9		91.1		6.8		3.2		7.1							
						1.2	132.6	20.6		31.9		7.9		92.2		6.9		3.7		8.0							
					M	0.5	145.6	20.6	31.9	7.9	93.3	7.0	3.9	8.9	4.1	8.7	8.9	8.7	<0.001								
						0.2	132.0	20.6	31.9	7.9	93.2	7.0	4.3	9.0													
						0.4	273.9	20.7	32.0	8.0	97.4	7.2	2.1	5.5													
B	0.2	206.4	20.7	32.0	8.0	96.2	7.2	7.4	2.0	2.1	2.1	5.5	5.6	5.5	<0.001												
	0.7	295.1	20.3	32.4	8.1	100.9	7.5	7.5	2.4	2.5		6.9															
	0.7	295.1	20.3	32.4	8.1	101.2	7.6	7.5	2.6	2.5		6.7															
IM4	Cloudy	Calm	08:57	16.3	S	0.4	243.6	20.7	20.7	32.1	32.1	8.0	8.0	99.4	99.4	7.4	7.4	7.4	7.4	2.9	2.9	2.9	2.9	6.2	7.7	6.2	
						0.4	243.6	20.7		32.1		8.0		99.2		7.4		2.9		6.1							
						0.6	92.8	20.5		32.3		8.1		100.0		7.5		3.7		7.5							
					M	1.0	296.5	20.5	32.3	8.1	100.0	7.5	7.5	3.6	3.7	3.7	7.2	7.4	7.2	<0.001							
						0.3	356.2	20.5	32.3	8.1	99.4	7.4	4.0	9.6													
						0.5	328.1	20.5	32.3	8.1	99.5	7.4	7.4	4.1	9.4												
B	1.0	154.6	20.4	32.3	8.1	100.4	7.5	7.5	3.7	3.7	3.7	7.2	7.2	7.2	<0.001												
	1.0	154.6	20.4	32.3	8.1	100.4	7.5	7.5	3.6	3.7		7.1															
	0.8	309.3	20.4	32.3	8.1	99.7	7.4	7.4	4.0	4.2		8.1															
IM5	Cloudy	Calm	07:33	15.0	S	0.8	236.6	20.6	20.6	31.7	31.7	7.9	7.9	91.8	91.5	6.9	6.8	6.8	6.9	3.3	3.3	3.3	3.3	7.3	8.0	7.3	
						0.8	236.6	20.6		31.7		7.9		91.1		6.8		3.2		7.1							
						1.2	132.6	20.6		31.9		7.9		92.2		6.9		3.7		8.0							
					M	0.5	145.6	20.6	31.9	7.9	93.3	7.0	3.9	8.9	4.1	8.7	8.9	8.7	<0.001								
						0.2	132.0	20.6	31.9	7.9	93.2	7.0	4.3	9.0													
						0.4	273.9	20.7	32.0	8.0	97.4	7.2	2.1	5.5													
B	0.2	206.4	20.7	32.0	8.0	96.2	7.2	7.4	2.0	2.1	2.1	5.5	5.6	5.5	<0.001												
	0.7	295.1	20.3	32.4	8.1	100.9	7.5	7.5	2.4	2.5		6.9															
	0.7	295.1	20.3	32.4	8.1	101.2	7.6	7.5	2.6	2.5		6.7															
IM6	Cloudy	Calm	08:57	16.3	S	0.4	243.6	20.7	20.7	32.1	32.1	8.0	8.0	99.4	99.4	7.4	7.4	7.4	7.4	2.9	2.9	2.9	2.9	6.2	7.7	6.2	
						0.4	243.6	20.7		32.1		8.0		99.2		7.4		2.9		6.1							
						0.6	92.8	20.5		32.3		8.1		1													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM6	Cloudy	Calm	07:18	15.2	S	0.6	240.4	20.3	20.3	32.3	32.3	8.1	8.1	101.6	101.6	7.6	7.6	7.6	2.3	2.3	2.8	6.0	6.8	<0.001
						0.6	240.4	20.3		32.3	32.3	8.1		101.6		7.6			2.3			5.8		<0.001
						0.4	312.5	20.2		32.5	32.5	8.1		102.1		7.6			2.4			6.2		<0.001
					M	0.3	201.7	20.2	32.5	32.5	8.1	102.0	7.6	2.3	6.5	<0.001								
						0.7	305.6	20.1	32.5	32.5	8.2	101.8	7.6	3.8	8.2	<0.001								
						0.4	178.9	20.1	32.5	32.5	8.2	101.9	7.6	3.9	7.8	<0.001								
IM7	Fine	Rough	08:25	14.9	S	0.4	311.0	19.9	19.9	33.6	33.6	8.2	8.2	102.0	102.0	7.6	7.6	7.6	2.2	2.2	2.4	6.1	6.5	<0.001
						0.4	311.0	19.9		33.6	33.6	8.2		102.0		7.6			2.2			5.7		<0.001
						0.3	308.0	19.9		33.6	33.6	8.2		101.7		7.6			2.3			6.2		<0.001
					M	0.3	335.0	19.9	33.6	33.6	8.2	101.7	7.6	2.3	6.1	<0.001								
						0.4	321.0	19.9	33.6	33.6	8.2	100.2	7.5	2.8	7.1	<0.001								
						0.4	330.0	19.9	33.6	33.6	8.2	100.1	7.5	2.8	7.6	<0.001								
IM8	Fine	Rough	08:14	12.6	S	0.4	299.0	19.9	19.9	33.6	33.6	8.2	8.2	101.9	101.9	7.6	7.6	7.6	3.0	3.0	5.8	4.8	6.7	<0.001
						0.4	310.0	19.9		33.6	33.6	8.2		101.9		7.6			3.0			5.1		<0.001
						0.3	306.0	19.9		33.6	33.6	8.2		101.9		7.6			4.0			5.8		<0.001
					M	0.4	327.0	19.9	33.7	33.6	8.2	101.9	7.6	4.1	5.8	<0.001								
						0.3	300.0	19.8	33.7	33.7	8.2	101.3	7.6	10.2	9.0	<0.001								
						0.3	311.0	19.8	33.7	33.7	8.2	101.2	7.6	10.3	9.7	<0.001								
IM9	Fine	Rough	07:48	14.7	S	0.8	301.0	20.1	20.1	33.3	33.3	8.2	8.2	100.0	100.0	7.5	7.5	7.5	7.0	7.0	12.1	11.5	13.5	<0.001
						0.8	324.0	20.1		33.3	33.3	8.2		100.0		7.5			7.1			11.1		<0.001
						0.7	292.0	20.1		33.4	33.4	8.2		100.4		7.5			6.9			12.5		<0.001
					M	0.7	294.0	20.1	33.5	33.4	8.2	100.4	7.5	6.7	12.8	<0.001								
						0.7	290.0	20.0	33.5	33.5	8.2	100.7	7.5	21.1	16.8	<0.001								
						0.7	299.0	20.0	33.5	33.5	8.2	100.8	7.5	23.7	16.5	<0.001								
IM10	Fine	Moderate	06:59	8.3	S	0.9	234.0	20.1	20.1	33.2	33.2	8.1	8.1	98.3	98.3	7.3	7.3	7.3	9.5	9.5	26.9	20.7	75.8	<0.001
						1.0	239.0	20.1		33.2	33.2	8.1		98.3		7.3			9.5			20.3		<0.001
						0.9	231.0	20.2		33.2	33.2	8.1		98.3		7.3			18.9			84.6		<0.001
					M	0.9	240.0	20.2	33.2	33.2	8.1	98.3	7.3	19.0	86.0	<0.001								
						0.8	232.0	20.2	33.2	33.2	8.1	98.4	7.3	48.6	121.0	<0.001								
						0.9	241.0	20.2	33.2	33.2	8.1	98.4	7.3	55.6	122.0	<0.001								
IM11A	Fine	Moderate	06:42	5.2	S	0.9	299.0	20.2	20.2	33.3	33.3	8.1	8.1	99.1	99.1	7.4	7.4	7.4	71.5	78.0	93.7	87.4	87.0	<0.001
						0.9	316.0	20.2		33.3	33.3	8.1		99.1		7.4			84.6			86.5		<0.001
						0.8	304.0	20.2		33.3	33.3	8.1		99.2		7.4			99.4			152.0^		<0.001
					B	0.8	322.0	20.2	33.3	33.3	8.1	99.2	7.4	119.4	154.0^	<0.001								
						1.1	353.0	20.2	32.8	32.8	8.2	98.7	7.4	8.7	13.9	<0.001								
						1.1	25.0	20.2	32.8	32.8	8.2	98.7	7.4	8.9	13.8	<0.001								
IM12	Fine	Moderate	06:30	13.8	S	1.1	347.0	20.2	20.2	33.1	33.1	8.1	8.1	98.3	98.3	7.3	7.3	7.3	20.8	21.3	23.5	19.8	25.5	<0.001
						1.2	14.0	20.2		33.1	33.1	8.1		98.3		7.3			21.8			19.5		<0.001
						0.8	347.0	20.2		33.1	33.1	8.1		98.2		7.3			39.8			42.4		<0.001
					M	0.8	357.0	20.2	33.1	33.1	8.1	98.2	7.3	41.2	43.3	<0.001								
						0.2	103.0	20.4	29.7	29.7	8.1	97.5	7.4	20.5	18.6	<0.001								
						0.2	106.0	20.4	29.7	29.7	8.1	97.6	7.4	20.3	19.0	<0.001								
IM13	Fine	Moderate	06:07	16.1	S	0.0	32.0	20.3	20.3	31.4	31.4	8.1	8.1	98.1	98.1	7.4	7.4	7.4	25.8	25.4	25.8	31.8	30.7	<0.001
						0.0	34.0	20.3		31.4	31.4	8.1		98.2		7.4			25.0			32.3		<0.001
						0.3	2.0	20.3		31.8	31.8	8.1		98.2		7.4			31.2			40.9		<0.001
					M	0.3	2.0	20.3	31.8	31.8	8.1	98.2	7.4	31.8	41.4	<0.001								
						0.1	349.0	20.4	31.9	31.9	8.1	98.9	7.4	13.1	20.4	<0.001								
						0.1	352.0	20.4	31.9	31.9	8.1	99.0	7.4	12.9	19.8	<0.001								
IM14	Fine	Moderate	05:57	10.1	S	0.3	357.0	20.4	20.4	31.9	31.9	8.1	8.1	99.1	99.1	7.4	7.4	7.4	13.3	13.4	16.6	24.8	24.7	<0.001
						0.3	23.0	20.4		31.9	31.9	8.1		99.1		7.4			13.5			24.6		<0.001
						0.3	358.0	20.4		32.0	32.0	8.1		99.4		7.4			23.9			29.0		<0.001
					M	0.3	358.0	20.4	32.0	32.0	8.1	99.4	7.4	23.2	29.7	<0.001								
						0.1	349.0	20.4	31.9	31.9	8.1	98.9	7.4	13.1	20.4	<0.001								
						0.1	352.0	20.4	31.9	31.9	8.1	99.0	7.4	12.9	19.8	<0.001								

Water Quality Monitoring Data Log Sheet

Date: 2020/01/10

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
IM15	Fine	Moderate	05:36	5.3	S	0.6	247.0	20.5	20.5	29.2	29.2	8.0	8.0	93.3	93.3	7.1	7.1	7.1	23.0	21.2	22.3	29.7	29.0	29.3	
						0.6	267.0	20.5	20.5	29.2	29.2	8.0	8.0	93.3	93.3	7.1	7.1	7.1	19.4	21.2			29.5		
					B	0.5	247.0	20.5	20.5	29.2	29.2	8.0	8.0	93.4	93.5	7.1	7.1	7.1	23.5	23.5			23.5		30.2
						0.6	260.0	20.5	20.5	29.2	29.2	8.0	8.0	93.6	93.5	7.1	7.1	7.1	23.6	23.5			23.6		30.2
IM16A	Fine	Moderate	06:04	4.8	S	0.6	264.0	20.6	20.6	28.5	28.6	8.0	8.0	91.7	91.7	7.0	7.0	7.0	7.0	7.0	13.7	16.3	11.9	11.7	
						0.6	268.0	20.6	20.6	28.6	28.6	8.0	8.0	91.7	91.7	7.0	7.0	7.0	7.0	7.0			11.4		
					B	0.4	262.0	20.6	20.6	29.2	29.2	8.0	8.0	91.7	91.8	6.9	6.9	6.9	19.3	20.3			20.3		21.0
						0.5	280.0	20.6	20.6	29.2	29.2	8.0	8.0	91.9	91.8	7.0	7.0	7.0	21.4	20.3			21.4		21.0
IM17	Fine	Moderate	06:26	4.0	S	0.3	315.0	20.6	20.7	26.2	26.2	8.0	8.0	91.1	91.1	7.0	7.0	7.0	13.3	13.3	14.9	18.6	16.1	16.5	
						0.3	323.0	20.7	20.7	26.2	26.2	8.0	8.0	91.0	91.0	7.0	7.0	7.0	13.3	13.3			16.8		
					B	0.3	305.0	20.7	20.7	29.0	29.0	8.0	8.0	90.9	91.5	6.9	6.9	6.9	12.5	16.4			12.5		20.7
						0.4	311.0	20.7	20.7	28.9	28.9	8.0	8.0	92.0	91.5	7.0	7.0	7.0	20.4	16.4			20.4		20.3
IM18	Fine	Moderate	08:20	17.2	S	0.3	354.0	20.8	20.8	27.2	27.2	8.0	8.0	91.4	91.4	7.0	7.0	6.9	4.6	4.7	5.6	10.1	9.0	8.9	
						0.3	355.0	20.8	20.8	27.2	27.2	8.0	8.0	91.3	91.4	7.0	7.0	6.9	4.7	4.7			8.8		
					M	0.5	336.0	20.7	20.7	28.8	28.8	8.0	8.0	90.0	90.0	6.8	6.8	6.8	5.8	5.8			5.8		9.4
						0.5	344.0	20.7	20.7	28.9	28.9	8.0	8.0	90.0	90.0	6.8	6.8	6.8	5.8	5.8			5.8		9.4
					B	0.5	336.0	20.6	20.6	29.6	29.6	8.0	8.0	89.8	89.8	6.8	6.8	6.8	6.3	6.3			6.3		12.0
						0.5	4.0	20.6	20.6	29.6	29.6	8.0	8.0	89.8	89.8	6.8	6.8	6.8	6.2	6.3			6.2		12.1
IM19	Fine	Moderate	08:04	17.5	S	0.4	351.0	20.8	20.8	27.2	27.2	8.0	8.0	91.8	91.8	7.0	7.0	7.0	5.0	5.0	8.6	9.5	8.3	8.5	
						0.5	9.0	20.8	20.8	27.2	27.2	8.0	8.0	91.8	91.8	7.0	7.0	7.0	5.0	5.0			8.7		
					M	0.8	341.0	20.8	20.8	28.7	28.7	8.0	8.0	92.4	92.4	7.0	7.0	7.0	5.8	5.7			5.8		9.9
						0.9	11.0	20.8	20.8	28.8	28.8	8.0	8.0	92.4	92.4	7.0	7.0	7.0	5.7	5.7			5.7		9.9
					B	0.7	344.0	20.8	20.8	29.3	29.3	8.0	8.0	92.1	92.3	6.9	7.0	7.0	15.0	15.0			15.0		10.2
						0.8	6.0	20.8	20.8	29.3	29.3	8.0	8.0	92.4	92.3	7.0	7.0	7.0	15.0	15.0			15.0		9.8
IM20A	Fine	Moderate	07:28	3.6	S	0.5	54.0	21.0	21.0	27.8	27.8	8.0	8.0	98.5	98.5	7.5	7.5	7.5	12.4	12.5	17.4	15.5	13.9	14.1	
						0.5	54.0	21.0	21.0	27.8	27.8	8.0	8.0	98.4	98.5	7.5	7.5	7.5	12.6	12.5			14.2		
					B	0.5	55.0	20.9	20.9	28.0	28.0	8.0	8.0	95.3	96.4	7.2	7.3	7.3	18.6	22.3			18.6		17.0
						0.5	57.0	20.9	20.9	28.0	28.0	8.0	8.0	97.4	96.4	7.4	7.3	7.3	26.0	22.3			26.0		17.0
IM21A	Fine	Moderate	07:42	4.6	S	0.4	34.0	22.4	22.4	27.9	27.9	8.0	8.0	99.8	99.9	7.4	7.4	7.4	14.8	14.8	15.4	20.2	18.5	18.6	
						0.4	35.0	22.4	22.4	27.9	27.9	8.0	8.0	99.9	99.9	7.4	7.4	7.4	14.7	14.8			18.7		
					B	0.3	28.0	22.4	22.4	27.9	27.9	8.0	8.0	100.5	100.7	7.4	7.4	7.4	15.0	16.0			15.0		21.6
						0.3	28.0	22.3	22.3	27.9	27.9	8.0	8.0	100.9	100.7	7.5	7.4	7.4	16.9	16.0			16.9		21.8
IM22A	Fine	Moderate	07:48	4.3	S	0.2	80.0	21.0	21.0	28.4	28.4	8.0	8.0	94.4	94.4	7.1	7.1	7.1	12.9	13.0	12.9	13.8	8.6	8.7	
						0.2	86.0	21.0	21.0	28.4	28.4	8.0	8.0	94.4	94.4	7.1	7.1	7.1	13.0	13.0			8.8		
					B	0.2	71.0	21.0	21.0	28.4	28.4	8.0	8.0	95.2	95.3	7.2	7.2	7.2	12.7	12.9			12.7		18.8
						0.2	72.0	21.0	21.0	28.4	28.4	8.0	8.0	95.3	95.3	7.2	7.2	7.2	13.1	12.9			13.1		19.1

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*						
E1	Cloudy	Moderate	04:55	8.2	S	1.1	204.1	20.3	20.3	31.9	31.9	8.2	8.2	94.8	94.8	7.1	7.1	7.1	7.1	5.6	5.5	8.0	10.0	10.2	12.1						
						0.1	119.2	20.3		31.9		8.2		94.8		7.1		5.3													
						0.5	221.3	20.3		31.9		8.2		94.5		7.1		7.2													
					M	0.3	196.8	20.3	31.9	8.2	94.5	7.1	8.0	7.1	7.1	10.4	11.0	13.5													
						0.9	166.8	20.3	31.9	8.2	94.2	7.1	14.0																		
						0.5	156.7	20.3	31.9	8.2	94.4	7.1	13.5																		
B	0.9	166.8	20.3	31.9	8.2	94.2	7.1	14.0	7.1	7.1	11.5	11.0	14.0																		
	0.2	72.4	20.4	20.4	32.1	32.1	8.2	8.2		100.8	100.8		7.5	7.5	4.5	4.5	7.3														
	S	0.5	74.7		20.4		32.1			8.2			100.8		7.5		4.4														
0.3		66.6	20.4		32.1		8.1		100.8	7.5		4.8																			
E2	Cloudy	Moderate	00:57	9.1	M	0.7	338.2	20.4	20.4	32.1	32.1	8.1	8.1	100.7	100.8	7.5	7.5	5.6	5.2	5.1	5.3	5.0	9.1	9.0	<0.001						
						0.3	276.6	20.4		32.2		8.1		101.2		7.6		8.9													
						0.3	276.6	20.4		32.2		8.1		100.8		7.5		8.6													
					B	0.9	109.0	19.7	19.7	33.4	33.4	8.2	8.2	108.1	108.2	8.1	8.1	3.1	3.1	5.4											
						S	0.9	113.0		19.7		33.4		8.2		108.2		8.1		3.2											
							0.9	105.0		19.7		33.7		8.3		108.3		8.1		4.3											
E3	Cloudy	Rough	02:48	16.9	M	0.9	105.0	19.7	19.7	33.7	33.7	8.3	8.3	108.3	108.3	8.1	8.1	4.3	4.3	5.5	5.5	8.4	8.4	8.5	<0.001						
						S	0.7	103.0		19.7		33.7		8.2		107.0		8.0		17.8											
							0.7	111.0		19.7		33.7		8.2		106.9		8.0		17.8											
					E4	Cloudy	Rough	04:42	10.3	B	0.7	111.0	19.7	19.7	33.7	33.7	8.2	8.2	107.0	107.0	8.0		8.0	17.8	17.8	10.0	10.2	39.7	10.0	10.2	<0.001
											S	1.3	208.0		19.8		32.2		8.2		99.1			7.5		17.8					
												1.4	213.0		19.8		32.2		8.2		99.1			7.5		18.8					
M	1.1	208.0	19.8	19.8						32.3	32.3	8.1	8.1	99.4	99.4	7.5	7.5	42.3	44.5	79.2											
	1.1	209.0	19.8							32.3		8.1		99.4		7.5		78.0													
	0.9	211.0	19.7							32.3		8.1		100.1		7.6		47.3													
E5	Fine	Rough	04:14	5.9	B	1.0	213.0	19.7	19.7	32.3	32.3	8.1	8.1	100.2	100.2	7.6	7.6	57.8	56.3	54.9	56.3	27.4	46.4	46.9	<0.001						
						S	1.0	211.0		19.7		30.3		8.0		96.8		7.4		23.0											
							1.0	213.0		19.7		30.3		8.0		96.8		7.4		22.0											
					E6	Fine	Rough	03:26	6.8	B	0.8	214.0	19.7	19.7	30.4	30.4	8.0	8.0	97.3	97.4	7.4		7.4	32.3	32.3	36.9	37.1	10.0	36.9	37.1	<0.001
											S	1.0	156.0		20.1		28.8		8.0		93.7			7.2		6.2					
												1.1	166.0		20.1		28.8		8.0		93.7			7.2		6.2					
M	0.9	156.0	20.1	20.1						29.3	29.3	8.0	8.0	93.3	93.3	7.1	7.1	10.6	10.6	11.8											
	1.0	162.0	20.1							29.3		8.0		93.3		7.1		11.7													
	0.7	153.0	20.1							29.5		8.0		93.5		7.1		13.1													
E7A	Fine	Rough	03:08	5.2	B	0.8	166.0	20.1	20.1	29.5	29.5	8.0	8.0	93.5	93.5	7.1	7.1	13.0	13.1	12.2	12.4	5.8	12.2	12.4	<0.001						
						S	0.6	200.0		20.3		28.8		8.0		92.6		7.1		4.4											
							0.6	216.0		20.3		28.8		8.0		92.6		7.1		4.4											
					M	0.4	189.0	20.3	20.3	29.1	29.1	8.0	8.0	93.5	93.6	7.1	7.1	7.1	7.3	5.8											
						0.4	194.0	20.3		29.1		8.0		93.7		7.1		5.4													
						0.5	208.2	20.0		32.4		8.3		106.1		8.0		2.2													
F1	Cloudy	Moderate	03:44	19.3	S	0.9	82.3	20.0	20.0	32.4	32.4	8.3	8.3	106.1	106.1	8.0	8.0	1.6	1.6	1.5	2.0	2.4	2.1	2.2	<0.001						
						M	0.6	121.2		20.1		32.4		8.3		105.5		7.9		5.0											
							1.0	280.4		20.1		32.4		8.3		105.5		7.9		5.1											
					B	1.2	128.5	20.1	20.1	32.4	32.4	8.3	8.3	105.0	105.0	7.9	7.9	3.5	3.6	6.6											
						1.0	146.3	20.1		32.4		8.3		104.9		7.9		6.9													
						0.4	304.1	20.0		32.5		8.3		104.5		7.9		0.8													
F2	Cloudy	Moderate	03:12	19.0	S	0.2	345.4	20.0	20.0	32.5	32.5	8.3	8.3	104.5	104.5	7.9	7.9	0.8	0.8	0.8	0.9	0.9	3.1	3.4	<0.001						
						M	0.8	193.1		20.0		32.5		8.3		103.9		7.8		4.1											
							0.4	130.7		20.0		32.5		8.3		103.9		7.8		3.9											
					B	2.0	164.2	20.0	20.0	32.5	32.5	8.3	8.3	103.5	103.5	7.8	7.8	1.0	1.0	6.9											
						0.9	126.1	20.0		32.5		8.3		103.4		7.8		6.5													
						0.9	126.1	20.0		32.5		8.3		103.4		7.8		6.5													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*		
F3	Cloudy	Moderate	02:22	17.3	S	0.7	117.7	20.0	20.0	32.4	32.4	8.3	8.3	106.1	106.1	8.0	8.0	7.9	0.8	0.9	0.9	3.8	4.0	5.3	<0.001		
						0.7	117.7	20.0		32.4		8.3		106.1		8.0			0.9						4.2	<0.001	
						0.4	121.8	20.0		32.4		8.3		105.5		7.9			0.8						5.5	<0.001	
					M	0.5	162.7	20.0	32.4	32.4	8.3	8.3	105.6	105.6	7.9	7.9	7.9	0.8	0.8	5.2	5.4	5.2	5.4	<0.001			
						0.2	315.9	20.0	32.4	32.4	8.3	8.3	104.9	104.9	7.9	7.9	7.9	1.0	1.1	6.5	6.6	6.5	6.6	<0.001			
						0.2	315.9	20.0	32.4	32.4	8.3	8.3	104.8	104.8	7.9	7.9	7.9	1.1	1.1	6.7	6.6	6.7	6.6	<0.001			
F4	Cloudy	Moderate	01:23	14.2	S	0.3	201.1	20.3	20.3	32.1	32.1	8.2	8.2	104.0	104.1	7.8	7.8	7.8	2.2	2.2	3.1	6.0	6.2	7.5	6.0		
						0.3	201.1	20.3		32.1		8.2		104.1		7.8			2.2			6.4			6.2	6.0	
						0.9	36.5	20.3		32.1		8.2		103.0		103.2			7.7			7.7			7.6	7.6	7.7
					M	0.9	36.5	20.3	32.1	8.2	103.3	103.3	7.7	7.7	7.6	7.6	7.7	2.4	2.4	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
						0.4	35.5	20.4	32.2	32.2	8.2	8.2	101.7	101.5	7.6	7.6	7.6	4.4	4.7	8.5	8.7	8.5	8.7	8.5	8.7		
						0.3	292.9	20.4	32.2	32.2	8.2	8.2	101.2	101.5	7.6	7.6	7.6	5.0	4.7	8.9	8.7	8.9	8.7	8.9	8.7		
F5	Fine	Rough	03:40	5.1	S	0.1	94.0	19.7	19.7	30.9	30.9	8.0	8.0	98.5	98.5	7.5	7.5	7.5	36.3	36.3	39.0	60.1	60.5	61.9	60.1		
						0.1	101.0	19.7		30.9		8.0		98.5		7.5			36.3			60.9			60.5		
						0.1	77.0	19.7		30.9		8.0		98.6		7.5			41.8			62.7			63.3	62.7	63.3
					B	0.1	77.0	19.7	30.9	30.9	8.1	8.0	98.6	98.6	7.5	7.5	7.5	41.8	41.8	63.8	63.3	63.8	63.3				
						0.3	145.0	20.0	30.2	30.2	8.0	8.0	93.1	93.1	7.1	7.1	7.1	4.4	4.4	6.3	6.4	6.3	6.4				
						0.3	152.0	20.0	30.2	30.2	8.0	8.0	93.1	93.1	7.1	7.1	7.1	4.4	4.4	6.4	6.4	6.4	6.4				
F6	Fine	Rough	01:27	13.8	M	0.4	133.0	20.0	20.0	30.5	30.5	8.0	8.0	94.9	94.9	7.2	7.2	7.2	8.7	8.6	11.8	9.7	9.6	9.6	9.7		
						0.4	141.0	20.0		30.5		8.0		94.9		7.2			8.5			9.5			9.6		
						0.4	112.0	19.8		30.8		30.8		8.0		8.0			97.7			97.7			7.4	7.4	7.4
					B	0.5	112.0	19.8	30.8	30.8	8.0	8.0	97.7	97.7	7.4	7.4	7.4	22.6	22.4	12.6	12.9	12.6	12.9				
						0.5	235.3	20.3	32.4	32.4	8.3	8.3	106.2	106.2	7.9	7.9	7.9	3.5	3.4	8.4	8.4	8.4	8.4				
						0.0	198.4	20.3	32.4	32.4	8.3	8.3	106.1	106.2	7.9	7.9	7.9	3.2	3.4	8.3	8.4	8.3	8.4				
IM1	Cloudy	Moderate	04:12	9.0	M	0.1	37.0	20.3	20.3	32.4	32.4	8.3	8.3	106.0	106.0	7.9	7.9	7.9	4.7	4.4	4.0	8.2	8.1	7.5	8.2		
						0.5	191.0	20.3		32.4		8.3		106.0		7.9			4.1			8.0			8.1		
						0.9	184.7	20.2		32.4		8.3		106.2		7.9			4.4			5.8			6.0		
					B	0.6	317.3	20.2	32.4	32.4	8.3	8.3	105.8	106.0	7.9	7.9	7.9	3.9	4.2	6.2	6.0	6.2	6.0				
						1.4	178.9	20.3	31.8	31.8	8.2	8.2	95.1	95.2	7.1	7.1	7.1	6.8	6.3	11.7	11.6	11.7	11.6				
						1.4	178.9	20.3	31.8	31.8	8.2	8.2	95.2	95.2	7.1	7.1	7.1	5.8	6.3	11.5	11.6	11.5	11.6				
IM2	Cloudy	Moderate	04:40	10.3	M	0.5	204.9	20.3	20.3	31.9	31.8	8.2	8.2	95.0	95.0	7.1	7.1	7.1	10.3	9.6	10.9	15.8	16.1	16.1	15.8		
						1.1	183.6	20.3		31.8		31.8		8.2		95.0			7.1			8.9			16.4	16.1	
						0.9	190.1	20.3		31.8		31.8		8.2		94.9			7.1			16.2			20.4	20.5	
					B	0.6	135.6	20.3	31.9	31.8	8.2	8.2	94.8	94.9	7.1	7.1	7.1	17.2	16.7	20.4	20.5	20.4	20.5				
						0.2	108.4	20.2	32.2	32.2	8.0	8.0	104.7	104.3	7.8	7.8	7.8	3.9	4.0	6.9	6.7	6.9	6.7				
						0.8	260.4	20.2	32.2	32.2	8.1	8.1	103.9	104.3	7.8	7.8	7.8	4.1	4.0	6.5	6.7	6.5	6.7				
IM3	Cloudy	Moderate	00:06	15.3	M	0.5	156.2	20.2	20.2	32.2	32.2	8.1	8.1	106.2	106.2	8.0	8.0	7.9	2.1	2.3	3.0	6.7	7.0	7.4	6.7		
						0.5	156.2	20.2		32.2		8.1		106.1		8.0			2.4			7.3			7.0		
						0.4	265.5	20.1		32.3		32.3		8.1		8.1			105.9			106.0			7.9	8.0	8.0
					B	0.5	330.6	20.1	32.3	32.3	8.1	8.1	106.1	106.0	8.0	8.0	8.0	2.8	2.8	8.6	8.5	8.6	8.5				
						0.6	280.0	20.3	32.1	32.1	8.2	8.2	104.5	104.5	7.8	7.8	7.8	2.8	2.8	5.7	5.5	5.7	5.5				
						0.8	284.4	20.3	32.1	32.1	8.2	8.2	104.5	104.5	7.8	7.8	7.8	2.8	2.8	5.3	5.5	5.3	5.5				
IM4	Cloudy	Moderate	00:29	17.3	M	0.8	102.9	20.2	20.2	32.2	32.2	8.2	8.2	106.9	106.9	8.0	8.0	8.0	3.0	3.0	3.1	6.7	6.9	6.9	6.7		
						0.8	102.9	20.2		32.2		8.2		106.8		8.0			3.0			7.1			6.9		
						0.5	235.6	20.2		32.3		32.3		8.2		8.2			106.2			106.3			8.0	8.0	8.0
					B	0.5	235.6	20.2	32.3	32.3	8.2	8.2	106.4	106.3	8.0	8.0	8.0	3.3	3.4	8.2	8.3	8.2	8.3				
						0.4	161.0	20.2	32.2	32.2	8.2	8.2	107.0	107.0	8.0	8.0	8.0	2.4	2.4	6.5	6.4	6.5	6.4				
						0.4	161.0	20.2	32.2	32.2	8.2	8.2	106.9	107.0	8.0	8.0	8.0	2.4	2.4	6.2	6.4	6.2	6.4				
IM5	Cloudy	Moderate	01:56	15.1	S	0.9	112.9	20.2	20.2	32.2	32.2	8.2	8.2	106.7	106.7	8.0	8.0	8.0	2.6	2.5	5.1	10.0	9.8	10.6	10.0		
						1.4	11.0	20.2		32.2		8.3		106.7		8.0			2.4			9.6			9.8		
						1.2	134.0	20.2		32.3		32.3		8.3		106.2			8.0			9.8			15.4	15.7	
					B	0.9	122.4	20.2	32.3	32.3	8.3	8.3	106.2	106.2	8.0	8.0	8.0	10.8	10.3	15.4	15.7	15.4	15.7				
						0.4	161.0	20.2	32.2	32.2	8.2	8.2	107.0	107.0	8.0	8.0	8.0	2.4	2.4	6.5	6.4	6.5	6.4				
						0.4	161.0	20.2	32.2	32.2	8.2	8.2	106.9	107.0	8.0	8.0	8.0	2.4	2.4	6.2	6.4	6.2	6.4				

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average		DA*	Value
IM6	Cloudy	Moderate	02:11	16.2	S	0.2	195.0	20.0	20.0	32.3	32.3	8.3	8.3	107.3	107.3	8.1	8.1	8.0	1.2	1.2	1.5	3.6	3.4	3.9	<0.001
						0.9	245.7	20.0		32.3		8.3		107.2		8.1			1.2			3.2			<0.001
						0.3	287.4	20.0		32.4		8.3		106.7		8.0			1.4			3.6			<0.001
					M	1.2	149.6	20.0	20.0	32.4	32.4	8.3	8.3	106.9	106.8	8.0	8.0	7.9	1.7	1.9	4.3	4.4	4.4	<0.001	
						0.1	285.7	20.0	20.0	32.4	32.4	8.3	8.3	105.7	105.7	7.9	7.9	7.9	1.7	1.9	4.4	4.4	4.4	<0.001	
						0.6	270.0	20.0	20.0	32.4	32.4	8.3	8.3	105.7	105.7	7.9	7.9	7.9	1.7	1.9	4.4	4.4	4.4	0.007	
IM7	Cloudy	Rough	01:37	15.2	S	0.2	113.0	19.6	19.6	33.6	33.6	8.3	8.3	110.1	110.1	8.3	8.3	8.3	1.5	1.5	3.7	5.9	6.1	5.3	<0.001
						0.2	121.0	19.6		33.6		8.3		110.0		8.3			1.5			6.2			<0.001
						0.1	113.0	19.6		19.6		33.7		33.7		8.3			8.3			109.8			109.8
					M	0.1	118.0	19.6	19.6	33.7	33.7	8.3	8.3	109.8	109.8	8.2	8.2	8.2	1.7	1.7	5.0	5.0	5.0	<0.001	
						0.2	95.0	19.6	19.6	33.7	33.7	8.2	8.2	108.8	108.8	8.2	8.2	8.2	8.0	8.0	4.6	4.6	4.6	<0.001	
						0.2	104.0	19.6	19.6	33.7	33.7	8.2	8.2	108.8	108.8	8.2	8.2	8.2	8.0	8.0	4.9	4.9	4.9	<0.001	
IM8	Cloudy	Rough	01:47	14.1	S	0.1	44.0	19.6	19.6	33.7	33.7	8.3	8.3	109.9	109.9	8.3	8.3	8.2	1.5	1.5	3.9	5.8	6.0	7.8	<0.001
						0.1	48.0	19.6		33.7		8.3		109.9		8.3			1.5			6.2			<0.001
						0.1	79.0	19.6		19.6		33.7		33.7		8.3			8.3			109.7			109.7
					M	0.1	82.0	19.6	19.6	33.7	33.7	8.3	8.3	109.7	109.7	8.2	8.2	8.2	1.4	1.4	8.4	8.4	8.4	<0.001	
						0.1	28.0	19.6	19.6	33.7	33.7	8.2	8.2	108.0	108.0	8.1	8.1	8.1	8.8	8.8	9.5	9.5	9.5	<0.001	
						0.1	28.0	19.6	19.6	33.7	33.7	8.2	8.2	107.9	107.9	8.1	8.1	8.1	8.5	8.5	9.2	9.2	9.2	<0.001	
IM9	Cloudy	Rough	02:13	15.2	S	0.6	160.0	19.6	19.6	33.7	33.7	8.3	8.3	109.0	109.0	8.2	8.2	8.2	2.6	2.5	5.1	5.1	4.9	6.1	<0.001
						0.6	165.0	19.6		33.7		8.3		109.0		8.2			2.5			4.7			<0.001
						0.4	140.0	19.6		19.6		33.7		33.7		8.3			8.3			108.2			108.2
					M	0.5	145.0	19.6	19.6	33.7	33.7	8.3	8.3	108.2	108.2	8.1	8.1	8.1	5.5	5.3	6.7	6.7	6.7	<0.001	
						0.4	122.0	19.6	19.6	33.7	33.7	8.3	8.3	106.6	106.6	8.0	8.0	8.0	7.6	7.5	6.9	6.9	6.9	<0.001	
						0.4	130.0	19.6	19.6	33.7	33.7	8.3	8.3	106.5	106.5	8.0	8.0	8.0	7.6	7.5	6.7	6.7	6.7	<0.001	
IM10	Cloudy	Rough	03:07	8.8	S	0.3	66.0	19.9	19.9	33.5	33.5	8.2	8.2	105.5	105.5	7.9	7.9	7.9	25.8	26.0	47.0	44.3	43.8	42.0	<0.001
						0.4	71.0	19.9		33.5		8.2		105.5		7.9			26.1			43.2			<0.001
						0.3	55.0	19.9		19.9		33.5		33.5		8.2			8.2			105.4			105.4
					M	0.3	58.0	19.9	19.9	33.5	33.5	8.2	8.2	105.4	105.4	7.9	7.9	7.9	50.7	50.7	50.7	50.7	50.7	<0.001	
						0.4	37.0	19.9	19.9	33.5	33.5	8.2	8.2	105.3	105.3	7.9	7.9	7.9	63.2	64.3	39.7	39.7	39.7	<0.001	
						0.4	37.0	19.9	19.9	33.5	33.5	8.2	8.2	105.2	105.2	7.9	7.9	7.9	65.3	64.3	40.6	40.6	40.6	<0.001	
IM11A	Cloudy	Rough	03:23	5.4	S	0.3	108.0	19.8	19.8	33.4	33.4	8.2	8.2	103.5	103.5	7.8	7.8	7.8	44.3	46.7	51.8	69.9	69.6	70.6	<0.001
						0.3	112.0	19.8		33.4		8.2		103.5		7.8			49.1			69.3			<0.001
						0.4	56.0	19.8		19.8		33.4		33.4		8.2			8.2			103.6			103.6
					B	0.4	58.0	19.8	19.8	33.4	33.4	8.2	8.2	103.6	103.6	7.8	7.8	7.8	58.5	56.9	72.0	72.0	72.0	<0.001	
						1.4	139.0	19.7	19.7	33.4	33.4	8.2	8.2	103.3	103.3	7.8	7.8	7.8	21.1	22.0	91.7	91.7	91.7	<0.001	
						1.5	145.0	19.7	19.7	33.4	33.4	8.2	8.2	103.3	103.3	7.8	7.8	7.8	23.0	22.0	90.8	90.8	90.8	<0.001	
IM12	Cloudy	Rough	03:37	14.8	S	1.2	136.0	19.7	19.7	33.4	33.4	8.2	8.2	103.2	103.2	7.7	7.7	7.7	38.2	38.6	36.5	84.2	83.7	77.9	<0.001
						1.2	142.0	19.7		33.4		8.2		103.2		7.7			38.9			83.1			<0.001
						1.0	132.0	19.7		19.7		33.4		33.4		8.2			8.2			103.0			103.0
					M	1.1	139.0	19.7	19.7	33.4	33.4	8.2	8.2	103.0	103.0	7.7	7.7	7.7	48.6	48.9	59.3	59.3	59.3	<0.001	
						1.3	193.0	19.7	19.7	32.8	32.8	8.2	8.2	100.8	100.8	7.6	7.6	7.6	11.3	11.4	45.2	45.2	45.2	<0.001	
						1.4	198.0	19.7	19.7	32.8	32.8	8.2	8.2	100.8	100.8	7.6	7.6	7.6	11.4	11.4	46.4	46.4	46.4	<0.001	
IM13	Cloudy	Rough	04:11	16.4	S	1.2	184.0	19.7	19.7	33.0	33.0	8.2	8.2	101.5	101.5	7.6	7.6	7.6	22.1	24.8	30.9	45.8	45.0	45.4	<0.001
						1.3	200.0	19.7		33.0		8.2		101.5		7.6			27.5			44.2			<0.001
						0.9	171.0	19.7		19.7		33.1		33.1		8.2			8.2			101.8			101.8
					M	0.9	187.0	19.7	19.7	33.1	33.1	8.2	8.2	101.8	101.8	7.7	7.7	7.7	56.8	56.6	327.0^A	327.0^A	327.0^A	<0.001	
						1.2	201.0	19.7	19.7	32.7	32.7	8.2	8.2	100.2	100.2	7.6	7.6	7.6	24.1	23.2	125.0	125.0	125.0	<0.001	
						1.3	216.0	19.7	19.7	32.7	32.7	8.2	8.2	100.2	100.2	7.6	7.6	7.6	22.3	23.2	123.0	123.0	123.0	<0.001	
IM14	Cloudy	Rough	04:26	10.2	S	1.1	204.0	19.7	19.7	32.8	32.8	8.2	8.2	100.2	100.2	7.6	7.6	7.6	43.5	42.7	42.3	126.0	126.5	98.5	<0.001
						1.2	222.0	19.7		32.8		8.2		100.2		7.6			41.9			127.0			<0.001
						1.0	200.0	19.7		19.7		32.8		32.8		8.2			8.2			100.4			100.4
					M	1.0	200.0	19.7	19.7	32.8	32.8	8.2	8.2	100.4	100.4	7.6	7.6	7.6	62.3	61.0	44.6	44.6	44.6	<0.001	
						1.0	200.0	19.7	19.7	32.8	32.8	8.2	8.2	100.5	100.5	7.6	7.6	7.6	59.7	61.0	45.5	45.5	45.5	<0.001	
						1.0	200.0	19.7	19.7	32.8	32.8	8.2	8.2	100.5	100.5	7.6	7.6	7.6	59.7	61.0	45.5	45.5	45.5	<0.001	

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	
IM15	Fine	Rough	04:24	6.2	S	0.4	180.0	19.7	19.7	30.9	30.9	8.1	8.1	98.1	98.1	7.5	7.5	7.5	13.8	13.8	20.8	33.6	33.2	35.4	
						0.4	193.0	19.7		30.9	30.9	8.1	8.1	98.1	98.1	7.5	7.5		13.9			32.8			
						0.4	179.0	19.7		31.0	31.0	8.1	8.0	98.1	98.2	7.5	7.5		20.8			35.5			
					M	0.4	190.0	19.7	19.7	31.0	31.0	8.0	8.0	98.2	98.2	7.5	7.5	7.5	20.8	20.8	36.0	35.8			
						B	0.3	184.0	19.7	19.7	30.9	30.9	8.0	8.0	98.3	98.4	7.5	7.5	7.5	27.8	27.8	37.6	37.4		
							0.4	190.0	19.7	19.7	30.9	30.9	8.0	8.0	98.4	98.4	7.5	7.5	7.5	27.8	27.8	37.1			
IM16A	Fine	Rough	04:05	6.4	S	0.9	189.0	19.8	19.8	29.9	29.9	8.0	8.0	96.0	96.0	7.4	7.4	7.3	16.5	16.6	23.9	29.8	29.6	32.4	
						0.9	192.0	19.8	19.8	29.9	29.9	8.0	8.0	96.0	96.0	7.4	7.4		16.7			29.4			
						0.7	191.0	19.8	19.8	30.1	30.1	8.0	8.0	96.1	96.1	7.3	7.3		21.3			32.6			
					M	0.8	205.0	19.8	19.8	30.1	30.1	8.0	8.0	96.1	96.1	7.4	7.4	21.3	32.7						
						B	0.6	192.0	19.8	19.8	30.2	30.2	8.0	8.0	96.3	96.3	7.4	7.4	33.8	34.9	35.0				
							0.6	203.0	19.8	19.8	30.2	30.2	8.0	8.0	96.3	96.3	7.4	7.4	33.8	35.1					
IM17	Fine	Rough	03:48	5.3	S	0.7	164.0	19.8	19.8	29.5	29.5	8.0	8.0	95.3	95.3	7.3	7.3	7.3	20.1	20.1	23.3	32.6	32.9	34.8	
						0.7	173.0	19.8	19.8	29.5	29.5	8.0	8.0	95.3	95.3	7.3	7.3		20.1			33.1			
						0.6	167.0	19.8	19.8	29.5	29.5	8.0	8.0	95.3	95.3	7.3	7.3		26.4			36.8			
					B	0.7	178.0	19.8	19.8	29.5	29.5	8.0	8.0	95.3	95.3	7.3	7.3	26.6	37.1						
						S	0.6	149.0	19.8	19.8	29.7	29.7	8.0	8.0	95.4	95.4	7.3	7.3	8.0	11.0	10.8				
							0.6	161.0	19.8	19.8	29.7	29.7	8.0	8.0	95.4	95.4	7.3	7.3	8.0	10.6					
IM18	Fine	Rough	01:55	18.4	M	0.5	147.0	19.8	19.8	30.0	30.0	8.0	8.0	95.1	95.1	7.3	7.3	7.0	9.0	9.0	9.2	12.8	12.6	12.6	
						0.5	153.0	19.8	19.8	30.0	30.0	8.0	8.0	95.1	95.1	7.3	7.3		9.0			12.4			
						B	0.3	145.0	20.1	20.1	30.5	30.5	8.0	8.0	91.6	91.7	7.0		7.0			10.8			14.2
					0.3		158.0	20.1	20.1	30.5	30.5	8.0	8.0	91.7	91.7	7.0	7.0	10.7	14.7						
					S		0.6	177.0	20.4	20.4	29.9	29.9	8.0	8.0	92.5	92.5	7.0	7.0	4.4	9.0	9.0				
						0.6	183.0	20.4	20.4	29.9	29.9	8.0	8.0	92.5	92.5	7.0	7.0	4.4	9.0						
M	0.6	181.0	20.3	20.3		29.9	29.9	8.0	8.0	92.2	92.2	7.0	7.0	4.5	9.1	9.2									
	0.6	190.0	20.3	20.3	29.9	29.9	8.0	8.0	92.2	92.2	7.0	7.0	4.6	9.3											
	B	0.5	173.0	20.2	20.2	30.0	30.0	8.0	8.0	92.2	92.2	7.0	7.0	10.7	10.2		10.4								
0.5		185.0	20.2	20.2	30.0	30.0	8.0	8.0	92.2	92.2	7.0	7.0	10.9	10.5											
S		0.6	240.0	20.4	20.4	28.7	28.7	8.0	8.0	93.1	93.0	7.1	7.1	7.1	12.6	12.5									
	0.7	262.0	20.4	20.4	28.7	28.7	8.0	8.0	92.9	93.0	7.1	7.1	7.7	12.3											
	B	0.4	235.0	20.5	20.5	29.1	29.1	8.0	8.0	92.5	92.5	7.0	7.0	13.0	13.6		13.8								
0.5		237.0	20.5	20.5	29.2	29.1	8.0	8.0	92.5	92.5	7.0	7.0	13.1	13.9											
S		0.5	211.0	20.7	20.7	29.3	29.3	8.0	8.0	92.4	92.4	7.0	7.0	9.1	15.8	15.9									
	0.6	220.0	20.7	20.7	29.3	29.3	8.0	8.0	92.4	92.4	7.0	7.0	9.2	16.0											
	B	0.4	218.0	20.6	20.6	29.3	29.3	8.0	8.0	92.8	92.8	7.0	7.0	11.9	18.2		18.4								
0.4		238.0	20.6	20.6	29.3	29.3	8.0	8.0	92.8	92.8	7.0	7.0	11.8	18.6											
S		0.5	217.0	20.5	20.5	29.5	29.5	8.0	8.0	92.2	92.2	7.0	7.0	6.5	9.2	9.0									
	0.6	231.0	20.5	20.5	29.5	29.5	8.0	8.0	92.2	92.2	7.0	7.0	6.5	8.7											
	B	0.3	213.0	20.4	20.4	29.6	29.6	8.0	8.0	92.7	92.7	7.0	7.0	8.8	12.3		12.6								
0.3		216.0	20.4	20.4	29.6	29.6	8.0	8.0	92.9	92.8	7.0	7.0	8.8	12.8											
0.3		216.0	20.4	20.4	29.6	29.6	8.0	8.0	92.9	92.8	7.0	7.0	8.8	12.8											

Remark: * DA: Depth-Averaged

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

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

^ denotes outlier value in the dataset, which is excluded in the data analysis

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
E1	Fine	Moderate	07:11	7.3	S	1.1	173.5	20.4	20.4	31.6	31.6	7.9	7.9	91.0	91.0	6.8	6.8	6.8	7.5	7.6	8.0	10.8	10.7	11.7			
						0.0	324.2	20.4		31.6	31.6	7.9		91.0	91.0	6.8			7.7								
						0.6	206.4	20.4		31.6	31.6	7.9		90.9	90.9	6.8			7.2								
					M	0.8	189.1	20.4	31.6	31.6	7.9	90.9	90.9	6.8	7.2	7.2	7.2	8.0	11.4								
						0.5	191.9	20.4	31.6	31.6	7.9	90.7	90.7	6.8	6.8	9.5	9.2	12.7									
						0.9	256.0	20.4	31.6	31.6	7.9	90.7	90.7	6.8	6.8	8.8	12.9										
B	0.3	298.6	20.4	32.1	32.1	8.1	98.2	98.2	7.3	7.4	4.5	4.5	8.9														
	0.4	278.8	20.4	32.1	32.1	8.1	98.7	98.7	7.4	7.4	4.4	4.5	9.3														
	0.3	66.0	20.4	32.1	32.1	8.1	97.2	97.2	7.3	7.3	5.3	5.2	10.7														
E2	Fine	Moderate	10:41	8.2	S	0.2	3.4	20.4	20.4	32.1	32.1	8.1	8.1	97.4	97.3	7.3	7.3	7.3	7.3	5.0	5.2	5.8	10.2	10.5	12.0		
						0.3	9.7	20.3		32.2	32.2	8.1		96.2	96.0	7.2				7.2			7.2			8.0	
						0.3	9.7	20.3		32.2	32.2	8.1		95.8	96.0	7.2				7.2			7.5			7.8	16.1
					M	0.3	9.7	20.3	32.2	32.2	8.1	95.8	96.0	7.2	7.2	7.5	7.8	16.7									
						0.8	316.0	19.6	33.2	33.2	8.2	101.9	101.9	7.7	7.7	9.0	9.0	30.0									
						0.8	320.0	19.6	33.2	33.2	8.2	101.9	101.9	7.7	7.7	9.0	9.0	30.7									
B	0.7	323.0	19.6	33.2	33.2	8.2	101.4	101.4	7.6	7.6	11.0	11.1	33.9														
	0.8	334.0	19.6	33.2	33.2	8.2	101.4	101.4	7.6	7.6	11.2	11.1	34.7														
	0.6	318.0	19.6	33.2	33.2	8.2	101.5	101.6	7.6	7.6	37.0	37.6															
E3	Cloudy	Rough	09:26	16.2	S	0.2	123.0	19.7	19.7	31.2	31.3	8.1	8.1	97.5	97.5	7.4	7.4	7.4	7.4	20.0	20.0	19.2	48.4	30.4	34.2		
						0.2	132.0	19.7		31.3	31.3	8.1		97.5	97.5	7.4				7.4			20.0			20.0	48.4
						0.1	132.0	19.7		31.6	31.6	8.1		97.6	97.6	7.4				7.4			22.7			20.8	32.9
					M	0.1	136.0	19.7	31.6	31.6	8.1	97.6	97.6	7.4	7.4	19.0	20.8	33.5									
						0.1	187.0	19.7	31.8	31.8	8.1	98.4	98.5	7.5	7.5	21.6	21.9	30.2									
						0.1	192.0	19.7	31.8	31.8	8.1	98.6	98.5	7.5	7.5	22.3	21.9	30.6									
B	0.6	252.0	20.0	29.5	29.5	8.0	93.4	93.4	7.1	7.1	14.1	14.0	55.4														
	0.7	272.0	20.0	29.5	29.5	8.0	93.4	93.4	7.1	7.1	14.0	14.0	56.2														
	0.5	243.0	20.0	29.5	29.5	8.0	94.1	94.2	7.2	7.2	9.5	9.5	65.6														
E4	Cloudy	Moderate	07:53	11.2	S	0.6	252.0	20.0	20.0	29.5	29.5	8.0	8.0	93.4	93.4	7.1	7.1	7.1	7.1	14.1	14.0	11.8	55.4	55.8	60.9		
						0.7	272.0	20.0		29.5	29.5	8.0		93.4	93.4	7.1				7.1			14.0			14.0	56.2
						0.5	243.0	20.0		29.5	29.5	8.0		94.1	94.2	7.2				7.2			9.5			9.5	65.6
					M	0.5	245.0	20.0	29.5	29.5	8.0	94.2	94.2	7.2	7.2	9.6	9.5	66.4									
						0.4	28.0	20.2	27.5	27.5	8.0	92.6	92.6	7.1	7.1	7.3	7.3	10.7									
						0.4	29.0	20.2	27.5	27.5	8.0	92.6	92.6	7.1	7.1	7.3	7.3	11.0									
B	0.3	29.0	20.3	27.8	27.8	8.0	92.1	92.1	7.1	7.1	9.0	8.9	12.8														
	0.3	31.0	20.3	27.8	27.8	8.0	92.2	92.2	7.1	7.1	8.9	8.9	12.3														
	0.9	66.0	20.1	27.7	27.7	8.0	92.3	92.3	7.1	7.1	6.6	6.6	15.4														
E5	Cloudy	Rough	07:53	5.1	S	0.6	252.0	20.0	20.0	29.5	29.5	8.0	8.0	93.4	93.4	7.1	7.1	7.1	7.1	14.1	14.0	11.8	55.4	55.8	60.9		
						0.7	272.0	20.0		29.5	29.5	8.0		93.4	93.4	7.1				7.1			14.0			14.0	56.2
						0.5	243.0	20.0		29.5	29.5	8.0		94.1	94.2	7.2				7.2			9.5			9.5	65.6
					M	0.5	245.0	20.0	29.5	29.5	8.0	94.2	94.2	7.2	7.2	9.6	9.5	66.4									
						0.4	28.0	20.2	27.5	27.5	8.0	92.6	92.6	7.1	7.1	7.3	7.3	10.7									
						0.4	29.0	20.2	27.5	27.5	8.0	92.6	92.6	7.1	7.1	7.3	7.3	11.0									
B	0.3	29.0	20.3	27.8	27.8	8.0	92.1	92.1	7.1	7.1	9.0	8.9	12.8														
	0.3	31.0	20.3	27.8	27.8	8.0	92.2	92.2	7.1	7.1	8.9	8.9	12.3														
	0.9	66.0	20.1	27.7	27.7	8.0	92.3	92.3	7.1	7.1	6.6	6.6	15.4														
E6	Cloudy	Rough	08:53	4.7	S	0.9	67.0	20.1	20.1	27.7	27.7	8.0	8.0	92.3	92.3	7.1	7.1	7.1	7.1	6.6	6.6	11.9	14.7	15.1	34.8		
						0.5	72.0	20.3		28.6	28.6	8.0		92.1	92.2	7.0				7.0			17.4			17.2	54.9
						0.6	76.0	20.3		28.6	28.6	8.0		92.2	92.2	7.1				7.1			16.9			17.2	54.1
					M	0.8	1.9	20.2	32.3	32.3	8.1	103.8	103.9	7.8	7.8	1.9	2.1	4.3									
						1.5	267.9	20.2	32.3	32.3	8.1	103.9	103.9	7.8	7.8	2.2	2.1	4.4									
						0.3	262.9	20.1	32.3	32.3	8.1	103.5	103.4	7.8	7.8	2.3	2.1	4.9									
B	0.3	262.9	20.1	32.3	32.3	8.1	103.3	103.3	7.7	7.7	1.9	2.1	5.3														
	0.3	346.6	20.0	32.4	32.4	8.1	103.0	103.0	7.7	7.7	2.9	2.9	5.6														
	0.5	81.8	20.0	32.4	32.4	8.1	102.9	103.0	7.7	7.7	2.8	2.9	6.0														
E7A	Cloudy	Rough	09:11	4.3	S	0.6	349.2	20.1	20.1	32.2	32.2	8.1	8.1	102.5	102.6	7.7	7.7	7.7	7.7	1.6	1.6	1.7	2.4	2.3	3.4		
						0.6	349.2	20.1		32.2	32.2	8.1		102.6	102.6	7.7				7.7			1.6			1.6	2.2
						0.6	280.9	20.1		32.2	32.2	8.1		102.1	102.1	7.7				7.7			1.7			1.6	3.5
					M	0.6	310.1	20.1	32.2	32.2	8.1	102.0	102.1	7.7	7.7	1.5	1.6	3.2									
						1.2	267.9	20.0	32.5	32.5	8.2	101.7	101.7	7.6	7.6	1.9	2.0	4.7									
						0.3	173.3	20.0	32.5	32.5	8.2	101.7	101.7	7.6	7.6	2.0	2.0	4.6									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
F3	Fine	Moderate	09:21	16.3	S	0.8	272.7	20.0	20.0	32.4	32.4	8.2	8.2	106.5	106.5	8.0	8.0	8.0	8.0	2.9	3.0	5.1	5.3	<0.001			
						0.9	200.7	20.0		32.4		8.2		106.5		8.0		3.1		5.4		0.002					
						0.8	316.4	20.0		32.4		8.2		105.7		7.9		3.6		6.1		<0.001					
					M	0.3	70.6	20.0	32.4	8.2	105.7	7.9	7.9	4.2	3.9	3.5	3.5	6.6	6.4	6.5	8.0	6.6	6.4	<0.001			
						0.6	66.7	20.0	32.4	8.2	105.0	7.9	3.4	7.8													
						1.9	296.9	20.0	32.4	8.2	105.2	7.9	3.5	8.2													
					B	1.1	242.0	20.2	32.2	20.2	32.2	32.2	8.1	8.1	102.4	102.5	7.7	7.7	7.9	7.9	7.9	7.9	6.5	6.4	11.0	11.2	<0.001
						0.9	248.2	20.2	32.2		8.1		102.6		7.7		6.3		11.3								
						0.6	245.3	20.2	32.3		8.1		101.9		7.6		7.6		13.4								
F4	Fine	Moderate	10:14	12.3	S	0.6	245.3	20.2	20.2	32.3	32.3	8.1	8.1	101.9	101.9	7.6	7.6	7.6	7.6	7.7	8.0	8.0	8.0	14.6	14.6	13.4	
						0.8	278.9	20.2		32.3		8.1		101.9		7.6		8.3		13.3							
						1.1	298.5	20.2		32.3		8.1		101.8		7.6		7.6		19.4							
					M	0.1	340.3	20.2	32.3	20.2	32.3	32.3	8.1	8.1	101.7	101.8	7.6	7.6	7.6	7.6	7.6	11.2	10.4	19.3	19.3	19.3	19.3
						0.1	340.3	20.2	32.3		8.1		101.7		7.6		12.0		19.2								
						0.5	248.0	19.7	30.5		19.7		30.5		30.5		8.0		8.0		96.7		96.8		7.4		7.4
					0.6	251.0	19.7	30.5	8.0	96.8		7.4	8.7	12.9													
					0.4	242.0	19.7	30.7	8.0	97.2		7.4	7.4	9.9													
					B	0.4	263.0	19.7	30.7	19.7	30.7	30.7	8.0	8.0	97.2	97.2	7.4	7.4	7.4	7.4	7.4	9.9	9.8	9.9	15.6	15.4	15.4
0.4	263.0	19.7	30.7	8.0		97.2	7.4	9.8	15.6																		
0.5	318.0	20.2	29.3	20.2		29.3	29.3	8.0	8.0		92.6		92.6		7.1		7.1		7.1		7.0		7.0		10.7		10.6
0.5	342.0	20.2	29.3		8.0	92.6		7.1		10.8	18.2																
0.4	327.0	20.2	29.3		8.0	92.2		7.0		12.5	20.6																
M	0.4	349.0	20.2	29.3	20.2	29.3	29.3	8.0	8.0	92.2	92.2	7.0	7.0	7.0	7.0	7.0	12.5	12.5	12.5	20.4	20.5	20.3					
	0.4	302.0	20.2	30.1		8.0		90.4		6.9		16.5		22.1													
	0.4	311.0	20.2	30.1		8.0		90.5		6.9		16.5		22.5													
B	0.4	311.0	20.2	30.1	20.2	30.1	30.1	8.0	8.0	90.5	90.5	6.9	6.9	6.9	6.9	6.9	16.5	16.5	16.5	22.5	22.3	22.3					
	0.6	355.2	20.3	32.1		8.1		101.3		7.6		2.6		7.3													
	0.6	355.2	20.3	32.1		8.1		101.3		7.6		2.5		7.9													
IM1	Fine	Moderate	07:56	9.3	S	0.6	318.0	20.3	20.3	32.1	32.1	8.1	8.1	101.3	101.3	7.6	7.6	7.6	7.6	2.6	2.6	7.3	7.6	10.7	10.7	7.6	
						0.6	318.0	20.3		32.1		8.1		101.3		7.6		2.5		7.9							
						0.4	10.4	20.3		32.1		8.1		101.5		7.6		3.1		11.4							
					M	0.6	318.0	20.3	32.1	20.3	32.1	32.1	8.1	8.1	102.2	101.9	7.7	7.6	7.6	7.6	7.6	3.0	2.8	3.0	10.8	11.1	10.7
						0.4	10.4	20.3	32.1		8.1		101.5		7.6		3.1		11.4								
						0.5	227.4	20.3	32.3		8.1		104.5		7.8		4.9		13.3								
					B	0.5	76.9	20.3	32.3	20.3	32.3	32.3	8.1	8.1	104.6	104.6	7.8	7.8	7.8	7.8	7.8	5.0	5.1	5.0	13.5	13.4	13.4
						0.5	76.9	20.3	32.3		8.1		104.6		7.8		5.1		13.5								
						0.8	228.4	20.3	31.8		20.3		31.8		31.8		8.0		8.0		93.2		93.1		7.0		7.0
0.8	228.4	20.3	31.8	8.0	93.0	7.0	3.7	9.5																			
0.3	269.6	20.3	31.8	8.0	93.2	7.0	5.7	12.4																			
M	0.2	167.8	20.3	31.8	20.3	31.8	31.8	8.0	8.0	93.2	93.2	7.0	7.0	7.0	7.0	7.0	5.5	5.3	5.5	12.2	12.3	11.8					
	0.2	167.8	20.3	31.8		8.0		93.2		7.0		5.3		12.2													
	0.2	253.5	20.3	31.8		8.0		93.9		7.0		4.9		13.6													
B	0.3	231.3	20.3	31.8	20.3	31.8	31.8	8.0	8.0	93.3	93.6	7.0	7.0	7.0	7.0	7.0	5.4	5.8	5.4	13.2	13.4	13.4					
	0.3	231.3	20.3	31.8		8.0		93.3		7.0		5.8		13.2													
	0.7	308.2	20.4	31.9		8.1		101.2		7.6		2.0		4.6													
IM2	Fine	Moderate	07:33	10.1	S	0.7	308.2	20.4	20.4	31.9	31.9	8.1	8.1	102.0	101.6	7.6	7.6	7.6	7.6	1.9	2.0	4.2	4.4	6.1	6.1	4.4	
						0.9	78.0	20.3		31.9		8.1		99.9		7.5		2.2		5.8							
						1.0	117.9	20.3		31.9		8.1		99.1		7.4		2.0		6.2							
					M	0.8	4.6	20.2	32.3	20.2	32.3	32.3	8.1	8.1	100.9	101.0	7.6	7.6	7.6	7.6	7.6	3.8	3.7	3.8	8.0	7.9	7.9
						0.4	199.9	20.2	32.3		8.1		101.0		7.6		3.8		7.7								
						0.4	244.0	20.4	31.9		20.4		31.9		31.9		8.1		8.1		101.1		101.0		7.6		7.6
					1.0	315.7	20.4	31.9	8.1	100.9		7.6	2.2	3.8													
					0.4	133.2	20.2	32.1	8.1	101.3		7.6	3.0	7.3													
					M	0.8	235.1	20.2	32.2	20.2	32.2	32.2	8.1	8.1	101.3	101.3	7.6	7.6	7.6	7.6	7.6	3.0	2.9	3.0	6.9	7.1	7.2
0.6	274.0	20.2	32.2	8.1		100.7	7.5	4.8	10.8																		
0.4	127.6	20.2	32.2	8.1		100.8	7.6	4.6	10.4																		
B	0.4	14.1	20.2	32.2	20.2	32.2	32.2	8.1	8.1	102.7	102.8	7.7	7.7	7.7	7.7	7.7	3.5	3.5	3.5	8.2	8.3	7.4					
	0.2	279.9	20.2	32.2		8.1		102.8		7.7		3.5		8.3													
	0.9	210.8	20.2	32.2		8.1		102.0		7.6		3.7		7.3													
M	1.4	285.7	20.2	32.2	20.2	32.2	32.2	8.1	8.1	102.1	102.1	7.6	7.6	7.6	7.6	7.6	3.5	3.3	3.5	7.8	7.6	7.4					
	0.4	280.0	20.2	32.2		8.1		101.6		7.6		4.3		6.1													
	0.3	56.9	20.2	32.2		8.1		101.4		7.6		4.4		6.4													
B	0.4	280.0	20.2	32.2	20.2	32.2	32.2	8.1	8.1	101.6	101.5	7.6	7.6	7.6	7.6	7.6	4.4	4.4	4.4	6.4	6.3	7.4					
	0.3	56.9	20.2	32.2		8.1		101.4		7.6		4.4		6.4													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	
IM6	Fine	Moderate	09:32	15.1	S	0.1	356.3	20.0	20.0	32.4	32.4	8.2	8.2	107.9	108.0	8.1	8.1	8.1	2.7	2.9	6.3	7.5	<0.001
						0.1	356.3	20.0		32.4	32.4	8.2		108.1		8.1			3.1		6.9		
						0.4	44.5	20.0		32.4	32.4	8.2		107.0		8.0			3.4		7.4		
					M	0.3	286.3	20.0	32.4	32.4	8.2	107.0	8.0	3.9	7.6	3.7	7.5	7.6	<0.001				
						0.2	307.3	20.0	32.4	32.4	8.2	106.4	8.0	3.4	8.7	3.3	8.5	8.7	<0.001				
						0.3	302.2	20.0	32.4	32.4	8.2	106.4	8.0	3.1	8.3		8.5	8.3	0.001				
IM7	Cloudy	Rough	10:46	14.6	S	0.4	290.0	19.7	19.7	33.6	33.6	8.3	8.3	109.8	109.8	8.2	8.2	8.2	2.1	2.1	20.2	25.6	<0.001
						0.4	302.0	19.7		33.6		33.6		8.3		109.7			8.2		2.1		20.8
						0.4	304.0	19.6		33.6		33.6		8.2		107.6			8.1		2.6		25.9
					M	0.4	316.0	19.6	33.6	33.6	8.2	107.5	8.1	2.6	26.3	2.6	26.1	26.3	<0.001				
						0.3	311.0	19.6	33.6	33.6	8.2	106.1	8.0	3.3	30.5		30.1	30.5	<0.001				
						0.4	321.0	19.6	33.6	33.6	8.2	105.9	8.0	3.4	29.6		30.1	29.6	0.001				
IM8	Cloudy	Rough	10:34	12.8	S	0.4	267.0	19.6	19.6	33.6	33.6	8.3	8.3	108.3	108.3	8.1	8.1	8.1	3.0	3.0	15.6	18.1	<0.001
						0.4	268.0	19.6		33.6		33.6		8.3		108.3			8.1		3.0		15.2
						0.5	293.0	19.6		33.6		33.6		8.3		107.1			8.1		3.5		17.8
					M	0.5	310.0	19.6	33.6	33.6	8.3	107.0	8.0	3.6	18.3	3.5	18.1	18.3	<0.001				
						0.2	291.0	19.6	33.6	33.6	8.3	104.8	7.9	6.8	20.4		6.8	20.7	20.4	<0.001			
						0.2	310.0	19.6	33.6	33.6	8.3	104.8	7.9	6.8	21.0			20.7	21.0	<0.001			
IM9	Cloudy	Rough	10:03	14.4	S	1.0	264.0	19.6	19.6	33.6	33.6	8.3	8.3	107.2	107.2	8.1	8.0	8.0	5.4	5.5	18.1	14.6	<0.001
						1.1	278.0	19.6		33.6		33.6		8.3		107.1			8.0		5.6		17.9
						0.8	262.0	19.6		33.6		33.6		8.3		106.4			8.0		9.8		14.3
					M	0.8	264.0	19.6	33.6	33.6	8.3	106.4	8.0	10.2	13.9	10.0	14.1	13.9	<0.001				
						0.9	259.0	19.6	33.6	33.6	8.3	105.5	7.9	27.0	11.9		26.5	11.6	11.9	<0.001			
						1.0	260.0	19.6	33.6	33.6	8.3	105.5	7.9	26.0	11.2			11.6	11.2	<0.001			
IM10	Cloudy	Rough	09:11	8.4	S	1.1	238.0	19.7	19.7	33.4	33.4	8.2	8.2	102.9	102.9	7.7	7.7	7.7	16.6	16.0	54.5	67.5	<0.001
						1.2	256.0	19.7		33.4		33.4		8.2		102.9			7.7		15.3		55.2
						1.2	234.0	19.7		33.4		33.4		8.2		102.7			7.7		18.2		66.2
					M	1.2	238.0	19.7	33.4	33.4	8.2	102.6	7.7	18.3	67.9	7.7	67.1	67.9	<0.001				
						1.1	232.0	19.7	33.4	33.4	8.2	102.6	7.7	32.6	80.2		33.8	80.6	80.2	<0.001			
						1.2	247.0	19.7	33.4	33.4	8.2	102.6	7.7	35.0	81.0			80.6	81.0	<0.001			
IM11A	Cloudy	Rough	08:53	5.5	S	0.6	293.0	19.7	19.7	33.5	33.5	8.2	8.2	102.8	102.8	7.7	7.7	7.7	28.4	28.1	53.9	72.5	<0.001
						0.7	318.0	19.7		33.5		33.5		8.2		102.7			7.7		27.8		54.6
						0.6	298.0	19.7		33.4		33.4		8.2		102.6			7.7		36.8		90.1
					B	0.7	315.0	19.7	33.4	33.4	8.2	102.6	7.7	34.6	91.2	7.7	90.7	91.2	<0.001				
						0.8	296.0	19.7	33.4	33.4	8.2	102.7	7.7	22.8	34.6		24.9	34.4	34.6	<0.001			
						0.8	309.0	19.7	33.4	33.4	8.2	102.7	7.7	27.0	34.2								
IM12	Cloudy	Rough	08:40	12.9	S	1.0	299.0	19.8	19.8	33.4	33.4	8.2	8.2	102.8	102.8	7.7	7.7	7.7	26.4	27.9	36.6	42.3	<0.001
						1.1	315.0	19.8		33.4		33.4		8.2		102.8			7.7		29.5		35.7
						1.0	299.0	19.7		33.4		33.4		8.2		102.8			7.7		46.6		57.1
					B	1.1	320.0	19.7	33.4	33.4	8.2	102.8	7.7	49.9	55.5	48.2	56.3	55.5	<0.001				
						0.1	124.0	19.8	30.4	30.4	8.1	97.2	7.4	19.6	32.6		19.7	32.2	32.6	<0.001			
						0.1	136.0	19.8	30.4	30.4	8.1	97.2	7.4	19.8	31.8								
IM13	Cloudy	Rough	08:14	15.3	M	0.0	298.0	19.7	19.8	31.0	31.0	8.1	8.1	97.7	97.7	7.4	7.4	7.4	23.4	23.7	29.0	28.9	<0.001
						0.0	305.0	19.8		31.0		31.0		8.1		97.7			7.4		24.0		28.2
						0.3	292.0	19.7		32.2		32.2		8.1		98.8			7.5		32.0		26.2
					B	0.4	312.0	19.7	32.2	32.2	8.1	98.8	7.5	35.0	25.5	7.5	25.9	25.5	<0.001				
						0.1	81.0	19.8	31.8	31.8	8.2	97.8	7.4	15.0	22.9		15.0	22.6	22.9	<0.001			
						0.1	87.0	19.8	31.8	31.8	8.2	97.8	7.4	15.0	22.3								
IM14	Cloudy	Moderate	08:05	10.2	S	0.1	18.0	19.8	19.8	32.1	32.1	8.2	8.2	98.1	98.2	7.4	7.4	7.4	13.4	13.4	22.3	22.9	<0.001
						0.1	19.0	19.8		32.1		32.1		8.2		98.2			7.4		13.4		23.0
						0.2	13.0	19.8		32.4		32.4		8.1		99.1			7.5		14.1		23.2
					M	0.2	13.0	19.8	32.4	32.4	8.1	99.2	7.5	16.1	23.8	7.5	23.5	23.8	<0.001				
						0.1	18.0	19.8	32.1	32.1	8.2	98.1	7.4	13.4	22.3		13.4	22.7	22.3	<0.001			
						0.1	19.0	19.8	32.1	32.1	8.2	98.2	7.4	13.4	23.0								
B	0.2	13.0	19.8	32.4	32.4	8.1	99.1	7.5	14.1	23.2	7.5	23.5	23.2	<0.001									
	0.2	13.0	19.8	32.4	32.4	8.1	99.2	7.5	16.1	23.8		7.5	23.5	23.8	<0.001								
	0.2	13.0	19.8	32.4	32.4	8.1	99.2	7.5	16.1	23.8			23.5	23.8	<0.001								

