

Expansion of Hong Kong International Airport into a Three-Runway System

Construction Phase Monthly EM&A Report No.69 (For September 2021)

October 2021

Airport Authority Hong Kong

3/F International Trade Tower 348 Kwun Tong Road Kwun Tong Kowloon Hong Kong

T +852 2828 5757 F +852 2827 1823 mottmac.hk

Expansion of Hong Kong International Airport into a Three-Runway System

Construction Phase Monthly EM&A Report No.69 (For September 2021)

October 2021

This Monthly EM&A Report No. 69 has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Condition 3.5 of Environmental Permit No. EP-489/2014.

Certified by:

Terence Kong

Environmental Team Leader (ETL) Mott MacDonald Hong Kong Limited

Date 15 October 2021



AECOM

12/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, Hong Kong 香港新界沙田鄉事會路 138 號新城 市中央廣場第 2 座 12 樓 www.aecom.com

+852 3922 9000 tel

Our Ref: 60440482/C/JCHL211015

By Email

Airport Authority Hong Kong HKIA Tower, 1 Sky Plaza Road Hong Kong International Airport Lantau, Hong Kong

Attn: Mr. Lawrence Tsui, Principal Manager, Environmental Compliance

15 October 2021

Dear Sir,

Contract No. 3102 3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 69 (September 2021)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 69 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 15 October 2021.

We write to verify the captioned submission in accordance with the requirement stipulated in Condition 3.5 of EP-489/2014.

Should you have any query, please feel free to contact the undersigned at 3922 9376.

Yours faithfully, AECOM Asia Co. Ltd.

while

Jackel Law

Independent Environmental Checker

Contents

Abb	orevi	ations	1
Exe	ecutiv	ve Summary	3
1	Intr	oduction	8
	1.1	Background	8
	1.2	Scope of this Report	8
	1.3	Project Organisation	8
	1.4	Summary of Construction Works	12
2	Air	Quality Monitoring	16
	2.1	Action and Limit Levels	16
	2.2	Monitoring Equipment	16
	2.3	Monitoring Methodology	16
		2.3.1 Measuring Procedure	16
		2.3.2 Maintenance and Calibration	17
	2.4	Summary of Monitoring Results	17
	2.5	Conclusion	17
3	Noi	se Monitoring	18
	3.1	Action and Limit Levels	18
	3.2	Monitoring Equipment	18
	3.3	Monitoring Methodology	19
		3.3.1 Monitoring Procedure	19
		3.3.2 Maintenance and Calibration	19
	3.4	Summary of Monitoring Results	19
	3.5	Conclusion	20
4	Wa	ter Quality Monitoring	21
	4.1	Action and Limit Levels	22
	4.2	Monitoring Equipment	23
	4.3	Monitoring Methodology	23
		4.3.1 Measuring Procedure	23
		4.3.2 Maintenance and Calibration	24
		4.3.3 Laboratory Measurement / Analysis	24
	4.4	Summary of Monitoring Results	24
	4 5	Conclusion	27

5	Wa	aste Management	29
	5.1	Action and Limit Levels	29
	5.2	Waste Management Status	29
	5.3	Marine Sediment Management	30
6	Chi	inese White Dolphin Monitoring	31
	6.1	Action and Limit Levels	31
	6.2	CWD Monitoring Transects and Stations	31
		6.2.1 Small Vessel Line-transect Survey	31
		6.2.2 Land-based Theodolite Tracking Survey	33
	6.3	CWD Monitoring Methodology	33
		6.3.1 Small Vessel Line-transect Survey	33
		6.3.2 Photo Identification	34
		6.3.3 Land-based Theodolite Tracking Survey	34
	6.4	•	35
		6.4.1 Small Vessel Line-transect Survey	35
		6.4.2 Photo Identification	38
		6.4.3 Land-based Theodolite Tracking Survey	38
	6.5	5	38
	6.6	5	39
	6.7		39
	6.8	Summary of CWD Monitoring	39
7	Enν	vironmental Site Inspection and Audit	40
	7.1	Environmental Site Inspection	40
	7.2	Landscape and Visual Mitigation Measures	40
	7.3	Land Contamination Assessment	48
	7.4	Audit of SkyPier High Speed Ferries	48
	7.5	Audit of Construction and Associated Vessels	49
	7.6	Implementation of Dolphin Exclusion Zone	49
	7.7	Status of Submissions under Environmental Permits	50
	7.8	Compliance with Other Statutory Environmental Requirements	50
	7.9	Analysis and Interpretation of Complaints, Notification of Summons ar Status of Prosecutions	nd 50
		7.9.1 Complaints	50
		7.9.2 Notifications of Summons or Status of Prosecution	51
		7.9.3 Cumulative Statistics	51
8	Fut	ture Key Issues and Other EIA & EM&A Issues	52
	8.1	Construction Programme for the Coming Reporting Period	52
	8.2	Key Environmental Issues for the Coming Reporting Period	54
	8.3	Monitoring Schedule for the Coming Reporting Period	55
	8 4		55

9 Conclusion and Recommendation

56

Tables

Table 1.1: Contact Information of Key Personnel	9
Table 1.2: Summary of status for all environmental aspects under the Updated EM&A	
	12
·	16
, s	16
, , , ,	16
, , , ,	17
Table 3.1: Locations of Impact Noise Monitoring Stations	18
Table 3.2: Action and Limit Levels for Noise Monitoring	18
	19
Table 3.4: Summary of Construction Noise Monitoring Results	20
Table 4.1: Monitoring Locations of Impact Water Quality Monitoring	21
Table 4.2: Action and Limit Levels for General Water Quality Monitoring	22
Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for Genera Water Quality Monitoring	al 23
Table 4.4: Water Quality Monitoring Equipment	23
Table 4.5: Other Monitoring Equipment	23
Table 4.6: Laboratory Measurement/ Analysis of SS	24
Table 4.7: Summary of DO (Surface and Middle) Compliance Status (Mid-Ebb Tide)	25
Table 4.8: Summary of DO (Surface and Middle) Compliance Status (Mid-Flood Tide)	25
Table 4.9: Summary of SS Compliance Status (Mid-Flood Tide)	25
Table 4.10: Summary of Findings from Investigation of DO Monitoring Results	26
Table 4.11: Summary of Findings from Investigation of SS Monitoring Results	27
Table 5.1: Action and Limit Levels for Construction Waste	29
Table 5.2: Construction Waste Statistics	30
Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin	0.4
v	31
Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Area	as 32
Table 6.3: Land-based Theodolite Survey Station Details	33
Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels	า 37
	38
Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite	
•	38
·	41
Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting	40
	42
5 5	43
•	44
Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period	44

	imary of the Transplanted Trees Opdated in the Reporting Period	45
	tos of the Existing Transplanted Trees	47
	mary of Key Audit Findings against the SkyPier Plan us of Submissions under Environmental Permit	49 50
Table 7.9. Statt	us of Submissions under Environmental Permit	50
Figures		
Figure 1.1	Locations of Key Construction Activities	
Figure 2.1	Locations of Air and Noise Monitoring Stations and Chek Lap Kok Wind Station	
Figure 4.1	Water Quality Monitoring Stations	
Figure 6.1	Vessel based Dolphin Monitoring Transects in Construction, Post- construction and Operation Phases	
Figure 6.2	Land based Dolphin Monitoring in Baseline and Construction Phases	
Figure 6.3	Sightings Distribution of Chinese White Dolphins	
Figure 6.5	Location for Autonomous Passive Acoustic Monitoring	
Appendic	es	
Appendix A	Contract Description	
Appendix B	Environmental Mitigation Implementation Schedule (EMIS) for Constr Phase	uction
Appendix C	Monitoring Schedule	
Appendix D	Monitoring Results	
Appendix E	Calibration Certificates	
Appendix F	Status of Environmental Permits and Licences	
Appendix G	Cumulative Statistics on Exceedances, Environmental Complaints, N of Summons and Status of Prosecutions	otification

1

Abbreviations

3RS	Three-Runway System		
AAHK	Airport Authority Hong Kong		
AECOM	AECOM Asia Company Limited		
AFCD	Agriculture, Fisheries and Conservation Department		
AIS	Automatic Information System		
ANI	Encounter Rate of Number of Dolphins		
APM	Automated People Mover		
AW Airport West			
BHS	Baggage Handling System		
C&D	Construction and Demolition		
CAP	Contamination Assessment Plan		
CAR	Contamination Assessment Report		
CTCC	Construction Traffic Control Centre		
CWD	Chinese White Dolphin		
DCM	Deep Cement Mixing		
DEZ	Dolphin Exclusion Zone		
DO	Dissolved Oxygen		
EIA	Environmental Impact Assessment		
EM&A	Environmental Monitoring & Audit		
EP	Environmental Permit		
EPD	Environmental Protection Department		
EPSS	Emergency Power Supply Systems		
ET	Environmental Team		
FCZ	Fish Culture Zone		
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary		
	Crossing Facilities		
HKIA	Hong Kong International Airport		
HOKLAS	Hong Kong Laboratory Accreditation Scheme		
HSF	High Speed Ferry		
HVS	High Volume Sampler		
IEC	Independent Environmental Checker		
LKC	Lung Kwu Chau		
MMHK	Mott MacDonald Hong Kong Limited		
MMWP	Marine Mammal Watching Plan		
MSS	Maritime Surveillance System		
MTRMP-CAV	Marine Travel Routes and Management Plan for		
	Construction and Associated Vessel		
NEL	Northeast Lantau		
NWL	Northwest Lantau		
PAM	Passive Acoustic Monitoring		
PM Project Manager			
SC	Sha Chau		
SCZ	Speed Control Zone		

SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park		
	<u> </u>		
SS	Suspended Solids		
SSSI	Site of Special Scientific Interest		
STG	Encounter Rate of Number of Dolphin Sightings		
SWL	Southwest Lantau		
T2	Terminal 2		
The Project	The Expansion of Hong Kong International Airport into a		
	Three-Runway System		
The SkyPier Plan	Marine Travel Routes and Management Plan for High		
	Speed Ferries of SkyPier		
The Manual	The Updated EM&A Manual		
TSP	Total Suspended Particulates		
WL	West Lantau		
WMP	Waste Management Plan		

Executive Summary

The "Expansion of Hong Kong International Airport into a Three-Runway System" (the Project) serves to meet the future air traffic demands at Hong Kong International Airport (HKIA). On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the Project was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual).

