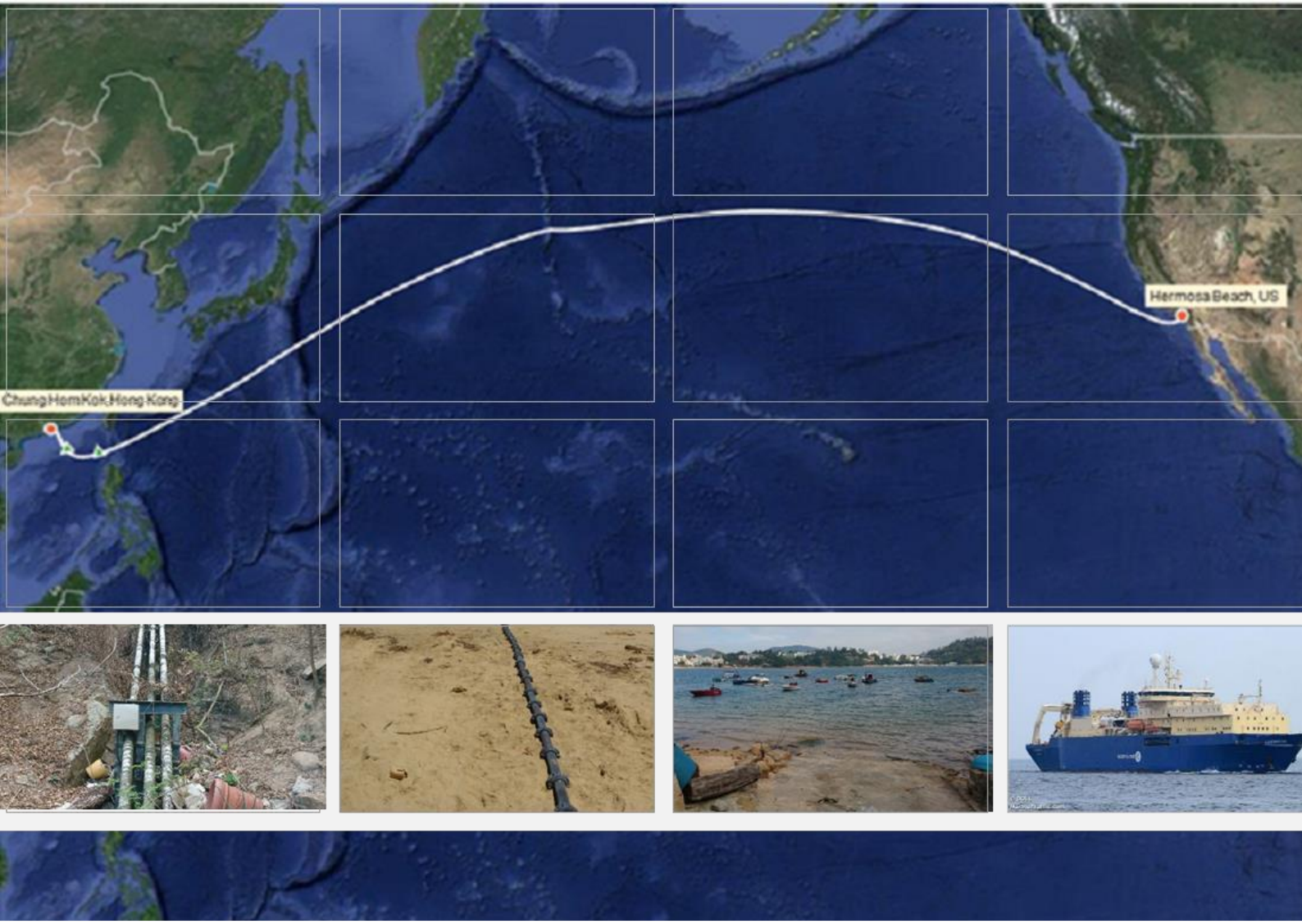

HKA Submarine Cable – Chung Hom Kok

Post Project Water Quality Monitoring Report

20 October 2021

Project No.: 0585919

The business of sustainability

ERM

Document details	
Document title	HKA Submarine Cable – Chung Hom Kok
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Author	Susan Chan(SC), Pako Yu (PY), Nill Ng (NN)
Client Name	Alcatel Submarine Networks UK Ltd.

Document history

				ERM approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
Draft	1.0	SC, PY, NN	Mandy To	Terence Fong	20.10.2021	-

Signature Page

20 October 2021

HKA Submarine Cable – Chung Hom Kok

Post Project Water Quality Monitoring Report

Terence Fong
Partner

ERM-Hong Kong, Limited
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Hong Kong

Environmental Permit No. EP- 567/2019
HKA Submarine Cable – Chung Hom Kok

Environmental Team Leader Certification & Independent Environmental Checker Verification

Reference Document/Plan

Document/~~Plan~~:	Post Project Water Quality Monitoring Report
Date of Report:	20 October 2021
Certified by ET:	ERM-Hong Kong Ltd
Verified by IEC:	Ecosystems Ltd.

Reference EP Requirement

EP Condition:	Conditions No. 3.2 – 3.3

Content: *Water Quality Monitoring*

3.2 Samples, measurements and necessary remedial actions shall be taken in accordance with the EM&A requirements described in the Project Profile (Register No.: PP-573/2018) by:

(a) conducting baseline environmental monitoring;

(b) conducting impact monitoring;

(c) conducting post project monitoring; and

(d) carrying out remedial actions in accordance to the EM&A requirements as described in the Project Profile (Register No.: PP-573/2018), or as agreed by the Director, in case where specified criteria in the EM&A requirements are exceeded.

3.3 Submit to the Director three hard copies and one electronic copy of the following, as defined in the EM&A requirements described in the Project Profile (Register No.: PP-573/2018):

(a) Baseline Monitoring Report on water quality no later than 2 week before the commencement of cable installation/ repair operation works;

(b) Weekly EM&A Report no later than 5 days after the relevant monitoring data are collected or become available during the cable installation/ repair operation works; and

(c) Post Project Monitoring Report within one month after completion of the marine works.

ETL Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-567/2019.

Mandy To, Environmental Team Leader

Date: 20 October 2021

中国电信
CHINA TELECOM

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-567/2019.

Dr Vincent Lai, Independent Environmental Checker

Date: 20/10/2021

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EXECUTIVE SUMMARY

The cable installation works for the **HKA Submarine Cable – Chung Hom Kok** (the 'Project') have been scheduled to be carried in out one (1) continuous phase, as follows:

- **Land & Shore-End Cable Installation and Submarine Cable Installation up to Zone A** – commenced on 28 May 2021; completed on 31 May 2021; and
- **Marine Installation of Submarine Cable** – From 10 to 31 May 2021, and have returned on 7 September 2021 and completed the remaining marine installation works on 24 September 2021, in accordance to *Condition 2.5(a)* of the Environmental Permit (EP-567/2019), stating, *"no marine works shall be carried out within the area of Stanley Bay from 1 June to 31 August inclusive".*

The Project commenced nearshore marine diver jetting works for post-lay inspection burial (PLIB) on 7 September 2021 and were completed on 24 September 2021. The land works at Sha Shek Tan (SST), Chung Hom Kok (CHK) were completed on 31 May 2021.

This is the *Post Project Water Quality Monitoring Report,* presenting the EM&A post installation water quality monitoring in Zone A and Zone B, conducted from 28 September 2021 to 2 October 2021, in accordance with *Appendix F* of the *Project Profile* and the requirements under EP-567/2019.

Water Quality in Zone A & Zone B

Post Project Water Quality Monitoring was carried out on three (3) occasions (i.e. days) at all monitoring stations within Zone A and Zone B only, and took place within one (1) week after the completion of the completion of the HKA cable installation. The intervals between two (2) sets of monitoring were not less than 36 hours. The water quality sampling was undertaken within 2 hours before and 2 hours after mid-flood and mid-ebb tidal state on each sampling occasion.

Post project data showed a generally lower dissolved oxygen (DO), similar turbidity and similar SS records compared to the baseline data. The overall water quality at the impact monitoring stations and gradient stations in Zone A and Zone B was found to be similar to that at the three (3) control stations which are located far from HKA cable alignment (i.e. about 1,120 m away from Zone A, and between 1,310 – 2,920 m from Zone B) from the HKA cable alignment. As such, water quality at the control stations could not have been affected by the Project, and it is concluded that the overall changes in DO, turbidity and SS levels during the post project monitoring period at all designated stations in Zone A and Zone B, including the control stations, are likely to represent natural variation and were not due to the Project.

Conclusion

No deterioration of water quality was observed between post project and baseline monitoring for marine works for the HKA Project, and therefore it is considered that the Project works had a negligible impact on water quality.

1. INTRODUCTION

1.1 Background

The proposed submarine cable is a section of the 'Hong Kong-America (HKA)' submarine cable network (hereafter known as 'HKA' and / or the Project), which will span more than 13,000 kilometers in total. The system will further boost the external telecommunications capacity of Hong Kong, reinforcing Hong Kong as a key communication hub in the Asia-Pacific region.

The cable will connect to Chung Hom Kok (CHK) within the HKSAR. **China Telecom Global Limited (CTG)** is providing the cable landing point and the associated cable landing services in Hong Kong.

The route of the proposed HKA submarine cable system within Hong Kong SAR is depicted in ***Figure 1.1***. The proposed cable would land at an existing Beach Manhole (BMH) location at Sha Shek Tan (SST), CHK, and connect to an existing Cable Landing Station (CLS).

It should be noted that CHK is currently the landing site for a number of submarine cables (i.e. New T&T domestic cable route, C2C Cable network; and SJC). The existing BMH is connected to the CLS on the hill above the landing beach and existing conduits connect the BMH and CLS.

The cable will travel from SST of CHK southward, exiting Stanley Bay, turning east near the Stanley Peninsular and past Cape d'Aguilar, continuing eastward, north of Beaufort and Sung Kong Islands, to the eastern boundary of HKSAR waters, where it will enter the South China Sea.

The Project Profile (PP- 573/2018) which includes an assessment of the potential environmental impacts associated with the installation of the submarine telecommunications cable system within HKSAR (including connection to land at CHK) was prepared and submitted to the Environmental Protection Department (EPD) under section 5(1)(b) and 5(11) of the *Environmental Impact Assessment Ordinance* (EIAO) for the application for Permission to apply directly for Environmental Permit (EP). On 2 January 2019, EPD issued a letter to CTG permitting direct application for an environmental permit and following an application, EPD subsequently issued an Environmental Permit (EP-567/2019) on 20 February 2019.

Pursuant to *Condition 3.1* of the EP, an Environmental Monitoring and Audit (EM&A) programme, as set out in the Project Profile (PP) is required for this Project, with baseline water quality monitoring data collected prior to the start of cable installation works, and Action and Limit Levels derived from these data.

The HKA cable installation is scheduled to be carried out in one (1) continuous phase. The specific Zones for cable installation works for Zone A and Zone B are shown in ***Figure 1.2*** to ***Figure 1.4***, and the current schedule and works carried out to date for each Phase is as follows:

1) **Land & Shore-End Cable Installation and Submarine Cable Installation up to Zone A:** Land trenching and nearshore marine diver jetting works up to Zone A (i.e. HK Grid coordinate 839544.426E 806852.911N, at 2.088 km from the landing point in SST, CHK) – tentatively scheduled week commencing; and

2) **Marine Installation of Submarine Cable:** Installation of the HKA submarine cable from Zone A to HKSAR marine eastern boundary, using injector burial tools/ sledge tools for simultaneous lay and burial operations, and potential diver jetting in specific areas (e.g. HK Electric Pipeline crossing).

    a. Baseline data for Zone A and Zone B was collected prior to the start of marine installation works (i.e. between 12 March and 6 April 2021) and Action and Limit Levels derived from these data, as presented in the final *Baseline Water Quality Monitoring Report*.

b. Nearshore marine diver jetting works in Zone A commenced on 10 May 2021, and was partially completed on the same day, as shown in the *1st Weekly Impact Water Quality Monitoring Report (Zone A).*

c. Remaining marine installation works from end of Zone A to the HKSAR marine eastern boundary using jetting technique commenced on 13 May 2021, and was completed on 19 May 2021, as shown in the *2nd Weekly Impact Water Quality Monitoring Report (Zone B).*

d. Land trenching and some marine works in Zone A was completed on 31 May 2021. Following issue of Marine Department Notice on 29 January 2021.

e. Marine installation works for PLIB have re-commenced on 7 September 2021 and completed on 24 September 2021, according to *Condition 2.5(a)* of the EP, stating, *"no marine works shall be carried out within the area of Stanley Bay from 1 June to 31 August inclusive".*

This report covers the data collected from monitoring stations as shown in ***Figure 1.2*** to ***Figure 1.4***.

1.2 Purpose of this Report

This is the Post Project Water Quality Monitoring Report in Zone A and Zone B for the HKA Project, and summarises the post installation water quality monitoring results in Zone A and Zone B from 28 September 2021 to 2 October 2021. The post installation water quality monitoring results are used to compare with the Baseline and Impact monitoring results from Zone A and Zone B, in order to investigate any potential impact of the Project works on the water quality in the vicinity of the Project at Chung Hom Kok.

Under the requirement of *Condition 3.3(c)* of the EP, the post project monitoring report on water quality shall be prepared and submitted to the EPD within one (1) month after completion of the marine works.

1.3 Status of Environmental Approval Documents

A summary of the relevant permits, licences, notifications and/or reports on environmental protection for this Project is presented in ***Table 1.1***:

Table 1.1 Summary of Environmental Licensing, Notification, Permit and Reporting Status

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
Environmental Permit	(EP-567/2019) Available at https://www.epd.gov.hk/eia/register/permit/latest/ep5672019.htm	Throughout construction & operation period	Granted on 20 February 2019
EM&A Manual	(PP-573/2018) As part of the Project Profile; available at: https://www.epd.gov.hk/eia/register/profile/latest/dir265/dir265.pdf	Throughout construction & operation period	Approved by EPD on 2 January 2019
Marine Department Notice	(No. 28/2021) Available at: https://www.mardep.gov.hk/en/notices/pdf/mdn21028.pdf	Throughout construction & operation period	Issued by the Marine De partment on 29 January 2021

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
Baseline Water Quality Monitoring Report and *Pre-Installation Coral Survey Report*	Currently unavailable online, at the time of this report	Throughout construction period & operation period	Approval by EPD still ongoing at the time of report writing
1st Weekly Water Quality Monitoring Report (Zone A) and *2nd Weekly Water Quality Monitoring Report (Zone B)*	Available at: https://www.epd.gov.hk/eia/register/english/permit/ep5672019/documents/1wiwqmr/pdf/1wiwqmr.pdf and https://www.epd.gov.hk/eia/register/english/permit/ep5672019/documents/2wiwqmr/pdf/2wiwqmr.pdf	Throughout construction period & operation period	Approved by EPD as of 3 June 2021
3rd Weekly Water Quality Monitoring Report (Zone A)	Available at: https://www.epd.gov.hk/eia/register/english/permit/ep5672019/documents/3wiwqmr/pdf/3wiwqmr.pdf	Throughout construction period & operation period	Approved by EPD as of 18 June 2021
4th Weekly Water Quality Monitoring Report (Zone A)	Available at: https://www.epd.gov.hk/eia/register/english/permit/ep5672019/documents/4wiwqmr/pdf/4wiwqmr.pdf	Throughout construction period & operation period	Approval by EPD as of 30 September 2021
5th Weekly Water Quality Monitoring Report (Zone A)	Available at: https://www.epd.gov.hk/eia/register/english/permit/ep5672019/documents/5wiwqmr/pdf/5wiwqmr.pdf	Throughout construction period & operation period	Approval by EPD as of 30 September 2021
6th Weekly Water Quality Monitoring Report (Zone A)	Currently unavailable online, at the time of this report	Throughout construction period & operation period	Approval by EPD still ongoing at the time of report writing

1.4 Structure of this Report

The remainder of the report is structured as follows:

Section 1: Introduction

Provide details of the background, purpose and structure of the report, the status of Environmental Permits/Licenses during the reporting period, and structure of the report.

Section 2: Water Quality Monitoring Requirements

Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, and Event / Action Plans.

Section 3: Monitoring Results

Summarises the monitoring results obtained in the reporting period.

Section 4: Conclusions

Presents the key findings of the post installation monitoring results.

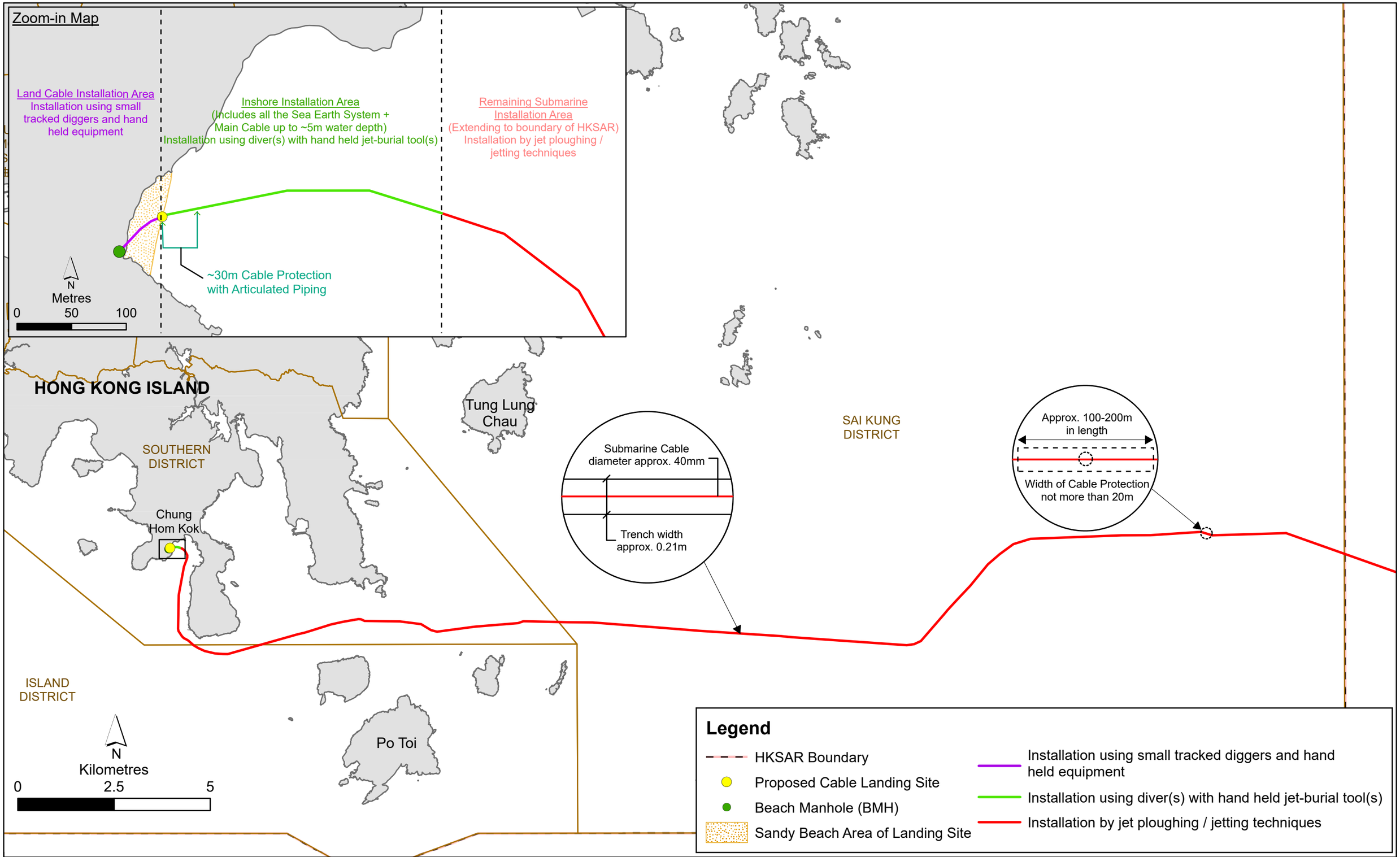

Figure 1.1

Proposed HKA Cable System

File: T:\GIS\CONTRACT\0585919\mxd\0585919_HKA_Work_Limit_Control_Point(EP_Alignment).mxd
Date: 22/4/2021

Environmental Resources Management

ERM

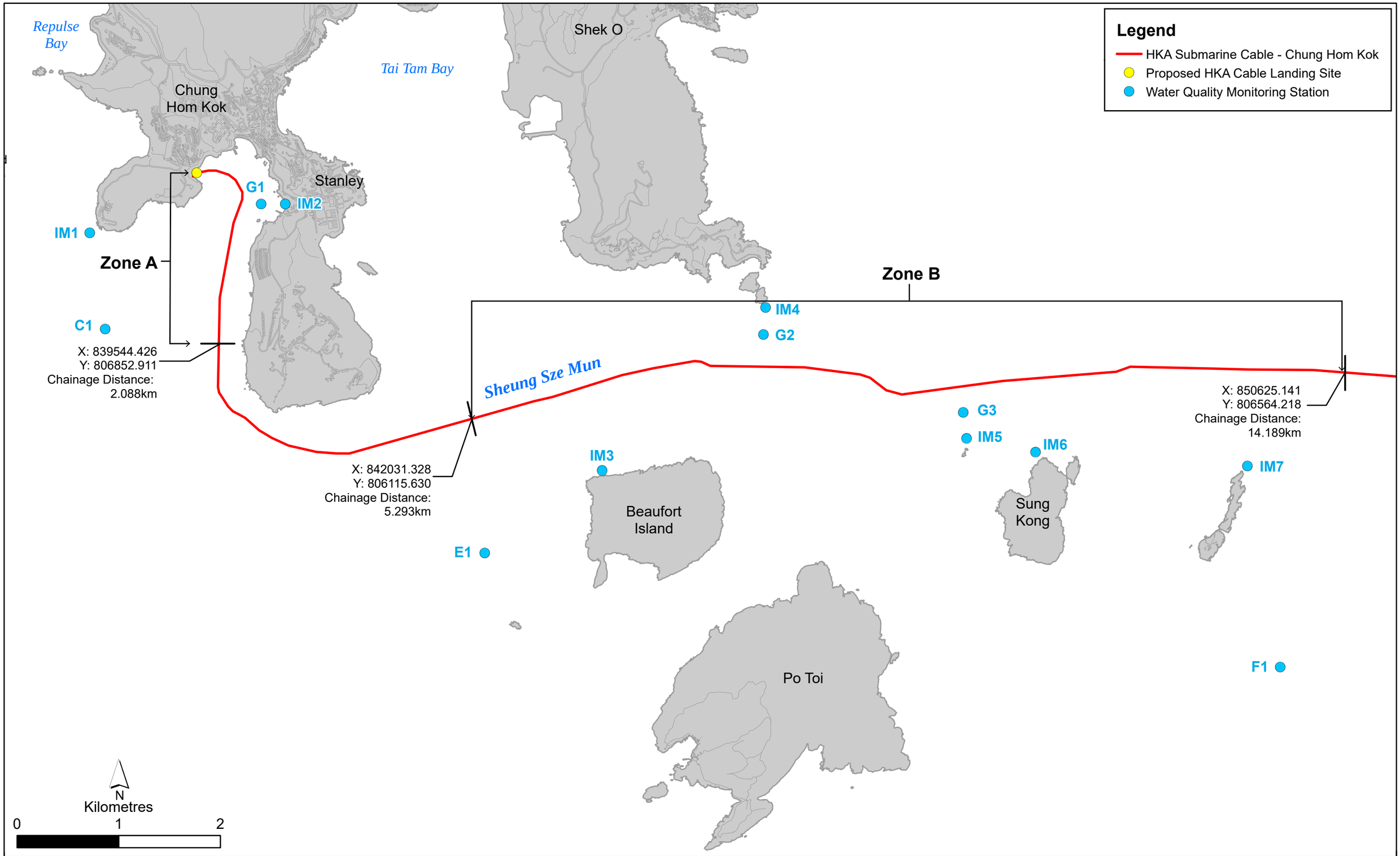

Figure 1.2

Water Quality Monitoring Stations

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Date: 22/4/2021

Environmental Resources Management

ERM

Legend

HKA Submarine Cable - Chung Hom Kok

Proposed HKA Cable Landing Site

Water Quality Monitoring Station

Chung Hom Kok

Stanley

IM1

G1

IM2

C1

N

Meters

0 250 500

Figure 1.3

Water Quality Monitoring Stations - Zone A

File: T:\GIS\CONTRACT\0585919\mxd\0585919_WQMS_ZoneA(EP_Alignment).mxd
Date: 22/4/2021