Water Quality Monitoring Data Log Sheet

Date: 2020/01/13

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
IM15	Cloudy	Rough	07:40	5.2	S	0.5	251.0	20.0	20.0	29.4	29.4	8.0	8.0	93.5	93.5	7.2	7.2	7.2	12.9	12.7	13.7	44.9	45.4	51.6				
						0.5	257.0	20.0	20.0	29.4	29.4	8.0	8.0	93.5	93.5	7.2	7.2	7.2	12.4	12.4	13.7	45.8	45.4					
					B	0.4	241.0	20.0	20.0	29.4	29.4	8.0	8.0	94.5	94.6	7.2	7.2	7.2	14.6	14.7	13.7	57.4	57.8					
						0.4	241.0	20.0	20.0	29.4	29.4	8.0	8.0	94.7	94.6	7.2	7.2	7.2	14.7	14.7	13.7	58.2	57.8					
IM16A	Cloudy	Rough	08:10	5.2	S	0.3	302.0	20.1	20.1	29.3	29.3	8.0	8.0	92.3	92.3	7.1	7.1	7.1	26.3	26.3	40.3	48.0	48.4	55.5				
						0.3	314.0	20.1	20.1	29.3	29.3	8.0	8.0	92.3	92.3	7.1	7.1	7.1	26.3	26.3	40.3	48.8	48.4					
					B	0.2	304.0	20.1	20.1	29.3	29.3	8.0	8.0	92.4	92.4	7.1	7.1	7.1	52.8	54.3	40.3	62.2	62.7					
						0.3	332.0	20.1	20.1	29.3	29.3	8.0	8.0	92.4	92.4	7.1	7.1	7.1	55.8	54.3	40.3	63.1	62.7					
IM17	Cloudy	Rough	08:30	4.1	S	0.2	314.0	20.0	20.0	28.0	28.0	8.0	8.0	92.8	92.8	7.2	7.2	7.2	12.4	12.4	11.9	16.1	16.3	15.5				
						0.2	335.0	20.0	20.0	28.0	28.0	8.0	8.0	92.8	92.8	7.2	7.2	7.2	12.4	12.4	11.9	16.4	16.3					
					B	0.2	352.0	20.0	20.0	28.0	28.0	8.0	8.0	94.0	94.2	7.2	7.3	7.3	11.5	11.5	11.9	14.6	14.8					
						0.2	12.0	20.0	20.0	28.0	28.0	8.0	8.0	94.3	94.2	7.3	7.3	7.3	11.5	11.5	11.9	15.0	14.8					
IM18	Cloudy	Rough	10:20	16.7	S	0.4	327.0	20.3	20.3	28.5	28.5	8.0	8.0	92.2	92.2	7.1	7.1	7.0	4.4	4.4	5.5	5.4	5.5	6.8				
						0.4	355.0	20.3	20.3	28.5	28.5	8.0	8.0	92.2	92.2	7.1	7.1	7.0	4.4	4.4		5.5	5.6		5.5			
					M	0.4	330.0	20.2	20.2	28.6	28.6	8.0	8.0	91.4	91.4	7.0	7.0	7.0	5.9	5.9			5.5		5.9	5.9		
						0.4	338.0	20.2	20.2	28.6	28.6	8.0	8.0	91.4	91.4	7.0	7.0	7.0	5.9	5.9					5.5	5.9	5.9	
					B	0.4	337.0	20.2	20.2	28.6	28.6	8.0	8.0	91.8	91.8	7.0	7.0	7.0	6.3	6.3						5.5	6.3	6.3
						0.4	347.0	20.2	20.2	28.6	28.6	8.0	8.0	91.8	91.8	7.0	7.0	7.0	6.3	6.3							5.5	6.3
IM19	Cloudy	Rough	10:09	17.2	S	0.5	6.0	20.3	20.3	28.5	28.5	8.0	8.0	91.3	91.3	7.0	7.0	7.0	4.5	4.5	7.4			5.6				5.9
						0.5	6.0	20.3	20.3	28.5	28.5	8.0	8.0	91.3	91.3	7.0	7.0	7.0	4.5	4.5		7.4		6.1				5.9
					M	0.6	348.0	20.3	20.3	28.8	28.8	8.0	8.0	91.4	91.5	7.0	7.0	7.0	4.9	4.9			7.4	6.4				6.3
						0.7	4.0	20.3	20.3	28.8	28.8	8.0	8.0	91.5	91.5	7.0	7.0	7.0	4.9	4.9				7.4	6.2			6.3
					B	0.7	331.0	20.4	20.4	29.3	29.3	8.0	8.0	92.7	92.8	7.0	7.0	7.0	12.1	12.9					7.4	6.3		6.4
						0.7	357.0	20.4	20.4	29.3	29.3	8.0	8.0	92.8	92.8	7.1	7.1	7.0	13.7	12.9						7.4	6.5	6.4
IM20A	Cloudy	Rough	09:33	3.9	S	0.5	62.0	22.0	22.0	27.8	27.8	8.0	8.0	96.7	96.7	7.2	7.2	7.2	12.9	13.0	14.8						27.9	27.5
						0.5	67.0	22.0	22.0	27.8	27.8	8.0	8.0	96.7	96.7	7.2	7.2	7.2	13.0	13.0		14.8					27.0	27.5
					B	0.4	67.0	20.6	20.6	27.9	27.9	8.0	8.0	92.7	92.8	7.1	7.1	7.1	16.7	16.7			14.8				25.3	25.1
						0.5	70.0	20.6	20.6	27.9	27.9	8.0	8.0	92.8	92.8	7.1	7.1	7.1	16.6	16.7				14.8			24.8	25.1
IM21A	Cloudy	Rough	09:44	5.3	S	0.3	15.0	22.0	22.0	28.7	28.7	8.1	8.1	96.1	96.1	7.1	7.1	7.1	15.4	15.5	19.8				41.4		41.5	39.9
						0.3	16.0	22.0	22.0	28.7	28.7	8.1	8.1	96.1	96.1	7.1	7.1	7.1	15.6	15.5		19.8			41.5	41.5		
					B	0.3	13.0	22.0	22.0	28.7	28.7	8.1	8.1	97.1	97.2	7.2	7.2	7.2	23.6	24.1			19.8		37.9	38.4		
						0.3	13.0	22.0	22.0	28.7	28.7	8.1	8.1	97.3	97.2	7.2	7.2	7.2	24.7	24.1				19.8	38.8	38.4		
IM22A	Cloudy	Rough	09:50	4.9	S	0.3	53.0	20.4	20.4	28.9	28.9	8.0	8.0	91.6	91.6	7.0	7.0	7.0	8.1	8.1	11.9				11.0	11.2	15.0	
						0.3	57.0	20.4	20.4	28.9	28.9	8.0	8.0	91.6	91.6	7.0	7.0	7.0	8.1	8.1		11.9			11.4	11.2		
					B	0.3	60.0	20.4	20.4	29.1	29.1	8.0	8.0	91.8	91.9	7.0	7.0	7.0	16.8	15.6			11.9		18.8	18.9		
						0.3	63.0	20.4	20.4	29.1	29.1	8.1	8.1	92.0	91.9	7.0	7.0	7.0	14.5	15.6				11.9	18.9	18.9		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*	
E1	Cloudy	Moderate	01:34	9.3	S	0.4	76.6	20.4	20.4	31.6	31.6	8.0	8.0	102.5	102.5	7.7	7.7	7.7	1.7	1.6	2.0	2.0	8.1	8.5	7.7	
						0.4	76.6	20.4		31.6	31.6	8.0		102.5		7.7			1.5		8.9					
						0.2	299.4	20.4		31.6	31.6	7.9		102.7		7.7			1.6		7.8					
					M	0.2	96.2	20.4	20.4	31.7	31.6	8.0	102.6	7.7	7.7	1.5	1.6	8.0								
						0.7	274.9	20.3	20.3	32.0	32.0	8.0	103.3	7.7	7.7	3.0	2.8	6.7								
						1.3	73.4	20.3	20.3	31.9	32.0	8.0	103.1	7.7	7.7	2.6	6.6	6.5								
B	2.0	338.6	20.4	20.4	32.0	32.1	8.2	99.3	7.4	7.4	5.4	5.4	9.4													
	2.0	338.6	20.4	20.4	32.1	32.1	8.2	99.4	7.4	7.4	5.3	9.6	9.7													
	0.3	158.5	20.4	20.4	32.0	32.0	8.2	99.2	7.4	7.4	5.4	11.2														
E2	Cloudy	Moderate	05:07	8.1	S	0.3	32.6	20.4	20.4	32.1	32.1	8.2	8.2	99.2	99.2	7.4	7.4	7.4	5.5	5.5	5.6	5.6	11.7	11.5	11.9	
						0.5	60.1	20.4		20.4	32.1	32.1		8.2		99.2			7.4		7.4		6.1			14.8
						0.4	15.0	20.4		20.4	32.1	32.1		8.2		99.2			7.4		7.4		5.8			14.4
					M	0.6	118.0	19.5	19.5	30.9	30.9	8.1	91.1	7.0	7.0	7.1	7.2	14.6								
						0.6	118.0	19.5	19.5	30.9	30.9	8.1	91.1	7.0	7.0	7.2	14.2									
						0.7	122.0	19.6	19.6	31.3	31.3	8.2	94.9	7.2	7.2	11.1	16.6									
B	0.7	130.0	19.6	19.6	31.3	31.3	8.2	95.2	7.3	7.2	11.0	11.1	16.3													
	0.6	112.0	19.6	19.6	31.6	31.6	8.2	96.6	7.3	7.3	13.6	18.7														
	0.7	112.0	19.6	19.6	31.6	31.6	8.2	96.7	7.4	7.3	13.9	18.5														
E3	Fine	Rough	04:39	17.3	S	1.1	196.0	19.4	19.4	31.0	31.0	8.1	8.1	91.4	91.4	7.0	7.0	7.0	7.7	7.8	8.1	8.1	12.9	13.0	16.5	
						1.2	211.0	19.4		31.0	31.0	8.1		91.4		7.0			7.8							
						1.0	191.0	19.5		19.5	31.0	31.0		8.1		91.3			7.0		7.9					
					M	1.0	200.0	19.5	19.5	31.0	31.0	8.1	91.4	7.0	7.0	7.8	7.8	14.9								
						0.8	193.0	19.5	19.5	31.0	31.0	8.1	92.3	7.1	7.1	8.7	15.8									
						0.9	203.0	19.5	19.5	31.0	31.0	8.1	92.3	7.1	7.1	8.8	15.2									
B	0.7	207.0	20.0	20.0	30.5	30.5	8.1	98.8	7.5	7.5	24.7	24.8	39.6													
	0.7	212.0	20.0	20.0	30.5	30.5	8.1	98.9	7.5	7.5	24.8	39.7														
	0.6	200.0	20.0	20.0	30.5	30.5	8.1	99.0	7.5	7.5	30.2	42.7														
E4	Fine	Rough	06:59	11.0	S	0.9	155.0	20.4	20.4	29.9	29.9	8.0	8.0	96.3	96.3	7.3	7.3	7.3	5.4	5.5	5.6	5.6	11.7	11.5	13.5	
						0.9	163.0	20.4		20.4	29.9	29.9		8.0		96.3			7.3		5.5					
						0.7	150.0	20.3		20.3	30.1	30.1		8.0		97.7			7.4		9.6					
					M	0.7	162.0	20.3	20.3	30.1	30.1	8.0	97.8	7.4	7.4	9.6	15.6									
						0.6	205.0	20.4	20.4	29.1	29.1	8.0	95.0	7.2	7.2	4.0	4.2	11.2								
						0.6	222.0	20.4	20.4	29.1	29.1	8.0	95.1	7.2	7.2	4.3	11.5									
B	0.4	196.0	20.4	20.4	29.1	29.1	8.0	95.4	7.3	7.3	6.6	6.8	9.7													
	0.4	204.0	20.4	20.4	29.1	29.1	8.0	95.8	7.3	7.3	7.0	9.4														
	1.0	276.9	19.8	19.8	32.2	32.2	8.2	104.5	7.9	7.9	1.5	1.5	4.8													
E5	Fine	Moderate	06:14	5.6	S	1.0	276.9	19.8	19.8	32.2	32.2	8.2	8.2	104.5	104.5	7.9	7.9	7.9	1.4	1.8	1.8	1.8	5.4	5.5	5.6	
						0.2	93.3	19.8		19.8	32.2	32.2		8.2		103.8			7.8		1.9					
						0.3	38.5	19.8		19.8	32.2	32.2		8.2		103.9			7.9		1.7					
					M	0.5	114.9	19.8	19.8	32.2	32.2	8.2	103.3	7.8	7.8	2.0	2.1	6.6								
						0.5	157.9	19.7	19.7	32.2	32.2	8.2	103.3	7.8	7.8	2.2	6.0									
						1.6	231.9	19.8	19.8	32.4	32.4	8.2	100.1	7.6	7.6	2.0	7.2									
B	1.6	231.9	19.8	19.8	32.4	32.4	8.2	100.2	7.6	7.6	2.1	7.4														
	0.6	88.5	19.8	19.8	32.4	32.4	8.2	99.5	7.5	7.5	2.2	3.5														
	0.6	88.5	19.8	19.8	32.4	32.4	8.2	99.6	7.5	7.5	2.0	4.2														
F1	Cloudy	Moderate	02:31	20.3	S	0.9	343.6	19.8	19.8	32.4	32.4	8.2	8.2	99.0	99.0	7.5	7.5	7.5	2.6	2.6	2.8	2.9	3.0	4.7		
						0.9	251.6	19.8		19.8	32.4	32.4		8.2		98.9			7.5		2.6					
						0.9	251.6	19.8		19.8	32.4	32.4		8.2		98.9			7.5		2.6					
E6	Fine	Moderate	05:25	5.6	S	0.9	155.0	20.4	20.4	29.9	29.9	8.0	8.0	96.3	96.3	7.3	7.3	7.3	5.4	5.5	5.6	5.6	11.7	11.5	13.5	
						0.9	163.0	20.4		20.4	29.9	29.9		8.0		96.3			7.3		5.5					
						0.7	150.0	20.3		20.3	30.1	30.1		8.0		97.7			7.4		9.6					
					M	0.7	162.0	20.3	20.3	30.1	30.1	8.0	97.8	7.4	7.4	9.6	15.6									
						0.6	205.0	20.4	20.4	29.1	29.1	8.0	95.0	7.2	7.2	4.0	4.2	11.2								
						0.6	222.0	20.4	20.4	29.1	29.1	8.0	95.1	7.2	7.2	4.3	11.5									
B	0.4	196.0	20.4	20.4	29.1	29.1	8.0	95.4	7.3	7.3	6.6	6.8	9.7													
	0.4	204.0	20.4	20.4	29.1	29.1	8.0	95.8	7.3	7.3	7.0	9.4														
	1.0	276.9	19.8	19.8	32.2	32.2	8.2	104.5	7.9	7.9	1.5	1.5	4.8													
E7A	Fine	Moderate	05:06	5.4	S	1.0	276.9	19.8	19.8	32.2	32.2	8.2	8.2	104.5	104.5	7.9	7.9	7.9	1.4	1.8	1.8	1.8	5.4	5.5	5.6	
						0.2	93.3	19.8		19.8	32.2	32.2		8.2		103.8			7.8		1.9					
						0.3	38.5	19.8		19.8	32.2	32.2		8.2		103.9			7.9		1.7					
					M	0.5	114.9	19.8	19.8	32.2	32.2	8.2	103.3	7.8	7.8	2.0	2.1	6.6								
						0.5	157.9	19.7	19.7	32.2	32.2	8.2	103.3	7.8	7.8	2.2	6.0									
						1.6	231.9	19.8	19.8	32.4	32.4	8.2	100.1	7.6	7.6	2.0	7.2									
B	1.6	231.9	19.8	19.8	32.4	32.4	8.2	100.2	7.6	7.6	2.1	7.4														
	0.6	88.5	19.8	19.8	32.4	32.4	8.2	99.5	7.5	7.5	2.2	3.5														
	0.6	88.5	19.8	19.8	32.4	32.4	8.2	99.6	7.5	7.5	2.0	4.2														
F2	Cloudy	Moderate	03:02	19.2	S	0.9	343.6	19.8	19.8	32.4	32.4	8.2	8.2	99.0	99.0	7.5	7.5	7.5	2.6	2.6	2.8	2.9	3.0	4.7		
						0.9	251.6	19.8		19.8	32.4	32.4		8.2		98.9			7.5		2.6					
						0.9	251.6	19.8		19.8	32.4	32.4		8.2		98.9			7.5		2.6					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Cloudy	Moderate	03:40	17.1	S	0.2	315.5	19.9	19.9	32.4	32.4	8.2	8.2	101.4	101.5	7.6	7.6	7.6	2.8	2.9	2.8	4.6	4.7	6.7	<0.001
						0.7	135.1	19.9		32.4	32.4	8.2		101.5		7.6			2.9			4.8			
						1.0	120.1	19.9		32.4	32.4	8.2		100.9		7.6			2.5			7.1			
					M	0.7	46.2	19.9	32.4	32.4	8.2	100.9	7.6	2.7	6.9										
						0.8	66.3	19.9	32.4	32.4	8.2	100.6	7.6	2.7	8.6										
						0.7	156.1	19.9	32.4	32.4	8.2	100.4	7.6	3.0	8.4										
B	1.2	75.1	20.4	32.0	32.0	8.2	102.4	7.7	6.3	13.1															
	0.4	324.1	20.4	32.0	32.0	8.2	102.4	7.7	6.7	13.4															
	0.2	76.6	20.4	32.0	32.0	8.2	101.8	7.6	7.3	15.7															
F4	Cloudy	Moderate	04:43	13.1	S	0.2	147.4	20.4	20.4	32.0	32.0	8.2	8.2	101.9	101.9	7.6	7.6	7.6	6.3	6.8	6.3	15.1	15.4	18.7	<0.001
						0.1	203.3	20.4		32.0	32.0	8.1		100.7		7.5			19.2			27.9			
						0.6	64.1	20.4		32.0	32.0	8.2		100.6		7.5			20.3			27.2			
					M	0.4	186.0	19.9	31.5	31.5	8.1	100.1	7.6	30.3	48.7										
						0.4	200.0	19.9	31.5	31.5	8.1	100.1	7.6	30.9	48.8										
						0.3	179.0	19.9	31.5	31.5	8.1	99.6	7.5	35.4	49.4										
B	0.3	182.0	19.9	31.5	31.5	8.1	99.6	7.5	34.9	49.3															
	0.1	142.0	20.2	30.6	30.6	8.1	97.2	7.4	3.0	8.8															
	0.1	146.0	20.2	30.6	30.6	8.1	97.1	7.3	3.3	8.4															
F5	Cloudy	Moderate	03:40	5.5	S	0.3	122.0	20.2	20.2	30.7	30.7	8.1	8.1	94.7	94.6	7.2	7.1	7.1	3.5	3.5	3.5	9.5	9.5	49.1	<0.001
						0.3	132.0	20.2		30.7	30.7	8.1		94.5		7.1			3.5			9.3			
						0.2	139.0	20.3		31.4	31.4	8.0		94.6		7.1			3.6			11.4			
					M	0.2	145.0	20.3	31.4	31.4	8.0	94.6	7.1	3.6	11.3										
						0.8	23.7	19.9	32.2	32.2	8.1	101.9	7.7	1.8	7.3										
						0.8	23.7	19.9	32.2	32.2	8.1	101.9	7.7	2.0	7.3										
B	1.1	61.5	19.9	32.2	32.2	8.1	101.5	7.6	2.1	9.6															
	0.5	202.4	19.9	32.2	32.2	8.1	101.6	7.7	1.9	9.0															
	0.8	85.0	20.0	32.2	32.2	8.1	101.3	7.6	2.0	10.3															
F6	Fine	Rough	03:21	13.9	S	0.3	229.5	20.5	20.5	32.2	32.2	8.1	8.1	107.8	107.7	8.0	8.0	8.0	1.7	1.7	1.7	6.5	6.4	9.8	<0.001
						0.1	180.0	20.4		32.2	32.2	8.1		107.8		8.0			3.1			7.3			
						0.2	313.9	20.5		32.2	32.2	8.1		107.8		8.0			2.6			7.7			
					M	0.2	78.9	20.3	32.2	32.2	8.1	107.4	8.0	3.1	8.0										
						0.4	175.7	20.3	32.2	32.2	8.1	108.0	8.1	2.9	8.3										
						0.6	344.1	20.2	32.1	32.1	8.2	103.2	7.7	4.1	6.1										
B	0.6	344.1	20.2	32.1	32.1	8.2	102.7	7.7	3.9	6.6															
	0.2	144.9	20.2	32.3	32.3	8.2	104.3	7.8	8.1	8.1															
	0.4	162.1	20.2	32.3	32.3	8.2	104.2	7.8	7.1	8.2															
IM1	Cloudy	Moderate	02:09	10.2	S	0.1	173.0	20.2	20.2	32.1	32.2	8.2	8.2	103.2	103.3	7.7	7.7	7.7	3.6	3.9	3.6	5.3	5.3	10.1	<0.001
						0.1	173.0	20.2		32.2	32.2	8.3		103.3		7.7			4.2			5.2			
						0.8	229.3	20.2		32.2	32.2	8.3		103.6		7.8			5.9			6.8			
					M	0.6	57.5	20.2	32.2	32.2	8.3	103.4	7.8	5.2	6.9										
						0.8	65.2	20.1	32.3	32.3	8.2	103.6	7.8	12.8	17.9										
						0.3	136.3	20.1	32.3	32.3	8.2	103.7	7.8	15.0	18.3										
B	0.9	305.9	20.2	32.1	32.2	8.2	104.1	7.8	2.3	5.9															
	0.9	305.9	20.2	32.2	32.2	8.2	104.0	7.8	2.3	5.7															
	0.2	154.0	20.1	32.3	32.3	8.2	103.9	7.8	2.4	7.5															
IM2	Cloudy	Moderate	01:47	12.0	S	0.2	229.5	20.5	20.5	32.2	32.2	8.1	8.1	107.8	107.8	8.0	8.0	8.0	1.6	1.6	1.6	6.3	6.4	7.4	<0.001
						0.1	180.0	20.4		32.2	32.2	8.1		107.8		8.0			3.1			7.3			
						0.2	313.9	20.5		32.2	32.2	8.1		107.8		8.0			2.6			7.7			
					M	0.2	78.9	20.3	32.2	32.2	8.1	107.4	8.0	3.1	8.0										
						0.4	175.7	20.3	32.2	32.2	8.1	108.0	8.1	2.9	8.3										
						0.6	344.1	20.2	32.1	32.1	8.2	103.2	7.7	4.1	6.1										
B	0.6	344.1	20.2	32.1	32.1	8.2	102.7	7.7	3.9	6.6															
	0.2	144.9	20.2	32.3	32.3	8.2	104.3	7.8	8.1	8.1															
	0.4	162.1	20.2	32.3	32.3	8.2	104.2	7.8	7.1	8.2															
IM3	Cloudy	Moderate	05:55	14.1	S	0.1	173.0	20.2	20.2	32.1	32.2	8.2	8.2	103.2	103.3	7.7	7.7	7.7	3.6	3.9	3.6	5.3	5.3	10.1	<0.001
						0.1	173.0	20.2		32.2	32.2	8.3		103.3		7.7			4.2			5.2			
						0.8	229.3	20.2		32.2	32.2	8.3		103.6		7.8			5.9			6.8			
					M	0.6	57.5	20.2	32.2	32.2	8.3	103.4	7.8	5.2	6.9										
						0.8	65.2	20.1	32.3	32.3	8.2	103.6	7.8	12.8	17.9										
						0.3	136.3	20.1	32.3	32.3	8.2	103.7	7.8	15.0	18.3										
B	0.9	305.9	20.2	32.1	32.2	8.2	104.1	7.8	2.3	5.9															
	0.9	305.9	20.2	32.2	32.2	8.2	104.0	7.8	2.3	5.7															
	0.2	154.0	20.1	32.3	32.3	8.2	103.9	7.8	2.4	7.5															
IM4	Cloudy	Moderate	05:33	16.3	S	0.2	229.5	20.5	20.5	32.2	32.2	8.1	8.1	107.8	107.8	8.0	8.0	8.0	1.6	1.6	1.6	6.3	6.4	7.4	<0.001
						0.1	180.0	20.4		32.2	32.2	8.1		107.8		8.0			3.1			7.3			
						0.2	313.9	20.5		32.2	32.2	8.1		107.8		8.0			2.6			7.7			
					M	0.2	78.9	20.3	32.2	32.2	8.1	107.4	8.0	3.1	8.0										
						0.4	175.7	20.3	32.2	32.2	8.1	108.0	8.1	2.9	8.3										
						0.6	344.1	20.2	32.1	32.1	8.2	103.2	7.7	4.1	6.1										
B	0.6	344.1	20.2	32.1	32.1	8.2	102.7	7.7	3.9	6.6															
	0.2	144.9	20.2	32.3	32.3	8.2	104.3	7.8	8.1	8.1															
	0.4	162.1	20.2	32.3	32.3	8.2	104.2	7.8	7.1	8.2															
IM5	Cloudy	Moderate	04:11	14.1	S	0.1	173.0	20.2	20.2	32.1	32.2	8.2	8.2	103.2	103.3	7.7	7.7	7.7	3.6	3.9	3.6	5.3	5.3	7.6	<0.001
						0.1	173.0	20.2		32.2	32.2	8.3		103.3		7.7			4.2			5.2			
						0.8	229.3	20.2		32.2	32.2	8.3		103.6		7.8			5.9			6.8			
					M	0.6	57.5	20.2	32.2	32.2	8.3	103.4	7.8	5.2	6.9										
						0.8	65.2	20.1	32.3	32.3	8.2	103.6	7.8	12.8	17.9										
						0.3	136.3	20.1	32.3	32.3	8.2	103.7	7.8	15.0	18.3										
B	0.9	305.9	20.2	32.1	32.2	8.2	104.1	7.8	2.3	5.9															
	0.9	305.9	20.2	32.2	32.2	8.2	104.0	7.8	2.3	5.7															
	0.2	154.0	20.1	32.3	32.3	8.2	103.9	7.8	2.4	7.5															

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
IM6	Cloudy	Moderate	03:53	16.3	S	0.8	151.2	19.8	19.8	32.4	32.4	8.2	8.2	101.7	101.8	7.7	7.7	7.6	2.1	2.1	9.9	9.6	<0.001		
						0.8	151.2	19.8	19.8	32.4	32.4	8.2	8.2	101.8	101.8	7.7	7.7	7.6	2.1	2.1	9.3	9.6	<0.001		
						1.2	349.6	19.8	19.8	32.4	32.4	8.2	8.2	101.2	101.2	7.6	7.6	7.6	2.2	2.2	11.9	11.6	<0.001		
					M	1.2	349.6	19.8	19.8	32.4	32.4	8.2	8.2	101.2	101.2	7.6	7.6	7.6	2.1	2.2	11.3	11.6	<0.001		
						0.7	34.1	19.8	19.8	32.4	32.4	8.2	8.2	100.9	100.9	7.6	7.6	7.6	2.4	2.5	13.0	13.2	<0.001		
						0.6	135.7	19.8	19.8	32.4	32.4	8.2	8.2	100.8	100.8	7.6	7.6	7.6	2.6	2.5	13.4	13.2	<0.001		
IM7	Fine	Rough	03:32	14.8	S	0.2	194.0	19.5	19.5	30.9	30.9	8.1	8.1	91.7	91.8	7.0	7.0	7.1	7.0	6.9	13.2	13.0	<0.001		
						0.2	200.0	19.5	19.5	30.9	30.9	8.1	8.1	91.8	91.8	7.0	7.0	7.1	6.9	6.9	12.8	13.0	<0.001		
						0.2	160.0	19.5	19.5	31.0	31.0	8.1	8.1	92.9	93.0	7.1	7.1	7.1	7.5	7.5	13.9	14.0	<0.001		
					M	0.2	169.0	19.5	19.5	31.0	31.0	8.1	8.1	93.0	93.0	7.1	7.1	7.1	7.6	7.5	14.0	14.0	<0.001		
						0.1	194.0	19.6	19.6	31.4	31.4	8.1	8.1	95.9	95.9	7.3	7.3	7.3	14.2	14.4	17.8	17.9	<0.001		
						0.1	209.0	19.6	19.6	31.4	31.4	8.1	8.1	95.8	95.8	7.3	7.3	7.3	14.5	14.4	18.0	17.9	<0.001		
IM8	Fine	Rough	03:40	13.4	S	0.2	77.0	19.6	19.6	30.9	30.9	8.1	8.1	90.9	91.2	7.0	7.0	7.0	6.6	6.7	10.0	10.1	<0.001		
						0.2	77.0	19.6	19.6	30.9	30.9	8.1	8.1	91.4	91.2	7.0	7.0	7.0	6.8	6.7	10.1	10.1	<0.001		
						0.3	86.0	19.6	19.6	31.4	31.4	8.2	8.2	95.1	95.2	7.2	7.2	7.2	12.3	12.4	18.9	19.0	<0.001		
					M	0.3	92.0	19.6	19.6	31.4	31.4	8.2	8.2	95.3	95.2	7.3	7.2	7.2	12.5	12.4	19.0	19.0	<0.001		
						0.2	82.0	19.6	19.6	31.4	31.4	8.2	8.2	96.3	96.3	7.3	7.3	7.3	16.1	16.1	22.7	22.5	<0.001		
						0.2	84.0	19.6	19.6	31.4	31.4	8.2	8.2	96.3	96.3	7.3	7.3	7.3	16.2	16.1	22.3	22.5	<0.001		
IM9	Fine	Rough	04:06	14.0	S	0.1	191.0	19.6	19.6	31.0	31.0	8.1	8.1	93.3	93.5	7.1	7.1	7.1	8.2	8.4	14.0	14.1	<0.001		
						0.1	200.0	19.6	19.6	31.0	31.0	8.1	8.1	93.6	93.5	7.2	7.1	7.1	8.6	8.4	14.1	14.1	<0.001		
						0.3	162.0	19.6	19.6	31.3	31.3	8.2	8.2	95.1	95.2	7.2	7.2	7.3	10.2	10.2	16.6	18.4	<0.001		
					M	0.3	175.0	19.6	19.6	31.3	31.3	8.2	8.2	95.3	95.2	7.3	7.3	7.3	10.2	10.2	18.2	18.4	<0.001		
						0.4	128.0	19.7	19.7	31.7	31.7	8.2	8.2	96.9	96.9	7.4	7.4	7.4	14.9	15.0	22.8	22.6	<0.001		
						0.4	130.0	19.7	19.7	31.7	31.7	8.2	8.2	96.9	96.9	7.4	7.4	7.4	15.2	15.0	22.4	22.6	<0.001		
IM10	Fine	Rough	04:56	11.1	S	0.8	121.0	19.6	19.6	31.0	31.0	8.1	8.1	92.3	92.4	7.1	7.1	7.1	8.1	8.2	13.1	13.0	<0.001		
						0.8	124.0	19.6	19.6	31.0	31.0	8.1	8.1	92.4	92.4	7.1	7.1	7.1	8.3	8.2	12.8	13.0	<0.001		
						0.8	123.0	19.6	19.6	31.3	31.3	8.2	8.2	95.1	95.2	7.2	7.2	7.2	10.4	10.3	14.9	15.1	<0.001		
					M	0.8	128.0	19.6	19.6	31.3	31.3	8.2	8.2	95.2	95.2	7.3	7.2	7.2	10.2	10.3	15.3	15.1	<0.001		
						0.7	113.0	19.6	19.6	31.5	31.5	8.1	8.1	96.0	96.3	7.3	7.3	7.3	12.0	12.3	17.1	17.5	<0.001		
						0.7	123.0	19.6	19.6	31.5	31.5	8.1	8.1	96.5	96.3	7.3	7.3	7.3	12.5	12.3	17.8	17.5	<0.001		
IM11A	Fine	Rough	05:11	3.8	S	0.9	154.0	19.6	19.6	31.1	31.1	8.1	8.1	92.3	92.3	7.0	7.0	7.0	9.3	9.5	13.4	13.5	<0.001		
						1.0	163.0	19.6	19.6	31.1	31.1	8.1	8.1	92.3	92.3	7.0	7.0	7.0	9.6	9.5	13.6	13.5	<0.001		
						0.8	153.0	19.6	19.6	31.1	31.1	8.1	8.1	92.1	92.1	7.0	7.0	7.0	11.1	10.9	13.4	13.3	<0.001		
					B	0.8	160.0	19.6	19.6	31.1	31.1	8.1	8.1	92.1	92.1	7.0	7.0	7.0	10.8	10.9	13.2	13.3	<0.001		
						1.1	194.0	19.5	19.5	31.0	31.0	8.1	8.1	91.5	91.6	7.0	7.0	7.0	8.5	8.5	13.8	13.5	<0.001		
						1.2	205.0	19.5	19.5	31.0	31.0	8.1	8.1	91.6	91.6	7.0	7.0	7.0	8.5	8.5	13.2	13.5	<0.001		
IM12	Fine	Rough	06:19	17.3	M	0.9	193.0	19.6	19.6	31.2	31.2	8.1	8.1	93.2	93.3	7.1	7.1	7.1	10.1	10.0	15.3	15.2	<0.001		
						0.9	203.0	19.6	19.6	31.2	31.2	8.1	8.1	93.3	93.3	7.1	7.1	7.1	10.0	10.0	15.0	15.2	<0.001		
						0.9	180.0	19.6	19.6	31.3	31.3	8.1	8.1	94.0	94.1	7.2	7.2	7.2	9.8	9.9	18.8	19.0	<0.001		
					B	0.9	187.0	19.6	19.6	31.3	31.3	8.1	8.1	94.1	94.1	7.2	7.2	7.2	9.9	9.9	19.1	19.0	<0.001		
						1.2	180.0	19.5	19.5	30.9	30.9	8.1	8.1	91.2	91.3	7.0	7.0	7.0	7.6	7.6	12.9	12.7	<0.001		
						1.2	180.0	19.5	19.5	30.9	30.9	8.1	8.1	91.3	91.3	7.0	7.0	7.0	7.7	7.6	12.5	12.7	<0.001		
IM13	Fine	Rough	05:48	11.4	M	1.0	178.0	19.5	19.5	30.8	30.8	8.1	8.1	91.9	91.9	7.0	7.0	7.0	8.5	8.7	14.9	14.6	<0.001		
						1.1	188.0	19.5	19.5	30.8	30.8	8.1	8.1	92.2	92.1	7.1	7.0	7.0	8.9	8.7	14.2	14.6	<0.001		
						0.8	177.0	19.6	19.6	31.5	31.5	8.2	8.2	96.4	96.4	7.3	7.3	7.3	13.0	13.0	17.5	17.6	<0.001		
					B	0.8	178.0	19.6	19.6	31.5	31.5	8.2	8.2	96.4	96.4	7.3	7.3	7.3	13.1	13.0	17.7	17.6	<0.001		
						1.2	233.0	19.6	19.6	31.0	31.0	8.1	8.1	91.4	91.5	7.0	7.0	7.0	8.7	8.7	18.1	18.4	<0.001		
						1.3	244.0	19.6	19.6	31.0	31.0	8.1	8.1	91.5	91.5	7.0	7.0	7.0	8.7	8.7	18.6	18.4	<0.001		
IM14	Fine	Rough	06:00	16.5	S	1.1	220.0	19.6	19.6	31.2	31.2	8.1	8.1	93.4	93.5	7.1	7.1	7.1	9.7	9.8	16.2	16.3	<0.001		
						1.2	220.0	19.6	19.6	31.2	31.2	8.1	8.1	93.5	93.5	7.1	7.1	7.1	9.9	9.8	16.3	16.3	<0.001		
						0.9	209.0	19.6	19.6	31.3	31.3	8.2	8.2	94.2	94.2	7.2	7.2	7.2	10.3	10.2	15.0	15.1	<0.001		
					M	0.9	209.0	19.6	19.6	31.3	31.3	8.2	8.2	94.2	94.2	7.2	7.2	7.2	10.3	10.2	15.0	15.1	<0.001		
						1.2	233.0	19.6	19.6	31.0	31.0	8.1	8.1	91.4	91.5	7.0	7.0	7.0	8.7	8.7	18.1	18.4	<0.001		
						1.3	244.0	19.6	19.6	31.0	31.0	8.1	8.1	91.5	91.5	7.0	7.0	7.0	8.7	8.7	18.6	18.4	<0.001		

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*
IM15	Fine	Moderate	06:24	5.8	S	1.0	221.0	20.1	20.1	30.7	30.7	8.1	8.1	98.8	98.9	7.5	7.5	7.5	20.8	20.9	19.2	37.5	37.7	39.1	
						1.1	223.0	20.1	20.1	30.7	30.7	8.1	8.1	99.0	99.0	7.5	7.5	7.5	21.0	20.9	19.2	37.9	37.7		
					B	0.8	212.0	20.1	20.1	30.7	30.7	8.1	8.1	100.0	100.0	7.6	7.6	7.6	17.9	17.2	17.6	40.0	40.4		
						0.8	214.0	20.1	20.1	30.7	30.7	8.1	8.1	99.9	99.9	7.6	7.6	7.6	17.2	17.2	17.6	40.8	40.4		
IM16A	Fine	Moderate	06:03	5.7	S	0.7	196.0	20.2	20.2	30.2	30.2	8.0	8.0	97.4	97.4	7.4	7.4	7.4	27.5	27.7	27.7	47.9	48.2	47.9	
						0.7	213.0	20.2	20.2	30.2	30.2	8.0	8.0	97.3	97.3	7.4	7.4	7.4	27.9	27.7	27.7	48.5	48.2		
					B	0.6	187.0	20.2	20.2	30.2	30.2	8.0	8.0	98.3	98.4	7.5	7.5	7.5	28.3	27.8	27.8	47.7	47.7		
						0.6	195.0	20.2	20.2	30.2	30.2	8.0	8.0	98.4	98.4	7.5	7.5	7.5	27.2	27.8	27.8	47.6	47.7		
IM17	Fine	Moderate	05:44	5.0	S	0.5	163.0	20.2	20.2	30.1	30.1	8.0	8.0	98.0	98.0	7.4	7.4	7.4	15.5	15.7	15.9	24.4	24.6	25.5	
						0.6	168.0	20.2	20.2	30.1	30.1	8.0	8.0	98.0	98.0	7.4	7.4	7.4	15.8	15.7	15.9	24.7	24.6		
					B	0.5	161.0	20.2	20.2	30.1	30.1	8.0	8.0	98.9	99.1	7.5	7.5	7.5	16.2	16.2	16.2	26.3	26.5		
						0.5	176.0	20.2	20.2	30.1	30.1	8.0	8.0	99.2	99.2	7.5	7.5	7.5	16.2	16.2	16.2	26.7	26.5		
IM18	Fine	Moderate	03:49	17.6	S	0.4	147.0	20.3	20.3	30.1	30.1	8.0	8.0	95.7	95.7	7.2	7.2	7.1	3.2	3.2	3.6	8.1	8.3	9.6	
						0.4	149.0	20.3	20.3	30.1	30.1	8.0	8.0	95.6	95.7	7.2	7.2	7.1	3.2	3.2	3.6	8.5	8.3		
						M	0.3	142.0	20.3	20.3	30.8	30.8	8.0	8.0	92.7	92.8	7.0	7.0	7.0	3.5	3.5	3.6	9.6		9.6
							0.4	147.0	20.3	20.3	30.8	30.8	8.0	8.0	92.8	92.8	7.0	7.0	7.0	3.5	3.5	3.6	9.5		9.6
					B	0.2	160.0	20.3	20.3	31.0	31.0	8.1	8.1	93.7	93.7	7.1	7.1	7.1	4.0	4.1	4.1	10.8	11.0		
						0.2	173.0	20.3	20.3	31.0	31.0	8.1	8.1	93.7	93.7	7.1	7.1	7.1	4.1	4.1	4.1	11.2	11.0		
						0.6	193.0	20.7	20.7	30.1	30.1	8.0	8.0	95.9	95.9	7.2	7.2	7.1	1.0	1.1	1.8	6.9	7.0		
						0.6	209.0	20.7	20.7	30.1	30.1	8.0	8.0	95.8	95.9	7.2	7.2	7.1	1.1	1.1	1.8	7.0	7.0		
IM19	Fine	Moderate	04:03	19.0	M	0.4	161.0	20.4	20.4	30.7	30.7	8.0	8.0	94.2	94.1	7.1	7.1	7.1	2.1	2.1	1.8	8.4	8.2	7.8	
						0.4	171.0	20.4	20.4	30.7	30.7	8.0	8.0	94.0	94.1	7.1	7.1	7.1	2.1	2.1	1.8	8.0	8.2		
					B	0.4	144.0	20.3	20.3	31.0	31.0	8.0	8.0	93.5	93.7	7.0	7.1	7.1	2.3	2.4	2.4	8.4	8.3		
						0.4	155.0	20.3	20.3	31.0	31.0	8.0	8.0	93.9	93.7	7.1	7.1	7.1	2.4	2.4	2.4	8.1	8.3		
IM20A	Fine	Moderate	04:45	5.2	S	0.5	243.0	20.8	20.8	29.5	29.5	8.0	8.0	94.8	94.8	7.1	7.1	7.1	4.7	4.8	5.5	11.0	11.1	11.5	
						0.6	246.0	20.8	20.8	29.5	29.5	8.0	8.0	94.8	94.8	7.1	7.1	7.1	4.8	4.8	5.5	11.2	11.1		
					B	0.4	236.0	20.9	20.9	29.6	29.6	8.0	8.0	94.9	95.0	7.1	7.1	7.1	6.2	6.3	6.3	11.8	11.9		
						0.4	252.0	20.9	20.9	29.6	29.6	8.0	8.0	95.0	95.0	7.1	7.1	7.1	6.3	6.3	6.3	11.9	11.9		
IM21A	Fine	Moderate	04:31	5.7	S	0.4	216.0	20.9	20.9	29.8	29.8	8.0	8.0	95.7	95.7	7.2	7.2	7.2	4.6	4.7	5.8	13.6	13.5	14.5	
						0.4	224.0	20.9	20.9	29.8	29.8	8.0	8.0	95.6	95.7	7.2	7.2	7.2	4.7	4.7	5.8	13.4	13.5		
					B	0.2	202.0	20.9	20.9	29.8	29.8	8.0	8.0	96.2	96.2	7.2	7.2	7.2	6.8	7.1	7.0	15.4	15.6		
						0.2	203.0	20.9	20.9	29.8	29.8	8.0	8.0	96.6	96.6	7.2	7.2	7.2	7.1	7.0	7.0	15.7	15.6		
IM22A	Fine	Moderate	04:24	5.8	S	0.6	219.0	21.2	21.2	29.9	29.9	8.0	8.0	96.9	97.0	7.2	7.2	7.2	3.1	3.2	3.3	10.9	10.9	12.2	
						0.6	239.0	21.2	21.2	29.9	29.9	8.0	8.0	97.0	97.0	7.2	7.2	7.2	3.2	3.2	3.3	10.9	10.9		
					B	0.4	213.0	21.0	21.0	30.0	29.9	8.0	8.0	98.6	98.7	7.4	7.4	7.4	3.5	3.5	3.5	13.6	13.4		
						0.4	222.0	21.0	21.0	29.9	29.9	8.0	8.0	98.7	98.7	7.4	7.4	7.4	3.5	3.5	3.5	13.2	13.4		

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	FINE	Moderate	08:45	8.2	S	0.5	261.8	20.3	20.3	31.4	31.4	7.9	7.9	92.3	92.4	6.9	6.9	2.4	2.3	5.4	6.8	8.6	6.8	<0.001
						0.5	210.9	20.3		31.4	31.4	7.9		92.5	7.0	2.1		5.1						
						0.3	240.5	20.3		31.6	31.6	7.9		91.6	6.9	3.2		6.2						
					M	0.5	320.7	20.3	31.6	31.6	7.9	91.5	6.9	3.2	6.7									
						0.6	268.5	20.3	31.6	31.6	7.9	92.9	7.0	3.9	8.4									
						0.7	337.3	20.3	31.6	31.6	7.9	91.8	6.9	3.8	8.8									
B	0.8	267.1	20.7	31.9	31.9	8.1	98.9	7.4	4.7	8.9														
	1.0	259.8	20.7	31.9	31.9	8.1	99.7	7.4	4.4	8.4														
	0.4	63.0	20.5	31.9	31.9	8.0	95.6	7.1	6.9	11.0														
E2	FINE	Moderate	12:03	8.1	S	0.4	262.7	20.5	20.5	31.9	31.9	8.0	8.0	95.4	95.5	7.1	7.1	7.1	7.0	11.2	10.7	12.5	10.7	<0.001
						1.0	262.7	20.5		31.9	31.9	8.0		95.4	7.1	7.1		11.2						
						0.2	226.5	20.5		32.0	32.0	8.1		96.0	7.2	7.0		12.3						
					M	0.5	170.1	20.4	32.0	32.0	8.1	95.9	7.2	7.1	12.6									
						0.6	317.0	20.3	33.2	33.2	8.0	104.8	7.8	5.3	12.0									
						0.7	329.0	20.3	33.2	33.2	8.0	104.7	7.8	5.7	11.9									
B	0.6	337.0	20.4	33.2	33.2	8.0	104.3	7.7	5.7	12.3														
	0.6	4.0	20.4	33.1	33.2	8.0	104.4	7.8	5.6	12.7														
	0.4	311.0	20.6	33.1	33.1	8.0	104.8	7.8	5.4	13.1														
E3	Fine	Rough	11:00	16.9	S	0.4	323.0	20.6	20.6	33.1	33.1	8.0	8.0	104.7	104.8	7.8	7.8	5.3	5.3	12.8	12.5	13.0	12.5	<0.001
						0.3	198.0	19.8		31.0	31.0	8.1		99.8	7.6	8.9		11.8						
						0.3	200.0	19.8		31.0	31.0	8.1		99.8	7.6	8.9		12.2						
					M	0.3	206.0	19.8	31.1	31.1	8.1	99.7	7.6	9.2	12.6									
						0.3	225.0	19.8	31.1	31.1	8.1	99.7	7.6	9.2	12.7									
						0.2	251.0	19.8	31.1	31.1	8.0	99.2	7.5	9.7	14.2									
B	0.2	256.0	19.8	31.1	31.1	8.0	99.1	7.5	9.8	14.0														
	0.4	309.0	20.3	29.9	29.9	8.0	96.9	7.3	23.5	43.6														
	0.4	339.0	20.3	29.9	29.9	8.0	97.0	7.4	23.3	43.3														
E4	Fine	Rough	09:20	11.3	S	0.2	303.0	20.3	20.3	30.0	30.0	8.0	8.0	98.6	98.7	7.5	7.5	23.5	23.6	45.7	44.5	45.6	44.5	<0.001
						0.2	327.0	20.3		30.0	30.0	8.0		98.7	7.5	23.6		45.4						
						0.3	342.0	20.5		27.2	27.2	8.0		96.8	7.4	2.4		5.2						
					M	0.3	355.0	20.5	27.2	27.2	8.0	96.9	7.4	2.6	5.5									
						0.4	348.0	20.4	27.7	27.7	8.0	99.1	7.6	3.4	8.4									
						0.4	359.0	20.4	27.7	27.7	8.0	99.2	7.6	3.4	8.6									
B	0.4	44.0	20.7	27.9	27.9	8.0	94.9	7.2	4.1	8.6														
	0.4	47.0	20.7	27.9	27.9	8.0	95.1	7.3	4.3	8.9														
	0.3	36.0	20.5	28.4	28.4	8.0	97.8	7.5	11.9	14.0														
E5	Fine	Moderate	09:45	5.3	S	0.3	37.0	20.5	20.5	28.4	28.4	8.0	8.0	98.0	97.9	7.5	7.5	11.9	11.9	14.0	11.4	14.0	11.4	<0.001
						0.5	306.4	20.1		32.4	32.3	8.1		104.7	7.9	2.2		6.8						
						0.3	315.7	20.1		32.3	32.3	8.1		104.9	7.9	2.1		6.6						
					M	0.9	325.3	20.1	32.4	32.4	8.1	104.2	7.8	2.3	8.5									
						0.6	185.8	20.1	32.4	32.4	8.1	104.3	7.8	2.2	8.7									
						0.8	245.0	20.1	32.3	32.3	8.1	102.9	7.7	5.0	11.2									
B	1.2	285.5	20.1	32.3	32.3	8.1	102.9	7.7	4.8	11.5														
	0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.8	6.0														
	0.4	225.6	19.9	32.4	32.4	8.1	103.0	7.8	1.6	6.4														
E6	Fine	Moderate	10:45	5.5	S	0.9	318.6	19.9	19.9	32.4	32.4	8.1	8.1	101.0	101.3	7.6	7.6	2.4	2.2	7.2	8.5	7.2	8.5	<0.001
						0.3	269.2	19.9		32.4	32.4	8.1		101.5	7.6	2.0		7.1						
						0.8	87.6	19.8		32.4	32.4	8.1		100.0	7.5	5.0		12.1						
					M	0.2	103.5	19.8	32.4	32.4	8.1	99.8	7.5	5.8	12.3									
						0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.7	6.2									
						0.9	318.6	19.9	32.4	32.4	8.1	101.0	7.6	2.4	7.2									
B	0.3	269.2	19.9	32.4	32.4	8.1	101.5	7.6	2.0	7.1														
	0.8	87.6	19.8	32.4	32.4	8.1	100.0	7.5	5.0	12.1														
	0.2	103.5	19.8	32.4	32.4	8.1	99.8	7.5	5.8	12.3														
E7A	Fine	Moderate	11:02	4.7	S	0.5	306.4	20.1	20.1	32.4	32.3	8.1	8.1	104.7	104.8	7.9	7.9	2.2	2.2	6.8	8.9	8.6	8.9	<0.001
						0.3	315.7	20.1		32.3	32.3	8.1		104.9	7.9	2.1		6.6						
						0.9	325.3	20.1		32.4	32.4	8.1		104.2	7.8	2.3		8.5						
					M	0.6	185.8	20.1	32.4	32.4	8.1	104.3	7.8	2.2	8.7									
						0.8	245.0	20.1	32.3	32.3	8.1	102.9	7.7	5.0	11.2									
						1.2	285.5	20.1	32.3	32.3	8.1	102.9	7.7	4.8	11.5									
B	0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.8	6.0														
	0.4	225.6	19.9	32.4	32.4	8.1	103.0	7.8	1.6	6.4														
	0.9	318.6	19.9	32.4	32.4	8.1	101.0	7.6	2.4	7.2														
F1	FINE	Moderate	09:39	19.2	S	0.3	269.2	19.9	19.9	32.4	32.4	8.1	8.1	101.5	101.3	7.6	7.6	2.0	2.2	7.1	8.5	7.2	8.5	<0.001
						0.8	87.6	19.8		32.4	32.4	8.1		100.0	7.5	5.0		12.1						
						0.2	103.5	19.8		32.4	32.4	8.1		99.8	7.5	5.8		12.3						
					M	0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.7	6.2									
						0.9	318.6	19.9	32.4	32.4	8.1	101.0	7.6	2.4	7.2									
						0.3	269.2	19.9	32.4	32.4	8.1	101.5	7.6	2.0	7.1									
B	0.8	87.6	19.8	32.4	32.4	8.1	100.0	7.5	5.0	12.1														
	0.2	103.5	19.8	32.4	32.4	8.1	99.8	7.5	5.8	12.3														
	0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.7	6.2														
F2	FINE	Moderate	10:07	18.1	S	0.4	225.6	19.9	19.9	32.4	32.4	8.1	8.1	103.0	102.9	7.8	7.7	1.6	1.7	6.4	8.5	7.2	8.5	<0.001
						0.9	318.6	19.9		32.4	32.4	8.1		101.0	7.6	2.4		7.2						
						0.3	269.2	19.9		32.4	32.4	8.1		101.5	7.6	2.0		7.1						
					M	0.8	87.6	19.8	32.4	32.4	8.1	100.0	7.5	5.0	12.1									
						0.2	103.5	19.8	32.4	32.4	8.1	99.8	7.5	5.8	12.3									
						0.4	225.6	19.9	32.4	32.4	8.1	102.8	7.7	1.7	6.2									
B	0.9	318.6	19.9	32.4	32.4	8.1	101.0	7.6	2.4	7.2														
	0.3	269.2	19.9	32.4	32.4	8.1	101.5	7.6	2.0	7.1														
	0.8	87.6	19.8	32.4	32.4	8.1	100.0	7.5	5.0	12.1														

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average		DA*	Value	Average	Value	Average
F3	FINE	Moderate	10:42	17.2	S	0.9	253.0	20.0	20.0	32.4	32.4	8.2	8.2	104.4	104.5	7.8	7.9	7.8	3.2	3.2	5.9	11.1	11.1	13.6	<0.001			
						0.7	342.9	20.0		32.4		8.2		104.6		7.9			3.1			11.0			<0.001			
						0.4	296.3	20.0		32.4		8.2		102.8		7.7			6.4			13.8			<0.001			
					M	0.2	23.8	20.0	32.4	8.2	103.0	7.7	5.1	13.3	<0.001													
						1.0	292.9	20.0	32.4	8.2	101.8	7.7	8.7	16.5	<0.001													
						0.8	267.3	20.0	32.4	8.1	101.8	7.7	8.9	16.0	<0.001													
F4	FINE	Moderate	11:36	13.0	S	0.5	269.1	20.6	20.6	32.0	32.0	8.1	8.1	105.4	105.8	7.9	7.9	7.7	5.7	5.6	14.3	13.4	13.3	20.6	<0.001			
						0.5	269.1	20.6		32.0		8.1		106.2		7.9			5.4			13.2			<0.001			
						0.3	210.3	20.4		32.0		8.1		101.7		7.6			10.9			20.1			<0.001			
					M	0.6	279.8	20.4	32.0	8.1	101.9	7.6	10.8	19.9	<0.001													
						0.7	280.1	20.4	32.1	8.1	100.4	7.5	27.1	28.2	<0.001													
						0.2	356.0	20.4	32.1	8.1	100.3	7.5	25.7	28.8	<0.001													
F5	Fine	Moderate	09:09	5.3	S	0.2	67.0	20.1	20.1	30.8	30.8	8.1	8.1	98.4	98.4	7.5	7.5	7.5	13.9	14.0	13.3	23.4	23.6	25.6	<0.001			
						0.3	72.0	20.1		30.8		8.1		98.4		7.5			14.0			23.8			<0.001			
						0.2	32.0	20.0		31.2		8.0		98.7		7.5			12.7			27.9			<0.001			
					B	0.2	32.0	20.0	31.2	8.0	98.7	7.5	12.7	27.4	<0.001													
						0.4	332.0	20.5	30.3	8.0	96.5	7.3	5.4	11.1	<0.001													
						0.4	352.0	20.5	30.3	8.0	96.5	7.3	5.4	10.8	<0.001													
F6	Fine	Moderate	12:38	14.4	M	0.4	324.0	20.5	20.5	30.4	30.4	8.1	8.1	95.6	95.6	7.2	7.2	7.2	7.7	7.8	8.2	12.2	12.4	12.1	<0.001			
						0.4	349.0	20.5		30.4		8.1		95.5		7.2			7.8			12.5			<0.001			
						0.4	307.0	20.3		31.1		8.1		94.9		7.2			11.3			12.7			<0.001			
					B	0.4	313.0	20.3	31.1	8.1	95.1	7.2	11.4	12.9	<0.001													
						0.1	26.6	20.3	32.2	8.1	106.3	7.9	3.9	6.4	<0.001													
						0.1	26.6	20.3	32.2	8.1	106.4	8.0	3.7	6.0	<0.001													
IM1	FINE	Moderate	09:19	9.1	S	0.5	5.1	20.3	20.3	32.2	32.2	8.1	8.1	105.7	105.8	7.9	7.9	7.9	4.0	3.9	4.0	6.3	6.4	6.4	<0.001			
						0.1	156.6	20.3		32.2		8.1		105.8		7.9			3.7			6.5			<0.001			
						0.5	141.5	20.3		32.2		8.1		104.8		7.8			4.2			6.6			<0.001			
					M	0.2	34.7	20.3	32.2	8.1	105.2	7.9	4.3	6.7	<0.001													
						0.9	350.3	20.3	31.6	7.9	94.2	7.1	3.1	5.5	<0.001													
						0.9	350.3	20.3	31.6	7.9	94.8	7.1	3.1	5.8	<0.001													
IM2	FINE	Moderate	08:57	10.3	M	1.0	216.2	20.3	20.3	31.6	31.6	7.9	7.9	92.2	92.7	6.9	7.0	7.0	3.2	3.1	3.2	7.3	7.2	7.0	<0.001			
						0.7	248.9	20.3		31.6		7.9		93.2		7.0			3.0			7.0			<0.001			
						1.0	308.3	20.3		31.6		7.9		92.5		6.9			3.5			8.5			<0.001			
					B	0.6	187.5	20.3	31.6	7.9	91.8	6.9	3.4	8.1	<0.001													
						0.4	102.8	20.7	31.7	8.1	105.2	7.8	1.7	8.9	<0.001													
						0.5	326.2	20.7	31.7	8.1	105.8	7.9	1.8	8.4	<0.001													
IM3	FINE	Moderate	12:54	14.0	S	0.7	185.7	20.1	20.1	32.2	32.2	8.1	8.1	102.1	102.0	7.7	7.7	7.8	2.5	2.4	3.3	14.4	14.3	18.3	<0.001			
						0.3	52.7	20.1		32.2		8.1		101.9		7.6			2.3			14.2			<0.001			
						0.6	279.4	20.1		32.3		8.2		102.3		7.7			5.8			32.1			<0.001			
					M	0.4	35.5	20.1	32.3	8.2	102.7	7.7	5.9	31.7	<0.001													
						0.7	341.6	20.7	31.8	8.1	106.2	7.9	2.7	8.9	<0.001													
						0.5	100.4	20.7	31.8	8.1	106.8	8.0	2.7	8.7	<0.001													
IM4	FINE	Moderate	12:31	16.1	M	0.8	65.5	20.2	20.2	32.1	32.1	8.1	8.1	102.8	102.7	7.7	7.7	7.8	2.6	2.6	5.5	12.4	12.1	17.4	<0.001			
						0.3	311.4	20.2		32.1		8.1		102.6		7.7			2.5			11.8			<0.001			
						0.6	353.7	20.1		32.3		8.2		101.7		7.6			10.8			31.6			<0.001			
					B	0.5	312.0	20.1	32.3	8.2	101.9	7.7	11.3	31.1	<0.001													
						0.9	323.0	20.4	32.1	8.1	104.8	7.8	2.7	4.6	<0.001													
						0.3	271.7	20.4	32.1	8.1	105.4	7.9	2.7	4.4	<0.001													
IM5	FINE	Moderate	11:08	14.1	S	0.6	72.4	20.3	20.3	32.1	32.1	8.1	8.1	103.0	103.2	7.7	7.7	7.8	2.9	3.0	3.3	7.0	7.0	6.6	<0.001			
						0.4	159.2	20.3		32.1		8.1		103.3		7.7			3.0			7.0			<0.001			
						0.6	261.4	20.1		32.2		8.1		101.4		7.6			3.9			8.3			<0.001			
					M	0.3	291.6	20.1	32.2	8.1	101.2	7.6	4.6	8.1	<0.001													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM6	FINE	Moderate	10:53	15.3	S	0.3	73.8	20.2	20.2	32.1	32.1	8.1	8.1	103.7	103.9	7.8	7.7	2.8	3.0	4.0	6.0	6.1	6.8	<0.001
						0.3	73.8	20.2		32.1	32.1	8.1		104.0	7.8	3.1		6.2			<0.001			
						0.7	340.9	20.1		32.1	32.1	8.1		102.7	7.7	3.3		6.2			<0.001			
					M	0.8	313.3	20.1	20.1	32.1	32.1	8.1	102.8	7.7	7.7	3.3	3.3	5.9	6.1	0.007				
						B	0.6	250.3	20.1	20.1	32.2	32.2	8.1	101.4	101.5	7.6	7.6	6.2	5.8	8.3	8.2	<0.001		
							0.7	273.2	20.1	32.2	32.2	8.1	101.5	7.6	7.6	5.4	5.8	8.1	<0.001					
IM7	Fine	Rough	12:03	12.9	S	0.5	261.0	20.7	20.7	33.4	33.4	8.2	8.2	106.3	106.3	7.8	7.8	3.4	3.4	3.1	6.0	6.2	7.1	<0.001
						0.6	268.0	20.7		33.4	33.4	8.2		106.2	7.8	3.4		6.4			<0.001			
						0.5	262.0	21.0		33.4	33.4	8.2		105.8	7.8	3.2		6.8			<0.001			
					M	0.6	282.0	20.9	21.0	33.4	33.4	8.2	105.3	7.7	7.8	3.1	3.2	6.6	6.7	7.1	6.8			
						0.3	260.0	20.9	21.0	33.5	33.5	8.2	102.4	7.5	7.5	2.7	2.6	8.1	8.3	7.1	6.6			
						0.3	280.0	21.0	33.4	33.4	8.2	101.9	7.5	7.5	2.6	2.6	8.5	8.3	7.1	6.6				
IM8	Fine	Rough	12:15	15.0	S	0.3	296.0	20.1	20.1	33.3	33.3	8.2	8.2	106.0	106.0	7.9	7.9	9.5	9.5	5.0	9.6	9.5	8.0	<0.001
						0.4	300.0	20.1		33.3	33.3	8.2		105.9	7.9	9.5		9.4			<0.001			
						0.4	287.0	20.7		33.4	33.5	8.2		106.5	7.9	2.8		7.6			<0.001			
					M	0.4	301.0	20.6	20.7	33.5	33.5	8.2	106.3	7.8	7.8	2.8	2.8	8.2	7.9	8.0	8.2			
						B	0.3	292.0	20.2	20.2	33.6	33.6	8.2	103.4	103.1	7.7	7.7	2.6	2.6	6.5	6.7	8.0	8.2	
							0.3	319.0	20.2	33.6	33.6	8.2	102.7	7.6	7.7	2.6	2.6	6.8	6.7	8.0	8.2			
IM9	Fine	Rough	11:35	15.1	S	0.6	279.0	20.7	20.7	33.4	33.4	8.2	8.2	109.5	109.5	8.1	8.0	4.5	4.4	9.3	7.5	7.7	7.9	<0.001
						0.7	283.0	20.7		33.4	33.4	8.2		109.4	8.1	4.4		7.9			<0.001			
						0.7	274.0	20.6		20.6	33.4	33.4		8.2	108.0	8.0		4.7			8.0			<0.001
					M	0.7	300.0	20.6	20.6	33.4	33.4	8.2	107.7	8.0	8.0	4.7	4.7	7.7	7.9	7.9	8.0			
						B	0.8	282.0	20.9	20.9	33.4	33.4	8.2	105.9	105.6	7.8	7.8	19.1	18.7	8.1	8.3	7.9	8.0	
							0.9	300.0	20.9	20.9	33.4	33.4	8.2	105.3	7.7	7.8	18.4	18.4	8.4	8.3	7.9	8.0		
IM10	Fine	Rough	10:43	10.6	S	1.1	275.0	20.5	20.5	32.1	32.1	8.1	8.1	108.5	108.5	8.1	8.1	7.3	7.4	7.0	10.2	10.4	11.6	<0.001
						1.1	297.0	20.5		32.1	32.1	8.1		108.5	8.1	7.5		10.4			<0.001			
						0.9	274.0	20.1		20.2	32.3	32.2		8.1	107.5	8.1		6.9			11.5			11.7
					M	0.9	293.0	20.2	20.2	32.2	32.2	8.1	107.6	8.1	8.1	6.7	6.8	11.8	11.7	11.6	11.6			
						B	0.8	264.0	20.4	20.4	32.2	32.2	8.1	108.1	108.1	8.1	8.1	7.1	6.9	12.7	12.8	11.6	11.6	
							0.9	278.0	20.4	20.4	32.2	32.2	8.1	108.1	8.1	8.1	6.7	6.9	12.9	12.8	11.6	11.6		
IM11A	Fine	Rough	10:31	4.9	S	0.8	339.0	19.8	19.8	31.0	31.0	8.2	8.2	99.8	99.9	7.6	7.6	10.2	10.3	10.2	15.5	15.8	16.6	<0.001
						0.8	351.0	19.8		31.0	31.0	8.2		99.9	7.6	10.3		16.0			<0.001			
						0.8	338.0	19.8		19.8	31.0	31.0		8.2	99.7	7.6		10.2			17.3			17.5
					B	0.8	353.0	19.8	19.8	31.0	31.0	8.2	99.7	7.6	7.6	10.0	10.1	17.6	17.5	16.6	16.6			
						S	1.1	347.0	19.9	19.9	31.0	31.0	8.2	99.7	7.6	7.6	10.6	10.6	18.3	18.4	16.8	16.8		
							1.2	20.0	19.9	31.0	31.0	8.2	99.7	7.6	10.5	18.4	18.4	16.8	16.8					
IM12	Fine	Rough	10:12	13.6	M	1.0	0.0	20.0	20.0	31.2	31.2	8.2	8.2	100.1	100.1	7.6	7.6	9.3	9.4	10.2	16.4	16.6	16.8	<0.001
						1.1	0.0	20.0		31.2	31.2	8.2		100.1	7.6	9.5		16.8			<0.001			
						0.8	0.0	20.0		20.0	31.1	31.1		8.2	100.4	7.6		10.5			15.4			15.3
					B	0.8	0.0	20.0	20.0	31.1	31.1	8.2	100.5	7.6	7.6	10.7	10.6	15.2	15.3	16.8	16.8			
						S	0.3	330.0	19.8	19.8	31.1	31.1	8.2	100.0	100.0	7.6	7.6	9.0	9.0	18.5	18.7	15.3	15.3	
							0.3	334.0	19.8	19.8	31.1	31.1	8.2	100.0	7.6	7.6	8.9	9.0	18.8	18.7	15.3	15.3		
IM13	Fine	Rough	09:46	15.5	M	0.3	336.0	19.8	19.8	31.2	31.2	8.2	8.2	99.9	99.9	7.6	7.6	8.7	8.7	8.9	14.3	14.6	15.3	<0.001
						0.3	355.0	19.8		31.2	31.2	8.2		99.9	7.6	8.7		14.8			<0.001			
						0.3	331.0	19.8		19.8	31.2	31.2		8.2	99.9	7.6		9.0			12.8			12.6
					B	0.3	333.0	19.8	19.8	31.2	31.2	8.2	99.9	7.6	7.6	9.0	9.0	12.4	12.6	15.3	15.3			
						S	0.2	18.0	19.9	19.9	31.0	31.0	8.2	99.9	99.9	7.6	7.6	8.3	8.3	14.5	14.3	10.7	10.7	
							0.2	19.0	19.9	19.9	31.0	31.0	8.2	99.9	7.6	7.6	8.3	8.3	14.1	14.3	10.7	10.7		
M	0.2	23.0	19.8	19.8	31.2	31.2	8.1	99.8	99.8	7.6	7.6	8.2	8.2	11.0	11.2	10.7	10.7							
	0.2	24.0	19.8	19.8	31.2	31.2	8.1	99.8	7.6	7.6	8.2	8.2	11.4	11.2	10.7	10.7								
	B	0.4	7.0	19.8	19.8	31.2	31.2	8.1	100.0	7.6	7.6	9.8	9.8	6.2	6.5	10.7	10.7							
0.4		7.0	19.8	19.8	31.2	31.2	8.1	99.9	7.6	7.6	9.9	9.8	6.7	6.5	10.7	10.7								

Water Quality Monitoring Data Log Sheet

Date: 2020/01/16

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*	
IM15		Moderate	09:33	5.6	S	0.5	276.0	20.4	20.4	29.8	29.8	8.0	8.0	95.4	95.4	7.2	7.2	7.2	37.6	37.7	42.1	67.3	67.2	68.7		
						0.5	303.0	20.4	20.4	29.8	29.8	8.0	8.0	95.4	95.4	7.2	7.2	7.2	37.7	37.7	42.1	67.0	67.2			
					B	0.4	273.0	20.4	20.4	29.8	29.8	8.0	8.0	97.3	97.6	7.4	7.4	7.4	46.6	46.6	46.6	46.6	46.6		70.4	70.3
						0.4	293.0	20.4	20.4	29.8	29.8	8.0	8.0	97.9	97.6	7.4	7.4	7.4	46.6	46.6	46.6	46.6	46.6		70.1	70.3
IM16A	Fine	Moderate	10:00	5.8	S	0.2	262.0	20.3	20.3	29.9	29.9	8.0	8.0	97.0	97.1	7.4	7.4	7.4	12.0	11.8	11.5	26.2	26.1	27.5		
						0.2	275.0	20.3	20.3	29.9	29.9	8.0	8.0	97.1	97.1	7.4	7.4	7.4	11.6	11.3	11.5	26.0	26.1			
					B	0.1	296.0	20.3	20.3	29.9	29.9	8.0	8.0	99.9	99.0	7.5	7.5	7.5	11.3	11.3	11.3	11.3	11.3		28.8	28.9
						0.2	312.0	20.3	20.3	29.9	29.9	8.0	8.0	99.0	99.0	7.5	7.5	7.5	11.2	11.3	11.3	11.2	11.3		29.0	28.9
IM17	Fine	Moderate	10:22	4.3	S	0.3	296.0	20.5	20.4	28.9	28.9	8.0	8.0	96.4	96.5	7.3	7.3	7.3	3.9	4.0	6.5	9.3	9.5	10.4		
						0.3	320.0	20.4	20.4	28.9	28.9	8.0	8.0	96.6	96.5	7.3	7.3	7.3	4.1	4.0	6.5	9.7	9.5			
					B	0.3	312.0	20.3	20.3	29.3	29.3	8.0	8.0	96.5	96.7	7.3	7.3	7.3	8.7	9.0	9.0	9.0	9.0		11.2	11.3
						0.3	314.0	20.3	20.3	29.3	29.3	8.0	8.0	96.8	96.7	7.4	7.4	7.4	9.2	9.0	9.0	9.2	9.0		11.4	11.3
IM18	Fine	Moderate	12:13	16.5	S	0.3	354.0	20.6	20.6	28.9	28.9	8.0	8.0	93.8	93.8	7.1	7.1	7.0	1.4	1.4	8.7	5.6	5.9	7.0		
						0.3	8.0	20.6	20.6	28.9	28.9	8.0	8.0	93.7	93.8	7.1	7.1	7.0	1.4	1.4	8.7	6.1	5.9			
					M	0.4	335.0	20.4	20.4	30.6	30.6	8.0	8.0	91.4	91.4	6.9	6.9	6.9	11.1	11.1	11.1	11.1	11.1		6.4	6.6
						0.4	337.0	20.4	20.4	30.6	30.6	8.0	8.0	91.4	91.4	6.9	6.9	6.9	11.1	11.1	11.1	11.1	11.1		6.7	6.6
					B	0.5	335.0	20.4	20.4	30.6	30.6	8.0	8.0	91.9	92.0	6.9	6.9	6.9	13.8	13.5	13.5	13.8	13.5		8.5	8.7
						0.5	336.0	20.4	20.4	30.6	30.6	8.0	8.0	92.0	92.0	6.9	6.9	6.9	13.2	13.5	13.5	13.2	13.5		8.9	8.7
IM19	Fine	Moderate	11:57	17.4	S	0.4	349.0	20.7	20.7	28.8	28.8	8.0	8.0	95.6	95.5	7.2	7.2	7.2	1.3	1.4	11.4	6.2	6.2	9.4		
						0.5	6.0	20.7	20.7	28.8	28.8	8.0	8.0	95.4	95.5	7.2	7.2	7.2	1.5	1.4	11.4	6.2	6.2			
					M	0.7	339.0	20.5	20.5	30.0	30.0	8.0	8.0	94.2	94.2	7.1	7.1	7.1	8.7	8.9	8.9	8.7	8.9		7.2	7.0
						0.7	352.0	20.5	20.5	30.0	30.0	8.0	8.0	94.1	94.2	7.1	7.1	7.1	9.0	8.9	8.9	9.0	8.9		6.8	7.0
					B	0.6	341.0	20.5	20.5	30.0	30.0	8.0	8.0	94.4	94.5	7.1	7.1	7.1	23.9	23.8	23.8	23.9	23.8		14.9	14.9
						0.6	358.0	20.5	20.5	30.0	30.0	8.0	8.0	94.5	94.5	7.1	7.1	7.1	23.7	23.8	23.8	23.7	23.8		14.9	14.9
IM20A	Fine	Moderate	11:22	4.6	S	0.4	69.0	22.0	21.9	28.8	28.8	7.9	7.9	97.7	97.9	7.2	7.3	7.3	7.8	7.9	8.4	16.0	15.9	16.5		
						0.4	72.0	21.9	21.9	28.9	28.9	7.9	7.9	98.1	97.9	7.3	7.3	7.3	8.0	7.9	8.4	15.8	15.9			
					B	0.3	79.0	21.2	21.3	28.9	28.9	8.0	8.0	99.8	100.1	7.5	7.5	7.5	9.2	8.9	8.9	9.2	8.9		17.0	17.2
						0.4	81.0	21.3	21.3	28.9	28.9	8.0	8.0	100.3	100.1	7.5	7.5	7.5	8.5	8.9	8.9	8.5	8.9		17.3	17.2
IM21A	Fine	Moderate	11:36	5.8	S	0.4	33.0	21.8	21.8	28.7	28.7	8.0	8.0	100.5	100.6	7.5	7.5	7.5	3.9	3.9	4.2	13.7	13.6	12.6		
						0.5	33.0	21.8	21.8	28.7	28.7	8.0	8.0	100.7	100.6	7.5	7.5	7.5	3.9	3.9	4.2	13.4	13.6			
					B	0.4	45.0	21.9	21.9	28.7	28.7	8.0	8.0	102.4	102.5	7.6	7.6	7.6	4.4	4.5	4.5	4.4	4.5		11.8	11.6
						0.4	46.0	21.9	21.9	28.7	28.7	8.0	8.0	102.5	102.5	7.6	7.6	7.6	4.5	4.5	4.5	4.5	4.5		11.3	11.6
IM22A	Fine	Moderate	11:41	5.9	S	0.1	119.0	20.7	20.7	29.5	29.5	8.0	8.0	95.3	95.4	7.2	7.2	7.2	5.2	5.2	5.5	10.6	10.8	11.8		
						0.1	120.0	20.7	20.7	29.5	29.5	8.0	8.0	95.5	95.4	7.2	7.2	7.2	5.1	5.2	5.5	11.0	10.8			
					B	0.1	118.0	20.6	20.6	29.5	29.5	8.0	8.0	96.7	96.9	7.3	7.3	7.3	5.8	5.9	5.9	5.8	5.9		12.6	12.8
						0.1	120.0	20.6	20.6	29.5	29.5	8.0	8.0	97.1	96.9	7.3	7.3	7.3	6.0	5.9	5.9	6.0	5.9		13.0	12.8

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*		Value	Average
E1	Cloudy	Moderate	22:07	9.4	S	0.3	178.7	20.1	20.1	31.7	31.7	8.1	8.1	97.3	97.3	7.3	7.3	7.3	1.7	1.7	2.7	2.8	2.8	3.8		
						0.3	178.7	20.1	31.7	31.7	8.1	8.1	97.2	97.3	7.3	7.3	1.7		2.8							
						0.2	173.3	20.2	31.8	31.8	8.1	8.1	97.9	97.8	7.4	7.4	2.8		3.1							
					M	0.4	277.5	20.2	20.2	31.8	31.8	8.1	8.1	97.8	97.8	7.4	7.4	7.4	2.8	2.8		3.1	3.2		3.3	3.2
						0.6	13.1	20.2	20.2	31.9	31.9	8.1	8.1	98.1	98.2	7.4	7.4		3.5			5.3				
						0.3	43.8	20.2	20.2	31.9	31.9	8.1	8.1	98.3	98.2	7.4	7.4		3.4			5.4				
E2	Cloudy	Moderate	18:32	9.5	S	1.0	27.4	20.1	20.1	32.1	32.1	8.1	8.1	104.5	104.5	7.8	7.8	7.8	3.1	3.0	3.3	3.3	3.6	<0.001		
						0.3	94.9	20.1	20.1	32.1	32.1	8.1	8.1	104.6	104.6	7.9	7.8		3.0			3.8				
						0.6	35.3	20.1	20.1	32.1	32.1	8.1	8.1	103.0	103.6	7.7	7.8		3.6			4.0				
					M	0.4	7.8	20.1	20.1	32.1	32.1	8.1	8.1	104.3	103.6	7.8	7.8	7.8	2.9	3.3		3.7	3.9	3.7	3.9	<0.001
						0.1	276.4	20.1	20.1	32.1	32.1	8.1	8.1	103.0	101.6	7.7	7.6		3.5			8.2				
						0.1	276.4	20.1	20.1	32.1	32.1	8.1	8.1	100.3	101.6	7.5	7.6		3.8			7.8				
E3	Cloudy	Rough	19:06	17.0	S	0.2	162.0	19.3	19.3	33.5	33.5	8.3	8.3	105.9	105.9	8.0	8.0	8.0	1.7	1.7	1.9	4.0	3.8	4.2		
						0.2	164.0	19.3	19.3	33.5	33.5	8.3	8.3	105.9	105.9	8.0	8.0		1.7			3.6				
						0.2	149.0	19.3	19.3	33.5	33.5	8.3	8.3	105.8	105.8	8.0	8.0		1.9			4.5				
					M	0.2	163.0	19.3	19.3	33.5	33.5	8.3	8.3	105.8	105.8	8.0	8.0	8.0	1.9	1.9		4.3	4.4		4.3	4.4
						0.2	160.0	19.3	19.3	33.5	33.5	8.3	8.3	105.0	105.0	7.9	7.9		2.2			4.4				
						0.2	162.0	19.3	19.3	33.5	33.5	8.3	8.3	104.9	105.0	7.9	7.9		2.2			4.2				
E4	Fine	Moderate	17:41	12.1	S	0.1	190.0	19.8	19.8	33.3	33.3	8.3	8.3	113.0	113.0	8.5	8.5	8.3	3.3	3.3	3.5	4.8	4.8	5.0		
						0.1	201.0	19.8	19.8	33.3	33.3	8.3	8.3	112.9	113.0	8.5	8.5		3.3			4.7				
						0.1	183.0	19.6	19.6	33.4	33.4	8.3	8.3	108.0	108.0	8.1	8.1		3.3			5.0				
					M	0.1	199.0	19.6	19.6	33.4	33.4	8.3	8.3	108.0	108.0	8.1	8.1	8.1	3.3	3.3		4.7	4.9		4.7	4.9
						0.1	194.0	19.6	19.6	33.4	33.4	8.3	8.3	107.5	107.5	8.1	8.1		4.0			5.5				
						0.1	205.0	19.6	19.6	33.4	33.4	8.3	8.3	107.5	107.5	8.1	8.1		3.9			5.1				
E5	Fine	Moderate	18:13	6.5	S	0.2	54.0	19.9	19.9	31.2	31.2	8.0	8.0	109.4	109.3	8.3	8.3	8.2	4.1	4.1	5.2	4.9	4.6	5.4		
						0.2	55.0	19.9	19.9	31.2	31.2	8.0	8.0	109.2	109.3	8.3	8.3		4.1			4.3				
						0.1	80.0	19.8	19.8	31.5	31.5	8.0	8.0	106.1	106.0	8.0	8.0		5.3			5.5				
					M	0.2	83.0	19.8	19.8	31.5	31.5	8.0	8.0	105.9	106.0	8.0	8.0	8.0	5.5	5.4		5.6	5.6		5.6	5.6
						0.1	76.0	19.8	19.8	31.5	31.5	8.0	8.0	104.7	104.7	7.9	7.9		6.2			5.9				
						0.1	82.0	19.8	19.8	31.5	31.5	8.0	8.0	104.7	104.7	7.9	7.9		6.1			6.2				
E6	Fine	Moderate	19:13	6.2	S	0.3	137.0	20.1	20.1	29.4	29.4	8.0	8.0	95.9	95.9	7.3	7.3	7.2	3.2	3.1	2.9	4.1	4.3	4.0		
						0.3	140.0	20.1	20.1	29.4	29.4	8.0	8.0	95.8	95.9	7.3	7.3		3.1			4.5				
						0.3	141.0	20.1	20.1	29.8	29.8	8.0	8.0	93.7	93.6	7.1	7.1		2.8			4.2				
					M	0.3	144.0	20.1	20.1	29.9	29.9	8.0	8.0	93.5	93.6	7.1	7.1	7.1	2.8	2.8		4.3	4.3		4.3	4.3
						0.2	137.0	20.0	20.0	30.5	30.5	8.0	8.0	94.3	94.4	7.2	7.2		2.8			3.5				
						0.2	139.0	20.0	20.0	30.5	30.5	8.0	8.0	94.5	94.4	7.2	7.2		2.7			3.3				
E7A	Fine	Moderate	19:32	5.3	S	0.2	187.0	20.2	20.2	29.4	29.4	8.0	8.0	98.0	98.0	7.5	7.5	7.5	1.9	1.9	1.9	2.0	2.1	2.4		
						0.2	193.0	20.2	20.2	29.4	29.4	8.0	8.0	98.0	98.0	7.5	7.5		1.9			2.1				
					B	0.1	202.0	20.2	20.3	29.7	29.7	8.0	8.0	99.2	99.3	7.5	7.5	7.5	2.0	2.0		2.5	2.7		2.8	2.7
						0.1	212.0	20.3	20.3	29.7	29.7	8.0	8.0	99.3	99.3	7.5	7.5		1.9			2.8				
F1	Cloudy	Moderate	21:09	20.5	S	1.3	226.2	19.8	19.8	32.3	32.3	8.2	8.2	105.6	105.8	8.0	8.0	7.9	1.3	1.2	1.8	2.1	2.2	3.1		
						1.1	5.1	19.8	19.8	32.3	32.3	8.2	8.2	106.0	105.8	8.0	8.0		1.1			2.3				
						0.8	153.1	19.8	19.8	32.3	32.3	8.2	8.2	103.9	103.9	7.8	7.8		1.5			2.6				
					M	0.8	153.1	19.8	19.8	32.3	32.3	8.2	8.2	104.0	103.9	7.8	7.8	7.7	1.5	1.5		2.7	2.7		2.7	2.7
						0.3	322.1	19.8	19.8	32.3	32.3	8.2	8.2	102.1	101.7	7.7	7.7		2.6			4.8				
						0.3	322.1	19.8	19.8	32.3	32.3	8.2	8.2	101.3	101.7	7.6	7.7		2.8			4.1				
F2	Cloudy	Moderate	20:36	20.0	S	0.6	224.2	19.9	19.9	32.1	32.1	8.2	8.2	109.6	109.7	8.3	8.3	8.2	0.9	0.8	2.2	2.1	2.3	3.2		
						0.6	224.2	19.9	19.9	32.1	32.1	8.2	8.2	109.8	109.7	8.3	8.3		0.7			2.4				
						0.8	79.2	19.9	19.9	32.1	32.1	8.2	8.2	106.9	107.5	8.1	8.1		0.9			2.6				
					M	0.3	358.4	19.9	19.9	32.1	32.1	8.2	8.2	108.2	107.5	8.2	8.1	8.2	0.8	0.9		2.8	2.7		2.8	2.7
						0.7	144.9	19.8	19.8	32.2	32.2	8.1	8.1	100.4	100.4	7.6	7.6		5.3			4.6				
						0.7	144.9	19.8	19.8	32.2	32.2	8.1	8.1	100.1	100.3	7.6	7.6		4.7			4.8				