This is the 69th Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 September 2021.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included marine filling, seawall and facilities construction, together with runway and associated works such as bored piling for approach lights. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, piling, and excavation works.

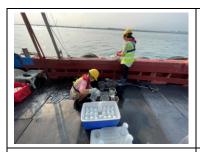
EM&A Activities Conducted in the Reporting Period

The monthly EM&A programme was undertaken in accordance with the Manual of the Project. Summary of the monitoring activities during this reporting period is presented as below:

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

Environmental auditing works, including weekly site inspections of construction works conducted by the ET and bi-weekly site inspections conducted by the Independent Environmental Checker (IEC), audit of SkyPier High Speed Ferries (HSF), audit of construction and associated vessels, and audit of implementation of Marine Mammal Watching Plan (MMWP) and Dolphin Exclusion Zone (DEZ) Plan, were conducted in the reporting period. Based on information including ET's observations, records of Maritime Surveillance System (MSS), and contractors' site records, it is noted that environmental pollution control and mitigation measures were properly implemented and construction activities of the Project in the reporting period did not introduce adverse impacts to the sensitive receivers.

Snapshots of EM&A Activities in the Reporting Period



Impact Water Quality Monitoring conducted by ET



Dump Truck with Mechanical Truck Cover used for Delivering C&D Materials



Dust Suppression Measure conducted by Contractor

Results of Impact Monitoring

The monitoring works for construction dust, construction noise, water quality, construction waste, landscape & visual, and CWD were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, construction waste, and CWD did not trigger the corresponding Action and Limit Levels in the reporting period.

The water quality monitoring results for all parameters, except dissolved oxygen (DO) and suspended solids (SS), obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For DO and SS, some of the testing results triggered the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings revealed that the cases were not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

Summary of Upcoming Key Issues

Reclamation Works:

Contract 3206 Main Reclamation Works

- Land-based ground improvement works; and
- Seawall construction.

Airfield Works

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works; and
- Paving works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Piling and structure works;
- Ducting works; and
- Backfilling and reinstatement works.

Contract 3303 Third Runway and Associated Works

- Footing and utilities work;
- Piling work;

- Construction of approach light;
- · Operation of asphalt plant; and
- Cable laying and ducting works.

Contract 3305 Airfield Ground Lighting System

- · Genset installation; and
- Site establishment.

Contract 3307 Fire Training Facility

- Architectural, Builder's and Finishing works; and
- Drainage and utilities works.; and
- Building construction.

Contract 3308 Foreign Object Debris Detection System

Site formation.

Contract 3310 North Runway Modification Works

Ground improvement works.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Footing works; and
- Underground utilities construction.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Foundation works;
- Piling work;
- Excavation and backfilling; and
- Road formation.

Contract 3408 Third Runway Concourse and Apron Works

- Site setup works; and
- Excavation and lateral support works.

Terminal 2 Expansion:

Contract 3503 Terminal 2 Foundation and Substructure Works

- T2 re-configuration;
- Excavation works;
- Utilities road works; and
- Piling and structure works.

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Site formation;
- Drainage works;
- Piling work; and
- Builders' works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Pull out test for guideway;
- Guidebeam installation; and
- Concreting work.

Contract 3602 Existing APM System Modification Works

- Car modification;
- Formwork erection and;
- Concreting work.

Contract 3603 Baggage Handling System (BHS)

- BHS installation; and
- Dismantling works.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Laying of drainage pipes and ducts;
- Site clearance;
- Paving works; and
- Road works.

Contract 3722 Construction Support Facilities

Clearance works

Contract 3723 Construction Support Facilities

- Erection of site office;
- Electrical and mechanical installation; and
- Sewage pump and treatment system installation

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation and backfilling; and
- Casting.

Contract 3802 APM and BHS Tunnels and Related Works

- Construction of Airside Fire Station and marine sediment treatment plant;
- Installation of sheet pipes and dewatering well;
- Pre-drilling;
- Ground investigation works; and
- Ducting works.

Construction Support (Services / Licences):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant; and
- Foundation and superstructure works for conveyor belt.

Summary Table

The following table summarises the key findings of the EM&A programme during the reporting period:

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level^		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level [^]		V	No breach of Action Level was recorded.	Nil
Complaint Received		√	In the previous reporting period, a complaint regarding dust issue at 3RS construction site area was received on 13 July 2021.	ET requested the relevant contractor to provide information related to the complaint. During regular site inspections, fugitive dust from vehicular movement and slightly dry haul road were observed in the concerned location, and were followed up by the contractor afterwards. The contractor conducted water spraying according to their dust control management plan and no dust issue was observed at the concerned location during ad-hoc inspections. The contractor was reminded to continue implementing their environmental mitigation measures on dust control on haul road and stockpiles especially on sunny days. The case was considered closed.
			No construction activities-related complaint was received during the reporting period.	Nil
Notification of any summons and status of prosecutions		$\sqrt{}$	No notification of summons or prosecution was received.	Nil
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note

[^] Only triggering of Action or Limit Level found related to Project works is counted as Breach of Action or Limit Level.

1 Introduction

1.1 Background

On 7 November 2014, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-185/2014) for the "Expansion of Hong Kong International Airport into a Three-Runway System" (the Project) was approved and an Environmental Permit (EP) (Permit No.: EP-489/2014) was issued for the construction and operation of the Project.

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1¹. AECOM Asia Company Limited (AECOM) was employed by AAHK as the Independent Environmental Checker (IEC) for the Project.

The Project covers the expansion of the existing airport into a three-runway system (3RS) with key project components comprising land formation of about 650 ha and all associated facilities and infrastructure including taxiways, aprons, aircraft stands, a passenger concourse, an expanded Terminal 2, all related airside and landside works and associated ancillary and supporting facilities. The submarine aviation fuel pipelines and submarine power cables also require diversion as part of the works.

Construction of the Project is to proceed in the general order of diversion of the submarine aviation fuel pipelines, diversion of the submarine power cables, land formation, and construction of infrastructure, followed by construction of superstructures.

The summary of construction works programme can be referred to **Section 1.4**. Description of relevant contracts is presented in **Appendix A**.

1.2 Scope of this Report

This is the 69th Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 30 September 2021.

1.3 Project Organisation

The Project's organisation structure presented in Appendix B of the Construction Phase Monthly EM&A Report No.1 remained unchanged during the reporting period. Contact details of the key personnel are presented in **Table 1.1**.

¹ The Manual is available on the Project's dedicated website (accessible at: http://env.threerunwaysystem.com/en/index.html).

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET)	Environmental Team Leader	Terence Kong	2828 5919
(Mott MacDonald Hong Kong Limited)	Deputy Environmental Team Leader	Heidi Yu	2828 5704
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141
Reclamation Works:			
Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint	Project Manager	Alan Mong	3763 1352
Venture)	Environmental Officer	Zhang Bin Wang	3763 1451
Airfield Works:			
Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway	Deputy Project Director	Kin Hang Chung	9800 0048
(FJT-CHEC-ZHEC Joint Venture)	Environmental Officer	Joe Wong	6182 0351
Contract 3302 Eastern Vehicular Tunnel Advance Works	Project Manager	Dickey Yau	5699 4503
(China Road and Bridge Corporation)	Environmental Officer	Dennis Ho	5645 0563
Contract 3303 Third Runway and Associated Works	Project Manager	Andrew Keung	6277 6628
(SAPR Joint Venture)	Environmental Officer	Max Chin	6447 5707
Contract 3305 Airfield Ground Lighting System	Project Manager	Allam Al-Turk	2944 9725
(ADB Safegate Hong Kong Limited)	Environmental Officer	Calvin Sze	9205 9277
Contract 3307 Fire Training Facility	Project Manager	Steven Meredith	6109 1813
(Paul Y. Construction Company Limited)	Environmental Officer	Albert Chan	9700 1083
Contract 3308 Foreign Object Debris Detection System	Project Manager	Jeffrey Yau	9873 7422
(DAS Aviation Services Group)	Environmental Officer	Terry Siu	9141 2511

Party	Position	Name	Telephone
Contract 3310 North Runway Modification	Project Manager	Kingsley Chiang	9424 8437
Works (China State Construction Engineering (Hong Kong) Ltd Fujita Corporation Joint Venture)	Environmental Officer	Federick Wong	9842 2703

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling	Contract Manager	Michael Kan	9206 0550
Works (Wing Hing Construction Co., Ltd.)	Environmental Officer	Lisa He	5374 3418
Contract 3403 New Integrated Airport Centres Building and Civil Works	Project Manager	Alice Leung	9220 3162
(Sun Fook Kong Construction Limited)	Environmental Officer	Ray Cheung	9785 1566
Contract 3405 Third Runway Concourse Foundation and Substructure Works	Project Manager	Francis Choi	9423 3469
(China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Environmental Officer	Jacky Lai	9028 8975
Contract 3408 Third Runway Concourse and Apron Works (Beijing Urban Construction	Assistant Project Manager	Qian Zhang	5377 7976
Group Company Limited and Chevalier (Construction) Company Limited Joint Venture)	Environmental Officer	Malcolm Leung	7073 7559

Terminal 2 (T2) Expansion:

Party	Position	Name	Telephone
Contract 3503 Terminal 2 Foundation and Substructure	Project Manager	Eric Wu	3973 1718
Works (Leighton – Chun Wo Joint Venture)	Environmental Officer	Rex Yiu	6465 6861
Contract 3508 Terminal 2 Expansion Works (Gammon Engineering &	Project Director	Richard Ellis	6201 5637
Construction Company Limited)	Environmental Manager	Michelle Tang	9267 8866

Automated People Mover (APM) and Baggage Handling System (BHS):

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	P L Wong	9143 2185
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Carrie Kwan	9276 0551
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	КСНо	9272 9626
	Environmental Officer	Eric Ha	9215 3432

Construction Support (Facilities):

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction	Site Agent	Thomas Lui	9011 5340
Engineering (Hong Kong) Ltd.)	Environmental Officer	Xavier Lam	9493 2944
Contract 3722 Western Support Area – Construction Support Facilities	Deputy Project Director	Philip Kong	9049 3161
(Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture)	Environmental Officer	Eddie Suen	6338 8862
Contract 3723 Eastern Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture.)	Deputy Project Director	Philip Kong	9049 3161
	Environmental Officer	Eddie Suen	6338 8862
Contract 3728 Minor Site Works	Contract Manager	C K Liu	9194 8739
(Shun Yuen Construction Company Limited)	Environmental Officer	K F Li	9086 1793

Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island	Project Manager	Kingsley Chiang	9424 8437
(China State Construction Engineering (Hong Kong) Ltd.)	Environmental Officer	Eunice Kwok	9243 1331
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Construction	Project Director	John Adams	6111 6989
Limited)	Environmental Officer	Phoebe Ng	9869 1105

Construction Support (Services / Licences):

Party	Position	Name	Telephone
Contract 3901A Concrete Batching Facility	Project Manager	Benedict Wong	9553 2806
(K. Wah Concrete Company Limited)	Environmental Officer	C P Fung	9874 2872
Contract 3901B Concrete Batching Facility	Senior Project Manager	Gabriel Chan	2435 3260
(Gammon Construction Limited)	Environmental Officer	Rex Wong	2695 6319

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included seawall and facilities construction, together with runway and associated works such as bored piling for approach lights. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for APM and BHS systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

The locations of key construction activities are presented in **Figure 1.1**. Summary of EM&A Programme Requirements

The status for all environmental aspects are presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period.

Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual

Parameters	EM&A Requirements	Status
Air Quality		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
Noise		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result has been reported in Baseline Monitoring

Parameters	EM&A Requirements	Status
		Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid- ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and midebb tides.	On-going for reclamation works. General impact water quality monitoring for water jetting works was completed on 23 May 2017.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring is ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.
Sewerage and Sewage Tre	atment	
Methodology for carrying out annual sewage flow monitoring for concerned gravity sewer	Methodology to be prepared and submitted to EPD one year before the scheduled commencement of operation of the proposed third runway	The proposed methodology of the annual sewage flow monitoring was approved by EPD. The annual flow monitoring has been started since June 2021.
Details of the routine H₂S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The details of the routine H ₂ S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted and approved by EPD under EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	CAR to be submitted for golf course	The CAR for Golf Course was submitted and accepted by EPD.
	CAR to be submitted for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply Systems were submitted and accepted by EPD.
Terrestrial Ecology		
Pre-construction Egretry Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Monthly monitoring during the HDD construction works period from August to March.	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology		
Pre-Construction Phase Coral Dive Survey	Prior to marine construction works	The Coral Translocation Plan was submitted and approved by EPD under EF Condition 2.12.
Coral Translocation	-	The coral translocation was completed.
Post-Translocation Coral	As per an enhanced monitoring programme based on the Coral Translocation Plan	The post-translocation monitoring programme according to the Coral

Parameters	EM&A Requirements	Status
		Translocation Plan was completed in April 2018.
Chinese White Dolphins (C	CWD)	
Baseline Monitoring	6 months of baseline surveys before the commencement of land formation related construction works. Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: Two days per month at the Sha Chau station and two days per month at the Lung Kwu Chau station; and Passive Acoustic Monitoring (PAM): For the	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	whole duration of baseline period. Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: One day per month at the Sha Chau station and one day per month at the Lung Kwu Chau station; and PAM: For the whole duration for land formation related construction works.	On-going
Landscape & Visual		
Landscape & Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Environmental Auditing		
Regular site inspection	Weekly	On-going On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels Implementation measures	Monitor and check	On-going
Silt Curtain Deployment Plan implementation measures	Monitor and check	On-going
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

Taking into account the construction works in this reporting period, impact monitoring of air quality, noise, water quality, waste management, landscape & visual, and CWD were carried out in the reporting period.

The EM&A programme also involved weekly site inspections and related auditing conducted by the ET for checking the implementation of the required environmental mitigation measures recommended in the approved EIA Report. To promote the environmental awareness and enhance the environmental performance of the contractors, environmental trainings and regular environmental management meetings were conducted during the reporting period, which are summarised as below:

- Two skipper training sessions provided by ET: 1 and 29 September 2021.
- Seventeen environmental management meetings for EM&A review with works contracts: 2, 3, 15, 16, 20, 21, 23, 24, 27 and 28 September 2021.

The EM&A programme has been following the recommendations presented in the approved EIA Report and the Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix B**.

2 Air Quality Monitoring

Air quality monitoring of 1-hour Total Suspended Particulates (TSP) was conducted three times every six days at two representative monitoring stations in the vicinity of air sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 2.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

Table 2.1: Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location
AR1A	Man Tung Road Park
AR2	Village House at Tin Sum

2.1 Action and Limit Levels

In accordance with the Manual, baseline air quality monitoring of 1-hour TSP levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the air quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 2.2**.

Table 2.2: Action and Limit Levels of Air Quality Monitoring

Monitoring Station	Action Level (μg/m³)	Limit Level (μg/m³)
AR1A	306	500
AR2	298	

2.2 Monitoring Equipment

Portable direct reading dust meter was used to carry out the air quality monitoring. Details of equipment used in the reporting period are given in **Table 2.3**.

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-2 (Serial No. 296098)	20 Oct 2020	Monthly EM&A Report No. 58, Appendix E
	SIBATA LD-3B-1 (Serial No. 597337)	10 May 2021	Monthly EM&A Report No. 65, Appendix D

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

The measurement procedures involved in the impact air quality monitoring can be summarised as follows:

a. The portable direct reading dust meter was mounted on a tripod at a height of 1.2m above the ground.

- b. Prior to the measurement, the equipment was set up for 1 minute span check and 6 second background check.
- c. The one hour dust measurement was started. Site conditions and dust sources at the nearby area were recorded on a record sheet.
- d. When the measurement completed, the "Count" reading per hour was recorded for result calculation.

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix D of Construction Phase Monthly EM&A Report No. 65, and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are valid in the reporting period.

2.4 Summary of Monitoring Results

The air quality monitoring schedule involved in the reporting period is provided in **Appendix C**.

The air quality monitoring results in the reporting period are summarised in **Table 2.4**. Detailed impact monitoring results are presented in **Appendix D**.

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (µg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
AR1A	16 - 38	306	500
AR2	16 - 72	298	

The monitoring results were within the corresponding Action and Limit Levels at all monitoring stations in the reporting period.

General meteorological conditions throughout the impact monitoring period were recorded. Wind data including wind speed and wind direction for each monitoring day were collected from the Chek Lap Kok Wind Station.

2.5 Conclusion

No dust emission source was observed at the monitoring stations during the monitoring sessions. As the sensitive receivers were far away from the construction activities, with the implementation of dust control measures, there was no adverse impact at the sensitive receivers attributable to the works of the Project.

3 Noise Monitoring

Noise monitoring in the form of 30-minute measurements of L_{eq} , L_{10} , and L_{90} levels was conducted once per week between 0700 and 1900 on normal weekdays at four representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Table 3.1** describes the details of the monitoring stations. **Figure 2.1** shows the locations of the monitoring stations.

Table 3.1: Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Type of measurement
NM1A	Man Tung Road Park	Free field
NM2 ⁽¹⁾	Tung Chung West Development	To be determined
NM3A ⁽²⁾	Site Office	Facade
NM4	Ching Chung Hau Po Woon Primary School	Free field
NM5	Village House in Tin Sum	Free field
NM6	House No. 1, Sha Lo Wan	Free field
N1 - 4 -		

Note:

- (1) As described in Section 4.3.3 of the Manual, noise monitoring at NM2 will only commence after occupation of the future Tung Chung West Development.
- (2) According to Section 4.3.3 of the Manual, the noise monitoring at NM3A was temporarily suspended starting from 1 September 2018 and would be resumed with the completion of the Tung Chung East Development.

3.1 Action and Limit Levels

In accordance with the Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the noise monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 3.2**.

Table 3.2: Action and Limit Levels for Noise Monitoring

Monitoring Stations	Time Period	Action Level	Limit Level, L _{eq(30mins)} dB(A)
NM1A, NM2, NM3A, NM4, NM5 and NM6	0700-1900 hours on normal weekdays	When one documented complaint is received from any one of the sensitive receivers	75dB(A) ⁽¹⁾

Note

(1) The Limit Level for NM4 is reduced to 70dB(A) for being an educational institution. During school examination period, the Limit Level is further reduced to 65dB(A).

3.2 Monitoring Equipment

Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was used to check the sound level meters by a known sound pressure level for field measurement. Details of equipment used in the reporting period are given in **Table 3.3**.

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in				
Integrated Sound Level Meter	Rion NL-52 (Serial No. 00998505)	20 Mar 2021	Monthly EM&A Report No. 63, Appendix E				
	Rion NL-52 (Serial No. 01287679)	20 Jun 2021	Monthly EM&A Report No. 66, Appendix D				
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	20 Jun 2021	Monthly EM&A Report No. 66, Appendix D				
	Castle GA607 (Serial No. 040162)	20 Mar 2021	Monthly EM&A Report No. 63, Appendix E				

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

The monitoring procedures involved in the noise monitoring can be summarised as follows:

- a. The sound level meter was set on a tripod at least a height of 1.2m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3dB(A) was applied to the free field measurements.
- b. Façade measurements were made at the monitoring station NM3A.
- c. Parameters such as frequency weighting, time weighting and measurement time were set.
- d. Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator. If the difference in the calibration level before and after measurement was more than 1dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- e. During the monitoring period, L_{eq} , L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a record sheet.
- f. Noise measurement results, when higher than the baseline monitoring levels, were corrected with reference to the baseline monitoring levels.
- g. Observations were recorded when high intrusive noise (e.g. dog barking, helicopter noise) was observed during the monitoring.

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

- a. The microphone head of the sound level meter was cleaned with soft cloth at regular intervals
- b. The meter and calibrator were sent to the supplier or laboratory accredited under Hong Kong Laboratory Accreditation Scheme (HOKLAS) to check and calibrate at yearly intervals.

Calibration certificates of the sound level meters and acoustic calibrators used in the noise monitoring listed in **Table 3.3** are valid in the reporting period.

3.4 Summary of Monitoring Results

The noise monitoring schedule involved in the reporting period is provided in **Appendix C**.

The noise monitoring results in the reporting period are summarised in **Table 3.4**. Detailed impact monitoring results are presented in **Appendix D**.

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)							
	Leq (30mins)	Leq (30mins)							
NM1A ⁽¹⁾	63 - 69	75							
NM4 ⁽¹⁾	63 - 66	70(2)							
NM5 ⁽¹⁾⁽³⁾	55 - 61	75							
NM6 ⁽¹⁾⁽³⁾	62 - 67	75							

Notes:

- (1) +3dB(A) Façade correction included;
- (2) Reduced to 65dB(A) during school examination periods at NM4. No school examination took place during this reporting period.
- (3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring levels.