Environmental Resources Management

ERM

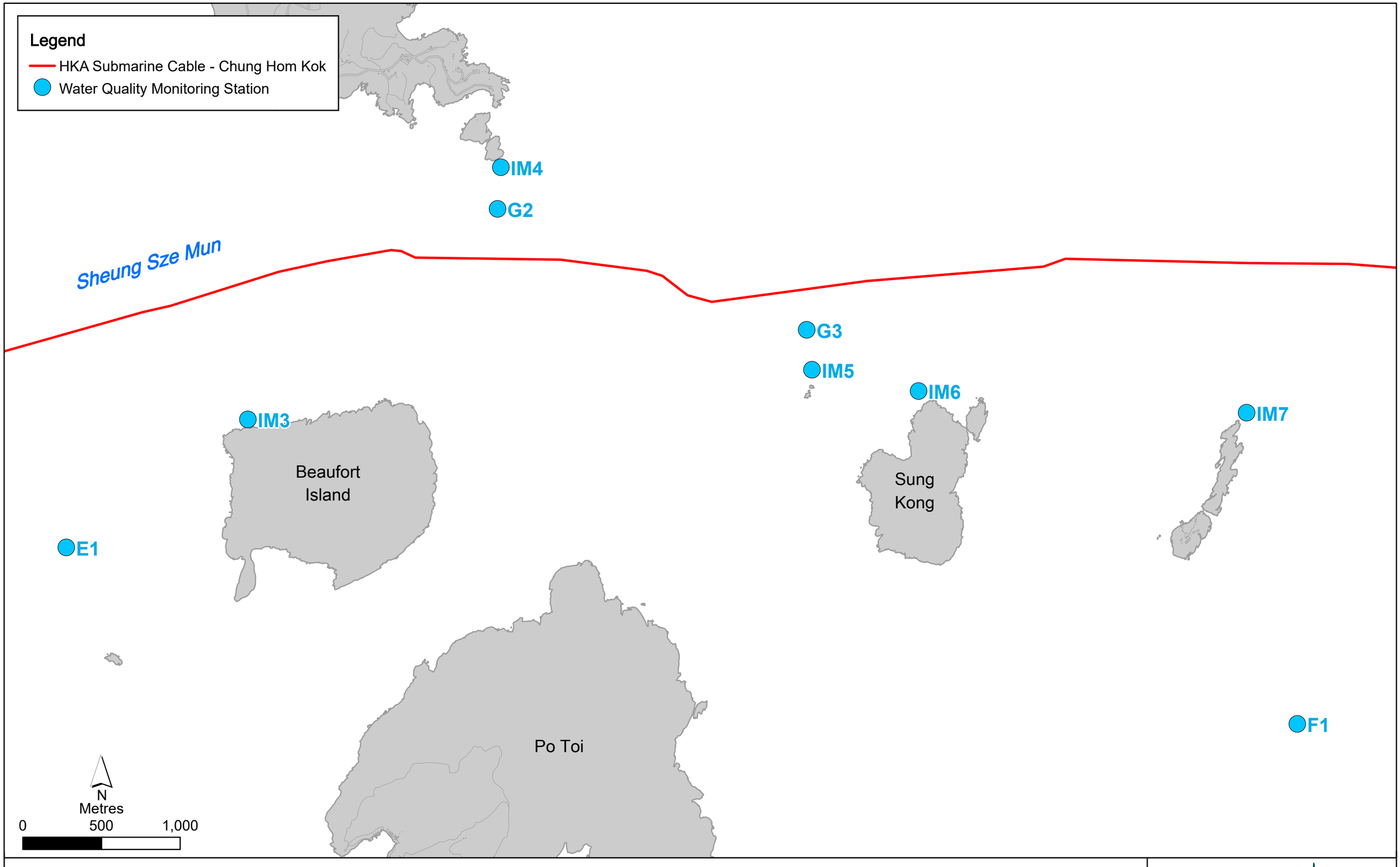

Figure 1.4

Water Quality Monitoring Stations - Zone B

File: T:\GIS\CONTRACT\0585919\mxd\0585919_WQMS_ZoneB(EP_Alignment).mxd
Date: 8/4/2021

Environmental Resources Management

ERM

2. WATER QUALITY MONITORING

2.1 Monitoring Location

In accordance with the *Appendix F* of approved PP, during the installation of HKA in Zone A & Zone B, water quality sampling was undertaken at all monitoring stations situated around the cable laying works. The locations of the sampling stations within Zone A and Zone B are listed in ***Table 2.1*** and shown in ***Figure 1.2*** to ***Figure 1.4.***

Table 2.1 Water Quality Monitoring Stations

Station	Nature	Approx. Geodesic Distance (1) to Proposed Cable Alignment (m)	Easting	Northing
Zone **A**: The waters near Stanley Bay Covers the cable alignment between Chainage 0 and 2.088 km.				
IM1	Coral sites along the coast of Chung Hom Kok	1320	838275	807941
IM2	Saint Stephen's Beach	430	840199	808226
G1	Gradient Stations (Between Saint Stephen's Beach and cable alignment)	190	839961	808225
C1 (2)	Control Station for Zone A	1120	838426	806996
Zone **B**: The waters from Beaufort Island to Waglan Island where a number of sensitive receivers are located close to the cable alignment. Covers the cable alignment between Chainage 5.293 km and 14.189 km.				
IM3*	Coral site along the coast of north Beaufort Island	840	843316	805606
IM4*	Coral sites along the coast of Cape d'Aguilar at Kau Pei Chau	580	844923	807208
IM5*	Coral sites along the coast of Sung Kong Isl et	510	846901	805922
IM6*	Coral sites along the coast of Sung Kong	720	847579	805787
IM7*	Coral sites along the coast of Waglan Island	950	849664	805649
G2*	Gradient Stations (Between Coral sites alon g the coast of Cape d'Aguilar at Kau Pei Ch au and cable alignment)	440	844962	807066
G3*	Gradient Stations (Between Coral sites alon g the coast of Sung Kong Islet)	260	846868	806175
E1*	Control Station for Zone B in Ebb Tide	1310	842161	804794
F1*	Control Station for Zone B in Flood Tide	2920	849986	803673

Note:
(1) Geodesic distance refers to the shortest straight line distance between two locations, without regard on the physical obstacles in between.
(2) These stations are also considered to fall within the spawning grounds of commercial fisheries resources.

2.2 Sampling and Testing Methodology

The post installation water quality monitoring in Zone A and Zone B was conducted in accordance with the requirements stated in the *Appendix F* of approved PP. These are presented below.

2.2.1 Parameters Measured

The parameters measured *in situ* were:

- dissolved oxygen (DO) (% saturation and mgL^{-1})
- temperature (°C)
- turbidity (NTU)

- salinity (‰ or ppt)

The only parameter to be measured in the laboratory was:

- suspended solids (SS) (mgL^{-1})

In addition to the water quality parameters, other relevant data had also been measured and recorded in field logs, including the location of the sampling stations and cable vessel/ burial machine at the time of sampling, water depth, time, weather conditions, sea conditions, tidal state, current direction and speed, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

2.2.2 Equipment

Table 2.2 summaries the equipment used for the impact water quality monitoring.

Table 2.2 Equipment used during Impact Water Quality Monitoring

Equipment	Model
Global Positioning Device	Garmin etrex 20x
Water Depth Gauge	Sontek Riversurveyor
Water Sampling Equipment	Aquatic Research Instruments horizontal / vertical types 2.2L
Salinity, DO, Temperature Measuring Meter	YSI ProDSS (Multi-Parameter)
Current Velocity and Direction	Sontek Riversurveyor
Turbidity Meter	YSI ProDSS (Multi-Parameter)

2.2.3 Monitoring Frequency and Timing

Post Installation Monitoring at all monitoring stations within Zone A (i.e. IM1, IM2, G1, and C1) and Zone B (i.e. IM3, IM4, IM5, IM6, IM7, G2, G3, E1 and F1) took place within one (1) week after the completion of the HKA cable installation in ***Figure 1.2*** to ***Figure 1.4***.

The interval between two (2) sets of post installation monitoring (i.e. including the collection of *In-situ* and SS data) during the cable installation works was no less than 36 hours and samples were taken twice during a 4 hour window of 2 hours before and 2 hours after a mid-flood and mid-ebb tidal state on each sampling occasion.

Reference was made to the predicted tides at Waglan Island, which is the tidal station nearest to the Project Site, published on the website of the Hong Kong Observatory [(1)]. Based on the predicted tidal levels at Waglan Island, the post installation water quality monitoring in Zone A and Zone B was conducted between 28 September 2021 to 2 October 2021, following the schedule presented in **Appendix A**.

2.2.4 Sampling / Testing Protocols

All *in situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS (Quality Pro Test-Consult Limited) before use (see calibration reports in **Appendix B**), and will subsequently be re-calibrated at-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use.

[(1)] Hong Kong Observatory (2021) https://www.hko.gov.hk/en/tide/predtide.htm?s=WAG [Accessed in October 2021]

For the on-site calibration of field equipment, the *BS 1427: 1993*, *Guide to Field and On-Site Test Methods for the Analysis of Waters* were observed. Sufficient stocks of spare parts shall be maintained for replacements when necessary. Backup monitoring equipment were made available so that monitoring could proceed uninterrupted even when equipment is under maintenance, calibration etc.

Water samples for SS measurements were collected in high density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to a HOKLAS laboratory as soon as possible after collection.

At least two (2) replicate samples were collected from each of the monitoring events for *in situ* measurement and lab analysis.

2.2.5 Laboratory Analysis

All laboratory work was carried out in a HOKLAS accredited laboratory (ALS Technichem (HK) Pty Ltd). Water samples of about 1,000 mL were collected at the monitoring, gradient and control stations for carrying out the laboratory determinations. The determination work shall start within the next working day after collection of the water samples. The SS laboratory measurements were provided within five (5) days of the sampling event. The analyses followed the standard methods as described in *APHA Standard Methods for the Examination of Water and Wastewater, 19th Edition*, unless otherwise specified (APHA 2540D for SS).

The submitted information included pre-treatment procedures, instrument use, Quality Assurance/Quality Control (QA/QC) details (such as blank, spike recovery, number of duplicate samples per-batch etc.), detection limits and accuracy. The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme (**Appendix C**).

2.2.6 Sampling Depths

At each station, measurements and water samples were taken at three (3) depths, namely 1 m below water surface, mid-depth and 1 m above seabed. For stations that are less than 3 m in depth, only the mid-depth sample was taken. For stations that are less than 6 m in depth, only the surface and seabed sample was taken.

3. POST PROJECT MONITORING RESULTS IN ZONE A

A total of three (3) monitoring events were carried out between 28 September 2021 to 2 October 2021 at Zone A and Zone B only, for post installation water quality monitoring. All monitoring events at all designated monitoring stations within Zone A and Zone B were performed on schedule, i.e. on 28 and 30 September 2021, and 2 October 2021, as detailed in ***Section 2.2.3***, following completion of the HKA cable installation works on 24 September 2021. The post installation monitoring data within Zone A and Zone B, with graphical presentations are presented in **Appendix D**.

The levels of DO measured during the post project monitoring period were generally lower than the baseline monitoring period. Accordingly, exceedances in DO action and limit levels were recorded, including at both impact monitoring stations and gradient stations (i.e. IM1, IM2, IM3, IM4, IM5, IM6, IM7, G1, G2 and G3) for all three (3) survey days (for both tides). The lower DO levels in post-project monitoring is expected to be a result of higher water temperature (recorded during baseline:18.70-21.60°C; during post-project: 25.20-30.90°C) that reduce the maximum DO at saturation. Measured DO levels at control stations (i.e. C1, E1 and F1) were similar to that at the impact monitoring stations and gradient stations, indicating water quality variations during post-project monitoring was due to widespread natural variation and not isolated incidents due to the previous Project works. Detailed analysis during the impact water quality monitoring period also showed similar results at the control and impact monitoring stations. Therefore, although there are some differences between the monitoring period and post project monitoring, it is considered that the widespread water quality variation are due to natural causes (as explained above). Overall, the DO levels recorded were higher than the corresponding Water Quality Objectives of DO of 4 mg/L for surface and middle layer and 2 mg/L for bottom layer with average level recorded as 6.0mg/L.

Levels of turbidity measured during the post project monitoring period have a similar range to that of the baseline monitoring period and is slightly lower than that of the impact monitoring period. Exceedance of the limit level of turbidity were recorded at IM5 during ebb tide monitoring on 28 September 2021 and G3 during flood tide monitoring on 30 September 2021, while exceedance of action level of turbidity were recorded at IM1, IM2, IM3, IM5, G1 and G2 for all survey events.

For SS, the recorded levels during the post project monitoring period were similar to the recorded levels during baseline monitoring period with smaller ranges in the recorded levels. Accordingly, exceedances in SS level were recorded at impact monitoring stations (i.e. IM1, IM2, IM3 and G1) for four (4) out of the six (6) survey events.

In general, measured turbidity and SS levels at control stations (i.e. C1, E1 and F1) were similar to that of the rest of the monitoring stations during monitoring. Therefore, similar to that for DO levels, the differences in recorded levels for turbidity and SS between the baseline and post project monitoring period are considered to be due to natural variation and not isolated incidents due to the previous Project works.

Given the above information, and taking into account the control stations in comparison to the impact monitoring stations and gradient stations, as well as the absence of marine works related to HKA during post project monitoring, the overall changes in DO, turbidity and SS levels during the post project monitoring period at all designated stations compared to baseline data are likely to represent a natural phenomenon (or other activity), and are not due to Project works.

4. CONCLUSION

This *Post Project Water Quality Monitoring Report* presents the EM&A work undertaken from 28 September 2021 to 2 October 2021 in accordance with the *Appendix F* of the approved Project Profile (PP) and the requirements under EP-567/2019.

Post Project Water Quality Monitoring was carried out on three (3) occasions (i.e. days) at all monitoring stations within Zone A and Zone B and took place within one (1) week after the completion of the HKA cable installation works on 24 September 2021. The intervals between two (2) sets of monitoring were not less than 36 hours. The water quality sampling was undertaken within 2 hours before and 2 hours after mid-flood and mid-ebb tidal state on each sampling occasion.

Post project data showed a generally lower dissolved oxygen (DO), similar turbidity and similar SS records compared to the baseline data. The overall water quality at the impact monitoring stations and gradient stations in Zone A and Zone B was found to be similar to the three (3) control stations, which are located far from the HKA cable alignment (i.e. about 1,120 m away from Zone A, and between 1,310 – 2,920 m from Zone B) from the HKA cable alignment. As such, water quality at the control stations could not have been affected by the Project, and it is concluded that the overall changes in DO, turbidity and SS levels during the post project monitoring period at all designated stations in Zone A and Zone B, including the control stations, are likely to represent natural variation and were not due to the Project.

Although some changes in water quality were observed between post project and baseline monitoring for marine works, for the reasons explained above in ***Section 3***, none of these changes are considered to be as a result of the Project works. This Project therefore had a negligible impact on water quality.

APPENDIX A POST PROJECT WATER QUALITY MONITORING SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
27-Sep	ebb tide 2:39 - 6:39 flood tide 14:23 - 18:23 ***Zone A/B post project*** 28-Sep	29-Sep	ebb tide 5:14 - 9:14 flood tide 17:53 - 21:53 ***Zone A/B post project*** 30-Sep	1-Oct	ebb tide 7:05 - 11:05 flood tide 19:36 - 23:36 ***Zone A/B post project*** 2-Oct	3-Oct
4-Oct					**Annex A** **HKA Post Project Monitoring Schedule** **(Zone A & Zone B)**	

APPENDIX B CERTIFICATES OF CALIBRATION FOR *IN SITU* MONITORING INSTRUMENTS

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. : BA090072
Date of Issue : 27 September 2021

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	21G105356
Date of Received	:	Sep 24, 2021
Date of Calibration	:	Sep 24, 2021
Date of Next Calibration[a]	:	Dec 23, 2021

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	7.45	0.03	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
10	10.0	0.0	Satisfactory
24	24.0	0.0	Satisfactory
48	48.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

LEE Chun-ning
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA090072
Date of Issue : 27 September 2021

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.18	0.30	0.12	Satisfactory
2.71	2.60	-0.11	Satisfactory
5.00	5.13	0.13	Satisfactory
7.48	7.49	0.01	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	147.5	0.41	Satisfactory
0.01	1412	1466	3.82	Satisfactory
0.1	12890	12747	-1.11	Satisfactory
0.5	58670	59430	1.30	Satisfactory
1.0	111900	110667	-1.10	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.97	-0.30	Satisfactory
20	20.36	1.80	Satisfactory
30	30.77	2.57	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.18	--	Satisfactory
10	10.13	1.3	Satisfactory
20	19.74	-1.3	Satisfactory
100	102.36	2.4	Satisfactory
800	796.41	-0.4	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA090071
Date of Issue : 27 September 2021

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	18A104824
Date of Received	:	Sep 24, 2021
Date of Calibration	:	Sep 24, 2021
Date of Next Calibration[a]	:	Dec 23, 2021

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	7.46	0.04	Satisfactory
10.01	9.96	-0.05	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
24	24.0	0.0	Satisfactory
48	48.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA090071
Date of Issue : 27 September 2021

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.18	0.30	0.12	Satisfactory
2.71	2.66	-0.05	Satisfactory
5.00	5.09	0.09	Satisfactory
7.48	7.48	0.00	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	147.6	0.48	Satisfactory
0.01	1412	1451	2.76	Satisfactory
0.1	12890	12758	-1.02	Satisfactory
0.5	58670	58927	0.44	Satisfactory
1.0	111900	110688	-1.08	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.98	-0.20	Satisfactory
20	19.87	-0.65	Satisfactory
30	29.80	-0.67	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.17	--	Satisfactory
10	9.94	-0.6	Satisfactory
20	19.88	-0.6	Satisfactory
100	98.93	-1.1	Satisfactory
800	794.52	-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 form relevant international standards.*

APPENDIX C QA/ QC RESULTS FOR SUSPENDED SOLIDS TESTING

QA/QC Results of Laboratory Analysis of Total Suspended Solids				
Sampling Date	Sample Duplicate		Method Blank *	Laboratory Control Spike
	Sample ID	% Error	(mg/L)	% Recovery **
28-Sep-21	C1-ME-S-1	0.0	<0.5	102.0
	IM1-ME-B-1	20.0		
	G1-ME-B-1	14.3	<0.5	106.0
	F1-ME-M-1	16.7		
	IM4-ME-S-1	7.1	<0.5	100.0
	IM5-ME-B-1	0.0		
	IM7-ME-M-1	14.3	<0.5	103.0
	G3-ME-S-1	7.7		
	C1-MF-B-1	14.3	<0.5	94.5
	IM2-MF-B-1	14.3		
	E1-MF-B-2	0.0	<0.5	102.0
	IM3-MF-S-1	8.3		
	IM4-MF-B-1	14.3	<0.5	96.5
	IM6-MF-M-1	0.0		
	G2-MF-S-1	0.0	<0.5	98.0
	G3-MF-B-1	0.0		
30-Sep-21	C1-ME-S-1	10.0	<0.5	106.0
	IM1-ME-B-1	11.1		
	G1-ME-B-1	4.2	<0.5	103.0
	F1-ME-M-1	10.7		
	IM4-ME-S-1	6.5	<0.5	107.0
	IM5-ME-B-1	12.5		
	IM7-ME-M-1	7.1	<0.5	101.0
	G3-ME-S-1	13.6		
	C1-MF-B-1	6.9	<0.5	96.0
	IM2-MF-B-1	5.3		
	E1-MF-B-2	7.1	<0.5	106.0
	IM3-MF-S-1	6.1		
	IM4-MF-B-1	12.5	<0.5	104.0
	IM6-MF-M-1	3.4		
	G2-MF-S-1	7.1	<0.5	98.0
	G3-MF-B-1	0.0		

QA/QC Results of Laboratory Analysis of Total Suspended Solids				
Sampling Date	Sample Duplicate		Method Blank *	Laboratory Control Spike
	Sample ID	% Error	(mg/L)	% Recovery **
2-Oct-21	C1-ME-S-1	4.8	<0.5	97.0
	IM1-ME-B-1	2.7		
	G1-ME-B-1	10.0	<0.5	105.0
	F1-ME-M-1	3.6		
	IM4-ME-S-1	5.6	<0.5	102.0
	IM5-ME-B-1	15.4		
	IM7-ME-M-1	11.5	<0.5	108.0
	G3-ME-S-1	7.5		
	C1-MF-B-1	13.0	<0.5	102.0
	IM2-MF-B-1	7.4		
	E1-MF-B-2	7.4	<0.5	104.0
	IM3-MF-S-1	8.6		
	IM4-MF-B-1	9.4	<0.5	102.0
	IM6-MF-M-1	10.0		
	G2-MF-S-1	7.1	<0.5	106.0
	G3-MF-B-1	6.8		

Note: (*) Reporting limit of SS is 0.5 mg/L.

(**) % Recovery of laboratory control spike should be between 85% to 115%.