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)				
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*			
F3	Cloudy	Moderate	19:57	18.0	S	0.3	224.9	19.8	19.8	32.2	32.2	8.2	8.2	109.3	109.4	8.3	8.3	8.2	0.5	0.5	1.4	3.6	3.5	4.4	<0.001			
						0.3	224.9	19.8	19.8	32.2	32.2	8.2	8.2	109.5	109.4	8.3	8.3		0.5	0.5		3.4	3.5		<0.001			
					M	0.5	222.4	19.8	19.8	32.2	32.2	8.2	8.2	107.6	107.7	8.1	8.1	7.9	7.9	7.9		2.6	2.8		4.1	4.2	<0.001	
						1.1	57.7	19.8	19.8	32.2	32.2	8.2	8.2	107.8	107.8	8.1	8.1		0.7	0.8		4.2	4.2		<0.001			
					B	1.3	155.8	19.7	19.7	32.2	32.2	8.2	8.2	104.8	104.3	7.9	7.9	8.5	8.5	8.5		2.6	2.8		5.2	5.5	<0.001	
						1.3	155.8	19.7	19.7	32.2	32.2	8.2	8.2	103.8	104.3	7.9	7.9		3.0	3.0		5.7	5.5		<0.001			
F4	Cloudy	Moderate	18:57	14.4	S	0.2	213.5	20.0	20.0	32.1	32.1	8.2	8.2	114.9	115.0	8.7	8.7	8.1	1.1	1.1	1.9	2.8	3.0	4.1	<0.001			
						0.4	142.6	20.0	20.0	32.1	32.1	8.2	8.2	115.1	115.0	8.7	8.7		1.2	1.1		3.1	3.0		<0.001			
					M	0.2	155.7	20.0	20.0	32.1	32.1	8.2	8.2	110.5	111.7	8.3	8.4	8.1	8.1	8.1		1.6	1.5		3.4	3.6	<0.001	
						0.5	88.0	20.0	20.0	32.1	32.1	8.2	8.2	113.0	113.0	8.5	8.4		1.4	1.5		3.7	3.6		<0.001			
					B	1.3	106.4	20.0	20.0	32.1	32.1	8.1	8.1	108.3	107.8	8.2	8.1	8.1	8.1	8.1		2.8	3.0		5.9	5.8	<0.001	
						0.2	127.2	20.0	20.0	32.1	32.1	8.1	8.1	107.2	107.2	8.1	8.1		3.1	3.0		5.7	5.8		<0.001			
F5	Fine	Moderate	17:37	6.6	S	0.0	41.0	19.8	19.8	31.8	31.9	8.0	8.0	113.1	113.1	8.6	8.6	8.3	3.5	3.6	6.5	5.3	5.4	6.9	<0.001			
						0.0	43.0	19.8	19.8	31.9	31.9	8.0	8.0	113.0	113.0	8.6	8.6		3.6	3.6		5.5	5.4		<0.001			
					M	0.0	52.0	19.7	19.7	32.3	32.3	8.0	8.0	106.5	106.4	8.1	8.0	8.0	8.0	8.0		6.8	7.0		6.5	6.5	<0.001	
						0.0	51.0	19.6	19.6	32.3	32.3	8.0	8.0	106.2	106.4	8.0	8.0		7.2	7.0		6.5	6.5		<0.001			
					B	0.0	61.0	19.6	19.6	32.3	32.3	8.0	8.0	105.5	105.5	8.0	8.0	8.0	8.0	8.0		9.0	8.9		8.9	8.8	8.8	<0.001
						0.0	61.0	19.6	19.6	32.3	32.3	8.0	8.0	105.5	105.5	8.0	8.0		8.8	8.9		8.6	8.8		8.6	8.8	<0.001	
F6	Fine	Moderate	20:54	12.8	S	0.6	152.0	20.0	20.0	29.7	29.8	8.0	8.0	96.9	96.9	7.4	7.4	7.3	2.2	2.2	4.8	3.8	3.7	4.9	<0.001			
						0.6	162.0	20.0	20.0	29.8	29.8	8.0	8.0	96.8	96.9	7.4	7.4		2.3	2.2		3.5	3.7		<0.001			
					M	0.5	145.0	20.0	20.0	30.5	30.5	8.0	8.0	95.7	95.7	7.3	7.3	7.3	7.3	7.3		5.2	5.3		5.1	4.9	<0.001	
						0.5	151.0	19.9	19.9	30.5	30.5	8.0	8.0	95.7	95.7	7.3	7.3		5.4	5.3		4.7	4.9		<0.001			
					B	0.4	116.0	19.9	19.9	30.7	30.7	8.0	8.0	96.4	96.5	7.3	7.3	7.3	7.3	7.3		7.0	6.8		5.8	6.1	<0.001	
						0.4	125.0	19.9	19.9	30.7	30.7	8.0	8.0	96.6	96.5	7.3	7.3		6.6	6.8		6.3	6.1		<0.001			
IM1	Cloudy	Moderate	21:28	10.5	S	0.4	236.3	20.3	20.2	32.2	32.2	8.2	8.2	107.4	107.5	8.0	8.0	8.0	2.2	2.1	2.4	3.4	3.3	3.6	<0.001			
						0.3	17.9	20.2	20.2	32.2	32.2	8.2	8.2	107.6	107.5	8.1	8.0		2.1	2.1		3.2	3.3		<0.001			
					M	1.2	192.1	20.0	20.0	32.3	32.3	8.2	8.2	105.4	105.5	7.9	7.9	7.8	7.9	7.9		2.3	2.2		3.4	3.6	<0.001	
						0.7	159.0	20.0	20.0	32.3	32.3	8.2	8.2	105.5	105.5	7.9	7.9		2.2	2.2		3.7	3.6		<0.001			
					B	0.4	53.8	19.9	19.9	32.3	32.3	8.2	8.2	104.2	104.2	7.8	7.8	7.8	7.8	7.8		2.8	2.8		3.9	4.0	<0.001	
						0.4	53.8	19.9	19.9	32.3	32.3	8.2	8.2	104.2	104.2	7.9	7.8		2.8	2.8		4.1	4.0		<0.001			
IM2	Cloudy	Moderate	21:54	12.0	S	0.5	149.7	20.3	20.3	31.8	31.8	8.1	8.1	101.7	101.6	7.6	7.6	7.6	1.1	1.2	1.8	1.4	1.5	2.7	<0.001			
						0.5	149.7	20.3	20.3	31.8	31.8	8.1	8.1	101.5	101.6	7.6	7.6		1.2	1.2		1.5	1.5		<0.001			
					M	0.5	214.7	20.3	20.3	31.8	31.8	8.1	8.1	102.5	102.4	7.7	7.7	7.8	7.7	7.7		1.4	1.3		1.6	1.7	<0.001	
						0.4	216.2	20.3	20.3	31.8	31.8	8.1	8.1	102.2	102.4	7.7	7.7		1.2	1.3		1.7	1.7		<0.001			
					B	0.4	54.3	20.0	20.0	32.2	32.2	8.2	8.2	102.9	103.2	7.7	7.8	7.8	7.8	7.8		3.2	2.9		5.2	5.0	<0.001	
						0.2	292.8	20.0	20.0	32.1	32.2	8.2	8.2	103.4	103.2	7.8	7.8		2.7	2.9		4.7	5.0		<0.001			
IM3	Cloudy	Moderate	17:43	16.0	S	0.5	226.6	20.2	20.2	31.6	31.6	8.0	8.0	112.7	112.7	8.5	8.5	8.4	1.1	1.2	2.3	2.1	2.1	3.8	<0.001			
						0.5	226.6	20.2	20.2	31.6	31.6	8.0	8.0	112.8	112.7	8.5	8.5		1.2	1.2		2.0	2.1		<0.001			
					M	0.3	88.1	20.1	20.1	31.7	31.7	8.0	8.0	109.0	110.6	8.2	8.3	8.1	8.1	8.1		1.5	1.4		2.9	2.8	<0.001	
						0.6	334.4	20.1	20.1	31.7	31.7	8.0	8.0	112.3	110.6	8.5	8.3		1.3	1.4		2.6	2.8		<0.001			
					B	0.1	350.5	19.9	19.9	32.1	32.1	8.0	8.0	104.8	104.2	7.9	7.9	7.9	7.9	7.9		4.2	4.4		6.8	6.7	<0.001	
						0.1	350.5	19.9	19.9	32.1	32.1	8.0	8.0	103.7	104.2	7.8	7.9		4.6	4.4		6.6	6.7		<0.001			
IM4	Cloudy	Moderate	18:06	17.5	S	0.6	359.5	20.2	20.2	31.8	31.8	8.1	8.1	117.5	117.6	8.8	8.8	8.8	1.2	1.2	1.8	1.4	1.5	2.4	<0.001			
						0.4	67.8	20.3	20.3	31.8	31.8	8.1	8.1	117.7	117.6	8.8	8.8		1.1	1.2		1.6	1.5		<0.001			
					M	0.8	172.9	20.3	20.3	31.8	31.8	8.1	8.1	115.8	116.1	8.7	8.7	8.1	8.1	8.1		1.3	1.3		2.1	2.2	<0.001	
						0.8	172.9	20.3	20.3	31.8	31.8	8.1	8.1	116.5	116.1	8.7	8.7		1.2	1.3		2.3	2.2		<0.001			
					B	0.5	128.1	20.1	20.1	32.1	32.1	8.1	8.1	107.3	107.4	8.1	8.1	8.1	8.1	8.1		3.1	3.1		3.5	3.4	<0.001	
						0.2	87.9	20.2	20.1	32.1	32.1	8.1	8.1	107.6	107.4	8.1	8.1		3.1	3.1		3.3	3.4		<0.001			
IM5	Cloudy	Moderate	19:29	16.1	S	0.6	214.5	19.9	19.9	32.2	32.2	8.2	8.2	111.3	111.3	8.4	8.4	8.3	1.0	1.0	2.3	1.3	1.2	4.0	<0.001			
						0.3	185.9	19.9	19.9	32.2	32.2	8.2	8.2	111.4	111.3	8.4	8.4		1.1	1.0		1.1	1.2		<0.001			
					M	1.2	128.6	19.9	19.9	32.2	32.2	8.2	8.2	109.9	110.1	8.3	8.3	7.9	7.9	7.9		1.2	1.1		2.5	2.4	<0.001	
						0.7	341.6	19.9	19.9	32.2	32.2	8.2	8.2	110.3	110.1	8.3	8.3		1.0	1.1		2.2	2.4		<0.001			
					B	0.5	167.6	19.7	19.7	32.2	32.2	8.2	8.2	104.9	104.9	7.9	7.9	7.9	7.9	7.9		5.2	4.8		8.4	8.3	<0.001	
						0.5	167.6	19.7	19.7	32.2	32.2	8.2	8.2	104.9	104.9	7.9	7.9		4.4	4.8		8.2	8.3		<0.001			

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)									
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*		Value	Average	DA*						
IM6	Cloudy	Moderate	19:45	16.5	S	0.5	323.9	19.8	19.8	32.2	32.2	8.2	8.2	111.5	111.5	8.4	8.4	8.3	0.7	0.7	1.2	0.5	0.5	2.0	<0.001								
						0.8	326.2	19.8	32.2	32.2	8.2	8.2	111.6	111.6	8.4	8.4	0.8																
					M	0.3	184.8	19.8	19.8	32.2	32.2	8.2	8.2	109.2	109.6	8.2	8.3	8.0	0.8	0.8		1.8	1.8			1.7	1.8	<0.001					
						0.6	256.7	19.8	19.8	32.2	32.2	8.2	8.2	110.0		110.0	8.3		8.3			0.8				0.8		1.7	<0.001				
					B	0.6	193.2	19.7	19.7	32.2	32.2	8.2	8.2	106.1	105.7	8.0	8.0	8.0	2.0	2.0		3.6	3.6			3.8	3.7	<0.001					
						0.6	193.2	19.7	19.7	32.2	32.2	8.2	8.2	105.4		105.4	8.0		8.0			2.1				2.0		3.8	0.011				
IM7	Cloudy	Rough	20:11	14.9	S	0.1	191.0	19.3	19.3	33.5	33.5	8.3	8.3	108.9	108.9	8.2	8.2	8.2	1.3	1.2	1.3	1.2	1.3	1.6	<0.001								
						0.1	196.0	19.3	19.3	33.5	33.5	8.3	8.3	108.9	108.9	8.2	8.2		1.2			1.2											
					M	0.1	192.0	19.3	19.3	33.5	33.5	8.3	8.3	108.6	108.6	8.2	8.2	8.1	1.2	1.2		1.7	1.7			1.7	1.7	1.7					
						0.1	196.0	19.3	19.3	33.5	33.5	8.3	8.3	108.6		108.6	8.2		8.2			1.2				1.2		1.7	1.8				
					B	0.2	58.0	19.3	19.3	33.5	33.5	8.3	8.3	107.8	107.8	8.2	8.1	8.1	1.7	1.6		1.8	1.9			2.0	2.0	1.9					
						0.2	59.0	19.3	19.3	33.5	33.5	8.3	8.3	107.7		107.7	8.1		8.1			1.6				1.6		2.0					
IM8	Cloudy	Rough	19:59	13.0	S	0.2	163.0	19.3	19.3	33.5	33.5	8.3	8.3	108.9	108.9	8.2	8.2	8.2	1.1	1.1	1.2	1.8	1.8	1.7	<0.001								
						0.2	170.0	19.3	19.3	33.5	33.5	8.3	8.3	108.9	108.9	8.2	8.2		1.0			1.0				1.8							
					M	0.1	133.0	19.3	19.3	33.5	33.5	8.3	8.3	108.5	108.5	8.2	8.2	8.1	1.1	1.1		1.7	1.7			1.7	1.7	1.6					
						0.1	146.0	19.3	19.3	33.5	33.5	8.3	8.3	108.4		108.4	8.2		8.2			1.1				1.1		1.7	1.6				
					B	0.1	118.0	19.3	19.3	33.5	33.5	8.3	8.3	107.2	107.2	8.1	8.1	8.1	1.3	1.4		1.6	1.6			1.6	1.6	1.6					
						0.1	129.0	19.3	19.3	33.5	33.5	8.3	8.3	107.2		107.2	8.1		8.1			1.4				1.4		1.6					
IM9	Cloudy	Rough	19:36	15.1	S	0.2	108.0	19.4	19.4	33.5	33.5	8.3	8.3	109.2	109.3	8.3	8.3	8.2	1.0	1.0	1.1	1.2	1.3	1.7	<0.001								
						0.2	118.0	19.4	19.4	33.5	33.5	8.3	8.3	109.3	109.3	8.3	8.3		1.0			1.0				1.4							
					M	0.2	122.0	19.4	19.4	33.5	33.5	8.3	8.3	108.8	108.8	8.2	8.2	8.2	1.1	1.1		1.8	1.7			1.6	1.7	1.8					
						0.2	132.0	19.4	19.4	33.5	33.5	8.3	8.3	108.8		108.8	8.2		8.2			1.1				1.1		1.6	2.2				
					B	0.2	84.0	19.4	19.4	33.5	33.5	8.3	8.3	108.0	108.0	8.2	8.2	8.2	1.2	1.2		2.2	2.2			2.1	2.2	2.2					
						0.2	90.0	19.4	19.4	33.5	33.5	8.3	8.3	108.0		108.0	8.2		8.2			1.2				1.2		2.1	2.2				
IM10	Cloudy	Moderate	18:51	10.8	S	0.2	108.0	19.8	19.8	33.4	33.4	8.3	8.3	110.1	110.1	8.3	8.3	8.3	2.6	2.5	2.4	10.3	10.2	7.0	<0.001								
						0.3	115.0	19.8	19.8	33.4	33.4	8.3	8.3	110.1	110.1	8.3	8.3		2.5			2.5				6.8							
					M	0.3	90.0	19.8	19.8	33.4	33.4	8.3	8.3	110.1	110.1	8.3	8.3	8.2	2.1	2.1		6.6	6.7			6.6	6.7	6.7					
						0.3	93.0	19.8	19.8	33.4	33.4	8.3	8.3	110.1		110.1	8.3		8.3			2.1				2.1		6.6	4.1				
					B	0.2	71.0	19.6	19.6	33.4	33.4	8.3	8.3	108.4	108.4	8.2	8.2	8.2	2.5	2.5		4.3	4.1			3.9	4.1	4.1					
						0.2	73.0	19.6	19.6	33.4	33.4	8.3	8.3	108.3		108.3	8.2		8.2			2.5				2.5		3.9					
IM11A	Cloudy	Moderate	18:33	4.5	S	0.5	139.0	19.7	19.7	33.4	33.4	8.3	8.3	107.8	107.8	8.1	8.1	8.1	6.9	6.9	7.9	12.9	13.0	12.5	<0.001								
						0.5	149.0	19.7	19.7	33.4	33.4	8.3	8.3	107.8	107.8	8.1	8.1		7.0			6.9											
					B	0.5	132.0	19.7	19.7	33.4	33.4	8.2	8.2	107.4	107.4	8.1	8.1	8.1	8.9	8.9		12.3	12.1			11.9	12.1	12.1					
						0.5	137.0	19.7	19.7	33.4	33.4	8.2	8.2	107.4		107.4	8.1		8.1			8.9				8.9		11.9					
					IM12	Cloudy	Rough	18:23	16.3	S	0.4	160.0	19.7	19.7	33.4	33.4	8.3	8.3	109.8	109.8		8.3	8.3			8.2	3.1	3.1	3.0	3.3	3.4	3.9	<0.001
											0.4	161.0	19.7	19.7	33.4	33.4	8.3	8.3	109.8	109.8		8.3	8.3				3.1			3.1			
M	0.3	159.0	19.5	19.5						33.5	33.5	8.3	8.3	108.0	108.0	8.1	8.1	8.1	2.7	2.7	4.0	3.8	3.6	3.8	3.8								
	0.3	169.0	19.5	19.5						33.5	33.5	8.3	8.3	107.9		107.9	8.1		8.1		2.7		2.7		3.6	4.4							
B	0.3	151.0	19.4	19.4						33.5	33.5	8.3	8.3	106.8	106.8	8.1	8.1	8.1	3.3	3.3	4.4	4.4	4.4	4.4	4.4								
	0.3	165.0	19.4	19.4						33.5	33.5	8.3	8.3	106.8		106.8	8.1		8.1		3.3		3.3		4.4								
IM13	Fine	Moderate	18:01	17.2	S	0.2	223.0	19.5	19.5	33.4	33.4	8.3	8.3	109.7	109.7	8.3	8.3	8.2	2.6	2.6	2.9	3.6	3.7	3.8	<0.001								
						0.2	234.0	19.5	19.5	33.4	33.4	8.3	8.3	109.6	109.6	8.3	8.3		2.6			2.6				3.7							
					M	0.2	211.0	19.5	19.5	33.5	33.5	8.3	8.3	108.7	108.7	8.2	8.2	8.1	2.9	2.9		3.5	3.6			3.6	3.6	3.6					
						0.2	226.0	19.5	19.5	33.5	33.5	8.3	8.3	108.7		108.7	8.2		8.2			2.9				2.9		3.6					
					B	0.1	186.0	19.5	19.5	33.5	33.5	8.3	8.3	107.7	107.7	8.1	8.1	8.1	3.1	3.1		4.1	4.1			4.1	4.1	4.1					
						0.1	202.0	19.5	19.5	33.5	33.5	8.3	8.3	107.7		107.7	8.1		8.1			3.0				3.1		4.1					
IM14	Fine	Moderate	17:51	11.6	S	0.4	193.0	19.7	19.7	33.3	33.3	8.3	8.3	110.9	110.9	8.3	8.3	8.2	4.3	4.3	4.3	6.2	6.3	6.3	<0.001								
						0.4	194.0	19.7	19.7	33.3	33.3	8.3	8.3	110.8	110.8	8.3	8.3		4.3			4.3				6.3							
					M	0.3	187.0	19.6	19.6	33.4	33.4	8.2	8.2	106.8	106.8	8.0	8.0	8.0	3.8	3.8		6.3	6.4			6.2	6.4	6.3					
						0.3	189.0	19.6	19.6	33.4	33.4	8.2	8.2	106.8		106.8	8.0		8.0			3.8				3.8		6.4					
					B	0.3	184.0	19.6	19.6	33.4	33.4	8.2	8.2	105.8	105.8	8.0	8.0	8.0	4.9	4.9		6.2	6.2			6.2	6.2	6.2					
						0.3	202.0	19.6	19.6	33.4	33.4	8.2	8.2	105.7		105.7	8.0		8.0			4.9				4.9		6.2					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity (NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*					
IM15	Fine	Moderate	18:01	6.8	S	0.2	18.0	19.8	19.8	31.3	31.3	8.1	8.1	107.5	107.5	8.2	8.1	8.1	5.6	5.6	6.6	6.0	5.9	7.5						
						0.2	18.0	19.8		31.4	31.3	8.1	8.1	107.4	107.5	8.1	8.1		5.7			6.6								
					M	0.2	35.0	19.8	19.8	31.6	31.6	8.1	8.1	106.6	106.6	8.1	8.1	8.0	6.9	6.9		7.3	6.6		6.8	10.1	10.0	6.8		
						0.2	36.0	19.8		31.6	31.6	8.1	8.1	106.6	106.6	8.1	8.1		6.9				6.9						9.9	
					B	0.1	53.0	19.8	19.8	31.6	31.6	8.0	8.0	105.4	105.4	8.0	8.0	8.0	7.4	7.4		7.9	7.4		7.4	7.9	8.0	8.2	9.3	
						0.1	55.0	19.8		31.6	31.6	8.0	8.0	105.3	105.4	8.0	8.0		7.4				7.4							8.4
IM16A	Fine	Moderate	18:27	6.7	S	0.2	107.0	19.7	19.7	30.3	30.4	8.0	8.0	102.5	102.7	7.8	7.8	7.9	7.9	7.9	7.4	8.4	8.2	9.3						
						0.2	114.0	19.7		30.4	30.4	8.0	8.0	102.8	102.7	7.9	7.8		8.0			7.9								
					M	0.2	92.0	19.8	19.8	30.9	30.9	8.0	8.0	104.5	104.5	7.9	7.9	7.9	7.4	7.3		7.9	9.4		9.5	10.4	10.3	6.2		
						0.2	95.0	19.8		30.9	30.9	8.0	8.0	104.5	104.5	7.9	7.9		7.3				9.6							
					B	0.1	61.0	19.8	19.8	31.0	31.0	8.0	8.0	104.0	104.0	7.9	7.9	7.9	6.9	6.9		7.7	6.9		7.0	7.7	7.7	5.2	5.6	6.9
						0.1	66.0	19.8		31.0	31.0	8.0	8.0	104.0	104.0	7.9	7.9		6.9				10.2							
IM17	Fine	Moderate	18:48	5.4	S	0.2	110.0	19.9	19.9	29.5	29.5	8.0	8.0	100.8	100.8	7.7	7.7	7.7	5.1	5.1	5.2	5.4	5.6	6.2						
						0.3	115.0	19.9		29.5	29.5	8.0	8.0	100.8	100.8	7.7	7.7		5.1			5.7								
					B	0.2	107.0	19.9	19.9	29.5	29.5	8.0	8.0	101.0	101.0	7.7	7.7	7.7	5.3	5.3		7.7	5.3		5.3	7.7	7.7	7.0	6.9	
						0.2	107.0	19.9		29.5	29.5	8.0	8.0	101.0	101.0	7.7	7.7		5.3				7.0							
IM18	Fine	Moderate	20:33	17.1	S	0.5	149.0	20.1	20.1	29.6	29.6	8.0	8.0	96.1	95.9	7.3	7.3	7.2	2.3	2.3	4.5	2.4	2.3	3.1						
						0.6	155.0	20.1		29.7	29.6	8.0	8.0	95.7	95.9	7.3	7.3		2.3			2.2								
					M	0.4	154.0	20.1	20.1	30.0	30.0	8.0	8.0	94.2	94.1	7.2	7.2	7.0	2.5	2.5		7.0	3.2		3.3	7.0	7.0	2.5	2.6	
						0.4	162.0	20.1		30.0	30.0	8.0	8.0	94.0	94.1	7.2	7.2		2.5				3.3							
					B	0.4	146.0	20.0	20.0	30.5	30.5	8.0	8.0	92.4	92.5	7.0	7.0	7.0	8.6	8.6		7.0	3.5		3.6	7.0	7.0	2.1	2.1	
						0.4	153.0	20.0		30.5	30.5	8.0	8.0	92.5	92.5	7.0	7.0		8.6				3.7							
IM19	Fine	Moderate	20:22	18.2	S	0.5	175.0	20.4	20.4	29.9	29.9	8.0	8.0	97.9	97.9	7.4	7.4	7.3	1.5	1.5	2.5	1.6	1.8	2.1						
						0.6	189.0	20.4		29.9	29.9	8.0	8.0	97.9	97.9	7.4	7.4		1.5			1.9								
					M	0.5	164.0	20.2	20.2	30.1	30.2	8.0	8.0	94.8	94.6	7.2	7.2	7.1	2.0	2.1		7.1	2.1		2.1	7.1	7.1	4.1	4.1	
						0.6	176.0	20.2		30.2	30.2	8.0	8.0	94.4	94.6	7.2	7.2		2.1				2.0							
					B	0.4	147.0	20.0	20.0	30.8	30.8	8.0	8.0	93.4	93.4	7.1	7.1	7.1	4.1	4.1		7.1	2.5		2.6	7.1	7.1	4.1	4.1	
						0.4	159.0	20.0		30.8	30.8	8.0	8.0	93.4	93.4	7.1	7.1		4.1				2.6							
IM20A	Fine	Moderate	19:53	5.0	S	0.4	242.0	20.9	20.9	29.1	29.2	8.0	8.0	97.9	97.9	7.4	7.4	7.4	5.7	5.7	6.5	6.2	6.5	6.7						
						0.5	266.0	20.8		29.2	29.2	8.0	8.0	97.9	97.9	7.4	7.4		5.6			6.8								
					B	0.3	234.0	20.6	20.6	29.4	29.4	7.9	7.9	98.2	98.3	7.4	7.4	7.4	5.8	7.4		7.4	7.0		7.0	7.4	7.4	7.0		
						0.3	249.0	20.6		29.4	29.4	7.9	7.9	98.3	98.3	7.4	7.4		9.0				6.9							
IM21A	Fine	Moderate	20:02	5.2	S	0.3	199.0	20.7	20.7	29.6	29.6	8.0	8.0	97.2	97.3	7.3	7.3	7.3	4.2	4.2	4.2	6.0	6.2	6.1						
						0.3	217.0	20.6		29.6	29.6	8.0	8.0	97.3	97.3	7.3	7.3		4.2			6.3								
					B	0.2	194.0	20.6	20.6	29.6	29.6	7.9	7.9	98.2	98.3	7.4	7.4	7.4	4.1	4.1		7.4	5.9		6.1	7.4	7.4	6.1		
						0.2	195.0	20.6		29.6	29.6	7.9	7.9	98.3	98.3	7.4	7.4		4.2				6.2							
IM22A	Fine	Moderate	20:08	5.2	S	0.4	224.0	22.2	22.2	29.7	29.7	8.0	8.0	100.0	100.1	7.3	7.3	7.3	3.9	3.9	3.9	4.5	4.3	4.9						
						0.4	242.0	22.2		29.7	29.7	8.0	8.0	100.1	100.1	7.3	7.3		3.9			4.1								
					B	0.4	211.0	22.2	22.2	29.7	29.7	7.9	7.9	100.7	100.9	7.4	7.4	7.4	3.8	3.8		7.4	5.7		5.6	7.4	7.4	5.4		
						0.4	220.0	22.2		29.7	29.7	7.9	7.9	101.0	100.9	7.4	7.4		3.8				5.4							

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Cloudy	Moderate	10:31	9.0	S	0.7	200.2	20.1	20.1	31.5	31.5	8.0	8.0	95.5	95.5	7.2	7.2	7.2	1.1	1.1	2.7	3.2	3.4	4.6
						0.7	197.8	20.1	20.1	31.5	31.5	8.0	8.0	95.5	95.5	7.2	7.2	7.2	1.1	1.1	2.7	3.2	3.4	
						1.2	245.2	20.1	20.1	31.6	31.6	8.0	8.0	96.2	96.1	7.3	7.2	7.2	2.2	2.1	2.7	4.4	4.6	
					M	0.4	76.6	20.1	20.1	31.6	31.6	8.0	8.0	95.9	96.1	7.2	7.2	7.2	1.9	2.1	2.7	4.7	4.6	
						0.8	216.0	20.1	20.1	31.9	31.9	8.0	8.0	96.5	96.5	7.3	7.3	7.3	5.0	5.0	2.7	6.0	5.9	
						0.8	302.4	20.1	20.1	31.9	31.9	8.0	8.0	96.5	96.5	7.3	7.3	7.3	4.9	5.0	2.7	5.7	5.9	
B	0.4	104.8	20.6	20.6	32.1	32.1	8.3	8.3	103.6	103.7	7.7	7.7	7.7	2.5	2.5	2.7	6.2	6.6						
	0.4	104.8	20.6	20.6	32.1	32.1	8.3	8.3	103.7	103.7	7.7	7.7	7.7	2.5	2.5	2.7	6.9	6.6						
	0.2	98.9	20.1	20.1	32.2	32.1	8.3	8.3	99.2	99.3	7.5	7.5	7.5	3.6	3.4	2.7	7.6	7.3						
E2	Cloudy	Moderate	13:55	9.5	S	0.2	266.9	20.1	20.1	32.1	32.1	8.3	8.3	99.4	99.3	7.5	7.5	7.5	3.1	3.4	4.1	7.0	7.3	8.9
						0.4	256.7	20.0	20.0	32.2	32.2	8.3	8.3	98.9	98.3	7.4	7.4	7.4	6.1	6.6	4.1	13.0	12.9	
						0.4	310.4	20.0	20.0	32.2	32.2	8.3	8.3	97.7	98.3	7.3	7.3	7.4	7.0	6.6	4.1	12.7	12.9	
					M	0.6	317.0	19.8	19.8	33.5	33.5	8.3	8.3	110.5	110.5	8.3	8.3	8.3	1.1	1.1	3.6	3.0		
						0.6	329.0	19.8	19.8	33.5	33.5	8.3	8.3	110.5	110.5	8.3	8.3	8.3	1.1	1.1	3.6	3.0		
						0.6	323.0	19.3	19.3	33.5	33.5	8.3	8.3	108.3	108.3	8.2	8.2	8.2	3.7	3.7	3.6	3.8		
B	0.6	341.0	19.3	19.3	33.5	33.5	8.3	8.3	108.3	108.3	8.2	8.2	8.2	3.6	3.7	4.0	3.8							
	0.5	319.0	19.3	19.3	33.5	33.5	8.2	8.2	107.6	107.6	8.1	8.1	8.1	6.0	6.0	6.6	6.5							
	0.5	330.0	19.3	19.3	33.5	33.5	8.2	8.2	107.6	107.6	8.1	8.1	8.1	6.0	6.0	6.4	6.5							
E3	Sunny	Rough	13:03	16.7	S	0.5	37.0	19.6	19.6	33.4	33.4	8.2	8.2	106.2	106.2	8.0	8.0	8.0	5.8	5.9	3.6	7.7	7.8	4.4
						0.5	37.0	19.6	19.6	33.4	33.4	8.2	8.2	106.1	106.2	8.0	8.0	8.0	6.0	5.9	3.6	7.7	7.8	
						0.5	36.0	19.6	19.6	33.4	33.4	8.2	8.2	105.0	105.0	7.9	7.9	7.9	8.3	8.3	3.7	13.7	13.8	
					M	0.5	39.0	19.6	19.6	33.4	33.4	8.2	8.2	105.0	105.0	7.9	7.9	7.9	8.4	8.3	4.0	13.9	13.8	
						0.4	45.0	19.5	19.5	33.4	33.4	8.2	8.2	104.1	104.1	7.8	7.8	7.8	9.3	9.4	6.6	15.4	15.6	
						0.4	48.0	19.5	19.5	33.4	33.4	8.2	8.2	104.1	104.1	7.8	7.8	7.8	9.5	9.4	6.4	15.7	15.6	
B	0.4	31.0	19.8	19.8	30.2	30.2	8.1	8.1	102.1	102.1	7.8	7.8	7.8	10.0	10.0	7.7	16.8	16.7						
	0.5	32.0	19.8	19.8	30.3	30.3	8.1	8.1	102.1	102.1	7.8	7.8	7.8	10.0	10.0	7.7	16.5	16.7						
	0.5	19.0	19.8	19.8	30.3	30.3	8.1	8.1	102.0	102.1	7.8	7.8	7.8	14.0	13.9	7.7	15.2	15.6						
E4	Sunny	Moderate	14:21	12.3	S	0.4	31.0	19.8	19.8	30.2	30.2	8.1	8.1	102.1	102.1	7.8	7.8	7.8	10.0	10.0	11.9	16.8	16.7	16.1
						0.5	32.0	19.8	19.8	30.3	30.3	8.1	8.1	102.1	102.1	7.8	7.8	7.8	10.0	10.0	11.9	16.5	16.7	
						0.5	19.0	19.8	19.8	30.3	30.3	8.1	8.1	102.1	102.1	7.8	7.8	7.8	14.0	13.9	11.9	15.2	15.6	
					M	0.6	344.0	20.2	20.2	29.8	29.8	8.1	8.1	92.0	92.0	7.0	7.0	7.0	8.6	8.9	9.9	11.6	11.5	
						0.6	8.0	20.2	20.2	29.9	29.9	8.1	8.1	91.9	92.0	7.0	7.0	7.0	9.2	8.9	9.9	11.4	11.5	
						0.5	345.0	20.1	20.1	30.0	30.0	8.1	8.1	91.7	91.7	7.0	7.0	7.0	11.0	11.0	9.9	8.9	9.1	
B	0.5	16.0	20.1	20.1	30.0	30.0	8.1	8.1	91.7	91.7	7.0	7.0	7.0	11.0	11.0	9.9	9.3	9.1						
	0.4	16.0	20.1	20.1	29.0	29.0	8.1	8.1	96.8	96.9	7.4	7.4	7.4	2.3	2.4	2.5	3.2	3.4						
	0.4	17.0	20.1	20.1	29.0	29.0	8.1	8.1	97.0	97.0	7.4	7.4	7.4	2.4	2.4	2.5	3.5	3.4						
E5	Fine	Moderate	14:47	5.7	S	0.3	15.0	20.1	20.1	29.1	29.0	8.1	8.1	98.4	98.5	7.5	7.5	7.5	2.7	2.7	2.5	4.7	4.9	4.1
						0.4	15.0	20.1	20.1	29.0	29.0	8.1	8.1	98.5	98.5	7.5	7.5	7.5	2.6	2.6	2.5	5.1	5.1	
						0.3	249.4	20.1	20.1	32.0	32.0	8.2	8.2	107.4	107.6	8.1	8.1	8.1	1.0	1.1	2.5	2.9	3.0	
					M	0.9	353.2	19.9	19.9	32.2	32.2	8.2	8.2	103.7	104.2	7.8	7.9	7.9	0.9	0.9	1.7	3.6	3.5	
						0.9	353.2	19.9	19.9	32.2	32.2	8.2	8.2	104.7	104.7	7.9	7.9	7.9	0.8	0.8	1.7	3.4	3.5	
						0.8	37.3	19.8	19.8	32.3	32.3	8.2	8.2	100.9	100.9	7.6	7.6	7.6	3.0	3.1	1.7	6.1	6.0	
B	0.8	37.3	19.8	19.8	32.3	32.3	8.2	8.2	100.8	100.9	7.6	7.6	7.6	3.1	3.1	1.7	5.9	6.0						
	0.5	144.6	20.1	20.1	31.8	31.8	8.2	8.2	107.4	107.5	8.1	8.1	8.0	1.1	1.1	1.5	2.6	2.8						
	0.3	251.9	20.1	20.1	31.8	31.8	8.2	8.2	107.6	107.5	8.1	8.1	8.0	1.1	1.1	1.5	2.9	2.8						
E6	Fine	Moderate	13:41	5.6	S	0.8	193.5	19.8	19.8	32.1	32.1	8.3	8.3	104.0	104.1	7.9	7.9	7.9	0.7	0.7	1.5	3.5	3.7	4.2
						1.1	331.5	19.8	19.8	32.1	32.1	8.2	8.2	104.2	104.1	7.9	7.9	7.9	0.6	0.6	1.5	3.9	3.7	
						0.4	11.7	19.7	19.7	32.2	32.2	8.3	8.3	102.0	101.2	7.7	7.6	7.6	2.7	2.7	1.5	5.9	6.1	
					M	0.5	144.6	20.1	20.1	31.8	31.8	8.2	8.2	107.4	107.5	8.1	8.1	8.0	1.1	1.1	1.5	2.6	2.8	
						0.3	251.9	20.1	20.1	31.8	31.8	8.2	8.2	107.6	107.5	8.1	8.1	8.0	1.1	1.1	1.5	2.9	2.8	
						0.8	193.5	19.8	19.8	32.1	32.1	8.3	8.3	104.0	104.1	7.9	7.9	7.9	0.7	0.7	1.5	3.5	3.7	
B	1.1	331.5	19.8	19.8	32.1	32.1	8.2	8.2	104.2	104.1	7.9	7.9	7.9	0.6	0.6	1.5	3.9	3.7						
	0.4	11.7	19.7	19.7	32.2	32.2	8.3	8.3	102.0	101.2	7.7	7.6	7.6	2.7	2.7	1.5	5.9	6.1						
	0.4	11.7	19.7	19.7	32.2	32.2	8.3	8.3	100.3	101.2	7.6	7.6	7.6	2.7	2.7	1.5	6.3	6.1						
E7A	Fine	Moderate	13:18	4.9	S	0.4	17.0	20.1	20.1	29.0	29.0	8.1	8.1	97.0	97.0	7.4	7.4	7.4	2.4	2.4	2.5	4.7	4.9	4.1
						0.3	15.0	20.1	20.1	29.1	29.0	8.1	8.1	98.4	98.5	7.5	7.5	7.5	2.7	2.7	2.5	5.1	5.1	
						0.4	15.0	20.1	20.1	29.0	29.0	8.1	8.1	98.5	98.5	7.5	7.5	7.5	2.6	2.6	2.5	5.1	5.1	
					M	0.3	249.4	20.1	20.1	32.0	32.0	8.2	8.2	107.4	107.6	8.1	8.1	8.1	1.0	1.1	2.5	2.9	3.0	
						0.9	353.2	19.9	19.9	32.2	32.2	8.2	8.2	103.7	104.2	7.8	7.9	7.9	0.9	0.9	1.7	3.6	3.5	
						0.9	353.2	19.9	19.9	32.2	32.2	8.2	8.2	104.7	104.7	7.9	7.9	7.9	0.8	0.8	1.7	3.4	3.5	
B	0.8	37.3	19.8	19.8	32.3	32.3	8.2	8.2	100.9	100.9	7.6	7.6	7.6	3.0	3.1	1.7	6.1	6.0						
	0.8	37.3	19.8	19.8	32.3	32.3	8.2	8.2	100.8	100.9	7.6	7.6	7.6	3.1	3.1	1.7	5.9	6.0						
	0.5	144.6	20.1	20.1	31.8	31.8	8.2	8.2	107.4															

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Cloudy	Moderate	12:34	18.0	S	0.5	237.9	20.1	20.1	32.1	32.1	8.3	8.3	112.6	112.9	8.5	8.5	8.3	0.5	0.5	2.4	2.3	<0.001		
						0.5	237.9	20.2	20.1	32.1	32.1	8.3	8.3	113.1	112.9	8.5	8.5	8.3	0.5	0.5	2.2	2.3	<0.001		
						0.9	262.7	19.7	19.7	32.2	32.2	8.3	8.3	106.1	106.7	8.0	8.1	8.1	1.4	1.4	3.4	3.3	<0.001		
					M	0.2	28.8	19.7	19.7	32.2	32.2	8.3	8.3	107.2	106.7	8.1	8.1	8.1	1.4	1.4	3.2	3.3	3.2	3.3	<0.001
						0.6	89.1	19.7	19.6	32.2	32.2	8.3	8.3	103.9	103.7	7.9	7.8	7.8	2.4	2.4	4.0	4.0	4.0	4.0	<0.001
						0.6	89.1	19.6	19.6	32.2	32.2	8.3	8.3	103.5	103.5	7.8	7.8	7.8	2.3	2.3	4.0	4.0	4.0	4.0	<0.001
F4	Cloudy	Moderate	13:28	14.0	S	0.4	21.3	20.2	20.1	32.1	32.1	8.3	8.3	112.1	112.2	8.4	8.4	8.3	0.3	0.3	3.8	3.6	<0.001		
						0.4	21.3	20.1	20.1	32.1	32.1	8.3	8.3	112.2	112.2	8.4	8.4	8.3	0.3	0.3	3.4	3.6	3.4	3.6	<0.001
						0.7	307.2	19.8	19.8	32.1	32.1	8.3	8.3	109.3	109.4	8.3	8.3	8.3	1.4	1.4	6.0	6.5	6.0	6.5	<0.001
					M	0.2	247.5	19.8	19.7	32.2	32.2	8.3	8.3	109.5	109.5	8.3	8.3	8.3	1.3	1.3	6.9	6.5	6.9	6.5	<0.001
						0.5	299.8	19.7	19.7	32.2	32.2	8.3	8.3	106.8	106.8	8.1	8.1	8.1	4.2	4.2	8.0	8.2	8.0	8.2	<0.001
						0.8	276.4	19.7	19.7	32.2	32.2	8.3	8.3	106.8	106.8	8.1	8.1	8.1	4.2	4.2	8.3	8.2	8.3	8.2	<0.001
F5	Fine	Moderate	15:26	6.2	S	0.2	20.0	19.9	19.9	31.7	31.7	8.1	8.1	112.4	112.4	8.5	8.5	8.5	5.6	5.6	14.8	14.9	<0.001		
						0.2	20.0	19.9	19.9	31.7	31.7	8.1	8.1	112.3	112.4	8.5	8.5	8.5	5.6	5.6	14.9	14.9	14.9	14.9	<0.001
						0.2	17.0	19.9	19.9	31.7	31.7	8.1	8.1	112.2	112.2	8.5	8.5	8.5	5.3	5.3	11.3	11.3	11.3	11.3	<0.001
					M	0.2	18.0	19.9	19.9	31.7	31.7	8.1	8.1	112.1	112.2	8.5	8.5	8.5	5.3	5.3	11.2	11.3	11.2	11.3	<0.001
						0.1	12.0	19.7	19.7	32.0	32.0	8.1	8.1	106.7	106.6	8.1	8.1	8.1	6.8	6.8	9.7	9.5	9.7	9.5	<0.001
						0.1	12.0	19.7	19.7	32.0	32.0	8.1	8.1	106.5	106.6	8.1	8.1	8.1	7.1	7.1	9.2	9.5	9.2	9.5	<0.001
F6	Fine	Moderate	11:42	12.6	S	0.2	294.0	20.3	20.3	29.9	29.9	8.1	8.1	94.8	94.7	7.2	7.2	7.2	1.6	1.6	3.7	3.5	<0.001		
						0.3	294.0	20.2	20.3	29.9	29.9	8.1	8.1	94.6	94.7	7.2	7.2	7.2	1.6	1.6	3.3	3.5	3.7	3.5	<0.001
						0.4	313.0	20.1	20.2	30.0	30.0	8.1	8.1	94.0	94.0	7.1	7.1	7.1	2.2	2.3	4.4	4.6	4.4	4.6	<0.001
					M	0.4	332.0	20.2	20.2	30.0	30.0	8.1	8.1	94.0	94.0	7.1	7.1	7.1	2.3	2.3	4.7	4.6	4.7	4.6	<0.001
						0.4	302.0	20.1	20.1	30.3	30.3	8.1	8.1	92.2	92.3	7.0	7.0	7.0	8.0	8.1	6.0	6.3	6.0	6.3	<0.001
						0.4	309.0	20.1	20.1	30.3	30.3	8.1	8.1	92.3	92.3	7.0	7.0	7.0	8.2	8.1	6.5	6.3	6.5	6.3	<0.001
IM1	Cloudy	Moderate	11:10	10.1	S	0.6	86.4	20.2	20.1	32.2	32.2	8.2	8.2	107.2	107.5	8.0	8.1	8.0	1.7	1.7	4.3	4.5	<0.001		
						0.4	62.2	20.1	20.1	32.2	32.2	8.2	8.2	107.7	107.5	8.1	8.1	8.1	1.6	1.7	4.7	4.5	4.7	4.5	<0.001
						0.1	125.2	20.0	20.0	32.2	32.2	8.2	8.2	105.6	105.7	8.0	8.0	8.0	2.2	2.2	6.7	6.8	6.7	6.8	<0.001
					M	0.2	290.6	20.0	20.0	32.2	32.2	8.2	8.2	105.8	105.7	8.0	8.0	8.0	2.2	2.2	6.8	6.8	6.8	6.8	<0.001
						0.4	204.3	20.0	20.0	32.3	32.3	8.2	8.2	104.4	104.2	7.9	7.8	7.8	4.8	4.9	8.4	8.6	8.4	8.6	<0.001
						0.4	110.1	20.0	20.0	32.3	32.3	8.2	8.2	104.0	104.2	7.8	7.8	7.8	4.9	4.9	8.8	8.6	8.8	8.6	<0.001
IM2	Cloudy	Moderate	10:46	11.9	S	1.2	293.6	20.1	20.1	31.7	31.7	8.1	8.1	98.4	98.4	7.4	7.4	7.4	1.2	1.3	2.6	2.5	<0.001		
						0.5	274.6	20.1	20.1	31.7	31.7	8.1	8.1	98.3	98.3	7.4	7.4	7.4	1.3	1.3	2.3	2.5	2.3	2.5	<0.001
						0.4	21.6	20.0	20.0	31.9	31.8	8.1	8.1	99.5	99.2	7.5	7.5	7.5	2.7	2.6	4.8	5.1	4.8	5.1	<0.001
					M	0.4	21.6	20.0	20.0	31.8	31.8	8.1	8.1	98.9	98.9	7.5	7.5	7.5	2.5	2.5	5.3	5.1	5.3	5.1	<0.001
						0.5	9.0	20.0	20.0	32.2	32.2	8.1	8.1	101.1	101.2	7.6	7.6	7.6	3.5	3.5	7.4	7.3	7.4	7.3	<0.001
						0.5	9.0	20.0	20.0	32.2	32.2	8.1	8.1	101.2	101.2	7.6	7.6	7.6	3.4	3.5	7.1	7.3	7.1	7.3	<0.001
IM3	Cloudy	Moderate	14:46	15.5	S	0.5	166.5	20.6	20.6	31.7	31.7	8.3	8.3	113.2	113.6	8.5	8.5	8.3	1.1	1.1	3.0	2.8	<0.001		
						0.6	346.2	20.6	20.6	31.7	31.7	8.3	8.3	113.9	113.6	8.5	8.5	8.3	1.1	1.1	2.5	2.8	2.5	2.8	<0.001
						0.8	196.9	20.0	20.0	32.0	32.0	8.3	8.3	106.4	106.8	8.0	8.0	8.0	1.3	1.3	5.6	5.7	5.6	5.7	<0.001
					M	0.1	4.8	20.0	20.0	32.0	32.0	8.3	8.3	107.2	106.8	8.1	8.0	8.0	1.3	1.3	5.8	5.7	5.8	5.7	<0.001
						0.4	257.6	19.9	19.9	32.2	32.2	8.3	8.3	105.0	104.9	7.9	7.9	7.9	2.4	2.4	7.5	7.5	7.5	7.5	<0.001
						0.6	271.1	19.9	19.9	32.2	32.2	8.3	8.3	104.7	104.9	7.9	7.9	7.9	2.4	2.4	7.4	7.5	7.4	7.5	<0.001
IM4	Cloudy	Moderate	14:24	17.5	S	0.6	253.1	20.4	20.4	32.1	32.1	8.3	8.3	111.9	112.3	8.4	8.4	8.3	1.5	1.5	3.5	3.3	<0.001		
						0.6	253.1	20.4	20.4	32.1	32.1	8.3	8.3	112.7	112.3	8.4	8.4	8.3	1.5	1.5	3.0	3.3	3.0	3.3	<0.001
						0.4	251.5	20.0	20.0	32.1	32.1	8.3	8.3	108.2	108.3	8.1	8.1	8.1	1.1	1.1	3.9	3.8	3.9	3.8	<0.001
					M	0.4	251.5	20.0	20.0	32.1	32.1	8.3	8.3	108.3	108.3	8.2	8.2	8.1	1.0	1.1	3.6	3.8	3.6	3.8	<0.001
						0.4	81.2	19.7	19.7	32.2	32.2	8.4	8.3	105.5	105.3	8.0	8.0	8.0	3.0	3.0	6.9	6.8	6.9	6.8	<0.001
						0.4	81.2	19.7	19.7	32.2	32.2	8.3	8.3	105.0	105.3	7.9	8.0	8.0	2.9	3.0	6.6	6.8	6.6	6.8	<0.001
IM5	Cloudy	Moderate	13:01	15.5	S	0.6	194.3	20.3	20.3	32.1	32.1	8.3	8.3	112.8	113.1	8.4	8.5	8.2	0.5	0.5	4.6	4.4	<0.001		
						0.6	194.3	20.3	20.3	32.1	32.1	8.3	8.3	113.3	113.1	8.5	8.5	8.2	0.5	0.5	4.1	4.4	4.1	4.4	<0.001
						0.7	275.7	19.7	19.7	32.2	32.2	8.3	8.3	105.7	105.8	8.0	8.0	8.0	1.3	1.2	6.9	6.8	6.9	6.8	<0.001
					M	1.0	307.8	19.7	19.7	32.2	32.2	8.3	8.3	105.9	105.8	8.0	8.0	8.0	1.1	1.2	6.6	6.8	6.6	6.8	<0.001
						1.5	81.4	19.7	19.7	32.2	32.2	8.3	8.3	105.0	104.6	7.9	7.9	7.9	3.1	3.3	8.2	8.3	8.2	8.3	<0.001
						0.3	145.4	19.7	19.7	32.2	32.2	8.3	8.3	104.1	104.6	7.9	7.9	7.9	3.5	3.3	8.3	8.3	8.3	8.3	<0.001

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*					
IM6	Cloudy	Moderate	12:45	16.5	S	0.8	304.1	20.3	20.3	32.1	32.1	8.3	8.3	113.3	113.5	8.5	8.5	8.3	0.4	0.4	2.1	2.2	3.2	<0.001						
						0.8	304.1	20.3		32.1	32.1	8.3		113.7	8.5	0.4			2.2		<0.001									
					M	0.5	217.8	19.7	32.2	32.2	8.3	106.5	8.1	8.1	8.1	8.1	0.9	0.9	2.8	2.7	<0.001									
						0.3	200.5	19.7	32.2	32.2	8.3	108.7	8.2				0.8		2.6		<0.001									
					B	0.2	296.1	19.6	32.2	32.2	8.3	105.1	8.0	8.3	8.3	8.3	7.9	7.9	2.1	2.2	4.9	<0.001								
						0.5	16.3	19.6	32.2	32.2	8.3	103.9	7.9				2.2		4.5		<0.001									
					0.3	285.0	19.6	33.4	33.4	8.3	110.1	110.1	8.3	8.3	8.3	0.6	0.6	1.9	1.9											
					0.4	309.0	19.6	33.4	33.4	8.3	110.0	110.0	8.3	8.3	8.3	0.6	0.6	1.9	1.9											
IM7	Sunny	Rough	12:02	14.8	S	0.3	275.0	19.2	19.2	33.5	33.5	8.2	8.2	104.9	104.9	8.0	7.9	8.1	1.0	1.0	2.5	2.6	3.7							
						0.3	281.0	19.2		33.5	33.5	8.2		104.9	7.9	1.0			2.7											
					M	0.3	275.0	19.2	33.5	33.5	8.2	103.1	103.1	7.8	7.8	7.8	1.7	1.7	6.7	6.6	6.5									
						0.3	294.0	19.2	33.5	33.5	8.2	103.1	7.8	1.7			6.5													
					B	0.4	258.0	19.6	33.5	33.5	8.2	105.6	105.6	7.9	8.2	8.2	7.9	7.9	0.8	0.8	1.1	1.2		1.3						
						0.4	278.0	19.6	33.5	33.5	8.2	105.6	7.9	0.9			1.3													
					0.3	265.0	19.2	33.5	33.5	8.2	103.9	103.9	7.9	7.9	7.9	1.3	1.3	3.0	3.2											
					0.3	288.0	19.2	33.5	33.5	8.2	103.9	103.9	7.9	7.9	7.9	1.2	1.3	3.4												
					0.3	262.0	19.2	33.5	33.5	8.2	103.5	103.5	7.9	7.9	7.8	1.5	1.5	5.1	4.9											
					0.3	286.0	19.2	33.5	33.5	8.2	103.4	103.4	7.8	7.8	7.8	1.6	1.5	4.7												
IM9	Sunny	Rough	12:38	15.0	S	0.6	312.0	19.7	19.7	33.5	33.5	8.2	8.2	106.2	106.2	8.0	8.0	7.9	0.7	0.7	2.5	2.4	3.5							
						0.6	331.0	19.7		33.5	33.5	8.2		106.2	8.0	0.7			2.3											
					M	0.4	320.0	19.2	33.5	33.5	8.2	104.7	104.7	7.9	7.9	7.9	1.6	1.6	3.2	3.3	3.4									
						0.5	340.0	19.2	33.5	33.5	8.2	104.7	7.9	1.7			3.4													
					B	0.5	326.0	19.2	33.5	33.5	8.2	104.5	104.5	7.9	7.9	7.9	4.4	4.3	4.8	4.7	4.5									
						0.5	342.0	19.2	33.5	33.5	8.2	104.4	7.9	4.3			4.5													
IM10	Sunny	Rough	13:20	11.4	S	0.9	275.0	20.0	20.0	33.4	33.4	8.2	8.2	110.4	110.4	8.2	8.2	8.0	2.1	2.1	3.8	4.0	8.2							
						0.9	276.0	20.0		33.4	33.4	8.2		110.3	8.2	2.1			4.2											
					M	0.8	275.0	19.6	33.4	33.4	8.2	104.1	104.1	7.8	8.2	8.2	7.8	7.8	5.6	5.7	7.4	7.2		7.0						
						0.9	275.0	19.6	33.4	33.4	8.2	104.1	7.8	5.7			7.0													
					B	0.7	275.0	19.6	33.4	33.4	8.2	103.8	103.8	7.8	8.2	8.2	7.8	7.8	8.9	9.0	13.2	13.5		13.7						
						0.8	295.0	19.6	33.4	33.4	8.2	103.8	7.8	9.2			13.5													
IM11A	Sunny	Moderate	13:31	4.7	S	0.3	314.0	19.8	19.8	33.4	33.4	8.2	8.2	107.7	107.7	8.1	8.1	8.1	8.4	8.6	20.1	20.3	26.5							
						0.3	327.0	19.8		33.4	33.4	8.2		107.6	8.1	8.8			20.5											
					B	0.3	314.0	19.7	33.4	33.4	8.2	105.8	105.8	7.9	8.2	8.2	7.9	7.9	13.7	13.7	32.9	32.7		32.4						
						0.3	341.0	19.7	33.4	33.4	8.2	105.7	7.9	13.6			32.4													
					IM12	Sunny	Moderate	13:42	16.6	S	0.8	332.0	19.6	19.6	33.4	33.4	8.2	8.2	107.9	107.9	8.1	8.1		8.1	5.0	5.1	14.0	14.4	16.3	
											0.9	355.0	19.6		33.4	33.4	8.2		107.9	8.1	5.2				14.7					
M	0.9	338.0	19.5	33.4						33.4	8.2	107.5	107.5	8.1	8.2	8.2	8.1	8.1	7.1	7.1	16.3	16.6	16.8							
	0.9	352.0	19.5	33.4						33.4	8.2	107.5	8.1	7.1			16.8													
B	0.8	349.0	19.5	33.4						33.4	8.2	106.6	106.6	8.0	8.2	8.2	8.0	8.0	10.6	10.5	18.3	18.1	17.9							
	0.9	10.0	19.5	33.4						33.4	8.2	106.6	8.0	10.5			17.9													
IM13	Sunny	Moderate	14:00	16.4	S	0.7	357.0	19.6	19.6	33.4	33.4	8.3	8.3	107.4	107.4	8.1	8.1	8.0	3.7	3.7	11.7	11.5	15.5							
						0.7	30.0	19.6		33.4	33.4	8.3		107.4	8.1	3.7			11.3											
					M	0.7	0.0	19.5	33.4	33.4	8.2	105.7	105.7	8.0	8.2	8.2	8.0	8.0	5.9	5.9	14.8	14.5		14.1						
						0.7	0.0	19.5	33.4	33.4	8.2	105.7	8.0	5.8			14.1													
					B	0.6	359.0	19.5	33.4	33.4	8.2	104.9	104.9	7.9	8.2	8.2	7.9	7.9	14.1	13.9	20.2	20.5		20.6						
						0.6	14.0	19.5	33.4	33.4	8.2	104.9	7.9	13.7			20.6													
IM14	Sunny	Moderate	14:11	10.9	S	0.5	12.0	19.7	19.7	33.4	33.4	8.2	8.2	107.4	107.4	8.1	8.1	8.0	6.5	6.4	13.6	13.4	19.4							
						0.5	13.0	19.7		33.4	33.4	8.2		107.3	8.1	6.3			13.2											
					M	0.5	10.0	19.6	33.4	33.4	8.2	105.7	105.7	8.0	8.2	8.2	8.0	8.0	8.6	8.6	21.8	21.5		21.2						
						0.5	10.0	19.6	33.4	33.4	8.2	105.7	8.0	8.6			21.2													
					B	0.4	16.0	19.6	33.4	33.4	8.2	105.1	105.1	7.9	8.2	8.2	7.9	7.9	12.4	12.2	23.4	23.2		23.0						
						0.4	16.0	19.6	33.4	33.4	8.2	105.1	7.9	12.0			23.0													

Water Quality Monitoring Data Log Sheet

Date: 2020/01/18

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
IM15	Fine	Moderate	15:00	5.8	S	0.5	19.0	19.8	19.8	30.9	30.9	8.1	8.1	103.1	103.1	7.9	7.9	7.9	8.8	8.9	9.5	10.1	9.9	12.3
						0.6	20.0	19.8	30.9	30.9	8.1	8.1	103.1	103.1	7.9	7.9	7.9	9.0	9.0	9.5	9.6			
					B	0.4	23.0	19.7	19.7	30.9	30.9	8.1	8.1	103.0	103.0	7.8	7.8	7.8	10.0	10.1	9.5	14.8	14.8	
						0.4	23.0	19.7	19.7	30.9	30.9	8.1	8.1	103.0	103.0	7.9	7.9	7.8	10.1	10.1	9.5	14.7	14.8	
IM16A	Fine	Moderate	14:31	5.9	S	0.4	19.0	20.0	20.0	29.7	29.7	8.1	8.1	101.9	101.9	7.8	7.8	7.8	5.3	5.3	5.3	8.0	8.2	8.6
						0.4	19.0	20.0	20.0	29.7	29.7	8.1	8.1	101.9	101.9	7.8	7.8	7.8	5.3	5.3	5.3	8.4	8.2	
					B	0.4	18.0	19.9	19.9	29.7	29.7	8.1	8.1	102.0	102.0	7.8	7.8	7.8	5.3	5.4	5.3	8.9	9.1	
						0.4	19.0	19.9	19.9	29.7	29.7	8.1	8.1	102.0	102.0	7.8	7.8	7.8	5.4	5.4	5.3	9.2	9.1	
IM17	Fine	Moderate	14:08	5.2	S	0.4	0.0	20.2	20.2	29.2	29.2	8.1	8.1	97.5	97.5	7.4	7.4	7.4	2.6	2.6	6.4	7.1	7.0	8.8
						0.5	0.0	20.2	20.2	29.2	29.2	8.1	8.1	97.5	97.5	7.4	7.4	7.4	2.6	2.6	6.4	6.8	7.0	
					B	0.4	356.0	20.2	20.2	29.4	29.4	8.1	8.1	96.9	97.0	7.4	7.4	7.4	9.5	10.1	6.4	10.6	10.7	
						0.4	24.0	20.2	20.2	29.4	29.4	8.1	8.1	97.0	97.0	7.4	7.4	7.4	10.7	10.7	6.4	10.8	10.7	
IM18	Fine	Moderate	12:14	16.6	S	0.3	322.0	20.2	20.2	28.7	28.7	8.1	8.1	95.8	95.8	7.3	7.3	7.2	1.6	1.6	4.4	5.2	5.4	6.9
						0.3	349.0	20.2	20.2	28.7	28.7	8.1	8.1	95.8	95.8	7.3	7.3	7.2	1.6	1.6	4.4	5.6	5.4	
					M	0.5	334.0	20.1	20.1	30.1	30.1	8.1	8.1	92.0	92.0	7.0	7.0	7.0	2.5	2.5	4.4	6.0	6.2	
						0.5	345.0	20.1	20.1	30.2	30.1	8.1	8.1	92.0	92.0	7.0	7.0	7.0	2.5	2.5	4.4	6.3	6.2	
					B	0.5	338.0	20.1	20.1	30.5	30.5	8.1	8.1	91.9	92.0	7.0	7.0	7.0	8.6	9.2	4.4	9.1	9.3	
						0.5	356.0	20.1	20.1	30.5	30.5	8.1	8.1	92.0	92.0	7.0	7.0	7.0	9.8	9.2	4.4	9.4	9.3	
IM19	Fine	Moderate	12:29	18.4	S	0.4	9.0	20.3	20.3	28.9	28.9	8.0	8.0	94.9	94.9	7.2	7.2	7.1	1.6	1.6	8.4	3.1	3.1	4.0
						0.4	9.0	20.3	20.3	28.9	28.9	8.0	8.0	94.8	94.9	7.2	7.2	7.1	1.6	1.6	8.4	3.0	3.1	
					M	0.6	349.0	20.2	20.2	30.2	30.2	8.1	8.1	92.2	92.2	7.0	7.0	7.0	10.2	10.4	8.4	3.7	3.6	
						0.6	18.0	20.2	20.2	30.2	30.2	8.1	8.1	92.2	92.2	7.0	7.0	7.0	10.6	10.4	8.4	3.4	3.6	
					B	0.5	341.0	20.2	20.2	30.2	30.2	8.1	8.1	92.9	92.9	7.0	7.0	7.0	12.9	13.1	8.4	5.2	5.5	
						0.5	353.0	20.2	20.2	30.2	30.2	8.1	8.1	92.9	92.9	7.1	7.0	7.0	13.3	13.1	8.4	5.7	5.5	
IM20A	Fine	Moderate	12:59	4.6	S	0.4	66.0	21.4	21.4	29.3	29.3	8.0	8.0	98.0	98.0	7.3	7.3	7.3	7.0	7.0	7.0	7.3	7.6	8.6
						0.4	70.0	21.4	21.4	29.3	29.3	8.0	8.0	98.0	98.0	7.3	7.3	7.3	7.0	7.0	7.0	7.9	7.6	
					B	0.4	69.0	21.2	21.2	29.3	29.3	8.1	8.1	98.9	99.0	7.4	7.4	7.4	7.0	7.0	7.0	9.2	9.5	
						0.4	71.0	21.2	21.2	29.3	29.3	8.1	8.1	99.0	99.0	7.4	7.4	7.4	6.9	7.0	7.0	9.8	9.5	
IM21A	Fine	Moderate	12:47	4.9	S	0.2	13.0	21.4	21.4	29.5	29.5	8.1	8.1	97.6	97.6	7.3	7.3	7.3	5.2	5.3	5.6	6.9	7.2	7.6
						0.2	13.0	21.3	21.3	29.5	29.5	8.1	8.1	97.6	97.6	7.3	7.3	7.3	5.3	5.3	5.6	7.4	7.2	
					B	0.1	11.0	21.2	21.2	29.5	29.5	8.1	8.1	98.4	98.4	7.4	7.4	7.4	6.0	6.0	5.6	7.8	8.0	
						0.1	11.0	21.2	21.2	29.5	29.5	8.1	8.1	98.7	98.6	7.4	7.4	7.4	6.0	6.0	5.6	8.1	8.0	
IM22A	Fine	Moderate	12:42	4.3	S	0.4	45.0	20.5	20.5	29.5	29.5	8.1	8.1	94.3	94.3	7.1	7.1	7.1	4.0	4.0	4.0	4.4	4.7	5.4
						0.4	46.0	20.5	20.5	29.5	29.5	8.1	8.1	94.3	94.3	7.1	7.1	7.1	4.0	4.0	4.0	4.9	4.7	
					B	0.3	48.0	20.4	20.4	29.5	29.5	8.1	8.1	94.3	94.4	7.2	7.2	7.2	4.1	4.1	4.0	6.1	6.2	
						0.3	52.0	20.4	20.4	29.5	29.5	8.1	8.1	94.4	94.4	7.2	7.2	7.2	4.1	4.1	4.0	6.2	6.2	

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	
E1	Cloudy	Moderate	23:09	9.0	S	0.3	248.5	20.0	20.0	31.9	31.9	8.1	8.1	106.3	106.3	8.0	8.0	8.0	2.9	3.1	3.6	7.5	7.5	6.7
						0.3	248.5	20.0	31.9	31.9	8.1	8.1	106.3	106.3	8.0	8.0	3.2		7.5					
						0.6	171.8	20.0	31.9	31.9	8.1	8.1	106.1	106.1	8.0	8.0	3.5		7.1					
					M	0.6	171.8	20.0	20.0	31.9	31.9	8.1	8.1	106.0	106.0	8.0	8.0	3.9	3.7	6.9		7.0		
						0.7	242.2	20.0	20.0	31.9	31.9	8.1	8.1	105.9	105.9	8.0	8.0	4.2	4.0	5.9		5.7		
						0.5	200.3	20.0	20.0	31.9	31.9	8.1	8.1	105.9	105.9	8.0	8.0	3.7	3.7	5.5				
E2	Cloudy	Moderate	19:55	9.5	S	0.7	100.0	20.1	20.1	32.1	32.1	8.1	8.1	113.2	113.9	8.5	8.6	8.2	1.7	1.7	2.4	7.2	7.5	5.7
						0.7	100.0	20.1	20.1	32.1	32.1	8.1	8.1	114.5	113.9	8.6	8.6		1.6			7.7		
						1.0	126.1	20.1	20.1	32.1	32.1	8.1	8.1	104.8	104.8	7.9	7.9		2.7			5.6		
					M	1.0	126.1	20.1	20.1	32.1	32.1	8.1	8.1	104.8	104.8	7.9	7.9	2.7	2.7	5.4		5.5		
						0.4	190.7	20.0	20.0	32.1	32.1	8.1	8.1	104.6	104.5	7.9	7.9	2.5	2.7	3.8		4.1		
						0.4	190.7	20.0	20.0	32.1	32.1	8.1	8.1	104.3	104.5	7.8	7.9	2.9	2.7	4.3				
E3	Cloudy	Moderate	20:59	17.1	S	0.4	151.0	19.4	19.4	33.3	33.3	8.3	8.3	113.8	113.8	8.6	8.6	8.3	1.7	1.7	2.2	4.2	4.4	3.2
						0.4	159.0	19.4	19.4	33.3	33.3	8.3	8.3	113.8	113.8	8.6	8.6		1.7			4.6		
						0.3	139.0	19.3	19.3	33.6	33.6	8.3	8.3	105.9	105.8	8.0	8.0		2.1			2.8		
					M	0.3	147.0	19.3	19.3	33.6	33.6	8.3	8.3	105.7	105.8	8.0	8.0	2.1	2.1	3.1		3.0		
						0.3	108.0	19.4	19.4	33.7	33.7	8.3	8.3	102.9	102.9	7.8	7.8	2.8	2.1	2.2		2.2		
						0.3	111.0	19.4	19.4	33.7	33.7	8.3	8.3	103.0	103.0	7.8	7.8	2.8	2.2					
E4	Cloudy	Moderate	19:32	12.3	S	0.2	204.0	19.4	19.4	33.4	33.4	8.3	8.3	112.3	112.3	8.5	8.5	8.5	2.7	2.7	3.1	5.6	5.5	6.4
						0.2	215.0	19.4	19.4	33.4	33.4	8.3	8.3	112.3	112.3	8.5	8.5		2.7			5.4		
						0.1	212.0	19.4	19.4	33.4	33.4	8.3	8.3	111.7	111.7	8.4	8.4		3.2			5.9		
					M	0.1	224.0	19.4	19.4	33.4	33.4	8.3	8.3	111.7	111.7	8.4	8.4	3.2	3.2	6.5		6.2		
						0.2	211.0	19.3	19.3	33.4	33.4	8.2	8.2	108.9	108.9	8.2	8.2	3.6	7.9	7.6		7.6		
						0.2	218.0	19.3	19.3	33.4	33.4	8.2	8.2	108.9	108.9	8.2	8.2	3.6	7.2					
E5	Cloudy	Moderate	19:49	6.6	S	0.1	106.0	19.2	19.2	32.2	32.2	8.1	8.1	109.2	109.2	8.3	8.3	8.3	4.5	4.5	4.8	5.3	5.3	6.1
						0.1	107.0	19.2	19.2	32.2	32.2	8.1	8.1	109.2	109.2	8.3	8.3		4.5			5.3		
						0.1	90.0	19.2	19.2	32.2	32.2	8.1	8.1	108.9	108.9	8.3	8.3		4.9			6.3		
					M	0.1	92.0	19.2	19.2	32.2	32.2	8.1	8.1	108.8	108.8	8.3	8.3	4.9	6.0	6.2		6.2		
						0.1	73.0	19.2	19.2	32.2	32.2	8.1	8.1	106.8	106.7	8.2	8.1	5.1	6.6					
						0.1	73.0	19.2	19.2	32.2	32.2	8.1	8.1	106.6	106.7	8.1	8.1	5.1	6.9	6.8				
E6	Cloudy	Moderate	20:52	6.7	S	0.3	149.0	19.7	19.7	30.9	30.9	8.1	8.1	98.5	98.4	7.5	7.5	7.4	2.9	2.9	3.4	2.8	2.6	3.5
						0.4	158.0	19.7	19.7	30.9	30.9	8.1	8.1	98.3	98.4	7.5	7.5		3.0			2.4		
						0.3	155.0	19.7	19.7	31.0	31.0	8.1	8.1	96.5	96.4	7.4	7.3		3.4			3.8		
					M	0.3	155.0	19.7	19.7	31.1	31.0	8.1	8.1	96.3	96.4	7.3	7.3	3.5	3.5	3.7		3.8		
						0.2	173.0	19.7	19.7	31.1	31.1	8.1	8.1	96.3	96.4	7.3	7.3	3.9	4.1	4.1		4.1		
						0.2	183.0	19.6	19.7	31.1	31.1	8.1	8.1	96.5	96.4	7.4	7.3	3.8	4.1					
E7A	Cloudy	Moderate	21:11	5.4	S	0.3	196.0	19.7	19.7	30.3	30.4	8.1	8.1	97.1	97.1	7.4	7.4	7.4	2.3	2.3	2.9	1.1	1.2	1.9
						0.3	209.0	19.7	19.7	30.4	30.4	8.1	8.1	97.0	97.1	7.4	7.4		2.3			1.2		
					B	0.2	194.0	19.7	19.7	31.1	31.1	8.1	8.1	96.4	96.5	7.3	7.3	3.5	2.5	2.7		2.7		
						0.2	197.0	19.7	19.7	31.1	31.1	8.1	8.1	96.5	96.5	7.3	7.3	3.4	2.8					
F1	Cloudy	Moderate	22:14	20.5	S	0.8	209.9	19.8	19.8	32.3	32.3	8.2	8.2	107.4	107.9	8.1	8.1	7.9	0.8	0.8	1.5	1.3	1.2	3.8
						0.8	209.9	19.8	19.8	32.3	32.3	8.2	8.2	108.4	107.9	8.2	8.1		0.8			1.1		
						0.4	109.7	19.8	19.8	32.4	32.4	8.1	8.1	99.9	100.9	7.5	7.6		1.3			3.5		
					M	0.5	150.3	19.8	19.8	32.4	32.4	8.1	8.1	101.9	100.9	7.7	7.6	1.2	4.1					
						0.5	172.0	19.8	19.8	32.5	32.5	8.1	8.1	98.0	97.8	7.4	7.4	2.4	6.6					
						0.5	172.0	19.8	19.8	32.5	32.5	8.1	8.1	97.5	97.8	7.3	7.4	2.2	6.4	6.5				
F2	Cloudy	Moderate	21:46	20.0	S	0.5	158.7	19.8	19.8	32.4	32.4	8.2	8.2	109.0	109.2	8.2	8.2	8.1	0.6	0.6	1.1	0.5	0.5	1.5
						0.7	121.8	19.8	19.8	32.4	32.4	8.2	8.2	109.3	109.2	8.2	8.2		0.6			0.5		
						0.7	106.4	19.9	19.9	32.4	32.4	8.2	8.2	104.7	105.8	7.9	8.0		0.8			1.4		
					M	0.4	104.0	19.9	19.9	32.4	32.4	8.2	8.2	106.9	105.8	8.1	8.0	0.7	1.1					
						0.6	64.0	19.9	19.9	32.4	32.4	8.1	8.1	100.5	99.6	7.6	7.5	1.9	2.8					
						0.6	64.0	19.9	19.9	32.4	32.4	8.1	8.1	98.7	99.6	7.4	7.5	2.1	2.9					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)	
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*
F3	Cloudy	Moderate	21:10	18.5	S	1.8	189.0	19.9	19.8	32.3	32.3	8.2	8.2	112.6	112.8	8.5	8.5	8.4	0.6	0.7	1.1	2.7	2.9	3.1	<0.001
						1.8	189.0	19.8	32.3	32.3	8.2	8.2	113.0	112.8	8.5	8.5	0.7		3.1			<0.001			
						0.3	245.2	19.9	19.9	32.3	32.3	8.2	8.2	108.9	109.3	8.2	8.2		0.7			3.2			<0.001
					M	0.3	245.2	19.9	19.9	32.4	32.3	8.2	8.2	109.6	109.3	8.3	8.2	8.2	0.6	0.7	3.1	3.2	<0.001		
						0.8	205.3	19.8	19.8	32.4	32.4	8.1	8.1	103.8	102.8	7.8	7.8	7.8	2.0	3.4	3.4	0.002			
						0.8	205.3	19.8	19.8	32.5	32.4	8.1	8.1	101.8	102.8	7.7	7.8	7.8	2.1	3.3	3.4	<0.001			
F4	Cloudy	Moderate	20:19	14.2	S	0.9	56.2	20.0	20.0	32.1	32.1	8.1	8.1	113.5	113.1	8.6	8.5	8.6	1.7	1.7	1.6	2.6	2.9	4.2	<0.001
						0.5	80.1	20.0	19.8	32.1	32.1	8.1	8.2	112.7	115.8	8.5	8.7		1.6			4.2			
						0.2	4.8	19.8	19.8	32.1	32.1	8.2	8.2	115.8	115.9	8.7	8.7		1.4			3.9			
					M	0.4	114.8	19.8	19.8	32.1	32.1	8.2	8.2	116.0	113.6	8.8	8.6	1.6	3.6	6.0	5.8				
						0.8	300.3	19.8	19.8	32.1	32.1	8.2	8.2	113.6	113.8	8.6	8.6	1.6	6.0	5.5	5.5				
						0.5	48.2	19.8	19.8	32.1	32.1	8.2	8.2	113.9	113.8	8.6	8.6	1.7	5.5	5.5	5.5				
F5	Cloudy	Moderate	19:13	6.5	S	0.1	80.0	19.2	19.2	32.4	32.4	8.1	8.1	108.7	108.7	8.3	8.3	8.3	5.1	5.1	5.7	8.2	8.0	10.5	<0.001
						0.1	83.0	19.2	19.2	32.4	32.4	8.1	8.1	108.6	108.7	8.3	8.3		5.1			10.1			
						0.1	60.0	19.2	19.2	32.4	32.4	8.1	8.1	108.3	108.3	8.3	8.3		6.1			10.1			
					M	0.1	60.0	19.2	19.2	32.4	32.4	8.1	8.1	108.2	108.3	8.3	8.3	6.3	10.5	10.9	10.5				
						0.1	73.0	19.2	19.2	32.4	32.4	8.1	8.1	107.5	107.5	8.2	8.2	6.0	13.3	13.0	13.0				
						0.1	79.0	19.2	19.2	32.4	32.4	8.1	8.1	107.4	107.5	8.2	8.2	5.5	12.6	12.6	13.0				
F6	Cloudy	Moderate	22:29	13.0	S	0.7	143.0	19.5	19.6	30.9	30.9	8.1	8.1	102.8	102.7	7.9	7.8	7.8	3.0	3.0	6.0	5.2	5.6	6.9	<0.001
						0.7	149.0	19.6	19.6	30.9	30.9	8.1	8.1	102.6	102.7	7.8	7.8		3.0			5.9			
						0.5	132.0	19.6	19.6	31.2	31.2	8.1	8.1	102.8	102.9	7.8	7.8		2.9			6.0			
					M	0.6	138.0	19.6	19.6	31.2	31.2	8.1	8.1	102.9	102.9	7.8	7.8	3.0	6.5	6.3	6.3				
						0.4	119.0	19.5	19.5	31.3	31.3	8.1	8.1	107.2	107.2	8.2	8.2	12.1	8.6	8.9	8.9				
						0.4	130.0	19.5	19.5	31.3	31.3	8.1	8.1	107.1	107.2	8.2	8.2	12.0	9.1	9.1	8.9				
IM1	Cloudy	Moderate	22:35	10.1	S	0.8	153.2	20.0	20.0	32.3	32.3	8.1	8.1	108.3	108.5	8.1	8.1	8.0	1.7	1.7	2.1	7.4	7.5	6.3	<0.001
						0.2	122.7	20.1	19.9	32.3	32.3	8.1	8.1	108.7	105.2	7.9	7.9		2.2			6.3			
						0.2	6.9	19.9	19.9	32.4	32.4	8.1	8.1	105.4	105.2	7.9	7.9		2.4			6.7			
					M	0.8	356.0	19.9	19.9	32.5	32.5	8.1	8.1	101.6	101.4	7.6	7.6	2.6	4.9	5.0	5.0				
						0.3	246.5	19.9	19.9	32.5	32.5	8.1	8.1	101.1	101.4	7.6	7.6	2.2	5.0	5.0	5.0				
						0.4	145.6	20.0	20.0	32.0	32.0	8.1	8.1	111.1	111.3	8.4	8.4	1.8	4.7	4.5	4.5				
IM2	Cloudy	Moderate	22:57	12.0	S	0.4	118.9	20.0	20.0	32.0	32.0	8.1	8.1	111.5	111.3	8.4	8.4	8.3	1.7	1.8	2.6	4.7	4.5	6.5	<0.001
						0.6	127.0	20.0	20.0	32.0	32.0	8.1	8.1	108.3	108.7	8.2	8.2		2.0			5.9			
						0.7	165.1	20.0	20.0	32.0	32.0	8.1	8.1	109.1	108.7	8.2	8.2		1.8			5.2			
					M	0.3	151.5	19.9	19.9	32.3	32.3	8.1	8.1	103.5	103.5	7.8	7.8	4.3	9.2	9.5	9.5				
						0.3	151.5	19.9	19.9	32.3	32.3	8.1	8.1	103.4	103.5	7.8	7.8	3.9	9.7	9.7	9.5				
						0.4	345.8	20.0	20.0	31.9	31.9	8.0	8.0	118.5	119.2	8.9	9.0	1.2	2.6	3.0	3.0				
IM3	Cloudy	Moderate	19:10	16.0	S	0.4	345.8	20.0	20.0	31.9	31.9	8.1	8.0	119.8	119.2	9.0	9.0	8.7	1.3	1.3	2.0	3.4	3.0	4.4	<0.001
						0.6	3.7	19.9	19.9	32.0	32.0	8.0	8.0	110.4	111.2	8.3	8.4		1.4			3.5			
						0.4	126.2	19.9	19.9	32.0	32.0	8.0	8.0	112.0	111.2	8.5	8.4		1.3			3.8			
					M	0.2	359.7	19.7	19.7	32.2	32.2	8.0	8.0	101.9	101.0	7.7	7.6	3.2	6.7	6.5	6.5				
						0.6	77.8	19.7	19.7	32.2	32.2	8.0	8.0	100.1	101.0	7.6	7.6	3.4	6.3	6.5	6.5				
						0.7	352.2	19.9	19.9	32.1	32.1	8.1	8.1	118.6	118.8	8.9	9.0	0.8	3.5	3.6	3.6				
IM4	Cloudy	Moderate	19:30	17.5	S	0.7	352.2	19.9	19.9	32.1	32.1	8.1	8.1	118.9	118.8	9.0	9.0	8.8	0.7	0.8	1.9	3.7	3.6	4.7	<0.001
						0.5	49.5	19.9	19.9	32.1	32.1	8.1	8.1	113.0	113.9	8.5	8.6		1.2			4.1			
						0.7	1.6	19.9	19.9	32.1	32.1	8.1	8.1	114.8	113.9	8.7	8.6		1.1			4.1			
					M	0.7	348.6	19.7	19.7	32.3	32.3	8.0	8.0	103.7	102.3	7.8	7.7	3.6	6.6	6.3	6.3				
						0.7	348.6	19.7	19.7	32.3	32.3	8.0	8.0	100.9	102.3	7.6	7.7	3.7	6.0	6.0	6.3				
						0.6	27.5	19.8	19.8	32.2	32.2	8.2	8.2	114.7	114.8	8.7	8.7	0.7	2.0	1.9	1.9				
IM5	Cloudy	Moderate	20:46	16.2	S	0.6	27.5	19.8	19.8	32.2	32.2	8.2	8.2	114.9	114.8	8.7	8.7	8.5	0.6	0.7	1.2	1.7	2.7	3.3	<0.001
						0.3	339.6	19.8	19.8	32.2	32.2	8.2	8.2	109.8	110.4	8.3	8.3		0.9			2.7			
						1.7	150.9	19.8	19.8	32.3	32.2	8.2	8.2	111.0	110.4	8.4	8.3		0.8			2.6			
					M	0.8	95.8	19.7	19.7	32.4	32.4	8.1	8.1	104.6	103.9	7.9	7.8	1.9	5.8	5.5	5.5				
						0.8	95.8	19.7	19.7	32.4	32.4	8.1	8.1	103.2	103.9	7.8	7.8	2.1	5.2	5.5	5.5				
						0.8	95.8	19.7	19.7	32.4	32.4	8.1	8.1	103.2	103.9	7.8	7.8	2.1	5.2	5.5	5.5				