No complaints were received from any sensitive receiver that triggered the Action Level. All monitoring results were also within the corresponding Limit Levels at all monitoring stations in the reporting period.

3.5 Conclusion

As the construction activities were far away from the monitoring stations, major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were traffic noise near NM1A, school activities at NM4 and aircraft noise near NM6 during this reporting period. It is considered that the monitoring work during the reporting period was effective and there was no adverse impact attributable to the Project activities.

4 Water Quality Monitoring

Water quality monitoring of DO, pH, temperature, salinity, turbidity and suspended solids (SS) was conducted three days per week, at mid-ebb and mid-flood tides, at a total of 23 water quality monitoring stations, comprising 12 impact (IM) stations, 8 sensitive receiver (SR) stations and 3 control (C) stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. The purpose of water quality monitoring at the IM stations is to promptly capture any potential water quality impact from the Project before it could become apparent at sensitive receivers (represented by the SR stations). **Table 4.1** describes the details of the monitoring stations. **Figure 4.1** shows the locations of the monitoring stations.

Table 4.1: Monitoring Locations of Impact Water Quality Monitoring

Monitoring Station	Description	Coordinates						
		Easting	Northing					
C1	Control Station	804247	815620					
C2	Control Station	806945	825682					
C3 ⁽²⁾	Control Station	817803	822109					
IM1	Impact Station	807132	817949					
IM2	Impact Station	806166	818163					
IM3	Impact Station	805594	818784					
IM4	Impact Station	804607	819725					
IM5	Impact Station	804867	820735					
IM6	Impact Station	805828	821060					
IM7	Impact Station	806835	821349					
IM8	Impact Station	808140	821830					
IM9	Impact Station	808811	822094					
IM10	Impact Station	809794	822385					
IM11	Impact Station	811460	822057					
IM12	Impact Station	812046	821459					
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977					
SR2	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463					
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147					
SR4A	Sha Lo Wan	807810	817189					
SR5A	San Tau Beach SSSI	810696	816593					
SR6A ⁽³⁾	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963					
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636					
SR8 ⁽⁴⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390					

Notes:

- (1) With the operation of HKBCF, water quality monitoring at SR1A station was commenced on 25 October 2018. To better reflect the water quality in the immediate vicinity of the intake, the monitoring location of SR1A has been shifted closer to the intake starting from 5 January 2019.
- (2) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.
- (3) As the access to SR6 was obstructed by the construction activities and temporary structures for Tung Chung New Town Extension, the monitoring location has been relocated to SR6A starting from 8 August 2019.
- (4) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.

4.1 Action and Limit Levels

In accordance with the Manual, baseline water quality levels at the above-mentioned representative water quality monitoring stations were established as presented in the Baseline Water Quality Monitoring Report. The Action and Limit Levels of general water quality monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 4.2**. The control and impact stations during ebb tide and flood tide for general water quality monitoring are presented in **Table 4.3**.

Table 4.2: Action and Limit Levels for General Water Quality Monitoring

Parameters	Action Leve	el (AL)	Limit Level (LL)						
Action and Limit Levels for gen (excluding SR1A & SR8)	eral water quality	y monitoring							
DO in mg/l (Surface, Middle & Bottom)	Surface and N 4.5mg/l	Middle	Surface and M 4.1mg/l 5mg/l for Fish	Middle Culture Zone (SR7) only					
	Bottom 3.4mg/l		Bottom 2.7mg/l						
Suspended Solids (SS) in mg/l Turbidity in NTU	23 22.6	or 120% of upstream control station at the same tide of the same day, whichever is higher	37 36.1	or 130% of upstream control station at the same tide of the same day, whichever is higher					
Action and Limit Levels SR1A									
SS (mg/l))	33		42						
Action and Limit Levels SR8									
SS (mg/l)	52		60						

Notes:

- (1) For DO measurement, non-compliance occurs when monitoring result is lower than the limits.
- (2) For parameters other than DO, non-compliance of water quality results when monitoring results is higher than the limits.
- (3) Depth-averaged results are used unless specified otherwise.

Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring

Control Station Impact Stations

Flood Tide	
C1	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, SR3
SR2 ⁽¹⁾	IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR3, SR4A, SR5A, SR6A, SR8
Ebb Tide	
C1	SR4A, SR5A, SR6A
C2	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR2, SR3, SR7, SR8

Note:

(1) As per findings of Baseline Water Quality Monitoring Report, the control reference has been changed from C3 to SR2 from 1 September 2016 onwards.

4.2 Monitoring Equipment

Table 4.4 summarises the equipment used in the reporting period for monitoring of specific water quality parameters under the water quality monitoring programme.

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter	YSI ProDSS (Serial No. 21G105356)	24 Sep 2021	Appendix E
(measurement of DO, pH,	YSI ProDSS (Serial No. 18A104824)	24 Sep 2021	Appendix E
temperature, salinity and turbidity)	YSI ProDSS (Serial No. 15M100005)	26 Jul 2021	Monthly EM&A Report No. 67, Appendix D
	YSI ProDSS (Serial No. 16H104233)	27 Aug 2021	Monthly EM&A Report No. 68, Appendix D
	YSI ProDSS (Serial No. 16H104234)	27 Aug 2021	Monthly EM&A Report No. 68, Appendix D
	YSI ProDSS (Serial No. 17E100747) ⁽¹	⁾ 18 Jun 2021	Monthly EM&A Report No. 66, Appendix D
	YSI ProDSS (Serial No. 17H105557)	26 Jul 2021	Monthly EM&A Report No. 67, Appendix D

Note:

Other equipment used as part of the impact water quality monitoring programme are listed in **Table 4.5**.

Table 4.5: Other Monitoring Equipment

Equipment	Brand and Model
Water Sampler	Van Dorn Water Sampler
Positioning Device (measurement of GPS)	Garmin eTrex Vista HCx
Current Meter (measurement of current speed and direction, and water depth)	Sontek HydroSurveyor

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

Water quality monitoring samples were taken at three depths (at 1m below surface, at mid-depth, and at 1m above bottom) for locations with water depth >6m. For locations with water depth between 3m and 6m, water samples were taken at two depths (surface and bottom). For locations

⁽¹⁾ The monitoring equipment was not used in the reporting period after the expiry date of the calibration certificate.

with water depth <3m, only the mid-depth was taken. Duplicate water samples were taken and analysed.

The water samples for all monitoring parameters were collected, stored, preserved and analysed according to the Standard Methods, APHA 22nd ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including temperature, pH, DO, turbidity, salinity and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen), delivered to the laboratory within 24 hours of collection.

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

All in-situ monitoring instrument was checked, calibrated and certified by a laboratory accredited under HOKLAS before use. Responses of sensors and electrodes were checked with certified standard solutions before each use.

Wet bulb calibration for a DO meter was carried out before commencement of monitoring and after completion of all measurements each day. Calibration was not conducted at each monitoring location as daily calibration is adequate for the type of DO meter employed. A zero check in distilled water was performed with the turbidity probe at least once per monitoring day. The probe was then calibrated with a solution of known NTU. In addition, the turbidity probe was calibrated at least twice per month to establish the relationship between turbidity readings (in NTU) and levels of SS (in mg/l).

Calibration certificates of the monitoring equipment used in the reporting period are listed in **Table 4.4**.

4.3.3 Laboratory Measurement / Analysis

Analysis of SS have been carried out by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066). Sufficient water samples were collected at all the monitoring stations for carrying out the laboratory SS determination. The SS determination works were started within 24 hours after collection of the water samples. The analysis of SS have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

Table 4.6: Laboratory Measurement/ Analysis of SS

Parameters	Instrumentation	Analytical Method	Reporting Limit
SS	Analytical Balance	APHA 2540D	2mg/l

4.4 Summary of Monitoring Results

The water quality monitoring schedule for the reporting period is updated and provided in **Appendix C**.

The water quality monitoring results for all parameters, except DO and SS, obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix D**.

For DO, some of the testing results triggered the corresponding Action and Limit Levels; while for SS, some of the testing results triggered the corresponding Action Level, and investigations were conducted accordingly.

Table 4.7 to **Table 4.9** present the summary of the DO and SS compliance status at IM and SR stations during mid-ebb and mid-flood tide for the reporting period.

Table 4.7: Summary of DO (Surface and Middle) Compliance Status (Mid-Ebb Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6A	SR7
02/09/2021											D							D
04/09/2021																		
07/09/2021																		
09/09/2021																		
11/09/2021																		
14/09/2021																		
16/09/2021																		
18/09/2021	D	D	D												D		D	D
21/09/2021																		
23/09/2021																		
25/09/2021																		
28/09/2021																		
30/09/2021																		
No. of result																		
triggering Action or Limit Level	1	1	1	0	0	0	0	0	0	1	1	0	0	1	1	0	1	2

Table 4.8: Summary of DO (Surface and Middle) Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6A	SR7
02/09/2021																		
04/09/2021																		
07/09/2021																		
09/09/2021																		
11/09/2021																		
14/09/2021																		
16/09/2021																		
18/09/2021																		
21/09/2021																		
23/09/2021																		
25/09/2021																		
28/09/2021																		
30/09/2021																		
No. of result																		
triggering	0	0	0	0	0	0	0	0	0	0	0	0	0	۱ ،	0	0	0	2
Action or Limit	U	U		U	١	"	"	0	١	0	U	U	0	"	U	U	U	2
Level																		

Table 4.9: Summary of SS Compliance Status (Mid-Flood Tide)

			,											,						
	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR1A	SR2	SR3	SR4A	SR5A	SR6A	SR7	SR8
02/09/2021																				
04/09/2021																				
07/09/2021																				
09/09/2021																				
11/09/2021																				
14/09/2021																				
16/09/2021																				
18/09/2021																				
21/09/2021																				
23/09/2021																				
25/09/2021																				
28/09/2021																				
30/09/2021																				
No. of result																				
triggering	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action or Limit	U	U		1	U	"	"	"	0	0	U	0	U	0	U	U	U	0	U	U
Level																				

Legend:	
	The monitoring results were within the corresponding Action and Limit Levels
	Monitoring result triggered the Action Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Action Level at monitoring station located downstream of the Project based on dominant tidal flow
	Monitoring result triggered the Limit Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Limit Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action and Limit Levels on three monitoring days. Some cases occurred at monitoring stations upstream of the Project during ebb and flood tide and would unlikely be affected by the Project.