CERTIFICATE OF ANALYSIS

Client	:	ENOVATIVE ENVIRONMENTAL SERVICE LTD	*Laboratory*	:	ALS Technichem (HK) Pty Ltd	*Page*	: 1 of 9
Contact	:	MR THOMAS WONG	*Contact*	:	Richard Fung	*Work Order*	: **HK2139058**
Address	:	FLAT 2207, YU FUN HSE, YU CHUI COURT, SHATIN, N.T. HONG KONG	*Address*	:	11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	:	thomas.wong@eno.com.hk	*E-mail*	:	richard.fung@alsglobal.com		
Telephone	:	----	*Telephone*	:	+852 2610 1044		
Facsimile	:	----	*Facsimile*	:	+852 2610 2021		
Project	:	HKA SUBMARINE CABLE – CHUNG HOM KOK				*Date received*	: 28-Sep-2021
Order number	:	—	*Quote number*	:	HKE/1236/2021	*Date of issue*	: 30-Sep-2021
C-O-C number	:	—				*No. of samples*	- *Received* : 152
Site	:	—					- *Analysed* : 152

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory	*Position*	*Authorised results for:*
		
Fung Lim Chee, Richard	**Managing Director**	**Inorganics**

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 28-Sep-2021 to 30-Sep-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order HK2139058 :

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Analytical Results

Sub-Matrix: **MARINE WATER**

Sample ID	Sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
				EA/ED: Physical and Aggregate Properties	----	----	----	----
C1-ME-S-1	28-Sep-2021	HK2139058-001		0.8	----	----	----	----
C1-ME-S-2	28-Sep-2021	HK2139058-002		0.9	----	----	----	----
C1-ME-M-1	28-Sep-2021	HK2139058-003		0.9	----	----	----	----
C1-ME-M-2	28-Sep-2021	HK2139058-004		1.2	----	----	----	----
C1-ME-B-1	28-Sep-2021	HK2139058-005		1.2	----	----	----	----
C1-ME-B-2	28-Sep-2021	HK2139058-006		1.0	----	----	----	----
IM1-ME-S-1	28-Sep-2021	HK2139058-007		2.0	----	----	----	----
IM1-ME-S-2	28-Sep-2021	HK2139058-008		1.4	----	----	----	----
IM1-ME-M-1	28-Sep-2021	HK2139058-009		1.8	----	----	----	----
IM1-ME-M-2	28-Sep-2021	HK2139058-010		1.0	----	----	----	----
IM1-ME-B-1	28-Sep-2021	HK2139058-011		1.0	----	----	----	----
IM1-ME-B-2	28-Sep-2021	HK2139058-012		1.6	----	----	----	----
IM2-ME-S-1	28-Sep-2021	HK2139058-013		2.5	----	----	----	----
IM2-ME-S-2	28-Sep-2021	HK2139058-014		2.0	----	----	----	----
IM2-ME-B-1	28-Sep-2021	HK2139058-017		1.6	----	----	----	----
IM2-ME-B-2	28-Sep-2021	HK2139058-018		1.0	----	----	----	----
G1-ME-S-1	28-Sep-2021	HK2139058-019		1.0	----	----	----	----
G1-ME-S-2	28-Sep-2021	HK2139058-020		1.1	----	----	----	----
G1-ME-M-1	28-Sep-2021	HK2139058-021		1.1	----	----	----	----
G1-ME-M-2	28-Sep-2021	HK2139058-022		1.5	----	----	----	----
G1-ME-B-1	28-Sep-2021	HK2139058-023		2.1	----	----	----	----
G1-ME-B-2	28-Sep-2021	HK2139058-024		2.1	----	----	----	----
E1-ME-S-1	28-Sep-2021	HK2139058-025		2.1	----	----	----	----
E1-ME-S-2	28-Sep-2021	HK2139058-026		1.2	----	----	----	----
E1-ME-M-1	28-Sep-2021	HK2139058-027		1.2	----	----	----	----
E1-ME-M-2	28-Sep-2021	HK2139058-028		1.9	----	----	----	----
E1-ME-B-1	28-Sep-2021	HK2139058-029		0.9	----	----	----	----
E1-ME-B-2	28-Sep-2021	HK2139058-030		1.5	----	----	----	----
F1-ME-S-1	28-Sep-2021	HK2139058-031		1.4	----	----	----	----
F1-ME-S-2	28-Sep-2021	HK2139058-032		0.7	----	----	----	----
F1-ME-M-1	28-Sep-2021	HK2139058-033		0.6	----	----	----	----

Sub-Matrix: **MARINE WATER**

	Compound	EA025: Suspended Solids (SS)	----	----	----	----
	LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	----	----	----	----
F1-ME-M-2	28-Sep-2021	HK2139058-034	1.0	----	----	----	----
F1-ME-B-1	28-Sep-2021	HK2139058-035	1.0	----	----	----	----
F1-ME-B-2	28-Sep-2021	HK2139058-036	0.7	----	----	----	----
IM3-ME-S-1	28-Sep-2021	HK2139058-037	1.2	----	----	----	----
IM3-ME-S-2	28-Sep-2021	HK2139058-038	1.6	----	----	----	----
IM3-ME-M-1	28-Sep-2021	HK2139058-039	1.1	----	----	----	----
IM3-ME-M-2	28-Sep-2021	HK2139058-040	1.4	----	----	----	----
IM3-ME-B-1	28-Sep-2021	HK2139058-041	1.3	----	----	----	----
IM3-ME-B-2	28-Sep-2021	HK2139058-042	1.0	----	----	----	----
IM4-ME-S-1	28-Sep-2021	HK2139058-043	1.4	----	----	----	----
IM4-ME-S-2	28-Sep-2021	HK2139058-044	1.2	----	----	----	----
IM4-ME-M-1	28-Sep-2021	HK2139058-045	1.4	----	----	----	----
IM4-ME-M-2	28-Sep-2021	HK2139058-046	1.5	----	----	----	----
IM4-ME-B-1	28-Sep-2021	HK2139058-047	1.8	----	----	----	----
IM4-ME-B-2	28-Sep-2021	HK2139058-048	1.5	----	----	----	----
IM5-ME-S-1	28-Sep-2021	HK2139058-049	1.0	----	----	----	----
IM5-ME-S-2	28-Sep-2021	HK2139058-050	1.5	----	----	----	----
IM5-ME-M-1	28-Sep-2021	HK2139058-051	0.6	----	----	----	----
IM5-ME-M-2	28-Sep-2021	HK2139058-052	0.7	----	----	----	----
IM5-ME-B-1	28-Sep-2021	HK2139058-053	<0.5	----	----	----	----
IM5-ME-B-2	28-Sep-2021	HK2139058-054	<0.5	----	----	----	----
IM6-ME-S-1	28-Sep-2021	HK2139058-055	0.8	----	----	----	----
IM6-ME-S-2	28-Sep-2021	HK2139058-056	1.0	----	----	----	----
IM6-ME-M-1	28-Sep-2021	HK2139058-057	1.0	----	----	----	----
IM6-ME-M-2	28-Sep-2021	HK2139058-058	0.9	----	----	----	----
IM6-ME-B-1	28-Sep-2021	HK2139058-059	1.3	----	----	----	----
IM6-ME-B-2	28-Sep-2021	HK2139058-060	1.0	----	----	----	----
IM7-ME-S-1	28-Sep-2021	HK2139058-061	0.8	----	----	----	----
IM7-ME-S-2	28-Sep-2021	HK2139058-062	0.8	----	----	----	----
IM7-ME-M-1	28-Sep-2021	HK2139058-063	0.7	----	----	----	----
IM7-ME-M-2	28-Sep-2021	HK2139058-064	0.9	----	----	----	----
IM7-ME-B-1	28-Sep-2021	HK2139058-065	1.3	----	----	----	----
IM7-ME-B-2	28-Sep-2021	HK2139058-066	1.0	----	----	----	----

Sub-Matrix: **MARINE WATER**

			Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	----	----	----	----
G2-ME-S-1	28-Sep-2021	HK2139058-067		1.8	----	----	----	----
G2-ME-S-2	28-Sep-2021	HK2139058-068		1.0	----	----	----	----
G2-ME-M-1	28-Sep-2021	HK2139058-069		1.0	----	----	----	----
G2-ME-M-2	28-Sep-2021	HK2139058-070		1.4	----	----	----	----
G2-ME-B-1	28-Sep-2021	HK2139058-071		1.2	----	----	----	----
G2-ME-B-2	28-Sep-2021	HK2139058-072		1.0	----	----	----	----
G3-ME-S-1	28-Sep-2021	HK2139058-073		1.3	----	----	----	----
G3-ME-S-2	28-Sep-2021	HK2139058-074		1.4	----	----	----	----
G3-ME-M-1	28-Sep-2021	HK2139058-075		0.8	----	----	----	----
G3-ME-M-2	28-Sep-2021	HK2139058-076		0.8	----	----	----	----
G3-ME-B-1	28-Sep-2021	HK2139058-077		0.7	----	----	----	----
G3-ME-B-2	28-Sep-2021	HK2139058-078		0.8	----	----	----	----
C1-MF-S-1	28-Sep-2021	HK2139058-079		1.4	----	----	----	----
C1-MF-S-2	28-Sep-2021	HK2139058-080		1.2	----	----	----	----
C1-MF-M-1	28-Sep-2021	HK2139058-081		1.0	----	----	----	----
C1-MF-M-2	28-Sep-2021	HK2139058-082		1.3	----	----	----	----
C1-MF-B-1	28-Sep-2021	HK2139058-083		0.7	----	----	----	----
C1-MF-B-2	28-Sep-2021	HK2139058-084		1.0	----	----	----	----
IM1-MF-S-1	28-Sep-2021	HK2139058-085		2.0	----	----	----	----
IM1-MF-S-2	28-Sep-2021	HK2139058-086		1.6	----	----	----	----
IM1-MF-M-1	28-Sep-2021	HK2139058-087		1.9	----	----	----	----
IM1-MF-M-2	28-Sep-2021	HK2139058-088		1.7	----	----	----	----
IM1-MF-B-1	28-Sep-2021	HK2139058-089		1.4	----	----	----	----
IM1-MF-B-2	28-Sep-2021	HK2139058-090		1.5	----	----	----	----
IM2-MF-S-1	28-Sep-2021	HK2139058-091		2.1	----	----	----	----
IM2-MF-S-2	28-Sep-2021	HK2139058-092		1.9	----	----	----	----
IM2-MF-B-1	28-Sep-2021	HK2139058-095		1.4	----	----	----	----
IM2-MF-B-2	28-Sep-2021	HK2139058-096		1.9	----	----	----	----
G1-MF-S-1	28-Sep-2021	HK2139058-097		1.7	----	----	----	----
G1-MF-S-2	28-Sep-2021	HK2139058-098		1.9	----	----	----	----
G1-MF-M-1	28-Sep-2021	HK2139058-099		1.9	----	----	----	----
G1-MF-M-2	28-Sep-2021	HK2139058-100		1.8	----	----	----	----
G1-MF-B-1	28-Sep-2021	HK2139058-101		2.0	----	----	----	----

Sub-Matrix: **MARINE WATER**

			Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	----	----	----	----
G1-MF-B-2	28-Sep-2021	HK2139058-102		2.5	----	----	----	----
E1-MF-S-1	28-Sep-2021	HK2139058-103		1.4	----	----	----	----
E1-MF-S-2	28-Sep-2021	HK2139058-104		1.0	----	----	----	----
E1-MF-M-1	28-Sep-2021	HK2139058-105		1.3	----	----	----	----
E1-MF-M-2	28-Sep-2021	HK2139058-106		1.1	----	----	----	----
E1-MF-B-1	28-Sep-2021	HK2139058-107		1.2	----	----	----	----
E1-MF-B-2	28-Sep-2021	HK2139058-108		0.8	----	----	----	----
F1-MF-S-1	28-Sep-2021	HK2139058-109		<0.5	----	----	----	----
F1-MF-S-2	28-Sep-2021	HK2139058-110		<0.5	----	----	----	----
F1-MF-M-1	28-Sep-2021	HK2139058-111		<0.5	----	----	----	----
F1-MF-M-2	28-Sep-2021	HK2139058-112		<0.5	----	----	----	----
F1-MF-B-1	28-Sep-2021	HK2139058-113		0.5	----	----	----	----
F1-MF-B-2	28-Sep-2021	HK2139058-114		0.7	----	----	----	----
IM3-MF-S-1	28-Sep-2021	HK2139058-115		1.2	----	----	----	----
IM3-MF-S-2	28-Sep-2021	HK2139058-116		1.5	----	----	----	----
IM3-MF-M-1	28-Sep-2021	HK2139058-117		1.4	----	----	----	----
IM3-MF-M-2	28-Sep-2021	HK2139058-118		1.7	----	----	----	----
IM3-MF-B-1	28-Sep-2021	HK2139058-119		1.6	----	----	----	----
IM3-MF-B-2	28-Sep-2021	HK2139058-120		1.7	----	----	----	----
IM4-MF-S-1	28-Sep-2021	HK2139058-121		<0.5	----	----	----	----
IM4-MF-S-2	28-Sep-2021	HK2139058-122		<0.5	----	----	----	----
IM4-MF-M-1	28-Sep-2021	HK2139058-123		0.7	----	----	----	----
IM4-MF-M-2	28-Sep-2021	HK2139058-124		0.6	----	----	----	----
IM4-MF-B-1	28-Sep-2021	HK2139058-125		0.7	----	----	----	----
IM4-MF-B-2	28-Sep-2021	HK2139058-126		0.9	----	----	----	----
IM5-MF-S-1	28-Sep-2021	HK2139058-127		0.9	----	----	----	----
IM5-MF-S-2	28-Sep-2021	HK2139058-128		0.5	----	----	----	----
IM5-MF-M-1	28-Sep-2021	HK2139058-129		1.5	----	----	----	----
IM5-MF-M-2	28-Sep-2021	HK2139058-130		0.7	----	----	----	----
IM5-MF-B-1	28-Sep-2021	HK2139058-131		0.9	----	----	----	----
IM5-MF-B-2	28-Sep-2021	HK2139058-132		1.6	----	----	----	----
IM6-MF-S-1	28-Sep-2021	HK2139058-133		0.8	----	----	----	----
IM6-MF-S-2	28-Sep-2021	HK2139058-134		0.6	----	----	----	----

Sub-Matrix: **MARINE WATER**

	Compound	EA025: Suspended Solids (SS)	----	----	----	----
	LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	----	----	----	----
IM6-MF-M-1	28-Sep-2021	HK2139058-135	<0.5	----	----	----	----
IM6-MF-M-2	28-Sep-2021	HK2139058-136	<0.5	----	----	----	----
IM6-MF-B-1	28-Sep-2021	HK2139058-137	<0.5	----	----	----	----
IM6-MF-B-2	28-Sep-2021	HK2139058-138	<0.5	----	----	----	----
IM7-MF-S-1	28-Sep-2021	HK2139058-139	<0.5	----	----	----	----
IM7-MF-S-2	28-Sep-2021	HK2139058-140	<0.5	----	----	----	----
IM7-MF-M-1	28-Sep-2021	HK2139058-141	<0.5	----	----	----	----
IM7-MF-M-2	28-Sep-2021	HK2139058-142	<0.5	----	----	----	----
IM7-MF-B-1	28-Sep-2021	HK2139058-143	**0.5**	----	----	----	----
IM7-MF-B-2	28-Sep-2021	HK2139058-144	**0.7**	----	----	----	----
G2-MF-S-1	28-Sep-2021	HK2139058-145	<0.5	----	----	----	----
G2-MF-S-2	28-Sep-2021	HK2139058-146	<0.5	----	----	----	----
G2-MF-M-1	28-Sep-2021	HK2139058-147	**0.9**	----	----	----	----
G2-MF-M-2	28-Sep-2021	HK2139058-148	**0.5**	----	----	----	----
G2-MF-B-1	28-Sep-2021	HK2139058-149	**0.9**	----	----	----	----
G2-MF-B-2	28-Sep-2021	HK2139058-150	**1.0**	----	----	----	----
G3-MF-S-1	28-Sep-2021	HK2139058-151	**0.7**	----	----	----	----
G3-MF-S-2	28-Sep-2021	HK2139058-152	**1.0**	----	----	----	----
G3-MF-M-1	28-Sep-2021	HK2139058-153	**0.6**	----	----	----	----
G3-MF-M-2	28-Sep-2021	HK2139058-154	**0.5**	----	----	----	----
G3-MF-B-1	28-Sep-2021	HK2139058-155	<0.5	----	----	----	----
G3-MF-B-2	28-Sep-2021	HK2139058-156	<0.5	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3929242)								
HK2139058-001	C1-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.8	0.8	0.0
HK2139058-011	IM1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.0	1.2	13.6
EA/ED: Physical and Aggregate Properties (QC Lot: 3929243)								
HK2139058-023	G1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.1	2.4	13.3
HK2139058-033	F1-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.6	0.7	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3929244)								
HK2139058-043	IM4-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.4	1.5	10.3
HK2139058-053	IM5-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	<0.5	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3929245)								
HK2139058-063	IM7-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.7	0.8	13.8
HK2139058-073	G3-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.3	1.2	12.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3929246)								
HK2139058-083	C1-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.7	0.6	0.0
HK2139058-095	IM2-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.4	1.6	11.6
EA/ED: Physical and Aggregate Properties (QC Lot: 3929247)								
HK2139058-108	E1-MF-B-2	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.8	0.8	0.0
HK2139058-115	IM3-MF-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.2	1.1	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3929248)								
HK2139058-125	IM4-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	0.7	0.6	0.0
HK2139058-135	IM6-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	<0.5	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3929249)								
HK2139058-145	G2-MF-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	<0.5	0.0
HK2139058-155	G3-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	<0.5	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3929242)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929243)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	106	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929244)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	100	----	85.9	117	----	----

Matrix: **WATER**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3929245)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	103	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929246)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	94.5	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929247)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929248)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	96.5	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3929249)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	98.0	----	85.9	117	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	:	ENOVATIVE ENVIRONMENTAL SERVICE LTD	*Laboratory*	:	ALS Technichem (HK) Pty Ltd	*Page*	: 1 of 9
Contact	:	MR THOMAS WONG	*Contact*	:	Richard Fung	*Work Order*	: **HK2139411**
Address	:	FLAT 2207, YU FUN HSE, YU CHUI COURT, SHATIN, N.T. HONG KONG	*Address*	:	11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	:	thomas.wong@eno.com.hk	*E-mail*	:	richard.fung@alsglobal.com		
Telephone	:	----	*Telephone*	:	+852 2610 1044		
Facsimile	:	----	*Facsimile*	:	+852 2610 2021		
Project	:	HKA SUBMARINE CABLE – CHUNG HOM KOK				*Date received*	: 30-Sep-2021
Order number	:	—	*Quote number*	:	HKE/1236/2021	*Date of issue*	: 06-Oct-2021
C-O-C number	:	—				*No. of samples*	- *Received* : 152
Site	:	—					- *Analysed* : 152

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory	*Position*	*Authorised results for:*
		
Fung Lim Chee, Richard	**Managing Director**	**Inorganics**

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 30-Sep-2021 to 06-Oct-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order HK2139411 :

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	----	----	----	----
C1-ME-S-1	30-Sep-2021	HK2139411-001		3.0	----	----	----	----
C1-ME-S-2	30-Sep-2021	HK2139411-002		2.7	----	----	----	----
C1-ME-M-1	30-Sep-2021	HK2139411-003		2.3	----	----	----	----
C1-ME-M-2	30-Sep-2021	HK2139411-004		2.1	----	----	----	----
C1-ME-B-1	30-Sep-2021	HK2139411-005		1.4	----	----	----	----
C1-ME-B-2	30-Sep-2021	HK2139411-006		1.2	----	----	----	----
IM1-ME-S-1	30-Sep-2021	HK2139411-007		2.2	----	----	----	----
IM1-ME-S-2	30-Sep-2021	HK2139411-008		2.4	----	----	----	----
IM1-ME-M-1	30-Sep-2021	HK2139411-009		2.9	----	----	----	----
IM1-ME-M-2	30-Sep-2021	HK2139411-010		2.6	----	----	----	----
IM1-ME-B-1	30-Sep-2021	HK2139411-011		3.6	----	----	----	----
IM1-ME-B-2	30-Sep-2021	HK2139411-012		3.3	----	----	----	----
IM2-ME-S-1	30-Sep-2021	HK2139411-013		3.0	----	----	----	----
IM2-ME-S-2	30-Sep-2021	HK2139411-014		2.6	----	----	----	----
IM2-ME-B-1	30-Sep-2021	HK2139411-017		3.6	----	----	----	----
IM2-ME-B-2	30-Sep-2021	HK2139411-018		4.0	----	----	----	----
G1-ME-S-1	30-Sep-2021	HK2139411-019		2.9	----	----	----	----
G1-ME-S-2	30-Sep-2021	HK2139411-020		3.2	----	----	----	----
G1-ME-M-1	30-Sep-2021	HK2139411-021		3.6	----	----	----	----
G1-ME-M-2	30-Sep-2021	HK2139411-022		4.0	----	----	----	----
G1-ME-B-1	30-Sep-2021	HK2139411-023		4.8	----	----	----	----
G1-ME-B-2	30-Sep-2021	HK2139411-024		4.5	----	----	----	----
E1-ME-S-1	30-Sep-2021	HK2139411-025		0.6	----	----	----	----
E1-ME-S-2	30-Sep-2021	HK2139411-026		0.8	----	----	----	----
E1-ME-M-1	30-Sep-2021	HK2139411-027		1.2	----	----	----	----
E1-ME-M-2	30-Sep-2021	HK2139411-028		1.5	----	----	----	----
E1-ME-B-1	30-Sep-2021	HK2139411-029		2.1	----	----	----	----
E1-ME-B-2	30-Sep-2021	HK2139411-030		2.4	----	----	----	----
F1-ME-S-1	30-Sep-2021	HK2139411-031		3.3	----	----	----	----
F1-ME-S-2	30-Sep-2021	HK2139411-032		3.6	----	----	----	----
F1-ME-M-1	30-Sep-2021	HK2139411-033		2.8	----	----	----	----

Sub-Matrix: **MARINE WATER**

Sample ID	Sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
				EA/ED: Physical and Aggregate Properties	----	----	----	----
F1-ME-M-2	30-Sep-2021	HK2139411-034		2.6	----	----	----	----
F1-ME-B-1	30-Sep-2021	HK2139411-035		1.6	----	----	----	----
F1-ME-B-2	30-Sep-2021	HK2139411-036		1.9	----	----	----	----
IM3-ME-S-1	30-Sep-2021	HK2139411-037		0.7	----	----	----	----
IM3-ME-S-2	30-Sep-2021	HK2139411-038		0.8	----	----	----	----
IM3-ME-M-1	30-Sep-2021	HK2139411-039		1.5	----	----	----	----
IM3-ME-M-2	30-Sep-2021	HK2139411-040		1.8	----	----	----	----
IM3-ME-B-1	30-Sep-2021	HK2139411-041		2.3	----	----	----	----
IM3-ME-B-2	30-Sep-2021	HK2139411-042		2.6	----	----	----	----
IM4-ME-S-1	30-Sep-2021	HK2139411-043		3.1	----	----	----	----
IM4-ME-S-2	30-Sep-2021	HK2139411-044		2.7	----	----	----	----
IM4-ME-M-1	30-Sep-2021	HK2139411-045		2.3	----	----	----	----
IM4-ME-M-2	30-Sep-2021	HK2139411-046		2.5	----	----	----	----
IM4-ME-B-1	30-Sep-2021	HK2139411-047		1.6	----	----	----	----
IM4-ME-B-2	30-Sep-2021	HK2139411-048		1.8	----	----	----	----
IM5-ME-S-1	30-Sep-2021	HK2139411-049		2.6	----	----	----	----
IM5-ME-S-2	30-Sep-2021	HK2139411-050		2.8	----	----	----	----
IM5-ME-M-1	30-Sep-2021	HK2139411-051		2.4	----	----	----	----
IM5-ME-M-2	30-Sep-2021	HK2139411-052		2.2	----	----	----	----
IM5-ME-B-1	30-Sep-2021	HK2139411-053		1.6	----	----	----	----
IM5-ME-B-2	30-Sep-2021	HK2139411-054		1.4	----	----	----	----
IM6-ME-S-1	30-Sep-2021	HK2139411-055		2.4	----	----	----	----
IM6-ME-S-2	30-Sep-2021	HK2139411-056		2.1	----	----	----	----
IM6-ME-M-1	30-Sep-2021	HK2139411-057		2.9	----	----	----	----
IM6-ME-M-2	30-Sep-2021	HK2139411-058		2.6	----	----	----	----
IM6-ME-B-1	30-Sep-2021	HK2139411-059		3.1	----	----	----	----
IM6-ME-B-2	30-Sep-2021	HK2139411-060		3.4	----	----	----	----
IM7-ME-S-1	30-Sep-2021	HK2139411-061		2.4	----	----	----	----
IM7-ME-S-2	30-Sep-2021	HK2139411-062		2.1	----	----	----	----
IM7-ME-M-1	30-Sep-2021	HK2139411-063		2.8	----	----	----	----
IM7-ME-M-2	30-Sep-2021	HK2139411-064		2.5	----	----	----	----
IM7-ME-B-1	30-Sep-2021	HK2139411-065		2.6	----	----	----	----
IM7-ME-B-2	30-Sep-2021	HK2139411-066		3.0	----	----	----	----