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)	
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*
IM6	Cloudy	Moderate	20:59	17.0	S	0.3	209.4	19.8	19.8	32.2	32.2	8.2	8.2	113.4	114.0	8.6	8.6	8.4	0.7	0.7	1.2	3.2	3.4	5.4	<0.001
						0.3	209.4	19.8	19.8	32.2	32.2	8.2	8.2	114.5	114.0	8.6	8.6		0.6			3.6			<0.001
					M	0.5	321.4	19.8	19.8	32.4	32.4	8.2	8.2	107.8	108.0	8.1	8.1	0.9	5.1	<0.001					
						0.5	87.3	19.8	19.8	32.4	32.4	8.2	8.2	108.2	108.0	8.2	8.1	1.0	5.9	<0.001					
					B	0.6	201.0	19.8	19.8	32.4	32.4	8.1	8.1	104.6	104.1	7.9	7.8	2.0	7.6	<0.001					
						0.6	201.0	19.8	19.8	32.4	32.4	8.1	8.1	103.5	104.1	7.8	7.8	2.1	6.9	<0.001					
IM7	Cloudy	Moderate	22:17	14.4	S	0.3	116.0	19.3	19.3	33.6	33.6	8.3	8.3	106.9	106.9	8.1	8.1	8.0	1.2	1.2	1.7	3.0	2.9	4.8	<0.001
						0.4	117.0	19.3	19.3	33.6	33.6	8.3	8.3	106.8	106.9	8.1	8.1		1.2			2.7			<0.001
					M	0.4	116.0	19.4	19.4	33.7	33.7	8.3	8.3	105.9	105.9	8.0	8.0	1.4	5.3	<0.001					
						0.4	121.0	19.4	19.4	33.7	33.7	8.3	8.3	105.9	105.9	8.0	8.0	1.5	5.4	<0.001					
					B	0.3	109.0	19.4	19.4	33.7	33.7	8.2	8.2	105.0	105.0	7.9	7.9	2.5	6.4	<0.001					
						0.3	118.0	19.4	19.4	33.7	33.7	8.2	8.2	105.0	105.0	7.9	7.9	2.5	6.0	<0.001					
IM8	Cloudy	Moderate	21:50	14.4	S	0.2	70.0	19.4	19.4	33.6	33.6	8.3	8.3	106.6	106.6	8.0	8.0	8.0	0.9	0.9	1.1	2.6	2.3	3.2	<0.001
						0.2	74.0	19.4	19.4	33.6	33.6	8.3	8.3	106.5	106.6	8.0	8.0		1.0			2.0			<0.001
					M	0.3	79.0	19.4	19.4	33.7	33.7	8.3	8.3	105.7	105.7	8.0	8.0	1.1	3.1	<0.001					
						0.3	82.0	19.4	19.4	33.7	33.7	8.3	8.3	105.6	105.7	8.0	8.0	1.1	3.2	<0.001					
					B	0.3	64.0	19.4	19.4	33.7	33.7	8.3	8.3	104.8	104.8	7.9	7.9	1.3	4.3	<0.001					
						0.3	68.0	19.4	19.4	33.7	33.7	8.3	8.3	104.8	104.8	7.9	7.9	1.3	3.9	<0.001					
IM9	Cloudy	Rough	21:26	15.2	S	0.5	118.0	19.3	19.3	33.4	33.4	8.3	8.3	111.6	111.5	8.5	8.4	8.3	1.3	1.3	1.7	2.2	2.1	2.5	<0.001
						0.5	124.0	19.3	19.3	33.4	33.4	8.3	8.3	111.4	111.5	8.4	8.4		1.3			2.0			<0.001
					M	0.5	115.0	19.3	19.3	33.5	33.5	8.3	8.3	108.5	108.5	8.2	8.2	1.3	2.6	<0.001					
						0.5	124.0	19.3	19.3	33.5	33.5	8.3	8.3	108.5	108.5	8.2	8.2	1.3	2.6	<0.001					
					B	0.4	97.0	19.3	19.3	33.6	33.6	8.3	8.3	105.5	105.5	8.0	8.0	2.4	2.7	<0.001					
						0.4	101.0	19.3	19.3	33.6	33.6	8.3	8.3	105.4	105.5	8.0	8.0	2.5	2.7	<0.001					
IM10	Cloudy	Moderate	20:42	11.0	S	0.3	65.0	19.4	19.4	33.3	33.3	8.3	8.3	114.3	114.2	8.6	8.6	8.5	1.8	1.8	4.5	4.7	4.8	7.4	<0.001
						0.3	67.0	19.4	19.4	33.3	33.3	8.3	8.3	114.1	114.2	8.6	8.6		1.9			4.9			<0.001
					M	0.3	70.0	19.4	19.4	33.3	33.3	8.3	8.3	111.3	111.3	8.4	8.4	3.3	8.4	<0.001					
						0.3	70.0	19.4	19.4	33.3	33.3	8.3	8.3	111.2	111.2	8.4	8.4	3.3	8.3	<0.001					
					B	0.4	60.0	19.3	19.3	33.4	33.4	8.3	8.3	109.2	109.2	8.3	8.3	8.4	9.0	<0.001					
						0.4	61.0	19.3	19.3	33.4	33.4	8.3	8.3	109.2	109.2	8.3	8.3	8.4	8.8	<0.001					
IM11A	Cloudy	Moderate	20:28	4.5	S	0.5	163.0	19.5	19.5	33.3	33.3	8.3	8.3	110.0	110.0	8.3	8.3	8.3	5.9	6.0	7.9	18.5	18.7	21.7	<0.001
						0.5	167.0	19.5	19.5	33.3	33.3	8.3	8.3	110.0	110.0	8.3	8.3		6.1			18.9			<0.001
					B	0.5	154.0	19.5	19.5	33.3	33.3	8.3	8.3	109.4	109.4	8.3	8.3	9.8	24.4	<0.001					
						0.5	159.0	19.5	19.5	33.3	33.3	8.3	8.3	109.4	109.4	8.3	8.3	10.0	25.1	<0.001					
					S	0.5	144.0	19.4	19.4	33.3	33.3	8.3	8.3	110.7	110.7	8.4	8.4	4.4	8.3	<0.001					
						0.5	158.0	19.4	19.4	33.3	33.3	8.3	8.3	110.7	110.7	8.4	8.4	4.4	8.1	<0.001					
IM12	Cloudy	Moderate	20:18	14.8	M	0.5	140.0	19.4	19.4	33.3	33.3	8.3	8.3	110.5	110.5	8.3	8.3	8.3	5.1	5.2	5.3	8.7	9.0	9.1	<0.001
						0.5	143.0	19.4	19.4	33.3	33.3	8.3	8.3	110.5	110.5	8.3	8.3		5.2			9.2			<0.001
					B	0.4	129.0	19.4	19.4	33.3	33.3	8.3	8.3	111.5	111.5	8.4	8.4	6.3	9.8	<0.001					
						0.4	131.0	19.4	19.4	33.3	33.3	8.3	8.3	111.4	111.5	8.4	8.4	6.3	10.3	<0.001					
					S	0.3	180.0	19.3	19.3	33.4	33.4	8.3	8.3	110.5	110.5	8.4	8.4	3.9	13.0	<0.001					
						0.3	196.0	19.3	19.3	33.4	33.4	8.3	8.3	110.5	110.5	8.4	8.4	3.9	13.7	<0.001					
IM13	Cloudy	Moderate	19:56	16.4	M	0.3	189.0	19.3	19.3	33.4	33.4	8.3	8.3	110.1	110.1	8.3	8.3	8.3	2.9	2.9	3.3	6.7	7.1	8.5	<0.001
						0.3	193.0	19.3	19.3	33.4	33.4	8.3	8.3	110.0	110.0	8.3	8.3		2.9			7.5			<0.001
					B	0.2	177.0	19.2	19.2	33.4	33.4	8.2	8.2	107.7	107.7	8.2	8.2	3.1	4.8	<0.001					
						0.3	187.0	19.2	19.2	33.4	33.4	8.2	8.2	107.7	107.7	8.2	8.2	3.2	5.2	<0.001					
					S	0.3	191.0	19.5	19.5	33.3	33.3	8.3	8.3	113.1	113.1	8.5	8.5	3.3	11.8	<0.001					
						0.3	193.0	19.5	19.5	33.3	33.3	8.3	8.3	113.1	113.1	8.5	8.5	3.3	12.5	<0.001					
IM14	Cloudy	Moderate	19:43	11.9	M	0.3	189.0	19.5	19.5	33.4	33.4	8.3	8.3	112.3	112.2	8.5	8.5	8.5	3.4	3.3	3.8	10.4	10.4	9.9	<0.001
						0.3	191.0	19.5	19.5	33.4	33.4	8.3	8.3	112.1	112.2	8.5	8.5		3.2			10.3			<0.001
					B	0.3	189.0	19.4	19.4	33.4	33.4	8.2	8.2	108.6	108.6	8.2	8.2	4.8	7.2	<0.001					
						0.3	193.0	19.4	19.4	33.4	33.4	8.2	8.2	108.5	108.6	8.2	8.2	4.8	7.3	<0.001					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)						
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*									
IM15	Cloudy	Moderate	19:38	6.8	S	0.1	16.0	19.2	19.2	32.2	32.2	8.1	8.1	113.4	113.3	8.7	8.6	8.6	4.7	4.7	5.1	6.3	6.6	7.5							
						0.1	17.0	19.2		32.2	32.2	8.1	8.1	113.2	113.3	8.6	8.6		4.7	4.7		6.8									
					M	0.1	50.0	19.2	19.2	32.2	32.2	8.1	8.1	111.6	111.6	8.5	8.5	8.3	5.4	5.3	5.1	7.7	7.8		7.5						
						0.1	53.0	19.2	19.2	32.2	32.2	8.1	8.1	111.5	111.6	8.5	8.5		5.3	5.3		7.7									
					B	0.1	46.0	19.2	19.2	32.2	32.2	8.1	8.1	109.4	109.3	8.4	8.3	8.3	5.1	5.2	5.1	8.1	8.1			7.5					
						0.1	47.0	19.2	19.2	32.2	32.2	8.1	8.1	109.2	109.3	8.3	8.3		5.3	5.2		8.0									
IM16A	Cloudy	Moderate	20:05	6.2	S	0.3	118.0	19.3	19.3	31.7	31.7	8.1	8.1	115.5	115.5	8.8	8.8	8.8	5.0	5.0	6.1	8.4	8.4	7.5							
						0.3	127.0	19.3		19.3	31.7	31.7	8.1	8.1	115.5	115.5	8.8		8.8	5.0		5.0					8.3				
					M	0.3	103.0	19.3	19.3	31.8	31.8	8.1	8.1	114.6	114.5	8.8	8.7	8.6	6.5	6.5	6.1	8.1	8.1		7.5						
						0.3	103.0	19.3	19.3	31.8	31.8	8.1	8.1	114.4	114.5	8.7	8.7		6.6	6.5		8.1									
					B	0.2	103.0	19.3	19.3	31.8	31.8	8.1	8.1	112.7	112.5	8.6	8.6	8.6	6.6	6.7	6.1	6.1	6.1			7.5					
						0.2	111.0	19.3		31.8	31.8	8.1	8.1	112.3	112.5	8.6	8.6		6.8	6.7		6.0									
IM17	Cloudy	Moderate	20:26	5.5	S	0.3	121.0	19.4	19.4	31.1	31.1	8.1	8.1	111.3	111.3	8.5	8.5	8.5	4.6	4.6	5.2	3.8	4.2	5.9							
						0.3	121.0	19.4		19.4	31.1	31.1	8.1	8.1	111.3	111.3	8.5		8.5	4.6		4.6					4.5				
					B	0.2	114.0	19.4	19.4	31.2	31.2	8.1	8.1	110.8	110.7	8.5	8.5	8.5	5.8	5.8	5.2	7.6	7.7		5.9						
						0.2	124.0	19.4		19.4	31.2	31.2	8.1	8.1	110.6	110.7	8.5		8.5	5.8		5.8					7.8				
					IM18	Cloudy	Moderate	22:09	17.0	S	0.7	158.0	19.4	19.4	30.2	30.2	8.1	8.1	104.2	104.2	8.0	8.0	7.8			2.3	2.3	3.8	3.2	3.5	5.3
											0.8	162.0	19.4		19.4	30.2	30.2	8.1	8.1	104.1	104.2	8.0				8.0	2.3		2.3		
M	0.6	165.0	19.8	19.8						30.8	30.8	8.1	8.1	98.8	98.7	7.5	7.5	7.2	2.7	2.7	2.7	4.9	5.0	5.3							
	0.7	169.0	19.8							19.8	30.9	30.8	8.1	8.1	98.6	98.7	7.5		7.5	2.7		2.7				5.1					
B	0.4	150.0	19.7	19.7						31.5	31.4	8.1	8.1	95.3	95.3	7.2	7.2	7.2	6.7	6.5	2.7	7.3	7.4		5.3						
	0.4	151.0	19.7							19.7	31.4	31.4	8.1	8.1	95.3	95.3	7.2		7.2	6.2		6.5				7.4					
IM19	Cloudy	Moderate	21:59	18.6	S	0.6	182.0	19.8	19.8	30.9	30.9	8.1	8.1	100.4	100.4	7.6	7.6	7.6	2.4	2.4	2.7	6.4	6.3			4.9					
						0.6	185.0	19.8		19.8	30.9	30.9	8.1	8.1	100.4	100.4	7.6		7.6	2.4		2.4					6.1				
					M	0.5	167.0	19.7	19.7	30.9	30.9	8.1	8.1	100.4	100.4	7.7	7.6	7.4	2.1	2.1	2.7	5.0	4.8	4.9							
						0.5	177.0	19.7		19.7	30.9	30.9	8.1	8.1	100.3	100.4	7.6		7.6	2.1		2.1					4.5				
					B	0.4	151.0	19.8	19.8	31.3	31.3	8.1	8.1	97.1	97.1	7.4	7.4	7.4	3.7	3.7	2.7	3.7	3.6		4.9						
						0.5	154.0	19.8		19.8	31.3	31.3	8.1	8.1	97.1	97.1	7.4		7.4	3.7		3.7					3.4				
IM20A	Cloudy	Moderate	21:31	5.2	S	0.4	241.0	20.4	20.4	30.1	30.1	8.1	8.1	96.8	96.9	7.3	7.3	7.3	7.9	7.9	6.9	7.0	7.1			8.0					
						0.4	252.0	20.3		20.4	30.1	30.1	8.1	8.1	96.9	96.9	7.3		7.3	7.8		7.9					7.2				
					B	0.3	232.0	19.9	19.9	30.7	30.7	8.1	8.1	97.3	97.4	7.4	7.4	7.4	5.9	5.9	5.6	8.6	8.8	8.0							
						0.3	236.0	19.9		19.9	30.7	30.7	8.1	8.1	97.4	97.4	7.4		7.4	5.9		5.9					9.0				
					IM21A	Cloudy	Moderate	21:39	5.6	S	0.3	202.0	20.1	20.1	30.8	30.8	8.1	8.1	97.2	97.2	7.4	7.4	7.4		5.8		5.8	5.6	7.7	7.6	7.0
											0.3	209.0	20.1		20.1	30.8	30.8	8.1	8.1	97.2	97.2	7.4			7.4		5.9		5.8		
B	0.2	190.0	20.0	20.0						30.8	30.8	8.1	8.1	98.0	98.1	7.4	7.4	7.4	5.4	5.4	5.6	6.7	6.4		7.0						
	0.2	200.0	20.0							20.0	30.8	30.8	8.1	8.1	98.1	98.1	7.4		7.4	5.3		5.4				6.1					
IM22A	Cloudy	Moderate	21:45	5.5	S	0.3	219.0	20.8	20.8	30.9	30.9	8.1	8.1	99.8	99.8	7.5	7.5	7.5	5.4	5.5	5.6	6.0	6.2	8.0							
						0.3	239.0	20.8		20.8	30.9	30.9	8.1	8.1	99.8	99.8	7.5		7.5	5.5		5.5				6.3					
					B	0.2	217.0	20.7	20.7	30.9	30.9	8.1	8.1	99.3	99.4	7.4	7.4	7.4	5.7	5.7	5.6	9.6	9.8		8.0						
						0.2	222.0	20.7		20.7	30.9	30.9	8.1	8.1	99.4	99.4	7.4		7.4	5.7		5.7				9.9					

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	
E1	Cloudy	Moderate	12:10	9.0	S	0.4	66.9	20.1	20.1	31.8	31.8	8.0	8.0	104.2	104.5	7.8	7.9	7.8	1.3	1.3	1.6	2.6	2.5	3.9
						0.2	19.6	20.1		31.8		8.0		104.7		7.9			1.3					
						0.3	353.7	19.9		31.8		7.9		101.8		7.7			1.6					
					M	0.3	96.6	19.9	19.9	31.8	31.8	7.9	7.9	102.3	102.1	7.7	7.7	1.4	1.5	1.6	4.3	4.4		
						0.6	257.9	19.9	19.9	31.8	31.8	7.9	7.9	101.6	101.3	7.7	7.6	2.0	2.1	4.8	5.0			
						0.1	220.0	19.9	19.9	31.8	31.8	7.9	7.9	100.9	101.3	7.6	7.6	2.1	2.1	5.1				
E2	Cloudy	Moderate	15:23	9.5	S	0.7	328.7	20.2	20.2	32.1	32.1	8.1	8.1	102.1	102.8	7.7	7.7	7.4	2.7	2.7	2.6	2.7	4.1	<0.001
						0.5	338.9	20.2		32.1		8.1		103.5		7.8			2.6					<0.001
						0.5	53.5	20.0		32.2		8.1		95.3		7.2			4.1					<0.001
					M	0.5	345.5	20.0	32.1	8.1	96.1	7.2	3.5	<0.001										
						0.3	320.8	20.0	32.1	8.1	96.3	7.3	4.3	<0.001										
						0.7	230.8	20.0	32.1	8.1	95.4	7.2	4.0	0.013										
E3	Cloudy	Rough	14:31	17.0	S	0.5	317.0	19.3	19.3	33.4	33.4	8.3	8.3	116.6	116.5	8.8	8.8	8.6	0.8	0.8	2.3	2.5	3.6	
						0.6	317.0	19.3		33.4		8.3		116.3		8.8			0.8					
						0.5	319.0	19.2		33.4		8.3		110.8		8.4			0.9					
					M	0.6	342.0	19.2	33.4	33.4	8.3	8.3	110.8	110.8	8.4	8.4	0.9	0.9						
						0.5	331.0	19.2	33.5	33.5	8.3	8.3	107.2	107.2	8.1	8.1	5.1	5.2						
						0.5	347.0	19.2	33.5	33.5	8.3	8.3	107.2	107.2	8.1	8.1	5.0	5.0						
E4	Cloudy	Moderate	15:57	11.1	S	0.7	19.0	19.2	19.2	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2	8.2	5.2	5.2	13.3	13.0	14.3	
						0.7	20.0	19.2		33.4		8.3		108.1		8.2			5.3					12.6
						0.6	11.0	19.2		33.4		8.3		107.4		8.1			8.9					13.6
					M	0.7	11.0	19.2	33.4	33.4	8.3	8.3	107.4	107.4	8.1	8.1	8.9	8.9	14.4	14.0				
						0.6	7.0	19.2	33.4	33.4	8.3	8.3	106.7	106.7	8.1	8.1	11.6	11.6	16.3	16.0				
						0.6	7.0	19.2	33.4	33.4	8.3	8.3	106.7	106.7	8.1	8.1	11.5	11.6	15.6					
E5	Cloudy	Moderate	16:25	6.7	S	0.6	24.0	19.3	19.3	31.7	31.7	8.1	8.1	115.7	115.7	8.8	8.8	8.8	7.1	7.2	11.5	11.6	14.8	
						0.6	24.0	19.3		31.7		8.1		115.6		8.8			7.4					11.6
						0.5	22.0	19.3		31.7		8.1		114.4		8.7			9.5					12.9
					M	0.5	23.0	19.3	31.7	31.7	8.1	8.1	114.3	114.4	8.7	8.7	9.3	9.4	12.0	12.5				
						0.4	22.0	19.3	31.7	31.7	8.1	8.1	113.5	113.1	8.7	8.6	8.7	10.5	21.1		20.3			
						0.4	22.0	19.3	31.7	31.7	8.1	8.1	112.7	113.1	8.6	8.6	12.4	10.5	19.4					
E6	Cloudy	Rough	15:14	6.1	S	0.6	342.0	19.8	19.8	30.5	30.5	8.1	8.1	97.5	97.5	7.4	7.4	7.4	3.9	3.9	4.2	4.4	5.7	
						0.7	348.0	19.8		30.5		8.1		97.5		7.4			4.0					4.6
						0.6	338.0	19.8		30.5		8.0		97.5		7.4			4.3					5.3
					M	0.7	356.0	19.8	30.5	30.5	8.0	8.0	97.5	97.5	7.4	7.4	4.4	4.3	6.0	5.7				
						0.6	338.0	19.6	30.7	30.8	8.1	8.1	99.0	99.1	7.6	7.6	12.5	12.4	7.5		7.2			
						0.6	343.0	19.5	30.8	30.8	8.1	8.1	99.1	99.1	7.6	7.6	12.3	12.4	6.8					
E7A	Cloudy	Moderate	14:51	5.0	S	0.3	22.0	19.8	19.8	29.7	29.8	8.1	8.1	97.4	97.5	7.5	7.5	7.5	3.7	3.9	5.7	5.9	6.6	
						0.4	22.0	19.8		29.8		8.1		97.6		7.5			4.0					6.0
					B	0.3	17.0	19.5	30.5	30.5	8.1	8.1	99.5	99.6	7.6	7.7	8.3	8.2	7.1	7.4				
						0.3	18.0	19.4	30.5	30.5	8.1	8.1	99.7	99.7	7.7	7.7	8.1	8.2	7.7					
F1	Cloudy	Moderate	13:03	20.5	S	0.3	344.3	20.1	20.1	32.2	32.2	8.2	8.2	112.0	112.7	8.4	8.5	8.1	1.3	1.4	3.2	2.9	5.3	
						0.3	344.3	20.1		32.2		8.2		113.4		8.5			1.4					2.6
						0.4	223.1	19.8		32.2		8.1		102.9		7.8			1.1					5.3
					M	0.3	234.3	19.8	32.2	32.2	8.1	8.1	104.5	103.7	7.9	7.8	1.1	1.1	5.8	5.6				
						0.5	311.9	19.8	32.4	32.4	8.1	8.1	99.9	99.2	7.5	7.5	2.5	2.6	7.9		7.6			
						0.2	23.3	19.8	32.4	32.4	8.1	8.1	98.5	99.2	7.4	7.5	2.6	2.6	7.2					
F2	Cloudy	Moderate	13:32	19.5	S	0.8	353.7	20.0	20.0	32.0	32.0	8.2	8.2	115.1	115.8	8.7	8.7	8.3	0.7	0.8	3.4	3.3	4.6	
						0.8	353.7	20.0		32.0		8.2		116.4		8.8			0.8					3.1
						0.4	261.4	19.7		32.1		8.1		104.2		7.9			0.8					4.1
					M	0.5	354.2	19.7	32.1	32.1	8.1	8.1	105.4	104.8	8.0	7.9	0.8	0.8	3.9	4.0				
						0.2	140.7	19.9	32.4	32.4	8.1	8.1	99.5	99.5	7.5	7.5	6.7	6.4						
						0.4	307.3	19.9	32.4	32.4	8.1	8.1	98.3	98.9	7.4	7.4	2.0	2.0	6.1					

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*		Value	Average
F3	Cloudy	Moderate	14:07	18.0	S	0.8	259.4	19.9	19.9	32.3	32.3	8.2	8.2	111.2	112.3	8.4	8.5	8.1	0.5	0.5	1.1	2.9	2.8	4.7	0.004	
						0.8	259.4	19.9	32.3	32.3	8.2	8.2	113.4	103.6	8.5	8.5	0.5		0.5	2.7		2.8	<0.001			
						0.6	161.2	19.8	19.8	32.4	32.4	8.2	8.2	103.3	103.6	7.8	7.8		0.9	0.9		4.4	4.6		<0.001	
					M	0.7	295.2	19.8	19.8	32.4	32.4	8.2	8.2	103.8	103.6	7.8	7.8	0.9	0.9	0.9	0.9	4.4	4.6		<0.001	
						B	0.6	39.6	19.8	19.8	32.4	32.4	8.2	8.2	101.7	101.1	7.7	7.6	1.8	1.8	6.3	6.6	<0.001			
							0.6	246.9	19.8	19.8	32.4	32.4	8.2	8.2	100.5	101.1	7.6	7.6	1.8	1.8	6.8	6.6	<0.001			
F4	Cloudy	Moderate	14:58	14.1	S	1.3	293.0	20.1	20.1	32.1	32.1	8.3	8.3	122.2	122.8	9.2	9.2	8.9	0.9	0.9	2.1	2.1	2.4	4.9	<0.001	
						0.2	76.0	20.1	19.7	32.1	32.1	8.3	8.2	123.3	114.5	9.3	8.7		0.8	1.5		2.6	4.8		4.9	<0.001
						0.8	334.4	19.7	19.7	32.1	32.1	8.2	8.2	113.9	114.5	8.6	8.7		1.5	1.5		4.8	4.9		<0.001	
					M	1.2	335.1	19.7	19.7	32.1	32.1	8.2	8.2	115.0	110.9	8.7	8.4	1.5	3.9	5.0	7.4	7.4	<0.001			
						B	0.2	76.7	19.7	19.7	32.1	32.1	8.2	8.2	111.1	110.9	8.4	8.4	3.7	3.9	7.6	7.4	<0.001			
							0.7	236.9	19.7	19.7	32.1	32.1	8.2	8.2	110.6	110.9	8.4	8.4	4.0	3.9	7.2	7.4	<0.001			
F5	Cloudy	Moderate	03:40	6.7	S	0.3	32.0	19.2	19.2	32.2	32.2	8.1	8.1	111.1	111.1	8.5	8.5	8.4	5.3	5.3	8.0	8.9	8.9	10.1	<0.001	
						0.3	33.0	19.2	19.2	32.2	32.2	8.1	8.1	111.0	111.1	8.5	8.5		5.2	5.3		8.9	8.9		<0.001	
						0.3	17.0	19.2	19.2	32.3	32.3	8.1	8.1	109.4	109.4	8.4	8.3		8.9	8.4		10.2	10.2		<0.001	
					M	0.3	18.0	19.2	19.2	32.3	32.3	8.1	8.1	109.3	109.4	8.3	8.3	7.9	8.4	10.2	10.2	<0.001				
						B	0.2	13.0	19.2	19.2	32.3	32.3	8.1	8.1	108.6	108.5	8.3	8.3	8.6	10.5	11.6	11.3	<0.001			
							0.2	13.0	19.2	19.2	32.3	32.3	8.1	8.1	108.3	108.5	8.3	8.3	12.3	10.5	11.0	11.3	<0.001			
F6	Cloudy	Rough	13:26	13.3	S	0.2	267.0	19.7	19.7	30.8	30.8	8.0	8.0	101.2	101.2	7.7	7.7	7.7	1.3	1.3	3.8	4.3	4.3	3.4	<0.001	
						0.2	283.0	19.7	19.7	30.8	30.8	8.0	8.0	101.1	101.2	7.7	7.7		1.3	1.3		4.2	4.3		<0.001	
						0.2	289.0	19.6	19.6	30.8	30.9	8.0	8.0	100.3	100.4	7.7	7.7		2.4	2.6		3.4	3.2		<0.001	
					M	0.2	303.0	19.6	19.6	30.9	30.9	8.0	8.0	100.4	100.4	7.7	7.7	2.7	2.6	2.9	3.2	<0.001				
						B	0.2	318.0	19.4	19.4	31.1	31.1	8.0	8.0	100.6	100.6	7.7	7.7	7.3	7.4	2.7	2.7	<0.001			
							0.2	319.0	19.4	19.4	31.1	31.1	8.0	8.0	100.6	100.6	7.7	7.7	7.5	7.4	2.6	2.7	<0.001			
IM1	Cloudy	Moderate	12:44	10.4	S	0.5	310.0	20.2	20.2	32.2	32.2	8.2	8.2	114.9	115.5	8.6	8.7	8.4	1.5	1.6	2.0	4.2	4.3	4.9	<0.001	
						0.5	310.0	20.2	20.2	32.2	32.2	8.2	8.2	116.0	115.5	8.7	8.7		1.7	1.6		4.4	4.3		<0.001	
						0.6	322.8	19.8	19.8	32.2	32.2	8.1	8.1	108.1	108.6	8.2	8.2		1.4	1.4		4.4	4.6		<0.001	
					M	0.8	289.3	19.8	19.8	32.2	32.2	8.1	8.1	109.0	108.6	8.2	8.2	1.4	3.1	4.7	5.9	<0.001				
						B	0.7	10.0	19.9	19.9	32.4	32.4	8.1	8.1	103.5	102.4	7.8	7.7	3.0	3.1	6.0	5.9	<0.001			
							0.3	309.2	19.9	19.9	32.4	32.4	8.1	8.1	101.3	102.4	7.6	7.7	3.2	3.1	5.7	5.9	<0.001			
IM2	Cloudy	Moderate	12:22	12.0	S	0.2	308.8	20.1	20.1	31.9	31.9	8.1	8.1	108.3	109.5	8.1	8.2	8.0	1.5	1.5	2.2	4.2	4.4	6.0	<0.001	
						0.3	216.4	20.1	20.1	31.9	31.9	8.1	8.1	110.6	109.5	8.3	8.2		1.5	1.5		4.5	4.4		<0.001	
						1.3	58.0	19.9	19.9	32.0	32.0	8.0	8.0	102.6	102.8	7.8	7.8		1.6	1.6		6.0	6.3		<0.001	
					M	0.3	3.2	19.9	19.9	32.0	32.0	8.0	8.0	102.9	102.8	7.8	7.8	1.5	1.6	6.6	6.3	<0.001				
						B	0.4	339.4	19.9	19.9	32.2	32.2	8.0	8.0	101.1	100.9	7.6	7.6	3.7	3.5	7.4	7.3	<0.001			
							0.9	259.2	19.9	19.9	32.2	32.2	8.0	8.0	100.6	100.9	7.6	7.6	3.3	3.5	7.2	7.3	<0.001			
IM3	Cloudy	Moderate	16:12	16.0	S	0.2	296.0	20.2	20.1	32.0	32.0	8.3	8.3	121.2	121.4	9.1	9.1	8.6	1.2	1.2	2.0	3.3	3.2	4.9	<0.001	
						0.2	296.0	20.1	20.1	32.0	32.0	8.3	8.3	121.6	121.4	9.1	9.1		1.1	1.2		3.0	3.2		<0.001	
						0.6	78.3	19.8	19.8	32.2	32.1	8.2	8.2	104.8	107.4	7.9	8.1		1.7	1.6		4.0	4.3		<0.001	
					M	0.5	92.6	19.9	19.8	32.1	32.1	8.2	8.2	109.9	107.4	8.3	8.1	1.5	1.6	4.5	4.3	<0.001				
						B	0.4	183.9	19.7	19.7	32.3	32.3	8.2	8.2	101.4	100.9	7.7	7.6	3.1	3.4	7.0	7.3	<0.001			
							0.0	299.1	19.7	19.7	32.3	32.3	8.2	8.2	100.4	100.9	7.6	7.6	3.6	3.4	7.6	7.3	<0.001			
IM4	Cloudy	Moderate	15:50	17.5	S	0.2	93.3	20.0	20.0	32.1	32.1	8.3	8.3	119.5	119.5	9.0	9.0	8.8	0.9	0.9	1.7	3.6	3.8	4.9	<0.001	
						0.2	93.3	20.0	20.0	32.1	32.1	8.3	8.3	119.5	119.5	9.0	9.0		0.8	0.9		4.0	3.8		<0.001	
						0.3	306.1	20.0	20.0	32.1	32.1	8.2	8.2	113.8	115.0	8.6	8.7		1.0	1.1		4.5	4.7		<0.001	
					M	0.3	135.3	20.0	20.0	32.1	32.1	8.2	8.2	116.1	115.0	8.7	8.7	1.1	1.1	4.8	4.7	<0.001				
						B	0.5	302.5	19.7	19.7	32.3	32.3	8.2	8.2	100.0	99.9	7.6	7.5	3.3	3.2	6.3	6.3	<0.001			
							0.5	302.5	19.7	19.7	32.3	32.3	8.2	8.2	99.7	99.9	7.5	7.5	3.1	3.2	6.3	6.3	<0.001			
IM5	Cloudy	Moderate	14:32	16.0	S	1.0	309.7	20.2	20.2	32.1	32.1	8.2	8.2	119.2	120.8	8.9	9.1	8.5	0.7	0.8	1.4	3.4	3.3	4.9	<0.001	
						1.0	309.7	20.2	20.2	32.1	32.1	8.3	8.2	122.3	120.8	9.2	9.1		0.8	0.8		3.1	3.3		<0.001	
						0.3	334.0	19.7	19.7	32.4	32.4	8.2	8.2	102.8	104.8	7.8	7.9		1.4	1.4		4.4	4.4		<0.001	
					M	0.7	272.7	19.8	19.7	32.4	32.4	8.2	8.2	106.7	104.8	8.1	7.9	1.3	1.4	4.4	4.4	<0.001				
						B	0.4	346.2	19.8	19.8	32.4	32.4	8.2	8.2	103.9	103.3	7.8	7.8	1.9	2.0	7.1	6.9	<0.001			
							0.3	289.9	19.8	19.8	32.4	32.4	8.2	8.2	102.6	103.3	7.7	7.8	2.0	2.0	6.7	6.9	<0.001			

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)	
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*
IM6	Cloudy	Moderate	14:18	16.5	S	1.5	24.4	19.9	19.9	32.2	32.2	8.2	8.2	114.7	116.4	8.6	8.8	8.3	0.6	0.6	0.9	3.2	3.2	4.3	<0.001
						1.5	24.4	19.9	19.9	32.2	32.2	8.2	8.2	118.1	116.4	8.9	8.8		0.5	0.6		3.2	3.2		<0.001
					M	0.8	349.1	19.9	19.9	32.4	32.4	8.2	8.2	104.1	104.2	7.8	7.8	1.0	1.0	3.8		3.9	<0.001		
						0.2	184.9	19.9	19.9	32.4	32.4	8.2	8.2	104.3	104.2	7.9	7.8	0.9	1.0	3.9		3.9	<0.001		
					B	0.4	280.1	19.8	19.8	32.4	32.4	8.1	8.1	101.9	101.9	7.7	7.7	1.3	1.3	6.1		5.8	<0.001		
						0.4	280.1	19.8	19.8	32.4	32.4	8.2	8.1	101.9	101.9	7.7	7.7	1.3	1.3	5.4		5.8	<0.001		
IM7	Cloudy	Rough	13:33	14.2	S	0.3	274.0	19.4	19.4	33.5	33.5	8.3	8.3	111.6	111.6	8.4	8.4	8.3	0.7	0.7	0.9	4.5	4.8	4.2	<0.001
						0.3	293.0	19.4	19.4	33.5	33.5	8.3	8.3	111.6	111.6	8.4	8.4		0.7	0.7		5.1	4.8		<0.001
					M	0.2	285.0	19.3	19.3	33.6	33.6	8.2	8.2	109.4	109.4	8.3	8.3	0.7	0.7	4.5		4.5	<0.001		
						0.2	287.0	19.3	19.3	33.6	33.6	8.2	8.2	109.3	109.3	8.3	8.3	0.7	0.7	4.5		4.5	<0.001		
					B	0.4	273.0	19.3	19.3	33.6	33.6	8.2	8.2	105.3	105.3	8.0	8.0	1.4	1.4	3.7		3.4	<0.001		
						0.4	300.0	19.3	19.3	33.6	33.6	8.2	8.2	105.3	105.3	8.0	8.0	1.4	1.4	3.1		3.4	<0.001		
IM8	Cloudy	Rough	13:44	13.3	S	0.3	291.0	19.5	19.5	33.5	33.5	8.3	8.3	110.3	110.3	8.3	8.3	8.2	0.7	0.7	1.2	2.2	2.2	3.5	<0.001
						0.3	299.0	19.5	19.5	33.5	33.5	8.3	8.3	110.3	110.3	8.3	8.3		0.7	0.7		2.2	2.2		<0.001
					M	0.2	260.0	19.3	19.3	33.5	33.5	8.3	8.3	108.2	108.3	8.2	8.2	0.9	0.9	3.5		3.6	<0.001		
						0.2	268.0	19.3	19.3	33.5	33.5	8.3	8.3	108.3	108.3	8.2	8.2	0.9	0.9	3.6		3.6	<0.001		
					B	0.3	284.0	19.3	19.3	33.6	33.6	8.2	8.2	104.1	104.1	7.9	7.9	1.9	1.9	4.8		4.7	<0.001		
						0.3	285.0	19.3	19.3	33.6	33.6	8.2	8.2	104.1	104.1	7.9	7.9	1.9	1.9	4.5		4.7	<0.001		
IM9	Cloudy	Moderate	14:08	14.6	S	0.5	299.0	19.4	19.4	33.4	33.4	8.3	8.3	114.9	114.9	8.7	8.7	8.4	0.8	0.8	1.5	3.8	3.7	3.3	<0.001
						0.5	307.0	19.4	19.4	33.4	33.4	8.3	8.3	114.8	114.9	8.7	8.7		0.8	0.8		3.5	3.7		<0.001
					M	0.4	294.0	19.2	19.2	33.5	33.5	8.3	8.3	106.5	106.5	8.1	8.1	1.0	1.1	3.6		3.5	<0.001		
						0.4	312.0	19.2	19.2	33.5	33.5	8.3	8.3	106.5	106.5	8.1	8.1	1.1	1.1	3.4		3.5	<0.001		
					B	0.4	302.0	19.2	19.2	33.5	33.5	8.2	8.2	103.6	103.7	7.9	7.9	2.8	2.7	2.6		2.8	<0.001		
						0.4	312.0	19.2	19.2	33.5	33.5	8.2	8.2	103.7	103.7	7.9	7.9	2.6	2.7	3.0		2.8	<0.001		
IM10	Cloudy	Moderate	14:52	10.9	S	0.8	238.0	19.5	19.5	33.3	33.3	8.3	8.3	115.1	115.1	8.7	8.7	8.4	2.2	2.2	3.4	4.3	4.6	6.8	<0.001
						0.9	244.0	19.5	19.5	33.3	33.3	8.3	8.3	115.1	115.1	8.7	8.7		2.1	2.2		4.8	4.6		<0.001
					M	0.8	239.0	19.4	19.4	33.4	33.4	8.3	8.3	108.6	108.6	8.2	8.2	3.8	3.7	6.5		6.8	<0.001		
						0.8	254.0	19.4	19.4	33.4	33.4	8.3	8.3	108.6	108.6	8.2	8.2	3.7	3.7	7.0		6.8	<0.001		
					B	0.7	236.0	19.4	19.4	33.4	33.4	8.3	8.3	106.7	106.7	8.1	8.1	4.4	4.3	9.2		9.0	<0.001		
						0.7	249.0	19.4	19.4	33.4	33.4	8.3	8.3	106.7	106.7	8.1	8.1	4.2	4.3	8.7		9.0	<0.001		
IM11A	Cloudy	Moderate	15:04	4.7	S	0.8	308.0	19.5	19.5	33.3	33.3	8.3	8.3	115.2	115.2	8.7	8.7	8.7	9.5	9.5	11.5	30.8	31.4	37.5	<0.001
						0.8	327.0	19.5	19.5	33.3	33.3	8.3	8.3	115.2	115.2	8.7	8.7		9.5	9.5		31.9	31.4		<0.001
					B	0.7	313.0	19.5	19.5	33.3	33.3	8.3	8.3	112.1	112.1	8.5	8.5	13.5	13.6	42.3		43.7	<0.001		
						0.7	335.0	19.5	19.5	33.3	33.3	8.3	8.3	112.1	112.1	8.5	8.5	13.6	13.6	45.1		43.7	<0.001		
IM12	Cloudy	Moderate	15:14	15.1	S	0.9	342.0	19.5	19.5	33.3	33.3	8.3	8.3	115.6	115.6	8.7	8.7	8.6	5.7	5.6	8.9	15.5	15.3	19.1	<0.001
						0.9	342.0	19.5	19.5	33.3	33.3	8.3	8.3	115.6	115.6	8.7	8.7		5.6	5.6		15.0	15.3		<0.001
					M	0.9	343.0	19.4	19.4	33.4	33.4	8.3	8.3	111.2	111.2	8.4	8.4	7.7	7.7	17.2		17.2	<0.001		
						0.9	8.0	19.4	19.4	33.4	33.4	8.3	8.3	111.1	111.1	8.4	8.4	7.7	7.7	17.1		17.2	<0.001		
					B	0.7	349.0	19.4	19.4	33.4	33.4	8.3	8.3	108.7	108.7	8.2	8.2	13.4	13.4	23.8		24.9	<0.001		
						0.7	354.0	19.4	19.4	33.4	33.4	8.3	8.3	108.7	108.7	8.2	8.2	13.4	13.4	25.9		24.9	<0.001		
IM13	Cloudy	Moderate	15:35	16.4	S	0.8	357.0	19.2	19.2	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2	8.2	3.7	3.7	5.2	7.0	6.8	10.4	<0.001
						0.8	16.0	19.2	19.2	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2		3.7	3.7		6.5	6.8		<0.001
					M	0.8	352.0	19.2	19.2	33.4	33.4	8.3	8.3	107.4	107.4	8.1	8.1	5.1	5.2	10.7		10.9	<0.001		
						0.8	358.0	19.2	19.2	33.4	33.4	8.3	8.3	107.4	107.4	8.1	8.1	5.2	5.2	11.0		10.9	<0.001		
					B	0.7	358.0	19.2	19.2	33.4	33.4	8.3	8.3	106.6	106.6	8.1	8.1	6.7	6.7	13.4		13.5	<0.001		
						0.7	29.0	19.2	19.2	33.4	33.4	8.3	8.3	106.6	106.6	8.1	8.1	6.6	6.7	13.6		13.5	<0.001		
IM14	Cloudy	Moderate	15:46	11.2	S	0.5	28.0	19.3	19.3	33.4	33.4	8.3	8.3	107.3	107.3	8.1	8.1	8.1	7.1	7.0	11.1	14.9	14.9	24.0	<0.001
						0.5	29.0	19.3	19.3	33.4	33.4	8.3	8.3	107.3	107.3	8.1	8.1		7.0	7.0		14.9	14.9		<0.001
					M	0.5	29.0	19.3	19.3	33.4	33.4	8.3	8.3	107.1	107.1	8.1	8.1	8.3	8.2	16.9		17.1	<0.001		
						0.5	31.0	19.3	19.3	33.4	33.4	8.3	8.3	107.1	107.1	8.1	8.1	8.1	8.2	17.3		17.1	<0.001		
					B	0.5	30.0	19.3	19.3	33.4	33.4	8.3	8.3	106.6	106.6	8.1	8.1	17.9	18.0	41.0		39.9	<0.001		
						0.5	31.0	19.3	19.3	33.4	33.4	8.3	8.3	106.6	106.6	8.1	8.1	18.1	18.0	38.8		39.9	<0.001		

Water Quality Monitoring Data Log Sheet

Date: 2020/01/20

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)			Total Residual Chlorine (mg/L)			
						Velocity (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average		DA*		
IM15	Cloudy	Moderate	16:39	7.0	S	0.6	17.0	19.4	19.4	31.8	31.8	8.1	8.1	118.9	118.9	9.1	9.1	9.0	7.3	7.3	7.7	7.2	7.4	10.4			
						0.6	17.0	19.4		31.8		8.1		118.8		9.1			7.2								
						0.6	16.0	19.4		31.8		8.1		117.9		9.0			7.2								
					M	0.6	16.0	19.4	19.4	31.8	31.8	8.1	8.1	117.6	117.8	9.0	9.0	7.2	7.2	11.4	11.7	12.0	12.2				
						0.6	16.0	19.4		31.8		8.1		114.3		9.0		11.9									
						0.5	23.0	19.4		31.8		8.1		114.6		8.7		12.3									
B	0.5	23.0	19.4	19.4	31.8	31.8	8.1	8.1	114.5	114.5	8.7	8.7	8.5	8.6	8.5	8.5	5.5	5.4	2.7	2.8	5.3	6.6					
	0.5	8.0	19.7		30.6		8.1		112.7		8.6		6.2														
	0.5	12.0	19.5		30.9		8.1		110.6		8.5		6.6														
IM16A	Cloudy	Moderate	16:06	6.4	S	0.5	8.0	19.7	19.7	30.6	30.6	8.1	8.1	113.0	112.9	8.6	8.6	8.5	2.7	2.8	5.8	2.9	5.4	6.9			
						0.5	12.0	19.5		30.9		8.1		110.6		8.5			5.9								
						0.5	12.0	19.5		31.0		8.1		110.3		8.4			6.2								
					M	0.4	4.0	19.4	19.4	31.2	31.2	8.0	8.0	108.0	108.0	8.3	8.3	8.5	8.5	8.5	8.5	9.0	8.9	8.5	8.5	6.6	6.6
						0.4	4.0	19.4		31.2		8.0		107.9		8.3		8.7									
						0.5	357.0	19.8		30.5		8.0		100.8		7.7		3.7									
IM17	Cloudy	Moderate	15:42	5.4	S	0.5	24.0	19.8	19.8	30.6	30.5	8.0	8.0	100.7	100.7	7.7	7.7	7.7	4.2	3.9	5.0	4.4	4.3	4.7			
						0.4	340.0	19.5		31.0		8.0		101.4		7.8			6.0								
						0.5	1.0	19.4		31.1		8.0		101.8		7.8			6.0								
					B	0.5	1.0	19.4	19.5	31.1	31.1	8.0	8.0	101.6	101.6	7.8	7.8	6.0	6.0	5.1	5.0	4.2	4.2	4.4	4.4	4.9	4.9
						0.5	1.0	19.4		31.1		8.0		101.8		7.8		6.0									
						0.2	320.0	19.1		30.5		8.0		100.3		7.8		1.4									
IM18	Cloudy	Moderate	13:52	17.1	S	0.2	338.0	19.0	19.1	30.5	30.5	8.0	8.0	100.2	100.3	7.8	7.8	7.8	1.4	1.4	1.5	3.6	3.8	4.3			
						0.3	337.0	19.1		30.4		8.1		100.6		7.8			4.4								
						0.3	352.0	19.1		30.3		8.1		100.6		7.8			4.5								
					M	0.2	344.0	19.1	19.1	31.4	31.4	8.1	8.1	100.4	100.4	8.6	8.6	1.5	1.5	4.8	4.7	4.6	4.6	4.8	4.8	4.6	4.6
						0.3	11.0	19.1		31.4		8.1		100.4		8.6		4.6									
						0.2	357.0	19.3		30.7		8.0		100.2		7.7		3.9									
IM19	Cloudy	Moderate	14:03	17.2	S	0.2	2.0	19.3	19.3	30.7	30.7	8.0	8.0	100.2	100.2	7.7	7.7	7.7	3.9	3.9	3.1	2.3	2.5	3.2			
						0.4	351.0	19.2		30.8		8.0		100.0		7.7			2.2								
						0.4	12.0	19.2		30.8		8.0		99.9		7.7			2.3								
					M	0.4	345.0	19.0	19.0	30.9	30.9	8.0	8.0	100.0	100.0	7.7	7.7	3.2	3.3	2.8	2.9	4.2	4.3	2.2	2.2	2.8	2.8
						0.4	15.0	19.0		31.0		8.0		100.0		7.7		4.3									
						0.5	62.0	20.2		30.3		8.0		99.9		7.6		6.6									
IM20A	Cloudy	Moderate	14:35	4.2	S	0.5	62.0	20.2	20.2	30.3	30.3	8.0	8.0	99.9	99.9	7.6	7.6	7.6	6.6	6.7	6.7	8.2	8.3	9.7			
						0.5	62.0	20.2		30.3		8.0		99.9		7.6			6.8								
						0.4	61.0	20.1		30.3		8.0		99.9		7.6			6.7								
					B	0.5	65.0	20.1	20.1	30.3	30.3	8.0	8.0	99.8	99.9	7.6	7.6	6.7	6.7	11.3	11.1	10.8	10.8	11.3	11.3	11.1	11.1
						0.2	27.0	20.3		30.7		8.0		99.5		7.5		4.8									
						0.2	28.0	20.3		30.7		8.0		99.5		7.5		4.9									
IM21A	Cloudy	Moderate	14:25	5.1	S	0.2	17.0	20.2	20.2	30.7	30.7	8.0	8.0	99.9	99.9	7.6	7.6	7.6	4.9	4.9	4.8	9.2	9.4	8.9			
						0.2	18.0	20.2		30.7		8.0		99.9		7.6			4.7								
						0.4	46.0	19.2		30.8		8.0		98.7		7.6			4.4								
					B	0.4	49.0	19.2	19.2	30.8	30.8	8.0	8.0	98.7	98.7	7.6	7.6	4.5	4.4	7.9	7.7	7.5	7.5	9.3	9.3	8.8	8.8
						0.3	51.0	19.2		30.7		8.0		99.2		7.6		5.0									
						0.3	52.0	19.2		30.7		8.0		99.3		7.7		5.0									
IM22A	Cloudy	Moderate	14:16	4.2	S	0.4	46.0	19.2	19.2	30.8	30.8	8.0	8.0	98.7	98.7	7.6	7.6	7.6	4.4	4.4	4.7	7.9	7.7	8.4			
						0.4	49.0	19.2		30.8		8.0		98.7		7.6			4.5								
						0.3	51.0	19.2		30.7		8.0		99.2		7.6			5.0								
					B	0.3	51.0	19.2	19.2	30.7	30.7	8.0	8.0	99.2	99.3	7.6	7.6	5.0	5.0	8.8	8.8	9.1	9.1	8.8	8.8	9.1	9.1
						0.3	52.0	19.2		30.7		8.0		99.3		7.7		5.0									
						0.3	52.0	19.2		30.7		8.0		99.3		7.7		5.0									

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average
E1	Cloudy	Moderate	00:34	9.0	S	0.2	282.2	20.3	20.3	32.0	32.0	8.1	8.1	106.9	107.1	8.0	8.0	8.0	3.3	3.3	4.3	5.9	6.1	8.2
						0.2	282.2	20.3		32.0	32.0	8.1		107.2		8.0			3.2			6.2		
						0.4	216.4	20.2		32.0	32.0	8.1		107.3		8.0			4.1			8.0		
					M	0.7	165.7	20.3	32.0	32.0	8.1	107.3	8.0	4.1	7.4									
						0.6	148.4	20.2	32.0	32.0	8.1	106.7	8.0	5.2	11.4									
						0.3	182.7	20.2	32.0	32.0	8.1	107.4	8.0	5.9	10.5									
E2	Cloudy	Moderate	21:24	9.5	S	0.5	66.8	20.2	20.2	32.0	32.0	8.2	8.2	123.2	123.7	9.2	9.3	9.2	2.6	2.5	3.4	3.6	3.3	<0.001
						0.5	66.8	20.2		32.0	32.0	8.2		124.2		9.3			2.4			3.0		0.001
						0.9	43.9	20.2		32.0	32.0	8.2		119.7		9.0			2.8			3.4		<0.001
					M	0.9	43.9	20.2	32.0	32.0	8.2	121.8	9.1	2.9	4.0									
						0.6	7.8	20.2	32.0	32.0	8.1	113.2	8.5	4.6	7.6									
						0.4	94.3	20.2	32.0	32.0	8.1	112.9	8.5	4.9	8.5	<0.001								
E3	Fine	Rough	22:31	16.9	S	0.5	117.0	19.7	19.7	33.4	33.4	8.3	8.3	118.3	118.3	8.9	8.9	8.7	2.7	2.7	3.1	12.9	12.4	11.4
						0.6	118.0	19.7		33.4	33.4	8.3		118.2		8.9			2.7			11.9		
						0.5	107.0	19.5		33.6	33.6	8.3		113.8		8.6			2.0			12.4		
					M	0.5	107.0	19.5	33.6	33.6	8.3	113.7	8.6	2.0	12.0									
						0.4	105.0	19.5	33.6	33.6	8.3	111.0	8.4	4.4	9.1									
						0.4	114.0	19.5	33.6	33.6	8.3	110.9	8.4	4.7	9.9									
E4	Fine	Moderate	21:15	12.5	S	0.4	203.0	19.4	19.4	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2	8.2	3.7	3.7	5.3	5.8	6.0	6.2
						0.4	220.0	19.4		33.4	33.4	8.3		108.2		8.2			3.7			6.1		
						0.4	207.0	19.4		33.4	33.4	8.3		108.0		8.2			3.8			5.8		
					M	0.4	213.0	19.4	33.4	33.4	8.3	108.0	8.2	3.9	6.4									
						0.4	204.0	19.4	33.4	33.4	8.3	107.7	8.1	8.4	6.1									
						0.4	216.0	19.4	33.4	33.4	8.3	107.7	8.1	8.4	6.7									
E5	Cloudy	Moderate	21:20	7.0	S	0.1	112.0	19.6	19.6	32.9	32.9	8.1	8.1	109.9	109.9	8.3	8.3	8.3	3.0	3.0	3.0	4.8	4.6	5.5
						0.1	122.0	19.6		32.9	32.9	8.1		109.9		8.3			3.0			4.4		
						0.2	115.0	19.5		32.9	32.9	8.1		108.9		8.2			2.9			4.7		
					M	0.2	122.0	19.5	32.9	32.9	8.1	108.9	8.2	2.9	5.4									
						0.1	128.0	19.5	32.9	32.9	8.1	104.8	7.9	3.0	7.0									
						0.1	135.0	19.5	32.9	32.9	8.1	104.8	7.9	3.0	6.9									
E6	Cloudy	Moderate	22:21	6.5	S	0.5	142.0	19.9	19.9	31.4	31.4	8.1	8.1	105.2	105.2	8.0	8.0	7.9	4.5	4.5	5.8	3.2	3.7	5.3
						0.5	149.0	19.9		31.4	31.4	8.1		105.2		8.0			4.5			4.2		
						0.4	144.0	19.9		31.6	31.6	8.1		105.0		7.9			5.2			5.6		
					M	0.4	157.0	19.9	31.6	31.6	8.1	105.0	7.9	5.2	5.0									
						0.3	150.0	19.8	31.7	31.7	8.0	103.4	7.8	7.6	7.4									
						0.3	156.0	19.8	31.7	31.7	8.0	103.3	7.8	7.6	6.4									
E7A	Cloudy	Moderate	22:39	5.6	S	0.3	200.0	20.2	20.2	30.7	30.7	8.0	8.0	101.3	101.3	7.7	7.7	7.7	1.0	1.0	1.2	3.7	3.4	3.0
						0.3	206.0	20.2		30.7	30.7	8.0		101.3		7.7			1.0			3.0		
						0.2	192.0	20.1		31.4	31.4	8.0		100.4		7.6			1.3			2.8		
					B	0.2	204.0	20.1	31.4	31.4	8.0	100.4	7.6	1.3	2.6									
						0.7	210.8	20.3	32.4	32.4	8.2	116.7	8.7	0.7	1.3									
						0.7	210.8	20.3	32.4	32.4	8.2	119.1	8.9	0.7	1.4									
F1	Cloudy	Moderate	23:43	20.5	S	0.6	195.0	20.1	20.1	32.5	32.5	8.1	8.1	106.0	106.8	7.9	8.0	8.4	1.2	1.1	2.5	4.1	4.0	4.7
						0.6	195.0	20.1		32.5	32.5	8.1		107.6		8.1			1.0			3.8		
						0.5	95.2	20.0		32.6	32.6	8.1		101.7		7.6			5.1			9.1		
					M	0.9	38.7	20.0	32.6	32.6	8.1	100.9	7.6	6.0	8.4									
						0.5	189.5	20.1	32.7	32.7	8.1	103.3	7.7	1.3	2.5									
						0.5	189.5	20.1	32.7	32.7	8.1	103.4	7.7	1.2	1.6									
F2	Cloudy	Moderate	23:16	20.0	S	0.2	97.1	20.1	20.1	32.7	32.7	8.1	8.1	102.3	102.4	7.7	7.7	7.7	1.7	1.8	1.8	3.8	4.0	3.3
						0.6	121.3	20.1		32.7	32.7	8.1		102.4		7.7			1.9			4.1		
						0.3	287.6	20.1		32.7	32.7	8.1		101.8		7.6			2.3			3.1		
					B	0.6	232.7	20.1	32.7	32.7	8.1	101.7	7.6	2.1	4.6									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*
F3	Cloudy	Moderate	22:41	18.5	S	0.2	64.8	20.2	20.2	32.8	32.8	8.1	8.1	103.5	103.6	7.7	7.7	7.7	7.7	0.9	1.0	2.0	3.3	<0.001	
						0.2	64.8	20.2		32.8	32.8	8.1		103.6	7.7	1.0		1.6		<0.001					
						0.9	135.1	20.2		32.8	32.8	8.1		102.4	7.7	1.3		2.2		<0.001					
					M	1.2	64.0	20.2	32.8	32.8	8.1	8.1	102.7	102.6	7.7	7.7	7.7	1.2	2.0	2.2	1.1	2.2	1.7	6.2	<0.001
						0.5	247.0	20.1	32.8	32.8	8.1		100.6	7.5	3.9		6.1		<0.001						
						0.4	323.0	20.2	32.8	32.8	8.1		100.5	7.5	3.6		6.2		<0.001						
F4	Cloudy	Moderate	21:49	14.5	S	0.9	181.6	20.2	20.2	32.1	32.1	8.2	8.2	128.7	129.0	9.7	9.6	9.7	2.1	2.0	2.1	3.6	9.2	<0.001	
						0.9	181.6	20.2		32.1	32.1	8.2		129.2	9.7	2.2		3.9		<0.001					
						0.2	222.1	20.2		32.1	32.1	8.2		126.7	9.5	3.1		4.6		<0.001					
					M	0.2	222.1	20.1	32.1	32.1	8.2	127.0	9.5	2.8	4.9	<0.001									
						0.5	85.2	20.1	32.1	32.1	8.2	123.5	9.3	10.1	18.5	<0.001									
						0.9	78.9	20.1	32.1	32.1	8.2	123.7	9.3	9.3	19.7	<0.001									
F5	Cloudy	Moderate	20:44	7.0	S	0.1	321.0	19.5	19.5	32.9	32.9	8.0	8.0	110.8	110.8	8.4	8.3	8.4	2.9	2.9	2.9	7.0	6.4	<0.001	
						0.1	335.0	19.5		32.9	32.9	8.0		110.8	8.4	2.9		6.1		<0.001					
						0.0	206.0	19.5		32.9	32.9	8.0		109.7	8.3	2.8		6.1		<0.001					
					M	0.0	206.0	19.5	32.9	32.9	8.0	109.7	8.3	2.8	6.4	<0.001									
						0.0	358.0	19.5	32.9	32.9	8.0	105.7	8.0	3.0	6.4	<0.001									
						0.0	17.0	19.5	32.9	32.9	8.0	105.7	8.0	3.0	6.1	<0.001									
F6	Cloudy	Moderate	23:57	13.7	S	0.8	142.0	19.9	19.9	31.7	31.7	8.1	8.1	109.1	109.1	8.3	8.1	8.3	2.8	2.8	2.8	3.6	4.2	<0.001	
						0.9	145.0	19.9		31.7	31.7	8.1		109.1	8.3	2.8		4.2		<0.001					
						0.7	133.0	19.9		32.1	32.1	8.1		104.9	7.9	3.9		3.9		<0.001					
					M	0.7	144.0	19.9	32.1	32.1	8.1	104.9	7.9	3.9	4.6	<0.001									
						0.5	114.0	19.9	32.3	32.3	8.1	104.5	7.9	4.9	4.0	<0.001									
						0.5	118.0	19.9	32.3	32.3	8.1	104.5	7.9	4.9	5.0	<0.001									
IM1	Cloudy	Moderate	00:01	10.1	S	0.1	105.9	20.3	20.3	32.4	32.4	8.1	8.1	112.4	112.6	8.4	8.3	8.4	1.9	1.9	2.1	5.0	9.0	<0.001	
						0.1	105.9	20.3		32.4	32.4	8.1		112.7	8.4	2.2		5.3		<0.001					
						0.4	77.9	20.2		32.5	32.5	8.1		108.4	8.1	4.1		9.5		<0.001					
					M	0.7	171.9	20.3	32.5	32.5	8.1	109.1	8.2	3.8	9.8	<0.001									
						0.3	27.5	20.1	32.5	32.5	8.1	105.8	7.9	6.5	11.3	<0.001									
						0.3	328.0	20.1	32.5	32.5	8.1	106.3	8.0	6.3	12.1	<0.001									
IM2	Cloudy	Moderate	00:23	11.6	S	1.4	123.5	20.2	20.2	31.9	31.9	8.1	8.1	115.2	116.2	8.6	8.4	8.6	1.9	1.9	1.9	6.3	7.6	<0.001	
						1.4	123.5	20.2		31.9	31.9	8.1		117.2	8.8	1.9		5.8		<0.001					
						0.5	316.4	20.1		32.1	32.1	8.1		107.4	8.1	2.9		8.7		<0.001					
					M	0.6	211.2	20.1	32.2	32.2	8.1	107.2	8.1	2.7	9.0	<0.001									
						0.3	156.5	20.1	32.2	32.2	8.1	106.1	8.0	3.0	7.6	<0.001									
						0.9	248.2	20.1	32.2	32.2	8.1	106.1	8.0	2.9	8.2	<0.001									
IM3	Cloudy	Moderate	20:39	16.0	S	0.9	333.9	20.1	20.2	32.0	32.0	8.1	8.1	115.8	120.7	8.7	8.5	9.1	1.7	1.7	1.7	3.4	12.0	<0.001	
						0.9	333.9	20.2		32.0	32.0	8.1		125.6	9.4	1.6		3.9		<0.001					
						0.6	262.2	19.9		32.3	32.3	8.0		105.1	7.9	2.0		3.8		<0.001					
					M	0.6	262.2	19.9	32.3	32.3	8.0	105.4	7.9	1.9	3.2	<0.001									
						1.4	151.6	19.9	32.3	32.3	8.0	102.7	7.7	17.8	30.4	<0.001									
						1.4	151.6	19.9	32.3	32.3	8.0	102.4	7.7	14.8	27.4	<0.001									
IM4	Cloudy	Moderate	20:59	17.6	S	0.6	2.8	20.0	20.0	32.1	32.1	8.1	8.1	113.9	113.8	8.6	8.5	8.6	3.3	3.3	3.3	5.9	8.7	<0.001	
						0.6	75.5	20.0		32.1	32.1	8.1		113.6	8.6	3.3		6.4		<0.001					
						1.0	109.8	20.0		32.1	32.1	8.1		110.6	8.3	4.1		7.1		<0.001					
					M	1.0	109.8	20.0	32.1	32.1	8.1	111.3	8.4	3.9	7.8	<0.001									
						0.2	86.3	19.9	32.2	32.2	8.1	107.7	8.1	6.1	12.2	<0.001									
						0.5	71.2	19.9	32.2	32.2	8.1	107.3	8.1	6.1	13.0	<0.001									
IM5	Cloudy	Moderate	22:16	16.0	S	0.7	206.1	20.0	20.0	32.2	32.2	8.2	8.2	118.2	119.0	8.9	8.6	9.0	1.4	1.4	1.4	4.1	13.2	<0.001	
						0.7	206.1	20.0		32.2	32.2	8.2		119.8	9.0	1.3		5.1		<0.001					
						0.3	51.9	19.9		32.3	32.3	8.1		107.9	8.1	4.2		6.3		<0.001					
					M	0.2	20.8	19.9	32.3	32.3	8.1	108.4	8.2	3.5	5.4	<0.001									
						0.3	34.3	19.9	32.3	32.3	8.1	107.0	8.1	12.0	30.2	<0.001									
						0.3	162.3	19.9	32.3	32.3	8.1	106.6	8.0	12.9	28.1	<0.001									

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*					
IM6	Cloudy	Moderate	22:30	17.1	S	0.4	230.9	20.1	20.1	32.6	32.6	8.1	8.1	106.8	106.9	8.0	8.0	7.9	1.0	1.1	1.8	5.0	5.2	5.8	<0.001					
						0.3	36.2	20.1	20.1	32.6	32.6	8.1	8.1	106.9	106.9	8.0	8.0	7.9	1.1	1.1	1.8	5.3	5.2	5.8	<0.001					
						0.2	53.0	20.1	20.1	32.6	32.6	8.1	8.1	104.6	105.2	7.8	7.9	7.9	1.4	1.3	1.8	5.8	5.7	5.8	<0.001					
					M	0.3	283.5	20.1	20.1	32.6	32.6	8.1	8.1	105.7	105.7	7.9	7.9	7.9	1.2	1.3	1.8	5.5	5.7	1.8	5.5	5.7	5.8	0.005		
						0.2	66.1	20.1	20.1	32.7	32.7	8.1	8.1	101.1	101.6	7.6	7.6	7.6	3.4	3.2	1.8	6.8	6.7	1.8	6.8	6.7	5.8	<0.001		
						0.2	332.6	20.1	20.1	32.7	32.7	8.1	8.1	102.0	102.7	7.6	7.6	7.6	2.9	3.2	1.8	6.6	6.7	1.8	6.6	6.7	5.8	<0.001		
IM7	Fine	Rough	23:47	14.7	S	0.4	120.0	19.6	19.6	33.5	33.5	8.3	8.3	120.7	120.7	9.1	9.1	9.0	1.9	1.8	2.5	3.6	3.2	3.0	<0.001					
						0.4	130.0	19.6	19.6	33.5	33.5	8.3	8.3	120.7	120.7	9.1	9.1	9.0	1.8	1.8	2.5	2.8	3.1	3.0	<0.001					
					M	0.4	115.0	19.6	19.6	33.5	33.5	8.3	8.3	118.3	118.3	8.9	8.9	8.8	2.4	2.4	2.5	3.4	3.1	2.5	3.4	3.1	3.0	<0.001		
						0.4	124.0	19.6	19.6	33.5	33.5	8.3	8.3	118.3	118.3	8.9	8.9	8.8	2.5	2.4	2.5	2.7	3.1	2.5	2.7	3.1	3.0	<0.001		
					B	0.2	101.0	19.6	19.6	33.5	33.5	8.3	8.3	117.0	117.0	8.8	8.8	8.8	3.3	3.3	8.8	3.3	3.3	3.3	2.8	2.8	2.8	<0.001		
						0.2	105.0	19.6	19.6	33.5	33.5	8.3	8.3	117.0	117.0	8.8	8.8	8.8	3.3	3.3	8.8	3.3	3.3	3.3	2.8	2.8	2.8	<0.001		
IM8	Fine	Rough	23:23	13.6	S	0.4	120.0	19.6	19.6	33.6	33.6	8.3	8.3	114.9	114.9	8.6	8.6	8.5	1.7	1.7	2.6	4.6	4.6	5.9	<0.001					
						0.4	122.0	19.6	19.6	33.6	33.6	8.3	8.3	114.8	114.9	8.6	8.6	8.5	1.7	1.7	2.6	4.6	4.6	5.9	<0.001					
					M	0.3	120.0	19.7	19.7	33.7	33.7	8.3	8.3	111.6	111.6	8.4	8.4	8.4	2.1	2.1	2.6	5.0	5.5	2.6	5.0	5.5	5.9	<0.001		
						0.4	120.0	19.7	19.7	33.7	33.7	8.3	8.3	111.6	111.6	8.4	8.4	8.4	2.0	2.1	2.6	5.9	5.5	2.6	5.9	5.5	5.9	<0.001		
					B	0.3	112.0	19.7	19.7	33.8	33.8	8.3	8.3	110.0	110.0	8.2	8.2	8.2	4.0	4.2	8.2	4.3	4.2	2.6	7.9	7.5	5.9	<0.001		
						0.3	115.0	19.7	19.7	33.8	33.8	8.3	8.3	110.0	110.0	8.2	8.2	8.2	4.3	4.2	8.2	4.3	4.2	2.6	7.1	7.5	5.9	<0.001		
IM9	Fine	Rough	22:57	15.6	S	0.5	94.0	19.6	19.6	33.5	33.5	8.3	8.3	117.6	117.6	8.8	8.8	8.8	1.9	1.9	2.6	7.5	8.0	6.3	<0.001					
						0.5	97.0	19.6	19.6	33.5	33.5	8.3	8.3	117.5	117.6	8.8	8.8	8.8	1.9	1.9	2.6	8.5	8.0	2.6	8.5	8.0	6.3	<0.001		
					M	0.5	103.0	19.6	19.6	33.5	33.5	8.3	8.3	116.8	116.8	8.8	8.8	8.8	2.5	2.5	2.6	7.2	7.0	2.6	7.2	7.0	6.3	<0.001		
						0.5	105.0	19.6	19.6	33.5	33.5	8.3	8.3	116.7	116.8	8.8	8.8	8.8	2.6	2.5	2.6	6.8	7.0	2.6	6.8	7.0	6.3	<0.001		
					B	0.3	86.0	19.6	19.6	33.5	33.5	8.3	8.3	114.3	114.2	8.6	8.6	8.6	3.3	3.3	8.6	3.3	3.3	2.6	4.2	3.8	6.3	<0.001		
						0.4	91.0	19.6	19.6	33.5	33.5	8.3	8.3	114.1	114.2	8.6	8.6	8.6	3.3	3.3	8.6	3.3	3.3	2.6	3.4	3.8	6.3	<0.001		
IM10	Fine	Rough	22:16	10.7	S	0.6	52.0	19.7	19.7	33.4	33.4	8.3	8.3	116.3	116.4	8.7	8.7	8.7	7.4	7.5	11.7	31.8	31.5	27.5	<0.001					
						0.7	56.0	19.7	19.7	33.4	33.4	8.3	8.3	116.4	116.4	8.7	8.7	8.7	7.5	7.5	11.7	31.1	31.5	11.7	31.1	31.5	27.5	<0.001		
					M	0.7	50.0	19.7	19.7	33.5	33.5	8.3	8.3	116.6	116.6	8.8	8.8	8.8	11.0	11.0	8.8	11.0	11.0	11.0	24.8	25.2	27.5	<0.001		
						0.7	51.0	19.7	19.7	33.5	33.5	8.3	8.3	116.5	116.6	8.8	8.8	8.8	11.1	11.0	8.8	11.1	11.0	11.0	25.5	25.2	27.5	<0.001		
					B	0.6	47.0	19.6	19.6	33.5	33.5	8.3	8.3	115.1	114.9	8.7	8.6	8.6	16.6	16.6	8.6	16.6	16.6	11.7	25.2	25.8	27.5	<0.001		
						0.6	51.0	19.6	19.6	33.5	33.5	8.3	8.3	114.7	114.9	8.6	8.6	8.6	16.6	16.6	8.6	16.6	16.6	11.7	26.4	25.8	27.5	<0.001		
IM11A	Fine	Moderate	22:04	5.6	S	0.7	178.0	19.7	19.7	33.4	33.4	8.3	8.3	114.6	114.6	8.6	8.6	8.6	13.6	13.7	16.4	12.3	12.8	37.3	<0.001					
						0.8	182.0	19.7	19.7	33.4	33.4	8.3	8.3	114.5	114.6	8.6	8.6	8.6	13.9	13.7	16.4	13.2	12.8	16.4	13.2	12.8	37.3	<0.001		
					B	0.6	159.0	19.7	19.7	33.4	33.4	8.3	8.3	113.0	113.0	8.5	8.5	8.5	19.0	19.0	8.5	19.0	19.0	16.4	63.4	61.8	37.3	<0.001		
						0.6	162.0	19.7	19.7	33.4	33.4	8.3	8.3	112.9	113.0	8.5	8.5	8.5	19.0	19.0	8.5	19.0	19.0	16.4	60.2	61.8	37.3	<0.001		
					IM12	Fine	Moderate	21:55	16.4	S	0.8	178.0	19.7	19.7	33.4	33.4	8.3	8.3	117.7	117.7	8.8	8.8	8.8	4.5	4.5	6.1	5.5	5.9	7.4	<0.001
											0.8	185.0	19.7	19.7	33.4	33.4	8.3	8.3	117.7	117.7	8.8	8.8	8.8	4.5	4.5	6.1	6.3	6.2	6.1	6.3
M	0.6	167.0	19.7	19.7						33.4	33.4	8.3	8.3	117.6	117.6	8.8	8.8	8.8	5.2	5.2	6.1	5.6	6.2	6.1	5.6	6.2	7.4	<0.001		
	0.7	170.0	19.7	19.7						33.4	33.4	8.3	8.3	117.6	117.6	8.8	8.8	8.8	5.3	5.2	6.1	6.7	6.2	6.1	6.7	6.2	7.4	<0.001		
B	0.5	161.0	19.6	19.6						33.5	33.5	8.3	8.3	116.9	116.9	8.8	8.8	8.8	8.7	8.7	8.8	8.6	8.7	6.1	9.7	10.0	7.4	<0.001		
	0.5	162.0	19.6	19.6						33.5	33.5	8.3	8.3	116.9	116.9	8.8	8.8	8.8	8.6	8.7	8.8	8.6	8.7	6.1	10.3	10.0	7.4	<0.001		
IM13	Fine	Moderate	21:34	15.3	S	0.5	194.0	19.4	19.4	33.4	33.4	8.3	8.3	109.5	109.5	8.3	8.3	8.3	3.2	3.2	4.2	5.4	5.8	6.1	<0.001					
						0.5	208.0	19.4	19.4	33.4	33.4	8.3	8.3	109.5	109.5	8.3	8.3	8.3	3.2	3.2	4.2	6.1	5.8	4.2	6.1	5.8	6.1	<0.001		
					M	0.4	188.0	19.5	19.5	33.4	33.4	8.3	8.3	109.3	109.3	8.2	8.2	8.2	3.5	3.5	4.2	5.6	5.3	4.2	5.6	5.3	6.1	<0.001		
						0.4	197.0	19.5	19.5	33.4	33.4	8.3	8.3	109.3	109.3	8.2	8.2	8.2	3.5	3.5	4.2	5.0	5.3	4.2	5.0	5.3	6.1	<0.001		
					B	0.4	193.0	19.5	19.5	33.4	33.4	8.3	8.3	108.0	107.9	8.1	8.1	8.1	5.9	5.9	8.1	5.9	5.9	4.2	7.2	7.4	6.1	<0.001		
						0.4	206.0	19.5	19.5	33.4	33.4	8.3	8.3	107.7	107.9	8.1	8.1	8.1	6.0	5.9	8.1	6.0	5.9	4.2	7.5	7.4	6.1	<0.001		
IM14	Fine	Moderate	21:25	17.1	S	0.6	204.0	19.8	19.8	33.1	33.1	8.3	8.3	115.4	115.4	8.7	8.7	8.4	4.0	4.0	7.4	5.1	5.6	5.3	<0.001					
						0.6	214.0	19.8	19.8	33.1	33.1	8.3	8.3	115.4	115.4	8.7	8.7	8.4	3.9	4.0	7.4	6.0	5.6	7.4	5.6	5.3	<0.001			
					M	0.5	197.0	19.5	19.5	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2	8.2	5.3	5.2	7.4	5.0	5.4	7.4	5.0	5.4	5.3	<0.001		
						0.5	206.0	19.5	19.5	33.4	33.4	8.3	8.3	108.2	108.2	8.2	8.2	8.2	5.1	5.2	7.4	5.7	5.4	7.4	5.7	5.4	5.3	<0.00		