Sub-Matrix: **MARINE WATER**

			Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	----	----	----	----
G2-ME-S-1	30-Sep-2021	HK2139411-067		3.2	----	----	----	----
G2-ME-S-2	30-Sep-2021	HK2139411-068		2.8	----	----	----	----
G2-ME-M-1	30-Sep-2021	HK2139411-069		2.6	----	----	----	----
G2-ME-M-2	30-Sep-2021	HK2139411-070		2.4	----	----	----	----
G2-ME-B-1	30-Sep-2021	HK2139411-071		1.3	----	----	----	----
G2-ME-B-2	30-Sep-2021	HK2139411-072		1.5	----	----	----	----
G3-ME-S-1	30-Sep-2021	HK2139411-073		2.2	----	----	----	----
G3-ME-S-2	30-Sep-2021	HK2139411-074		2.4	----	----	----	----
G3-ME-M-1	30-Sep-2021	HK2139411-075		1.5	----	----	----	----
G3-ME-M-2	30-Sep-2021	HK2139411-076		1.4	----	----	----	----
G3-ME-B-1	30-Sep-2021	HK2139411-077		0.9	----	----	----	----
G3-ME-B-2	30-Sep-2021	HK2139411-078		0.7	----	----	----	----
C1-MF-S-1	30-Sep-2021	HK2139411-079		2.5	----	----	----	----
C1-MF-S-2	30-Sep-2021	HK2139411-080		2.4	----	----	----	----
C1-MF-M-1	30-Sep-2021	HK2139411-081		2.7	----	----	----	----
C1-MF-M-2	30-Sep-2021	HK2139411-082		2.9	----	----	----	----
C1-MF-B-1	30-Sep-2021	HK2139411-083		2.9	----	----	----	----
C1-MF-B-2	30-Sep-2021	HK2139411-084		3.2	----	----	----	----
IM1-MF-S-1	30-Sep-2021	HK2139411-085		2.3	----	----	----	----
IM1-MF-S-2	30-Sep-2021	HK2139411-086		2.0	----	----	----	----
IM1-MF-M-1	30-Sep-2021	HK2139411-087		2.4	----	----	----	----
IM1-MF-M-2	30-Sep-2021	HK2139411-088		2.7	----	----	----	----
IM1-MF-B-1	30-Sep-2021	HK2139411-089		2.8	----	----	----	----
IM1-MF-B-2	30-Sep-2021	HK2139411-090		3.2	----	----	----	----
IM2-MF-S-1	30-Sep-2021	HK2139411-091		2.8	----	----	----	----
IM2-MF-S-2	30-Sep-2021	HK2139411-092		3.0	----	----	----	----
IM2-MF-B-1	30-Sep-2021	HK2139411-095		3.8	----	----	----	----
IM2-MF-B-2	30-Sep-2021	HK2139411-096		4.1	----	----	----	----
G1-MF-S-1	30-Sep-2021	HK2139411-097		2.6	----	----	----	----
G1-MF-S-2	30-Sep-2021	HK2139411-098		2.7	----	----	----	----
G1-MF-M-1	30-Sep-2021	HK2139411-099		3.4	----	----	----	----
G1-MF-M-2	30-Sep-2021	HK2139411-100		3.0	----	----	----	----
G1-MF-B-1	30-Sep-2021	HK2139411-101		3.6	----	----	----	----

Sub-Matrix: **MARINE WATER**

	Compound	EA025: Suspended Solids (SS)	----	----	----	----
	LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	----	----	----	----
G1-MF-B-2	30-Sep-2021	HK2139411-102	3.4	----	----	----	----
E1-MF-S-1	30-Sep-2021	HK2139411-103	3.2	----	----	----	----
E1-MF-S-2	30-Sep-2021	HK2139411-104	2.9	----	----	----	----
E1-MF-M-1	30-Sep-2021	HK2139411-105	2.8	----	----	----	----
E1-MF-M-2	30-Sep-2021	HK2139411-106	2.6	----	----	----	----
E1-MF-B-1	30-Sep-2021	HK2139411-107	2.3	----	----	----	----
E1-MF-B-2	30-Sep-2021	HK2139411-108	2.1	----	----	----	----
F1-MF-S-1	30-Sep-2021	HK2139411-109	4.1	----	----	----	----
F1-MF-S-2	30-Sep-2021	HK2139411-110	3.8	----	----	----	----
F1-MF-M-1	30-Sep-2021	HK2139411-111	3.6	----	----	----	----
F1-MF-M-2	30-Sep-2021	HK2139411-112	3.3	----	----	----	----
F1-MF-B-1	30-Sep-2021	HK2139411-113	2.5	----	----	----	----
F1-MF-B-2	30-Sep-2021	HK2139411-114	2.7	----	----	----	----
IM3-MF-S-1	30-Sep-2021	HK2139411-115	3.3	----	----	----	----
IM3-MF-S-2	30-Sep-2021	HK2139411-116	2.8	----	----	----	----
IM3-MF-M-1	30-Sep-2021	HK2139411-117	2.6	----	----	----	----
IM3-MF-M-2	30-Sep-2021	HK2139411-118	2.4	----	----	----	----
IM3-MF-B-1	30-Sep-2021	HK2139411-119	1.9	----	----	----	----
IM3-MF-B-2	30-Sep-2021	HK2139411-120	1.8	----	----	----	----
IM4-MF-S-1	30-Sep-2021	HK2139411-121	3.7	----	----	----	----
IM4-MF-S-2	30-Sep-2021	HK2139411-122	3.4	----	----	----	----
IM4-MF-M-1	30-Sep-2021	HK2139411-123	2.5	----	----	----	----
IM4-MF-M-2	30-Sep-2021	HK2139411-124	2.2	----	----	----	----
IM4-MF-B-1	30-Sep-2021	HK2139411-125	1.6	----	----	----	----
IM4-MF-B-2	30-Sep-2021	HK2139411-126	1.8	----	----	----	----
IM5-MF-S-1	30-Sep-2021	HK2139411-127	1.5	----	----	----	----
IM5-MF-S-2	30-Sep-2021	HK2139411-128	1.3	----	----	----	----
IM5-MF-M-1	30-Sep-2021	HK2139411-129	2.6	----	----	----	----
IM5-MF-M-2	30-Sep-2021	HK2139411-130	2.2	----	----	----	----
IM5-MF-B-1	30-Sep-2021	HK2139411-131	3.0	----	----	----	----
IM5-MF-B-2	30-Sep-2021	HK2139411-132	2.6	----	----	----	----
IM6-MF-S-1	30-Sep-2021	HK2139411-133	3.4	----	----	----	----
IM6-MF-S-2	30-Sep-2021	HK2139411-134	3.8	----	----	----	----

Sub-Matrix: **MARINE WATER**

	Compound	EA025: Suspended Solids (SS)	----	----	----	----
	LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	----	----	----	----
IM6-MF-M-1	30-Sep-2021	HK2139411-135	2.9	----	----	----	----
IM6-MF-M-2	30-Sep-2021	HK2139411-136	2.7	----	----	----	----
IM6-MF-B-1	30-Sep-2021	HK2139411-137	2.5	----	----	----	----
IM6-MF-B-2	30-Sep-2021	HK2139411-138	2.3	----	----	----	----
IM7-MF-S-1	30-Sep-2021	HK2139411-139	1.4	----	----	----	----
IM7-MF-S-2	30-Sep-2021	HK2139411-140	1.1	----	----	----	----
IM7-MF-M-1	30-Sep-2021	HK2139411-141	1.6	----	----	----	----
IM7-MF-M-2	30-Sep-2021	HK2139411-142	1.8	----	----	----	----
IM7-MF-B-1	30-Sep-2021	HK2139411-143	2.4	----	----	----	----
IM7-MF-B-2	30-Sep-2021	HK2139411-144	2.2	----	----	----	----
G2-MF-S-1	30-Sep-2021	HK2139411-145	2.8	----	----	----	----
G2-MF-S-2	30-Sep-2021	HK2139411-146	3.2	----	----	----	----
G2-MF-M-1	30-Sep-2021	HK2139411-147	3.5	----	----	----	----
G2-MF-M-2	30-Sep-2021	HK2139411-148	3.7	----	----	----	----
G2-MF-B-1	30-Sep-2021	HK2139411-149	4.2	----	----	----	----
G2-MF-B-2	30-Sep-2021	HK2139411-150	4.0	----	----	----	----
G3-MF-S-1	30-Sep-2021	HK2139411-151	2.6	----	----	----	----
G3-MF-S-2	30-Sep-2021	HK2139411-152	2.6	----	----	----	----
G3-MF-M-1	30-Sep-2021	HK2139411-153	2.2	----	----	----	----
G3-MF-M-2	30-Sep-2021	HK2139411-154	2.3	----	----	----	----
G3-MF-B-1	30-Sep-2021	HK2139411-155	1.2	----	----	----	----
G3-MF-B-2	30-Sep-2021	HK2139411-156	1.4	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3936787)								
HK2139411-001	C1-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.0	3.3	8.8
HK2139411-011	IM1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.6	4.0	10.6
EA/ED: Physical and Aggregate Properties (QC Lot: 3936788)								
HK2139411-023	G1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.8	5.0	5.1
HK2139411-033	F1-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	2.5	11.2
EA/ED: Physical and Aggregate Properties (QC Lot: 3936789)								
HK2139411-043	IM4-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.1	3.3	6.2
HK2139411-053	IM5-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.6	1.8	10.4
EA/ED: Physical and Aggregate Properties (QC Lot: 3936790)								
HK2139411-063	IM7-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	2.6	6.5
HK2139411-073	G3-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.2	2.5	14.1
EA/ED: Physical and Aggregate Properties (QC Lot: 3936791)								
HK2139411-083	C1-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.9	3.1	8.3
HK2139411-095	IM2-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.8	4.0	7.7
EA/ED: Physical and Aggregate Properties (QC Lot: 3936792)								
HK2139411-105	E1-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	2.6	7.5
HK2139411-115	IM3-MF-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.3	3.1	7.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3936793)								
HK2139411-125	IM4-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.6	1.4	15.1
HK2139411-135	IM6-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.9	3.0	5.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3936794)								
HK2139411-145	G2-MF-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	3.0	6.1
HK2139411-155	G3-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.2	1.2	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3936787)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	106	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936788)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	103	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936789)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	107	----	85.9	117	----	----

Matrix: **WATER**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3936790)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	101	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936791)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	96.0	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936792)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	106	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936793)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	104	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936794)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	98.0	----	85.9	117	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	:	ENOVATIVE ENVIRONMENTAL SERVICE LTD	*Laboratory*	:	ALS Technichem (HK) Pty Ltd	*Page*	: 1 of 9
Contact	:	MR THOMAS WONG	*Contact*	:	Richard Fung	*Work Order*	: **HK2139415**
Address	:	FLAT 2207, YU FUN HSE, YU CHUI COURT, SHATIN, N.T. HONG KONG	*Address*	:	11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	:	thomas.wong@eno.com.hk	*E-mail*	:	richard.fung@alsglobal.com		
Telephone	:	----	*Telephone*	:	+852 2610 1044		
Facsimile	:	----	*Facsimile*	:	+852 2610 2021		
Project	:	HKA SUBMARINE CABLE – CHUNG HOM KOK				*Date received*	: 02-Oct-2021
Order number	:	—	*Quote number*	:	HKE/1236/2021	*Date of issue*	: 06-Oct-2021
C-O-C number	:	—				*No. of samples*	- *Received* : 152
Site	:	—					- *Analysed* : 152

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory	*Position*	*Authorised results for:*
		
Fung Lim Chee, Richard	**Managing Director**	**Inorganics**

General Comments

This report supersedes any previous report(s) with this reference. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 02-Oct-2021 to 06-Oct-2021.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order HK2139415 :

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Analytical Results

Sub-Matrix: **MARINE WATER**

Sample ID	Sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
				EA/ED: Physical and Aggregate Properties	----	----	----	----
C1-ME-S-1	02-Oct-2021	HK2139415-001		4.2	----	----	----	----
C1-ME-S-2	02-Oct-2021	HK2139415-002		4.4	----	----	----	----
C1-ME-M-1	02-Oct-2021	HK2139415-003		3.6	----	----	----	----
C1-ME-M-2	02-Oct-2021	HK2139415-004		3.3	----	----	----	----
C1-ME-B-1	02-Oct-2021	HK2139415-005		2.4	----	----	----	----
C1-ME-B-2	02-Oct-2021	HK2139415-006		2.4	----	----	----	----
IM1-ME-S-1	02-Oct-2021	HK2139415-007		5.5	----	----	----	----
IM1-ME-S-2	02-Oct-2021	HK2139415-008		5.2	----	----	----	----
IM1-ME-M-1	02-Oct-2021	HK2139415-009		4.0	----	----	----	----
IM1-ME-M-2	02-Oct-2021	HK2139415-010		3.6	----	----	----	----
IM1-ME-B-1	02-Oct-2021	HK2139415-011		3.7	----	----	----	----
IM1-ME-B-2	02-Oct-2021	HK2139415-012		3.4	----	----	----	----
IM2-ME-S-1	02-Oct-2021	HK2139415-013		2.1	----	----	----	----
IM2-ME-S-2	02-Oct-2021	HK2139415-014		2.2	----	----	----	----
IM2-ME-B-1	02-Oct-2021	HK2139415-017		3.4	----	----	----	----
IM2-ME-B-2	02-Oct-2021	HK2139415-018		3.8	----	----	----	----
G1-ME-S-1	02-Oct-2021	HK2139415-019		2.7	----	----	----	----
G1-ME-S-2	02-Oct-2021	HK2139415-020		2.9	----	----	----	----
G1-ME-M-1	02-Oct-2021	HK2139415-021		2.9	----	----	----	----
G1-ME-M-2	02-Oct-2021	HK2139415-022		3.2	----	----	----	----
G1-ME-B-1	02-Oct-2021	HK2139415-023		4.0	----	----	----	----
G1-ME-B-2	02-Oct-2021	HK2139415-024		3.7	----	----	----	----
E1-ME-S-1	02-Oct-2021	HK2139415-025		2.2	----	----	----	----
E1-ME-S-2	02-Oct-2021	HK2139415-026		2.4	----	----	----	----
E1-ME-M-1	02-Oct-2021	HK2139415-027		2.8	----	----	----	----
E1-ME-M-2	02-Oct-2021	HK2139415-028		2.7	----	----	----	----
E1-ME-B-1	02-Oct-2021	HK2139415-029		3.2	----	----	----	----
E1-ME-B-2	02-Oct-2021	HK2139415-030		2.9	----	----	----	----
F1-ME-S-1	02-Oct-2021	HK2139415-031		2.0	----	----	----	----
F1-ME-S-2	02-Oct-2021	HK2139415-032		2.4	----	----	----	----
F1-ME-M-1	02-Oct-2021	HK2139415-033		2.8	----	----	----	----

Sub-Matrix: **MARINE WATER**

			Compound	EA025: Suspended Solids (SS)	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	----	----	----	----
F1-ME-M-2	02-Oct-2021	HK2139415-034		2.6	----	----	----	----
F1-ME-B-1	02-Oct-2021	HK2139415-035		3.7	----	----	----	----
F1-ME-B-2	02-Oct-2021	HK2139415-036		3.4	----	----	----	----
IM3-ME-S-1	02-Oct-2021	HK2139415-037		2.1	----	----	----	----
IM3-ME-S-2	02-Oct-2021	HK2139415-038		2.4	----	----	----	----
IM3-ME-M-1	02-Oct-2021	HK2139415-039		3.0	----	----	----	----
IM3-ME-M-2	02-Oct-2021	HK2139415-040		2.7	----	----	----	----
IM3-ME-B-1	02-Oct-2021	HK2139415-041		3.4	----	----	----	----
IM3-ME-B-2	02-Oct-2021	HK2139415-042		3.6	----	----	----	----
IM4-ME-S-1	02-Oct-2021	HK2139415-043		3.6	----	----	----	----
IM4-ME-S-2	02-Oct-2021	HK2139415-044		3.9	----	----	----	----
IM4-ME-M-1	02-Oct-2021	HK2139415-045		3.1	----	----	----	----
IM4-ME-M-2	02-Oct-2021	HK2139415-046		2.7	----	----	----	----
IM4-ME-B-1	02-Oct-2021	HK2139415-047		2.3	----	----	----	----
IM4-ME-B-2	02-Oct-2021	HK2139415-048		2.2	----	----	----	----
IM5-ME-S-1	02-Oct-2021	HK2139415-049		2.6	----	----	----	----
IM5-ME-S-2	02-Oct-2021	HK2139415-050		2.4	----	----	----	----
IM5-ME-M-1	02-Oct-2021	HK2139415-051		1.8	----	----	----	----
IM5-ME-M-2	02-Oct-2021	HK2139415-052		1.5	----	----	----	----
IM5-ME-B-1	02-Oct-2021	HK2139415-053		1.3	----	----	----	----
IM5-ME-B-2	02-Oct-2021	HK2139415-054		1.3	----	----	----	----
IM6-ME-S-1	02-Oct-2021	HK2139415-055		1.9	----	----	----	----
IM6-ME-S-2	02-Oct-2021	HK2139415-056		1.7	----	----	----	----
IM6-ME-M-1	02-Oct-2021	HK2139415-057		2.3	----	----	----	----
IM6-ME-M-2	02-Oct-2021	HK2139415-058		2.1	----	----	----	----
IM6-ME-B-1	02-Oct-2021	HK2139415-059		2.7	----	----	----	----
IM6-ME-B-2	02-Oct-2021	HK2139415-060		2.5	----	----	----	----
IM7-ME-S-1	02-Oct-2021	HK2139415-061		2.4	----	----	----	----
IM7-ME-S-2	02-Oct-2021	HK2139415-062		2.1	----	----	----	----
IM7-ME-M-1	02-Oct-2021	HK2139415-063		2.6	----	----	----	----
IM7-ME-M-2	02-Oct-2021	HK2139415-064		2.4	----	----	----	----
IM7-ME-B-1	02-Oct-2021	HK2139415-065		3.4	----	----	----	----
IM7-ME-B-2	02-Oct-2021	HK2139415-066		3.7	----	----	----	----

Sub-Matrix: **MARINE WATER**

Sample ID	*Sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**	----	----	----	----
			LOR Unit	0.5 mg/L	----	----	----	----
				EA/ED: Physical and Aggregate Properties	----	----	----	----
G2-ME-S-1	02-Oct-2021	HK2139415-067		**2.7**	----	----	----	----
G2-ME-S-2	02-Oct-2021	HK2139415-068		**2.7**	----	----	----	----
G2-ME-M-1	02-Oct-2021	HK2139415-069		**2.5**	----	----	----	----
G2-ME-M-2	02-Oct-2021	HK2139415-070		**2.3**	----	----	----	----
G2-ME-B-1	02-Oct-2021	HK2139415-071		**1.9**	----	----	----	----
G2-ME-B-2	02-Oct-2021	HK2139415-072		**1.8**	----	----	----	----
G3-ME-S-1	02-Oct-2021	HK2139415-073		**4.0**	----	----	----	----
G3-ME-S-2	02-Oct-2021	HK2139415-074		**3.7**	----	----	----	----
G3-ME-M-1	02-Oct-2021	HK2139415-075		**3.4**	----	----	----	----
G3-ME-M-2	02-Oct-2021	HK2139415-076		**3.6**	----	----	----	----
G3-ME-B-1	02-Oct-2021	HK2139415-077		**2.9**	----	----	----	----
G3-ME-B-2	02-Oct-2021	HK2139415-078		**2.7**	----	----	----	----
C1-MF-S-1	02-Oct-2021	HK2139415-079		**3.0**	----	----	----	----
C1-MF-S-2	02-Oct-2021	HK2139415-080		**3.4**	----	----	----	----
C1-MF-M-1	02-Oct-2021	HK2139415-081		**2.7**	----	----	----	----
C1-MF-M-2	02-Oct-2021	HK2139415-082		**2.5**	----	----	----	----
C1-MF-B-1	02-Oct-2021	HK2139415-083		**2.3**	----	----	----	----
C1-MF-B-2	02-Oct-2021	HK2139415-084		**2.6**	----	----	----	----
IM1-MF-S-1	02-Oct-2021	HK2139415-085		**3.1**	----	----	----	----
IM1-MF-S-2	02-Oct-2021	HK2139415-086		**2.9**	----	----	----	----
IM1-MF-M-1	02-Oct-2021	HK2139415-087		**3.2**	----	----	----	----
IM1-MF-M-2	02-Oct-2021	HK2139415-088		**3.5**	----	----	----	----
IM1-MF-B-1	02-Oct-2021	HK2139415-089		**4.5**	----	----	----	----
IM1-MF-B-2	02-Oct-2021	HK2139415-090		**4.7**	----	----	----	----
IM2-MF-S-1	02-Oct-2021	HK2139415-091		**3.3**	----	----	----	----
IM2-MF-S-2	02-Oct-2021	HK2139415-092		**3.5**	----	----	----	----
IM2-MF-B-1	02-Oct-2021	HK2139415-095		**2.7**	----	----	----	----
IM2-MF-B-2	02-Oct-2021	HK2139415-096		**2.4**	----	----	----	----
G1-MF-S-1	02-Oct-2021	HK2139415-097		**3.2**	----	----	----	----
G1-MF-S-2	02-Oct-2021	HK2139415-098		**2.8**	----	----	----	----
G1-MF-M-1	02-Oct-2021	HK2139415-099		**3.6**	----	----	----	----
G1-MF-M-2	02-Oct-2021	HK2139415-100		**3.9**	----	----	----	----
G1-MF-B-1	02-Oct-2021	HK2139415-101		**4.2**	----	----	----	----

Sub-Matrix: **MARINE WATER**

Compound	**EA025: Suspended Solids (SS)**	----	----	----	----
LOR Unit	0.5 mg/L	----	----	----	----
Sample ID / *Sampling date / time* / *Laboratory sample ID*	EA/ED: Physical and Aggregate Properties	----	----	----	----
G1-MF-B-2	02-Oct-2021	HK2139415-102	**4.0**	----	----	----	----
E1-MF-S-1	02-Oct-2021	HK2139415-103	**2.9**	----	----	----	----
E1-MF-S-2	02-Oct-2021	HK2139415-104	**3.1**	----	----	----	----
E1-MF-M-1	02-Oct-2021	HK2139415-105	**2.7**	----	----	----	----
E1-MF-M-2	02-Oct-2021	HK2139415-106	**2.9**	----	----	----	----
E1-MF-B-1	02-Oct-2021	HK2139415-107	**2.4**	----	----	----	----
E1-MF-B-2	02-Oct-2021	HK2139415-108	**2.7**	----	----	----	----
F1-MF-S-1	02-Oct-2021	HK2139415-109	**3.8**	----	----	----	----
F1-MF-S-2	02-Oct-2021	HK2139415-110	**3.4**	----	----	----	----
F1-MF-M-1	02-Oct-2021	HK2139415-111	**2.7**	----	----	----	----
F1-MF-M-2	02-Oct-2021	HK2139415-112	**3.1**	----	----	----	----
F1-MF-B-1	02-Oct-2021	HK2139415-113	**2.3**	----	----	----	----
F1-MF-B-2	02-Oct-2021	HK2139415-114	**2.3**	----	----	----	----
IM3-MF-S-1	02-Oct-2021	HK2139415-115	**3.5**	----	----	----	----
IM3-MF-S-2	02-Oct-2021	HK2139415-116	**3.3**	----	----	----	----
IM3-MF-M-1	02-Oct-2021	HK2139415-117	**3.6**	----	----	----	----
IM3-MF-M-2	02-Oct-2021	HK2139415-118	**4.0**	----	----	----	----
IM3-MF-B-1	02-Oct-2021	HK2139415-119	**4.8**	----	----	----	----
IM3-MF-B-2	02-Oct-2021	HK2139415-120	**4.4**	----	----	----	----
IM4-MF-S-1	02-Oct-2021	HK2139415-121	**1.4**	----	----	----	----
IM4-MF-S-2	02-Oct-2021	HK2139415-122	**1.5**	----	----	----	----
IM4-MF-M-1	02-Oct-2021	HK2139415-123	**2.1**	----	----	----	----
IM4-MF-M-2	02-Oct-2021	HK2139415-124	**2.4**	----	----	----	----
IM4-MF-B-1	02-Oct-2021	HK2139415-125	**3.3**	----	----	----	----
IM4-MF-B-2	02-Oct-2021	HK2139415-126	**3.2**	----	----	----	----
IM5-MF-S-1	02-Oct-2021	HK2139415-127	**2.4**	----	----	----	----
IM5-MF-S-2	02-Oct-2021	HK2139415-128	**2.2**	----	----	----	----
IM5-MF-M-1	02-Oct-2021	HK2139415-129	**2.7**	----	----	----	----
IM5-MF-M-2	02-Oct-2021	HK2139415-130	**2.9**	----	----	----	----
IM5-MF-B-1	02-Oct-2021	HK2139415-131	**3.6**	----	----	----	----
IM5-MF-B-2	02-Oct-2021	HK2139415-132	**3.9**	----	----	----	----
IM6-MF-S-1	02-Oct-2021	HK2139415-133	**3.7**	----	----	----	----
IM6-MF-S-2	02-Oct-2021	HK2139415-134	**3.4**	----	----	----	----

Sub-Matrix: **MARINE WATER**

	Compound	EA025: Suspended Solids (SS)	----	----	----	----
	LOR Unit	0.5 mg/L	----	----	----	----
Sample ID	Sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	----	----	----	----
IM6-MF-M-1	02-Oct-2021	HK2139415-135	3.0	----	----	----	----
IM6-MF-M-2	02-Oct-2021	HK2139415-136	2.5	----	----	----	----
IM6-MF-B-1	02-Oct-2021	HK2139415-137	1.8	----	----	----	----
IM6-MF-B-2	02-Oct-2021	HK2139415-138	1.7	----	----	----	----
IM7-MF-S-1	02-Oct-2021	HK2139415-139	1.4	----	----	----	----
IM7-MF-S-2	02-Oct-2021	HK2139415-140	1.8	----	----	----	----
IM7-MF-M-1	02-Oct-2021	HK2139415-141	2.4	----	----	----	----
IM7-MF-M-2	02-Oct-2021	HK2139415-142	2.2	----	----	----	----
IM7-MF-B-1	02-Oct-2021	HK2139415-143	3.0	----	----	----	----
IM7-MF-B-2	02-Oct-2021	HK2139415-144	3.4	----	----	----	----
G2-MF-S-1	02-Oct-2021	HK2139415-145	3.9	----	----	----	----
G2-MF-S-2	02-Oct-2021	HK2139415-146	4.2	----	----	----	----
G2-MF-M-1	02-Oct-2021	HK2139415-147	2.8	----	----	----	----
G2-MF-M-2	02-Oct-2021	HK2139415-148	2.5	----	----	----	----
G2-MF-B-1	02-Oct-2021	HK2139415-149	2.4	----	----	----	----
G2-MF-B-2	02-Oct-2021	HK2139415-150	2.1	----	----	----	----
G3-MF-S-1	02-Oct-2021	HK2139415-151	3.0	----	----	----	----
G3-MF-S-2	02-Oct-2021	HK2139415-152	2.7	----	----	----	----
G3-MF-M-1	02-Oct-2021	HK2139415-153	3.2	----	----	----	----
G3-MF-M-2	02-Oct-2021	HK2139415-154	3.6	----	----	----	----
G3-MF-B-1	02-Oct-2021	HK2139415-155	4.4	----	----	----	----
G3-MF-B-2	02-Oct-2021	HK2139415-156	4.6	----	----	----	----

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 3936795)								
HK2139415-001	C1-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.2	4.0	5.5
HK2139415-011	IM1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.7	3.6	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 3936796)								
HK2139415-023	G1-ME-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.0	3.6	8.5
HK2139415-033	F1-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	2.7	5.4
EA/ED: Physical and Aggregate Properties (QC Lot: 3936797)								
HK2139415-043	IM4-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.6	3.8	6.0
HK2139415-054	IM5-ME-B-2	EA025: Suspended Solids (SS)	----	0.5	mg/L	1.3	1.1	18.9
EA/ED: Physical and Aggregate Properties (QC Lot: 3936798)								
HK2139415-063	IM7-ME-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.6	2.9	10.8
HK2139415-073	G3-ME-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.0	4.3	7.2
EA/ED: Physical and Aggregate Properties (QC Lot: 3936799)								
HK2139415-083	C1-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.3	2.6	10.3
HK2139415-095	IM2-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.7	2.5	8.6
EA/ED: Physical and Aggregate Properties (QC Lot: 3936800)								
HK2139415-105	E1-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.7	2.5	7.6
HK2139415-115	IM3-MF-S-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.5	3.8	7.5
EA/ED: Physical and Aggregate Properties (QC Lot: 3936801)								
HK2139415-126	IM4-MF-B-2	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.2	2.9	9.1
HK2139415-135	IM6-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	3.0	2.7	7.9
EA/ED: Physical and Aggregate Properties (QC Lot: 3936802)								
HK2139415-147	G2-MF-M-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	2.8	3.0	6.1
HK2139415-155	G3-MF-B-1	EA025: Suspended Solids (SS)	----	0.5	mg/L	4.4	4.1	6.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3936795)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	97.0	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936796)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	105	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936797)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.9	117	----	----

Matrix: **WATER**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 3936798)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	108	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936799)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936800)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	104	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936801)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.9	117	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 3936802)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	106	----	85.9	117	----	----

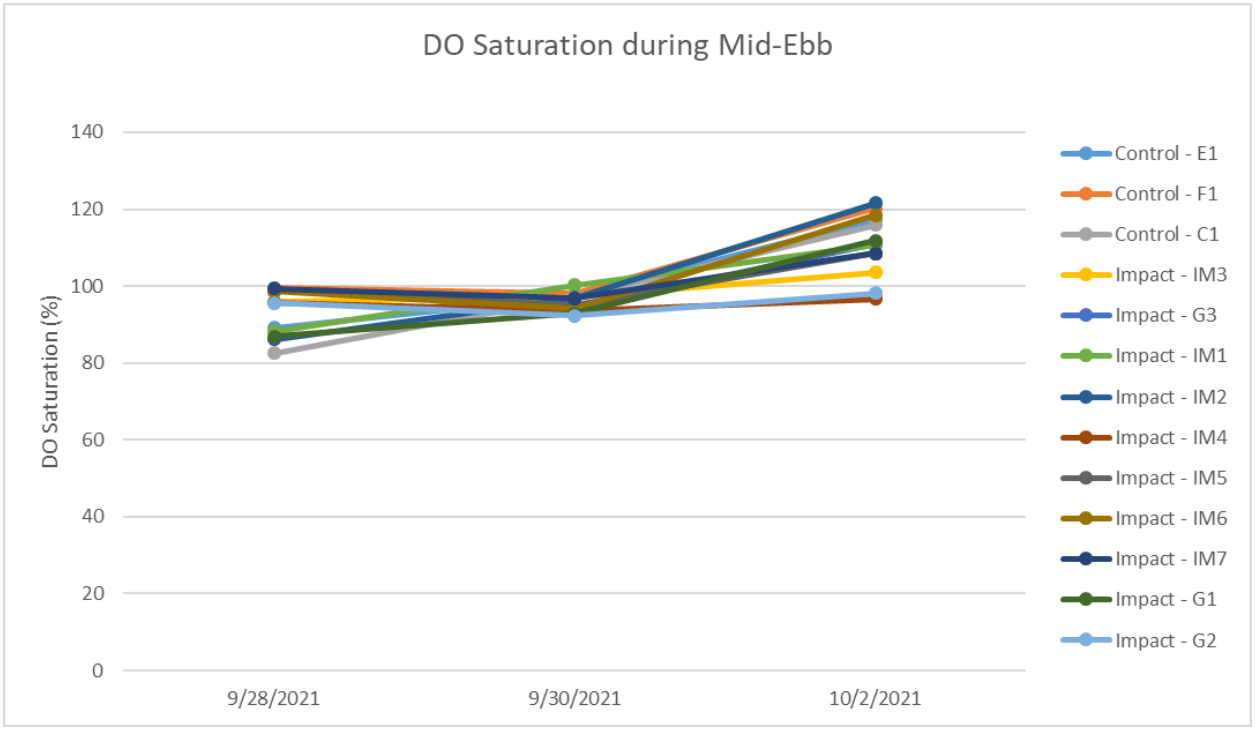
Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

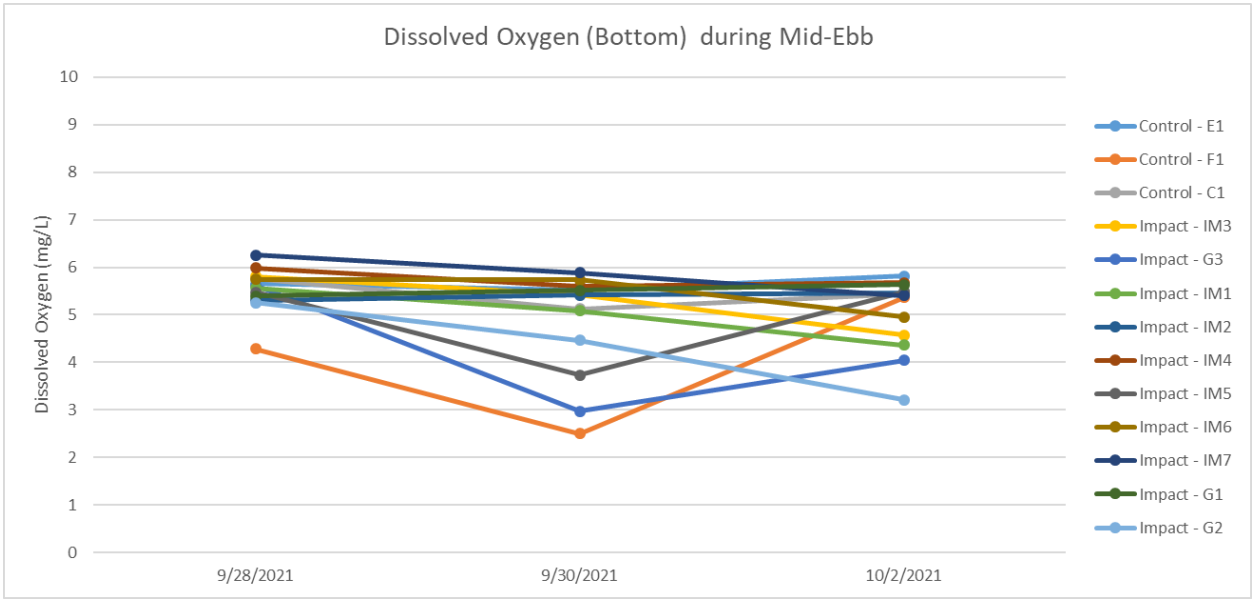
- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

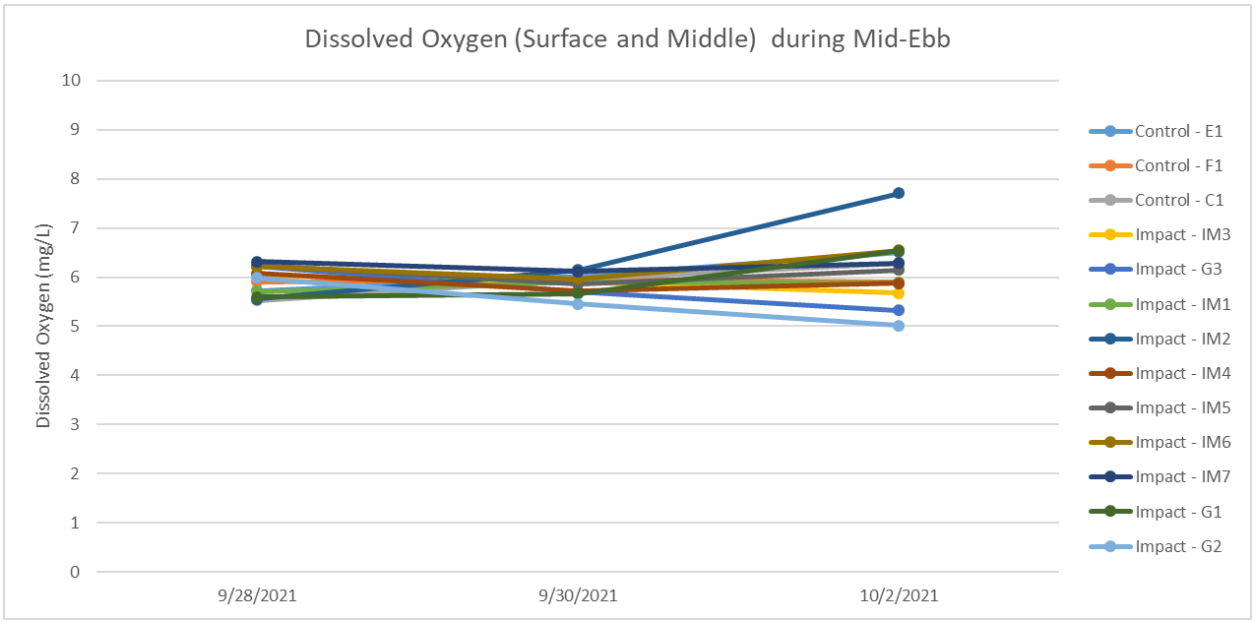
APPENDIX D POST PROJECT WATER QUALITY MONITORING RESULTS

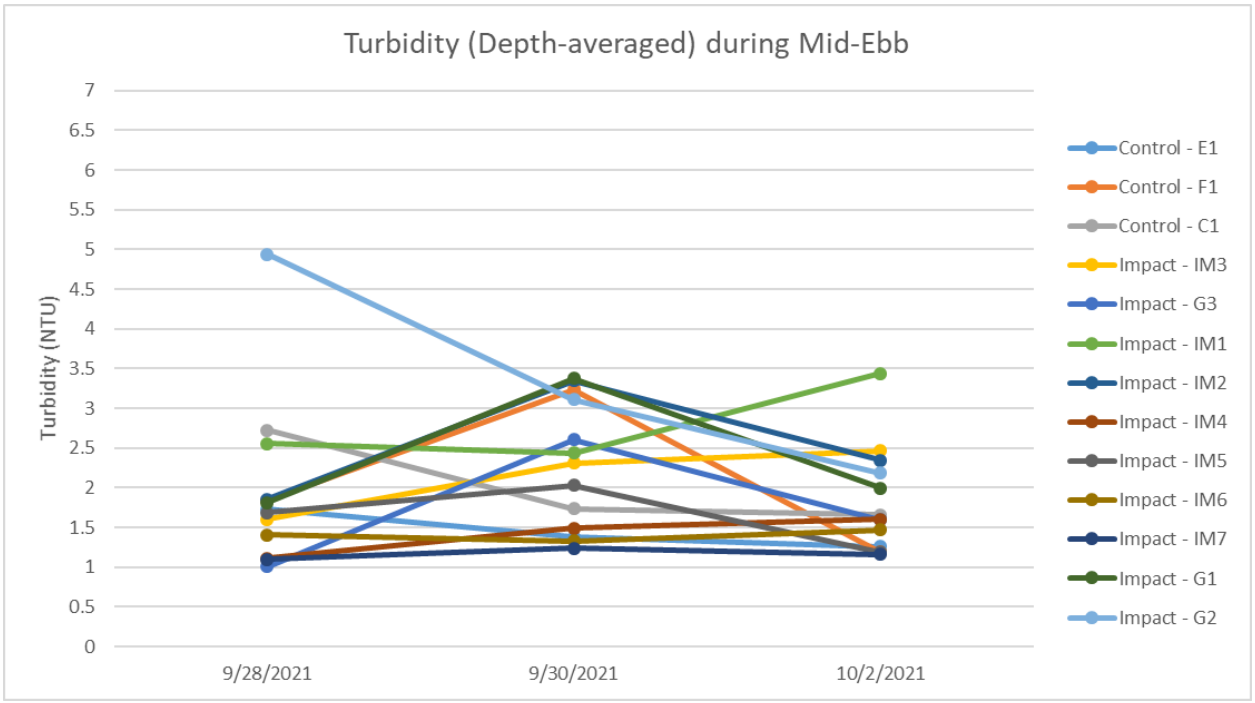
Graphical presentation of the Impact monitoring result for Zone A

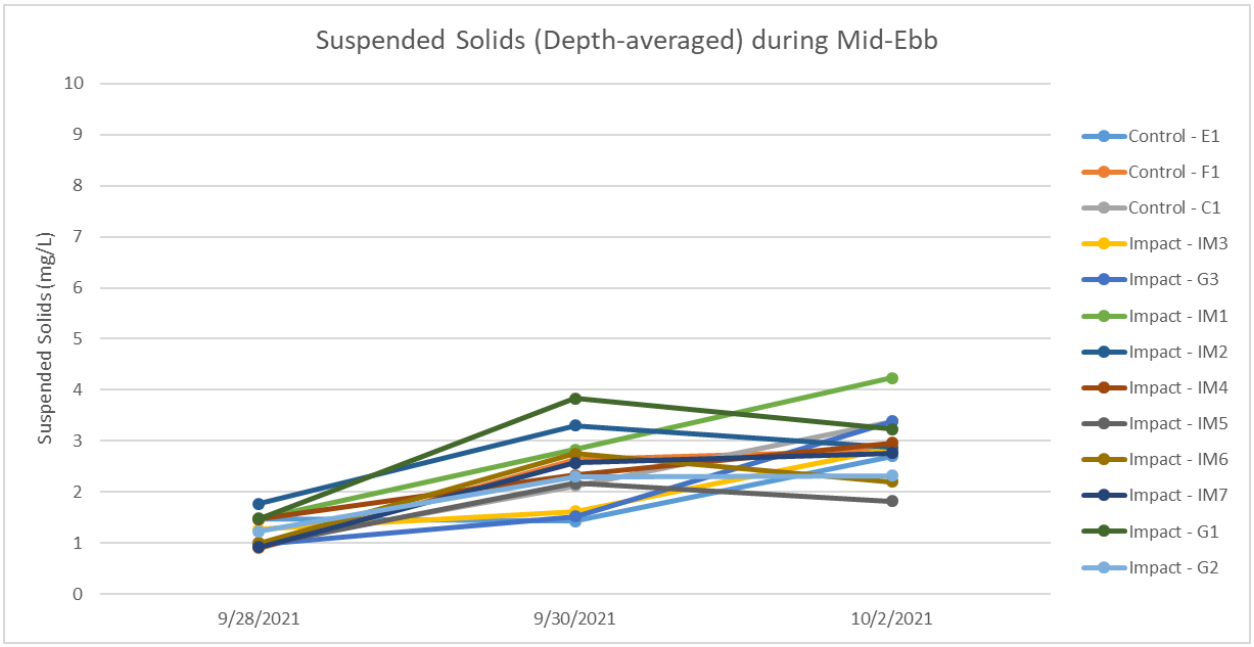
During Mid-Ebb



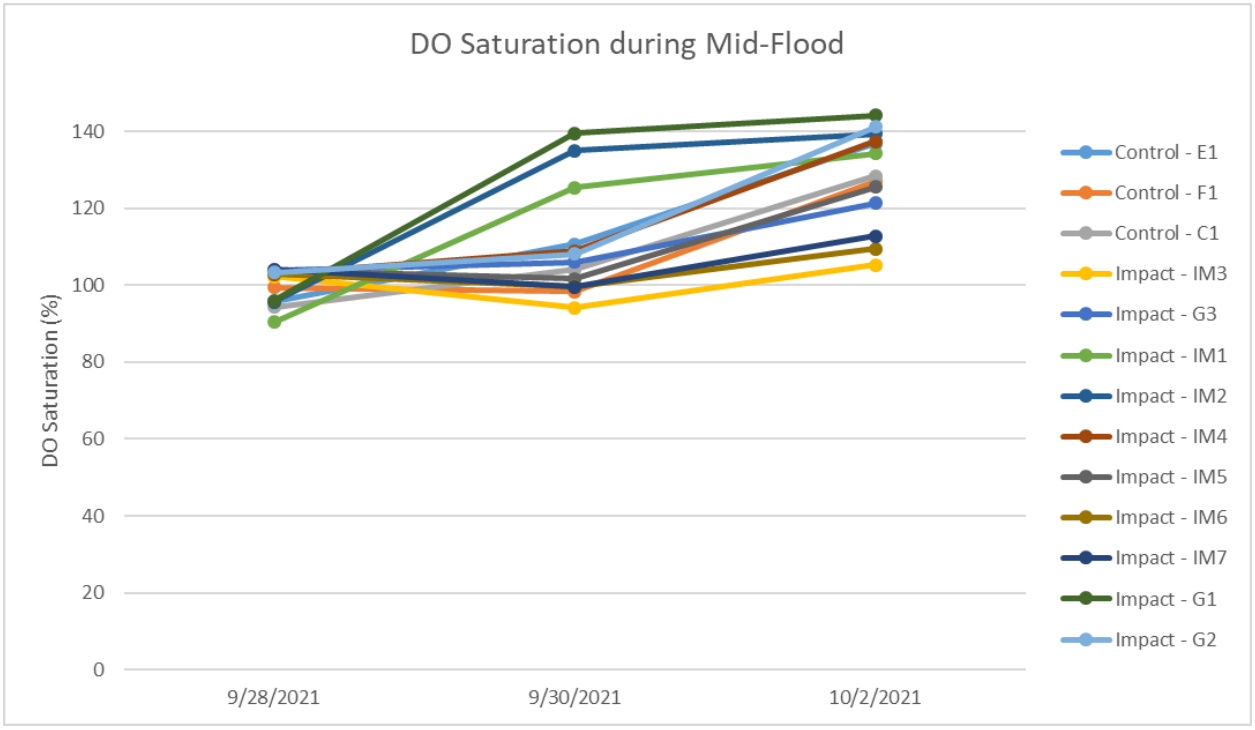


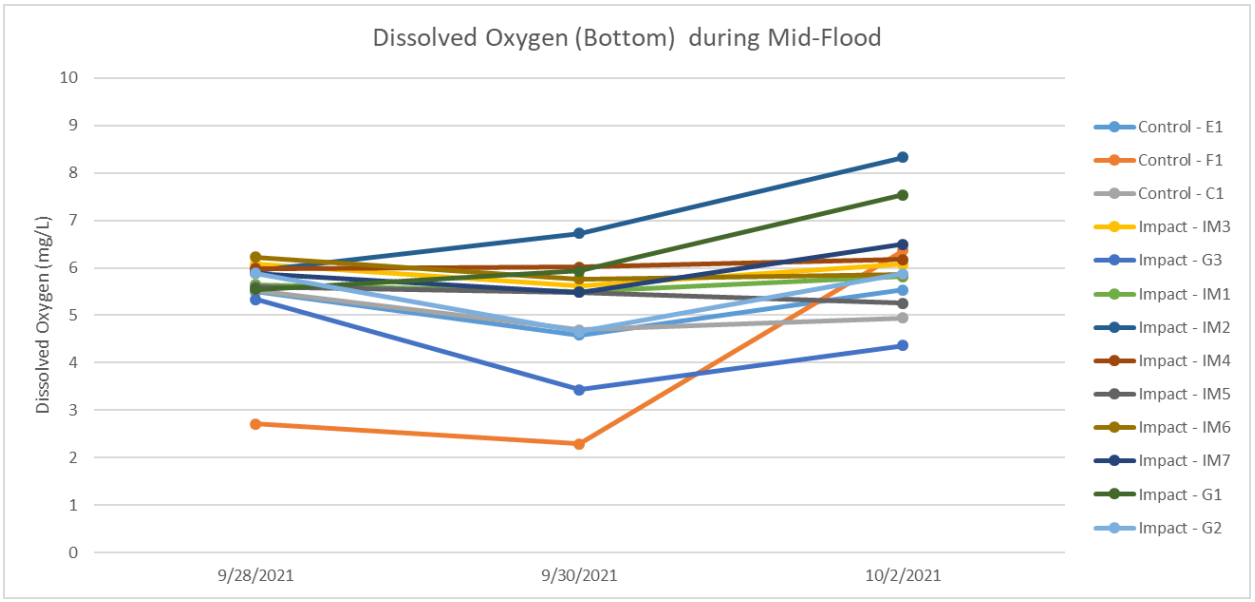

Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Dissolved Oxygen (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2