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Ebb

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)			
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value	Average	Value
IM15	Cloudy	Moderate	21:09	7.3	S	0.1	126.0	19.6	19.6	33.0	33.0	8.1	8.1	112.4	112.4	8.5	8.5	8.4	3.3	3.3	6.0	5.9	6.7		
						0.1	137.0	19.6	19.6	33.0	33.0	8.1	8.1	112.3	112.3	8.5	8.5	8.4	3.3	3.3	5.8	5.8			
						0.1	109.0	19.6	19.6	33.0	33.0	8.1	8.1	111.1	111.1	8.4	8.4	8.4	4.4	4.4	6.9	7.0			
					M	0.1	116.0	19.6	19.6	33.0	33.0	8.1	8.1	111.1	111.1	8.4	8.4	8.4	4.4	4.4	7.1	7.1		7.0	7.0
						0.1	115.0	19.6	19.6	33.0	33.0	8.1	8.1	107.8	107.8	8.1	8.1	8.1	9.3	9.3	6.7	6.7		7.2	7.2
						0.1	118.0	19.6	19.6	33.0	33.0	8.1	8.1	107.8	107.8	8.1	8.1	8.1	9.3	9.3	7.6	7.6		7.2	7.2
IM16A	Cloudy	Moderate	21:35	7.3	S	0.3	136.0	19.8	19.8	32.5	32.5	8.1	8.1	120.1	120.1	9.1	9.1	9.0	3.4	3.4	6.8	7.3	6.2		
						0.3	138.0	19.8	19.8	32.5	32.5	8.1	8.1	120.1	120.1	9.1	9.1	9.0	3.4	3.4	7.7	7.7			
						0.3	131.0	19.8	19.8	32.6	32.6	8.1	8.1	118.2	118.2	8.9	8.9	8.9	3.5	3.5	6.7	6.2			
					M	0.3	132.0	19.8	19.8	32.6	32.6	8.1	8.1	118.2	118.2	8.9	8.9	8.9	3.5	3.5	5.7	5.7		6.2	6.2
						0.2	123.0	19.7	19.7	32.6	32.6	8.1	8.1	116.2	116.2	8.8	8.8	8.8	3.2	3.2	5.3	5.3		5.1	5.1
						0.2	132.0	19.7	19.7	32.6	32.6	8.1	8.1	116.2	116.2	8.8	8.8	8.8	3.2	3.2	4.9	4.9		5.1	5.1
IM17	Cloudy	Moderate	21:56	5.8	S	0.4	130.0	19.8	19.8	31.8	31.8	8.1	8.1	118.8	118.8	9.0	9.0	9.0	3.6	3.6	3.8	4.3	5.0		
						0.4	138.0	19.8	19.8	31.8	31.8	8.1	8.1	118.8	118.8	9.0	9.0	9.0	3.9	3.9	4.8	4.8			
						0.3	130.0	19.7	19.7	32.0	32.0	8.1	8.1	114.4	114.4	8.7	8.7	8.7	5.5	5.5	6.1	6.1			
					B	0.3	138.0	19.7	19.7	32.0	32.0	8.1	8.1	114.4	114.4	8.7	8.7	8.7	5.5	5.5	5.3	5.3		5.7	5.7
						0.5	153.0	20.0	20.0	31.0	31.0	8.1	8.1	106.1	106.1	8.0	8.0	8.0	1.5	1.5	1.6	1.6		2.1	2.1
						0.5	164.0	20.0	20.0	31.0	31.0	8.1	8.1	106.1	106.1	8.0	8.0	8.0	1.5	1.5	2.5	2.5		2.1	2.1
IM18	Cloudy	Moderate	23:37	17.0	M	0.5	163.0	19.8	19.8	32.1	32.1	8.1	8.1	101.0	101.0	7.6	7.6	7.6	3.6	3.6	2.5	2.4	2.6		
						0.5	165.0	19.8	19.8	32.1	32.1	8.1	8.1	101.0	101.0	7.6	7.6	7.6	3.6	3.6	2.3	2.3			
						0.4	157.0	19.8	19.8	32.2	32.2	8.1	8.1	100.3	100.3	7.6	7.6	7.6	14.4	14.4	3.6	3.6			
					B	0.4	158.0	19.8	19.8	32.2	32.2	8.1	8.1	100.3	100.3	7.6	7.6	7.6	14.4	14.4	2.9	2.9		3.3	3.3
						0.8	169.0	20.0	20.0	30.8	30.8	8.1	8.1	105.1	105.1	8.0	8.0	8.0	0.9	0.9	2.6	2.6		2.7	2.7
						0.8	172.0	20.0	20.0	30.8	30.8	8.1	8.1	105.0	105.0	8.0	8.0	8.0	1.0	1.0	2.7	2.7		2.7	2.7
IM19	Cloudy	Moderate	23:26	18.0	M	0.7	173.0	20.0	20.0	31.3	31.3	8.1	8.1	102.7	102.7	7.8	7.8	7.8	2.0	2.0	2.9	3.0	2.7		
						0.7	189.0	20.0	20.0	31.3	31.3	8.1	8.1	102.7	102.7	7.8	7.8	7.8	2.0	2.0	3.1	3.1			
						0.6	162.0	20.0	20.0	31.9	31.9	8.1	8.1	101.5	101.5	7.7	7.7	7.7	5.6	5.6	2.1	2.1			
					B	0.6	170.0	20.0	20.0	31.9	31.9	8.1	8.1	101.5	101.5	7.7	7.7	7.7	5.6	5.6	3.0	3.0		2.6	2.6
						0.5	234.0	20.8	20.8	30.4	30.4	8.0	8.0	100.9	100.9	7.6	7.6	7.6	5.6	5.6	10.9	10.9		10.7	10.7
						0.5	244.0	20.8	20.8	30.4	30.4	8.0	8.0	100.9	100.9	7.6	7.6	7.6	5.6	5.6	10.4	10.4		10.7	10.7
IM20A	Cloudy	Moderate	22:58	5.4	B	0.3	234.0	20.2	20.2	31.4	31.4	8.0	8.0	100.0	100.0	7.5	7.5	7.5	5.7	5.7	7.2	7.7	9.2		
						0.4	236.0	20.2	20.2	31.4	31.4	8.0	8.0	100.0	100.0	7.5	7.5	7.5	5.7	5.7	8.2	8.2			
						0.4	208.0	20.3	20.3	31.5	31.5	8.0	8.0	99.3	99.3	7.5	7.5	7.5	5.9	5.9	5.5	5.5			
					S	0.4	213.0	20.3	20.3	31.5	31.5	8.0	8.0	99.3	99.3	7.5	7.5	7.5	5.9	5.9	6.4	6.4			
						0.3	204.0	20.3	20.3	31.5	31.5	8.0	8.0	99.9	99.9	7.5	7.5	7.5	5.4	5.4	9.0	9.0			
						0.3	217.0	20.3	20.3	31.5	31.5	8.0	8.0	99.9	99.9	7.5	7.5	7.5	5.4	5.4	10.0	10.0			
IM21A	Cloudy	Moderate	23:09	5.8	B	0.4	222.0	21.6	21.6	31.6	31.6	8.0	8.0	101.8	101.8	7.5	7.5	7.5	5.5	5.5	9.3	9.0	8.8		
						0.4	224.0	21.6	21.6	31.6	31.6	8.0	8.0	101.8	101.8	7.5	7.5	7.5	5.5	5.5	8.6	8.6			
						0.4	219.0	21.6	21.6	31.6	31.6	8.0	8.0	101.8	101.8	7.5	7.5	7.5	5.2	5.2	9.0	9.0			
					S	0.4	240.0	21.6	21.6	31.6	31.6	8.0	8.0	101.8	101.8	7.5	7.5	7.5	5.2	5.2	8.2	8.2			

Remark: * DA: Depth-Averaged

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

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

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*		
E1	Cloudy	Moderate	14:00	9.5	S	0.1	188.6	20.4	20.4	32.1	32.1	8.1	8.1	119.1	119.6	8.9	8.9	8.7	1.7	1.6	2.4	5.6	6.2				
						0.4	83.6	20.5	20.1	32.1	32.1	8.1	8.1	120.1	112.2	9.0	8.4	8.1	2.5	2.4	2.4	1.4			5.1		
						0.3	83.4	20.1	20.1	32.1	32.1	8.1	8.1	111.2	112.2	8.4	8.5	8.4	2.2	2.4	2.4	6.1			5.7		
					M	0.2	298.4	20.1	20.1	32.1	32.1	8.0	8.0	113.2	107.8	8.5	8.1	8.1	3.2	3.2	8.1	3.1			3.2	7.5	8.0
						0.3	27.9	20.1	20.1	32.1	32.1	8.0	8.0	107.8	107.8	8.1	8.1	8.1	3.1	3.2	8.1	3.1			3.2	8.5	
						0.3	27.9	20.1	20.1	32.1	32.1	8.0	8.0	107.7	107.8	8.1	8.1	8.1	3.1	3.2	8.1	3.1			3.2	8.5	
B	0.7	333.7	20.6	20.6	32.0	32.0	8.4	8.4	133.3	135.6	9.9	10.1	9.8	2.1	2.0	9.8	1.9	2.0	2.4	2.6	6.2						
	0.2	359.8	20.7	20.6	32.0	32.0	8.5	8.4	137.8	128.2	10.3	9.5	9.8	2.1	2.1	9.8	2.0	2.1	3.0	3.0							
	0.5	310.8	20.6	20.6	32.0	32.0	8.4	8.4	122.9	128.2	9.2	9.5	9.8	2.1	2.1	9.8	2.0	2.1	3.0	3.0							
E2	Cloudy	Moderate	17:07	9.5	S	0.1	326.5	20.6	20.6	32.0	32.0	8.4	8.4	133.5	103.4	9.9	7.8	7.8	8.0	7.8	8.0	14.0	6.2				
						0.6	202.6	20.1	20.1	32.1	32.1	8.3	8.3	104.2	103.4	7.8	7.8	7.8	8.0	7.8	8.0	14.0					
						0.6	323.8	20.1	20.1	32.1	32.1	8.3	8.3	102.6	103.4	7.7	7.7	7.8	7.6	7.8	12.2	13.1					
					M	0.7	333.7	20.6	20.6	32.0	32.0	8.4	8.4	133.3	135.6	9.9	10.1	9.8	2.1	2.0	9.8	1.9			2.0	2.4	2.6
						0.5	310.8	20.6	20.6	32.0	32.0	8.4	8.4	122.9	128.2	9.2	9.5	9.8	2.1	2.1	9.8	2.0			2.1	3.0	3.0
						0.1	326.5	20.6	20.6	32.0	32.0	8.4	8.4	133.5	103.4	9.9	7.8	7.8	8.0	7.8	8.0	14.0			13.1		
B	0.6	202.6	20.1	20.1	32.1	32.1	8.3	8.3	104.2	103.4	7.8	7.8	7.8	8.0	7.8	8.0	14.0	13.1									
	0.6	323.8	20.1	20.1	32.1	32.1	8.3	8.3	102.6	103.4	7.7	7.7	7.8	7.6	7.8	12.2	13.1										
	0.6	323.8	20.1	20.1	32.1	32.1	8.3	8.3	102.6	103.4	7.7	7.7	7.8	7.6	7.8	12.2	13.1										
E3	Cloudy	Rough	15:57	17.8	S	0.4	271.0	19.7	19.7	32.8	32.8	8.3	8.3	115.5	115.5	8.7	8.7	8.6	2.1	2.1	2.8	3.0	2.9				
						0.4	277.0	19.7	19.7	32.8	32.8	8.3	8.3	115.5	115.5	8.7	8.7	8.6	2.1	2.1	2.8	3.0					
						0.3	269.0	19.5	19.5	33.5	33.5	8.3	8.3	113.1	113.1	8.5	8.5	8.5	1.8	1.8	2.8	3.4					
					M	0.3	284.0	19.5	19.5	33.5	33.5	8.3	8.3	113.0	113.1	8.5	8.5	8.5	1.8	1.8	2.8	3.4					
						0.3	279.0	19.4	19.4	33.5	33.5	8.3	8.3	106.5	106.5	8.0	8.0	8.0	4.5	4.6	2.7	2.5					
						0.3	304.0	19.4	19.4	33.5	33.5	8.3	8.3	106.4	106.5	8.0	8.0	8.0	4.6	4.6	2.2	2.5					
B	0.7	21.0	20.1	20.1	32.7	32.7	8.3	8.3	121.5	121.5	9.1	9.1	8.8	1.5	1.5	2.0	2.4										
	0.7	21.0	20.1	20.1	32.7	32.7	8.3	8.3	121.4	121.5	9.1	9.1	8.8	1.6	1.5	2.0	2.4										
	0.6	29.0	19.5	19.5	33.0	33.0	8.3	8.3	113.1	113.1	8.6	8.6	8.6	6.6	6.3	5.2	4.9										
E4	Cloudy	Rough	17:09	12.3	M	0.6	31.0	19.5	19.5	33.0	33.0	8.3	8.3	113.0	113.1	8.6	8.6	8.4	6.6	6.3	6.1	4.9	4.0				
						0.6	31.0	19.5	19.5	33.0	33.0	8.3	8.3	113.0	113.1	8.6	8.6	8.4	6.6	6.3	6.1	4.9					
						0.5	32.0	19.5	19.5	33.0	33.0	8.3	8.3	111.4	111.4	8.4	8.4	8.4	17.9	17.0	4.9	4.7					
					B	0.5	34.0	19.5	19.5	33.0	33.0	8.3	8.3	111.3	111.4	8.4	8.4	8.4	16.1	17.0	4.5	4.7					
						0.6	23.0	19.9	19.9	32.4	32.4	8.0	8.0	120.6	120.6	9.1	9.1	9.0	8.6	8.6	7.5	7.4					
						0.7	25.0	19.9	19.9	32.4	32.4	8.0	8.0	120.6	120.6	9.1	9.1	9.0	8.6	8.6	7.2	7.4					
S	0.7	20.0	19.8	19.8	32.5	32.5	8.0	8.0	117.8	117.8	8.9	8.9	9.0	11.3	11.3	10.5	10.2										
	0.7	20.0	19.8	19.8	32.5	32.5	8.0	8.0	117.8	117.8	8.9	8.9	9.0	11.3	11.3	9.8	10.2										
	0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	16.3	16.0										
E5	Cloudy	Moderate	18:25	7.2	M	0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0	11.2				
						0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0					
						0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0					
					B	0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0					
						0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0					
						0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	15.7	16.0					
S	0.6	23.0	19.9	19.9	32.4	32.4	8.0	8.0	120.6	120.6	9.1	9.1	9.0	8.6	8.6	7.5	7.4										
	0.7	25.0	19.9	19.9	32.4	32.4	8.0	8.0	120.6	120.6	9.1	9.1	9.0	8.6	8.6	7.2	7.4										
	0.7	20.0	19.8	19.8	32.5	32.5	8.0	8.0	117.8	117.8	8.9	8.9	9.0	11.3	11.3	10.5	10.2										
E6	Cloudy	Moderate	17:15	6.4	M	0.7	20.0	19.8	19.8	32.5	32.5	8.0	8.0	117.8	117.8	8.9	8.9	9.0	11.3	11.3	10.5	10.2	9.3				
						0.7	20.0	19.8	19.8	32.5	32.5	8.0	8.0	117.8	117.8	8.9	8.9	9.0	11.3	11.3	9.8	10.2					
						0.6	22.0	19.8	19.8	32.5	32.5	8.0	8.0	114.0	114.0	8.6	8.6	8.6	12.5	12.5	16.3	16.0					
					S	0.8	343.0	20.2	20.2	30.7	30.7	8.1	8.1	104.3	104.3	7.9	7.9	7.8	3.0	3.0	9.0	9.4					
						0.8	353.0	20.2	20.2	30.7	30.7	8.1	8.1	104.3	104.3	7.9	7.9	7.8	3.0	3.0	9.8	9.4					
						0.7	342.0	20.0	20.0	31.4	31.4	8.1	8.1	100.9	100.9	7.6	7.6	7.6	7.4	7.4	9.1	8.7					
M	0.7	5.0	20.0	20.0	31.4	31.4	8.1	8.1	100.9	100.9	7.6	7.6	7.6	7.4	7.4	8.3	8.7										
	0.6	339.0	20.0	20.0	31.5	31.5	8.1	8.1	100.8	100.8	7.6	7.6	7.6	7.6	7.6	10.1	9.8										
	0.6	10.0	20.0	20.0	31.5	31.5	8.1	8.1	100.8	100.8	7.6	7.6	7.6	7.6	7.6	9.4	9.8										
B	0.5	15.0	20.5	20.5	30.1	30.1	8.1	8.1	103.6	103.6	7.8	7.8	7.8	1.6	1.6	1.9	1.9										
	0.5	15.0	20.5	20.5	30.1	30.1	8.1	8.1	103.6	103.6	7.8	7.8	7.8	1.6	1.6	1.9	1.9										
	0.3	15.0	20.1	20.1	31.2	31.2	8.0	8.0	102.5	102.5	7.7	7.7	7.7	3.1	3.1	2.8	3.3										
E7A	Cloudy	Moderate	16:54	5.4	S	0.5	15.0	20.5	20.5	30.1	30.1	8.1	8.1	103.6	103.6	7.8	7.8	7.8	1.6	1.6	1.9	1.9	2.6				
						0.5	15.0	20.5	20.5	30.1	30.1	8.1	8.1	103.6	103.6	7.8	7.8	7.8	1.6	1.6	1.9	1.9					
						0.3	15.0	20.1	20.1	31.2	31.2	8.0	8.0	102.5	102.5	7.7	7.7	7.7	3.1	3.1	2.8	3.3					
					M	0.3	15.0	20.1	20.1	31.2	31.2	8.0	8.0	102.5	102.5	7.7	7.7	7.7	3.1	3.1	2.8	3.3					
						0.5	211.5	20.4	20.4	32.4	32.4	8.2	8.2	112.2	114.5	8.4	8.5	8.1	1.0	1.0	1.4	1.5					
						0.5	211.5	20.4	20.4	32.4	32.4	8.2	8.2	112.2	114.5	8.4	8.5	8.1	1.0	1.0	1.4	1.5					
B	0.8	332.7	20.0	20.0																							

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity (NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*			
F3	Cloudy	Moderate	15:53	18.6	S	0.6	287.4	20.4	20.4	32.4	32.4	8.3	8.3	119.1	119.6	8.9	8.9	8.3	0.9	0.9	2.3	1.6	2.1	3.6	<0.001			
						0.6	287.4	20.4	20.0	32.4	32.6	8.3	8.3	120.1	103.6	9.0	7.8	8.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	<0.001		
					M	0.7	280.2	20.0	20.0	32.6	32.6	8.3	8.3	103.4	103.6	7.8	7.8	8.3	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	<0.001	
						0.2	248.8	20.0	20.0	32.6	32.6	8.3	8.3	103.7	103.6	7.8	7.8	8.3	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	<0.001	
					B	0.9	333.0	20.0	20.0	32.6	32.6	8.3	8.3	102.2	101.9	7.7	7.6	7.6	4.2	4.1	7.6	4.2	4.1	7.6	4.2	4.1	6.1	<0.001
						0.2	13.0	20.0	20.0	32.6	32.6	8.3	8.3	101.6	101.9	7.6	7.6	7.6	4.0	4.1	7.6	4.0	4.1	7.6	4.0	4.1	6.1	0.002
F4	Cloudy	Moderate	16:42	14.4	S	0.9	255.2	20.3	20.2	32.1	32.1	8.4	8.4	133.7	134.9	10.0	10.1	9.5	2.2	2.1	7.5	2.2	2.5	12.0				
						0.9	255.2	20.2	20.0	32.1	32.1	8.4	8.4	136.1	118.6	10.2	8.9	9.5	2.0	2.1	7.5	2.0	2.1	7.5	2.0	2.1		
					M	0.2	344.3	20.0	20.0	32.1	32.1	8.4	8.4	119.0	118.6	9.0	8.9	8.5	5.9	5.9	8.5	5.9	5.9	8.5	5.9	6.6	12.0	
						0.6	241.7	20.0	19.9	32.1	32.1	8.4	8.3	118.2	113.2	8.9	8.5	8.5	5.8	5.9	8.5	5.8	5.9	8.5	5.8	6.6	12.0	
					B	0.7	329.3	19.9	19.9	32.1	32.1	8.3	8.3	113.4	113.2	8.5	8.5	8.5	14.4	14.6	8.5	14.4	14.6	8.5	14.4	14.6	26.9	
						0.7	329.3	19.9	19.9	32.1	32.1	8.3	8.3	113.0	113.2	8.5	8.5	8.5	14.8	14.6	8.5	14.8	14.6	8.5	14.8	14.6	26.9	
F5	Cloudy	Moderate	19:07	7.1	S	0.4	33.0	19.6	19.6	32.9	32.9	8.0	8.0	112.8	112.8	8.5	8.5	8.4	4.4	4.4	5.1	4.4	4.4	7.7				
						0.4	33.0	19.6	19.6	32.9	32.9	8.0	8.0	112.8	112.8	8.5	8.5	8.4	4.4	4.4	5.1	4.4	4.4	5.1	7.7			
					M	0.3	34.0	19.6	19.6	32.9	32.9	8.0	8.0	110.7	110.7	8.4	8.4	8.4	5.3	5.3	8.4	5.3	5.3	8.4	5.3	8.1	7.7	
						0.3	35.0	19.6	19.6	32.9	32.9	8.0	8.0	110.7	110.7	8.4	8.4	8.4	5.3	5.3	8.4	5.3	5.3	8.4	5.3	8.1	7.7	
					B	0.2	32.0	19.6	19.6	32.9	32.9	8.0	8.0	108.2	108.2	8.2	8.2	8.2	5.5	5.5	8.2	5.5	5.5	8.2	5.5	5.5	8.1	7.7
						0.2	34.0	19.6	19.6	32.9	32.9	8.0	8.0	108.2	108.2	8.2	8.2	8.2	5.5	5.5	8.2	5.5	5.5	8.2	5.5	5.5	8.1	7.7
F6	Cloudy	Moderate	15:18	15.2	S	0.2	288.0	20.2	20.2	31.3	31.3	7.9	7.9	105.3	105.3	7.9	7.9	7.9	0.8	0.8	3.1	0.8	0.8	2.3				
						0.3	297.0	20.2	20.0	31.3	31.4	7.9	7.9	105.3	104.0	7.9	7.9	7.9	0.8	0.8	7.9	0.8	0.8	7.9	0.8	2.3		
					M	0.3	298.0	19.9	19.9	31.4	31.4	7.9	7.9	104.0	104.0	7.9	7.9	7.9	2.4	2.4	7.9	2.4	2.4	7.9	2.4	2.6	2.3	
						0.3	301.0	19.9	19.9	31.4	31.4	7.9	7.9	104.0	104.0	7.9	7.9	7.9	2.4	2.4	7.9	2.4	2.4	7.9	2.4	2.6	2.3	
					B	0.2	351.0	19.7	19.7	32.0	32.0	7.8	7.8	102.9	102.9	7.8	7.8	7.8	6.2	6.2	7.8	6.2	6.2	7.8	6.2	6.2	1.6	1.6
						0.2	3.0	19.7	19.7	32.0	32.0	7.8	7.8	102.9	102.9	7.8	7.8	7.8	6.2	6.2	7.8	6.2	6.2	7.8	6.2	6.2	1.5	1.6
IM1	Cloudy	Moderate	14:32	10.5	S	0.3	134.6	20.3	20.3	32.4	32.4	8.2	8.2	113.3	114.4	8.5	8.6	8.3	1.4	1.4	2.6	1.4	1.4	3.6				
						0.3	134.6	20.3	20.0	32.4	32.5	8.2	8.1	115.5	106.1	8.6	8.0	8.3	1.3	1.4	8.3	1.3	1.4	8.3	1.3	1.9	3.6	
					M	0.4	7.1	20.0	20.0	32.5	32.5	8.1	8.1	105.9	106.1	8.0	8.0	8.0	1.9	1.9	8.0	1.9	1.9	8.0	1.9	3.1	3.6	
						0.6	128.9	20.0	20.0	32.5	32.5	8.1	8.1	106.3	106.1	8.0	8.0	8.0	1.8	1.9	8.0	1.8	1.9	8.0	1.8	3.1	3.6	
					B	3.1	47.1	20.0	20.0	32.5	32.5	8.1	8.1	103.2	103.1	7.7	7.7	7.7	4.5	4.6	7.7	4.5	4.6	7.7	4.5	4.6	5.9	
						0.4	229.6	20.0	20.0	32.5	32.5	8.1	8.1	102.9	103.1	7.7	7.7	7.7	4.7	4.6	7.7	4.7	4.6	7.7	4.7	4.6	5.9	
IM2	Cloudy	Moderate	14:12	12.0	S	1.1	48.6	20.5	20.5	32.0	32.0	8.2	8.2	125.8	128.1	9.4	9.5	8.9	1.7	1.7	2.9	1.7	1.7	8.5				
						0.3	79.6	20.6	20.1	32.0	32.2	8.2	8.1	130.3	109.4	9.7	8.2	8.9	1.6	1.9	8.9	1.6	1.9	8.9	1.6	1.9	8.5	
					M	0.3	290.5	20.1	20.1	32.2	32.2	8.1	8.1	108.6	109.4	8.2	8.2	8.2	2.0	1.9	8.2	2.0	1.9	8.2	2.0	3.9	8.5	
						0.3	290.5	20.1	20.0	32.2	32.4	8.1	8.1	110.2	103.5	8.3	7.8	8.2	1.8	1.9	8.2	1.8	1.9	8.2	1.8	3.9	8.5	
					B	0.2	64.5	20.0	20.0	32.4	32.4	8.1	8.1	104.3	103.5	7.8	7.8	7.8	5.6	5.1	7.8	5.6	5.1	7.8	5.6	5.1	18.5	
						0.3	298.7	20.0	20.0	32.4	32.4	8.1	8.1	102.7	103.5	7.7	7.8	7.8	4.6	5.1	7.8	4.6	5.1	7.8	4.6	5.1	18.5	
IM3	Cloudy	Moderate	17:53	16.0	S	0.2	38.0	20.4	20.4	32.1	32.1	8.5	8.5	134.0	137.2	10.0	10.3	9.4	1.2	1.2	6.1	1.2	1.2	9.2				
						0.9	248.1	20.4	20.0	32.1	32.1	8.5	8.4	140.4	112.9	10.5	8.4	9.4	1.2	1.2	9.4	1.2	1.2	9.4	1.2	2.8	9.2	
					M	0.5	150.1	20.0	20.0	32.1	32.1	8.4	8.4	112.0	112.9	8.6	8.5	8.5	2.2	2.1	8.5	2.2	2.1	8.5	2.2	3.2	9.2	
						0.5	150.1	20.0	20.0	32.1	32.1	8.4	8.4	113.7	112.9	8.6	8.5	8.5	1.9	2.1	8.5	1.9	2.1	8.5	1.9	2.1	3.2	9.2
					B	0.7	294.4	19.9	19.9	32.4	32.4	8.3	8.3	104.2	103.3	7.8	7.8	7.8	14.3	15.1	7.8	14.3	15.1	7.8	14.3	15.1	21.8	
						0.7	294.4	19.9	19.9	32.4	32.4	8.3	8.3	102.4	103.3	7.7	7.8	7.8	15.8	15.1	7.8	15.8	15.1	7.8	15.8	15.1	21.8	
IM4	Cloudy	Moderate	17:32	18.1	S	0.4	263.6	20.4	20.4	31.9	31.9	8.5	8.5	140.0	142.5	10.5	10.6	9.8	1.3	1.3	3.3	1.3	1.3	6.3				
						0.4	263.6	20.4	20.1	31.9	31.9	8.5	8.4	144.9	119.5	10.8	9.0	9.8	1.3	1.3	9.8	1.3	1.3	9.8	1.3	2.9	6.3	
					M	0.1	213.8	20.1	20.1	32.0	32.0	8.4	8.4	117.2	119.5	8.8	9.0	9.0	2.1	2.0	9.0	2.1	2.0	9.0	2.1	3.0	6.3	
						1.0	254.0	20.1	19.9	32.0	32.0	8.4	8.3	121.7	105.6	9.2	8.0	7.9	1.9	6.5	7.9	1.9	6.5	7.9	1.9	6.5	13.1	6.3
					B	0.6	254.4	19.9	19.9	32.3	32.3	8.3	8.3	106.7	105.6	8.0	7.9	7.9	6.0	6.5	7.9	6.0	6.5	7.9	6.0	6.5	13.1	6.3
						0.6	254.4	19.9	19.9	32.3	32.3	8.3	8.3	104.5	105.6	7.9	7.9	7.9	7.0	6.5	7.9	7.0	6.5	7.9	7.0	6.5	13.1	6.3
IM5	Cloudy	Moderate	16:17	16.5	S	0.6	300.6	20.4	20.4	32.0	32.0	8.4	8.4	131.7	135.9	9.8	10.2	9.3	1.2	1.2	4.7	1.2	1.2	3.0				
						0.6	300.6	20.4	20.0	32.0	32.0	8.4	8.3	140.0	113.2	10.5	8.5	9.3	1.2	1.4	9.3	1.2	1.4	9.3	1.2	2.5	3.0	
					M	0.7	296.5	19.8	19.8	32.2	32.2	8.3	8.3	113.1	113.2	8.5	8.5	8.5	2.1	2.5	8.5	2.1	2.5	8.5	2.1	2.5	3.0	
						0.2	324.1	19.8	19.8	32.2	32.2	8.3	8.3	113.3	113.2	8.6												

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)		Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)							
						Value	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value		Average	DA*					
IM6	Cloudy	Moderate	16:03	17.0	S	0.4	333.1	20.5	20.5	32.1	32.1	8.4	8.4	120.0	131.7	9.0	9.8	9.1	1.0	1.1	2.1	3.0	3.4	4.0	<0.001					
						0.4	333.1	20.5		32.1		8.4		143.4		10.7			1.1			3.7								
					M	0.4	71.1	19.9	32.4	32.4	8.3	8.3	110.1	111.4	8.3	8.4	8.1	1.1	1.0	2.1	1.4	1.6	2.1		1.8	1.6	<0.001			
						0.4	71.1	19.9	32.4		8.3		112.6		8.5			0.9			1.8									
					B	0.3	270.7	20.0	20.0	32.5	32.5	8.3	8.3	105.2	103.7	7.9	7.8	7.8	3.9	4.2	2.1	4.3	7.1		2.1	7.1	7.1	<0.001		
						1.1	270.2	20.0	32.5	8.3		102.2		7.7		4.5			9.9											
					0.3	337.0	19.9	19.9	33.5	33.5	8.3	8.3	128.2	128.1	9.6	9.6	9.2	0.9	0.9	1.4	4.5	4.1	3.0	<0.001						
					0.3	338.0	19.9	33.5	8.3		128.0		9.6		0.9			3.6												
IM7	Cloudy	Rough	15:03	14.2	S	0.1	202.0	19.5	19.5	33.5	33.5	8.2	8.2	118.1	118.0	8.9	8.9	9.2	1.2	1.2	1.4	2.1	2.3	3.0	2.5					
						0.2	209.0	19.5		33.5		8.2		117.9		8.9			1.2			2.2								
					M	0.2	100.0	19.4	19.4	33.5	33.5	8.2	8.2	109.7	109.7	8.3	8.3	8.3	2.1	2.1	1.6	2.2	2.6		1.6	2.6	2.6	3.0		
						0.2	101.0	19.4	33.5	8.2		109.7		8.3		2.0			3.0											
					B	0.3	295.0	19.8	19.8	33.5	33.5	8.3	8.3	124.5	124.5	9.3	9.3	8.9	1.2	1.2	1.6	1.2	1.2		1.6	3.8	3.3	2.8	2.8	
						0.3	308.0	19.8	33.5	8.3		124.4		9.3		1.2			2.8											
M	0.1	336.0	19.4	19.4	33.6	33.6	8.2	8.2	112.5	112.6	8.5	8.5	8.5	1.9	1.8	1.6	1.9	1.8	1.6	3.3	2.8	2.8	2.3							
	0.1	347.0	19.4	33.6	8.2		112.6		8.5		1.8			2.3																
B	0.1	310.0	19.4	19.4	33.6	33.6	8.2	8.2	111.6	111.6	8.4	8.4	8.4	1.9	1.9	1.6	1.9	1.9	1.6	2.8	2.4	2.8	2.4							
	0.1	328.0	19.4	33.6	8.2		111.6		8.4		1.9			2.4																
IM8	Cloudy	Rough	15:11	13.1	S	0.1	348.0	20.1	20.1	33.5	33.5	8.3	8.3	123.3	123.2	9.2	9.2	8.8	1.3	1.3	1.8	2.4	2.0	2.1	1.5					
						0.1	21.0	20.0		33.5		8.3		123.1		9.2			1.3			1.7								
					M	0.1	313.0	19.4	19.4	33.5	33.5	8.3	8.3	112.7	112.6	8.5	8.5	8.5	1.9	2.0	1.8	2.0	2.0		1.8	2.2	2.2	2.1	2.2	
						0.1	329.0	19.4	33.5	8.3		112.5		8.5		2.7			2.7											
					B	0.1	296.0	19.4	19.4	33.6	33.6	8.3	8.3	110.1	110.1	8.3	8.3	8.3	2.2	2.2	1.8	2.1	2.2		1.8	2.2	2.2	2.1	2.2	
						0.1	312.0	19.4	33.6	8.3		110.0		8.3		2.2			2.2											
IM9	Cloudy	Rough	15:31	14.9	S	0.3	300.0	20.3	20.3	33.3	33.3	8.3	8.3	119.0	119.0	8.8	8.8	8.6	2.7	2.7	6.6	2.9	3.2	3.9	3.5					
						0.3	311.0	20.3		33.3		8.3		118.9		8.8			2.7			3.5								
					M	0.4	327.0	19.6	19.6	33.4	33.4	8.3	8.3	112.2	112.2	8.4	8.4	8.4	4.6	4.7	6.6	4.8	4.7		6.6	3.8	3.9	3.9	3.9	
						0.5	342.0	19.6	33.4	8.3		112.2		8.4		4.8			3.9											
					B	0.2	324.0	19.6	19.6	33.4	33.4	8.3	8.3	111.2	111.2	8.4	8.4	8.4	12.4	12.4	6.6	12.4	12.4		6.6	4.0	4.5	4.0	4.5	
						0.2	344.0	19.6	33.4	8.3		111.2		8.4		5.0			5.0											
IM10	Cloudy	Rough	16:15	12.8	S	0.7	249.0	19.5	19.5	33.4	33.4	8.3	8.3	107.3	107.3	8.1	8.1	8.1	14.0	14.0	14.9	30.6	32.2	24.0	33.7					
						0.8	258.0	19.5		33.4		8.3		107.2		8.1			14.0			33.7								
					B	0.7	250.0	19.5	19.5	33.4	33.4	8.3	8.3	105.7	105.6	8.0	8.0	8.0	15.8	15.8		14.9	16.2		15.8	14.9	16.2	15.8	16.2	15.8
						0.7	268.0	19.5	33.4	8.3		105.5		8.0		15.9			15.4											
					S	0.8	336.0	19.5	19.5	33.4	33.4	8.3	8.3	109.7	109.7	8.3	8.3	8.2	3.3	3.3		6.2	10.7		10.2	6.2	10.7	10.2	11.6	9.7
						0.8	357.0	19.5	33.4	8.3		109.6		8.3		9.7			14.6											
M	0.9	327.0	19.4	19.4	33.5	33.5	8.3	8.3	107.6	107.6	8.1	8.1	8.1	6.5	6.5	6.2	14.6	14.1	6.2	14.6	14.1	11.6	13.5							
	0.9	345.0	19.4	33.5	8.3		107.5		8.1		6.5			13.5																
B	0.9	331.0	19.4	19.4	33.5	33.5	8.3	8.3	106.9	106.9	8.1	8.1	8.1	8.7	8.8	6.2	11.0	10.5	6.2	11.0	10.5	11.6	10.5							
	1.0	352.0	19.4	33.5	8.3		106.9		8.1		10.0			10.5																
IM11A	Cloudy	Rough	16:24	5.1	S	1.0	312.0	19.7	19.7	32.8	32.8	8.3	8.3	120.1	120.1	9.0	9.0	8.7	1.7	1.7	5.5	2.1	2.6	6.9	3.1					
						1.1	317.0	19.7		32.8		8.3		120.0		9.0			1.7			3.1								
					M	0.9	319.0	19.4	19.4	33.0	33.0	8.3	8.3	109.1	109.0	8.3	8.3	8.0	2.4	2.4	5.5	2.4	2.4		5.5	8.6	9.0	6.9	8.6	
						0.9	339.0	19.4	33.0	8.3		108.9		8.3		2.5			9.4											
					B	0.6	317.0	19.4	19.4	33.2	33.2	8.3	8.3	105.6	105.6	8.0	8.0	8.0	12.4	12.4	5.5	8.5	9.0		5.5	9.5	9.0	6.9	9.5	
						0.7	319.0	19.4	33.2	8.3		105.6		8.0		12.4			9.5											
IM12	Cloudy	Rough	16:34	16.1	S	0.7	8.0	19.7	19.7	32.8	32.8	8.3	8.3	117.7	117.7	8.9	8.9	8.6	3.7	3.7	11.4	3.5	4.0	9.6	4.5					
						0.8	8.0	19.7		32.8		8.3		117.6		8.9			3.7			4.5								
					M	0.8	13.0	19.4	19.4	33.1	33.1	8.3	8.3	109.0	109.0	8.2	8.2	8.6	14.0	14.0		11.4	9.4		9.7	11.4	9.4	9.7	9.6	9.9
						0.8	13.0	19.4	33.1	8.3		109.0		8.2		14.0			9.9											
					B	0.7	30.0	19.4	19.4	33.1	33.1	8.3	8.3	108.6	108.6	8.2	8.2	8.2	16.5	16.6		11.4	14.9		15.2	11.4	14.9	15.2	9.6	15.5
						0.7	30.0	19.4	33.1	8.3		108.6		8.2		16.6			15.5											

Water Quality Monitoring Data Log Sheet

Date: 2020/01/22

Tide: Mid-Flood

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	Current Direction	Temperature (°C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended Solids (mg/L)		Total Residual Chlorine (mg/L)		
								Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average		Value	Average
IM15	Cloudy	Moderate	18:40	7.1	S	0.7	21.0	19.8	19.8	32.7	32.7	8.0	8.0	117.9	117.9	8.9	8.9	8.7	5.3	5.3	5.0	5.3	7.9	
						0.7	22.0	19.8		32.7	8.0	117.9		8.9		5.3								
						0.7	18.0	19.6		32.9	8.0	114.2		8.6		6.9								
					M	0.7	18.0	19.6	19.6	32.9	32.9	8.0	8.0	114.2	8.6	8.6	8.2	6.9	6.9	6.4	6.2	6.6		
						B	0.6	17.0	19.6	19.6	32.9	32.9	8.0	8.0	108.5	108.5	8.2	8.2	8.2	6.9	6.9	12.7		11.9
							0.6	17.0	19.6	19.6	32.9	32.9	8.0	8.0	108.5	108.5	8.2	8.2	8.2	6.9	6.9	11.0		
IM16A	Cloudy	Moderate	18:11	7.0	S	0.6	16.0	20.6	20.6	28.9	28.9	8.0	8.0	121.9	121.5	9.2	9.2	9.0	2.9	3.2	2.1	1.7	3.1	
						0.6	16.0	20.6		28.9	8.0	121.1		9.2		3.5								
					M	0.6	16.0	19.9	19.9	31.2	31.2	8.0	8.0	116.4	116.4	8.8	8.8	7.3	7.3	2.4	1.9			
						0.6	16.0	19.9	19.9	31.2	31.2	8.0	8.0	116.4	116.4	8.8	8.8	7.3	7.3	1.4				
					B	0.5	13.0	19.7	19.7	32.2	32.2	8.0	8.0	113.4	113.4	8.6	8.6	8.6	9.0	9.0	5.6	5.7		
						0.5	14.0	19.7	19.7	32.2	32.2	8.0	8.0	113.4	113.4	8.6	8.6	8.6	9.0	9.0	5.8			
IM17	Cloudy	Moderate	17:44	5.8	S	0.6	346.0	20.4	20.4	30.4	30.4	8.2	8.2	111.9	111.9	8.4	8.4	8.4	6.6	6.6	2.4	2.0	1.8	
						0.6	15.0	20.4	20.4	30.4	30.4	8.2	8.2	111.9	111.9	8.4	8.4	8.4	6.6	6.6	1.6			
					B	0.4	348.0	19.9	19.9	31.8	31.8	8.2	8.2	108.9	108.9	8.2	8.2	8.2	15.6	15.6	2.0	1.6		
						0.4	357.0	19.9	19.9	31.8	31.8	8.2	8.2	108.9	108.9	8.2	8.2	8.2	15.6	15.6	1.2			
IM18	Cloudy	Moderate	16:01	17.4	S	0.2	338.0	20.5	20.5	30.8	30.8	7.9	7.9	103.0	103.0	7.7	7.7	7.5	1.1	1.1	2.0	2.4	3.3	
						0.2	346.0	20.5	20.5	30.8	30.8	7.9		103.0		7.7			1.1					
					M	0.4	337.0	19.8	19.8	32.1	32.1	7.9	7.9	96.8	96.8	7.3	7.3	7.5	3.9	3.9	2.9	2.6		
						0.4	9.0	19.8	19.8	32.1	32.1	7.9	7.9	96.8	96.8	7.3	7.3	7.5	3.9	3.9	2.3			
					B	0.4	339.0	19.8	19.8	32.1	32.1	7.9	7.9	97.9	97.9	7.4	7.4	7.4	9.6	9.6	5.4	4.9		
						0.4	10.0	19.8	19.8	32.1	32.1	7.9	7.9	97.9	97.9	7.4	7.4	7.4	9.6	9.6	4.4			
IM19	Cloudy	Moderate	16:12	17.7	S	0.5	359.0	20.0	20.0	31.5	31.5	7.9	7.9	99.8	99.8	7.5	7.5	7.5	0.6	0.6	2.5	2.0	2.1	
						0.5	6.0	20.0	20.0	31.5	31.5	7.9		99.8		7.5			1.5					
					M	0.5	349.0	19.8	19.8	31.9	31.9	7.9	7.9	97.4	97.4	7.4	7.4	7.5	1.0	1.0	2.4	2.0		
						0.6	21.0	19.8	19.8	31.9	31.9	7.9	7.9	97.4	97.4	7.4	7.4	7.5	1.0	1.0	1.5			
					B	0.5	346.0	19.8	19.8	32.1	32.1	7.9	7.9	97.7	97.7	7.4	7.4	7.4	2.6	2.6	2.6	2.4		
						0.5	348.0	19.8	19.8	32.1	32.1	7.9	7.9	97.7	97.7	7.4	7.4	7.4	2.6	2.6	2.2			
IM20A	Cloudy	Moderate	16:38	4.8	S	0.5	58.0	20.6	20.6	31.1	31.1	8.0	8.0	103.0	103.0	7.7	7.7	7.7	1.8	1.8	2.7	2.9	4.1	
						0.5	59.0	20.6	20.6	31.1	31.1	8.0		103.0		7.7			1.8					
					B	0.4	60.0	20.4	20.4	31.1	31.1	8.0	8.0	102.5	102.5	7.7	7.7	7.7	1.9	1.9	4.9	5.4		
						0.4	63.0	20.4	20.4	31.1	31.1	8.0	8.0	102.5	102.5	7.7	7.7	7.7	1.9	1.9	5.8			
IM21A	Cloudy	Moderate	16:32	5.1	S	0.5	26.0	21.1	21.1	31.1	31.1	8.0	8.0	102.7	102.7	7.6	7.6	7.6	1.6	1.6	9.2	8.8	8.0	
						0.5	28.0	21.1	21.1	31.1	31.1	8.0		102.7		7.6			1.6					
					B	0.4	25.0	20.2	20.2	31.6	31.6	8.0	8.0	101.3	101.3	7.6	7.6	7.6	1.8	1.8	7.6	7.2		
0.5	26.0	20.2	20.2	31.6		31.6	8.0	8.0	101.3	101.3	7.6	7.6	7.6	1.8	1.8	6.7								
IM22A	Cloudy	Moderate	16:25	4.7	S	0.4	43.0	20.4	20.4	31.5	31.5	7.9	7.9	100.1	100.1	7.5	7.5	7.5	2.0	2.0	2.9	3.4	3.7	
						0.4	46.0	20.4	20.4	31.5	31.5	7.9		100.1		7.5			2.0					
					B	0.3	42.0	19.9	19.9	31.9	31.9	7.9	7.9	99.3	99.3	7.5	7.5	7.5	2.7	2.7	3.5	4.0		
0.3	46.0	19.9	19.9	31.9		31.9	7.9	7.9	99.3	99.3	7.5	7.5	7.5	2.7	2.7	4.5								

Remark: * DA: Depth-Averaged

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

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

ANNEX A4

GRAPHICAL PRESENTATION OF BASELINE WATER QUALITY MONITORING RESULTS

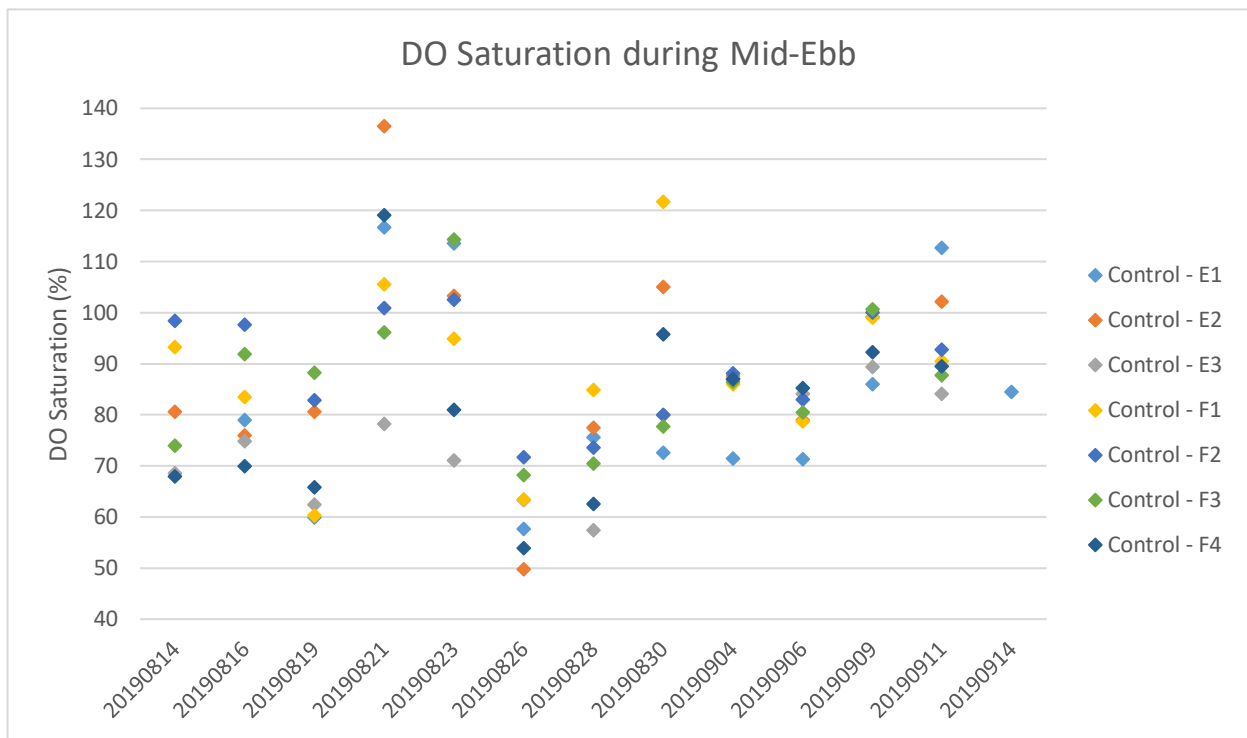


Figure 1a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 14 August and 17 September 2019

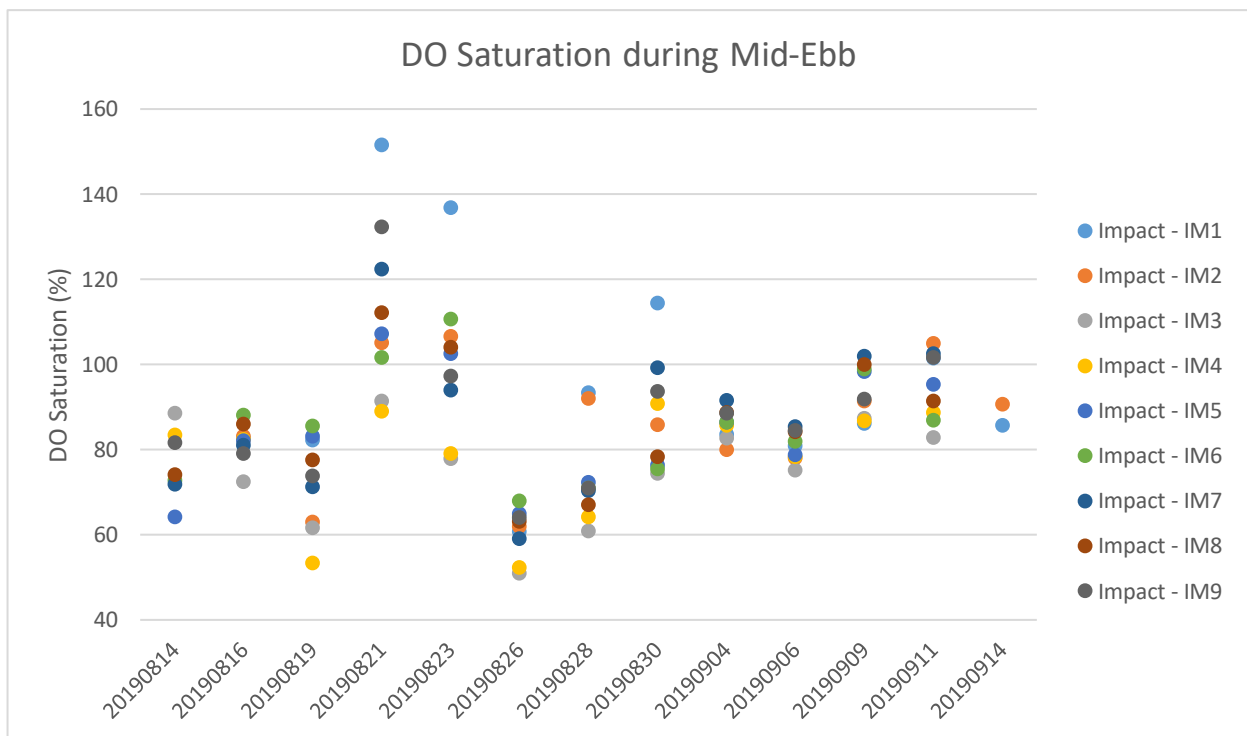


Figure 1b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 14 August and 17 September 2019

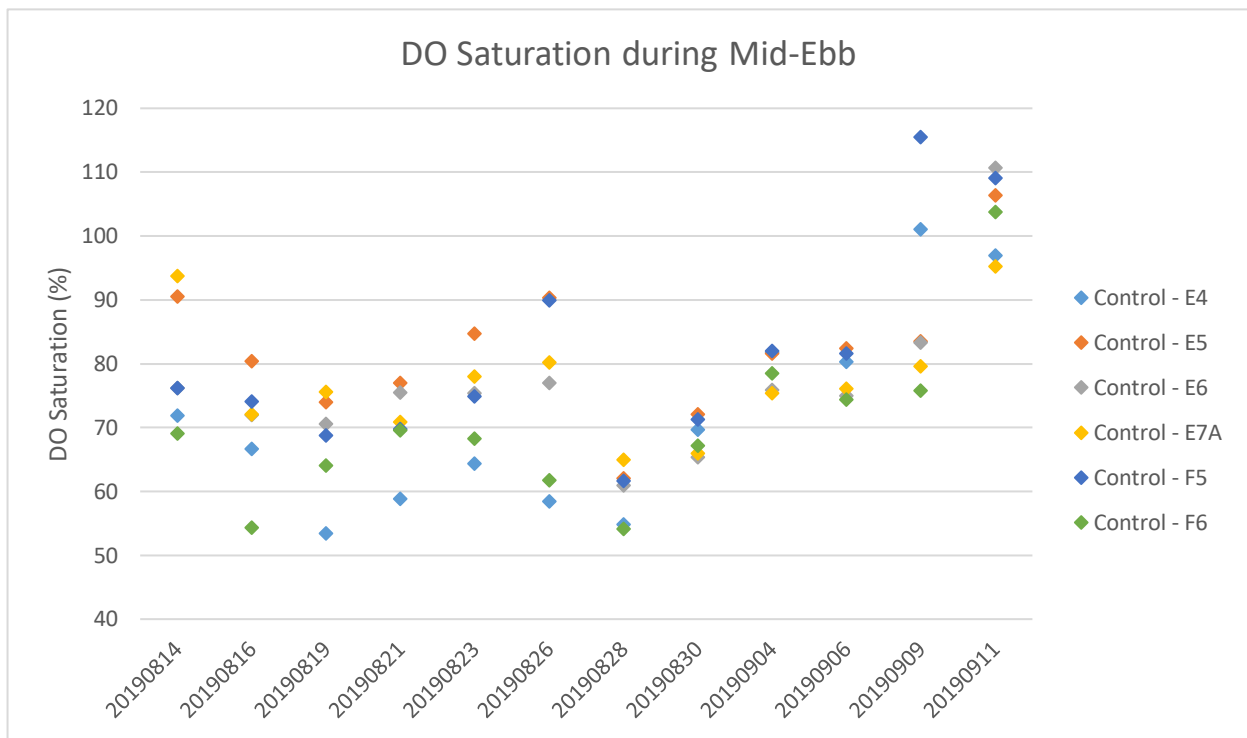


Figure 2a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 14 August and 17 September 2019

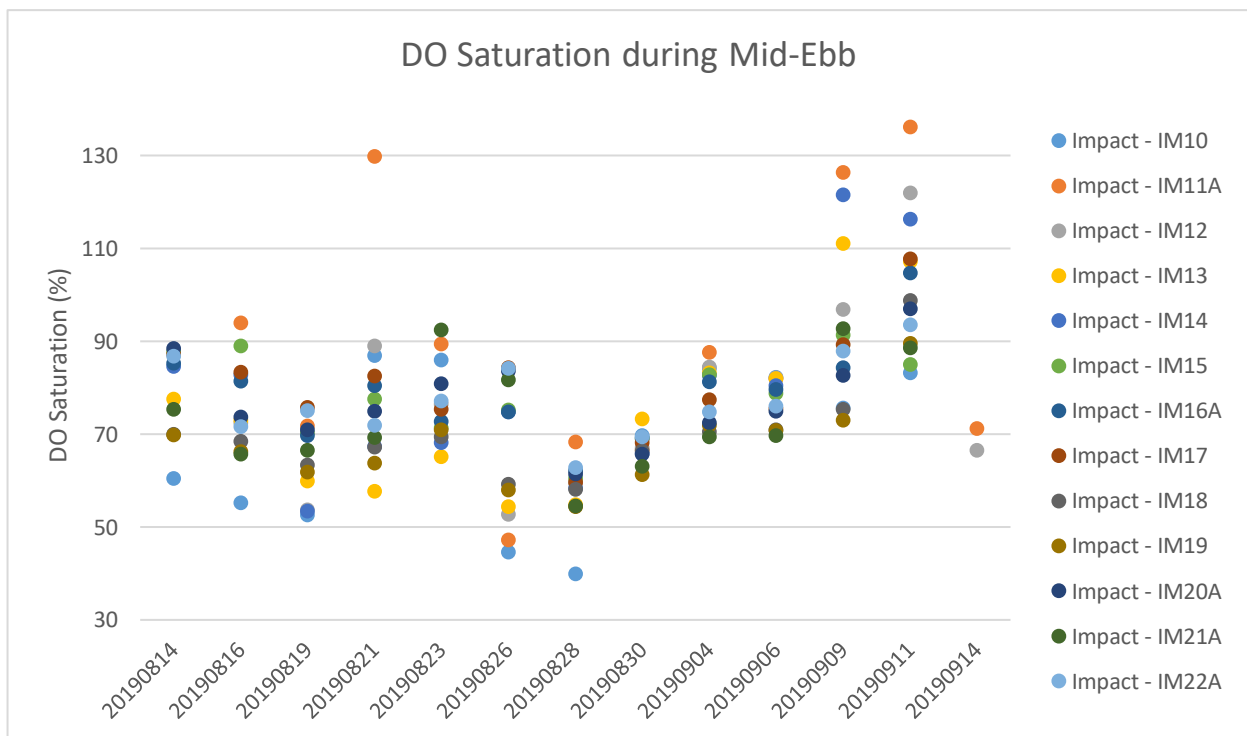


Figure 2b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 14 August and 17 September 2019

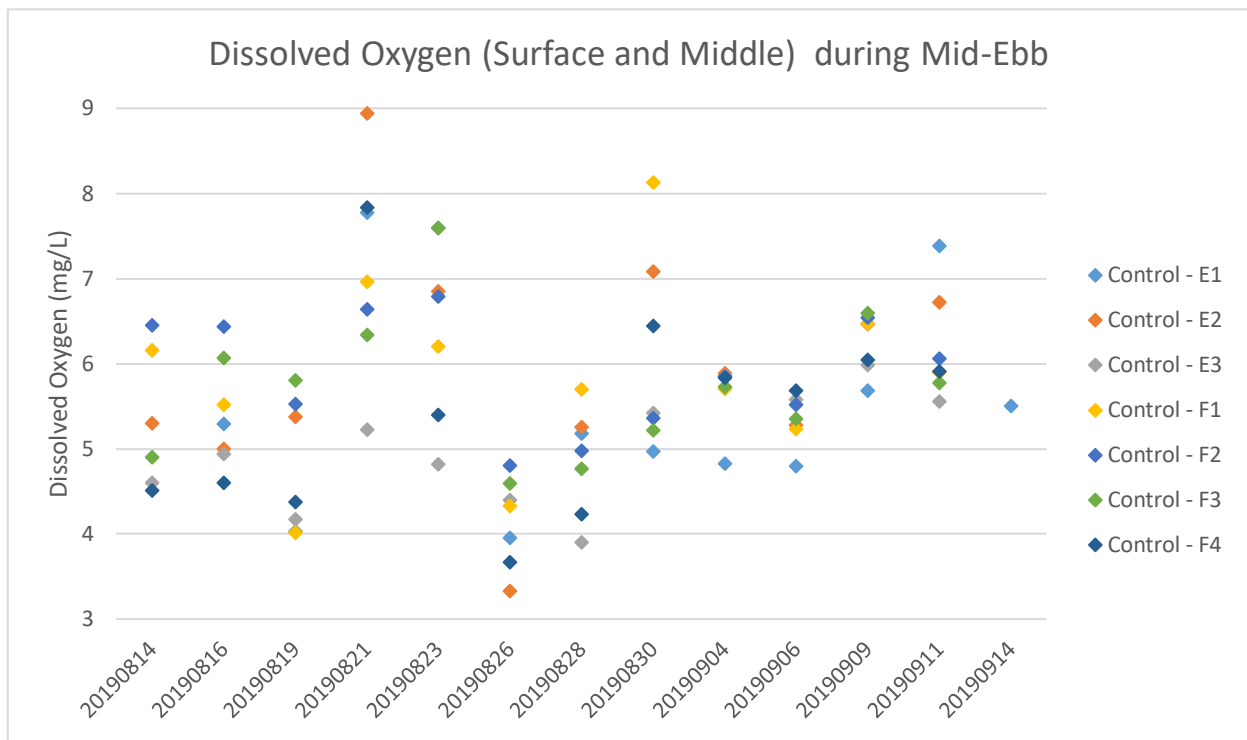


Figure 3a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 14 August and 17 September 2019

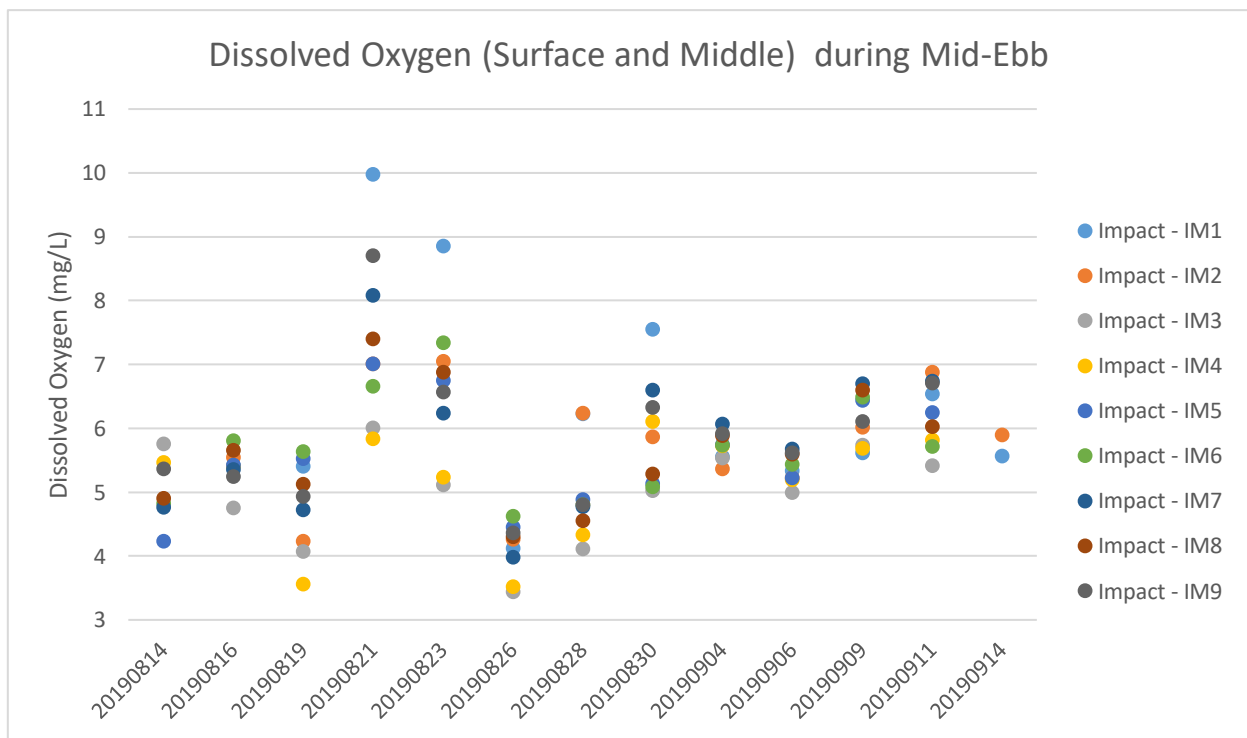


Figure 3b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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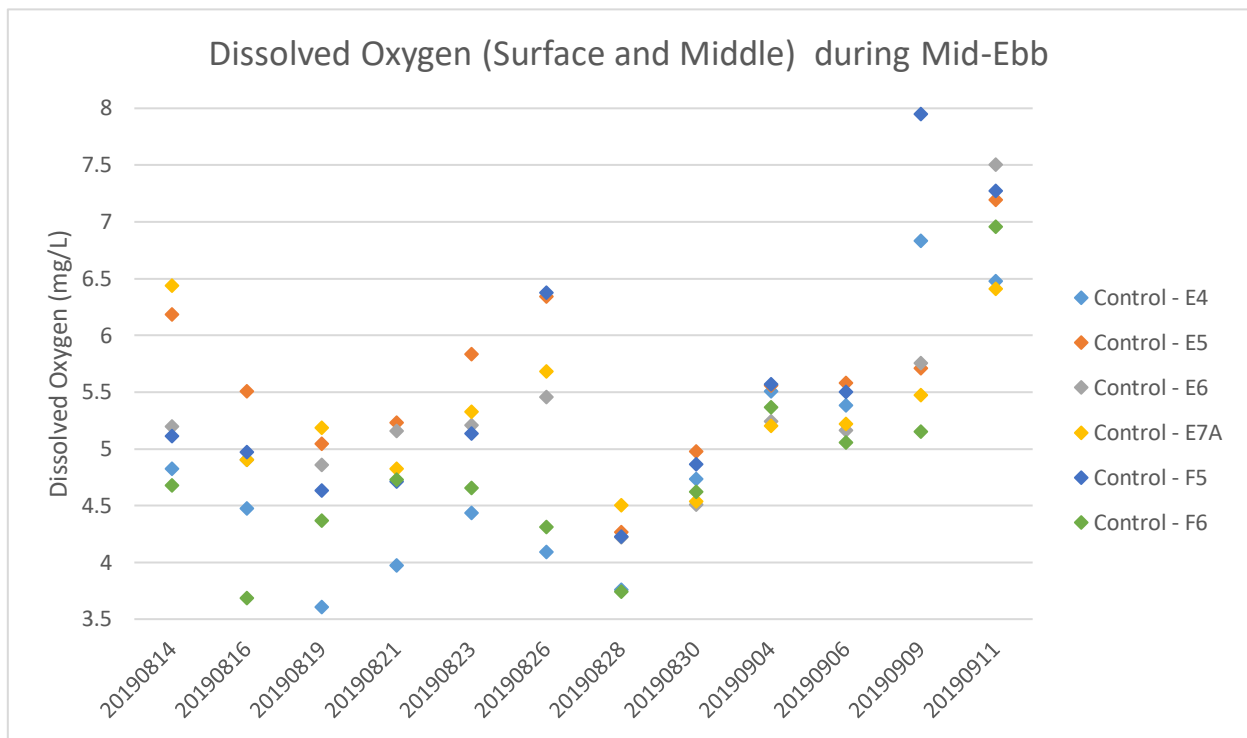


Figure 4a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 14 August and 17 September 2019

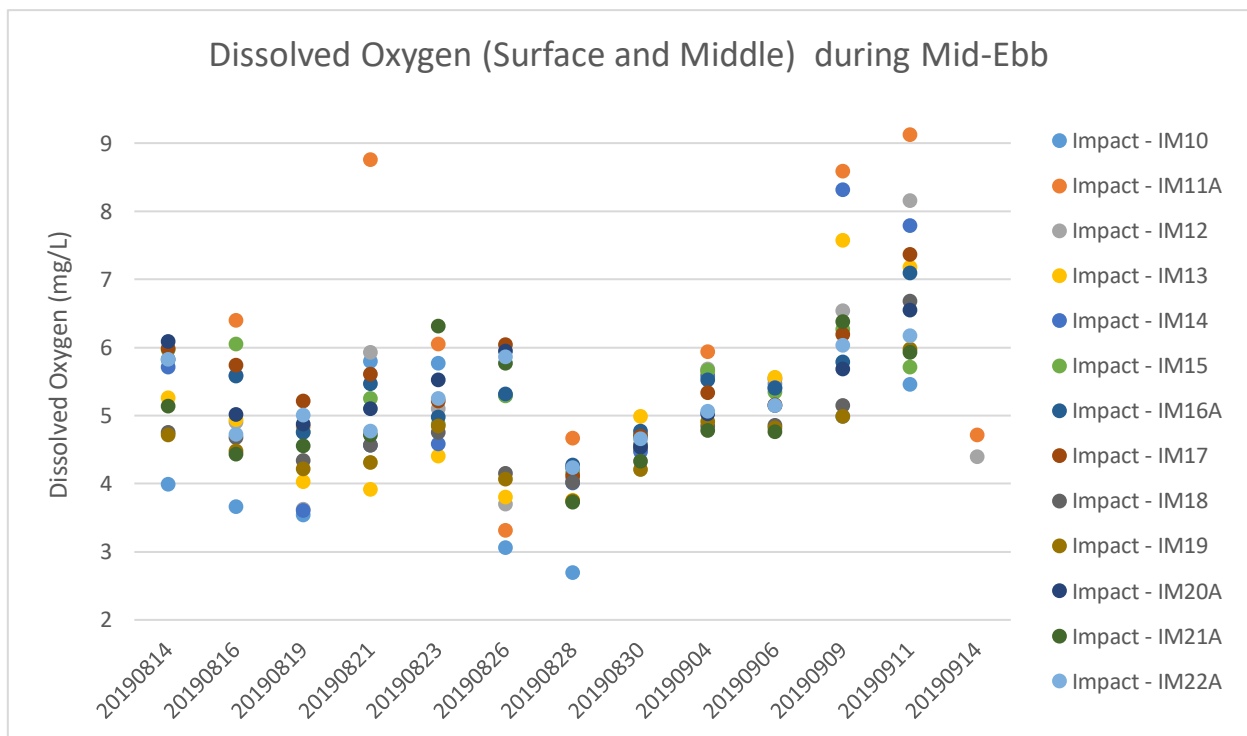


Figure 4b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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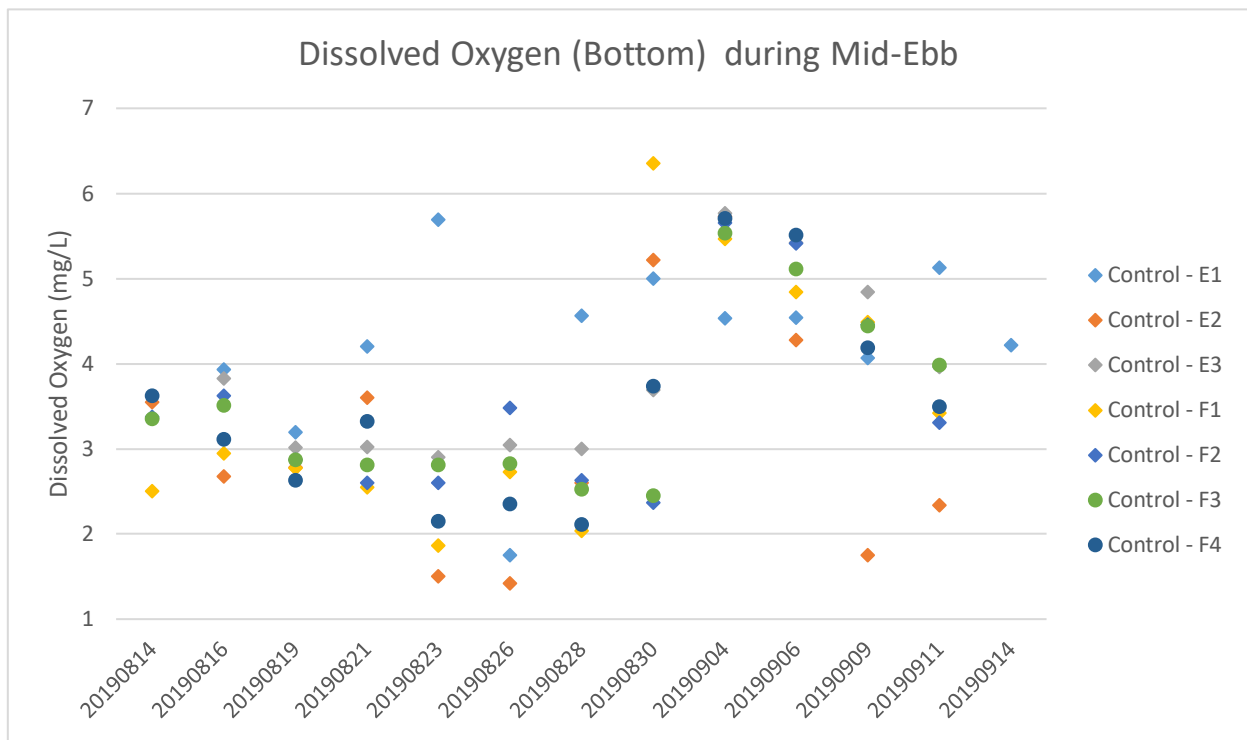


Figure 5a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 14 August and 17 September 2019

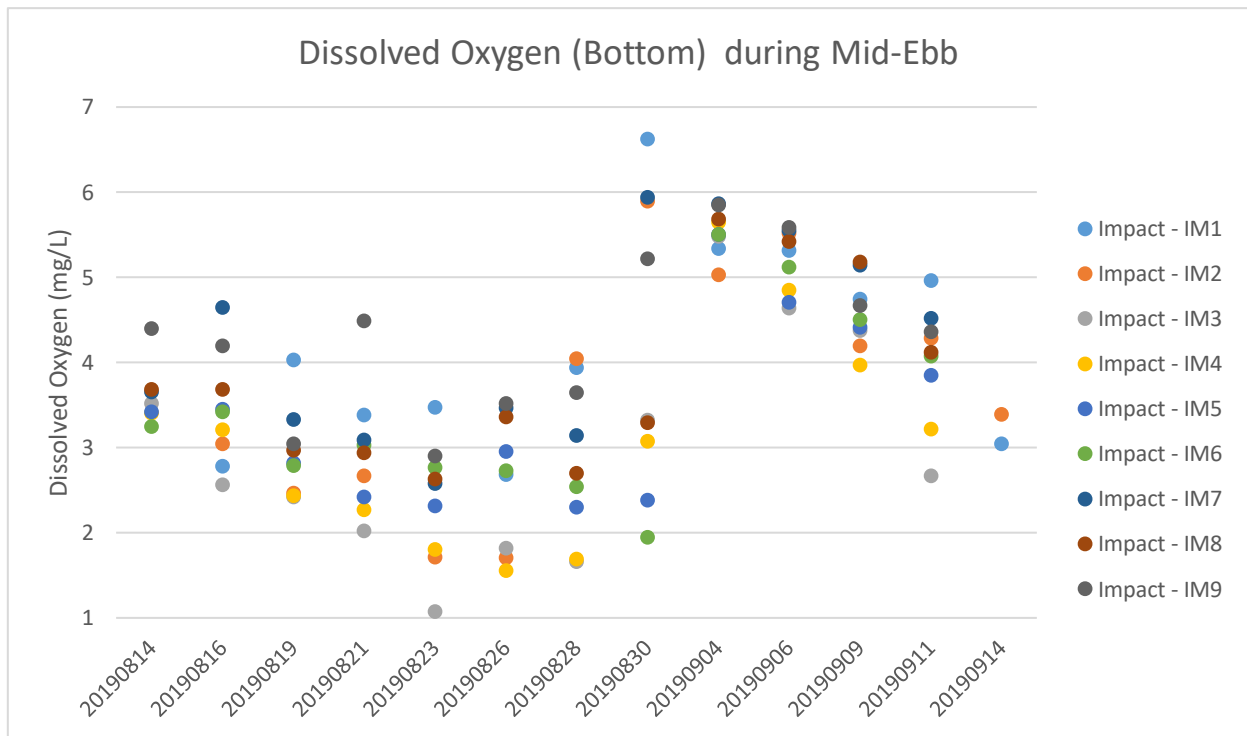


Figure 5b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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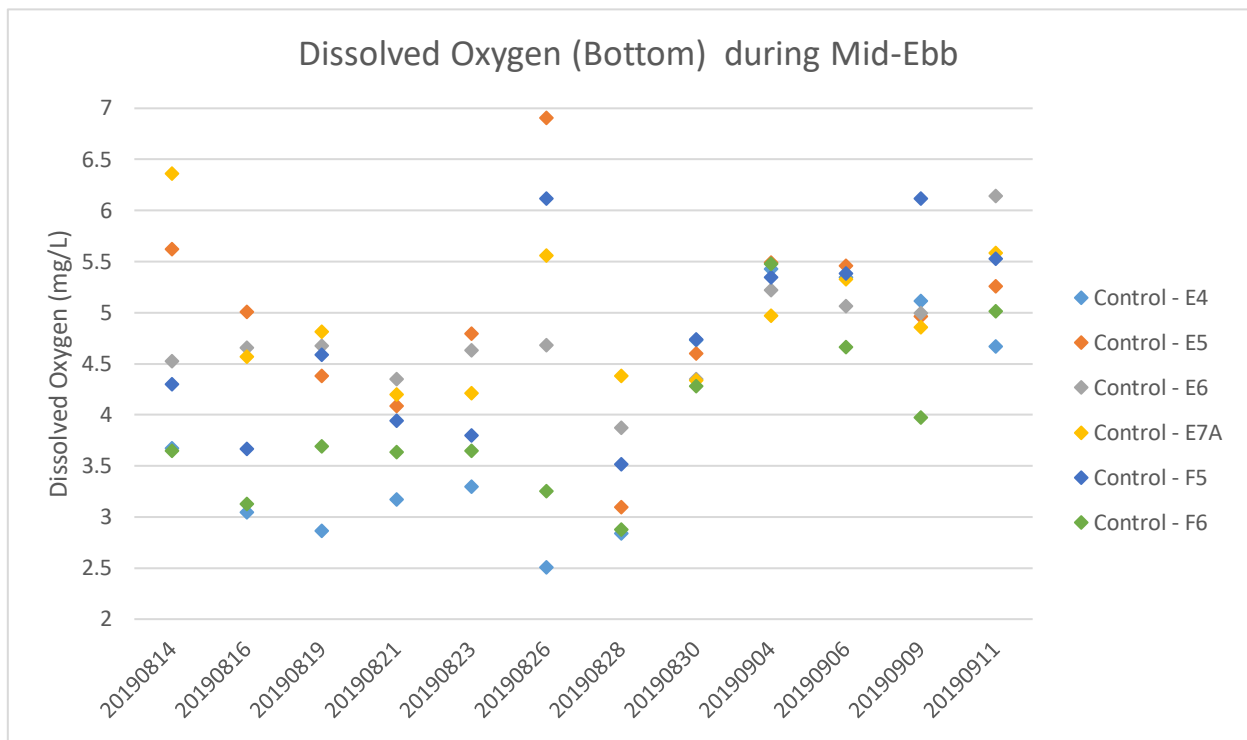


Figure 6a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 14 August and 17 September 2019

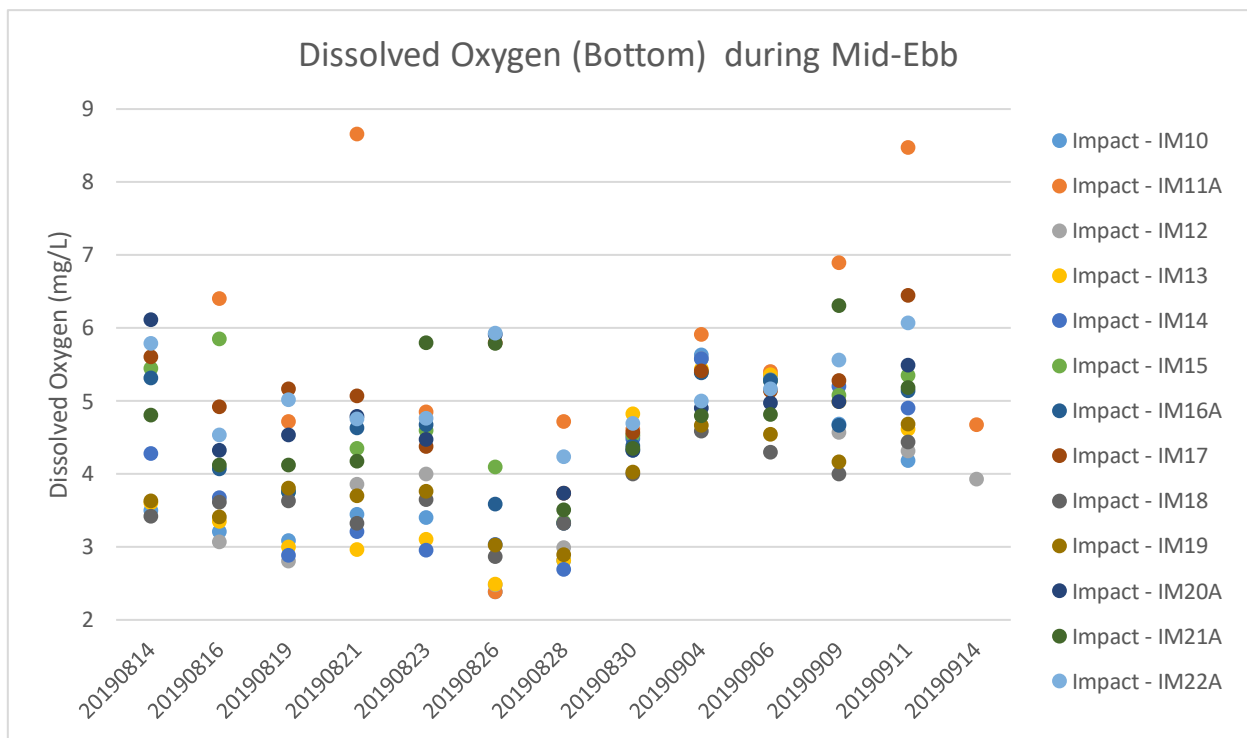


Figure 6b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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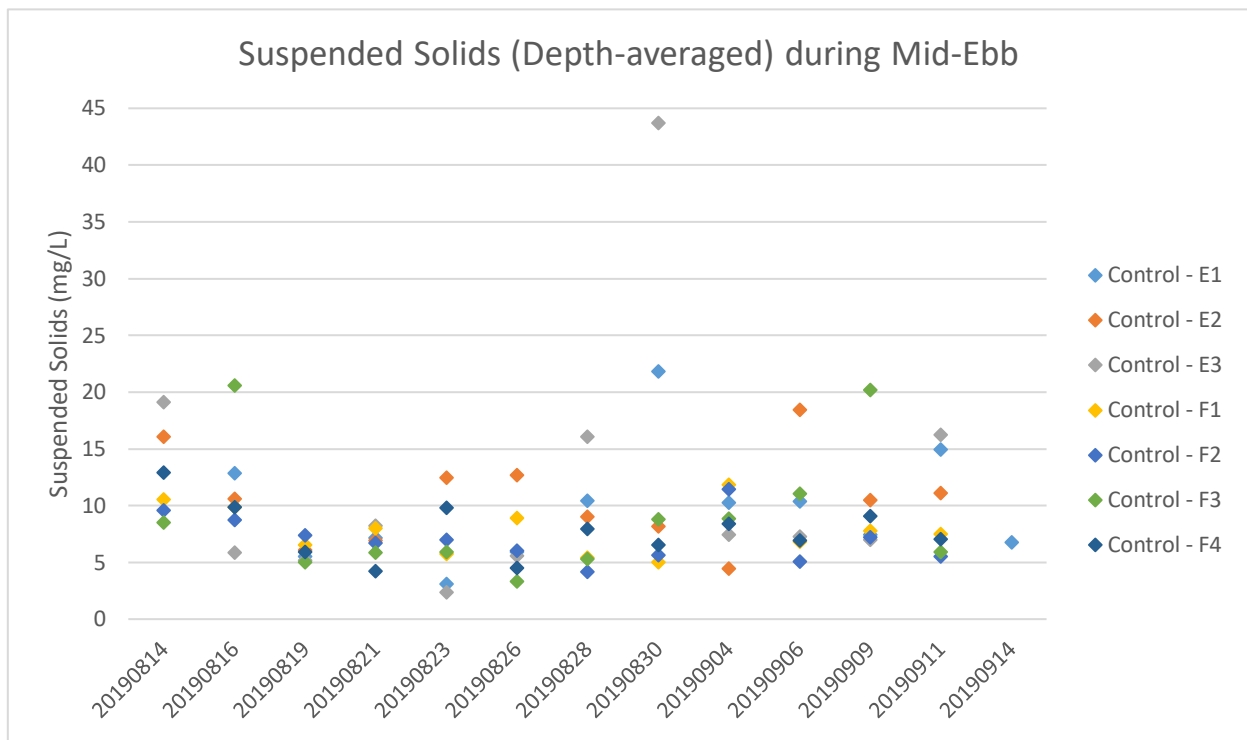


Figure 7a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 14 August and 17 September 2019

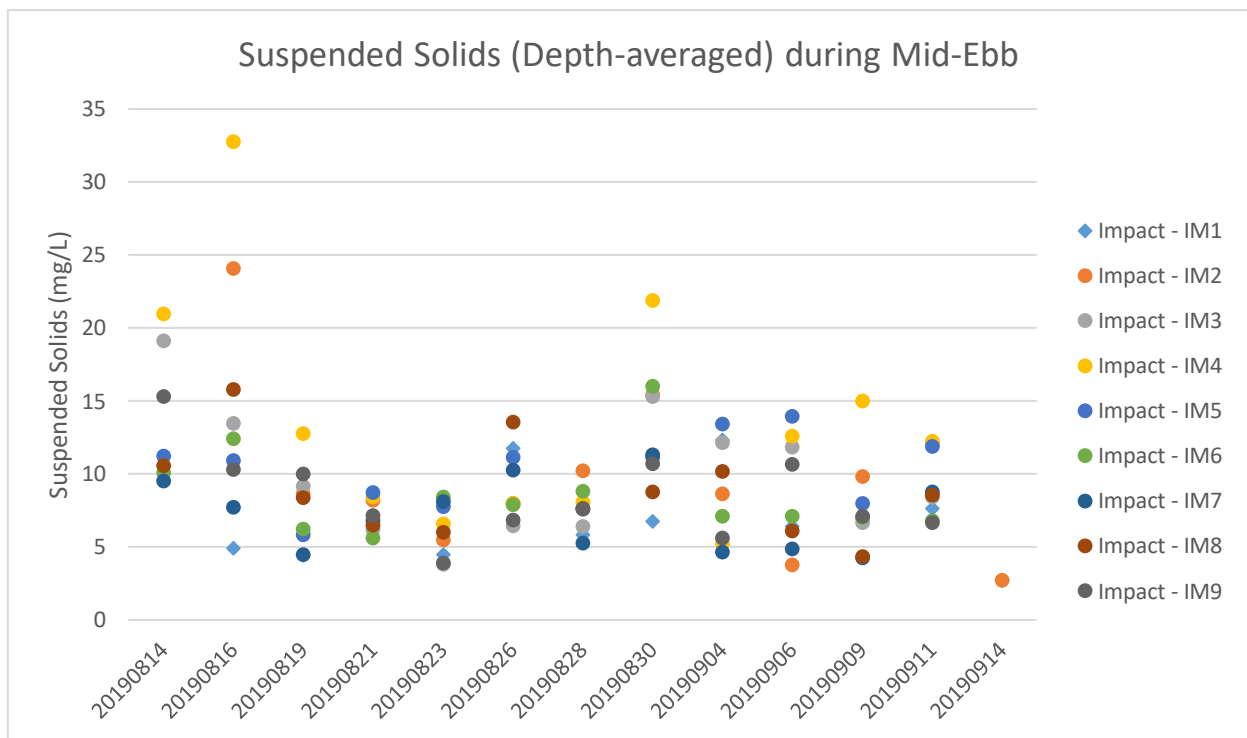


Figure 7b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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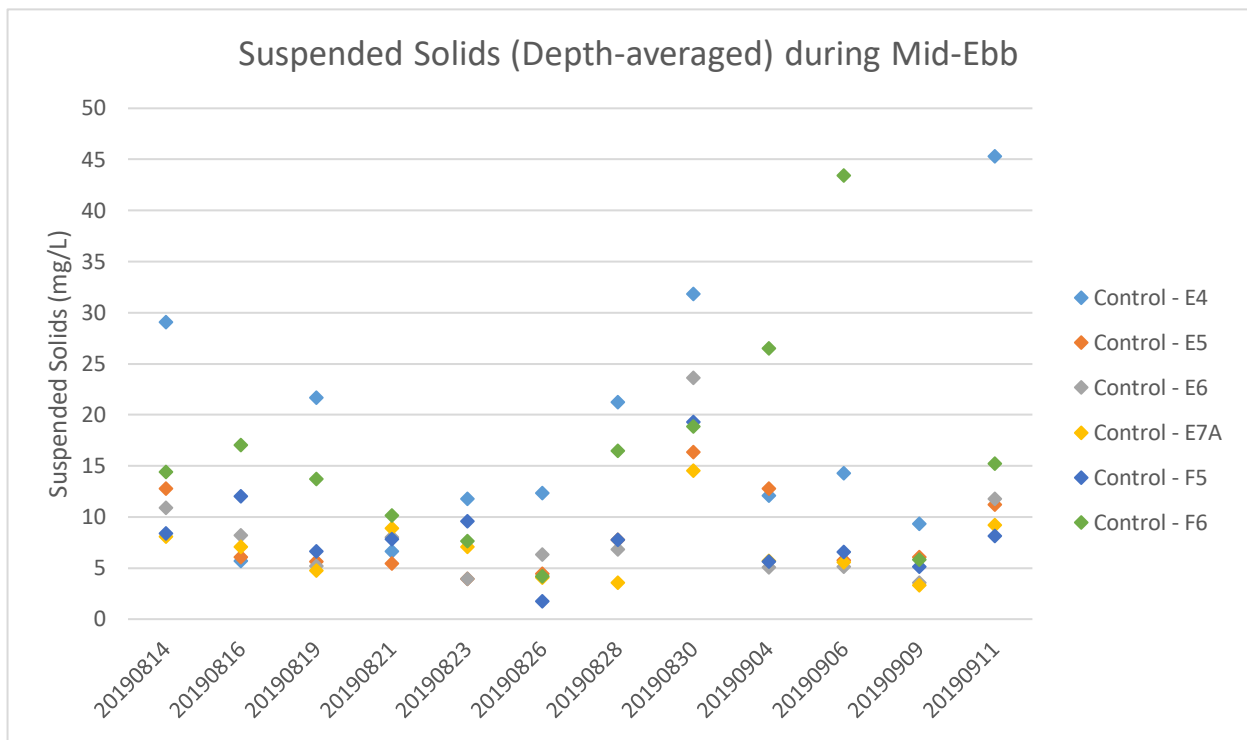


Figure 8a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 14 August and 17 September 2019

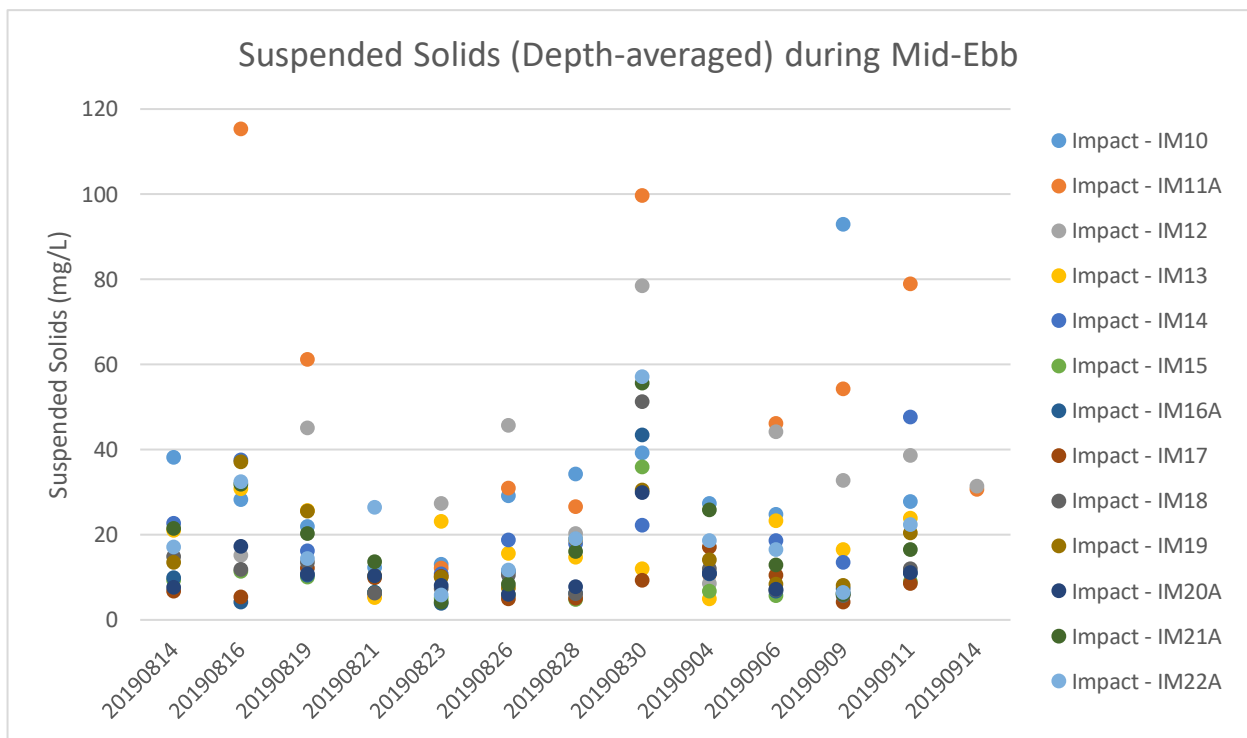


Figure 8b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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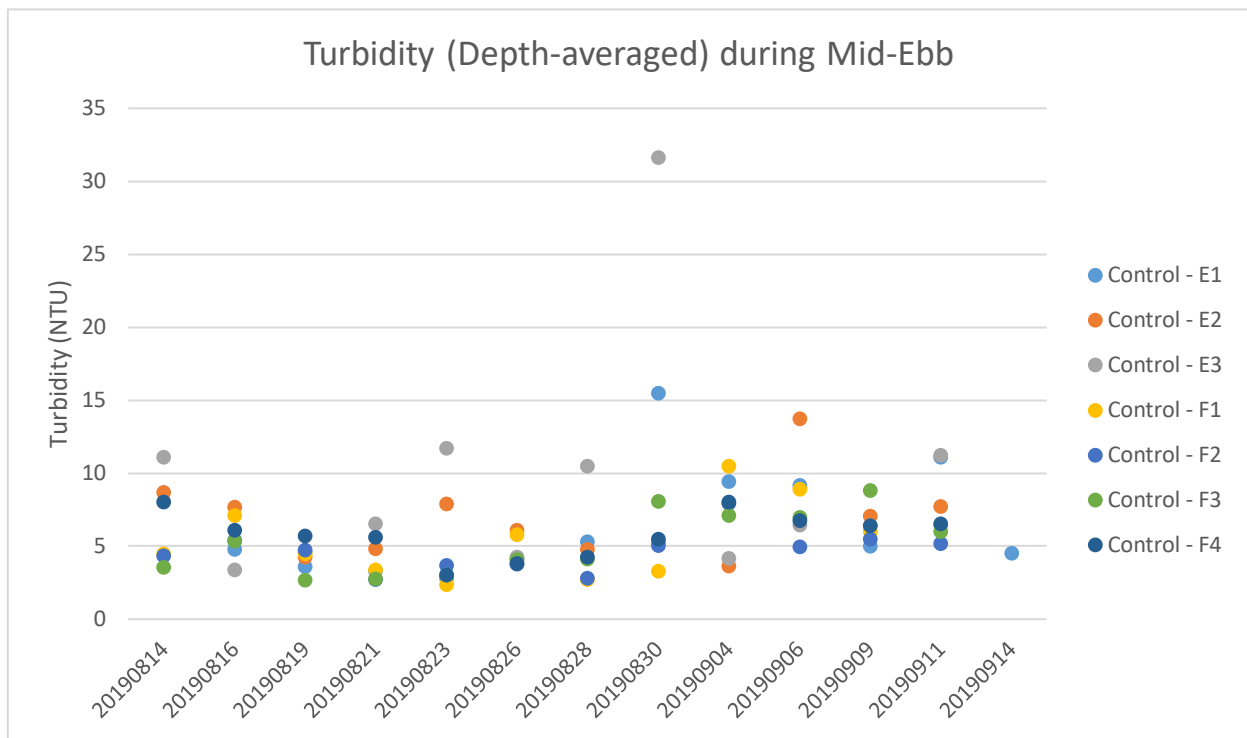


Figure 9a: Levels of Depth-averaged Turbidity (NTU) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 14 August and 17 September 2019

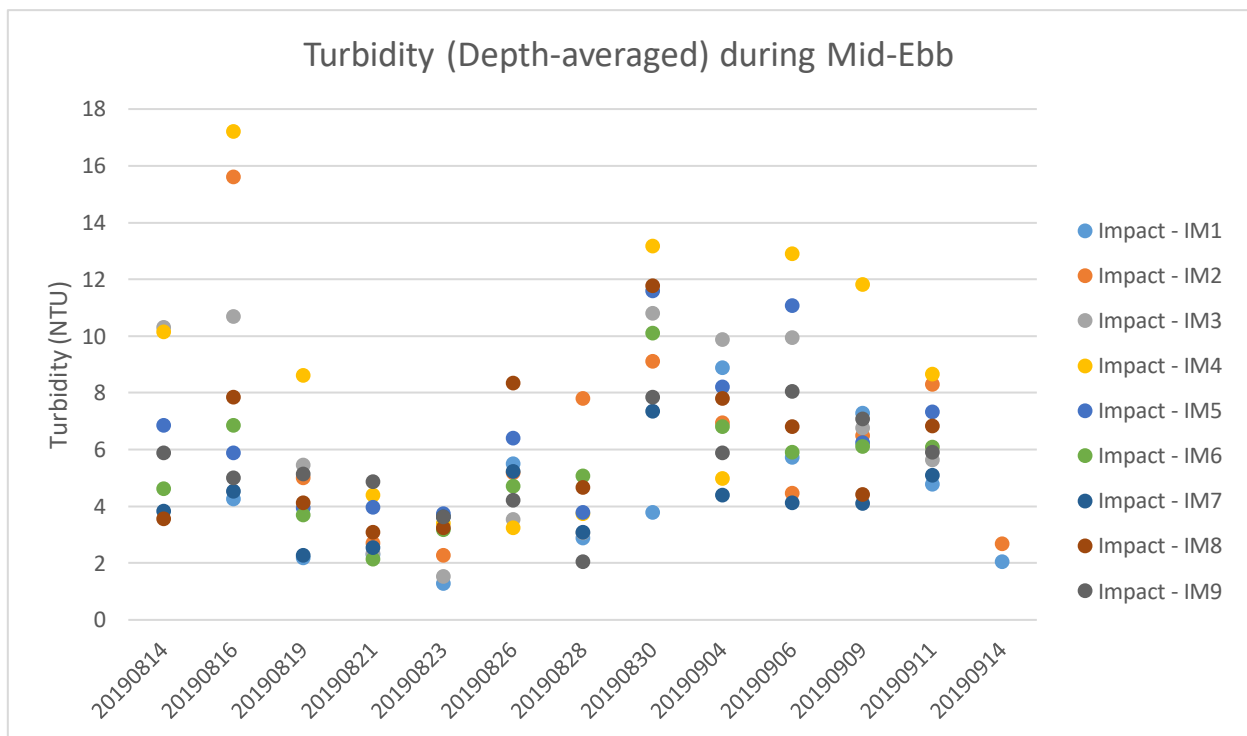
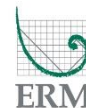


Figure 9b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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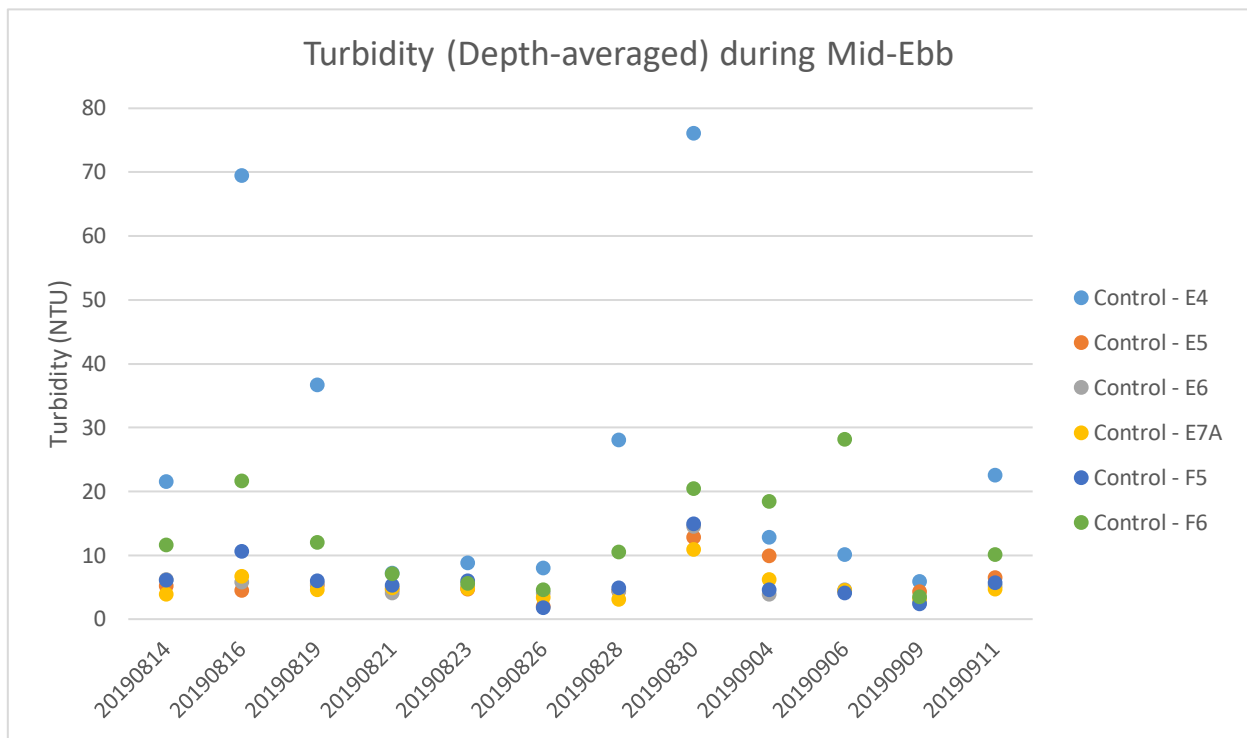


Figure 10a: Levels of Depth-averaged Turbidity (NTU) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 14 August and 17 September 2019

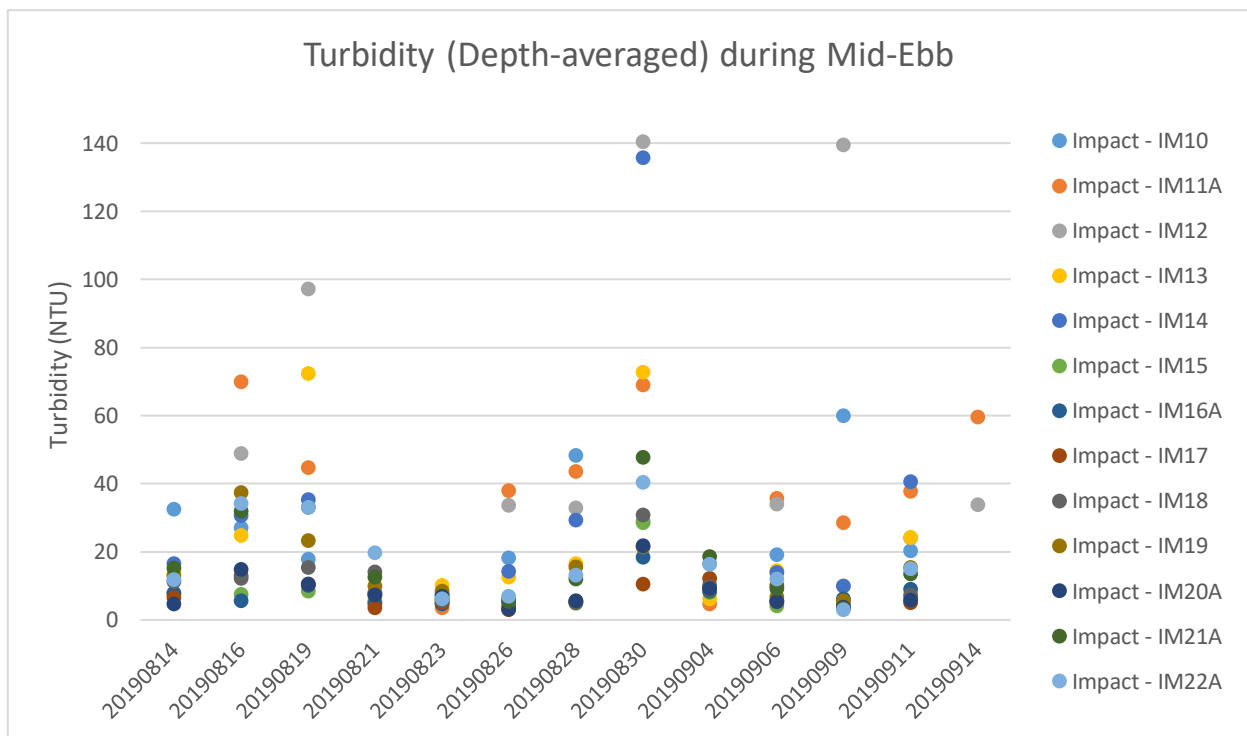


Figure 10b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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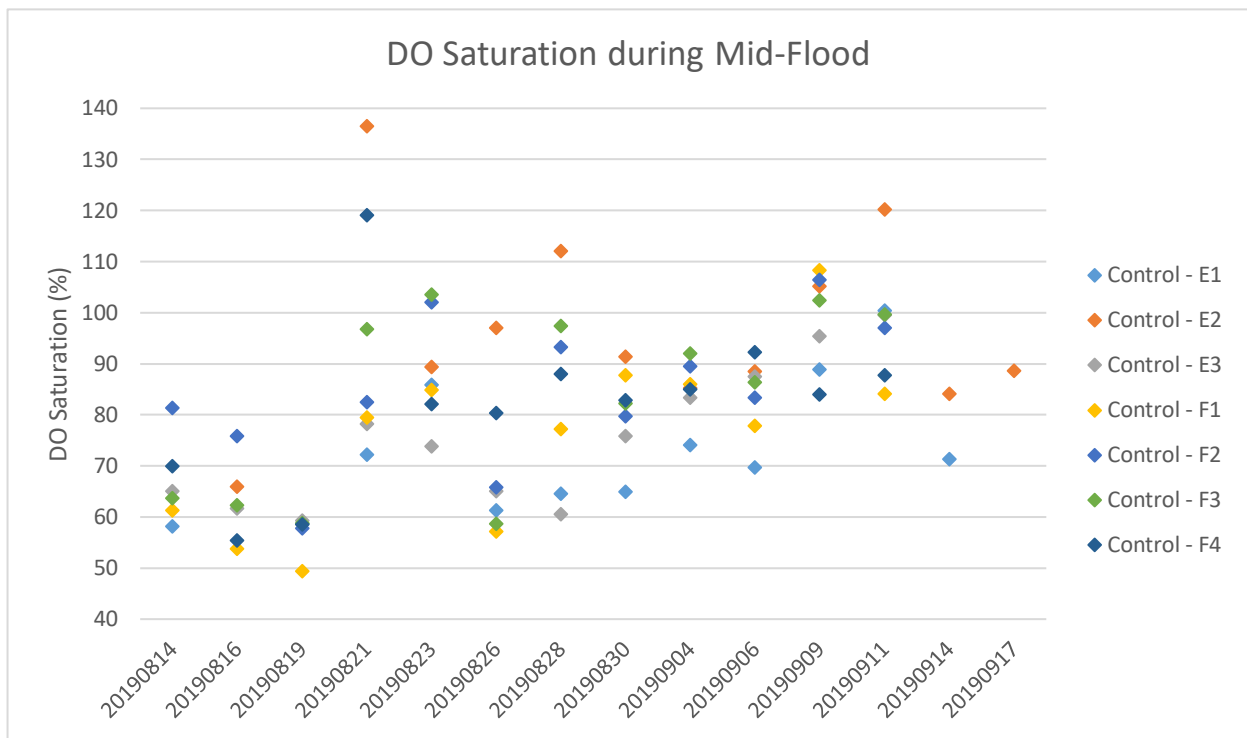


Figure 11a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 14 August and 17 September 2019

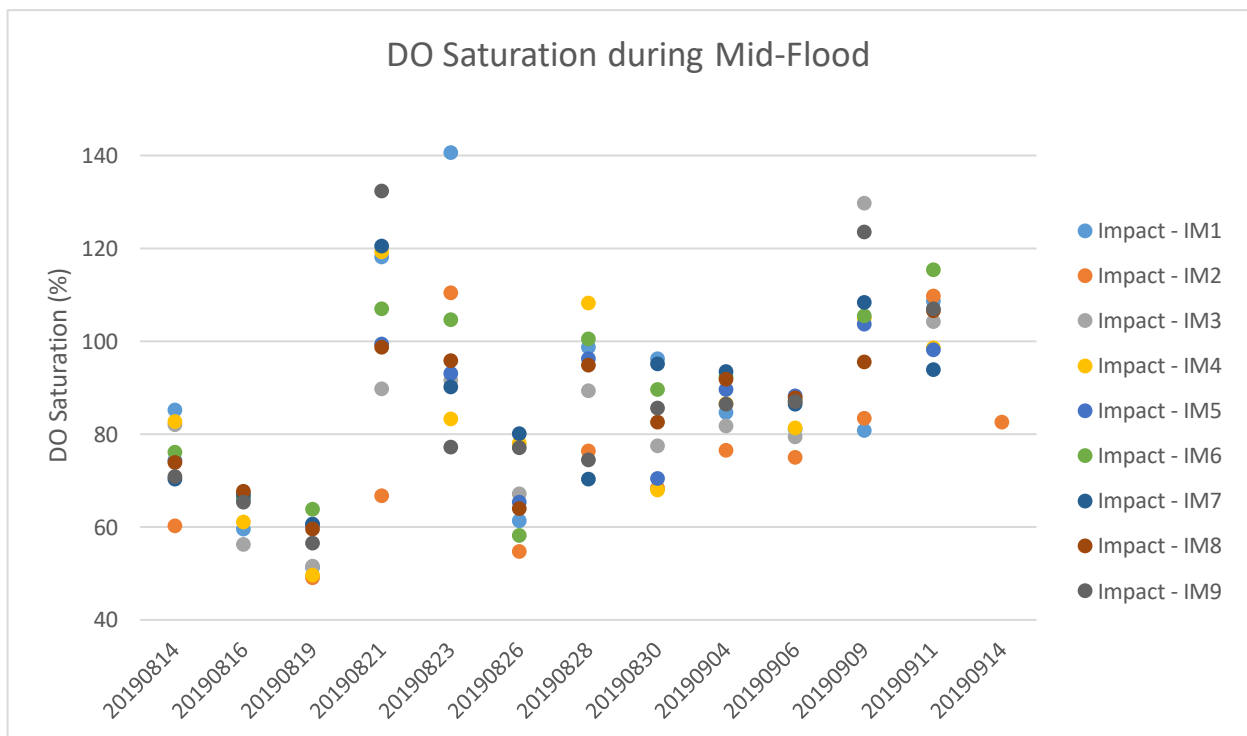


Figure 11b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 14 August and 17 September 2019

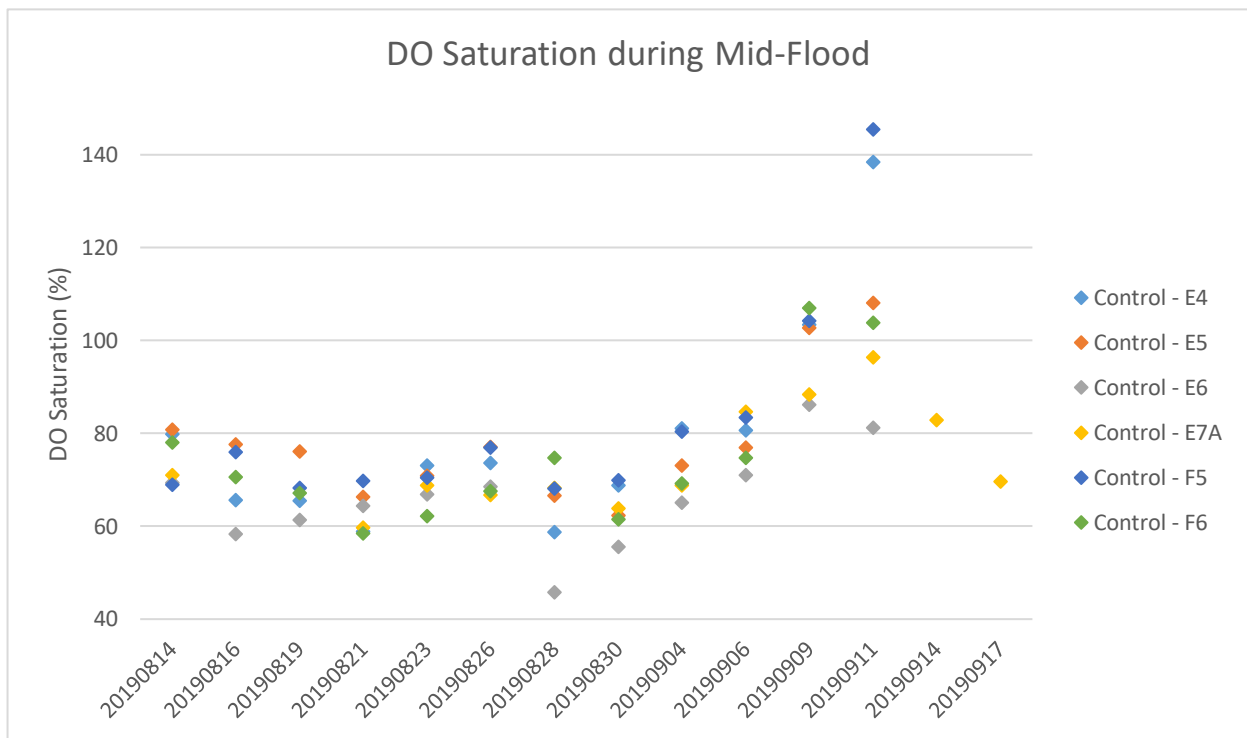


Figure 12a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 14 August and 17 September 2019

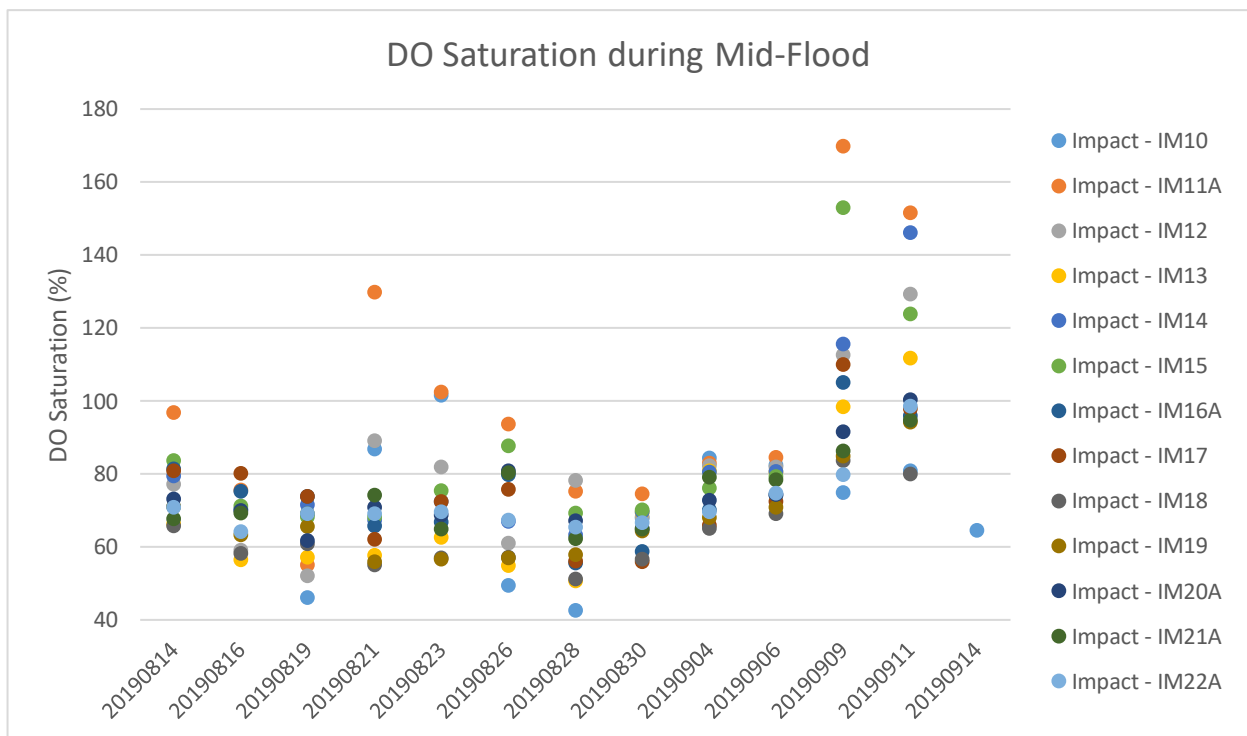


Figure 12b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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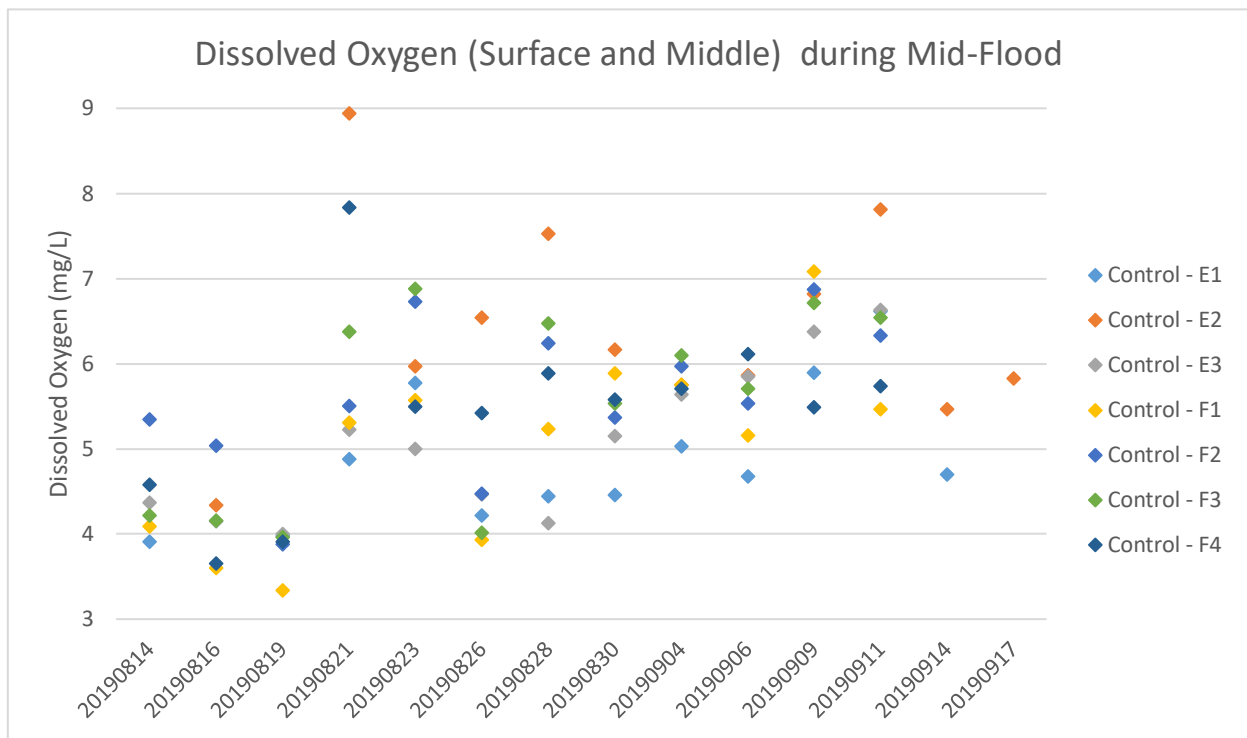


Figure 13a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 14 August and 17 September 2019

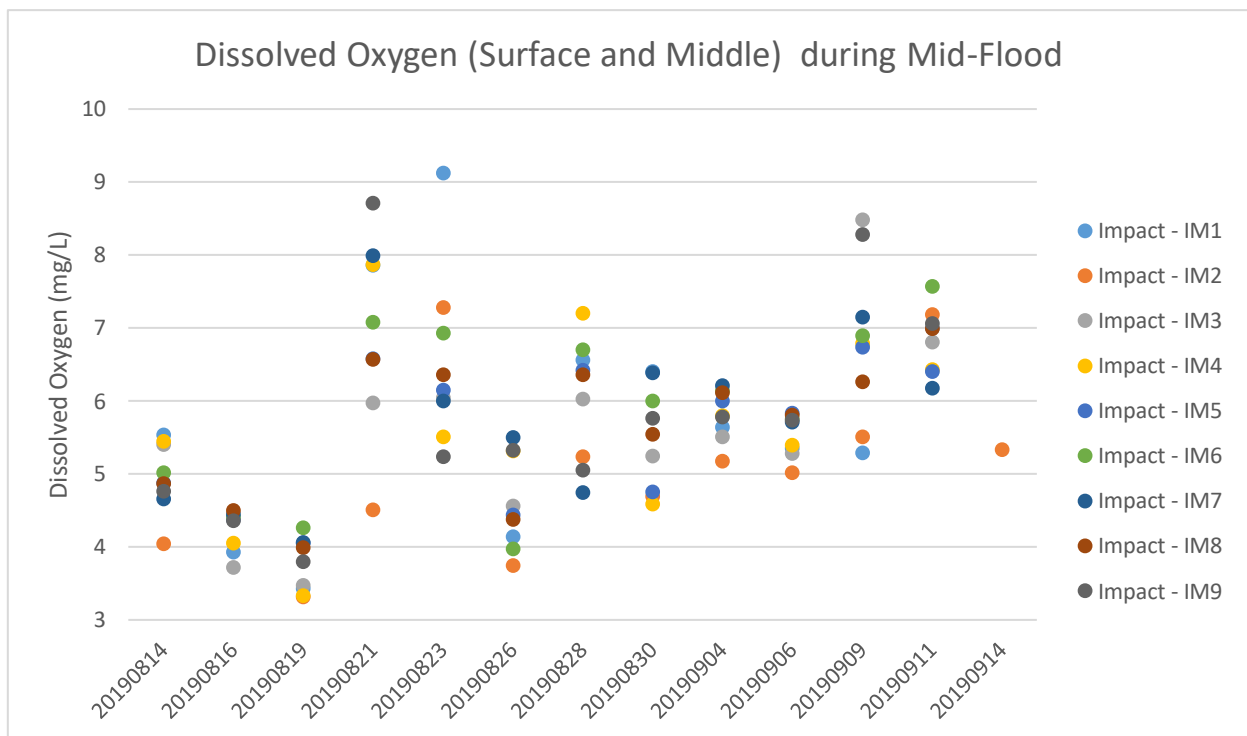


Figure 13b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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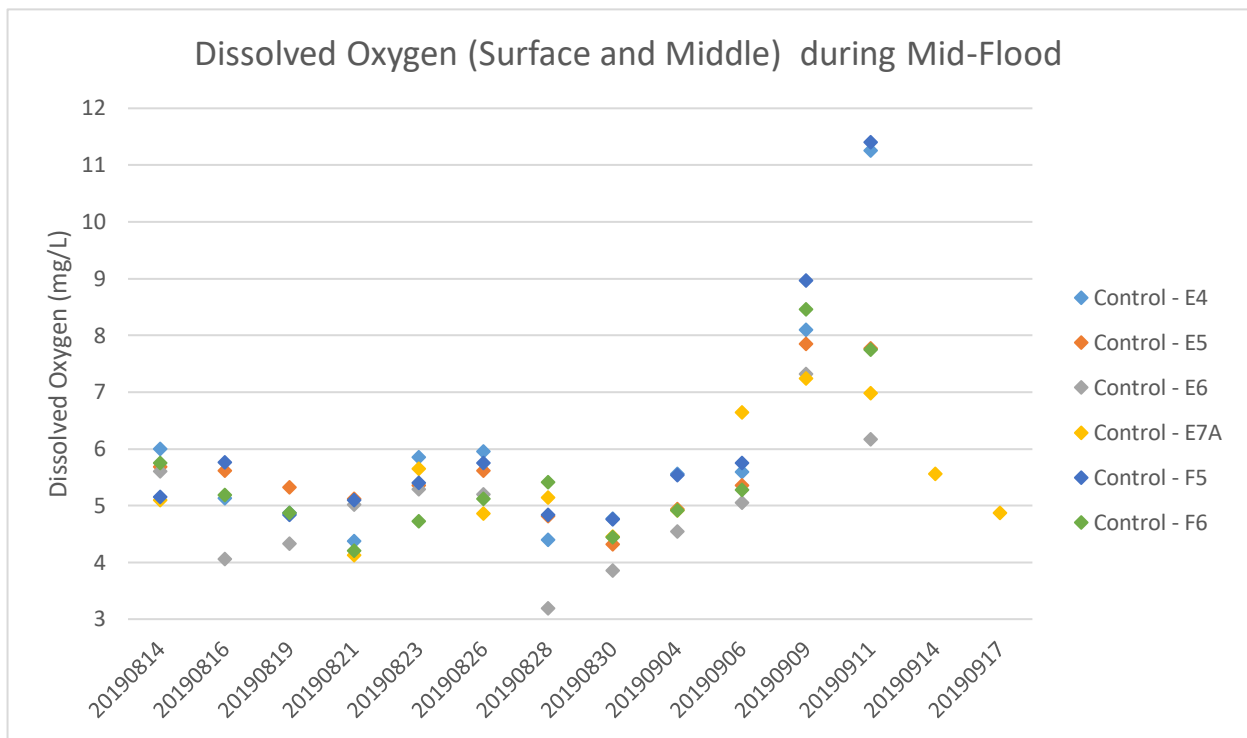


Figure 14a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 14 August and 17 September 2019

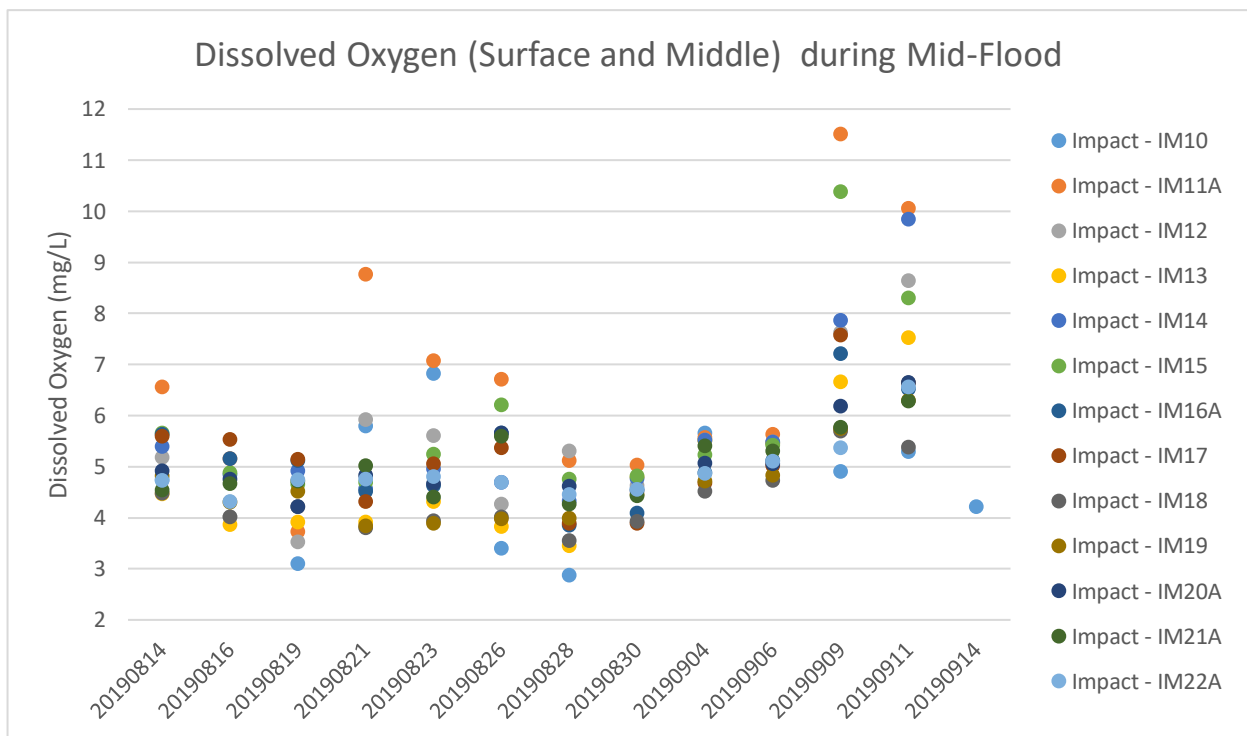


Figure 14b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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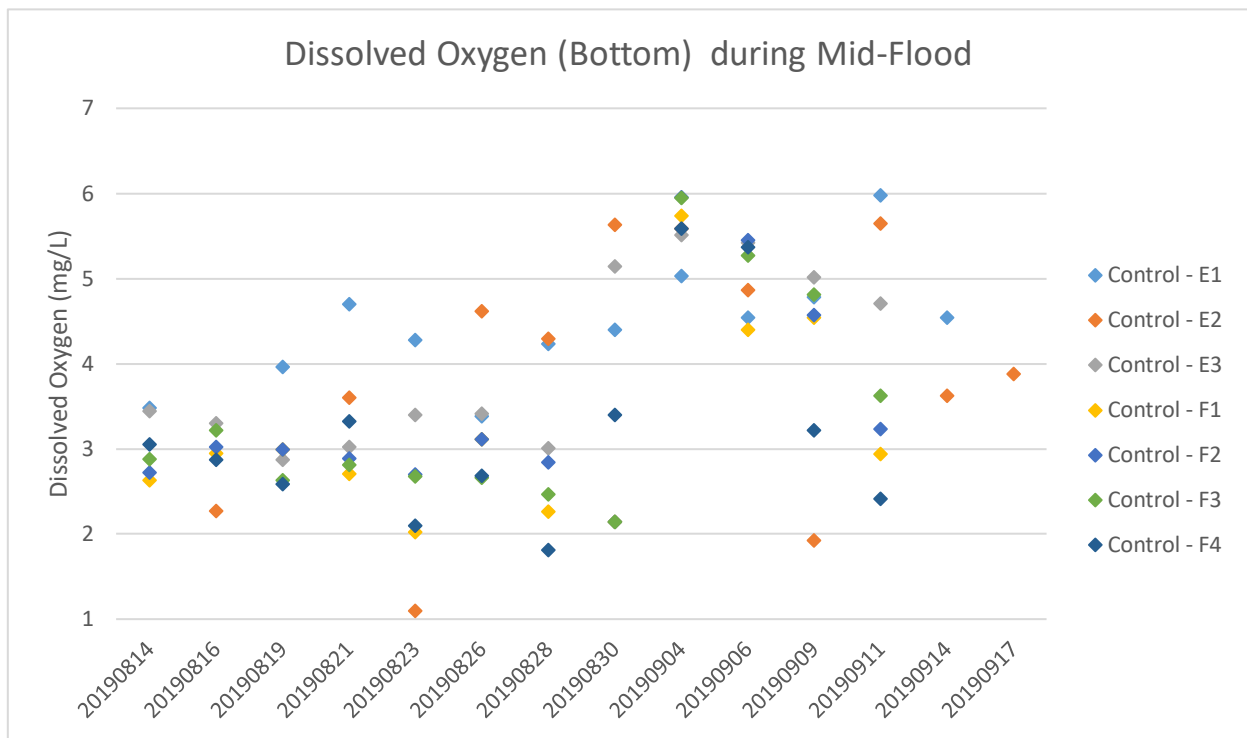


Figure 15a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 14 August and 17 September 2019

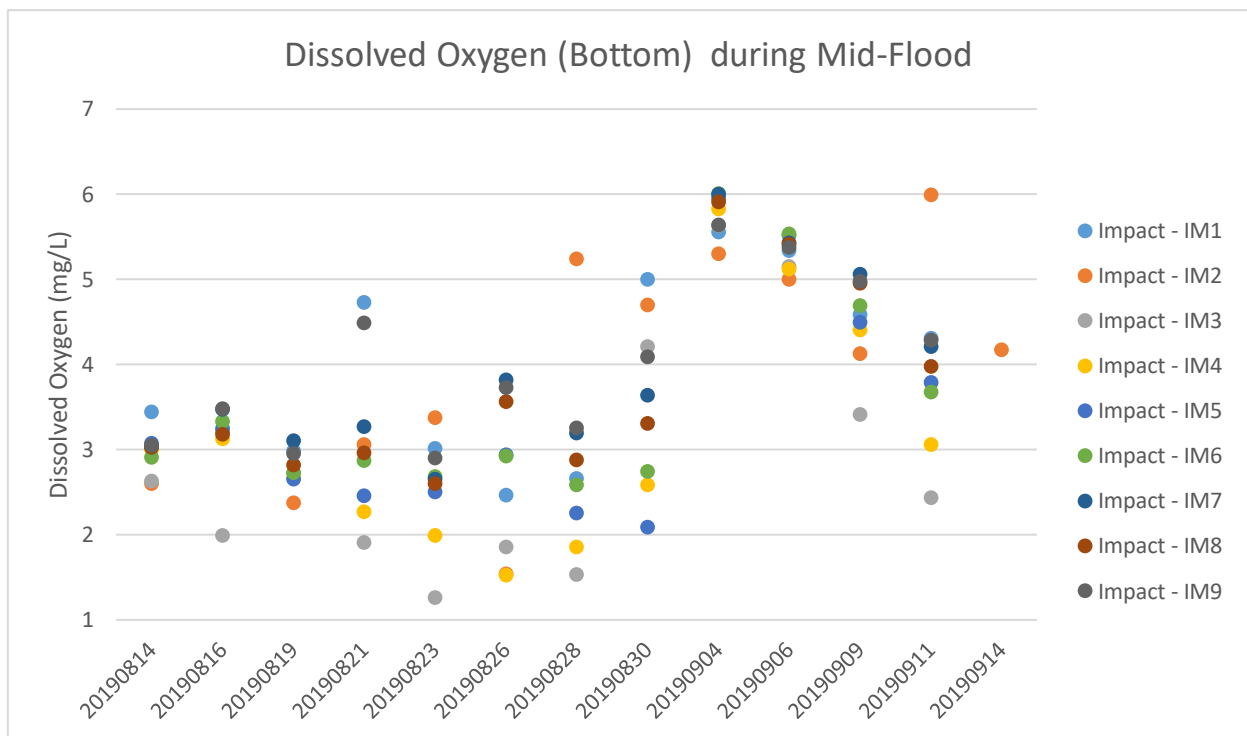


Figure 15b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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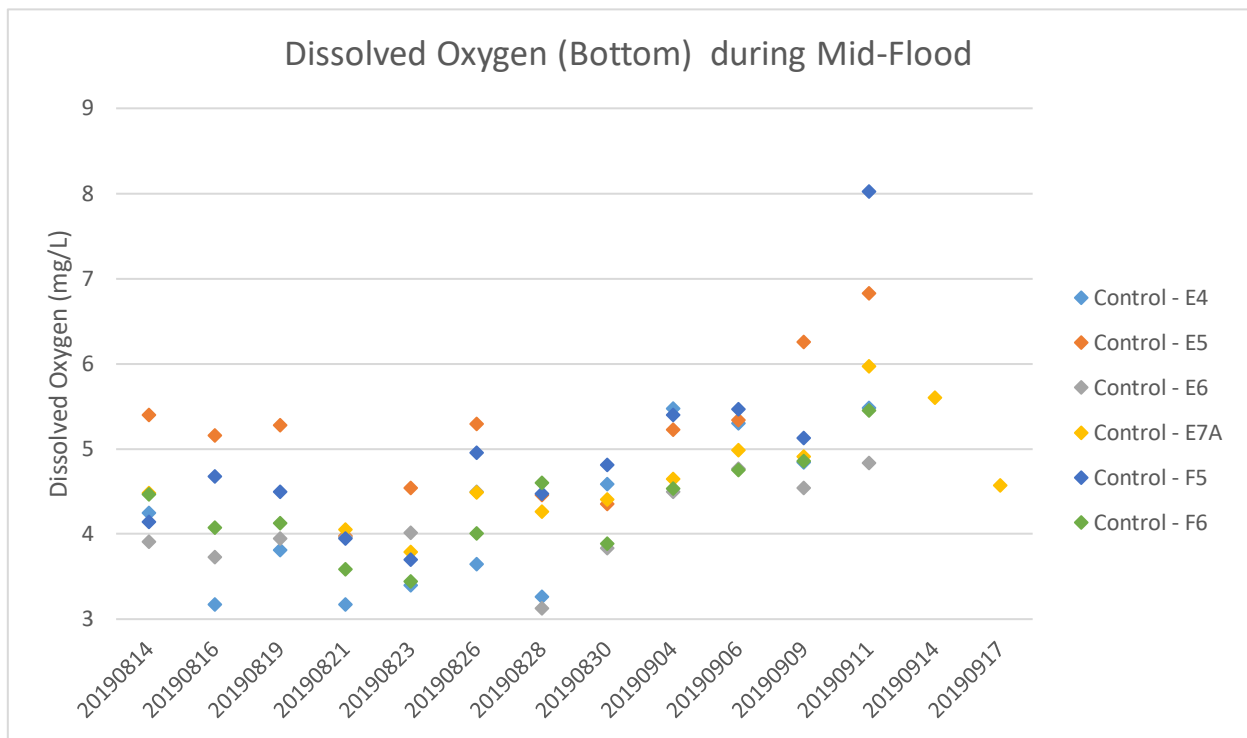


Figure 16a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 14 August and 17 September 2019

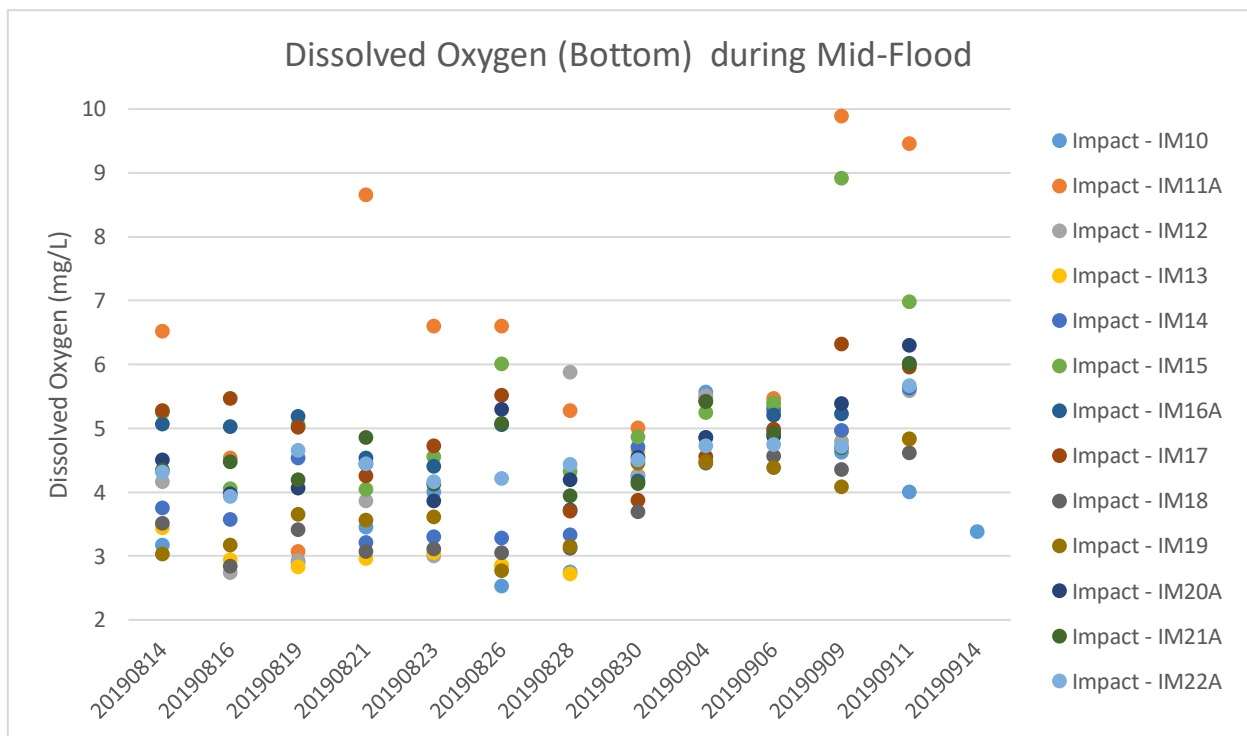


Figure 16b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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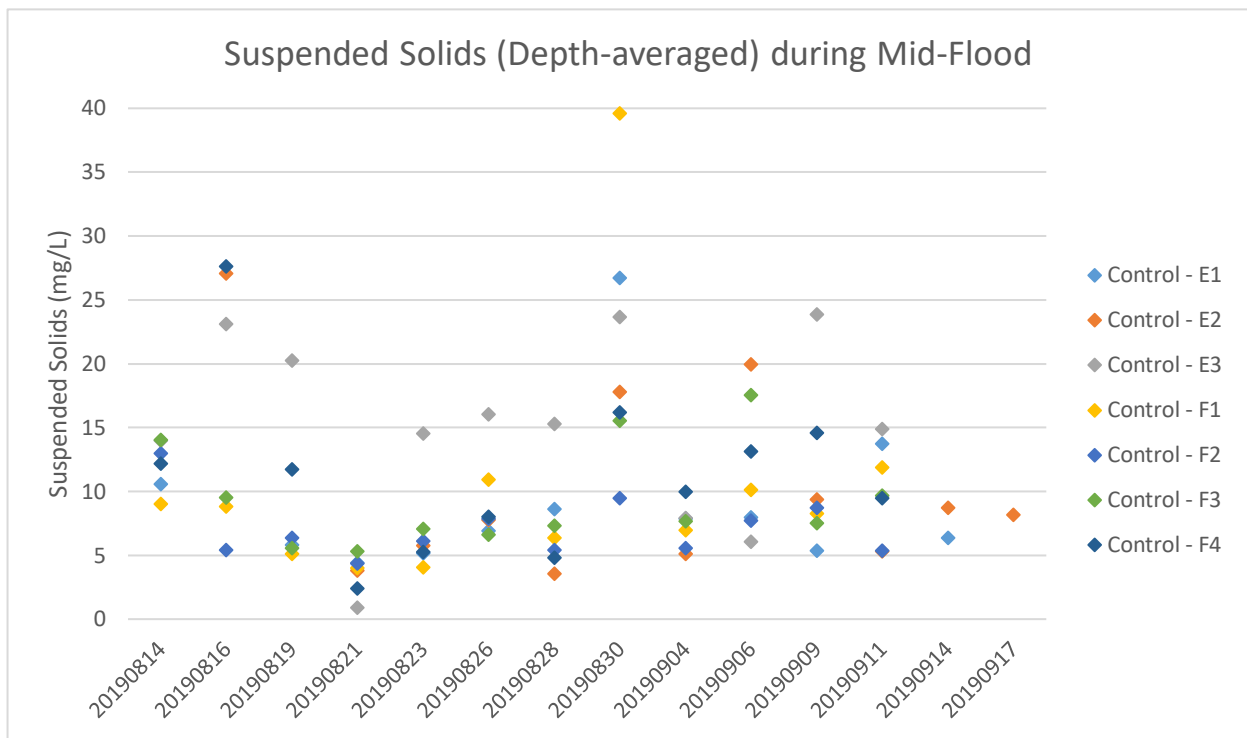


Figure 17a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 14 August and 17 September 2019

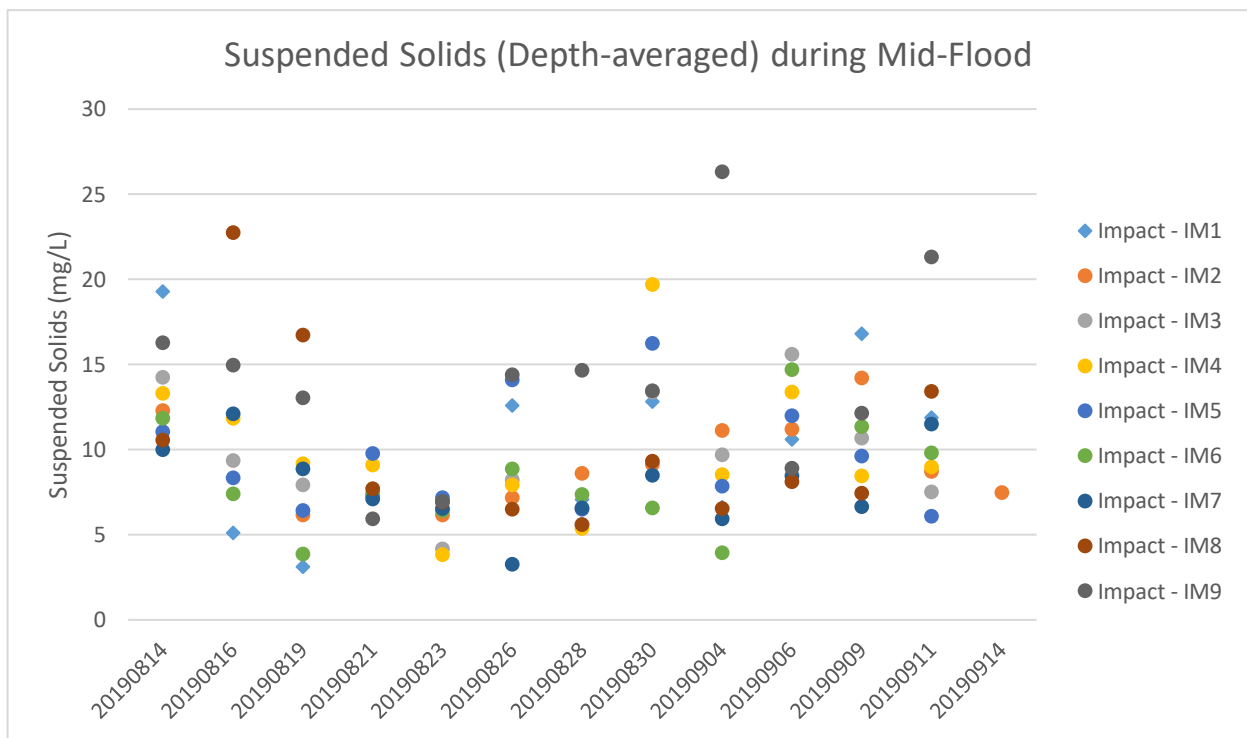


Figure 17b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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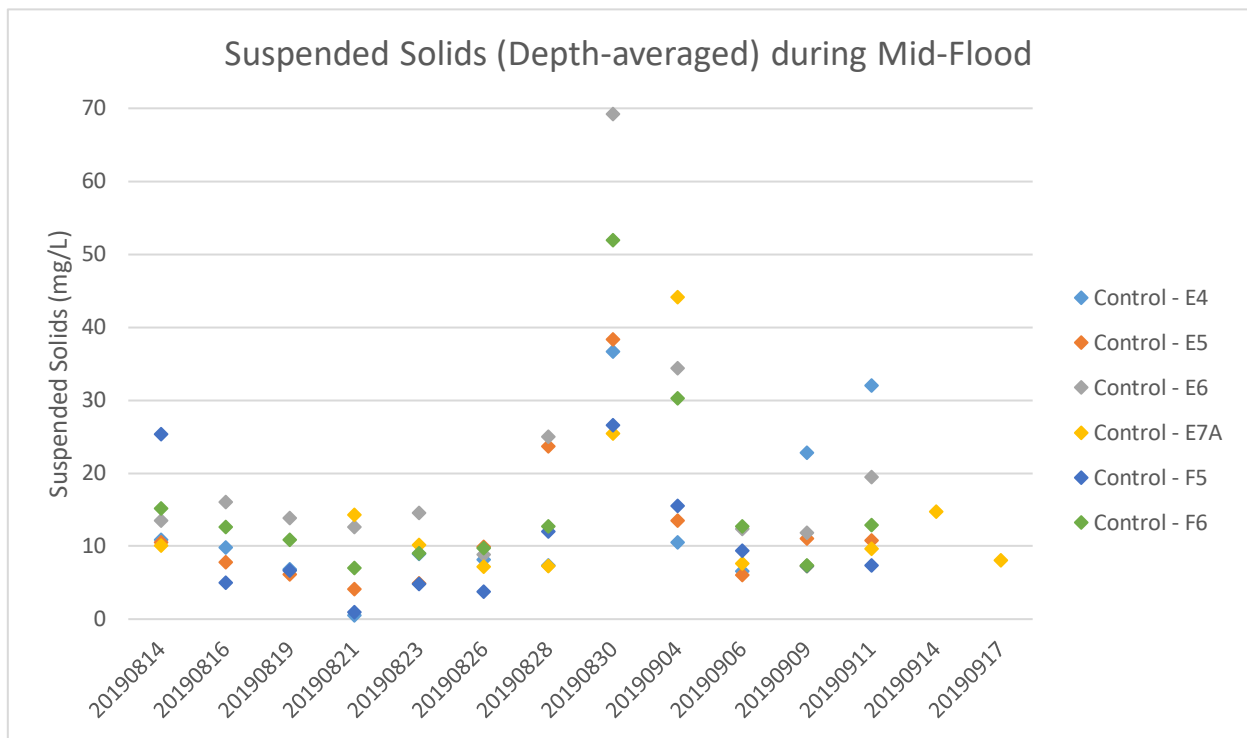


Figure 18a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 14 August and 17 September 2019

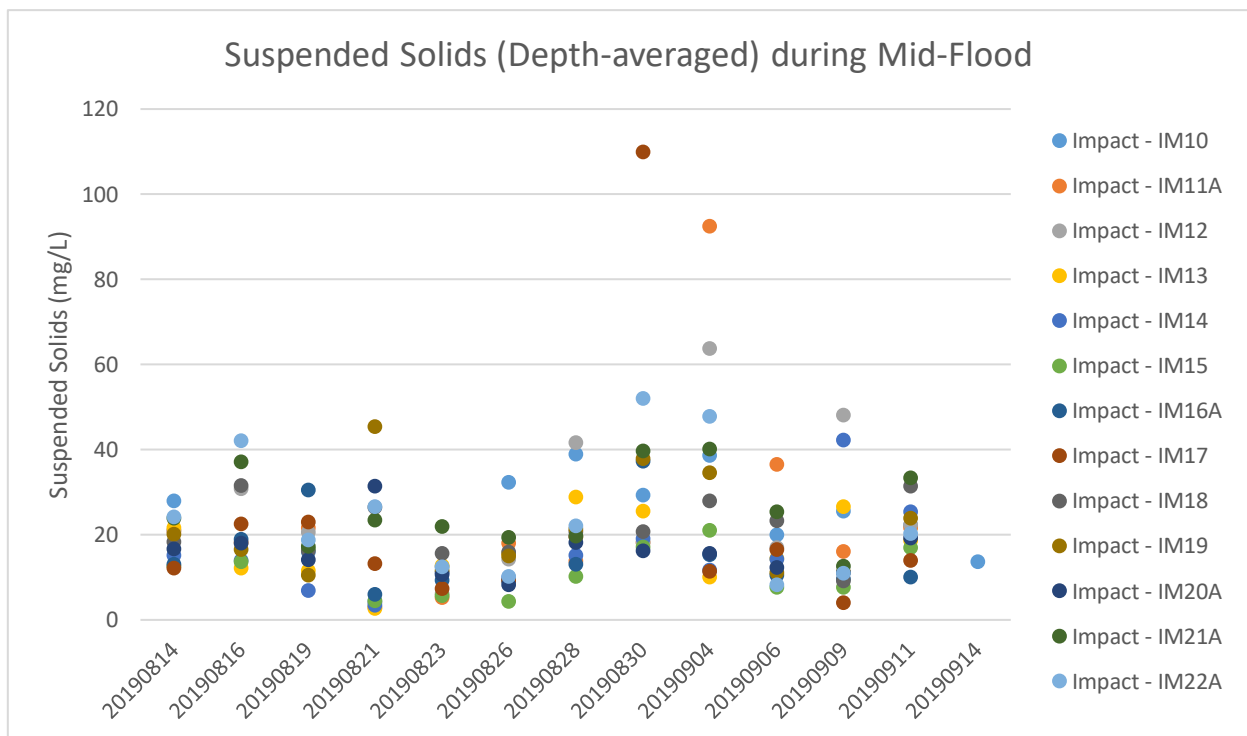


Figure 18b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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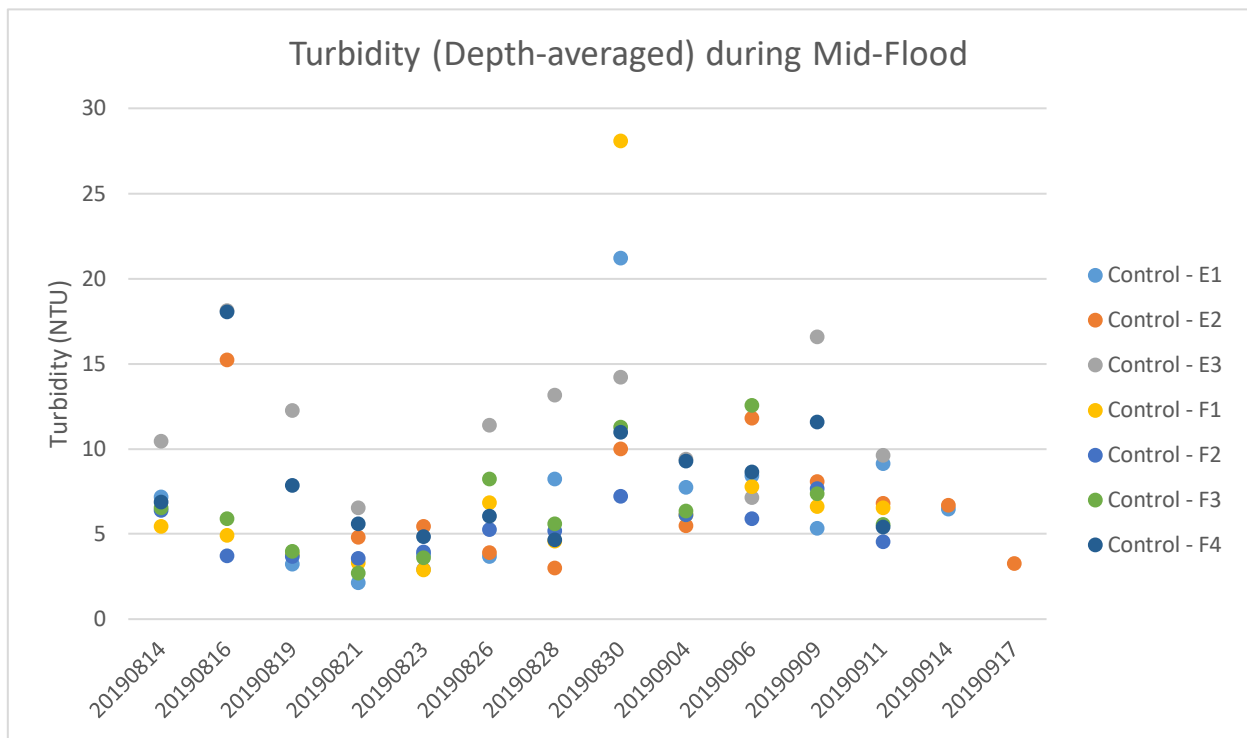


Figure 19a: Levels of Depth-averaged Turbidity (NTU) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 14 August and 17 September 2019

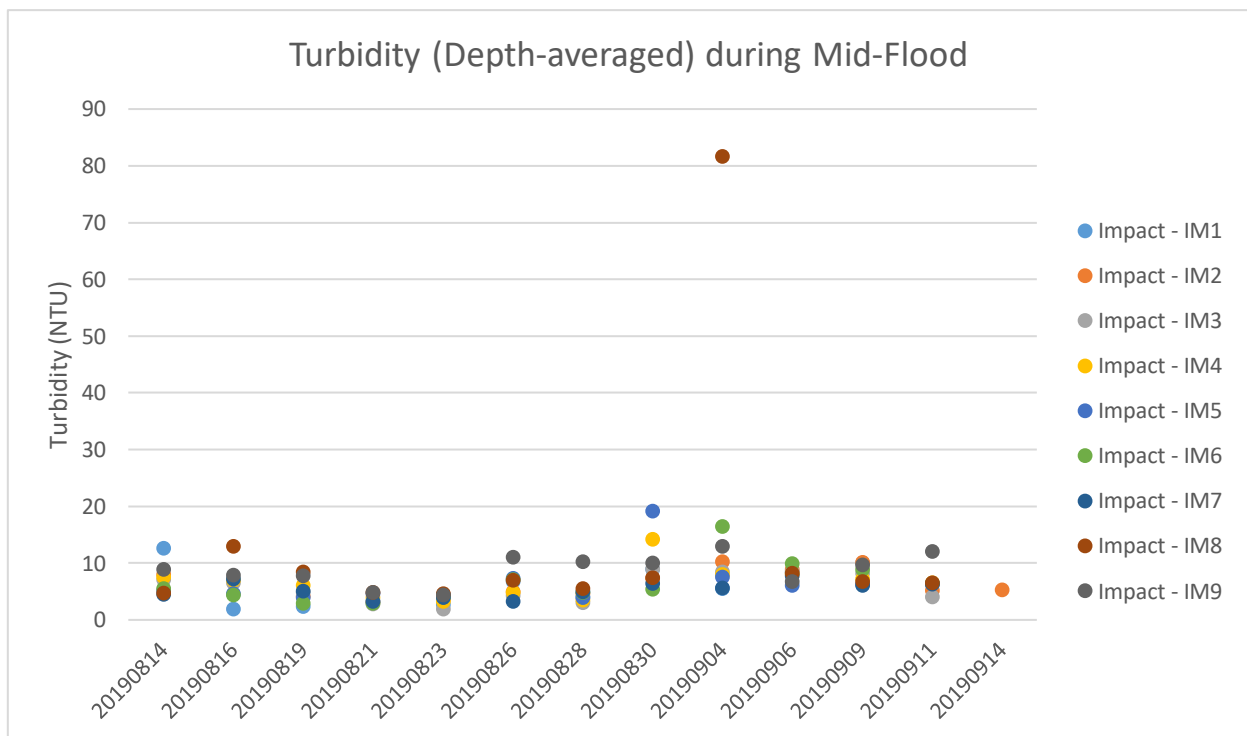


Figure 19b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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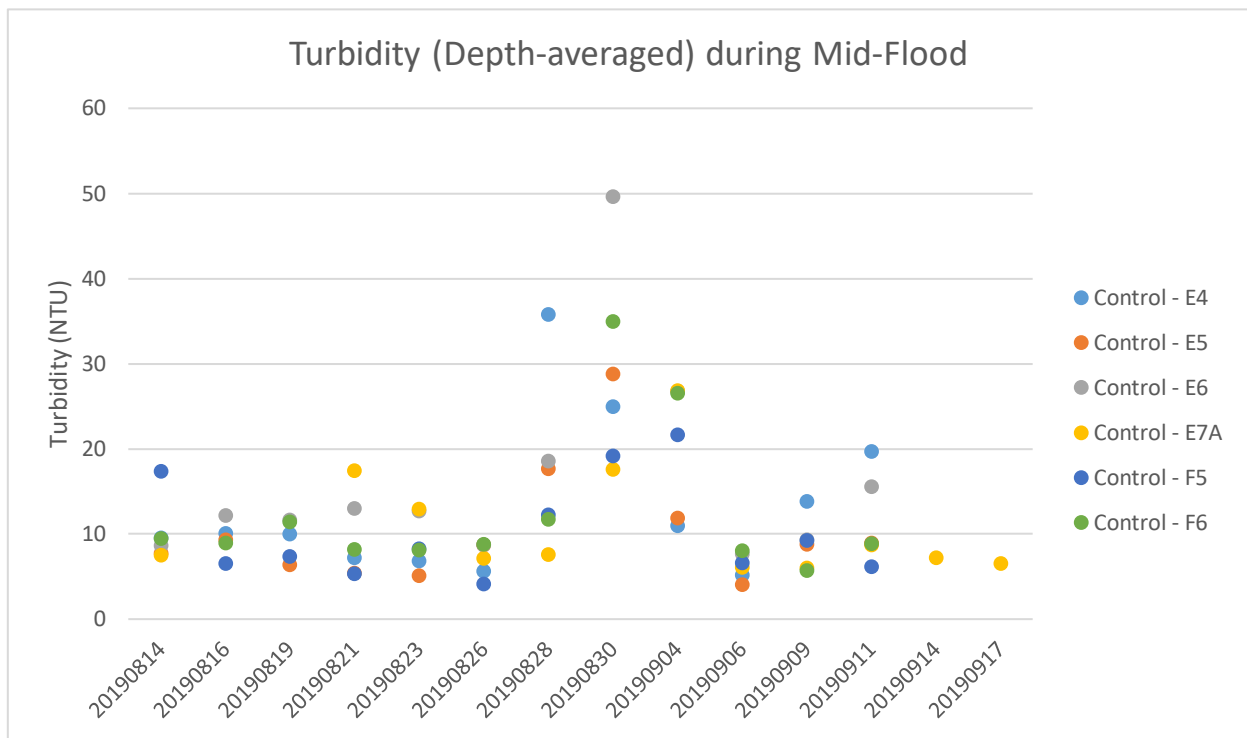