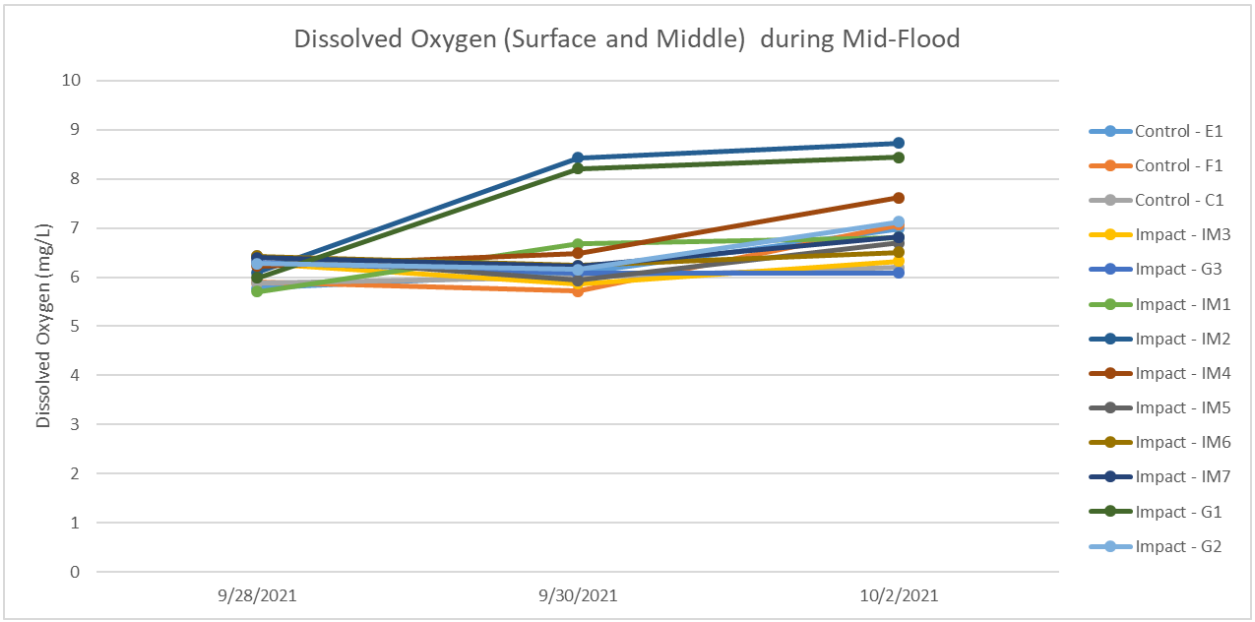

Turbidity (Depth-averaged) during Mid-Ebb
Turbidity (NTU)
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2

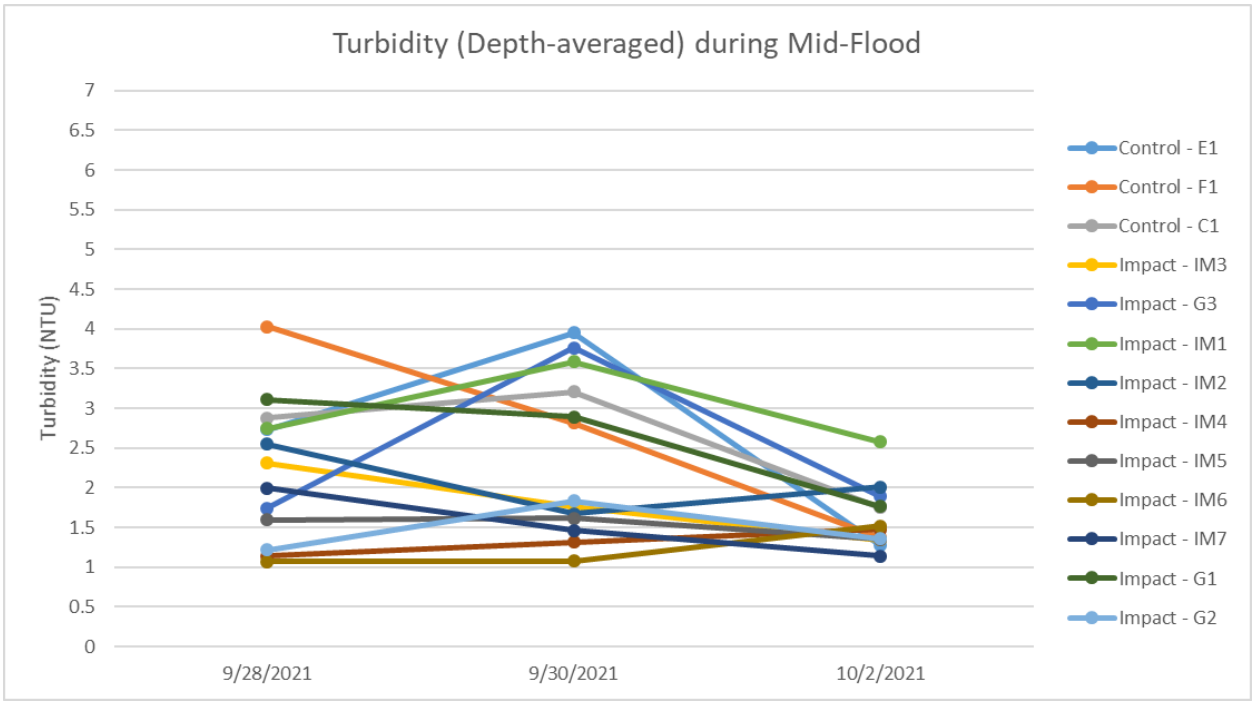

Suspended Solids (Depth-averaged) during Mid-Ebb
Suspended Solids (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2

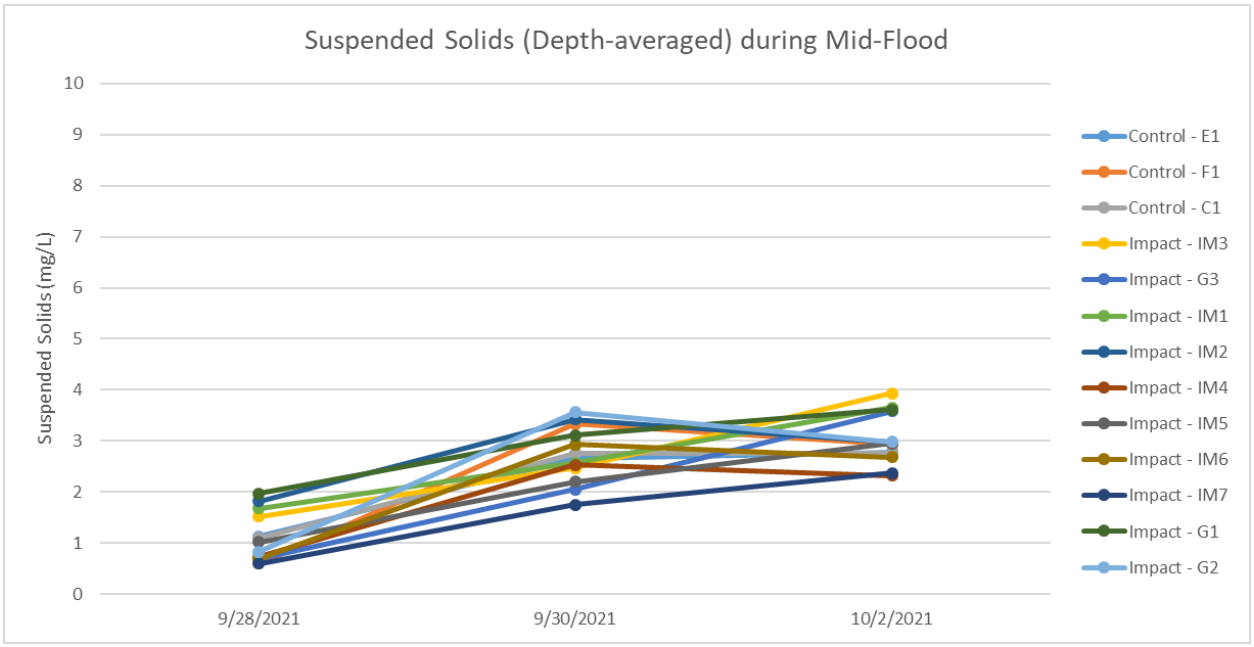
During Mid-Flood






Dissolved Oxygen (Surface and Middle) during Mid-Flood
Dissolved Oxygen (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2


Turbidity (Depth-averaged) during Mid-Flood
Turbidity (NTU)
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2


Suspended Solids (Depth-averaged) during Mid-Flood
Suspended Solids (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9/28/2021
9/30/2021
10/2/2021
Control - E1
Control - F1
Control - C1
Impact - IM3
Impact - G3
Impact - IM1
Impact - IM2
Impact - IM4
Impact - IM5
Impact - IM6
Impact - IM7
Impact - G1
Impact - G2

Water Quality Monitoring Data Log Sheet **28-Sep-2021** **Tide:** **Mid-Ebb**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Fine	Moderate	03:51	21.7	S	0.26	50	28.3	28.3	32.93	32.93	8.09	8.09	82.5	82.5	5.35	5.35	5.53	1.26	1.26	2.73	0.8	0.9	1.0
						0.26	50	28.3		32.93		8.09		82.5		5.35			1.25			0.9		
					M	0.26	48	28.7	28.8	33.45	33.47	8.18	8.18	88.8	89.0	5.70	5.71		1.62	1.73		0.9	1.1	
						0.27	48	28.8		33.48		8.18		89.1		5.71			1.83			1.2		
					B	0.30	47	28.9	28.9	33.70	33.70	8.19	8.19	90.2	90.3	5.76	5.77		5.22	5.20		1.2	1.1	
						0.31	47	28.9		33.70		8.19		90.3		5.77			5.18			1.0		
IM1	Fine	Moderate	03:42	21.5	S	0.24	180	28.7	28.7	33.40	33.40	8.15	8.15	88.3	88.3	5.68	5.68	5.71	1.25	1.26	2.56	2.0	1.7	1.5
						0.24	182	28.7		33.40		8.15		88.3		5.68			1.27			1.4		
					M	0.27	184	28.8	28.8	33.54	33.54	8.17	8.17	89.4	89.4	5.73	5.73		1.31	1.31		1.8	1.4	
						0.27	189	28.8		33.53		8.17		89.3		5.73			1.31			1.0		
					B	0.30	184	28.7	28.7	33.52	33.52	8.15	8.15	86.7	86.8	5.57	5.57		4.93	5.11		1.0	1.3	
						0.33	184	28.7		33.52		8.15		86.8		5.57			5.28			1.6		
IM2	Fine	Calm	03:25	5.4	S	0.08	177	28.5	28.5	33.25	33.25	8.06	8.06	86.2	86.2	5.56	5.56	5.56	1.69	1.70	1.86	2.5	2.3	1.8
						0.08	184	28.5		33.25		8.06		86.1		5.55			1.70			2.0		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.09	151	28.5	28.5	33.20	33.19	8.02	8.02	82.0	82.2	5.29	5.31		2.02	2.02		1.6	1.3	
						0.10	163	28.5		33.18		8.02		82.4		5.32			2.02			1.0		
G1	Fine	Calm	03:29	6.4	S	0.12	93	28.6	28.6	33.39	33.39	8.13	8.13	86.9	86.9	5.60	5.60	5.60	1.73	1.75	1.82	1.0	1.1	1.5
						0.12	100	28.5		33.39		8.13		86.9		5.60			1.76			1.1		
					M	0.18	91	28.5	28.5	33.38	33.38	8.13	8.13	86.7	86.7	5.59	5.59		1.74	1.74		1.1	1.3	
						0.19	99	28.5		33.38		8.13		86.7		5.59			1.74			1.5		
					B	0.26	95	28.6	28.6	33.43	33.43	8.11	8.11	84.1	83.8	5.41	5.40		1.90	1.96		2.1	2.1	
						0.27	99	28.6		33.43		8.11		83.5		5.38			2.02			2.1		
E1	Fine	Moderate	04:11	21.4	S	0.12	149	28.7	28.7	33.46	33.46	8.17	8.17	89.1	89.1	5.73	5.73	5.73	1.21	1.23	1.73	2.1	1.7	1.5
						0.13	149	28.7		33.46		8.17		89.1		5.72			1.24			1.2		
					M	0.18	198	28.8	28.8	33.57	33.57	8.19	8.19	89.5	89.5	5.73	5.74		1.45	1.44		1.2	1.6	
						0.18	204	28.8		33.57		8.19		89.5		5.74			1.43			1.9		
					B	0.38	229	28.9	28.9	33.73	33.73	8.19	8.19	88.4	88.5	5.65	5.66		2.48	2.54		0.9	1.2	
						0.40	248	28.9		33.73		8.19		88.5		5.66			2.59			1.5		
F1	Fine	Moderate	05:34	33.8	S	0.13	160	29.5	29.5	34.03	34.03	8.25	8.25	99.6	99.5	6.29	6.29	5.91	0.68	0.69	1.85	1.4	1.1	0.9
						0.14	171	29.5		34.03		8.25		99.4		6.28			0.69			0.7		
					M	0.13	161	29.1	29.1	34.08	34.08	8.19	8.19	87.1	86.9	5.54	5.53		1.02	1.05		0.6	0.8	
						0.14	170	29.0		34.08		8.18		86.7		5.52			1.07			1.0		
					B	0.09	163	27.5	27.5	34.46	34.51	8.08	8.08	65.7	65.7	4.28	4.28		3.89	3.81		1.0	0.9	
						0.09	165	27.4		34.56		8.08		65.6		4.28			3.72			0.7		
IM3	Fine	Moderate	04:21	13.4	S	0.01	262	29.2	29.2	33.76	33.76	8.23	8.23	95.9	95.9	6.11	6.11	6.05	1.05	1.05	1.60	1.2	1.4	1.3
						0.01	282	29.2		33.76		8.23		95.9		6.10			1.05			1.6		
					M	0.06	29	29.2	29.2	33.78	33.78	8.22	8.22	94.2	94.2	6.00	6.00		1.09	1.11		1.1	1.3	
						0.06	29	29.2		33.78		8.22		94.1		5.99			1.12			1.4		
					B	0.07	28	29.0	29.0	33.80	33.80	8.21	8.21	90.8	91.0	5.80	5.81		2.65	2.65		1.3	1.2	
						0.07	29	29.0		33.80		8.21		91.1		5.81			2.65			1.0		
IM4	Fine	Moderate	04:39	15.4	S	0.03	353	29.2	29.2	33.74	33.74	8.23	8.23	95.7	95.7	6.09	6.09	6.08	1.12	1.11	1.12	1.4	1.3	1.5
						0.03	356	29.2		33.74		8.23		95.7		6.09			1.10			1.2		
					M	0.04	295	29.2	29.2	33.75	33.75	8.23	8.23	95.4	95.3	6.07	6.07		1.02	1.03		1.4	1.5	
						0.04	302	29.2		33.75		8.23		95.2		6.06			1.03			1.5		
					B	0.09	287	29.2	29.2	33.76	33.76	8.23	8.23	94.0	94.0	5.98	5.99		1.21	1.22		1.8	1.7	
						0.09	287	29.2		33.76		8.23		94.0		5.99			1.22			1.5		
IM5	Fine	Moderate	04:57	28.1	S	0.02	165	29.3	29.3	33.81	33.81	8.25	8.25	98.9	98.9	6.28	6.28	6.24	0.79	0.79	1.69	1.0	1.3	1.0
						0.02	166	29.3		33.81		8.25		98.8		6.28			0.79			1.5		
					M	0.05	273	29.3	29.3	33.82	33.82	8.24	8.24	97.7	97.6	6.20	6.20		0.77	0.78		0.6	0.7	
						0.05	295	29.3		33.82		8.24		97.5		6.19			0.78			0.7		
					B	0.05	286	28.8	28.8	33.99	33.99	8.21	8.21	85.6	85.7	5.47	5.48		3.59	3.51		<0.5	-	
						0.05	287	28.8		33.98		8.21		85.8		5.48			3.42			<0.5		
IM6	Fine	Moderate	05:04	19.5	S	0.12	304	29.3	29.3	33.75	33.75	8.24	8.24	98.6	98.6	6.27	6.27	6.22	0.90	0.91	1.41	0.8	0.9	1.0
						0.12	332	29.3		33.75		8.24		98.6		6.26			0.91			1.0		
					M	0.15	311	29.3	29.3	33.76	33.76	8.24	8.24	97.1	97.1	6.17	6.17		0.92	0.92		1.0	1.0	
						0.16	314	29.3		33.76		8.23		97.0		6.16			0.91			0.9		
					B	0.11	313	29.0	29.0	33.93	33.93	8.22	8.22	90.1	90.3	5.74	5.75		2.42	2.41		1.3	1.2	
						0.11	313	29.0		33.93		8.22		90.4		5.76			2.40			1.0		
IM7	Fine	Moderate	05:17	25.1	S	0.04	239	29.3	29.3	33.72	33.72	8.25	8.25	99.4	99.4	6.32	6.32	6.32	0.86	0.86	1.10	0.8	0.8	0.9
						0.04	253	29.3		33.72		8.25		99.4		6.32			0.86			0.8		
					M	0.05	224	29.4	29.4	33.96	33.96	8.25	8.25	99.6	99.6	6.31	6.31		0.70	0.71		0.7	0.8	
						0.05	231	29.4		33.96		8.25		99.6		6.31			0.71			0.9		
					B	0.08	226	29.4	29.4	33.95	33.95	8.25	8.25	98.6	98.7	6.25	6.26		1.78	1.74		1.3	1.2	
						0.08	231	29.4		33.95		8.25		98.8		6.26			1.69			1.0		
G2	Fine	Moderate	04:35	31.2	S	0.06	94	29.1	29.1	33.72	33.72	8.23	8.23	95.7	95.7	6.10	6.10	5.98	1.31	1.30	4.94	1.8	1.4	1.2
						0.06	97	29.1		33.72		8.23		95.6		6.09			1.28			1.0		
					M	0.06	95	29.1	29.1	33.71	33.71	8.21	8.21	92.3	92.2	5.88	5.87		1.59	1.59		1.0	1.2	
						0.06	96	29.1		33.71		8.21		92.0		5.86			1.59			1.4		
					B	0.03	102	28.7	28.7	33.90	33.90	8.18	8.19	82.0	82.1	5.25	5.26		9.83	11.93		1.2	1.1	
						0.03	108	28.7		33.89		8.19		82.1		5.26			14.02			1.0		
G3	Fine	Moderate	04:52	28.5	S	0.02	238	29.3	29.3	33.81	33.81	8.25	8.25	99.0	99.0	6.28	6.28	6.22	0.82	0.82	1.01	1.3	1.4	1.0
						0.02	247	29.3		33.81		8.25		98.9		6.28			0.82			1.4		
					M	0.02	275	29.3	29.3	33.84	33.84	8.24	8.24	97.2	97.1	6.17	6.17		0.78	0.78		0.8	0.8	
						0.02	293	29.3		33.84		8.24		97.0		6.16			0.78			0.8		
					B	0.02	255	28.9	28.9	33.99	33.99	8.20	8.20	87.9	88.0	5.61	5.62		1.41	1.42		0.7	0.8	
						0.02	261	28.9		33.99		8.20		88.0		5.62			1.43			0.8		

Remark: * DA: Depth-Averaged

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

Water Quality Monitoring Data Log Sheet **28-Sep-2021** **Tide:** **Mid-Flood**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Fine	Moderate	16:07	22.4	S	0.29	291	29.3	29.3	33.37	33.40	8.20	8.20	94.3	94.3	6.00	6.00	5.88	1.11	1.13	2.88	1.4	1.3	1.1
						0.32	307	29.3		33.42		8.20		94.3		6.00			1.15			1.2		
					M	0.34	294	29.0	29.0	33.86	33.86	8.22	8.22	90.5	90.5	5.77	5.77		1.41	1.41		1.0	1.2	
						0.37	308	29.0		33.86		8.22		90.4		5.76			1.40			1.3		
					B	0.34	295	28.9	28.9	33.90	33.90	8.21	8.21	86.5	86.7	5.52	5.53		6.04	6.11		0.7	0.9	
						0.35	321	28.9		33.90		8.21		86.8		5.54			6.18			1.0		
IM1	Fine	Moderate	16:15	20.9	S	0.32	328	28.9	28.9	33.56	33.56	8.19	8.19	90.4	90.4	5.78	5.78	5.71	1.85	1.87	2.75	2.0	1.8	1.7
						0.33	339	28.9		33.56		8.19		90.3		5.78			1.88			1.6		
					M	0.34	330	29.0	29.0	33.79	33.79	8.20	8.20	88.2	88.2	5.63	5.63		3.04	3.05		1.9	1.8	
						0.35	346	29.0		33.79		8.20		88.2		5.63			3.05			1.7		
					B	0.35	328	28.9	28.9	33.77	33.77	8.20	8.20	88.3	88.5	5.64	5.65		3.36	3.33		1.4	1.5	
						0.36	355	28.9		33.77		8.20		88.6		5.66			3.29			1.5		
IM2	Fine	Moderate	16:30	5.3	S	0.23	280	29.1	29.1	33.54	33.54	8.18	8.18	95.5	95.6	6.09	6.10	6.10	2.01	2.06	2.55	2.1	2.0	1.8
						0.25	302	29.1		33.54		8.18		95.7		6.11			2.11			1.9		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.19	265	28.9	28.9	33.55	33.55	8.17	8.17	92.8	93.0	5.94	5.95		3.03	3.04		1.4	1.7	
						0.21	274	28.9		33.55		8.17		93.1		5.96			3.05			1.9		
G1	Fine	Moderate	16:26	6.7	S	0.25	319	29.3	29.3	33.55	33.55	8.18	8.18	96.2	96.0	6.11	6.10	5.99	1.71	1.72	3.11	1.7	1.8	2.0
						0.27	331	29.3		33.55		8.18		95.7		6.08			1.72			1.9		
					M	0.25	319	28.9	28.9	33.56	33.56	8.16	8.16	92.1	92.0	5.89	5.89		2.60	2.74		1.9	1.9	
						0.25	336	28.9		33.56		8.16		91.9		5.88			2.87			1.8		
					B	0.24	319	28.8	28.8	33.57	33.57	8.15	8.15	86.5	86.7	5.54	5.55		4.88	4.89		2.0	2.3	
						0.25	331	28.8		33.56		8.15		86.8		5.56			4.90			2.5		
E1	Fine	Moderate	15:44	22.2	S	0.18	155	29.4	29.4	33.83	33.83	8.23	8.23	96.0	95.9	6.08	6.07	5.78	1.27	1.28	2.73	1.4	1.2	1.1
						0.20	169	29.4		33.83		8.22		95.7		6.06			1.28			1.0		
					M	0.47	174	28.9	28.9	33.94	33.94	8.20	8.20	86.0	85.8	5.49	5.48		2.46	2.64		1.3	1.2	
						0.50	187	28.9		33.94		8.20		85.6		5.47			2.81			1.1		
					B	0.50	166	28.9	28.9	33.94	33.94	8.21	8.21	85.9	86.1	5.49	5.50		4.33	4.29		1.2	1.0	
						0.54	174	28.9		33.94		8.21		86.2		5.51			4.24			0.8		
F1	Fine	Moderate	14:23	35.2	S	0.09	63	30.1	30.1	34.28	34.28	8.28	8.28	99.4	99.4	6.21	6.21	5.90	0.73	0.73	4.03	<0.5	-	0.6
						0.10	64	30.1		34.28		8.28		99.3		6.21			0.72			<0.5		
					M	0.14	209	29.4	29.4	34.37	34.37	8.25	8.25	88.5	88.3	5.60	5.59		0.86	0.89		<0.5	-	
						0.15	222	29.3		34.37		8.25		88.1		5.58			0.91			<0.5		
					B	0.11	238	26.3	26.3	34.90	34.92	8.03	8.03	40.8	40.9	2.70	2.71		10.69	10.48		0.5	0.6	
						0.11	257	26.3		34.93		8.03		41.0		2.72			10.27			0.7		
IM3	Fine	Moderate	15:33	12.6	S	0.42	207	29.6	29.6	33.81	33.81	8.24	8.24	102.3	102.3	6.47	6.47	6.28	1.40	1.47	2.31	1.2	1.4	1.5
						0.43	223	29.5		33.81		8.24		102.2		6.46			1.53			1.5		
					M	0.45	207	29.3	29.3	33.85	33.86	8.24	8.24	96.0	96.0	6.10	6.10		2.53	2.59		1.4	1.6	
						0.46	221	29.3		33.86		8.24		95.9		6.09			2.65			1.7		
					B	0.44	211	29.3	29.3	33.87	33.87	8.24	8.24	95.6	95.7	6.07	6.08		2.88	2.88		1.6	1.7	
						0.46	221	29.3		33.87		8.24		95.7		6.08			2.87			1.7		
IM4	Fine	Moderate	15:16	16.7	S	0.13	183	29.8	29.8	33.77	33.78	8.25	8.25	103.0	102.9	6.49	6.49	6.23	0.95	0.95	1.14	<0.5	-	0.7
						0.14	189	29.7		33.79		8.25		102.8		6.49			0.95			<0.5		
					M	0.06	69	29.3	29.3	33.97	33.97	8.24	8.24	94.2	94.1	5.98	5.97		0.95	0.98		0.7	0.7	
						0.06	72	29.2		33.97		8.24		93.9		5.96			1.01			0.6		
					B	0.02	340	29.2	29.2	33.96	33.96	8.24	8.24	93.8	94.2	5.97	5.99		1.49	1.50		0.7	0.8	
						0.02	313	29.2		33.96		8.24		94.5		6.00			1.51			0.9		
IM5	Fine	Moderate	14:58	23.2	S	0.05	3	30.1	30.1	33.90	33.91	8.26	8.26	103.9	103.9	6.51	6.51	6.43	0.70	0.70	1.60	0.9	0.7	1.0
						0.05	3	30.1		33.91		8.26		103.9		6.51			0.70			0.5		
					M	0.03	86	29.4	29.4	33.92	33.92	8.26	8.26	100.3	100.1	6.35	6.34		0.72	0.72		1.5	1.1	
						0.03	88	29.4		33.92		8.25		99.9		6.33			0.71			0.7		
					B	0.15	222	29.0	29.0	34.06	34.06	8.22	8.22	87.6	87.8	5.58	5.60		3.39	3.39		0.9	1.3	
						0.16	239	29.0		34.06		8.22		88.0		5.61			3.38			1.6		
IM6	Fine	Moderate	14:51	14.9	S	0.09	326	29.9	29.9	33.89	33.90	8.26	8.27	103.1	103.1	6.48	6.48	6.43	0.79	0.79	1.07	0.8	0.7	0.7
						0.09	349	29.9		33.90		8.27		103.0		6.48			0.79			0.6		
					M	0.06	333	29.5	29.5	33.97	33.97	8.26	8.26	101.0	101.0	6.38	6.38		0.88	0.88		<0.5	-	
						0.07	306	29.5		33.97		8.26		100.9		6.38			0.87			<0.5		
					B	0.07	344	29.4	29.4	34.02	34.02	8.26	8.26	98.3	98.4	6.22	6.23		1.56	1.55		<0.5	-	
						0.08	316	29.4		34.02		8.26		98.4		6.23			1.54			<0.5		
IM7	Fine	Moderate	14:39	23.8	S	0.21	103	30.0	30.0	33.85	33.86	8.27	8.27	104.0	104.0	6.53	6.53	6.40	0.74	0.74	2.00	<0.5	-	0.6
						0.22	112	30.0		33.86		8.27		104.0		6.52			0.73			<0.5		
					M	0.35	100	29.6	29.6	34.09	34.09	8.26	8.26	99.5	99.5	6.28	6.28		0.77	0.77		<0.5	-	
						0.38	102	29.6		34.09		8.26		99.4		6.27			0.77			<0.5		
					B	0.29	110	29.2	29.2	34.15	34.15	8.25	8.25	92.7	92.8	5.88	5.89		4.46	4.49		0.5	0.6	
						0.30	113	29.2		34.15		8.25		92.8		5.89			4.51			0.7		
G2	Fine	Moderate	15:21	35	S	0.16	338	29.7	29.7	33.74	33.75	8.25	8.25	103.3	103.3	6.52	6.52	6.28	0.88	0.89	1.22	<0.5	-	0.8
						0.17	311	29.7		33.75		8.25		103.3		6.52			0.90			<0.5		
					M	0.11	333	29.3	29.3	33.97	33.97	8.24	8.24	95.3	95.2	6.04	6.04		0.88	0.89		0.9	0.7	
						0.11	336	29.3		33.97		8.24		95.1		6.03			0.90			0.5		
					B	0.20	340	29.2	29.2	33.98	33.99	8.24	8.24	92.5	92.7	5.88	5.89		1.90	1.87		0.9	1.0	
						0.21	313	29.2		33.99		8.24		92.8		5.90			1.83			1.0		
G3	Fine	Moderate	15:03	28.8	S	0.08	117	30.0	30.0	33.89	33.89	8.26	8.26	103.8	103.7	6.51	6.51	6.31	0.74	0.75	1.74	0.7	0.9	0.7
						0.08	127	30.0		33.89		8.26		103.6		6.51			0.75			1.0		
					M	0.14	135	29.5	29.5	34.04	34.05	8.23	8.23	96.8	96.7	6.12	6.11		0.85	0.91		0.6	0.6	
						0.15	138	29.5		34.05		8.23		96.5		6.10			0.96			0.5		
					B	0.27	110	28.8	28.8	34.10	34.10	8.20	8.20	83.4	83.5	5.33	5.34		3.55	3.58		<0.5	-	
						0.29	119	28.8		34.10		8.20		83.5		5.34			3.61			<0.5		

Remark: * DA: Depth-Averaged

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

Water Quality Monitoring Data Log Sheet **30-Sep-2021** **Tide: Mid-Ebb**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Cloudy	Moderate	06:21	21.8	S	0.26	50	29.3	29.3	33.23	33.23	8.15	8.15	97.3	97.3	6.20	6.20	5.97	1.06	1.07	1.74	3.0	2.9	2.1
						0.26	50	29.3		33.23		8.15		97.3		6.20			1.07			2.7		
					M	0.26	48	29.1	29.1	33.76	33.76	8.19	8.19	90.1	89.9	5.75	5.74		0.95	0.95		2.3	2.2	
						0.27	48	29.1		33.76		8.19		89.7		5.72			0.95			2.1		
					B	0.30	47	28.9	28.9	33.91	33.91	8.17	8.17	79.9	80.1	5.11	5.12		3.36	3.19		1.4	1.3	
						0.31	47	28.9		33.90		8.17		80.2		5.13			3.02			1.2		
IM1	Cloudy	Moderate	06:13	20.5	S	0.24	180	29.3	29.3	33.08	33.08	8.14	8.14	100.3	100.3	6.39	6.39	5.89	1.04	1.05	2.44	2.2	2.3	2.8
						0.24	182	29.3		33.08		8.14		100.2		6.39			1.05			2.4		
					M	0.27	184	29.1	29.1	33.82	33.82	8.18	8.18	84.7	84.7	5.40	5.40		1.72	1.73		2.9	2.8	
						0.27	189	29.1		33.82		8.18		84.6		5.39			1.73			2.6		
					B	0.30	184	29.0	29.0	33.86	33.86	8.16	8.16	79.4	79.6	5.07	5.08		4.76	4.55		3.6	3.5	
						0.33	184	29.0		33.85		8.16		79.7		5.09			4.33			3.3		
IM2	Cloudy	Calm	05:53	5.6	S	0.08	177	29.6	29.6	33.12	33.12	8.15	8.15	97.0	97.0	6.15	6.15	6.15	1.18	1.18	3.35	3.0	2.8	3.3
						0.08	184	29.6		33.12		8.15		96.9		6.14			1.17			2.6		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.09	151	29.1	29.1	33.66	33.66	8.17	8.17	84.7	84.9	5.40	5.41		5.53	5.52		3.6	3.8	
						0.10	163	29.1		33.66		8.17		85.0		5.42			5.51			4.0		
G1	Cloudy	Moderate	05:59	6.8	S	0.12	93	29.6	29.6	33.26	33.26	8.14	8.14	93.0	92.9	5.89	5.89	5.67	1.13	1.14	3.38	2.9	3.1	3.8
						0.12	100	29.6		33.26		8.14		92.8		5.88			1.14			3.2		
					M	0.18	91	29.2	29.2	33.62	33.62	8.16	8.16	85.7	85.7	5.46	5.46		2.41	2.54		3.6	3.8	
						0.19	99	29.2		33.62		8.16		85.6		5.45			2.67			4.0		
					B	0.26	95	29.2	29.2	33.74	33.73	8.14	8.14	86.5	86.7	5.51	5.52		6.10	6.45		4.8	4.7	
						0.27	99	29.2		33.71		8.14		86.8		5.52			6.80			4.5		
E1	Cloudy	Moderate	06:50	21.4	S	0.24	125	29.2	29.2	33.28	33.29	8.18	8.19	97.4	97.5	6.21	6.22	6.02	0.98	0.90	1.38	0.6	0.7	1.4
						0.24	126	29.2		33.29		8.19		97.5		6.22			0.81			0.8		
					M	0.24	104	29.3	29.3	33.93	33.94	8.20	8.20	91.7	91.7	5.82	5.82		0.94	0.96		1.2	1.4	
						0.25	104	29.3		33.95		8.20		91.7		5.82			0.98			1.5		
					B	0.65	95	29.0	29.0	33.94	33.95	8.18	8.18	86.4	86.6	5.51	5.52		2.36	2.29		2.1	2.3	
						0.66	97	29.0		33.95		8.18		86.8		5.53			2.21			2.4		
F1	Cloudy	Moderate	08:00	34.5	S	0.21	79	29.5	29.5	33.94	33.94	8.23	8.23	98.1	98.1	6.21	6.21	5.96	0.72	0.74	3.24	3.3	3.5	2.6
						0.23	79	29.5		33.94		8.23		98.0		6.20			0.75			3.6		
					M	0.28	75	29.3	29.3	34.41	34.41	8.19	8.19	90.4	90.4	5.72	5.72		0.66	0.66		2.8	2.7	
						0.28	75	29.3		34.41		8.19		90.3		5.71			0.66			2.6		
					B	0.50	83	25.3	25.3	35.02	35.02	7.94	7.94	36.9	37.1	2.49	2.50		8.09	8.33		1.6	1.8	
						0.55	88	25.3		35.02		7.94		37.2		2.51			8.56			1.9		
IM3	Cloudy	Moderate	06:53	13.5	S	0.41	66	29.3	29.3	33.54	33.54	8.19	8.19	97.2	97.2	6.18	6.18	5.90	0.87	0.87	2.31	0.7	0.8	1.6
						0.41	67	29.3		33.54		8.19		97.1		6.18			0.87			0.8		
					M	0.10	60	29.1	29.1	33.87	33.87	8.19	8.19	88.1	88.1	5.61	5.61		2.86	2.86		1.5	1.7	
						0.10	63	29.1		33.87		8.19		88.0		5.61			2.86			1.8		
					B	0.12	352	29.0	29.0	33.92	33.92	8.20	8.21	84.9	85.1	5.42	5.43		3.27	3.20		2.3	2.5	
						0.13	324	29.0		33.91		8.21		85.2		5.43			3.12			2.6		
IM4	Cloudy	Moderate	07:13	16.2	S	0.45	91	29.4	29.4	33.82	33.82	8.21	8.21	93.6	93.6	5.93	5.93	5.72	1.13	1.12	1.49	3.1	2.9	2.3
						0.49	99	29.4		33.82		8.20		93.6		5.93			1.11			2.7		
					M	0.76	118	29.2	29.2	33.83	33.84	8.18	8.18	86.6	86.5	5.51	5.50		1.81	1.81		2.3	2.4	
						0.79	125	29.2		33.84		8.18		86.4		5.49			1.80			2.5		
					B	0.80	123	29.1	29.1	33.84	33.84	8.19	8.19	88.0	88.1	5.60	5.61		1.54	1.56		1.6	1.7	
						0.87	125	29.1		33.84		8.19		88.2		5.61			1.57			1.8		
IM5	Cloudy	Moderate	07:31	28.3	S	0.49	103	29.3	29.3	33.59	33.59	8.19	8.19	95.3	95.2	6.06	6.06	5.86	0.92	0.92	2.03	2.6	2.7	2.2
						0.51	108	29.3		33.59		8.19		95.1		6.05			0.92			2.8		
					M	0.51	92	29.2	29.2	33.90	33.90	8.19	8.19	89.0	89.2	5.66	5.67		1.49	1.47		2.4	2.3	
						0.56	93	29.2		33.89		8.19		89.3		5.68			1.44			2.2		
					B	0.60	99	27.1	27.1	34.67	34.71	8.03	8.03	56.7	57.1	3.71	3.74		3.78	3.71		1.6	1.5	
						0.65	99	27.1		34.75		8.03		57.5		3.76			3.63			1.4		
IM6	Cloudy	Moderate	07:38	20	S	0.36	63	29.3	29.3	33.74	33.74	8.20	8.20	94.1	94.1	5.98	5.98	5.96	1.03	1.03	1.33	2.4	2.3	2.8
						0.38	64	29.3		33.74		8.20		94.1		5.98			1.03			2.1		
					M	0.54	43	29.3	29.3	33.75	33.75	8.20	8.20	93.6	93.6	5.95	5.95		1.00	1.01		2.9	2.8	
						0.57	47	29.3		33.75		8.20		93.5		5.94			1.01			2.6		
					B	0.81	50	29.1	29.1	33.85	33.85	8.19	8.19	90.0	90.1	5.73	5.74		1.97	1.95		3.1	3.3	
						0.87	53	29.1		33.85		8.19		90.1		5.74			1.93			3.4		
IM7	Cloudy	Moderate	07:49	25.3	S	0.33	118	29.4	29.4	33.79	33.79	8.22	8.22	96.8	96.8	6.14	6.14	6.11	0.83	0.83	1.24	2.4	2.3	2.6
						0.34	118	29.4		33.79		8.22		96.8		6.14			0.82			2.1		
					M	0.28	89	29.5	29.5	34.09	34.09	8.22	8.22	96.4	96.4	6.09	6.09		0.88	0.89		2.8	2.7	
						0.29	97	29.5		34.09		8.22		96.3		6.08			0.89			2.5		
					B	0.50	82	29.4	29.4	34.34	34.34	8.21	8.21	93.2	93.2	5.89	5.89		2.00	2.00		2.6	2.8	
						0.51	88	29.4		34.33		8.21		93.2		5.89			2.00			3.0		
G2	Cloudy	Moderate	07:07	25.5	S	0.45	107	29.3	29.4	33.84	33.84	8.20	8.20	92.3	92.4	5.85	5.86	5.46	1.04	1.03	3.11	3.2	3.0	2.3
						0.49	114	29.4		33.84		8.20		92.4		5.86			1.01			2.8		
					M	0.75	106	29.0	29.0	33.88	33.88	8.15	8.15	79.5	79.4	5.07	5.06		3.43	3.45		2.6	2.5	
						0.78	109	29.0		33.88		8.15		79.3		5.05			3.46			2.4		
					B	0.50	127	28.3	28.4	34.17	34.16	8.14	8.14	69.2	69.4	4.46	4.47		4.88	4.86		1.3	1.4	
						0.53	131	28.4		34.14		8.14		69.5		4.47			4.84			1.5		
G3	Cloudy	Moderate	07:24	30.1	S	0.48	100	29.2	29.2	33.61	33.61	8.19	8.19	94.5	94.5	6.01	6.01	5.69	1.01	1.00	2.61	2.2	2.3	1.5
						0.51	107	29.2		33.61		8.19		94.4		6.01			0.98			2.4		
					M	0.40	89	29.1	29.1	33.88	33.88	8.18	8.18	84.6	84.5	5.38	5.38		1.67	1.67		1.5	1.5	
						0.42	93	29.1		33.88		8.18		84.4		5.37			1.67			1.4		
					B	0.70	101	26.2	26.2	35.01	35.08	7.96	7.96	44.2	44.9	2.93	2.98		5.36	5.16		0.9	0.8	
						0.72	108	26.2		35.15		7.96		45.6		3.02			4.96			0.7		

Remark: * DA: Depth-Averaged

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

Water Quality Monitoring Data Log Sheet **30-Sep-2021** **Tide: Mid-Flood**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Fine	Moderate	19:45	21.4	S	0.29	291	29.7	29.7	32.65	32.66	8.16	8.16	104.2	104.1	6.62	6.61	6.01	1.21	1.21	3.21	2.5	2.5	2.8
						0.32	307	29.7		32.66		8.16		104.0		6.60			1.21			2.4		
					M	0.34	294	28.9	28.9	33.71	33.71	8.19	8.19	84.9	84.7	5.43	5.41		1.03	1.04		2.7	2.8	
						0.37	308	28.9		33.71		8.18		84.4		5.39			1.05			2.9		
					B	0.34	295	28.8	28.8	33.95	33.94	8.16	8.16	73.1	73.3	4.68	4.69		7.80	7.38		2.9	3.1	
						0.35	321	28.8		33.93		8.16		73.5		4.70			6.96			3.2		
IM1	Fine	Moderate	19:54	20.6	S	0.32	328	30.0	30.0	33.20	33.20	8.25	8.25	125.4	125.4	7.90	7.90	6.67	1.41	1.41	3.59	2.3	2.2	2.6
						0.33	339	30.0		33.20		8.25		125.4		7.90			1.40			2.0		
					M	0.34	330	29.1	29.1	33.78	33.78	8.19	8.19	85.5	85.5	5.44	5.45		3.10	3.11		2.4	2.6	
						0.35	346	29.1		33.78		8.19		85.5		5.45			3.12			2.7		
					B	0.35	328	29.1	29.1	33.79	33.79	8.19	8.19	86.1	86.3	5.49	5.50		6.24	6.24		2.8	3.0	
						0.36	355	29.1		33.79		8.19		86.5		5.51			6.24			3.2		
IM2	Fine	Moderate	20:04	5.6	S	0.23	280	30.5	30.5	33.23	33.23	8.28	8.28	135.1	135.0	8.44	8.43	8.43	1.47	1.48	1.67	2.8	2.9	3.4
						0.25	302	30.5		33.23		8.28		134.8		8.42			1.48			3.0		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.19	265	29.6	29.7	33.51	33.49	8.23	8.23	106.4	106.5	6.73	6.73		1.86	1.87		3.8	4.0	
						0.21	274	29.7		33.47		8.23		106.5		6.73			1.88			4.1		
G1	Fine	Moderate	20:08	6	S	0.25	319	30.5	30.5	33.24	33.24	8.29	8.29	139.7	139.6	8.73	8.72	8.21	1.44	1.44	2.89	2.6	2.7	3.1
						0.27	331	30.5		33.24		8.29		139.4		8.71			1.44			2.7		
					M	0.25	319	30.0	30.0	33.35	33.36	8.22	8.22	122.2	122.1	7.70	7.70		1.42	1.53		3.4	3.2	
						0.25	336	29.9		33.36		8.22		122.0		7.69			1.64			3.0		
					B	0.24	319	29.7	29.7	33.57	33.56	8.20	8.20	93.5	93.9	5.91	5.94		5.98	5.70		3.6	3.5	
						0.25	331	29.7		33.55		8.20		94.2		5.96			5.42			3.4		
E1	Fine	Moderate	19:23	22.7	S	0.11	342	29.4	29.4	33.41	33.41	8.24	8.24	110.9	110.6	7.04	7.03	6.09	1.01	1.02	3.95	3.2	3.1	2.7
						0.12	315	29.4		33.41		8.24		110.3		7.01			1.03			2.9		
					M	0.22	264	28.8	28.8	33.74	33.74	8.18	8.18	80.5	80.4	5.16	5.16		3.20	3.18		2.8	2.7	
						0.24	285	28.8		33.74		8.18		80.3		5.15			3.16			2.6		
					B	0.83	285	28.6	28.6	34.07	34.07	8.14	8.14	71.3	71.5	4.57	4.58		7.66	7.65		2.3	2.2	
						0.87	289	28.6		34.07		8.14		71.6		4.59			7.63			2.1		
F1	Fine	Moderate	18:00	34.2	S	0.05	236	29.3	29.4	33.90	33.90	8.24	8.24	98.2	98.4	6.23	6.24	5.72	1.20	1.20	2.82	4.1	4.0	3.3
						0.05	243	29.4		33.90		8.24		98.5		6.25			1.19			3.8		
					M	0.34	340	29.1	29.1	34.35	34.35	8.19	8.19	82.1	81.8	5.21	5.20		0.81	0.82		3.6	3.5	
						0.37	313	29.1		34.35		8.19		81.5		5.18			0.82			3.3		
					B	0.66	302	25.2	25.2	35.18	35.18	7.94	7.94	33.9	34.0	2.28	2.29		6.58	6.44		2.5	2.6	
						0.69	307	25.2		35.18		7.94		34.1		2.30			6.30			2.7		
IM3	Fine	Moderate	19:12	13	S	0.02	124	29.4	29.4	33.75	33.75	8.21	8.21	94.2	94.2	5.97	5.97	5.86	1.41	1.41	1.77	3.3	3.1	2.5
						0.02	133	29.4		33.75		8.21		94.2		5.97			1.41			2.8		
					M	0.12	280	29.2	29.2	33.80	33.80	8.20	8.20	90.5	90.5	5.76	5.76		1.70	1.69		2.6	2.5	
						0.13	290	29.2		33.80		8.20		90.5		5.75			1.68			2.4		
					B	0.08	235	29.0	29.1	33.87	33.86	8.20	8.20	88.1	88.2	5.62	5.62		2.21	2.20		1.9	1.9	
						0.08	257	29.1		33.85		8.20		88.3		5.62			2.19			1.8		
IM4	Fine	Moderate	18:55	15.8	S	0.22	223	29.6	29.6	33.34	33.34	8.22	8.22	108.9	108.9	6.90	6.90	6.49	1.66	1.67	1.32	3.7	3.6	2.5
						0.24	225	29.6		33.34		8.22		108.9		6.89			1.67			3.4		
					M	0.27	236	29.3	29.3	33.60	33.61	8.21	8.21	95.9	95.8	6.09	6.08		1.22	1.21		2.5	2.4	
						0.29	249	29.3		33.62		8.21		95.6		6.07			1.19			2.2		
					B	0.57	217	29.2	29.2	33.76	33.76	8.22	8.22	94.5	94.6	6.01	6.02		1.08	1.08		1.6	1.7	
						0.58	232	29.2		33.76		8.22		94.6		6.02			1.08			1.8		
IM5	Fine	Moderate	18:33	20.6	S	0.24	276	29.8	29.8	33.72	33.72	8.22	8.22	101.7	101.7	6.41	6.41	5.94	0.96	0.96	1.62	1.5	1.4	2.2
						0.26	293	29.8		33.72		8.22		101.7		6.41			0.95			1.3		
					M	0.10	201	29.0	29.0	33.92	33.92	8.19	8.19	85.9	85.7	5.47	5.46		1.72	1.72		2.6	2.4	
						0.11	220	29.0		33.92		8.19		85.5		5.45			1.71			2.2		
					B	0.65	275	28.9	29.0	33.96	33.96	8.20	8.20	86.0	86.2	5.48	5.49		2.23	2.18		3.0	2.8	
						0.69	299	29.0		33.96		8.20		86.3		5.50			2.13			2.6		
IM6	Fine	Moderate	18:26	15.2	S	0.04	257	29.7	29.7	33.83	33.83	8.23	8.23	99.7	99.7	6.28	6.28	6.24	0.93	0.93	1.08	3.4	3.6	2.9
						0.04	261	29.7		33.83		8.23		99.6		6.28			0.92			3.8		
					M	0.26	203	29.5	29.5	33.98	33.98	8.24	8.24	97.9	97.9	6.19	6.19		0.83	0.84		2.9	2.8	
						0.27	204	29.5		33.98		8.23		97.8		6.19			0.84			2.7		
					B	0.56	201	29.2	29.2	34.05	34.05	8.22	8.22	90.8	90.9	5.77	5.77		1.49	1.49		2.5	2.4	
						0.57	215	29.2		34.04		8.22		90.9		5.77			1.48			2.3		
IM7	Fine	Moderate	18:12	23.7	S	0.07	236	29.8	29.8	34.03	34.04	8.23	8.23	99.7	99.6	6.28	6.28	6.23	0.79	0.79	1.46	1.4	1.3	1.8
						0.07	246	29.7		34.04		8.23		99.5		6.27			0.79			1.1		
					M	1.61	278	29.6	29.6	34.18	34.18	8.23	8.23	98.1	98.0	6.18	6.18		0.94	0.94		1.6	1.7	
						1.70	285	29.6		34.18		8.23		97.9		6.17			0.93			1.8		
					B	0.60	239	29.1	29.1	34.42	34.42	8.18	8.18	86.4	86.4	5.48	5.48		2.65	2.66		2.4	2.3	
						0.61	261	29.1		34.42		8.18		86.3		5.48			2.67			2.2		
G2	Fine	Moderate	19:00	34.2	S	0.20	202	29.6	29.6	33.35	33.35	8.22	8.22	108.2	108.2	6.86	6.86	6.16	1.61	1.62	1.83	2.8	3.0	3.6
						0.21	205	29.6		33.35		8.22		108.1		6.85			1.62			3.2		
					M	0.16	219	29.1	29.1	33.91	33.91	8.20	8.20	85.8	85.8	5.46	5.46		1.35	1.35		3.5	3.6	
						0.17	238	29.1		33.91		8.20		85.7		5.45			1.34			3.7		
					B	0.79	214	28.6	28.7	34.12	34.12	8.17	8.18	72.5	72.8	4.64	4.66		2.59	2.54		4.2	4.1	
						0.83	229	28.7		34.11		8.18		73.0		4.67			2.48			4.0		
G3	Fine	Moderate	18:38	30.2	S	0.11	263	29.8	29.8	33.52	33.52	8.23	8.23	106.1	106.0	6.70	6.70	6.07	0.99	1.00	3.76	2.6	2.6	2.1
						0.12	266	29.8		33.52		8.23		105.9		6.69			1.00			2.6		
					M	0.23	249	29.1	29.1	33.92	33.92	8.20	8.20	85.8	85.7	5.46	5.45		1.61	1.61		2.2	2.3	
						0.23	254	29.1		33.92		8.19		85.5		5.44			1.61			2.3		
					B	0.50	207	27.0	27.0	34.58	34.58	8.01	8.01	54.4	52.2	3.58	3.44		8.56	8.68		1.2	1.3	
						0.54	220	26.9		34.58		8.01		50.0		3.29			8.80			1.4		