Figure 20a: Levels of Depth-averaged Turbidity (NTU) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 14 August and 17 September 2019

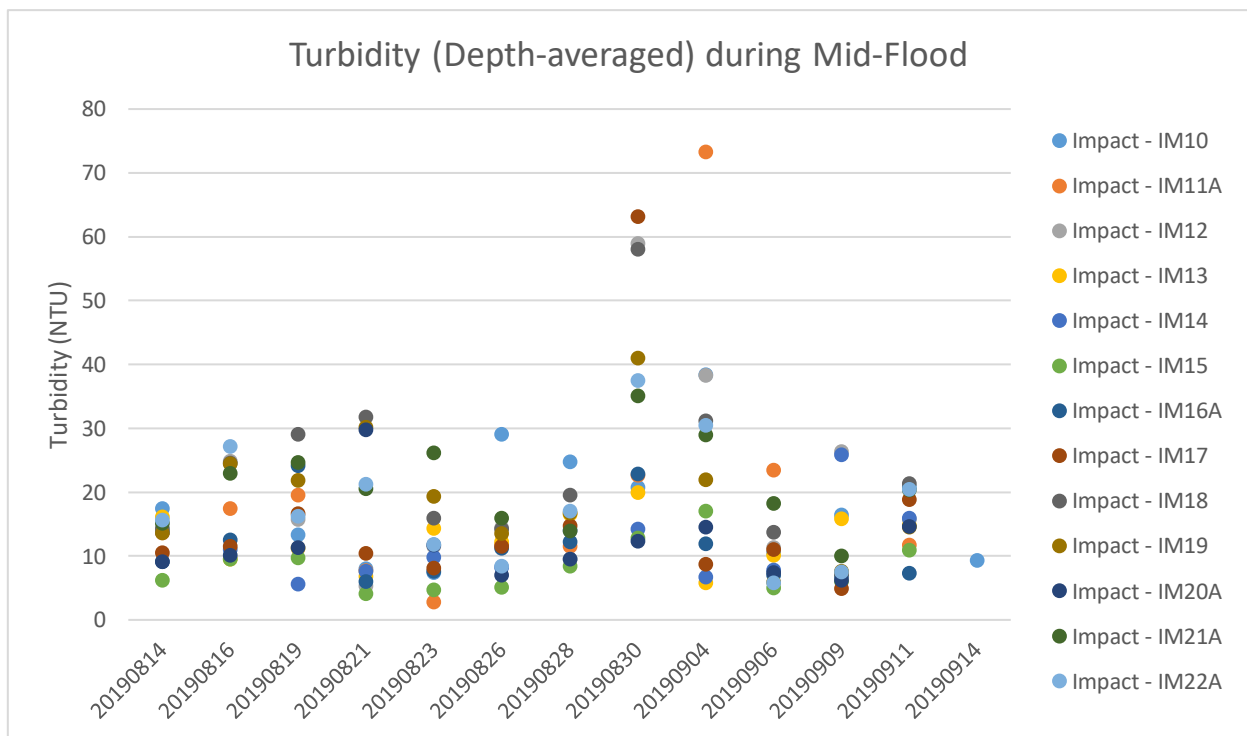


Figure 20b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 14 August and 17 September 2019

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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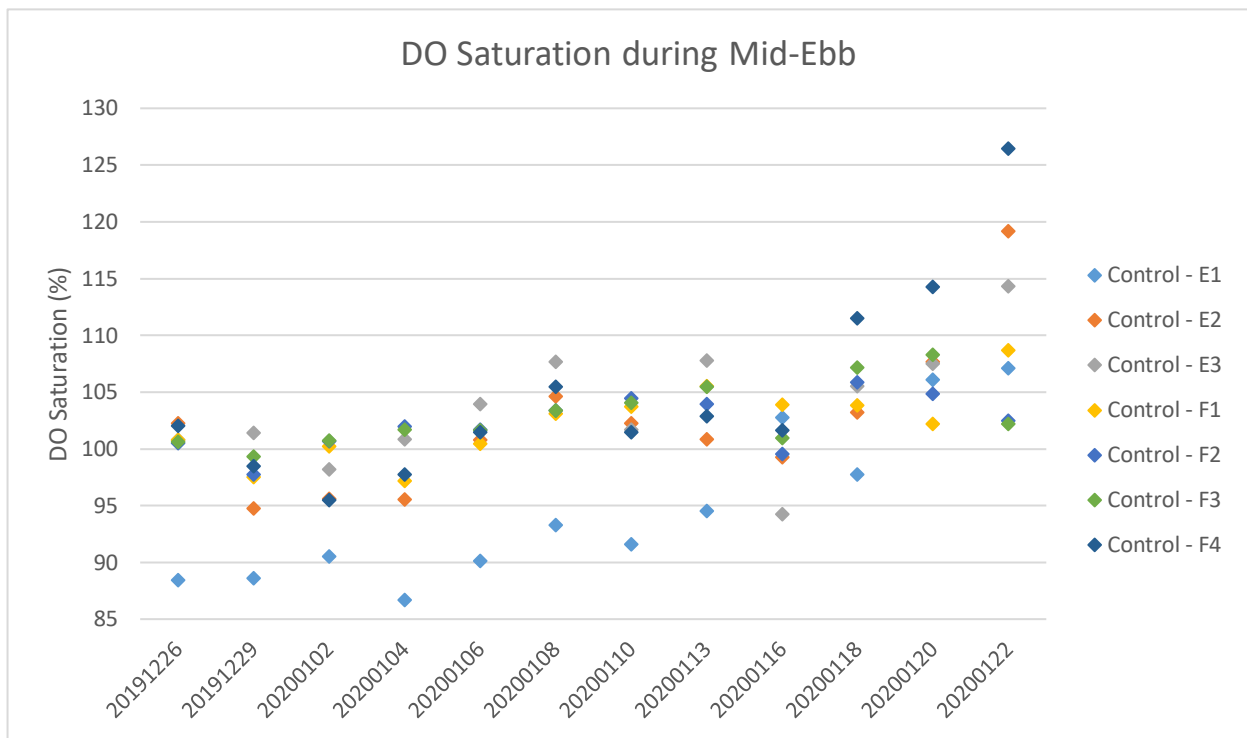


Figure 21a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 26 December 2019 and 22 January 2020

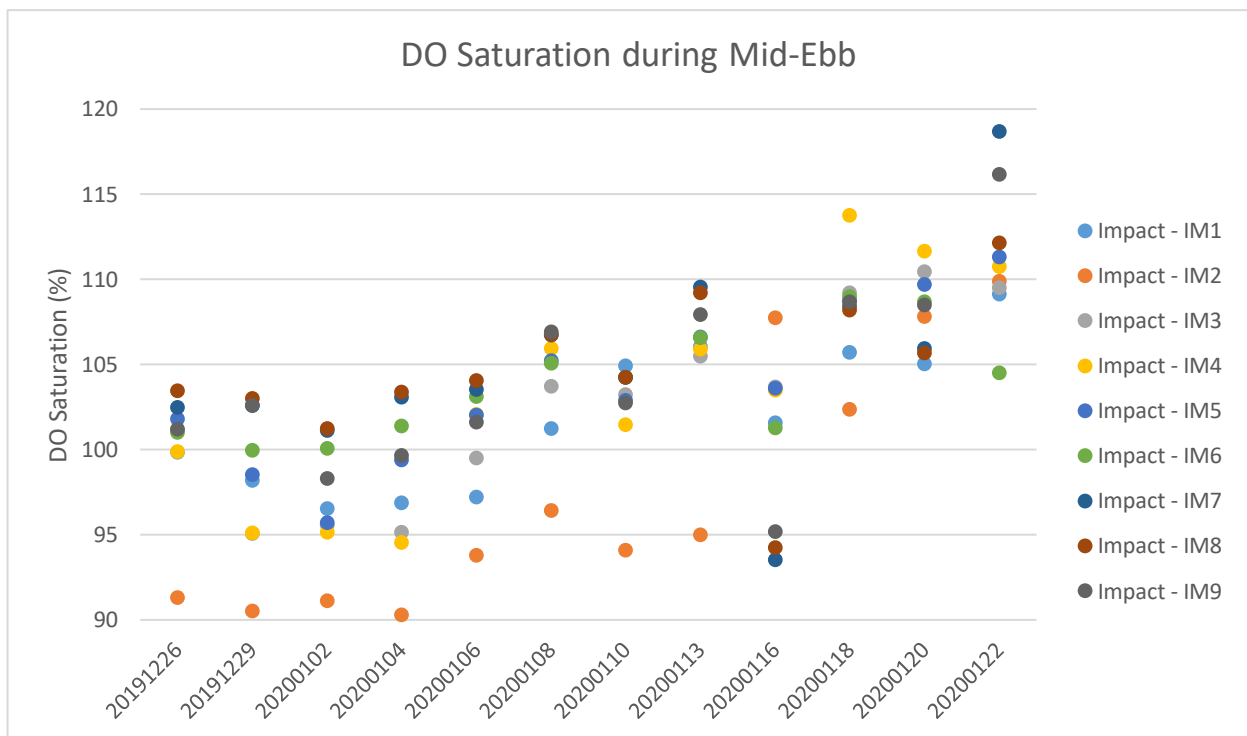


Figure 21b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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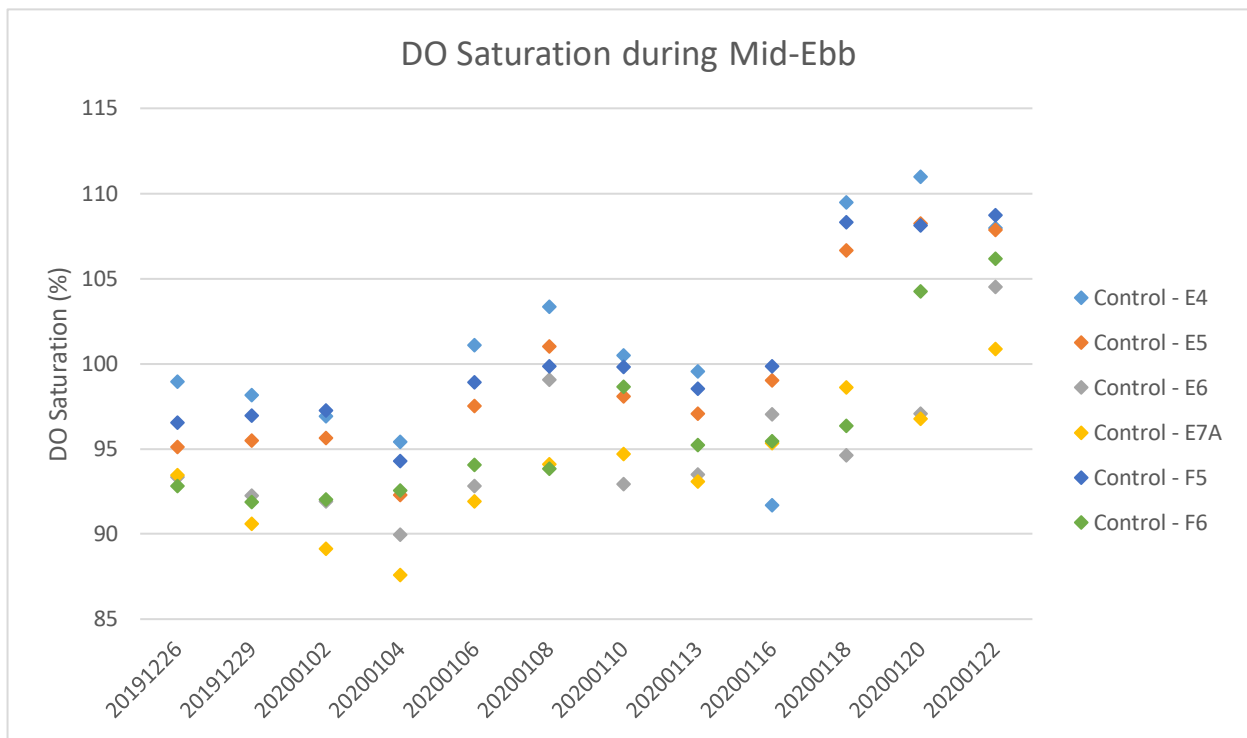


Figure 22a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 26 December 2019 and 22 January 2020

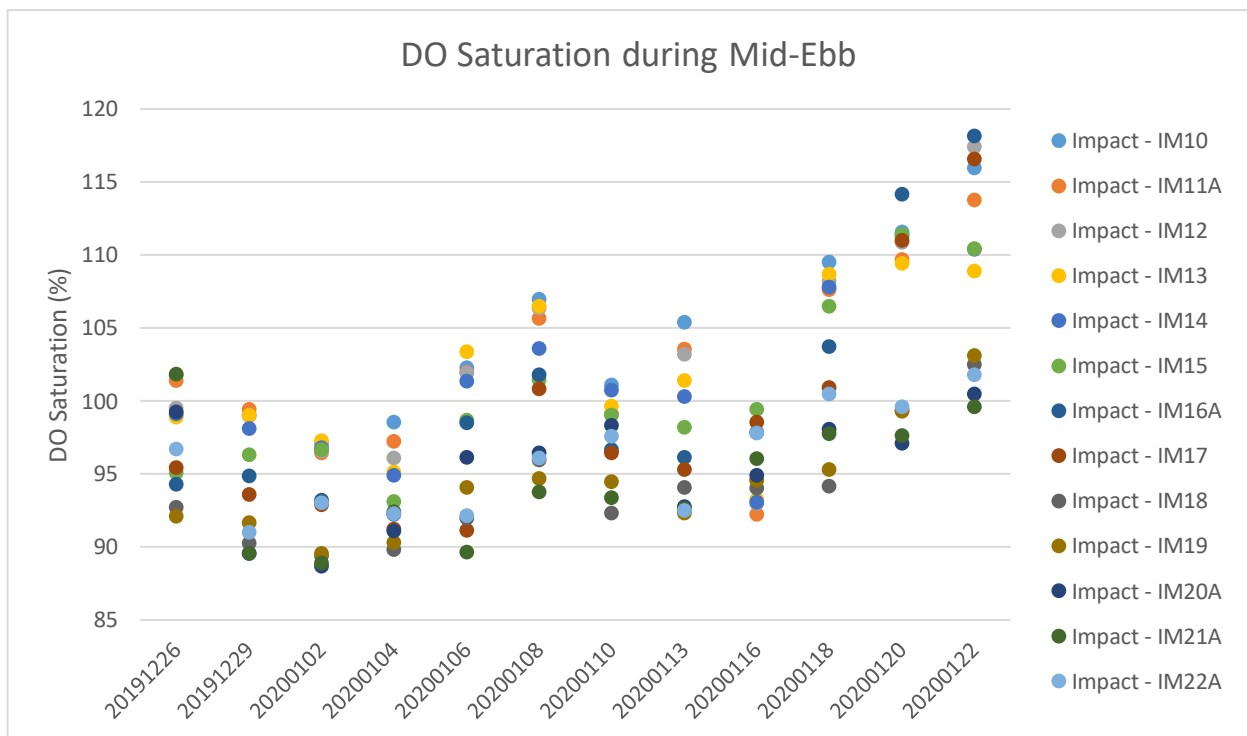


Figure 22b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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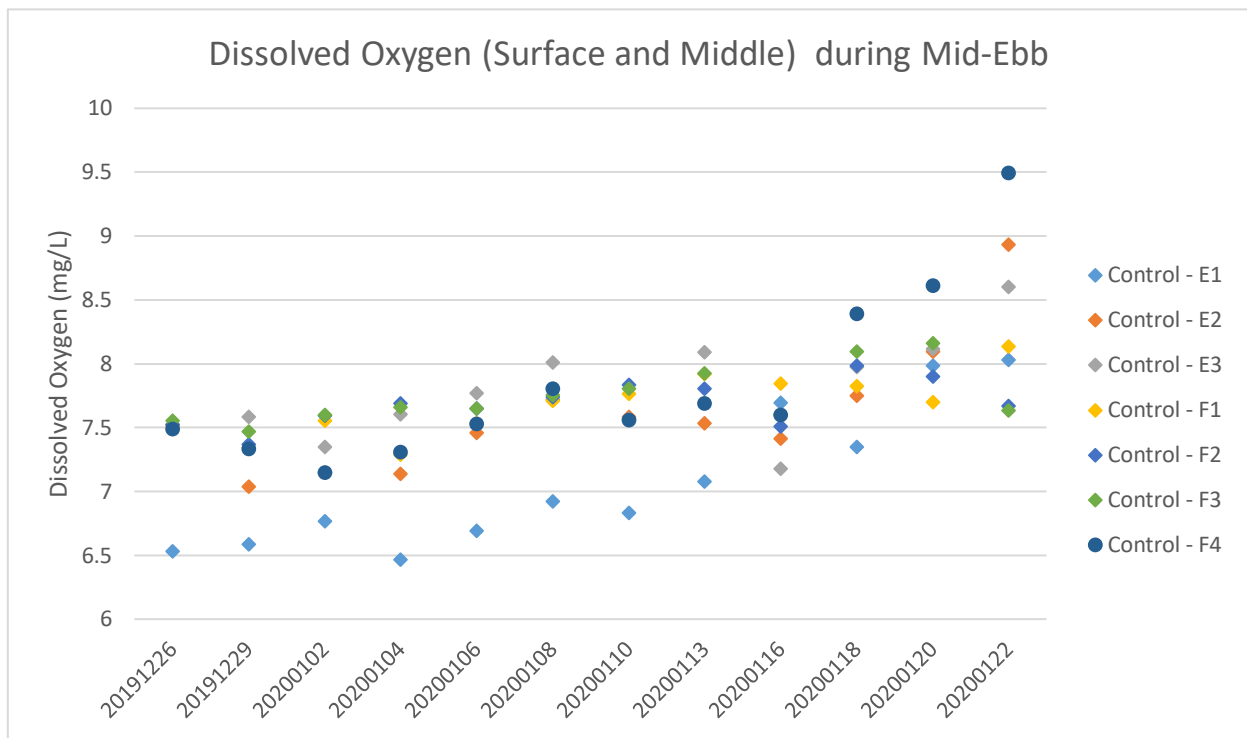


Figure 23a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 26 December 2019 and 22 January 2020

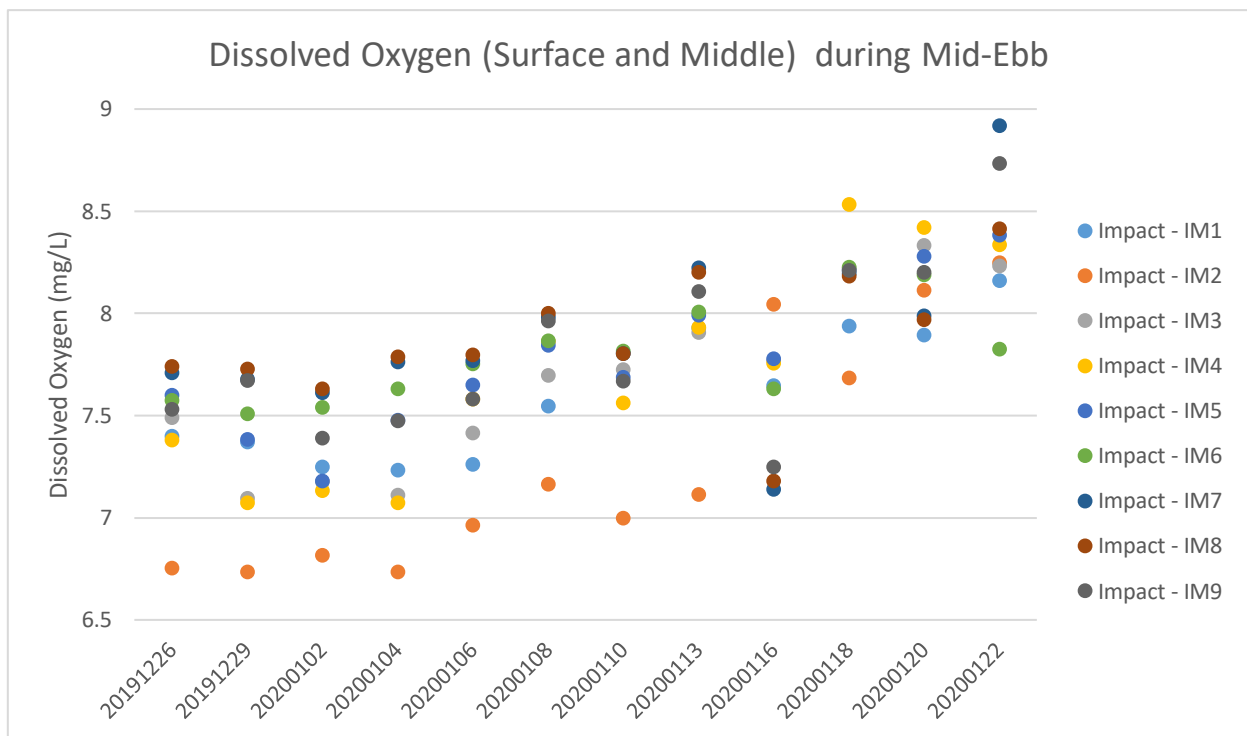


Figure 23b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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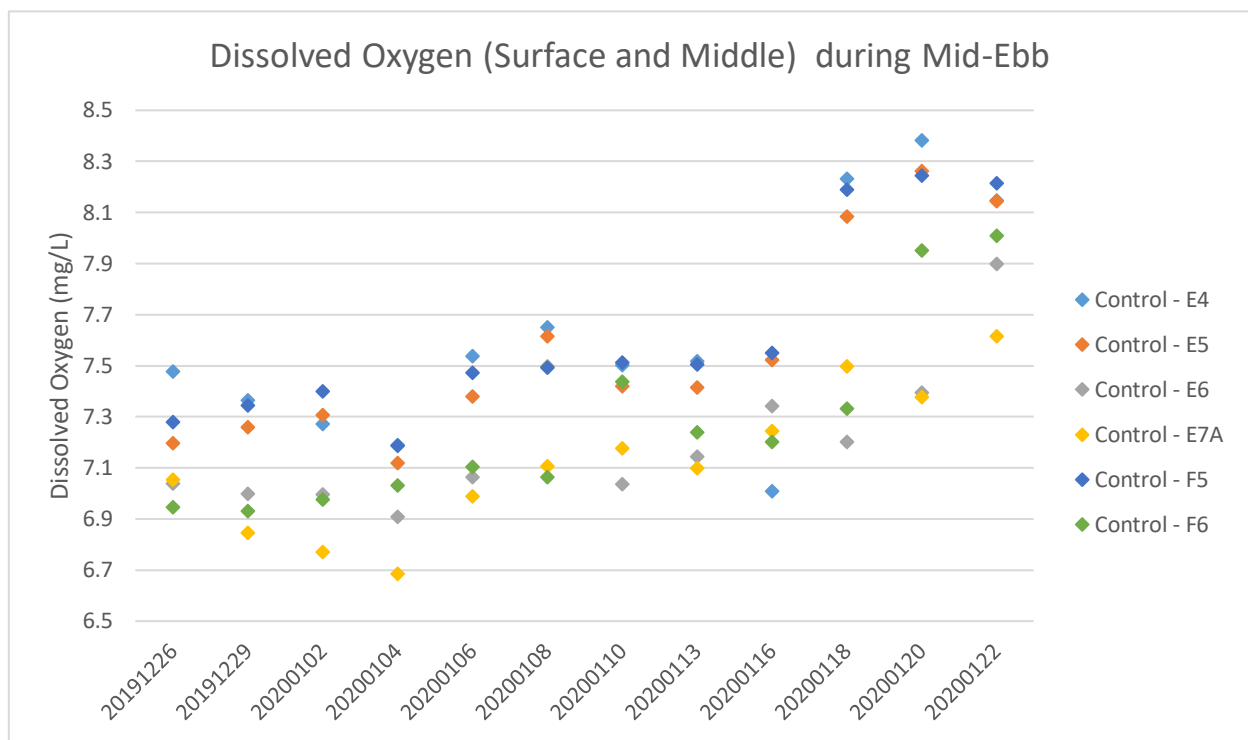


Figure 24a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 26 December 2019 and 22 January 2020

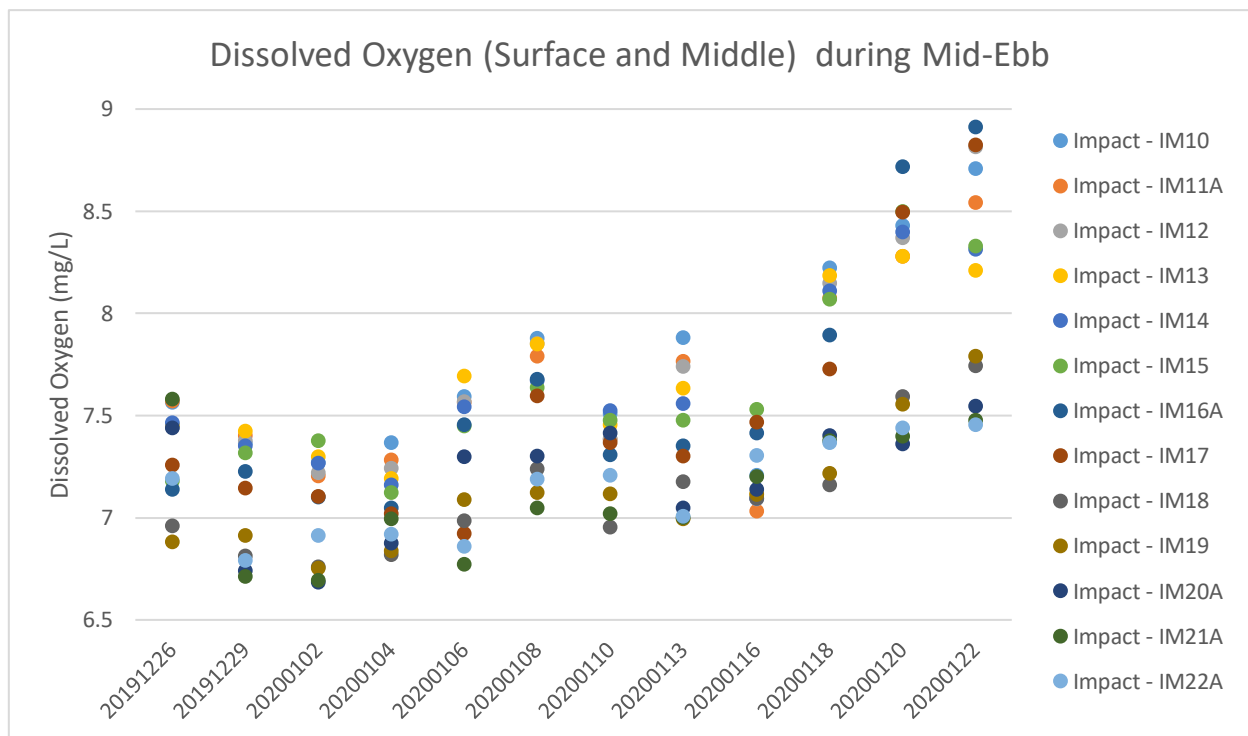


Figure 24b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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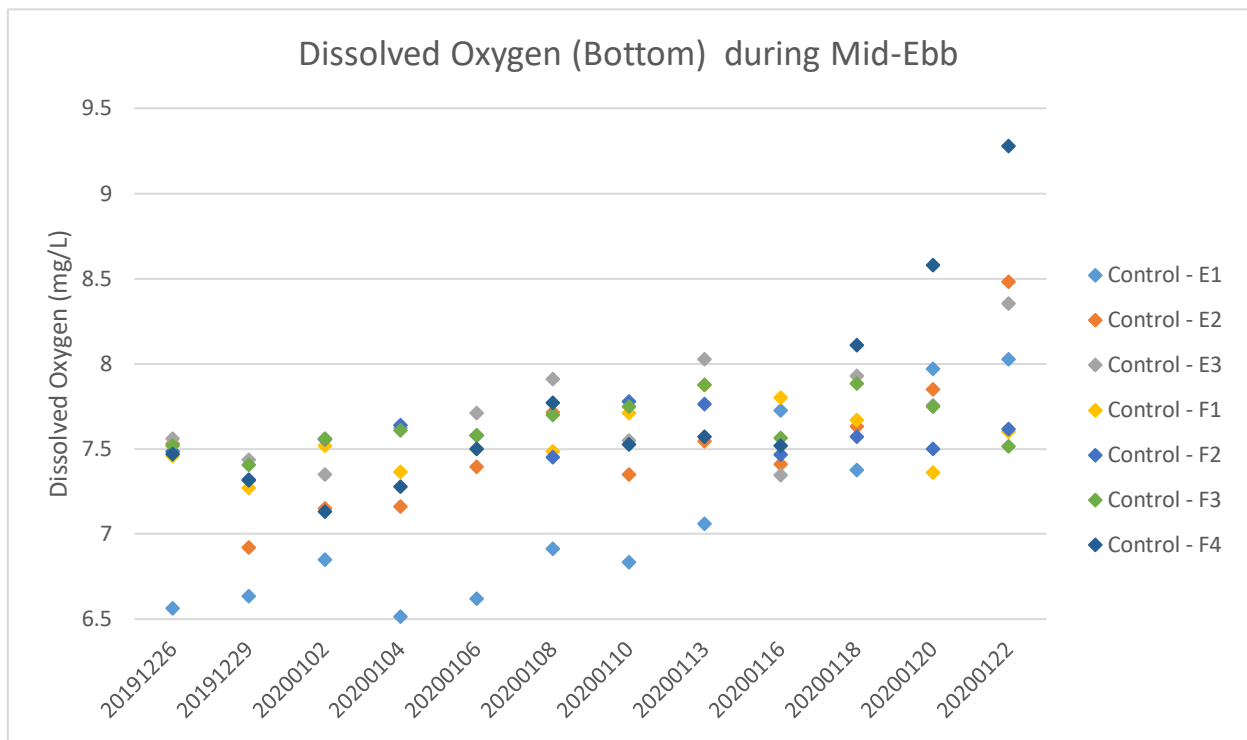


Figure 25a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 26 December 2019 and 22 January 2020

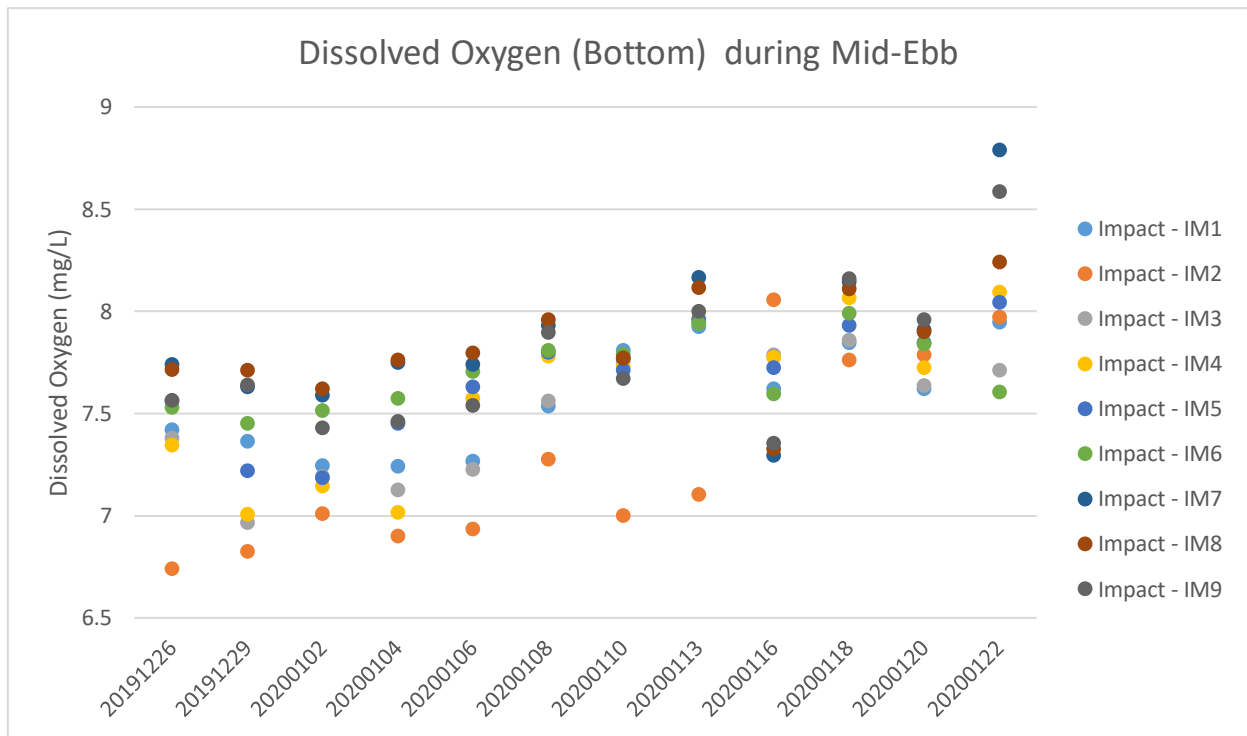
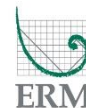


Figure 25b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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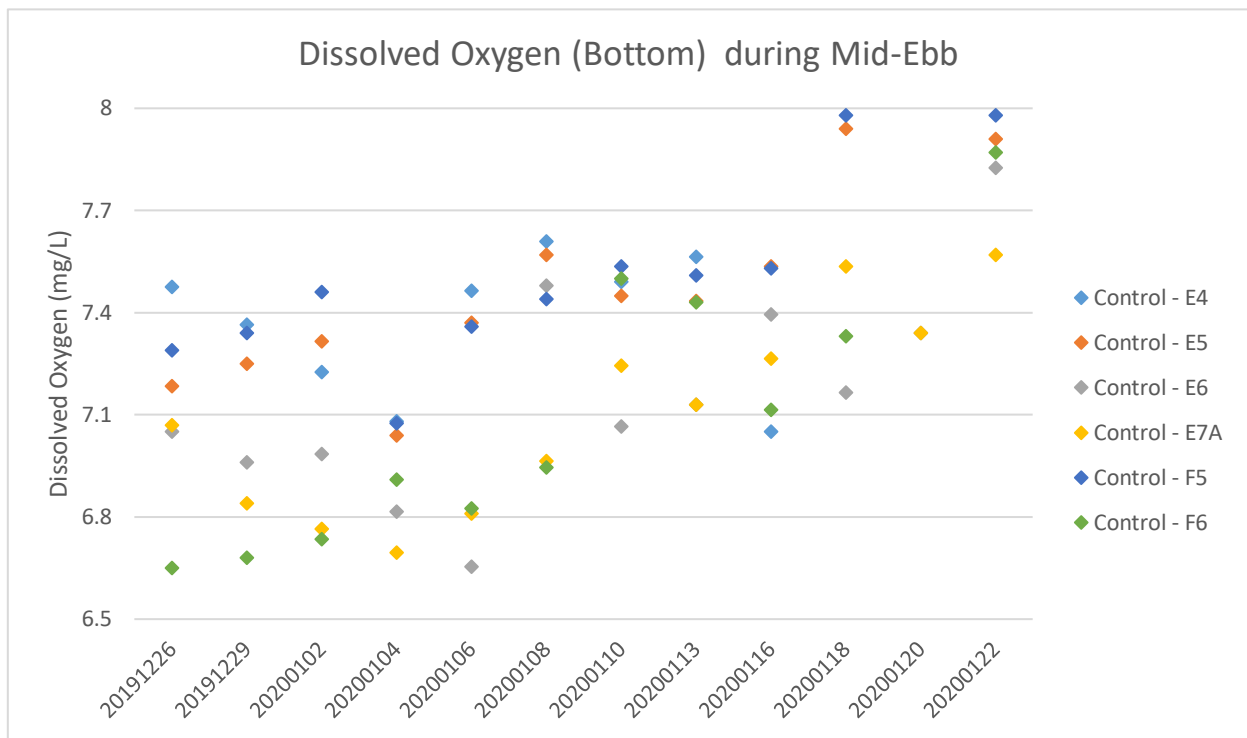


Figure 26a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 26 December 2019 and 22 January 2020

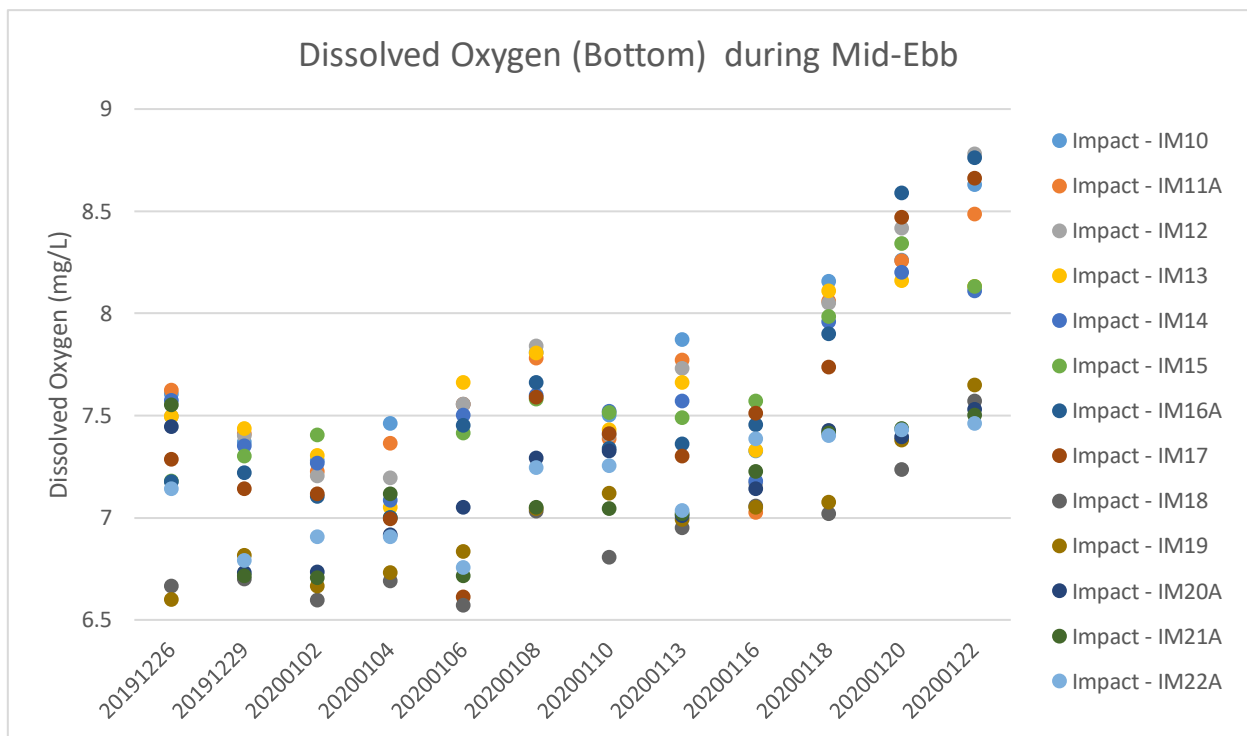


Figure 26b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

Date: 29/10/20

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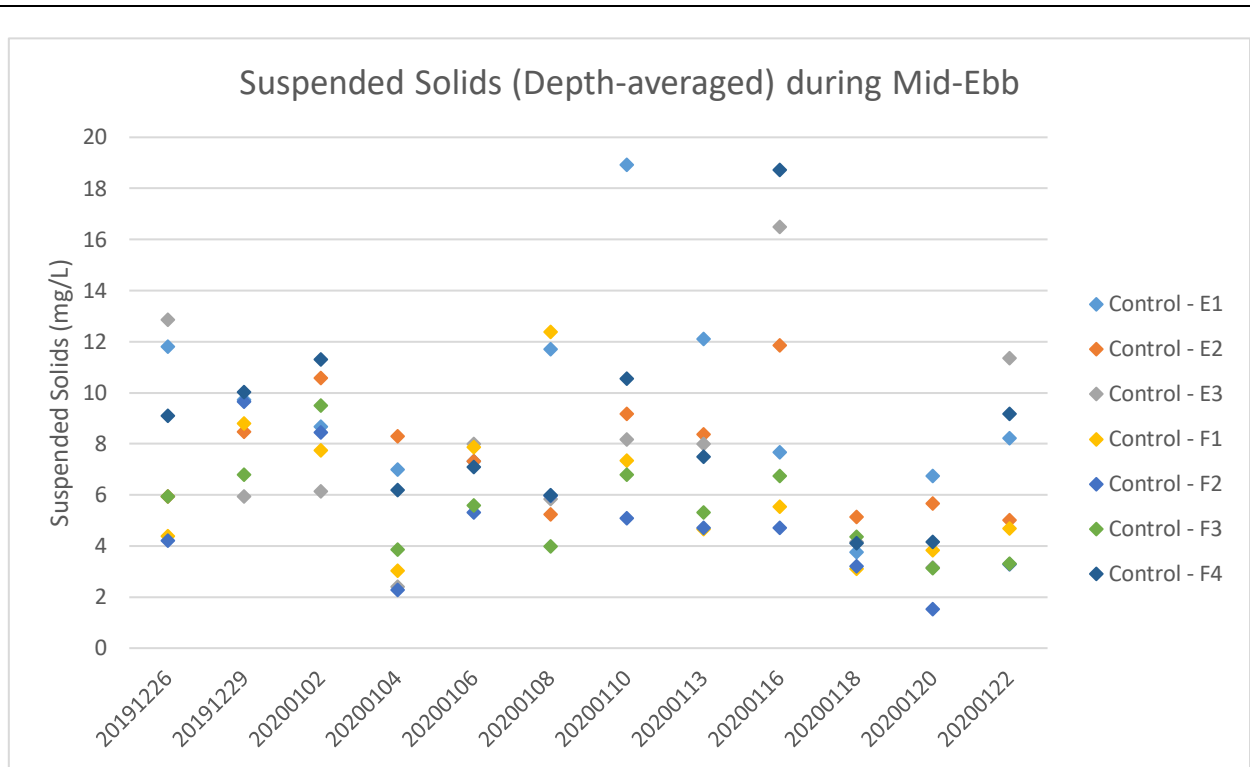


Figure 27a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 26 December 2019 and 22 January 2020

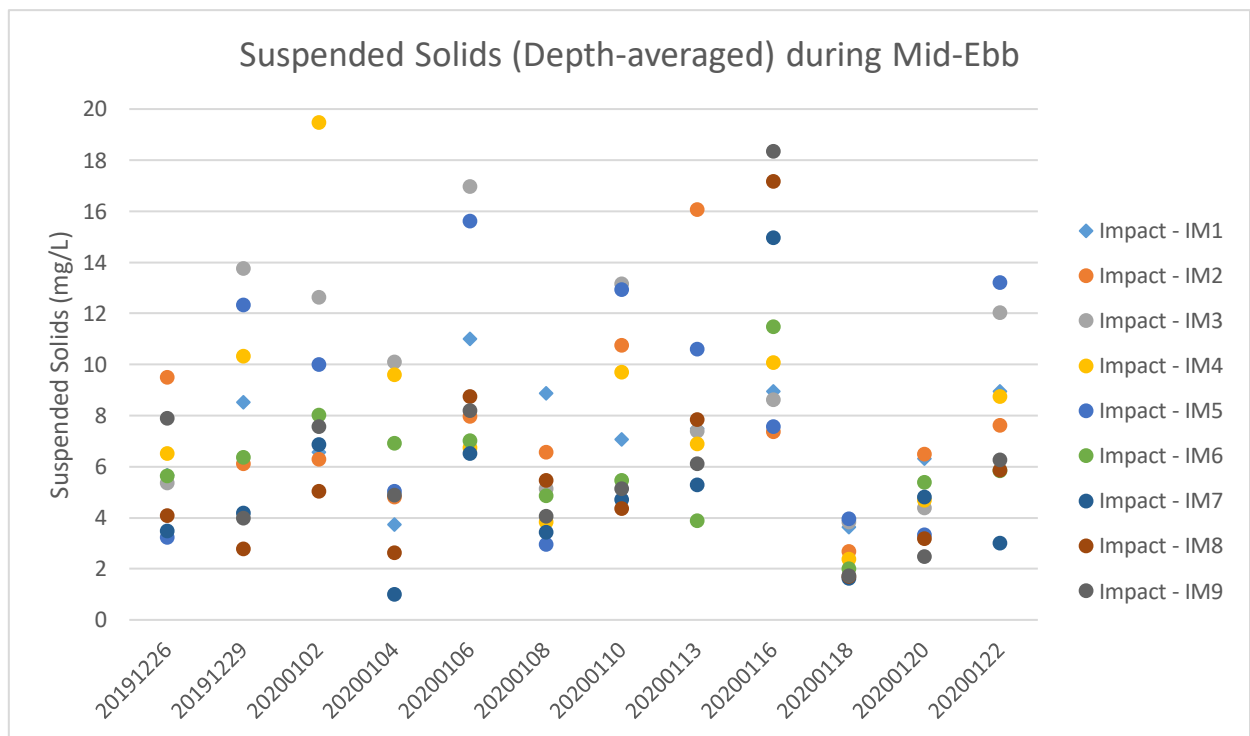


Figure 27b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

Date: 29/10/20

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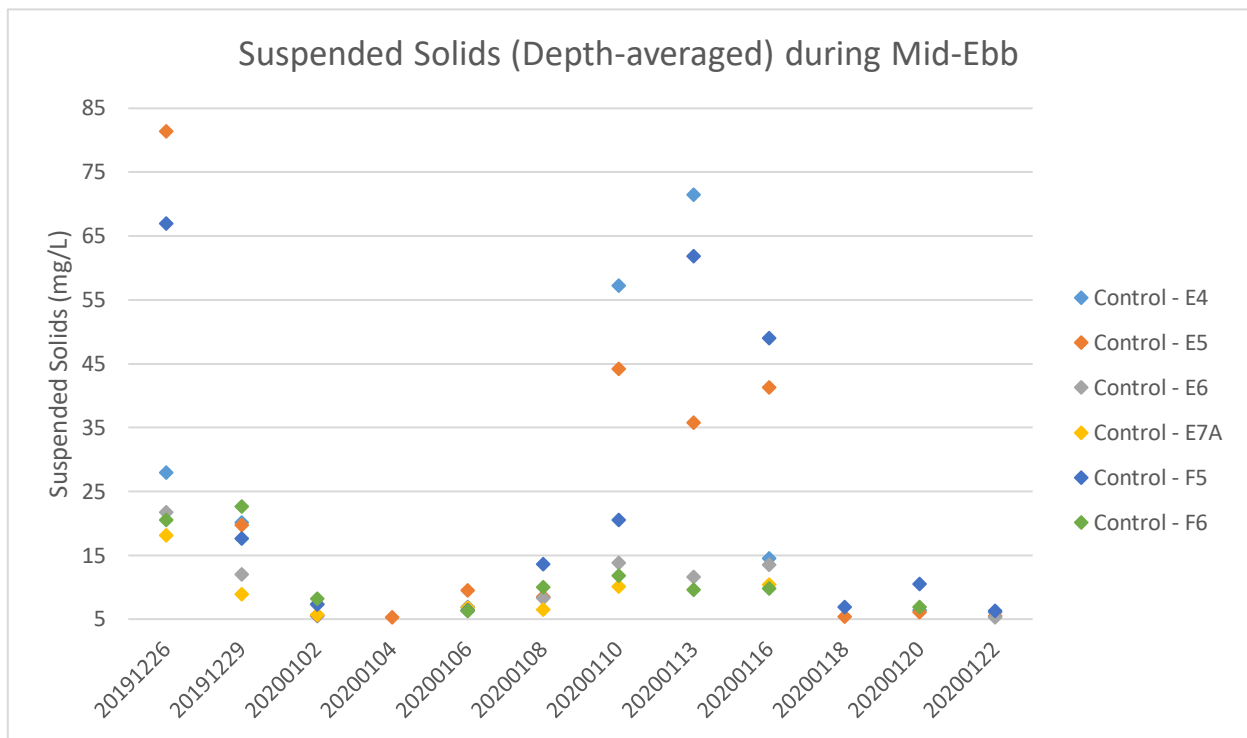


Figure 28a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 26 December 2019 and 22 January 2020

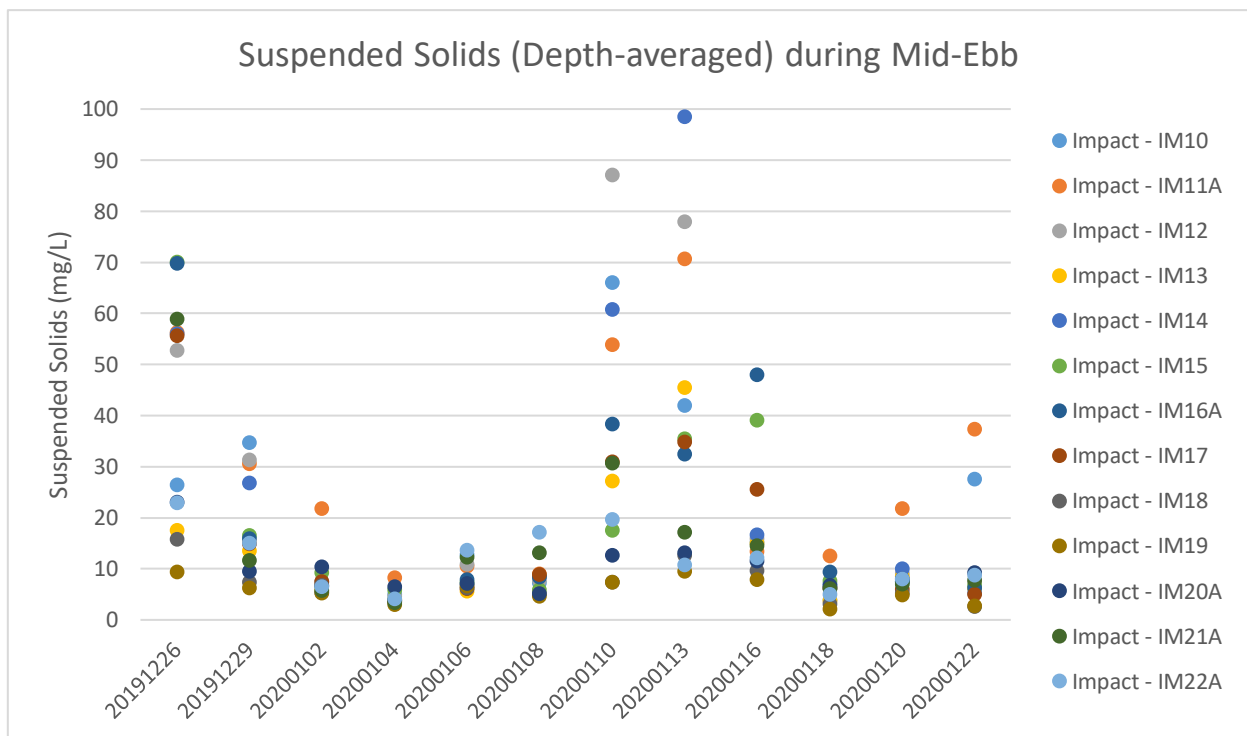


Figure 28b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

Date: 29/10/20

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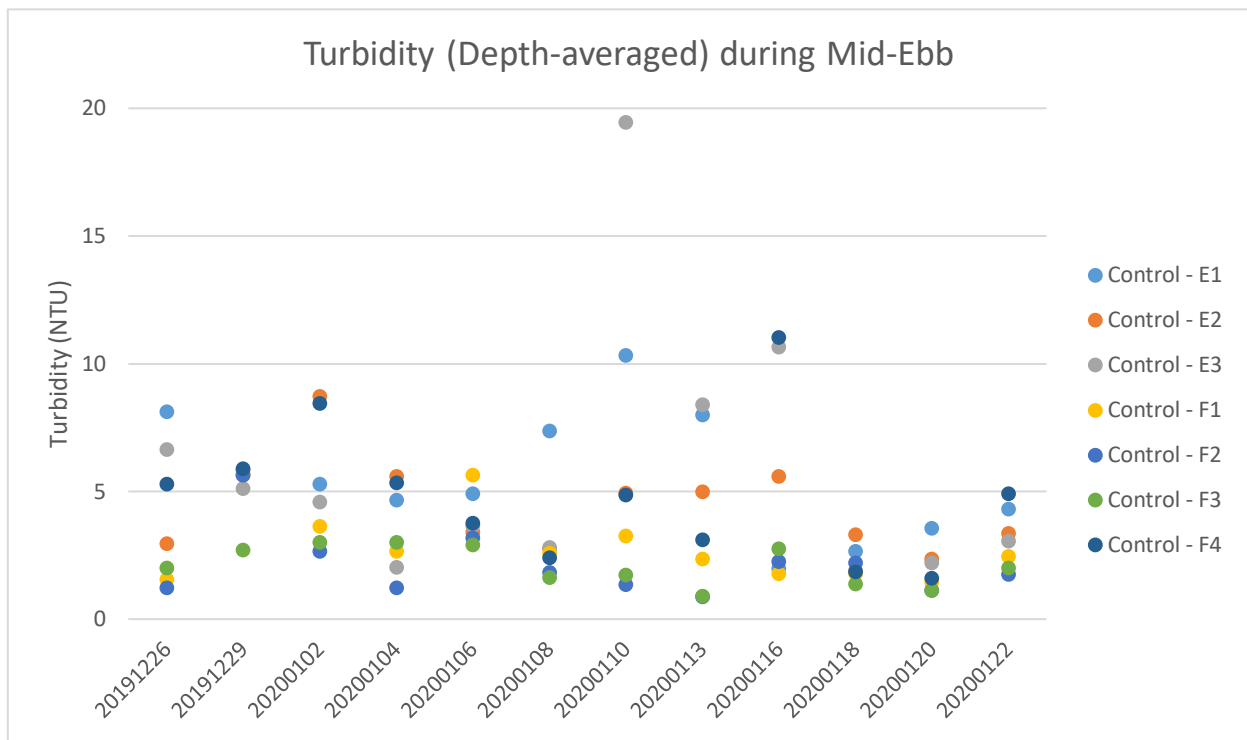


Figure 29a: Levels of Depth-averaged Turbidity (NTU) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-ebb tides between 26 December 2019 and 22 January 2020

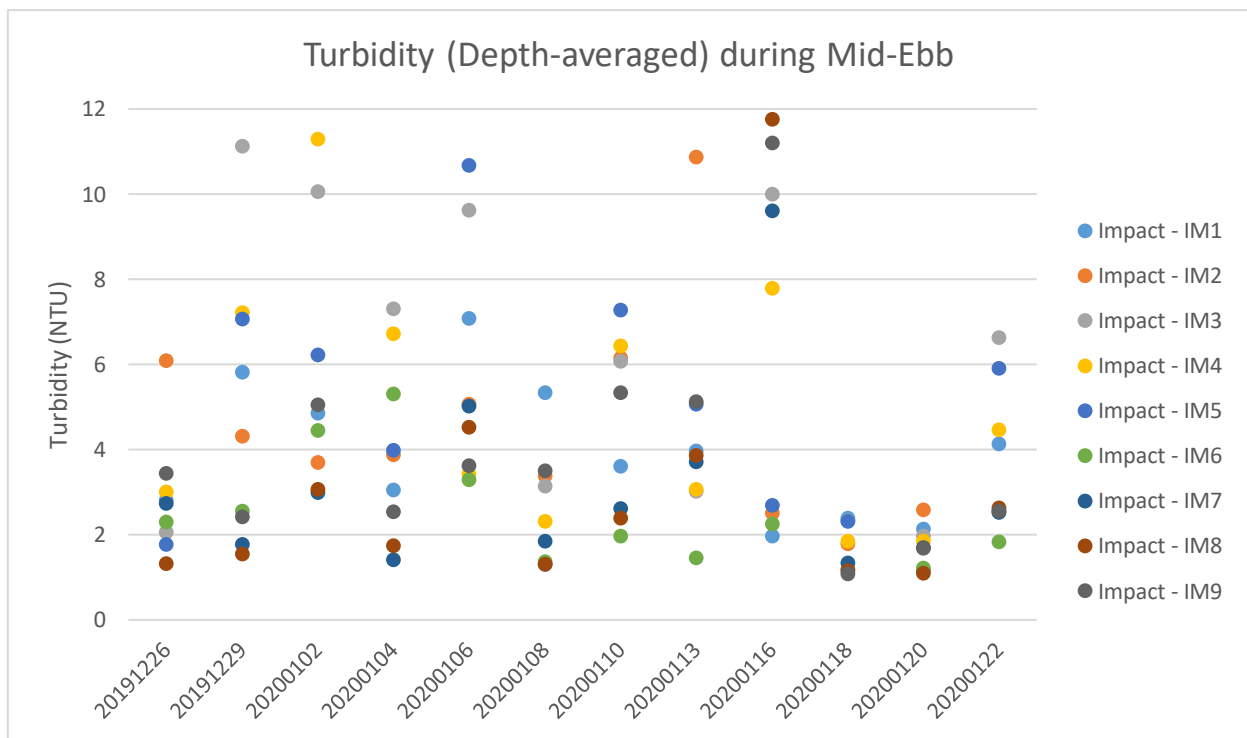


Figure 29b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-ebb tides between 26 December 2019 and 22 January 2020

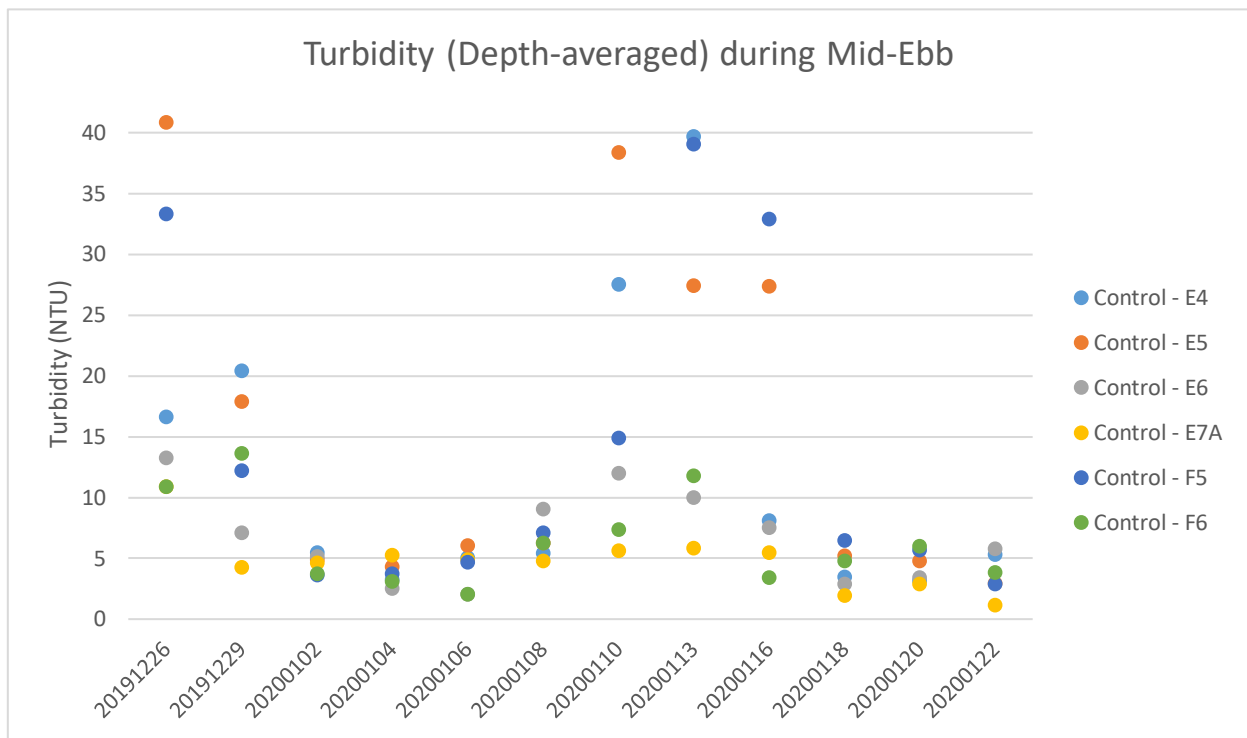


Figure 30a: Levels of Depth-averaged Turbidity (NTU) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-ebb tides between 26 December 2019 and 22 January 2020

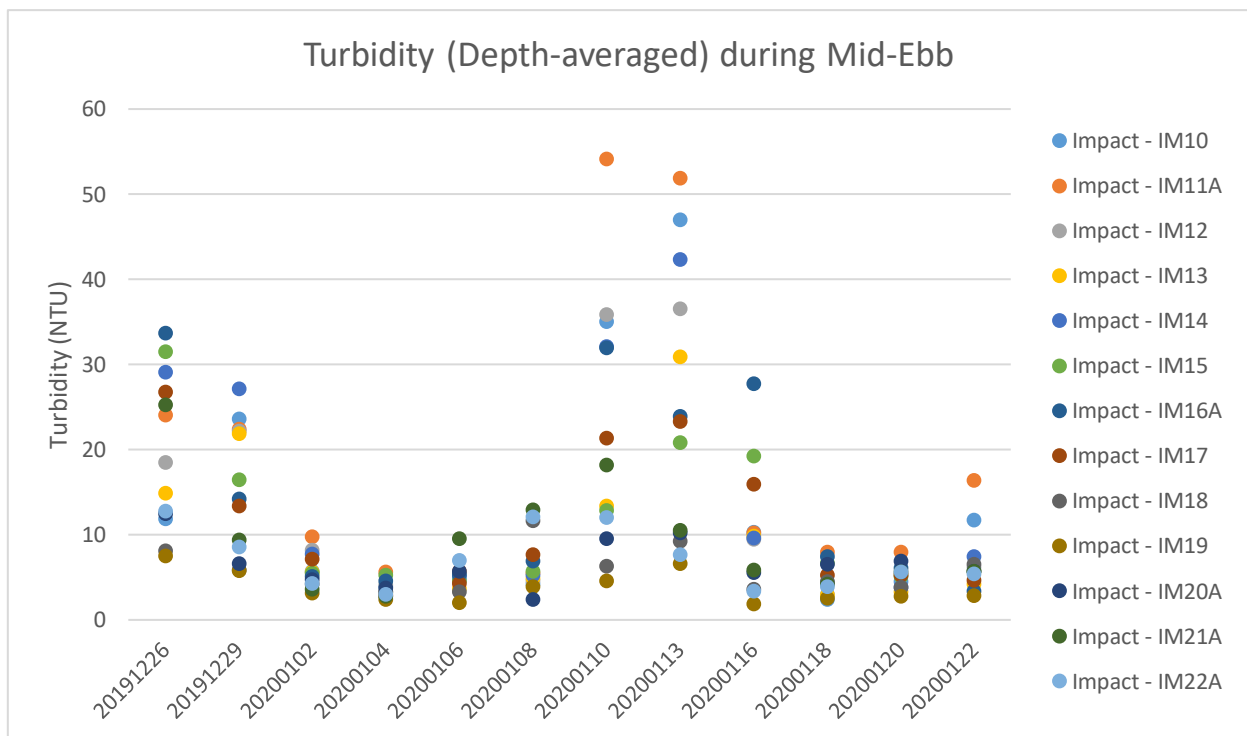


Figure 30b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-ebb tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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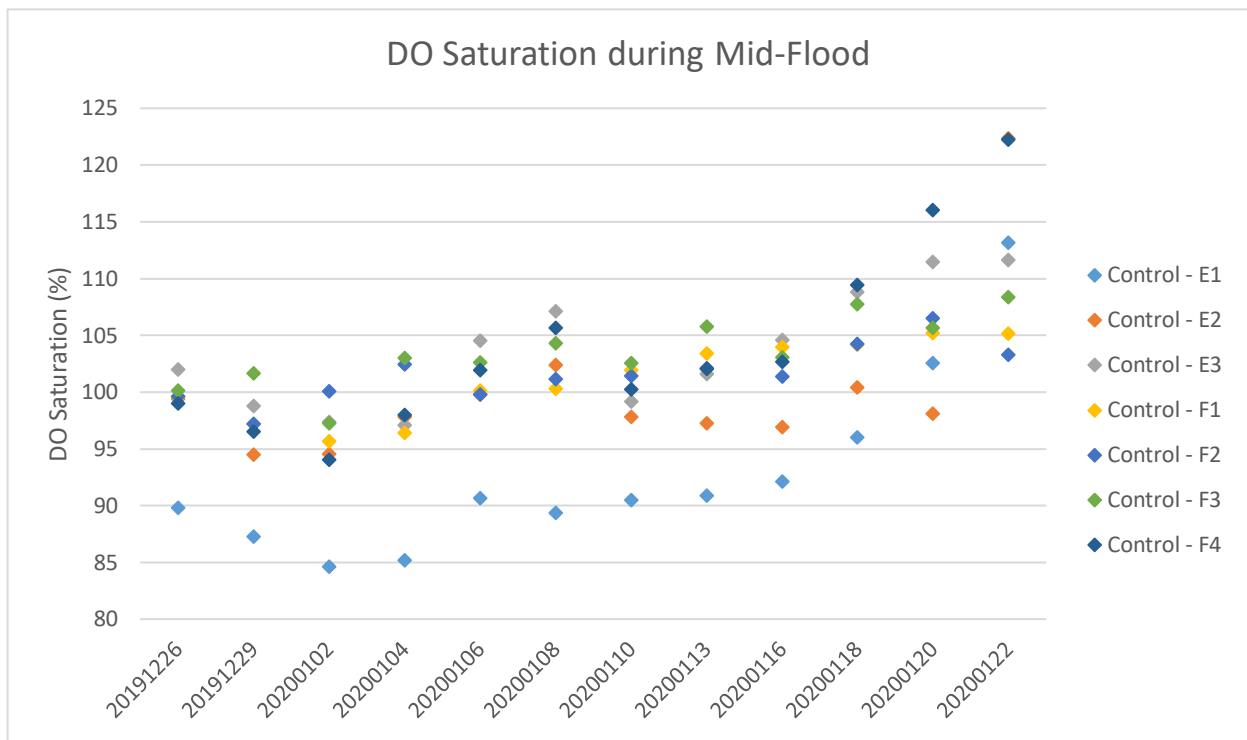


Figure 31a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 26 December 2019 and 22 January 2020

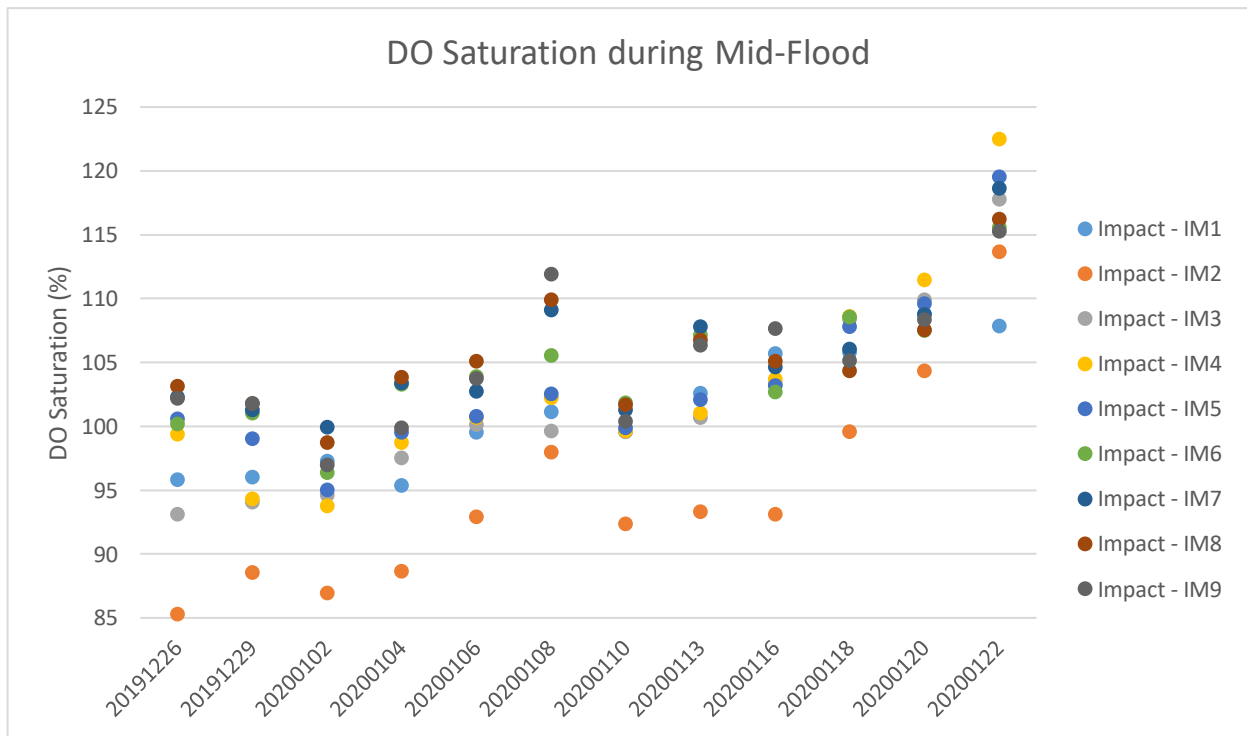


Figure 31b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 26 December 2019 and 22 January 2020

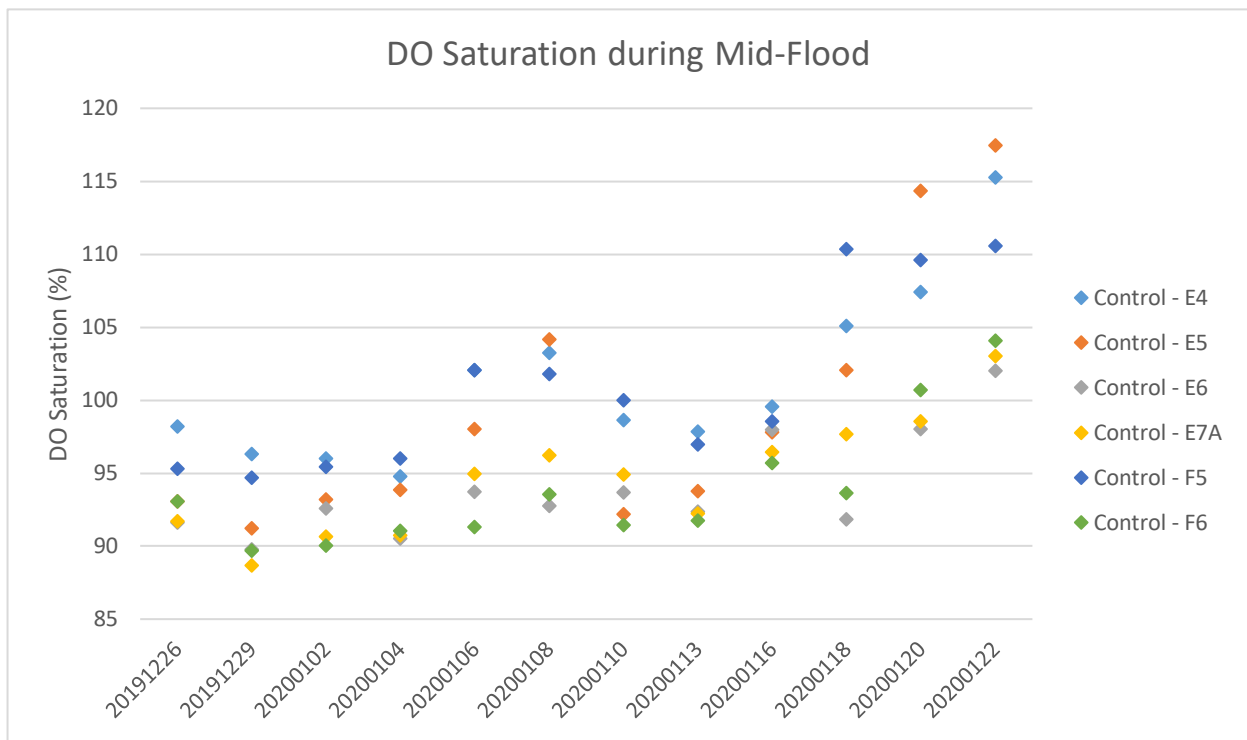


Figure 32a: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 26 December 2019 and 22 January 2020

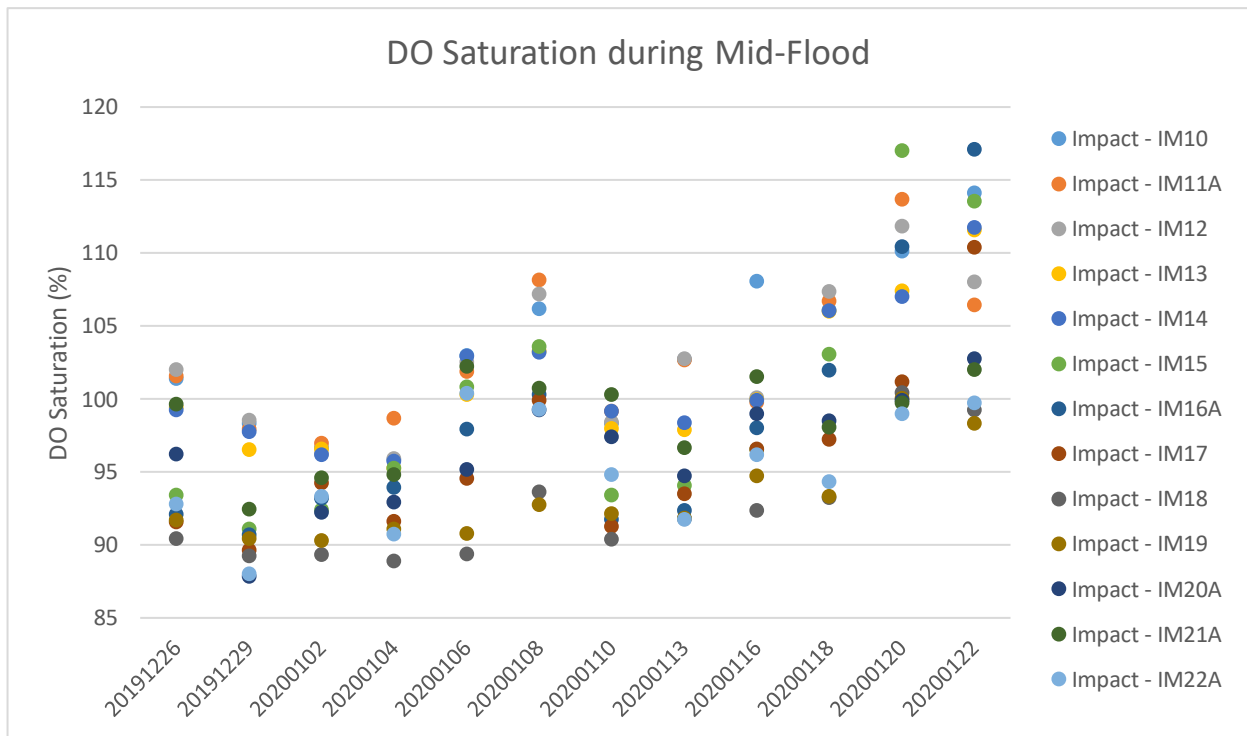


Figure 32b: Levels of Depth-averaged Dissolved Oxygen Saturation (%) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 26 December 2019 and 22 January 2020

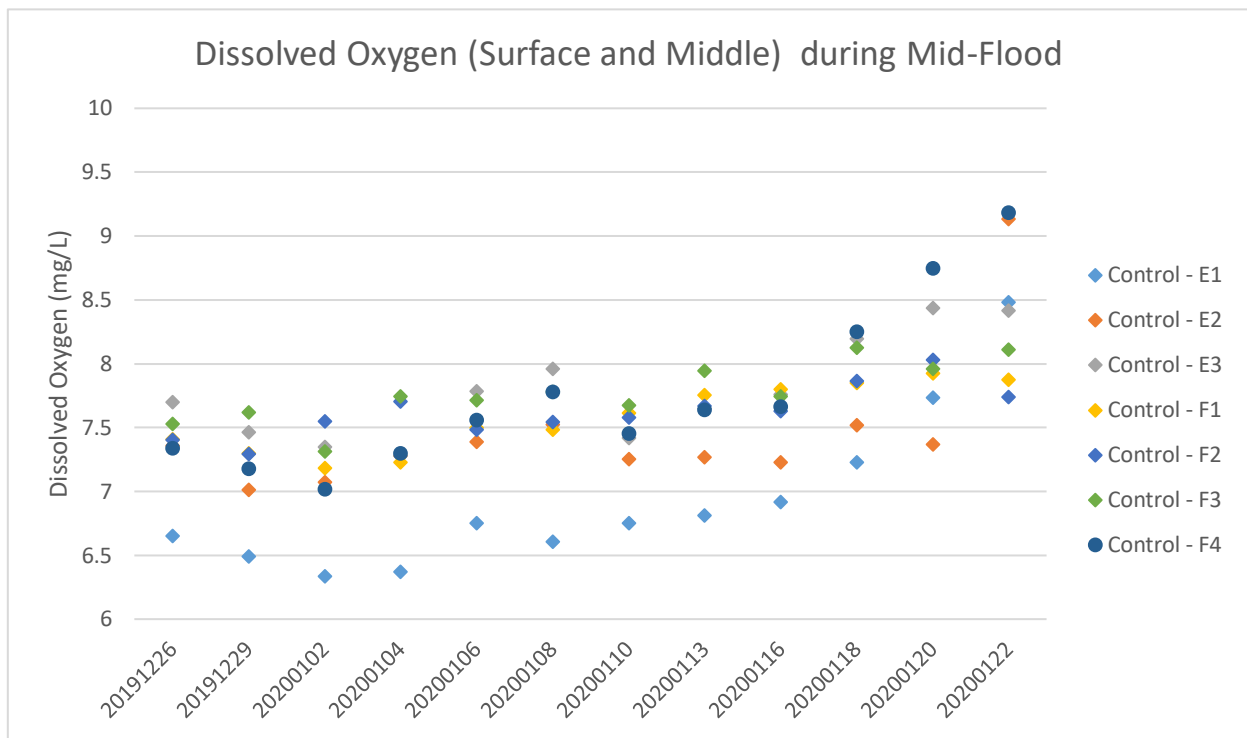


Figure 33a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 26 December 2019 and 22 January 2020