Remark: * DA: Depth-Averaged

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

Water Quality Monitoring Data Log Sheet **2-Oct-2021** **Tide: Mid-Ebb**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Fine	Calm	09:24	21.8	S	0.26	50	29.6	29.6	33.07	33.09	8.24	8.24	116.2	115.9	7.37	7.35	6.28	1.39	1.39	1.66	4.2	4.3	3.4
						0.26	50	29.5		33.11		8.24		115.5		7.33			1.39			4.4		
					M	0.26	48	29.0	29.0	33.79	33.78	8.21	8.21	81.5	81.5	5.20	5.20		1.72	1.73		3.6	3.5	
						0.27	48	29.0		33.76		8.20		81.5		5.20			1.74			3.3		
					B	0.30	47	29.2	29.2	33.63	33.62	8.21	8.21	84.7	85.6	5.39	5.45		1.82	1.85		2.4	2.4	
						0.31	47	29.2		33.60		8.21		86.5		5.50			1.88			2.4		
IM1	Fine	Calm	09:17	20.5	S	0.24	180	29.5	29.5	33.17	33.20	8.30	8.30	111.6	110.6	7.09	7.03	5.89	2.53	2.54	3.44	5.5	5.4	4.2
						0.24	182	29.4		33.23		8.30		109.6		6.97			2.55			5.2		
					M	0.27	184	28.7	28.7	33.85	33.87	8.16	8.16	74.5	74.0	4.78	4.75		3.31	3.35		4.0	3.8	
						0.27	189	28.6		33.89		8.15		73.5		4.72			3.39			3.6		
					B	0.30	184	28.9	29.0	33.69	33.66	8.16	8.17	67.4	68.2	4.31	4.36		4.41	4.43		3.7	3.6	
						0.33	184	29.0		33.63		8.17		69.0		4.41			4.45			3.4		
IM2	Fine	Calm	08:46	5.6	S	0.08	177	29.8	29.8	32.86	32.88	8.32	8.32	122.6	121.7	7.76	7.71	7.71	1.43	1.46	2.35	2.1	2.2	2.9
						0.08	184	29.7		32.90		8.32		120.7		7.65			1.48			2.2		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.09	151	29.3	29.3	33.19	33.19	8.18	8.18	86.2	85.9	5.49	5.47		3.22	3.24		3.4	3.6	
						0.10	163	29.3		33.18		8.18		85.5		5.44			3.26			3.8		
G1	Fine	Calm	08:48	7	S	0.12	93	29.5	29.5	33.36	33.38	8.34	8.33	115.6	111.8	7.34	7.10	6.53	1.42	1.42	2.00	2.7	2.8	3.2
						0.12	100	29.4		33.40		8.32		107.9		6.85			1.42			2.9		
					M	0.18	91	29.3	29.3	33.49	33.50	8.21	8.21	94.0	93.9	5.98	5.97		2.05	2.06		2.9	3.1	
						0.19	99	29.3		33.50		8.21		93.7		5.96			2.07			3.2		
					B	0.26	95	29.4	29.4	33.42	33.40	8.21	8.21	88.7	88.7	5.64	5.64		2.49	2.52		4.0	3.9	
						0.27	99	29.4		33.38		8.21		88.7		5.63			2.54			3.7		
E1	Fine	Calm	09:44	22	S	0.40	129	29.5	29.5	33.14	33.18	8.25	8.25	117.7	117.3	7.47	7.45	6.51	1.02	1.03	1.26	2.2	2.3	2.7
						0.44	137	29.5		33.21		8.24		116.8		7.42			1.04			2.4		
					M	0.50	125	29.1	29.2	33.75	33.74	8.23	8.23	87.1	87.4	5.55	5.57		1.17	1.16		2.8	2.8	
						0.51	125	29.2		33.72		8.23		87.7		5.58			1.15			2.7		
					B	0.40	130	29.1	29.1	33.75	33.75	8.23	8.23	90.5	91.3	5.77	5.82		1.58	1.59		3.2	3.1	
						0.43	130	29.1		33.75		8.23		92.1		5.87			1.60			2.9		
F1	Fine	Calm	10:58	34.2	S	0.30	18	29.6	29.6	33.50	33.54	8.30	8.30	121.8	120.2	7.71	7.61	5.90	1.01	1.04	1.19	2.0	2.2	2.8
						0.32	19	29.5		33.58		8.29		118.6		7.51			1.07			2.4		
					M	0.30	17	27.7	27.7	34.41	34.44	8.12	8.12	62.2	64.4	4.04	4.18		1.15	1.17		2.8	2.7	
						0.32	17	27.7		34.46		8.12		66.5		4.32			1.18			2.6		
					B	0.40	16	27.3	27.4	34.98	34.99	8.12	8.13	78.9	82.4	5.14	5.36		1.36	1.38		3.7	3.6	
						0.43	17	27.4		34.99		8.13		85.9		5.58			1.39			3.4		
IM3	Fine	Calm	09:54	20	S	0.40	68	29.3	29.3	33.33	33.36	8.28	8.28	103.9	103.6	6.62	6.60	5.68	1.44	1.47	2.47	2.1	2.3	2.9
						0.43	68	29.3		33.38		8.28		103.3		6.58			1.49			2.4		
					M	0.40	68	28.3	28.3	34.00	34.03	8.13	8.13	73.8	73.7	4.76	4.76		2.60	2.61		3.0	2.9	
						0.41	70	28.2		34.06		8.13		73.5		4.75			2.62			2.7		
					B	0.50	73	27.1	27.1	34.62	34.63	8.09	8.09	66.2	69.8	4.34	4.57		3.35	3.33		3.4	3.5	
						0.52	78	27.1		34.64		8.09		73.3		4.80			3.31			3.6		
IM4	Fine	Calm	10:11	14.2	S	0.44	16	29.4	29.4	33.67	33.68	8.24	8.24	96.8	96.7	6.14	6.14	5.87	1.05	1.06	1.60	3.6	3.8	3.0
						0.47	16	29.4		33.68		8.24		96.6		6.13			1.06			3.9		
					M	0.30	129	29.2	29.2	33.74	33.75	8.24	8.24	88.1	88.1	5.61	5.61		1.78	1.78		3.1	2.9	
						0.33	130	29.2		33.75		8.24		88.1		5.61			1.77			2.7		
					B	0.30	123	29.3	29.3	33.66	33.65	8.25	8.26	89.1	89.3	5.67	5.68		1.98	1.98		2.3	2.3	
						0.33	132	29.3		33.64		8.26		89.5		5.69			1.98			2.2		
IM5	Fine	Calm	10:27	22.6	S	0.20	158	29.6	29.6	33.40	33.42	8.26	8.26	108.6	108.5	6.88	6.88	6.14	1.03	1.06	1.19	2.6	2.5	1.8
						0.20	166	29.5		33.43		8.26		108.4		6.87			1.08			2.4		
					M	0.40	128	28.9	28.9	33.91	33.92	8.23	8.23	84.6	84.6	5.41	5.41		1.15	1.15		1.8	1.7	
						0.44	140	28.8		33.92		8.23		84.6		5.41			1.14			1.5		
					B	0.40	129	29.1	29.2	33.75	33.73	8.26	8.26	85.9	86.1	5.47	5.48		1.39	1.38		1.3	1.3	
						0.44	133	29.2		33.71		8.26		86.3		5.49			1.37			1.3		
IM6	Fine	Calm	10:33	18.4	S	0.50	31	29.5	29.5	33.29	33.33	8.27	8.27	119.2	118.4	7.57	7.52	6.55	1.05	1.05	1.47	1.9	1.8	2.2
						0.51	33	29.5		33.37		8.27		117.6		7.47			1.05			1.7		
					M	0.60	36	29.1	29.1	33.85	33.86	8.22	8.22	87.6	87.5	5.58	5.57		1.20	1.24		2.3	2.2	
						0.64	37	29.1		33.87		8.22		87.3		5.56			1.28			2.1		
					B	0.50	33	27.6	27.5	34.78	34.86	8.14	8.14	75.4	76.1	4.91	4.96		2.15	2.13		2.7	2.6	
						0.53	34	27.3		34.94		8.13		76.8		5.00			2.11			2.5		
IM7	Fine	Calm	10:45	20.8	S	0.30	133	29.3	29.3	33.67	33.68	8.26	8.26	108.7	108.6	6.90	6.90	6.28	1.07	1.08	1.16	2.4	2.3	2.8
						0.31	144	29.3		33.68		8.25		108.4		6.89			1.08			2.1		
					M	0.20	137	28.9	28.9	33.92	33.93	8.22	8.22	88.7	88.7	5.67	5.67		1.13	1.14		2.6	2.5	
						0.20	142	28.8		33.94		8.22		88.7		5.67			1.14			2.4		
					B	0.30	132	29.0	29.1	33.80	33.77	8.24	8.24	84.1	84.9	5.36	5.41		1.29	1.28		3.4	3.6	
						0.32	134	29.1		33.74		8.24		85.6		5.45			1.27			3.7		
G2	Fine	Calm	10:06	36	S	0.30	128	29.4	29.4	33.60	33.61	8.23	8.23	98.3	98.2	6.24	6.23	5.01	1.20	1.21	2.18	2.7	2.7	2.3
						0.31	128	29.4		33.62		8.23		98.0		6.22			1.21			2.7		
					M	0.40	123	28.4	28.4	33.47	33.44	8.15	8.15	61.3	58.8	3.96	3.80		2.21	2.21		2.5	2.4	
						0.42	127	28.4		33.41		8.14		56.2		3.63			2.20			2.3		
					B	0.50	112	25.5	25.5	35.54	35.61	8.00	8.00	47.1	48.0	3.16	3.22		3.11	3.14		1.9	1.9	
						0.55	122	25.5		35.68		8.00		48.9		3.27			3.17			1.8		
G3	Fine	Calm	10:23	29.2	S	0.40	146	29.7	29.7	33.22	33.24	8.27	8.27	111.3	111.1	7.04	7.03	5.32	1.06	1.07	1.60	4.0	3.9	3.4
						0.42	146	29.7		33.25		8.27		110.9		7.02			1.07			3.7		
					M	0.50	147	27.5	27.5	34.36	34.37	8.08	8.08	55.6	55.5	3.62	3.62		1.66	1.67		3.4	3.5	
						0.52	152	27.4		34.37		8.08		55.3		3.61			1.68			3.6		
					B	0.50	142	26.9	27.0	35.03	35.01	8.07	8.07	58.7	61.8	3.84	4.04		2.04	2.06		2.9	2.8	
						0.52	143	27.0		34.99		8.07		64.9		4.24			2.07			2.7		

Remark: * DA: Depth-Averaged

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

Water Quality Monitoring Data Log Sheet **2-Oct-2021** **Tide: Mid-Flood**

Monitoring Station	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Depth Level ***	Current Velocity (m/s)	CurrentDirection	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*
C1	Fine	Calm	21:13	21.4	S	0.29	291	29.5	29.5	33.19	33.21	8.37	8.37	130.1	128.4	8.26	8.16	6.19	1.04	1.05	1.75	3.0	3.2	2.8
						0.32	307	29.5		33.23		8.36		126.7		8.05			1.06			3.4		
					M	0.34	294	28.2	28.2	34.12	34.14	8.12	8.12	68.2	65.5	4.40	4.23		1.20	1.24		2.7	2.6	
						0.37	308	28.1		34.16		8.11		62.7		4.06			1.27			2.5		
					B	0.34	295	28.0	28.2	34.20	34.09	8.08	8.09	73.4	76.9	4.74	4.95		2.96	2.98		2.3	2.5	
						0.35	321	28.3		33.97		8.09		80.4		5.15			2.99			2.6		
IM1	Fine	Calm	21:20	18.2	S	0.32	328	29.7	29.6	32.91	32.99	8.37	8.37	137.6	134.2	8.74	8.53	6.80	1.94	1.92	2.58	3.1	3.0	3.7
						0.33	339	29.5		33.06		8.37		130.8		8.31			1.90			2.9		
					M	0.34	330	29.2	29.3	33.59	33.56	8.22	8.22	79.5	79.9	5.06	5.08		2.55	2.57		3.2	3.4	
						0.35	346	29.3		33.53		8.22		80.2		5.10			2.59			3.5		
					B	0.35	328	29.7	29.8	33.24	33.20	8.25	8.26	90.0	92.0	5.70	5.82		3.22	3.24		4.5	4.6	
						0.36	355	29.8		33.16		8.27		94.0		5.94			3.26			4.7		
IM2	Fine	Calm	21:39	5.6	S	0.23	280	30.5	30.5	32.98	32.96	8.37	8.37	140.9	139.4	8.82	8.73	8.73	1.77	1.78	2.01	3.3	3.4	3.0
						0.25	302	30.5		32.94		8.37		137.9		8.63			1.78			3.5		
					M	0.00	0		-		-		-		-		-			-			-		
						0.00	0																	
					B	0.19	265	30.9	30.9	32.72	32.67	8.37	8.37	131.9	133.7	8.22	8.33		2.22	2.25		2.7	2.6	
						0.21	274	30.9		32.62		8.36		135.5		8.43			2.27			2.4		
G1	Fine	Calm	21:32	6	S	0.25	319	30.3	30.3	33.15	33.17	8.34	8.34	144.2	144.2	9.04	9.05	8.44	1.14	1.13	1.77	3.2	3.0	3.6
						0.27	331	30.3		33.18		8.34		144.2		9.05			1.11			2.8		
					M	0.25	319	30.1	30.1	33.26	33.27	8.32	8.32	125.7	124.5	7.91	7.83		1.76	1.73		3.6	3.8	
						0.25	336	30.1		33.28		8.32		123.3		7.75			1.70			3.9		
					B	0.24	319	30.0	30.1	33.33	33.28	8.33	8.34	119.7	120.0	7.53	7.54		2.45	2.45		4.2	4.1	
						0.25	331	30.1		33.23		8.35		120.2		7.55			2.44			4.0		
E1	Fine	Calm	20:52	23.8	S	0.30	259	29.6	29.6	33.19	33.23	8.38	8.38	138.0	136.8	8.75	8.68	6.99	1.18	1.16	1.28	2.9	3.0	2.8
						0.33	284	29.5		33.27		8.37		135.6		8.61			1.13			3.1		
					M	0.30	255	29.0	29.0	33.94	33.94	8.24	8.24	83.1	83.1	5.30	5.30		1.22	1.23		2.7	2.8	
						0.31	266	29.0		33.94		8.24		83.0		5.30			1.24			2.9		
					B	0.30	253	29.4	29.5	33.53	33.47	8.26	8.27	86.2	87.4	5.47	5.54		1.44	1.44		2.4	2.6	
						0.33	256	29.6		33.40		8.27		88.5		5.60			1.44			2.7		
F1	Fine	Moderate	19:38	34	S	0.50	330	29.5	29.5	33.53	33.56	8.34	8.34	128.1	127.1	8.12	8.06	7.06	1.08	1.07	1.37	3.8	3.6	2.9
						0.51	339	29.5		33.59		8.33		126.0		7.99			1.06			3.4		
					M	0.30	310	29.3	29.3	33.86	33.86	8.34	8.35	95.9	95.7	6.09	6.07		1.18	1.16		2.7	2.9	
						0.31	338	29.3		33.85		8.35		95.4		6.05			1.14			3.1		
					B	0.30	288	29.4	29.5	33.75	33.71	8.36	8.37	98.8	100.5	6.26	6.37		1.88	1.89		2.3	2.3	
						0.31	295	29.5		33.67		8.37		102.1		6.47			1.89			2.3		
IM3	Fine	Calm	20:42	14.6	S	0.30	272	29.2	29.2	33.66	33.67	8.26	8.26	105.5	105.2	6.72	6.70	6.33	1.07	1.06	1.34	3.5	3.4	3.9
						0.31	273	29.2		33.68		8.26		104.9		6.68			1.04			3.3		
					M	0.30	272	29.1	29.1	33.65	33.64	8.25	8.25	93.5	93.6	5.96	5.96		1.22	1.23		3.6	3.8	
						0.31	292	29.1		33.62		8.25		93.6		5.96			1.24			4.0		
					B	0.30	273	29.5	29.6	33.32	33.28	8.24	8.24	95.5	96.0	6.05	6.08		1.74	1.74		4.8	4.6	
						0.32	284	29.6		33.24		8.24		96.4		6.10			1.74			4.4		
IM4	Fine	Calm	20:29	12.4	S	0.30	282	29.6	29.6	33.33	33.35	8.41	8.41	140.3	137.4	8.90	8.72	7.62	1.05	1.06	1.48	1.4	1.5	2.3
						0.33	283	29.5		33.36		8.40		134.5		8.54			1.07			1.5		
					M	0.30	281	29.3	29.3	33.63	33.64	8.28	8.28	103.3	102.4	6.57	6.51		1.48	1.45		2.1	2.3	
						0.32	294	29.3		33.65		8.28		101.5		6.45			1.41			2.4		
					B	0.30	272	29.8	29.9	33.27	33.23	8.31	8.31	96.7	98.0	6.10	6.18		1.92	1.93		3.3	3.3	
						0.33	279	29.9		33.19		8.31		99.2		6.26			1.94			3.2		
IM5	Fine	Calm	20:09	26.4	S	0.40	227	29.6	29.6	33.44	33.46	8.36	8.36	126.8	125.5	8.04	7.96	6.70	1.09	1.07	1.36	2.4	2.3	3.0
						0.40	234	29.5		33.47		8.36		124.2		7.88			1.04			2.2		
					M	0.50	223	29.0	29.0	33.75	33.74	8.22	8.22	85.2	85.1	5.44	5.44		1.13	1.14		2.7	2.8	
						0.53	235	28.9		33.73		8.21		84.9		5.43			1.15			2.9		
					B	0.50	225	27.9	27.9	34.52	34.52	8.17	8.18	80.1	81.3	5.18	5.25		1.84	1.86		3.6	3.8	
						0.51	226	27.9		34.52		8.18		82.4		5.32			1.88			3.9		
IM6	Fine	Calm	20:02	16	S	0.20	212	29.5	29.5	33.56	33.57	8.26	8.26	109.8	109.4	6.96	6.94	6.51	1.04	1.06	1.52	3.7	3.6	2.7
						0.21	227	29.4		33.58		8.26		109.0		6.92			1.07			3.4		
					M	0.20	198	29.0	29.0	33.82	33.82	8.26	8.26	95.3	95.2	6.08	6.07		1.66	1.65		3.0	2.8	
						0.22	203	29.0		33.82		8.26		95.0		6.06			1.64			2.5		
					B	0.30	223	29.6	29.7	33.39	33.35	8.25	8.25	91.4	92.6	5.78	5.86		1.88	1.86		1.8	1.8	
						0.30	238	29.7		33.30		8.25		93.8		5.93			1.84			1.7		
IM7	Fine	Moderate	19:49	17.8	S	0.20	218	29.4	29.4	33.69	33.70	8.29	8.29	113.0	112.7	7.17	7.15	6.82	1.04	1.05	1.14	1.4	1.6	2.4
						0.20	235	29.4		33.70		8.29		112.4		7.13			1.05			1.8		
					M	0.40	212	29.3	29.3	33.75	33.75	8.29	8.29	101.9	101.9	6.48	6.48		1.15	1.16		2.4	2.3	
						0.40	214	29.3		33.75		8.29		101.9		6.48			1.16			2.2		
					B	0.50	210	29.5	29.5	33.61	33.60	8.30	8.30	102.5	102.6	6.49	6.50		1.23	1.22		3.0	3.2	
						0.52	214	29.5		33.58		8.30		102.7		6.50			1.21			3.4		
G2	Fine	Calm	20:26	28.8	S	0.30	218	29.6	29.6	33.31	33.33	8.41	8.41	145.6	141.2	9.23	8.96	7.12	1.06	1.06	1.36	3.9	4.1	3.0
						0.33	232	29.5		33.35		8.41		136.8		8.68			1.05			4.2		
					M	0.40	227	28.9	28.9	33.88	33.89	8.20	8.20	82.8	82.8	5.29	5.29		1.42	1.43		2.8	2.7	
						0.41	227	28.8		33.90		8.20		82.7		5.29			1.44			2.5		
					B	0.40	231	28.7	28.8	33.95	33.93	8.19	8.19	91.3	92.0	5.84	5.88		1.59	1.59		2.4	2.3	
						0.43	252	28.8		33.91		8.19		92.6		5.92			1.59			2.1		
G3	Fine	Calm	20:13	28.8	S	0.30	190	29.4	29.4	33.55	33.57	8.35	8.35	122.7	121.3	7.79	7.71	6.09	1.03	1.05	1.89	3.0	2.9	3.6
						0.31	198	29.3		33.59		8.34		119.9		7.62			1.07			2.7		
					M	0.40	194	28.8	28.8	33.59	33.55	8.18	8.18	69.9	69.6	4.48	4.47		1.88	1.88		3.2	3.4	
						0.41	195	28.8		33.51		8.18		69.3		4.45			1.87			3.6		
					B	0.40	198	26.2	26.3	35.52	35.54	8.06	8.06	64.8	66.1	4.28	4.36		2.77	2.75		4.4	4.5	
						0.44	213	26.3		35.55		8.06		67.3		4.44			2.72			4.6		

Remark: * DA: Depth-Averaged

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

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