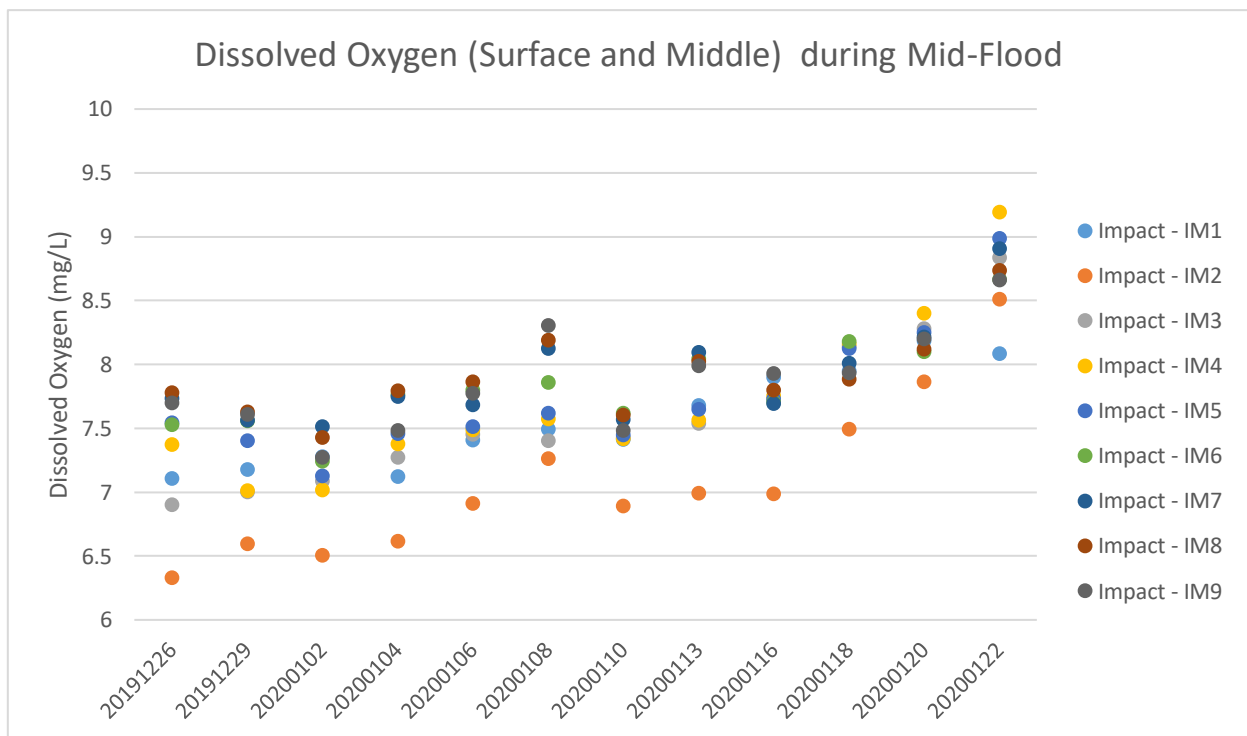
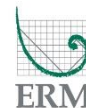


Figure 33b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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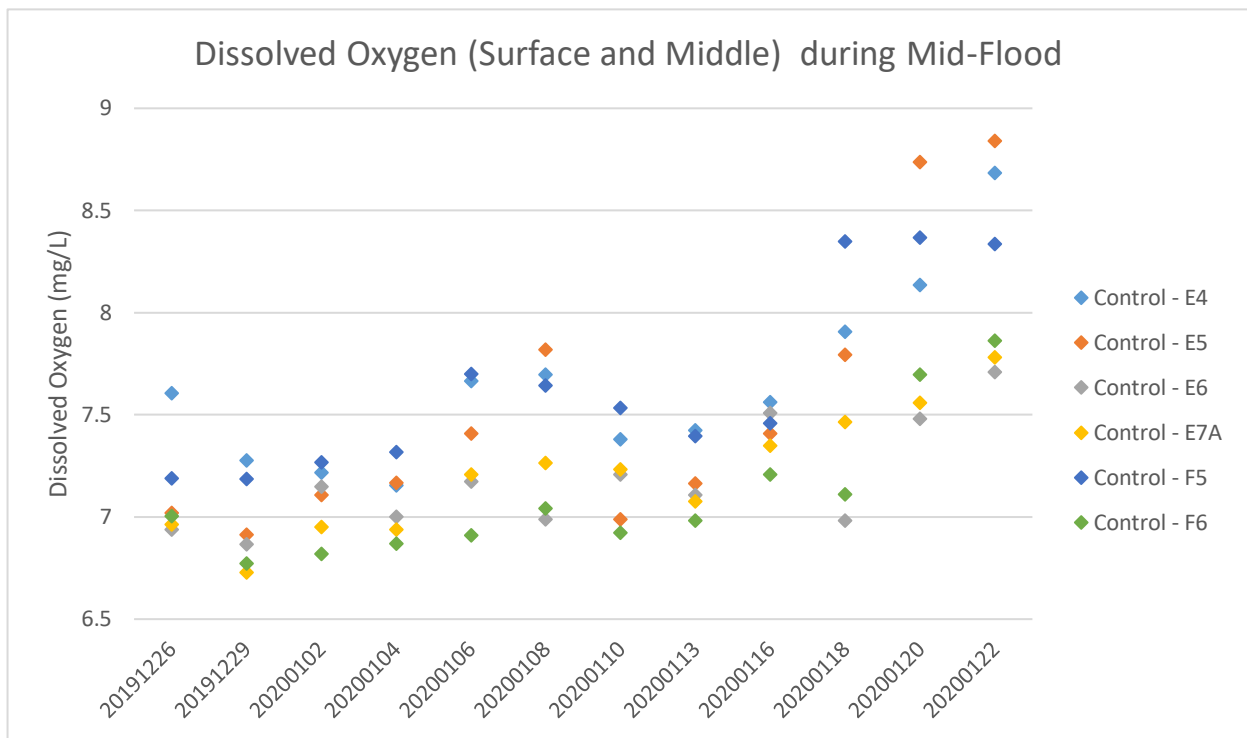


Figure 34a: Levels of Surface and Middle Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 26 December 2019 and 22 January 2020

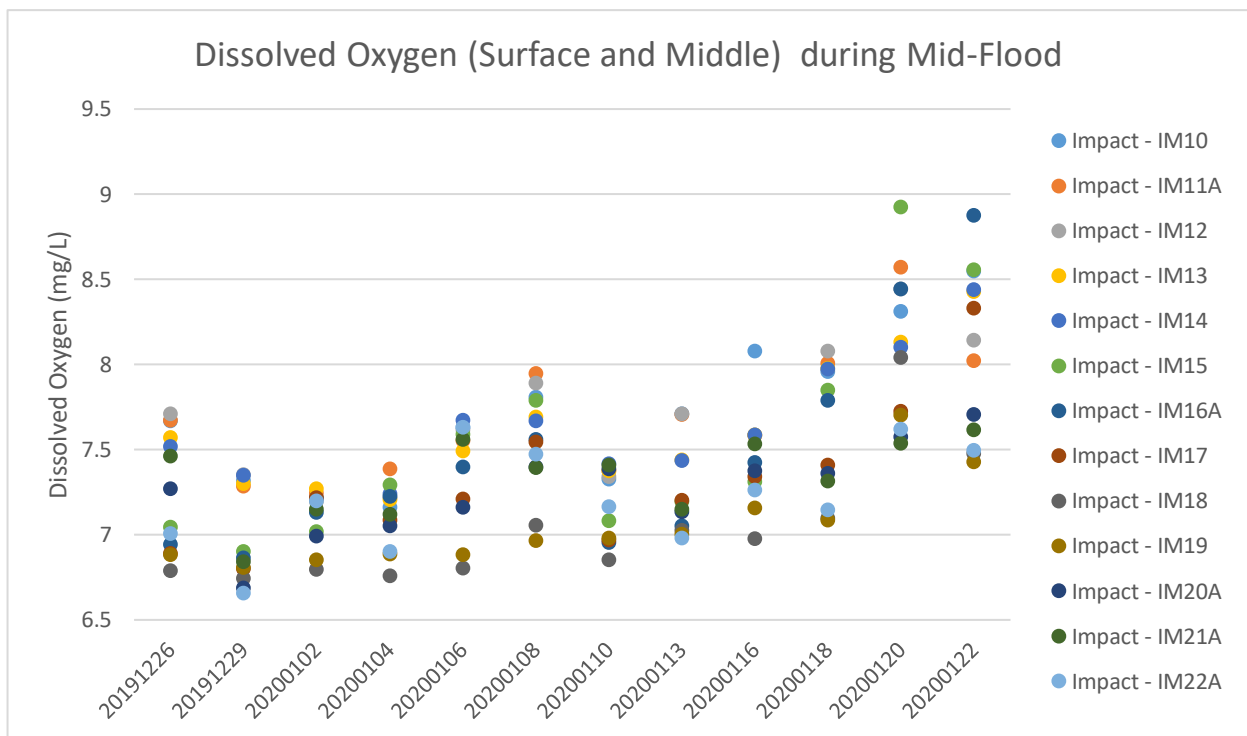


Figure 34b: Levels of Surface and Middle Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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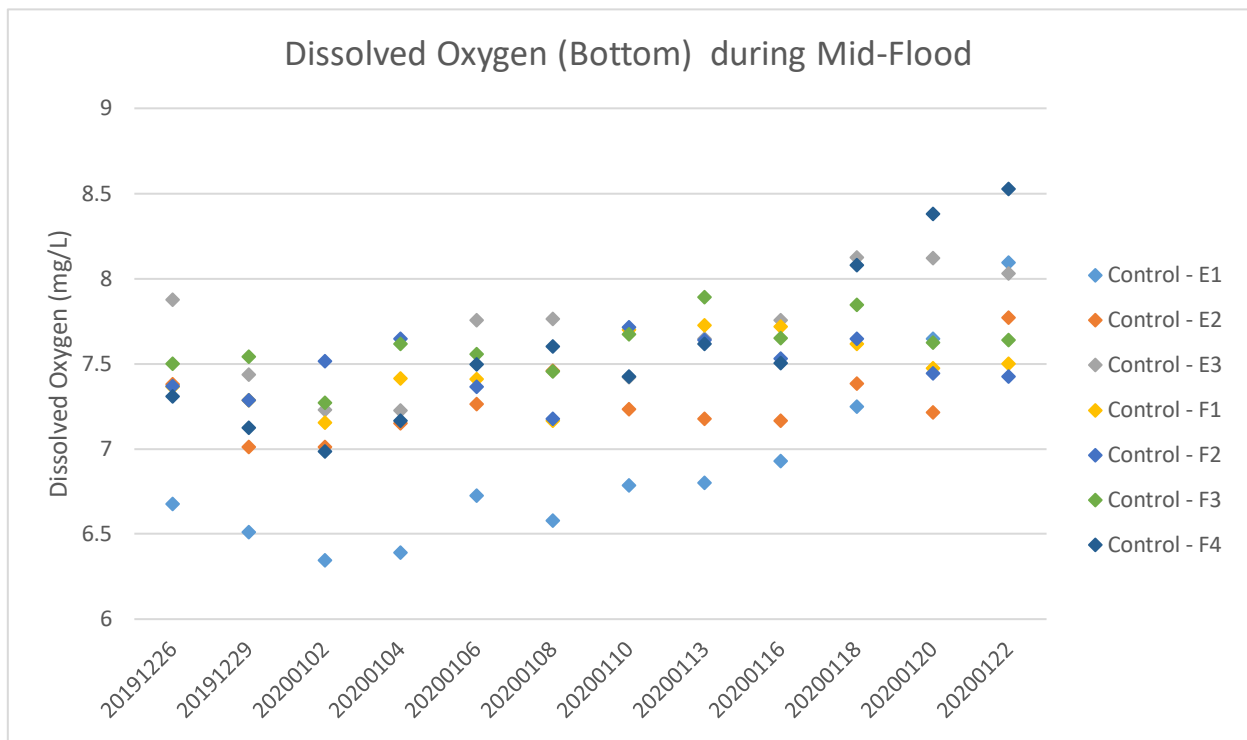


Figure 35a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 26 December 2019 and 22 January 2020

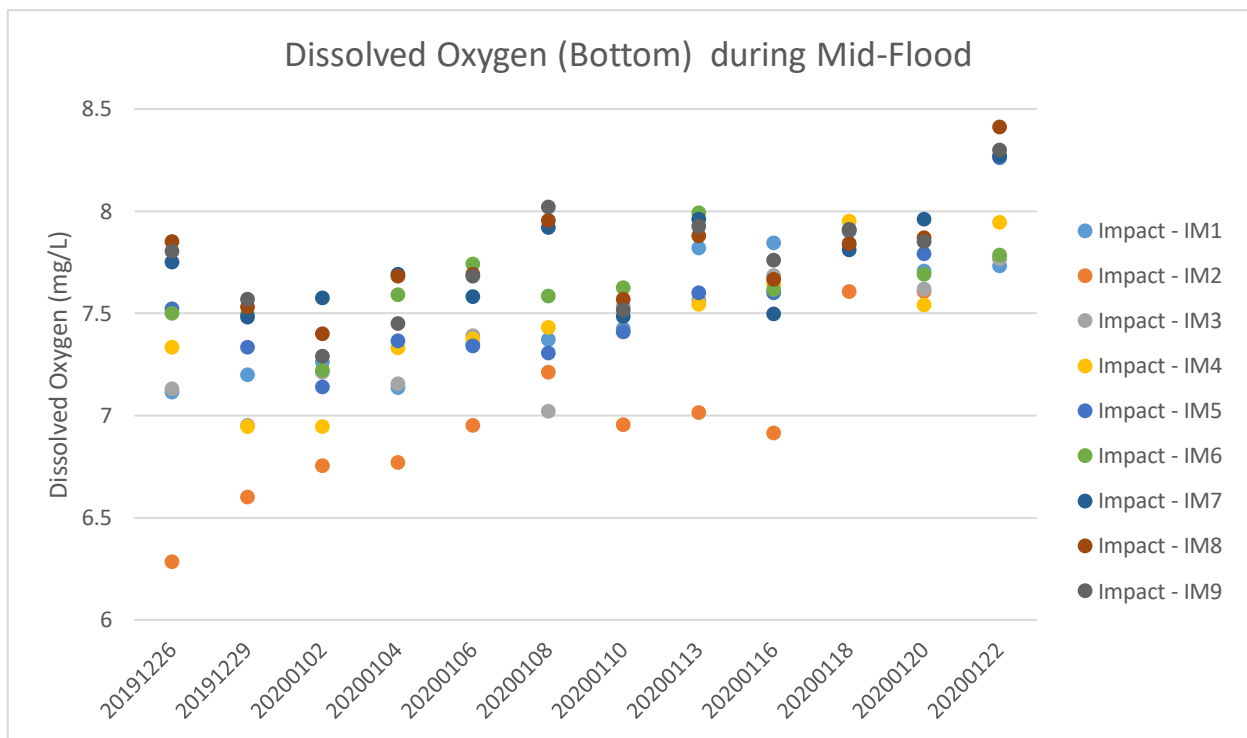


Figure 35b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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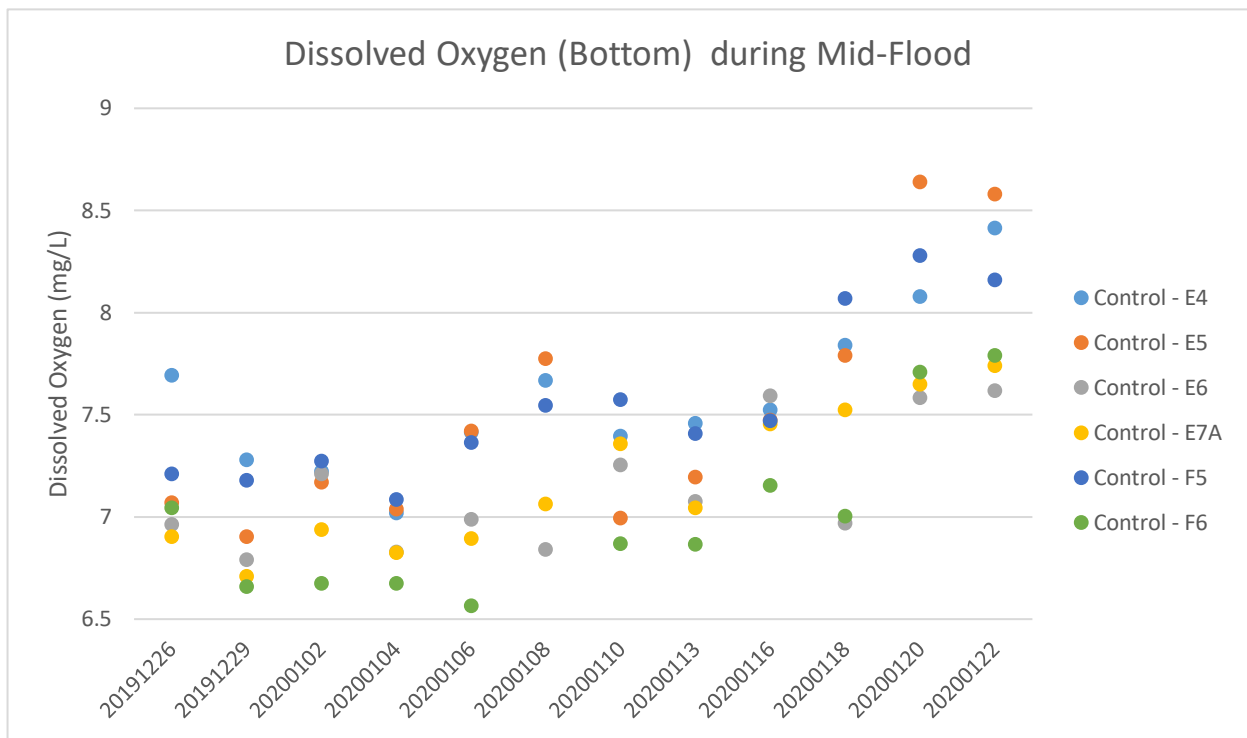


Figure 36a: Levels of Bottom Dissolved Oxygen (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 26 December 2019 and 22 January 2020

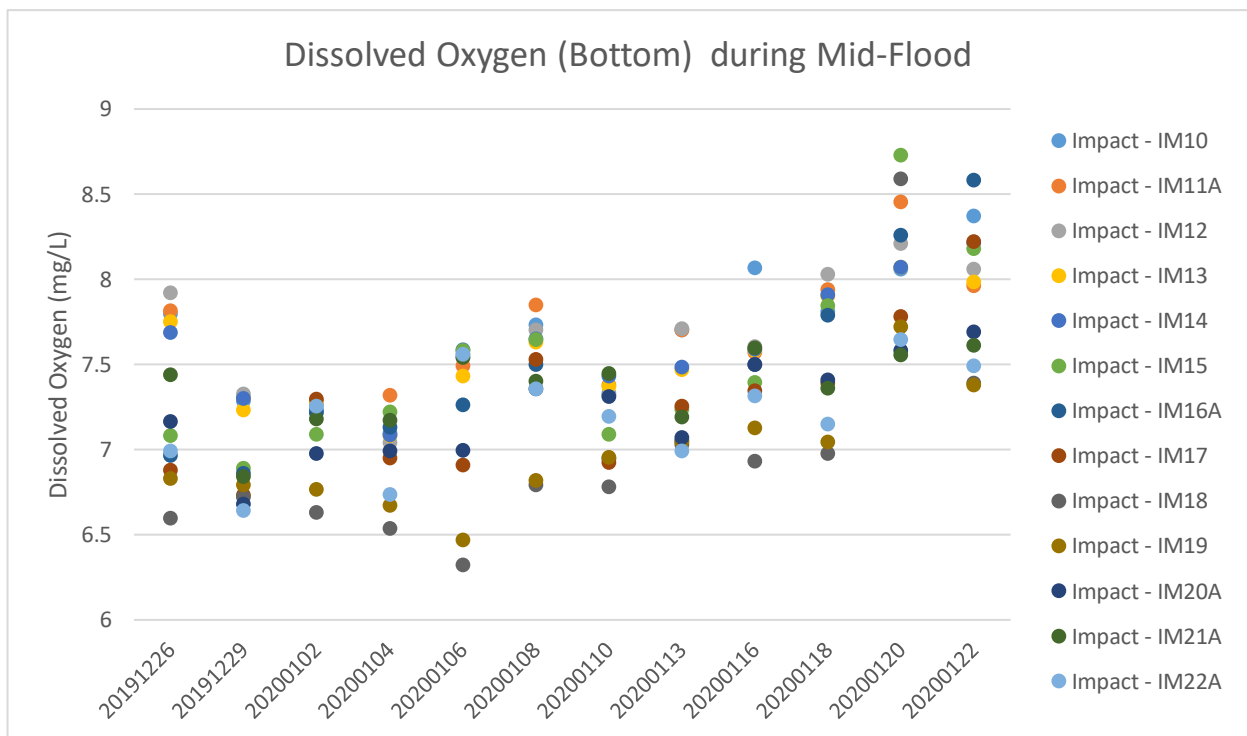


Figure 36b: Levels of Bottom Dissolved Oxygen (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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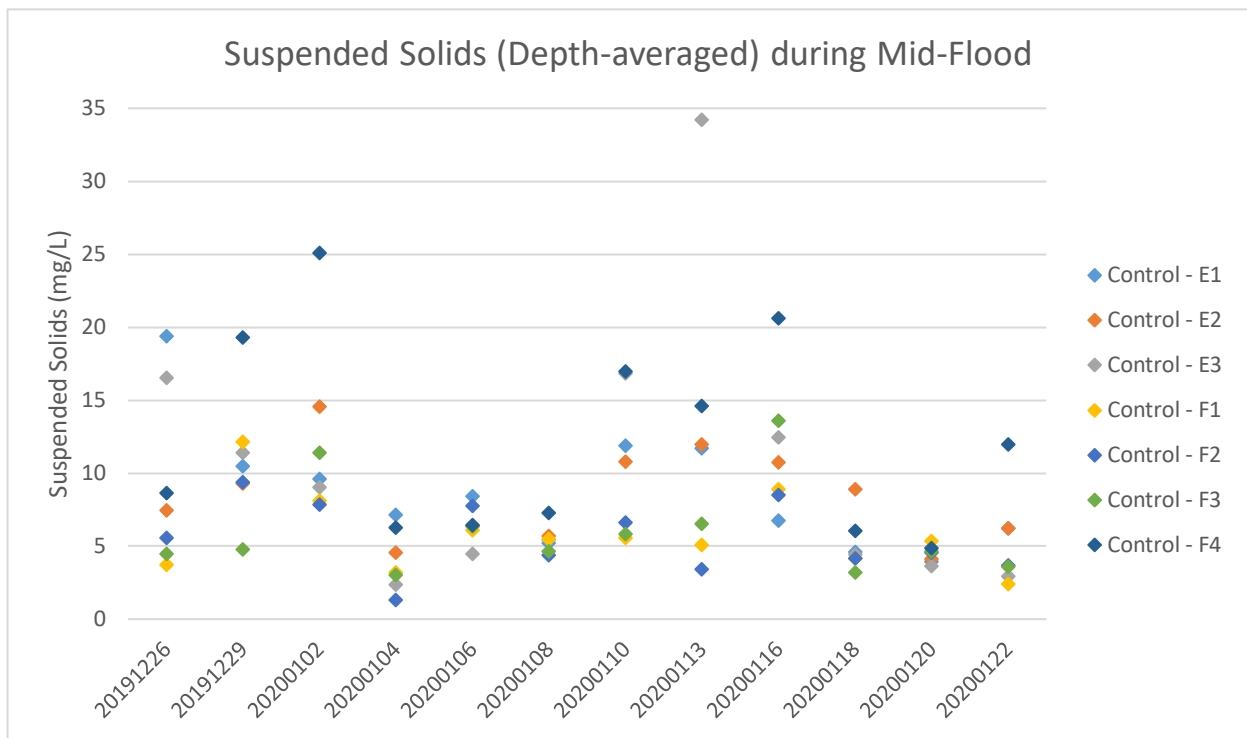


Figure 37a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 26 December 2019 and 22 January 2020

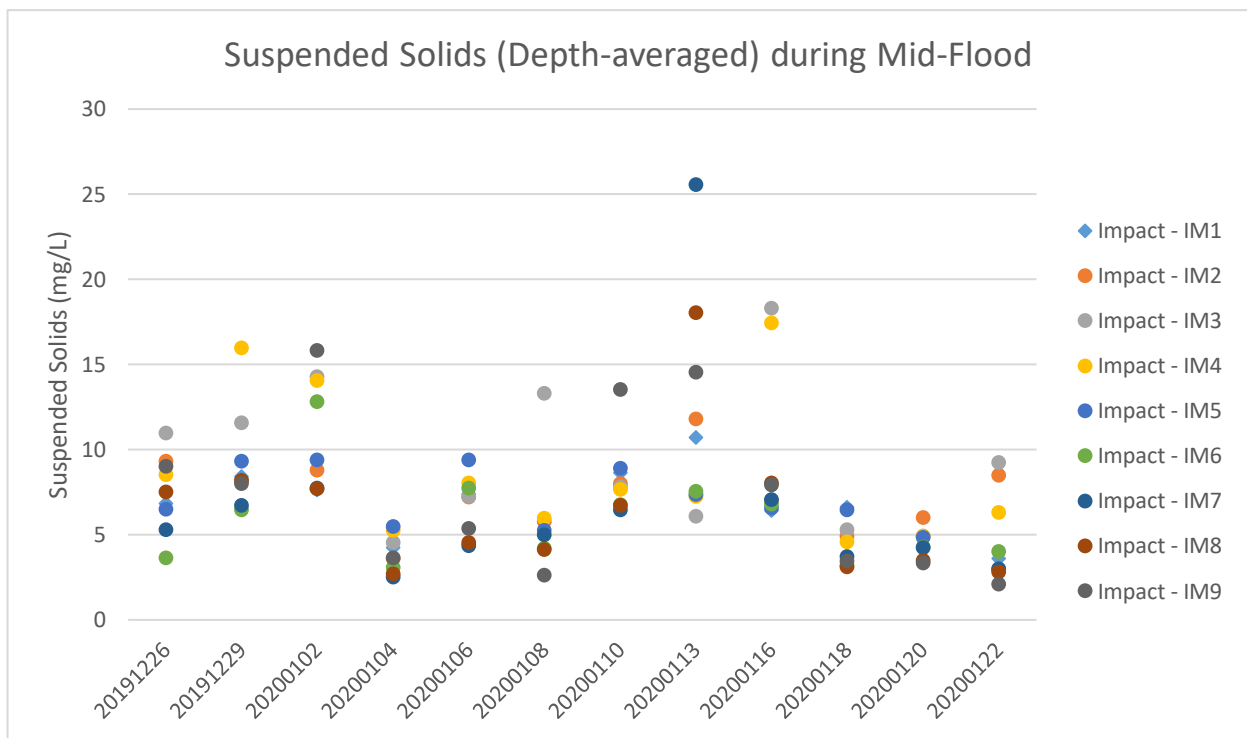


Figure 37b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 26 December 2019 and 22 January 2020

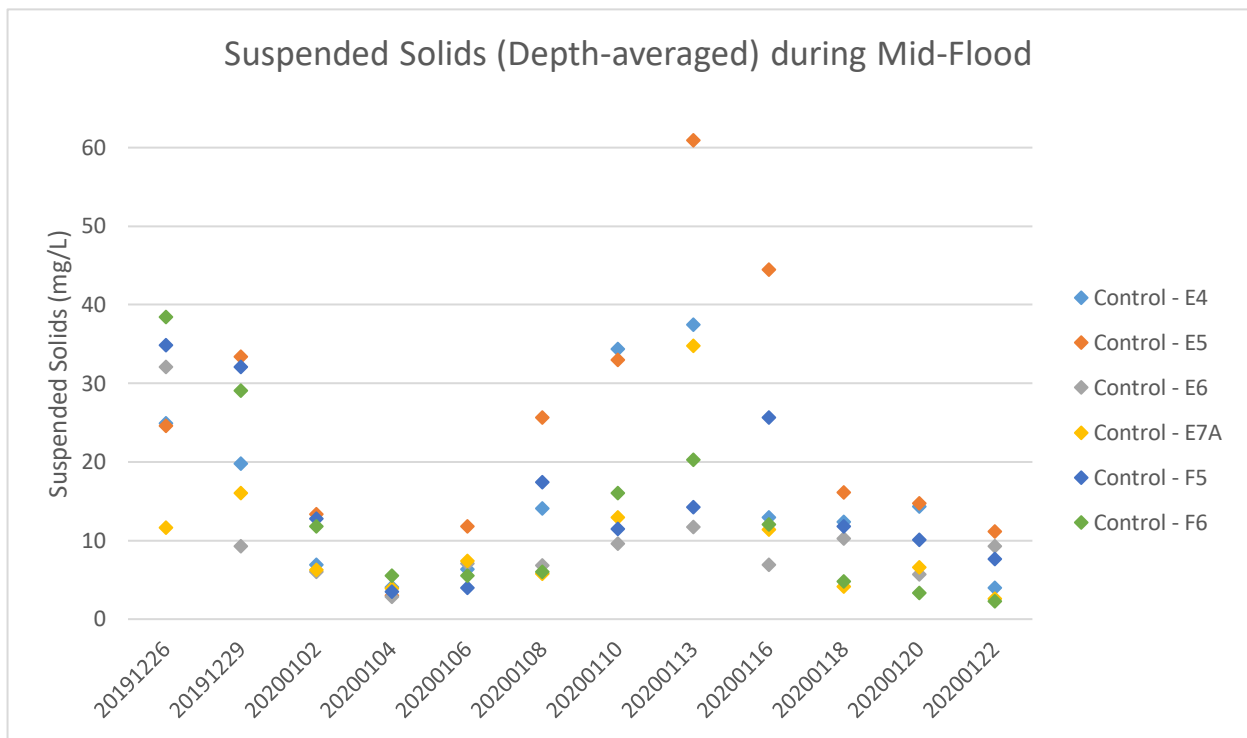


Figure 38a: Levels of Depth-averaged Suspended Solids (mg/L) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 26 December 2019 and 22 January 2020

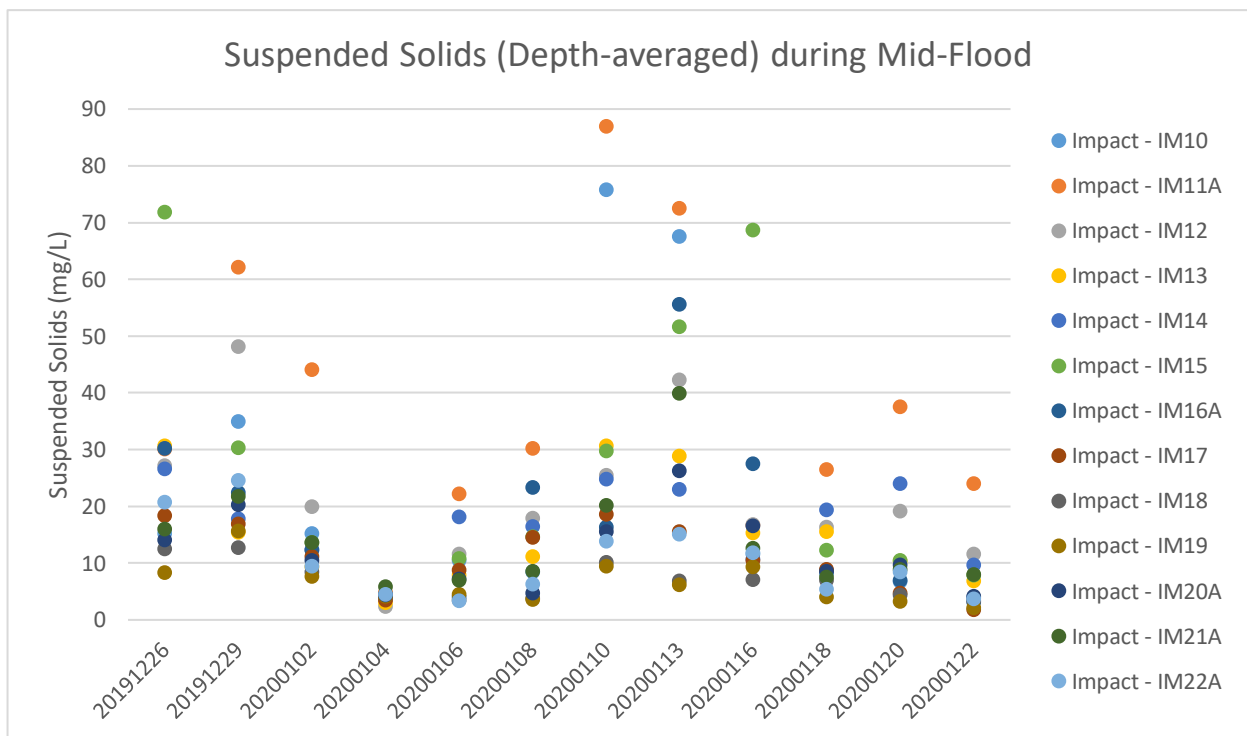


Figure 38b: Levels of Depth-averaged Suspended Solids (mg/L) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 26 December 2019 and 22 January 2020

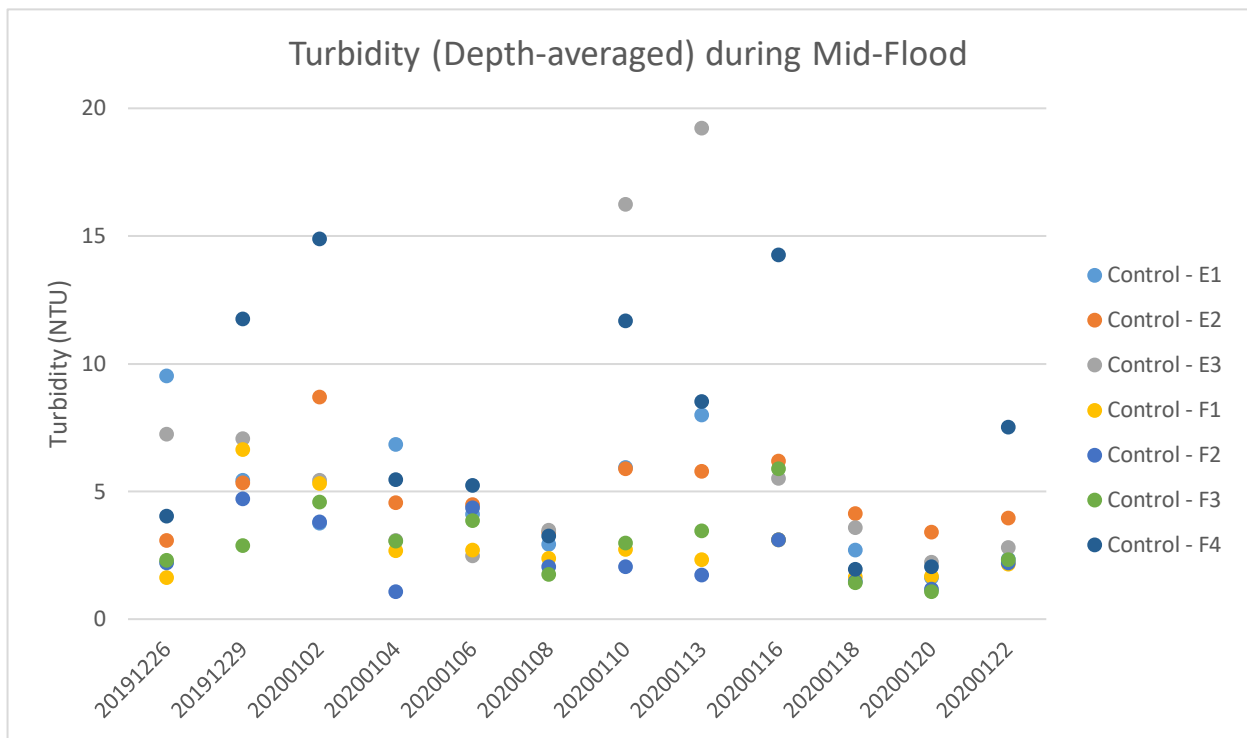


Figure 39a: Levels of Depth-averaged Turbidity (NTU) at control stations in the southern Hong Kong waters (E1-E3, F1-F4) during mid-flood tides between 26 December 2019 and 22 January 2020

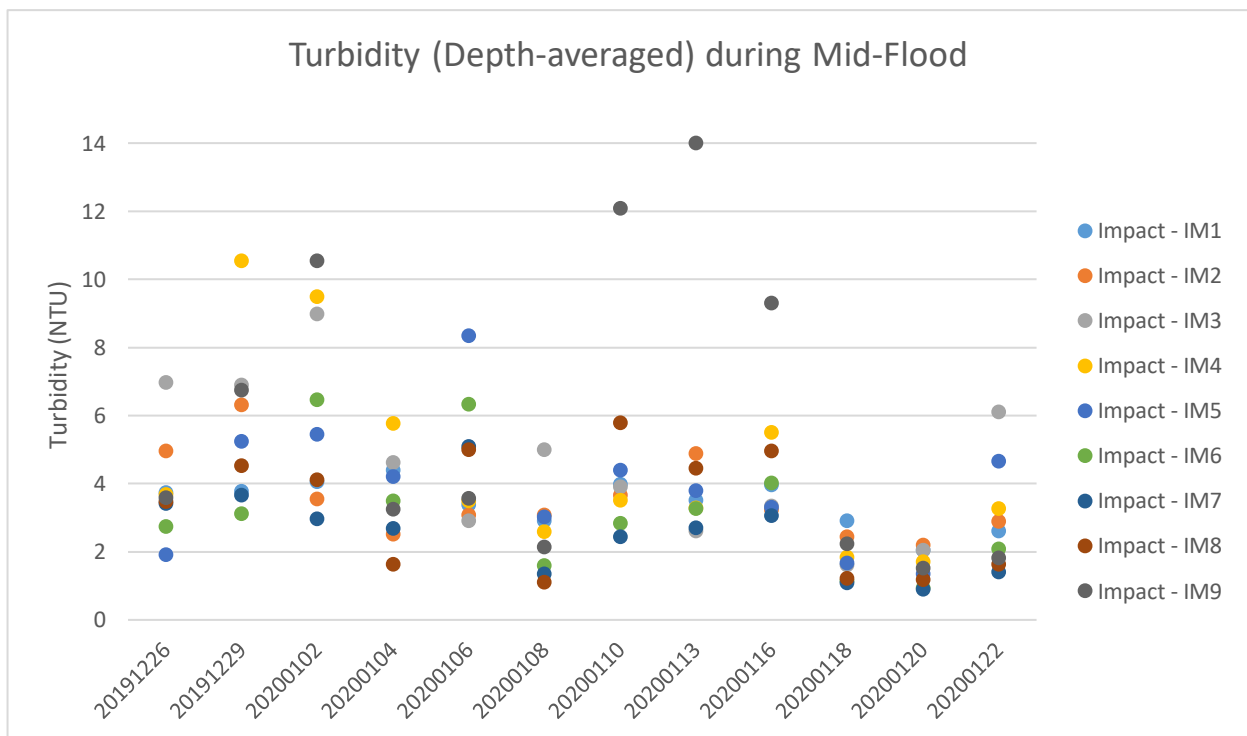


Figure 39b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the southern Hong Kong waters (IM1-IM9) during mid-flood tides between 26 December 2019 and 22 January 2020

Source: P:\Projects\0505354 CLP Power Hong Kong Limited FSRU Pre-con EM&A.RC\07 Data\03 Baseline WQ

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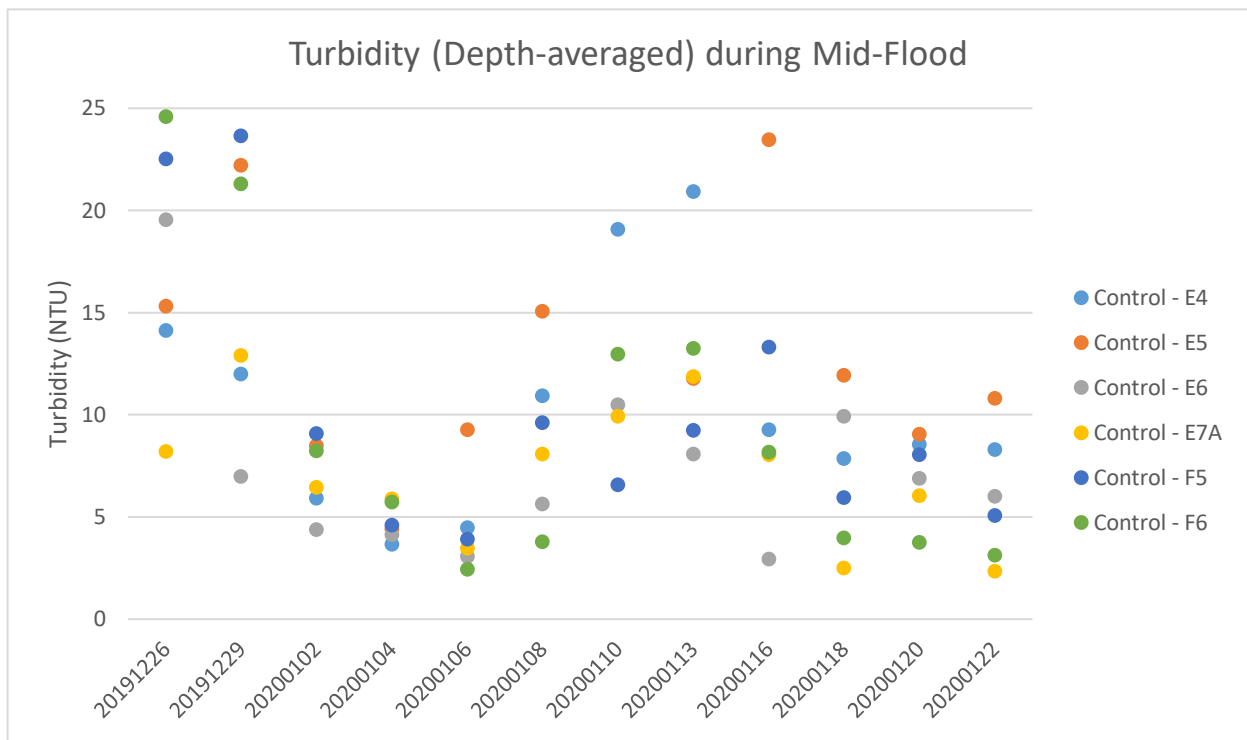


Figure 40a: Levels of Depth-averaged Turbidity (NTU) at control stations in the western Hong Kong waters (E4-E7A, F5-F6) during mid-flood tides between 26 December 2019 and 22 January 2020

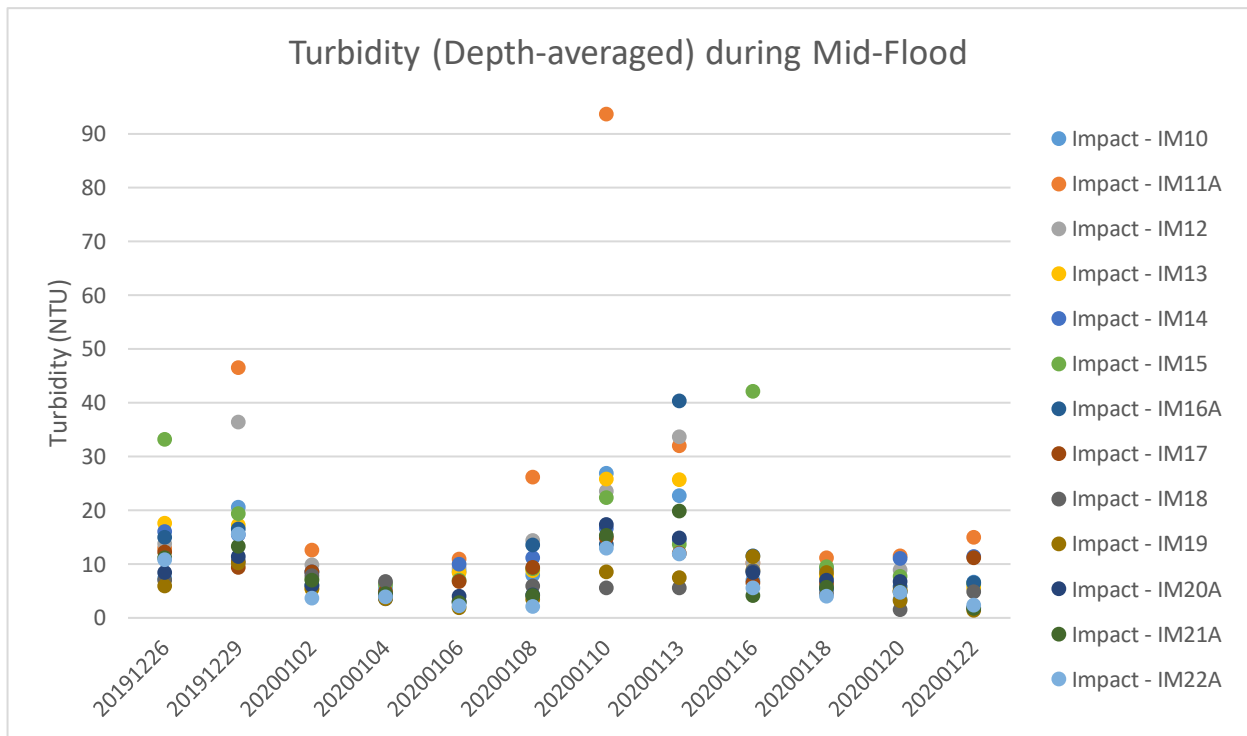


Figure 40b: Levels of Depth-averaged Turbidity (NTU) at impact stations in the western Hong Kong waters (IM10-IM22A) during mid-flood tides between 26 December 2019 and 22 January 2020

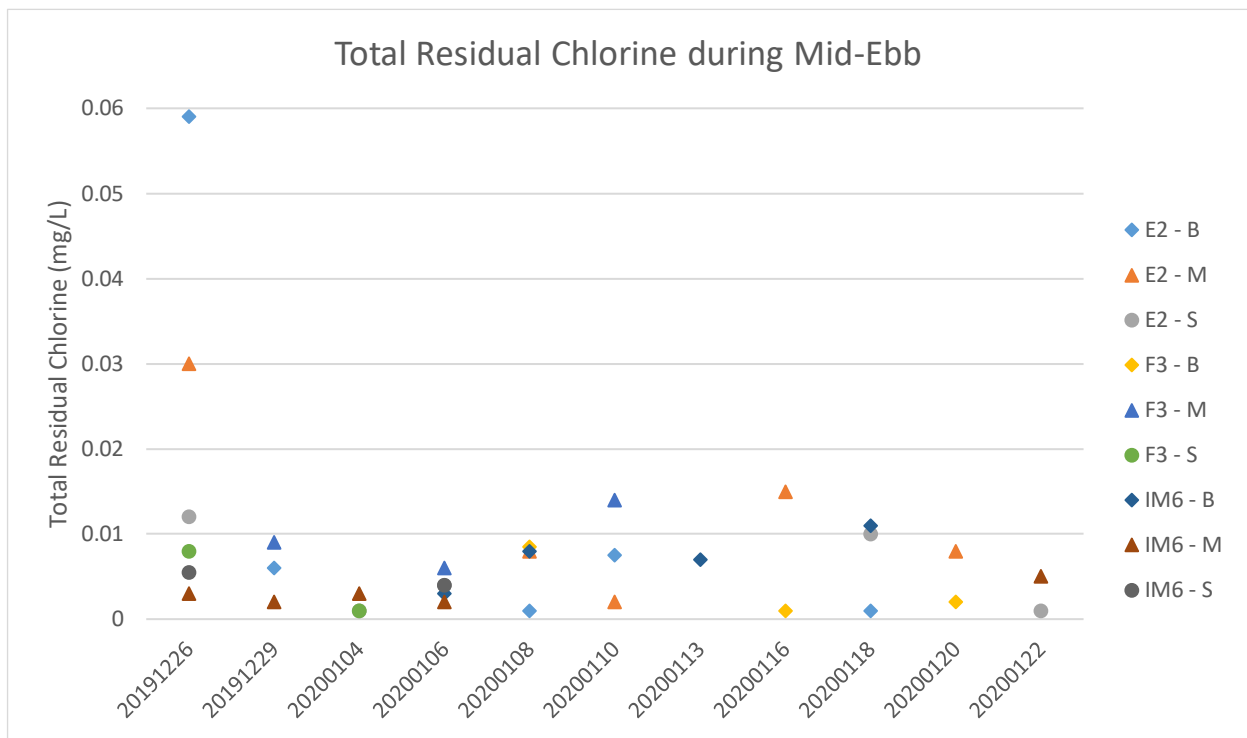


Figure 41a: Levels of Total Residual Chlorine (mg/L) at stations in the southern Hong Kong waters (E2, F3 and IM6) during mid-ebb tides between 26 December 2019 and 22 January 2020

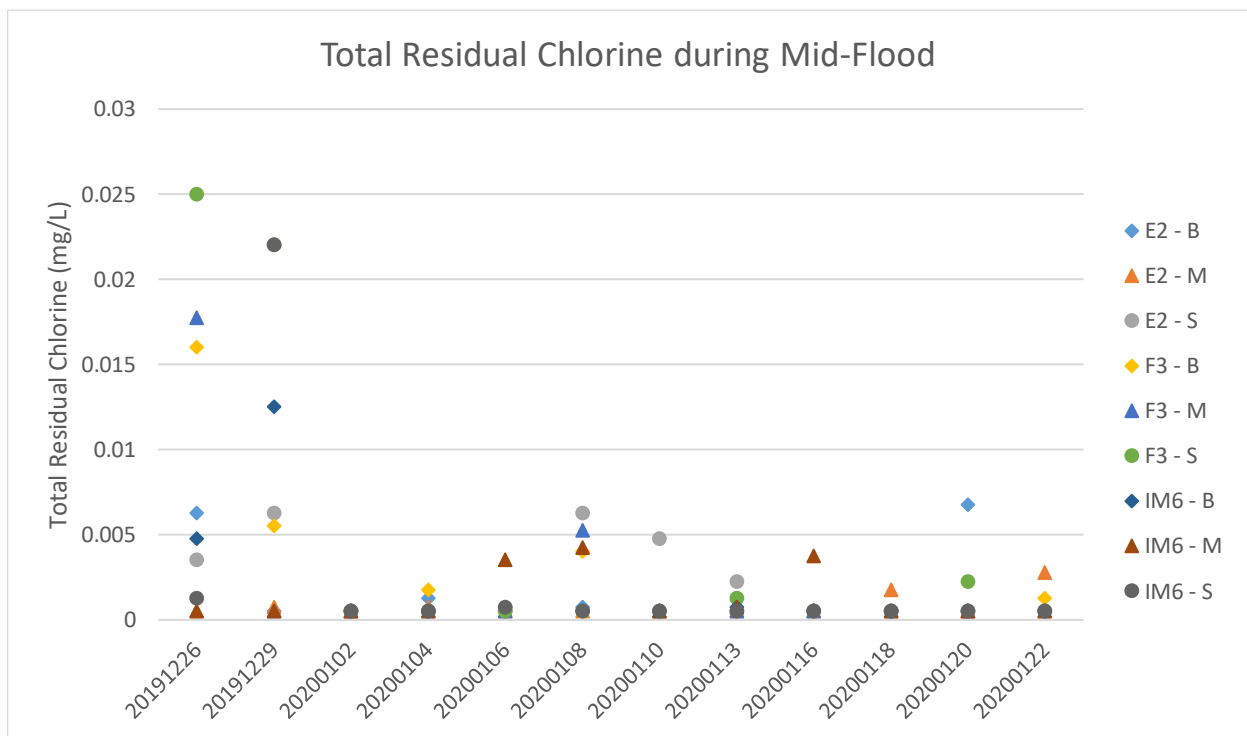


Figure 41b: Levels of Total Residual Chlorine (mg/L) at stations in the southern Hong Kong waters (E2, F3 and IM6) during mid-flood tides between 26 December 2019 and 22 January 2020

ANNEX B

BASELINE MARINE MAMMAL MONITORING

ANNEX B1

MONITORING SCHEDULE

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (June 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1/Jun
2/Jun	3/Jun	4/Jun	5/Jun	6/Jun	7/Jun	8/Jun
9/Jun	10/Jun	11/Jun	12/Jun	13/Jun	14/Jun	15/Jun
16/Jun	17/Jun	18/Jun	19/Jun	20/Jun	21/Jun	22/Jun
		Vessel Survey (Lamma)		Vessel Survey (SEL/SWL)		
23/Jun	24/Jun	25/Jun	26/Jun	27/Jun	28/Jun	29/Jun
	Vessel Survey (SWL)		Vessel Survey (Lamma)	Vessel Survey (SEL/SWL)	Vessel Survey (SWL)	
30/Jun						

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (July 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1/Jul	2/Jul	3/Jul	4/Jul	5/Jul	6/Jul
7/Jul	8/Jul	9/Jul	10/Jul	11/Jul	12/Jul	13/Jul
		Vessel Survey (SWL)				
14/Jul	15/Jul	16/Jul	17/Jul	18/Jul	19/Jul	20/Jul
		Vessel Survey (SEL)	Vessel Survey (Lamma)			
21/Jul	22/Jul	23/Jul	24/Jul	25/Jul	26/Jul	27/Jul
		Vessel Survey (SWL)		Vessel Survey (Lamma)		
28/Jul	29/Jul	30/Jul	31/Jul			
		Vessel Survey (SEL/SWL)				

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (August 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1/Aug	2/Aug	3/Aug
4/Aug	5/Aug	6/Aug	7/Aug	8/Aug	9/Aug	10/Aug
		Vessel Survey (Lamma)		Vessel Survey (SEL/SWL)	Vessel Survey (SWL)	
11/Aug	12/Aug	13/Aug	14/Aug	15/Aug	16/Aug	17/Aug
				Vessel Survey (SEL/SWL)		
18/Aug	19/Aug	20/Aug	21/Aug	22/Aug	23/Aug	24/Aug
			Vessel Survey (Lamma)	Vessel Survey (SWL)		
25/Aug	26/Aug	27/Aug	28/Aug	29/Aug	30/Aug	31/Aug

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (September 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1/Sep	2/Sep	3/Sep	4/Sep	5/Sep	6/Sep	7/Sep
8/Sep	9/Sep	10/Sep	11/Sep	12/Sep	13/Sep	14/Sep
		Vessel Survey (Lamma)		Vessel Survey (SWL)	Vessel Survey (SEL)	
15/Sep	16/Sep	17/Sep	18/Sep	19/Sep	20/Sep	21/Sep
		Vessel Survey (SEL/SWL)	Vessel Survey (SWL)			
22/Sep	23/Sep	24/Sep	25/Sep	26/Sep	27/Sep	28/Sep
				Vessel Survey (Lamma)		
29/Sep	30/Sep					

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (October 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1/Oct	2/Oct	3/Oct	4/Oct	5/Oct
			Vessel Survey (SEL/SWL)	Vessel Survey (Lamma)		
6/Oct	7/Oct	8/Oct	9/Oct	10/Oct	11/Oct	12/Oct
				Vessel Survey (SWL)		
13/Oct	14/Oct	15/Oct	16/Oct	17/Oct	18/Oct	19/Oct
				Vessel Survey (SWL)		
20/Oct	21/Oct	22/Oct	23/Oct	24/Oct	25/Oct	26/Oct
		Vessel Survey (Lamma)		Vessel Survey (SEL/SWL)		
27/Oct	28/Oct	29/Oct	30/Oct	31/Oct		

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

**Environmental Team Consultancy Services for the Hong Kong Offshore LNG Terminal Project
Baseline Marine Mammal Monitoring Schedule (November 2019)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1/Nov	2/Nov
3/Nov	4/Nov	5/Nov	6/Nov	7/Nov	8/Nov	9/Nov
				Vessel Survey (SWL)		
10/Nov	11/Nov	12/Nov	13/Nov	14/Nov	15/Nov	16/Nov
17/Nov	18/Nov	19/Nov	20/Nov	21/Nov	22/Nov	23/Nov
	Vessel Survey (Lamma)		Vessel Survey (SEL/SWL)	Vessel Survey (SWL)	Vessel Survey (Lamma)	
24/Nov	25/Nov	26/Nov	27/Nov	28/Nov	29/Nov	30/Nov
	Vessel Survey (SEL/SWL)					

Remarks: SEL = Southeast Lantau; SWL = Southwest Lantau

ANNEX B2

VESSEL-BASED LINE TRANSECT SURVEY EFFORT DATABASE

HKOLNG Survey Effort Database (June-November 2019)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	P/S
18-Jun-19	LAMMA	1	11.39	SUMMER	STANDARD36826	P
18-Jun-19	LAMMA	2	60.54	SUMMER	STANDARD36826	P
18-Jun-19	LAMMA	1	2.96	SUMMER	STANDARD36826	S
18-Jun-19	LAMMA	2	6.08	SUMMER	STANDARD36826	S
20-Jun-19	SE LANTAU	1	3.83	SUMMER	STANDARD36826	P
20-Jun-19	SE LANTAU	2	29.18	SUMMER	STANDARD36826	P
20-Jun-19	SE LANTAU	3	24.20	SUMMER	STANDARD36826	P
20-Jun-19	SE LANTAU	2	4.19	SUMMER	STANDARD36826	S
20-Jun-19	SE LANTAU	3	7.50	SUMMER	STANDARD36826	S
20-Jun-19	SW LANTAU	2	4.26	SUMMER	STANDARD36826	P
20-Jun-19	SW LANTAU	3	3.74	SUMMER	STANDARD36826	P
24-Jun-19	SW LANTAU	2	30.99	SUMMER	STANDARD36826	P
24-Jun-19	SW LANTAU	3	15.20	SUMMER	STANDARD36826	P
24-Jun-19	SW LANTAU	2	11.01	SUMMER	STANDARD36826	S
24-Jun-19	SW LANTAU	3	4.70	SUMMER	STANDARD36826	S
26-Jun-19	LAMMA	1	49.58	SUMMER	STANDARD36826	P
26-Jun-19	LAMMA	2	19.29	SUMMER	STANDARD36826	P
26-Jun-19	LAMMA	1	2.80	SUMMER	STANDARD36826	S
26-Jun-19	LAMMA	2	5.87	SUMMER	STANDARD36826	S
27-Jun-19	SE LANTAU	2	19.81	SUMMER	STANDARD36826	P
27-Jun-19	SE LANTAU	3	36.01	SUMMER	STANDARD36826	P
27-Jun-19	SE LANTAU	4	1.20	SUMMER	STANDARD36826	P
27-Jun-19	SE LANTAU	2	7.02	SUMMER	STANDARD36826	S
27-Jun-19	SE LANTAU	3	4.06	SUMMER	STANDARD36826	S
27-Jun-19	SW LANTAU	2	5.40	SUMMER	STANDARD36826	P
27-Jun-19	SW LANTAU	3	2.44	SUMMER	STANDARD36826	P
28-Jun-19	SW LANTAU	2	30.80	SUMMER	STANDARD36826	P
28-Jun-19	SW LANTAU	3	15.55	SUMMER	STANDARD36826	P
28-Jun-19	SW LANTAU	2	9.88	SUMMER	STANDARD36826	S
28-Jun-19	SW LANTAU	3	4.79	SUMMER	STANDARD36826	S
28-Jun-19	SW LANTAU	4	0.59	SUMMER	STANDARD36826	S
9-Jul-19	SW LANTAU	2	2.70	SUMMER	STANDARD36826	P
9-Jul-19	SW LANTAU	3	46.60	SUMMER	STANDARD36826	P
9-Jul-19	SW LANTAU	4	5.46	SUMMER	STANDARD36826	P
9-Jul-19	SW LANTAU	2	1.30	SUMMER	STANDARD36826	S
9-Jul-19	SW LANTAU	3	13.74	SUMMER	STANDARD36826	S
9-Jul-19	SW LANTAU	4	1.60	SUMMER	STANDARD36826	S
16-Jul-19	SE LANTAU	1	5.90	SUMMER	STANDARD138716	P
16-Jul-19	SE LANTAU	2	44.94	SUMMER	STANDARD138716	P
16-Jul-19	SE LANTAU	3	6.60	SUMMER	STANDARD138716	P
16-Jul-19	SE LANTAU	1	1.77	SUMMER	STANDARD138716	S
16-Jul-19	SE LANTAU	2	10.14	SUMMER	STANDARD138716	S
17-Jul-19	LAMMA	1	17.66	SUMMER	STANDARD138716	P
17-Jul-19	LAMMA	2	36.94	SUMMER	STANDARD138716	P
17-Jul-19	LAMMA	3	16.50	SUMMER	STANDARD138716	P
17-Jul-19	LAMMA	1	1.00	SUMMER	STANDARD138716	S
17-Jul-19	LAMMA	2	7.10	SUMMER	STANDARD138716	S
17-Jul-19	LAMMA	3	2.20	SUMMER	STANDARD138716	S
23-Jul-19	SW LANTAU	2	32.85	SUMMER	STANDARD36826	P
23-Jul-19	SW LANTAU	3	12.21	SUMMER	STANDARD36826	P

Appendix I. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	P/S
23-Jul-19	SW LANTAU	2	10.74	SUMMER	STANDARD36826	S
23-Jul-19	SW LANTAU	3	3.52	SUMMER	STANDARD36826	S
25-Jul-19	LAMMA	2	30.24	SUMMER	STANDARD138716	P
25-Jul-19	LAMMA	3	39.90	SUMMER	STANDARD138716	P
25-Jul-19	LAMMA	2	1.86	SUMMER	STANDARD138716	S
25-Jul-19	LAMMA	3	8.50	SUMMER	STANDARD138716	S
30-Jul-19	SE LANTAU	2	8.91	SUMMER	STANDARD36826	P
30-Jul-19	SE LANTAU	3	27.37	SUMMER	STANDARD36826	P
30-Jul-19	SE LANTAU	4	21.66	SUMMER	STANDARD36826	P
30-Jul-19	SE LANTAU	5	0.50	SUMMER	STANDARD36826	P
30-Jul-19	SE LANTAU	2	3.86	SUMMER	STANDARD36826	S
30-Jul-19	SE LANTAU	3	4.90	SUMMER	STANDARD36826	S
30-Jul-19	SE LANTAU	4	1.80	SUMMER	STANDARD36826	S
30-Jul-19	SW LANTAU	3	2.04	SUMMER	STANDARD36826	P
30-Jul-19	SW LANTAU	4	4.36	SUMMER	STANDARD36826	P
30-Jul-19	SW LANTAU	5	1.61	SUMMER	STANDARD36826	P
6-Aug-19	LAMMA	1	50.39	SUMMER	STANDARD138716	P
6-Aug-19	LAMMA	2	17.79	SUMMER	STANDARD138716	P
6-Aug-19	LAMMA	1	6.92	SUMMER	STANDARD138716	S
6-Aug-19	LAMMA	2	2.50	SUMMER	STANDARD138716	S
8-Aug-19	SE LANTAU	1	24.50	SUMMER	STANDARD36826	P
8-Aug-19	SE LANTAU	2	29.58	SUMMER	STANDARD36826	P
8-Aug-19	SE LANTAU	3	2.00	SUMMER	STANDARD36826	P
8-Aug-19	SE LANTAU	1	5.72	SUMMER	STANDARD36826	S
8-Aug-19	SE LANTAU	2	5.90	SUMMER	STANDARD36826	S
8-Aug-19	SE LANTAU	3	1.10	SUMMER	STANDARD36826	S
8-Aug-19	SW LANTAU	1	3.15	SUMMER	STANDARD36826	P
8-Aug-19	SW LANTAU	2	4.62	SUMMER	STANDARD36826	P
9-Aug-19	SW LANTAU	2	35.73	SUMMER	STANDARD138716	P
9-Aug-19	SW LANTAU	3	10.09	SUMMER	STANDARD138716	P
9-Aug-19	SW LANTAU	2	9.19	SUMMER	STANDARD138716	S
9-Aug-19	SW LANTAU	3	6.30	SUMMER	STANDARD138716	S
15-Aug-19	SE LANTAU	2	39.88	SUMMER	STANDARD138716	P
15-Aug-19	SE LANTAU	3	18.60	SUMMER	STANDARD138716	P
15-Aug-19	SE LANTAU	2	7.82	SUMMER	STANDARD138716	S
15-Aug-19	SE LANTAU	3	3.20	SUMMER	STANDARD138716	S
15-Aug-19	SW LANTAU	2	3.63	SUMMER	STANDARD138716	P
15-Aug-19	SW LANTAU	3	4.15	SUMMER	STANDARD138716	P
21-Aug-19	LAMMA	2	25.44	SUMMER	STANDARD36826	P
21-Aug-19	LAMMA	3	40.70	SUMMER	STANDARD36826	P
21-Aug-19	LAMMA	2	3.26	SUMMER	STANDARD36826	S
21-Aug-19	LAMMA	3	5.80	SUMMER	STANDARD36826	S
22-Aug-19	SW LANTAU	1	19.42	SUMMER	STANDARD138716	P
22-Aug-19	SW LANTAU	2	27.73	SUMMER	STANDARD138716	P
22-Aug-19	SW LANTAU	1	9.64	SUMMER	STANDARD138716	S
22-Aug-19	SW LANTAU	2	5.11	SUMMER	STANDARD138716	S
10-Sep-19	LAMMA	1	7.21	AUTUMN	STANDARD36826	P
10-Sep-19	LAMMA	2	32.72	AUTUMN	STANDARD36826	P
10-Sep-19	LAMMA	3	27.32	AUTUMN	STANDARD36826	P

Appendix I. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	P/S
10-Sep-19	LAMMA	2	6.42	AUTUMN	STANDARD36826	S
10-Sep-19	LAMMA	3	3.10	AUTUMN	STANDARD36826	S
12-Sep-19	SW LANTAU	1	7.53	AUTUMN	STANDARD36826	P
12-Sep-19	SW LANTAU	2	20.65	AUTUMN	STANDARD36826	P
12-Sep-19	SW LANTAU	3	25.69	AUTUMN	STANDARD36826	P
12-Sep-19	SW LANTAU	1	2.99	AUTUMN	STANDARD36826	S
12-Sep-19	SW LANTAU	2	10.33	AUTUMN	STANDARD36826	S
12-Sep-19	SW LANTAU	3	3.17	AUTUMN	STANDARD36826	S
13-Sep-19	SE LANTAU	2	24.31	AUTUMN	STANDARD36826	P
13-Sep-19	SE LANTAU	3	30.80	AUTUMN	STANDARD36826	P
13-Sep-19	SE LANTAU	2	10.89	AUTUMN	STANDARD36826	S
13-Sep-19	SE LANTAU	3	3.10	AUTUMN	STANDARD36826	S
17-Sep-19	SE LANTAU	1	1.91	AUTUMN	STANDARD138716	P
17-Sep-19	SE LANTAU	2	15.21	AUTUMN	STANDARD138716	P
17-Sep-19	SE LANTAU	3	40.11	AUTUMN	STANDARD138716	P
17-Sep-19	SE LANTAU	2	4.50	AUTUMN	STANDARD138716	S
17-Sep-19	SE LANTAU	3	8.07	AUTUMN	STANDARD138716	S
17-Sep-19	SW LANTAU	2	2.47	AUTUMN	STANDARD138716	P
17-Sep-19	SW LANTAU	3	5.55	AUTUMN	STANDARD138716	P
18-Sep-19	SW LANTAU	1	2.20	AUTUMN	STANDARD36826	P
18-Sep-19	SW LANTAU	2	44.66	AUTUMN	STANDARD36826	P
18-Sep-19	SW LANTAU	1	1.10	AUTUMN	STANDARD36826	S
18-Sep-19	SW LANTAU	2	13.26	AUTUMN	STANDARD36826	S
18-Sep-19	SW LANTAU	3	1.30	AUTUMN	STANDARD36826	S
26-Sep-19	LAMMA	1	9.91	AUTUMN	STANDARD36826	P
26-Sep-19	LAMMA	2	13.07	AUTUMN	STANDARD36826	P
26-Sep-19	LAMMA	3	44.90	AUTUMN	STANDARD36826	P
26-Sep-19	LAMMA	1	0.90	AUTUMN	STANDARD36826	S
26-Sep-19	LAMMA	2	3.02	AUTUMN	STANDARD36826	S
26-Sep-19	LAMMA	3	3.40	AUTUMN	STANDARD36826	S
2-Oct-19	SE LANTAU	2	13.99	AUTUMN	STANDARD138716	P
2-Oct-19	SE LANTAU	3	42.75	AUTUMN	STANDARD138716	P
2-Oct-19	SE LANTAU	2	4.59	AUTUMN	STANDARD138716	S
2-Oct-19	SE LANTAU	3	7.65	AUTUMN	STANDARD138716	S
2-Oct-19	SW LANTAU	2	7.55	AUTUMN	STANDARD138716	P
2-Oct-19	SW LANTAU	3	0.50	AUTUMN	STANDARD138716	P
3-Oct-19	LAMMA	2	67.93	AUTUMN	STANDARD36826	P
3-Oct-19	LAMMA	2	9.07	AUTUMN	STANDARD36826	S
10-Oct-19	SW LANTAU	2	13.43	AUTUMN	STANDARD138716	P
10-Oct-19	SW LANTAU	3	39.33	AUTUMN	STANDARD138716	P
10-Oct-19	SW LANTAU	4	2.30	AUTUMN	STANDARD138716	P
10-Oct-19	SW LANTAU	2	6.58	AUTUMN	STANDARD138716	S
10-Oct-19	SW LANTAU	3	9.71	AUTUMN	STANDARD138716	S
10-Oct-19	SW LANTAU	4	0.40	AUTUMN	STANDARD138716	S
17-Oct-19	SW LANTAU	2	40.89	AUTUMN	STANDARD138716	P
17-Oct-19	SW LANTAU	3	1.60	AUTUMN	STANDARD138716	P
17-Oct-19	SW LANTAU	2	14.24	AUTUMN	STANDARD138716	S
17-Oct-19	SW LANTAU	3	1.20	AUTUMN	STANDARD138716	S
22-Oct-19	LAMMA	2	6.59	AUTUMN	STANDARD36826	P
22-Oct-19	LAMMA	3	36.01	AUTUMN	STANDARD36826	P
22-Oct-19	LAMMA	4	25.10	AUTUMN	STANDARD36826	P
22-Oct-19	LAMMA	2	4.14	AUTUMN	STANDARD36826	S

Appendix I. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	P/S
22-Oct-19	LAMMA	3	6.36	AUTUMN	STANDARD36826	S
22-Oct-19	LAMMA	4	1.80	AUTUMN	STANDARD36826	S
24-Oct-19	SE LANTAU	2	13.79	AUTUMN	STANDARD36826	P
24-Oct-19	SE LANTAU	3	25.66	AUTUMN	STANDARD36826	P
24-Oct-19	SE LANTAU	4	9.40	AUTUMN	STANDARD36826	P
24-Oct-19	SE LANTAU	5	3.60	AUTUMN	STANDARD36826	P
24-Oct-19	SE LANTAU	2	5.72	AUTUMN	STANDARD36826	S
24-Oct-19	SE LANTAU	3	4.43	AUTUMN	STANDARD36826	S
24-Oct-19	SE LANTAU	4	2.20	AUTUMN	STANDARD36826	S
24-Oct-19	SW LANTAU	3	4.10	AUTUMN	STANDARD36826	P
24-Oct-19	SW LANTAU	4	1.80	AUTUMN	STANDARD36826	P
7-Nov-19	SW LANTAU	2	18.88	AUTUMN	STANDARD36826	P
7-Nov-19	SW LANTAU	3	30.51	AUTUMN	STANDARD36826	P
7-Nov-19	SW LANTAU	2	6.84	AUTUMN	STANDARD36826	S
7-Nov-19	SW LANTAU	3	6.97	AUTUMN	STANDARD36826	S
18-Nov-19	LAMMA	2	63.36	AUTUMN	STANDARD36826	P
18-Nov-19	LAMMA	3	4.53	AUTUMN	STANDARD36826	P
18-Nov-19	LAMMA	2	9.21	AUTUMN	STANDARD36826	S
20-Nov-19	SE LANTAU	2	52.91	AUTUMN	STANDARD36826	P
20-Nov-19	SE LANTAU	3	5.00	AUTUMN	STANDARD36826	P
20-Nov-19	SE LANTAU	2	11.14	AUTUMN	STANDARD36826	S
20-Nov-19	SE LANTAU	3	1.00	AUTUMN	STANDARD36826	S
20-Nov-19	SW LANTAU	2	0.86	AUTUMN	STANDARD36826	P
20-Nov-19	SW LANTAU	3	7.10	AUTUMN	STANDARD36826	P
21-Nov-19	SW LANTAU	2	40.01	AUTUMN	STANDARD36826	P
21-Nov-19	SW LANTAU	3	6.84	AUTUMN	STANDARD36826	P
21-Nov-19	SW LANTAU	2	12.94	AUTUMN	STANDARD36826	S
21-Nov-19	SW LANTAU	3	1.15	AUTUMN	STANDARD36826	S
22-Nov-19	LAMMA	1	32.65	AUTUMN	STANDARD36826	P
22-Nov-19	LAMMA	2	35.70	AUTUMN	STANDARD36826	P
22-Nov-19	LAMMA	1	2.60	AUTUMN	STANDARD36826	S
22-Nov-19	LAMMA	2	6.95	AUTUMN	STANDARD36826	S
25-Nov-19	SW LANTAU	3	7.90	AUTUMN	STANDARD36826	P
25-Nov-19	SE LANTAU	3	19.74	AUTUMN	STANDARD36826	P
25-Nov-19	SE LANTAU	4	24.65	AUTUMN	STANDARD36826	P
25-Nov-19	SE LANTAU	5	6.31	AUTUMN	STANDARD36826	P
25-Nov-19	SE LANTAU	3	7.22	AUTUMN	STANDARD36826	S
25-Nov-19	SE LANTAU	4	1.67	AUTUMN	STANDARD36826	S
25-Nov-19	SE LANTAU	5	3.11	AUTUMN	STANDARD36826	S

ANNEX B3

FINLESS PORPOISE SIGHTING DATABASE

HKOLNG Finless Porpoise Sighting Database (June-November 2019)

(Abbreviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Sighting Distance; P/S: Sighting Made on Primary/Secondary Lines)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	NORTHING	EASTING	SEASON	P/S
26-Jun-19	1	1313	4	LAMMA	1	43	ON	803480	826565	SUMMER	P
26-Jun-19	2	1437	2	LAMMA	1	221	ON	801434	823830	SUMMER	P
27-Jun-19	1	1108	1	SW LANTAU	2	77	ON	804638	811508	SUMMER	P
16-Jul-19	1	1117	1	SE LANTAU	1	44	ON	801524	813205	SUMMER	S
8-Aug-19	1	1448	3	SE LANTAU	1	172	ON	804703	812550	SUMMER	P
22-Aug-19	1	1102	4	SW LANTAU	1	125	ON	802491	810525	SUMMER	P
22-Aug-19	2	1219	1	SW LANTAU	1	311	ON	801842	808089	SUMMER	S
10-Sep-19	1	1104	1	LAMMA	2	139	ON	802452	824708	AUTUMN	P
10-Sep-19	2	1139	2	LAMMA	2	36	ON	803513	828257	AUTUMN	P
12-Sep-19	2	1521	1	SW LANTAU	3	204	ON	805457	811520	AUTUMN	P
12-Sep-19	3	1528	1	SW LANTAU	2	45	ON	804317	811507	AUTUMN	P
18-Sep-19	1	1039	6	SW LANTAU	2	21	ON	807253	810533	AUTUMN	P
18-Sep-19	2	1124	1	SW LANTAU	2	80	ON	802449	809565	AUTUMN	P
2-Oct-19	1	1435	1	SE LANTAU	2	1	ON	804493	812436	AUTUMN	P
3-Oct-19	1	1254	2	LAMMA	2	110	ON	804509	827886	AUTUMN	P
10-Oct-19	2	1230	2	SW LANTAU	4	52	ON	801680	806077	AUTUMN	S
7-Nov-19	2	1342	1	SW LANTAU	3	44	ON	801799	807429	AUTUMN	P
20-Nov-19	1	1132	1	SE LANTAU	2	128	ON	802369	818498	AUTUMN	P
21-Nov-19	3	1324	1	SW LANTAU	2	65	ON	802674	807379	AUTUMN	P
21-Nov-19	4	1530	1	SW LANTAU	2	193	ON	802181	810524	AUTUMN	P
22-Nov-19	1	1411	2	LAMMA	2	443	ON	802486	824171	AUTUMN	P

ANNEX B4

PAM DEPLOYMENT DATABASE

Summary deployment data and statistics on detection of finless porpoises for HKOLNG EM&A baseline monitoring study

(Note: "Days": number of logged days the CPOD was on and recording; "DPD% of days": detection positive days as a percentage of logged days;
 DPM: detection positive minutes, minutes where at least one porpoise train was detected; "% FP DPM": percentage of false positive porpoise DPM;
 % Time lost: percentage of time lost because the minute click limit has been reached and no data was recorded for that minute)

SITE	POD#	Start	End	Days	DPD % of days	DPM	DPM/day	% FP DPM	% Time lost
#1 (TAI A CHAU E)	3440	27-Sep-19	15-Nov-19	48.9	100.00%	4017	82.15	2.00%	0.00%
#1 (TAI A CHAU E)	3455	15-Nov-19	11-Feb-20	88.0	100.00%	8503	96.63	2.00%	0.00%
#1 (TAI A CHAU E)	3440	11-Feb-20	31-Mar-20	49.0	100.00%	11899	242.84	1.00%	0.00%
#2 (FSRU-W)	3441	27-Sep-19	15-Nov-19	48.9	100.00%	6995	143.05	1.00%	0.00%
#2 (FSRU-W)	3456	15-Nov-19	12-Feb-20	87.9	100.00%	11639	132.41	2.00%	0.00%
#2 (FSRU-W)	3441	11-Feb-20	31-Mar-20	49.0	100.00%	20092	410.04	0.00%	0.00%
#3 (FSRU-E)	3442	28-Sep-19	15-Nov-19	48.1	100.00%	6584	136.88	1.00%	0.00%
#3 (FSRU-E)	3457	15-Nov-19	11-Feb-20	88.0	100.00%	13495	153.35	1.00%	0.00%
#3 (FSRU-E)	3442	11-Feb-20	31-Mar-20	49.0	100.00%	19029	388.35	0.00%	0.00%
#4 (FSRU-N)	3443	28-Sep-19	16-Nov-19	48.9	100.00%	8131	166.28	1.00%	0.00%
#4 (FSRU-N)	3458	16-Nov-19	12-Feb-20	88.0	100.00%	16057	182.47	1.00%	0.00%
#4 (FSRU-N)	3443	12-Feb-20	1-Apr-20	49.0	100.00%	20974	428.04	0.00%	0.00%
#5 (SHEK KWU CHAU)	3444	28-Sep-19	16-Nov-19	48.8	92.00%	495	10.14	1.00%	0.00%
#5 (SHEK KWU CHAU)	3459	16-Nov-19	12-Feb-20	88.0	94.38%	8262	93.89	1.00%	0.00%
#5 (SHEK KWU CHAU)	3444	12-Feb-20	1-Apr-20	49.0	100.00%	5495	112.14	1.00%	0.00%
TOTAL				928.5		161667			