In accordance with Event and Action Plan stipulated in the Manual, EPD, IEC and Contractor were informed when the corresponding Action or Limit Levels were triggered. Repeat measurements were conducted on 3 and 19 September 2021 according to the requirements as stipulated in the Manual. For DO results obtained on 9 September 2021, SR7 was the only monitoring station located at the upstream of the project area (more than 14km away from the marine construction works) triggering the corresponding Limit Level during flood tide, and no exceedance of general water quality monitoring parameters was recorded at other monitoring stations which are closer to the marine construction works. The preliminary information that could be obtained on the day of monitoring suggested the case was unlikely due to 3RS project construction works. Moreover, as agreed with IEC, if the exceedance occurs at a monitoring station located upstream of the project, repeat monitoring of this station is automatically not required. Therefore, the repeat measurement for SR7 was not required.

Investigation focusing on the cases which occurred at monitoring stations located downstream of the Project was carried out. Details of the Project's marine construction activities and site observations of the concerned monitoring days were collected. Findings were summarized in **Table 4.10** and **Table 4.11**.

Table 4.10: Summary of Findings from Investigation of DO Monitoring Results

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
02/09/2021	Marine Piling	At least 0.5 km	Silt curtain deployed	No	No	No
09/09/2021	Marine Piling	At least 14 km	Silt curtain deployed	No	No	No
18/09/2021	Marine Piling	At least 4.5 km	Silt curtain deployed	No	No	No

Date **Marine Approximate** Status of Construction **Turbidity** / **Action or** Silt plume construction distance water quality vessels in **Limit Level** works nearby from marine measures (if the vicinity observed triggered due construction applicable) near the to Project works monitorina station 09/09/2021 Marine Piling At least 5 km Silt curtain No No No deployed

Table 4.11: Summary of Findings from Investigation of SS Monitoring Results

The investigation confirmed that marine piling was conducted with silt curtains deployed during the concerned monitoring days. The silt curtains were maintained properly and checked by ET regularly. No muddy water discharges from outfalls of the reclaimed land were observed. All of the repeat measurement results were within the corresponding Action or Limit Levels.

For cases triggering Action or Limit Levels of DO at IM1, IM2, IM3, SR4A and SR7 on 2 and 18 September 2021, it is noted that most of the monitoring stations (i.e. IM1, IM2, IM3 and SR4A) were located at the western side of the project area, while SR7 located far away from the marine works location with at least 14 km. This suggests that the DO concentrations at these stations might be affect by other external factors. As there were no abnormal observations on construction activities during the monitoring, the cases were considered unlikely due to the Project.

For the DO result recorded at IM11 on 2 September 2021 triggering Action Level, it is noted that Action Level was also triggered at its adjacent upstream monitoring station (i.e. IM10). This suggests that the source of the low DO concentrations is not restricted to the downstream area of the Project. No silt plume, construction vessel, spillage incident or specific observation at outfalls were observed in the vicinity when monitoring was undertaken at these monitoring stations. Therefore, the case was considered unlikely due to the Project.

For the DO result recorded at SR6A on 18 September 2021 triggering Action Level, it is observed that the DO concentrations at other downstream stations closer to the marine works area (e.g. IM11 and IM12) were within the corresponding Action or Limit Levels, implying that the case might be due to external factors out of the Project area. No silt plume, construction vessel, spillage incident or specific observation at outfalls were observed in the vicinity when monitoring was undertaken at the monitoring station. Therefore, the case was considered unlikely due to the Project.

4.5 Conclusion

During the reporting period, it is noted that most of the monitoring results were within their corresponding Action and Limit Levels, while some DO measurement results triggered the corresponding Action and Limit Levels and some SS measurement results triggered the corresponding Action Levels, investigations were conducted accordingly.

Based on the investigation findings, all results that triggered the corresponding Action or Limit Levels were not due to the Project. Therefore, the Project did not cause adverse impact at the water quality sensitive receivers. All required actions under the Event and Action Plan were followed. These cases appeared to be due to natural fluctuation or other sources not related to the Project.

Nevertheless, as part of the EM&A programme, the construction methods and mitigation measures for water quality will continue to be monitored and opportunities for further enhancement will continue to be explored and implemented where possible, to strive for better protection of water quality and the marine environment.

In the meantime, the contractors were reminded to implement and maintain all mitigation measures as recommended in the Manual during weekly site inspection and regular environmental management meetings.

5 Waste Management

In accordance with the Manual, the waste generated from construction activities was audited once per week to determine if wastes are being managed in accordance with the Waste Management Plan (WMP) prepared for the Project, contract-specific WMP, and any statutory and contractual requirements. All aspects of waste management including waste generation, storage, transportation and disposal were assessed during the audits.

5.1 Action and Limit Levels

The Action and Limit Levels of the construction waste are provided in **Table 5.1**.

Table 5.1: Action and Limit Levels for Construction Waste

Monitoring Stations	Action Level	Limit Level
Construction Area	When one valid documented complaint is received	Non-compliance of the WMP, contract-specific WMPs, any statutory and contractual requirements

5.2 Waste Management Status

Weekly monitoring on all works contracts were carried out by the ET to check and monitor the implementation of proper waste management practices during the construction phase.

Recommendations made included provision and maintenance of proper chemical waste storage area, as well as handling, segregation, and regular disposal of general refuse. The contractors have taken actions to implement the recommended measures. Waste management audits were carried out by ET according to the requirement of the Waste Management Plan, Updated EM&A Manual and the implementation schedule of the waste management mitigation measures in **Appendix B**.

Based on updated information provided by contractors, construction waste generated in the reporting period is summarised in **Table 5.2**. Proactive measures have been undertaken during the re-configuration of T2 building. The contractor has established the recycling strategy for C&D materials with proper planning and design to maximize recycling and reuse. Dedicated recyclers were employed for different kinds of recyclable materials by the contractor, and ET and IEC have carried out site visit to recyclers' facilitities to review recycling process. Dedicated areas for sorting of materials are established on site. Recyclable materials such as steel, reinforcement bar, structural steel, aluminum, copper, other metals and glass are sorted on-site and transported off-site for recycling. ET and IEC have carried out site audits regularly and reviewed the trip ticket system.

Table 5.2: Construction Waste Statistics

	C&D ⁽¹⁾ Material Stockpiled for Reuse or Recycle (m³)	Reused in the Project	Reused in other		Chemical Waste (kg)	Chemical Waste (I)	General Refuse (tonne)
August 2021 ⁽²⁾⁽³⁾	17,930	*94,765	464	4,059	0	1,200	2,064
September 2021 (2)(4)	13,736	72,778	294	4,178	0	0	1,986

Notes:

- (1) C&D refers to Construction and Demolition.
- (2) Metals, paper and/or plastics were recycled in the reporting period.
- (3) Updated figure for the previous month is reported and marked with an asterisk (*). Updated figures for earlier months will be reported in the forthcoming Quarterly and Annual EM&A Reports.
- (4) The data was based on the information provided by contractors up to the submission date of this Monthly EM&A Report, and might be updated in the forthcoming Monthly EM&A Report.

There were no complaints, non-compliance of the WMP, contract-specific WMPs, statutory and contractual requirements that triggered Action and Limit Levels in the reporting period.

Along with the design and construction progress, further development on the treatment level/details and the re-use mode for marine sediment generated from 3RS Project has been conducted according to the EIA recommendation.

5.3 Marine Sediment Management

Marine sediment is managed according to the EIA Report, Updated EM&A Manual and Waste Management Plan of the Project. The sampling process, storage conditions of the excavated marine sediment, treatment process, final backfilling location as well as associated records were inspected and checked by ET and verified by IEC to ensure they were in compliance with the requirements as stipulated in the Waste Management Plan.

Sampling works for marine sediment generated from the reclaimed land area was on-going during the reporting period. The details of the marine sediment sampling, treatment and backfilling will be reported in the subsequent EM&A Reports upon completion.

6 Chinese White Dolphin Monitoring

In accordance with the Manual, CWD monitoring by small vessel line-transect survey supplemented by land-based theodolite tracking survey and passive acoustic monitoring should be conducted during construction phase.

The small vessel line-transect survey should be conducted at a frequency of two full surveys per month, while land-based theodolite tracking survey should be conducted at a frequency of one day per month per station at Sha Chau (SC) and Lung Kwu Chau (LKC) during the construction phase as stipulated in the Manual.

6.1 Action and Limit Levels

The Action and Limit Levels for CWD monitoring were formulated by the action response approach using the running quarterly dolphin encounter rates STG and ANI derived from the baseline monitoring data, as presented in the CWD Baseline Monitoring Report. The derived values of Action and Limit Levels for CWD monitoring were summarised in **Table 6.1**.

Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring

	NEL, NWL, AW, WL and SWL as a Whole
Action Level ⁽³⁾	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35
Limit Level ⁽³⁾	Two consecutive running quarterly ⁽²⁾ (3-month) STG < 1.86 & ANI < 9.35

Notes: (referring to the baseline monitoring report)

- (1) Action Level running quarterly encounter rates STG & ANI of this month will be calculated from the reporting period and the two preceding survey months.
- (2) Limit Level two consecutive running quarters mean both the running quarterly encounter rates of the preceding month and the running quarterly encounter rates of this month.
- (3) Action Level and/or Limit Level will be triggered if both STG and ANI fall below the criteria.

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys were conducted along the transects covering Northeast Lantau (NEL), Northwest Lantau (NWL), Airport West (AW), West Lantau (WL) and Southwest Lantau (SWL) areas as proposed in the Manual, which are consistent with the Agriculture, Fisheries and Conservation Department (AFCD) long-term monitoring programme (except the addition of AW). The AW transect has not been previously surveyed in the AFCD programme due to the restrictions of HKIA Approach Area, nevertheless, this transect was established during the EIA of the 3RS Project and refined in the Manual with the aim to collect project specific baseline information within the HKIA Approach Area to fill the data gap that was not covered by the AFCD programme. This also provided a larger sample size for estimating the density, abundance and patterns of movements in the broader study area of the project.

The planned vessel survey transect lines following the waypoints set for construction phase monitoring as proposed in the Manual are depicted in **Figure 6.1** with the waypoint coordinates of all transect lines given in **Table 6.2**, which are subject to on-site refinement based on the actual survey conditions and constraints.

Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas

Waypoint	Easting	Northing	Waypoint	Easting	Northing
71		NE			
1S	813525	820900	6N	818568	824433
1N	813525	824657	7S	819532	821420
28	814556	818449	7N	819532	824209
2N	814559	824768	8S	820451	822125
3S	815542	818807	8N	820451	823671
3N	815542	824882	9S	821504	822371
4S	816506	819480	9N	821504	823761
4N	816506	824859	10S	822513	823268
5S	817537	820220	10N	822513	824321
5N	817537	824613	118	823477	823402
6S	818568	820735	11N	823477	824613
		NV	VL		
1S	804671	814577	5S	808504	821735
1N	804671	831404	5N	808504	828602
2Sb	805475	815457	6S	809490	822075
2Nb	805476	818571	6N	809490	825352
2Sa	805476	820770	7S	810499	822323
2Na	805476	830562	7N	810499	824613
3S	806464	821033	8S	811508	821839
3N	806464	829598	8N	811508	824254
4S	807518	821395	9S	812516	821356
4N	807518	829230	9N	812516	824254
		A	W		
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
		W			
1W	800600	805450	7W	800400	811450
1E	801760	805450	7E	802400	811450
2W	800300	806450	8W	800800	812450
2E	801750	806450	8E	802900	812450
3W	799600	807450	9W	801500	813550
3E	801500	807450	9E	803120	813550
4W	799400	808450	10W	801880	814500
4E	801430	808450	10E	803700	814500
5W	799500	809450	11W	802860	815500
5E	801300	809450	12S/11E	803750	815500
6W	799800	810450	12N	803750	818500
6E	801400	810450			
		SV			
18	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
28	803489	803280	7S	808553	800329
2N	803489	806720	7N	808553	807377
3S	804484	802509	8S	809547	800338
3N	804484	807048	8N	809547	807396
4S	805478	802105	9S	810542	800423
4N	805478	807556	9N	810542	807462

Waypoint	Easting	Northing	Waypoint	Easting	Northing
5S	806473	801250	10S	811446	801335
5N	806473	808458	10N	811446	809436

6.2.2 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey stations were set up at two locations, one facing east/south/west on the southern slopes of Sha Chau (SC), and the other facing north/northeast/northwest at Lung Kwu Chau (LKC). The stations (D and E) are depicted in **Figure 6.2** and shown in **Table 6.3** with position coordinates, height of station and approximate distance of consistent theodolite tracking capabilities for CWD.

Table 6.3: Land-based Theodolite Survey Station Details

Stations	Location	Geographical Coordinates	Station Height (m)	Approximate Tracking Distance (km)
D	Sha Chau (SC)	22° 20′ 43.5″ N 113° 53′ 24.66″ E	45.66	2
E	Lung Kwu Chau (LKC)	22° 22′ 44.83″ N 113° 53′ 0.2″ E	70.40	3

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

Small vessel line-transect surveys provided data for density and abundance estimation and other assessments using distance-sampling methodologies, specifically, line-transect methods.

The surveys involved small vessel line-transect data collection and have been designed to be similar to, and consistent with, previous surveys for the AFCD for their long-term monitoring of small cetaceans in Hong Kong. The survey was designed to provide systematic, quantitative measurements of density, abundance and habitat use.

As mentioned in **Section 6.2.1**, the transects covered NEL, NWL, AW, WL and SWL areas as proposed in the Manual, which are consistent with the AFCD long-term monitoring programme (except AW). There are two types of transect lines:

- Primary transect lines: the parallel and zigzag transect lines as shown in Figure 6.1; and
- Secondary transect lines: transect lines connecting between the primary transect lines and going around islands.

All data collected on both primary and secondary transect lines were used for analysis of sighting distribution, group size, activities including association with fishing boat, and mother-calf pairs. Only on-effort data collected under favourable conditions of Beaufort 0-3 and visibility of approximately 1200 m or beyond were used for analysis of the CWD encounter rates.

A 15-20m vessel with a flying bridge observation platform about 4 to 5m above water level and unobstructed forward view, and a team of three to four observers were deployed to undertake the surveys. Two observers were on search effort at all times when following the transect lines with a constant speed of 7 to 8 knots (i.e. 13 to 15 km per hour), one using 7X handheld binoculars and the other using unaided eyes and recording data.

During on-effort survey periods, the survey team recorded effort data including time, position (waypoints), weather conditions (Beaufort sea state and visibility) and distance travelled in each

series with assistance of a handheld GPS device. The GPS device also continuously and automatically logged data including time, position (latitude and longitude) and vessel speed throughout the entire survey.

When CWDs were seen, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+telephoto lens), then followed until they were lost from view. At that point, the boat returned (off effort) to the survey line at the closest point after obtaining photo records of the dolphin group and began to survey on effort again.

Focal follows of dolphins would be used for providing supplementary information only where practicable (i.e. when individual dolphins or small stable groups of dolphins with at least one member that could be readily identifiable with unaided eyes during observations and weather conditions are favourable). These would involve the boat following (at an appropriate distance to minimise disturbance) an identifiable individual dolphin for an extended period of time, and collecting detailed data on its location, behaviour, response to vessels, and associates.

6.3.2 Photo Identification

CWDs can be identified by their unique features like presence of scratches, nick marks, cuts, wounds, deformities of their dorsal fin and distinguished colouration and spotting patterns.

When CWDs were observed, the survey team was taken off-effort, the dolphins were approached and photographed for photo-ID information (using a Canon 7D [or similar] camera and long 300 mm+ telephoto lens). The survey team attempted to photograph both sides of every single dolphin in the group as the colouration and spotting pattern on both sides may not be identical. The photos were taken at the highest available resolution and stored on Compact Flash memory cards for transferring into a computer.

All photos taken were initially examined to sort out those containing potentially identifiable individuals. These sorted-out images would then be examined in detail and compared to the CWD photo-identification catalogue established for 3RS Project during the baseline monitoring stage.

6.3.3 Land-based Theodolite Tracking Survey

Land-based theodolite tracking survey obtains fine-scale information on the time of day and movement patterns of the CWDs. A digital theodolite (Sokkia/Sokkisha Model DT5 or similar equipment) with 30-power magnification and 5-s precision was used to obtain the vertical and horizontal angle of each dolphin and vessel position. Angles were converted to geographic coordinates (latitude and longitude) and data were recorded using *Pythagoras* software, Version 1.2. This method delivers precise positions of multiple spatially distant targets in a short period of time. The technique is fully non-invasive, and allows for time and cost-effective descriptions of dolphin habitat use patterns at all times of daylight.

Three surveyors (one theodolite operator, one computer operator, and one observer) were involved in each survey. Observers searched for dolphins using unaided eyes and handheld binoculars (7X50). Theodolite tracking sessions were initiated whenever an individual CWD or group of CWDs was located. Where possible, a distinguishable individual was selected, based on colouration, within the group. The focal individual was then continuously tracked via the theodolite, with a position recorded each time the dolphin surfaced. In case an individual could not be positively distinguished from other members, the group was tracked by recording positions based on a central point within the group whenever the CWD surfaced. Tracking continued until animals were lost from view; moved beyond the range of reliable visibility (>1-3km, depending on station height); or environmental conditions obstructed visibility (e.g., intense haze, Beaufort sea state >4, or sunset), at which time the research effort was terminated. In addition to the tracking

of CWD, all vessels that moved within 2-3km of the station were tracked, with effort made to obtain at least two positions for each vessel.

Theodolite tracking included focal follows of CWD groups and vessels. Priority was given to tracking individual or groups of CWD. The survey team also attempted to track all vessels moving within 1 km of the focal CWD.

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 6, 7, 8, 10, 14, 16, 20 and 23 September 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 442.28km of survey effort was collected from these surveys and 423.04 km of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix D**.

Sighting Distribution

In September 2021, 15 sightings with 52 dolphins were sighted. All these sightings are on-effort records under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix D**.

Distribution of all CWD sightings recorded in September 2021 is illustrated in **Figure 6.3**. In NWL, one CWD sighting was recorded north-off Lung Kwu Chau. In WL, CWD groups were quite evenly sighted from Tai O to Fan Lau. While in SWL, the four CWD sightings were scattered in central and western parts of the survey area. There was no CWD sighting recorded in NEL survey area during the reporting period.

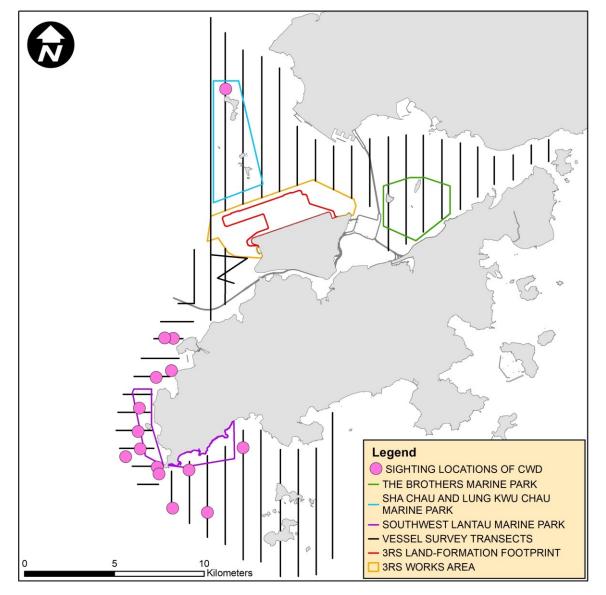


Figure 6.3: Sightings Distribution of Chinese White Dolphins

Remarks: (1) Please note that there are 15 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Encounter Rate

Two types of dolphin encounter rates were calculated based on the vessel survey data. They included the number of dolphin sightings per 100 km survey effort (STG) and total number of dolphins per 100 km survey effort (ANI) in the whole survey area (i.e. NEL, NWL, AW, WL and SWL). In the calculation of dolphin encounter rates, only survey data collected under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility) were used. The formulae used for calculation of the encounter rates are shown below:

Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{Total\ No.\ of\ On-effort\ Sightings}{Total\ Amount\ of\ Survey\ Effort\ (km)}\ x\ 100$$

Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{Total\ No.\ of\ Dolphins\ from\ On-effort\ Sightings}{Total\ Amount\ of\ Survey\ Effort\ (km)}\ x\ 100$$

(Notes: Only data collected under Beaufort 3 or below condition were used)

In September 2021, a total of around 423.04 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 15 on-effort sightings with 52 dolphins were sighted under such condition. Calculation of the encounter rates for the month are shown in **Appendix D**.

For the running quarter of the reporting period (i.e., from July to September 2021), a total of around 1300.40 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 50 on-effort sightings and a total number of 161 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix D**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of September 2021 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rates STG and ANI remain above the Action Level, thus the Action Level is not triggered.

Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels

	Encounter Rate (STG)	Encounter Rate (ANI)
September 2021	3.55	12.29
Running Quarter from July to September 2021 ⁽¹⁾	3.84	12.38
Action Level	Running quarterly ⁽¹⁾ ST	TG < 1.86 & ANI < 9.35

Note: (1) Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, i.e. the data from July to September 2021, containing six sets of transect surveys for all monitoring areas. Action Level will be triggered if both STG and ANI fall below the criteria.

Group Size

In September 2021, 15 groups of 52 dolphins in total were sighted, and the average group size of CWDs was 3.5 dolphins per group. Numbers of sightings with small group size (i.e. 1-2 dolphins) and medium group size (i.e. 3-9 dolphins) were identical. There was one CWD sighting with large group size (i.e. 10 or more dolphins) recorded in WL.

Activities and Association with Fishing Boats

One CWD sighting was recorded engaging in feeding activities in September 2021 without association with fishing boats.

Mother-calf Pair

In September 2021, there were two CWD sightings recorded with the presence of mother-and-unspotted juvenile pair(s). These two sightings were recorded in WL and SWL respectively.

6.4.2 Photo Identification

In September 2021, a total number of 27 different CWD individuals were identified for totally 33 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix D**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM013	20-Sep-21	1	NWL	WLMM004	23-Sep-21	3	WL
NLMM027	16-Sep-21	6	WL	WLMM007	08-Sep-21	5	SWL
NLMM061	16-Sep-21	3	WL		16-Sep-21	6	WL
SLMM003	16-Sep-21	6	WL	WLMM019	20-Sep-21	1	NWL
SLMM007	08-Sep-21	5	SWL	WLMM056	16-Sep-21	2	WL
	16-Sep-21	6	WL	WLMM063	23-Sep-21	3	WL
SLMM010	23-Sep-21	2	WL	WLMM065	16-Sep-21	3	WL
SLMM014	08-Sep-21	2	SWL	WLMM067	08-Sep-21	5	SWL
	16-Sep-21	6	WL	WLMM073	08-Sep-21	5	SWL
SLMM022	16-Sep-21	3	WL		16-Sep-21	5	WL
SLMM023	16-Sep-21	5	WL	WLMM079	16-Sep-21	6	WL
SLMM029	08-Sep-21	4	SWL	WLMM111	16-Sep-21	3	WL
SLMM064	08-Sep-21	4	SWL	WLMM114	23-Sep-21	3	WL
	16-Sep-21	6	WL	WLMM131	23-Sep-21	2	WL
SLMM070	08-Sep-21	3	SWL	WLMM152	16-Sep-21	3	WL
SLMM073	08-Sep-21	5	SWL	WLMM167	16-Sep-21	6	WL
	16-Sep-21	6	WL				

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 3 September 2021 and at SC on 9 September 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. No CWD group was tracked during the reporting period. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix D**.

Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau	1	6:00	0	0
Sha Chau	1	6:00	0	0
TOTAL	2	12:00	0	0

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. Both C-POD and F-POD are considered as

effective PAM devices in detecting CWD occurrence, and F-POD was the main PAM device deployed where feasible. During this reporting period, the F-POD was remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.5**). The F-POD was last deployed on 4 August 2021 and the next re-deployment is scheduled in early October 2021 to retrieve the data for analysis. Acoustic data would be reviewed to give an indication of CWDs occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling and bored piling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 2 to 7 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for bored piling and seawall construction related works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 704 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. As for DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

Audits of acoustic decoupling measures for construction vessels were carried out during weekly site inspection and the observations are summarised in **Section 7.1**. Audits of SkyPier high speed ferries route diversion and speed control and construction vessel management are presented in **Section 7.4** and **Section 7.5** respectively.

6.7 Timing of Reporting CWD Monitoring Results

Detailed analysis of CWD monitoring results collected by small vessel line-transect survey will be provided in future quarterly reports. Detailed analysis of CWD monitoring results collected by land-based theodolite tracking survey and PAM will be provided in future annual reports after a larger sample size of data has been collected.

6.8 Summary of CWD Monitoring

Monitoring of CWD was conducted with two complete sets of small vessel line-transect surveys and two days of land-based theodolite tracking survey effort as scheduled. The running quarterly encounter rates STG and ANI in the reporting period did not trigger the Action Level for CWD monitoring.

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

Site inspections of the construction works were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. The weekly site inspection schedule of the construction works is provided in **Appendix C**. Biweekly site inspections were also conducted by the IEC. Besides, *ad-hoc* site inspections were conducted by ET and IEC if environmental problems were identified, or subsequent to receipt of an environmental complaint, or as part of the investigation work. These site inspections provided a direct means to reinforce the specified environmental protection requirements and pollution control measures in construction sites.

During site inspections, environmental situation, status of implementation of pollution control and mitigation measures were observed. Environmental documents and site records, including waste disposal record, maintenance record of environmental equipment, and relevant environmental permit and licences, were also checked on site. Observations were recorded in the site inspection checklist and passed to the contractor together with the recommended mitigation measures where necessary in order to advise contractors on environmental improvement, awareness and on-site enhancement measures. The observations were made with reference to the following information during the site inspections:

- The EIA and EM&A requirements;
- Relevant environmental protection laws, guidelines, and practice notes;
- The EP conditions and other submissions under the EP;
- Monitoring results of EM&A programme;
- Works progress and programme;
- Proposal of individual works;
- Contract specifications on environmental protection; and
- Previous site inspection results.

Good site practices were observed in site inspections during the reporting period. Advice were given when necessary to ensure the construction workforce were familiar with relevant procedures, and to maintain good environmental performance on site. Regular toolbox talks on environmental issues were organised for the construction workforce by the contractors to ensure understanding and proper implementation of environmental protection and pollution control mitigation measures.

A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix B**.

7.2 Landscape and Visual Mitigation Measures

Implementation of applicable landscape and visual mitigation measures (reference to the environmental protection measures CM1 - CM10 in **Appendix B**) was monitored in accordance with the Manual. All measures undertaken by both the contractor and the landscape contractor during the construction phase and first year of the operation phase shall be audited by a landscape architect, as a member of the ET, on a regular basis to ensure compliance with the

intended aims of the measures. Site inspections shall be undertaken at least once every two months during the operation phase.

The implementation status of the environmental protection measures are summarized below in Table 7.1. Examples of landscape and visual mitigation measures are shown in Table 7.2. The monitoring programme for detailed design, construction, establishment works and long term management (10 years) stages is presented in Table 7.3. Event and Action Plan for Landscape and Visual impacts is stated in Table 7.4.

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
CM1- The construction area and contractor's temporary works areas shall be minimised to avoid impacts on adjacent landscape.	The implementation of mitigation measures were checked by ET during weekly site inspection and clarified by the Contractors during the monthly Environmental Management Meetings. Implementation of the measures	3RS Project contracts
CM2 – Reduction of construction period to practical minimum	CM5, CM6 and CM7 by Contractors was observed.	
CM3 – Phasing of the construction stage to reduce visual impacts during the construction phase.		
CM4 – Construction traffic (land and sea) including construction plants, construction vessels and barges shall be kept to a practical minimum.		
CM5 – Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.		
CM6 – Avoidance of excessive height and bulk of site buildings and structures		
CM7 – Control of night-time lighting by hooding all lights and through minimisation of night working periods		
CM8 – All existing trees shall be carefully protected during construction. Detailed Tree	Tree Protection Specifications have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project.	3302, 3503, 3508 3602, 3801
Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas	The Contractors' performance on the implementation of the tree maintenance and protection measures were observed and checked by the ET weekly during construction period.	3802 (To be implemented)

Landscape and Visual Mitigation Measures during Construction

Implementation Status

Relevant Contract(s) in the Reporting **Period**

CM9 - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme

Tree Transplanting Specifications have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees will unavoidably be affected by the construction works.

3503, 3508, 3801

3802 (To be implemented)

The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site.

The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works.

Long term management of the transplanted trees were currently monitored by ET annually.

CM 10 - Land formation works shall be followed with advanced hydroseeding around taxiways and

runways as soon as practical

To be implemented around taxiways and runways as soon as practicable.

To be implemented

Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting **Period**



Erection of site hoardings around works area in unobtrusive colours (CM5)



Avoidance of excessive height and bulk of site buildings (CM6)



Control of night-time lighting by hooding and minimisation of night working period (CM7)



General view of tree protection zone for retained tree (CM8)



General view of a transplanted tree (CM9)

In accordance with the EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained and transplanted trees under the Project were 89 and 26, respectively. A works area including 1 retained tree was handed over from Contract 3801 to Contract 3802, and was subsequently felled during this reporting period. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**.

Details of the retained trees are to be discussed in the Quarterly EM&A reports.

Table 7.3: Monitoring Programme for Landscape and Visual

Stage	Monitoring Task	Monitoring Report	Form of Approval	Frequency
Detailed Design	Checking of design works against the recommendations of the landscape and visual impact assessments within the EIA shall be undertaken during detailed design and tender stage, to ensure that they fulfil the intention of the mitigation measures. Any changes to the design, including design changes on site shall also be checked.	Report by AAHK / PM confirming that the design conforms to requirements of EP.	Approved by Client	At the end of the Detailed Design Phase
Construction	Checking of the contractor's operations during the construction period.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Weekly
Establishment Works	Checking of the planting works during the twelve-month Establishment Period after completion of each batch of transplanting works.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Every two months
Long Term Management (10 year)	Monitoring of the long- term management of the planting works in the period up to 10 years after completion of each batch of transplanting works.	Report on Compliance by ET or Maintenance Agency as appropriate	Counter signature of report by Management Agency	Annually

Table 7.4: Event and Action Plan for Landscape and Visual

Event Action Level		Action		
	ET	IEC	AAHK / PM	Contractor
Design Check	Check final design conforms to the requirements of EP and prepare report.	Check report. Recommend remedial design if necessary.	Undertake remedial design if necessary.	
Non-conformity on one occasion	Identify source. Inform IEC and AAHK / PM. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed.	Contractor on possible remedial measures. Advise AAHK / PM on	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.
Repeated Non-conformity	Identify source. Inform IEC and AAHK / PM. Increase monitoring frequency. Discuss remedial actions with IEC, AAHK / PM and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, cease additional monitoring.	Advise AAHK / PM on effectiveness of	Notify Contractor. Ensure remedial measures area properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.

Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted
		Establishment Period	Maintenance Period	(nos.)
3302	9	0	0	0
3503	8	6	3	0
3508 ⁽¹⁾	25	12	0	0
3602	2	0	0	0
3801	45	0	5(2)	0
Sub-total	89	18	8	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.) T		To-be-transplanted (nos.)
3508 ⁽¹⁾	51	0		10
Sub-total	51	0		10
Grand Total	140	26		10

Notes:

- (1) As some of the site areas have been handed over to Contract 3508, Contractor of Contract 3508 is currently managing some of the trees. Existing trees to be managed by Contract 3508 is subject to change after initial tree surveys for each batch of site areas have been conducted by the Contractor.
- (2) Three transplanted trees (CT1194, CT1794 and CT1795) were subsequently felled after transplantation. Please refer to **Table 7.6** for details.

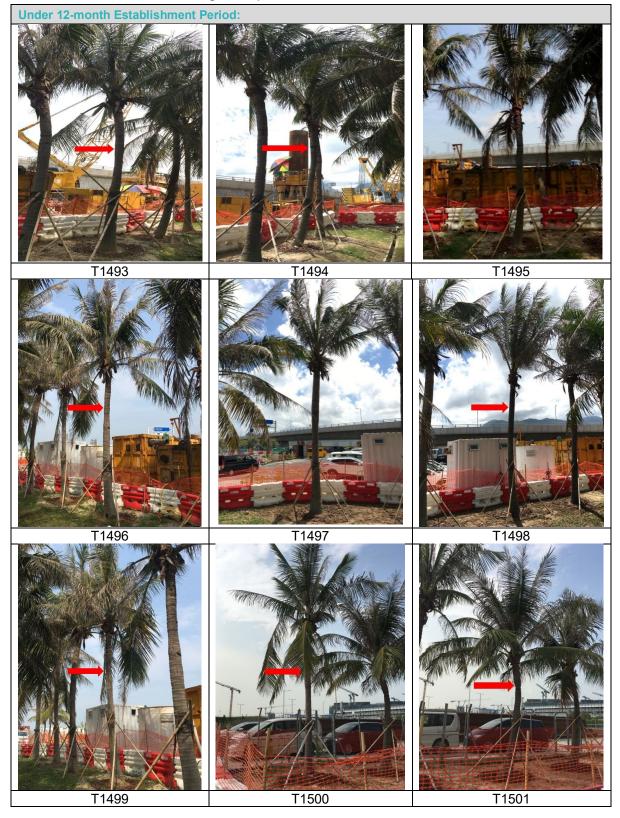
Summary of the updated transplanted trees and photos are presented in **Table 7.6** and **Table 7.7** respectively.

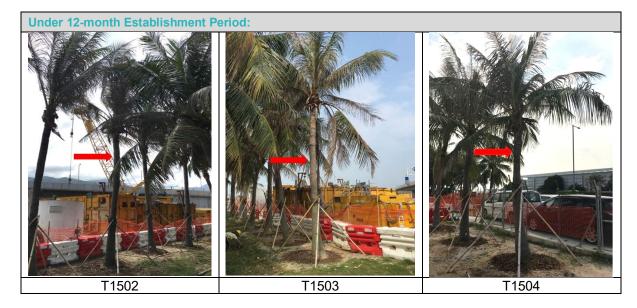
Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks	
CT276	3 May 2018	Establishment period 4 May 2018 – May 2019	Contract 3801	Next inspection will be conducted in February 2022. Photos of the las inspection in February 2021 can be	
		Long Term Management period Jun 2019 – May 2028	Southern Landside Petrol Filling Station	referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.	
CT1253 4 May 2018		Establishment period 5 May 2018 – May 2019	Contract 3801	_	
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	-	
T835	_	Establishment period 23 Jan 2020 – Jan 2021	February 2022. Ph	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 can be	
		Long Term Management period Feb 2021 – Jan 2030		referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.	
T836		Establishment period 14 Dec 2020 – Jan 2021	Contract 3503	-	
		Long Term Management period Feb 2021 – Jan 2030			
T838 22 Jan 2020	22 Jan 2020	Establishment period 23 Jan 2020 – Jan 2021	Contract 3503		
		Long Term Management period Feb 2021 – Jan 2030	_		
T812	21 Dec 2020	Establishment period 22 Dec 2020 – Dec 2021	Contract 3503	Next inspection will be conducted in October 2021. Photos of the last inspection in August 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.68.	
T814	20 Dec 2020	Establishment period 21 Dec 2020 – Dec 2021	Contract 3503		
T815	15 Dec 2020	Establishment period 16 Dec 2020 – Dec 2021	Contract 3503		
T829	18 Dec 2020	Establishment period 19 Dec 2020 – Dec 2021	Contract 3503		
T830	14 Dec 2020	Establishment period 15 Dec 2020 – Dec 2021	Contract 3503		
T831	19 Dec 2020	Establishment period 20 Dec 2020 – Dec 2021	Contract 3503		
T1493	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	Next inspection will be conducted in October 2021. Photos of the last	

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
T1494	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	inspection in September 2021 were shown in Table 7.7 .
T1495	10 Jul 2021	Establishment period 11 Jul 2021 – Jul 2022	Contract 3508	_
T1496	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	_
T1497	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	_
T1498	29 Jun 2021	Establishment period 30 Jun 2021 – Jul 2022	Contract 3508	_
T1499	29 Jun 2021	Establishment period 30 Jun 2021 – Jul 2022	Contract 3508	_
T1500	30 Jun 2021	Establishment period 1 Jul 2021 – Jul 2022	Contract 3508	_
T1501	30 Jun 2021	Establishment period 1 Jul 2021 – Jul 2022	Contract 3508	_
T1502	5 Jul 2021	Establishment period 6 Jul 2021 – Jul 2022	Contract 3508	_
T1503	6 Jul 2021	Establishment period 7 Jul 2021 – Jul 2022	Contract 3508	_
T1504	24 Jun 2021	Establishment period 25 Jun 2021 – Jul 2022	Contract 3508	_
CT1194	4 May 2018	Establishment period 5 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filing Station.
CT1794	3 May 2018	Establishment period 4 May 2018 – May 2019	Contract 3801	NA
		Long Term Management period	AsiaWorld-Expo	The tree within the land parcel was
		Jun 2019 – May 2028		acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	Establishment period 4 May 2018 – May 2019	Contract 3801	NA
		Long Term Management period Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 7.7: Photos of the Existing Transplanted Trees





7.3 Land Contamination Assessment

The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20. The CARs for Golf Course and T2 Emergency Power Supply Systems (EPSS) were submitted to EPD in accordance with EP Condition 1.9 and the Supplementary CAP in which no land contamination issues were identified. EPD has issued no further comment for aforesaid CARs. No leakage was found after the removal of underground fuel pipelines of T2 EPSS and all required additional photos have been submitted to EPD.

According to the approved supplementary CAP, there are 3 remaining locations where site reappraisal / additional site investigation are proposed. Based on the latest construction information, there is no development programme for these locations at this stage. As such, the status of site re-appraisal/ additional site investigation shall be further updated upon latest development programme is available.

7.4 Audit of SkyPier High Speed Ferries

The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) was submitted to the Advisory Council on the Environment for comment and subsequently submitted to and approved by EPD in November 2015 under EP Condition 2.10. The approved SkyPier Plan is available on the dedicated website of the Project. In the SkyPier Plan, AAHK has committed to implement the mitigation measure of requiring HSFs of SkyPier travelling between HKIA and Zhuhai / Macau to start diverting the route with associated speed control across the area, i.e. Speed Control Zone (SCZ), with high CWD abundance. The route diversion and speed restriction at the SCZ have been implemented since 28 December 2015.

Due to the COVID-19 pandemic, all SkyPier HSF services to/from Zhuhai and Macau have been suspended from 25 March 2020 until further notice. No ferry movement between HKIA SkyPier and Zhuhai and Macau was recorded in September 2021. Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and Macau against the requirements of the SkyPier Plan during the reporting period are summarised in **Table 7.8**.

The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 9 to 11 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

As updated by CLP Power, the construction works of the Hong Kong Offshore LNG Terminal Project may affect the route diversion operation of the SkyPier HSFs from Q3 to Q4 2021. The captains were informed on the issue and ET will continue to closely monitor the implementation of the SkyPier Plan in the period.

Table 7.8: Summary of Key Audit Findings against the SkyPier Plan

Requirements in the SkyPier Plan	1 to 30 September 2021
Total number of ferry movements recorded and audited for HSF to/from Zhuhai and Macau	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap for all SkyPier HSFs including those not using diverted route	9 to 11 daily movement (within the maximum daily cap - 125 daily movements)

7.5 Audit of Construction and Associated Vessels

The updated Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV) was submitted and approved in May 2020 by EPD under EP Condition 2.9. The approved Plan is available on the dedicated website of the Project.

ET carried out the following actions during the reporting period:

- Two skipper training sessions were held for contractors' concerned skippers of relevant
 construction vessels to familiarize them with the predefined routes; general education on
 local cetaceans; guidelines for avoiding adverse water quality impact; the required
 environmental practices / measures while operating construction and associated vessels
 under the Project; and guidelines for operating vessels safely in the presence of CWDs.
 The list of all trained skippers was properly recorded and maintained by ET.
- Four skipper training sessions were held by contractors' Environmental Officers.
 Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 4 skippers were trained by ET and 5 skippers were trained by contractors' Environmental Officers. In total, 1813 skippers were trained from August 2016 to September 2021.
- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly Construction Traffic Control Centre (CTCC) audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.6 Implementation of Dolphin Exclusion Zone

The DEZ Plan was submitted in accordance with EP Condition 3.1 (v) requirement and Section 10.3 of the Manual, and approved in April 2016 by EPD. The 24-hour DEZs with a 250m radius for marine works were established and implemented by the contractors for bored piling and

seawall construction according to their Method Statement for DEZ Monitoring that followed the specifications and requirements of the DEZ Plan.

During the reporting period, ET was notified that no dolphin sightings were recorded within the DEZ by the contractors. The ET checked the dolphin sighting record and relevant records by the contractors to audit the implementation of DEZ.

7.7 Status of Submissions under Environmental Permits

The current status of submissions under the EP up to the reporting period is presented in **Table 7.9**.

Table 7.9: Status of Submissions under Environmental Permit

EP Condition	Submission	Status
2.1	Complaint Management Plan	
2.4	Management Organizations	_
2.5	Construction Works Schedule and Location Plans	
2.7	Marine Park Proposal	_
2.8	Marine Ecology Conservation Plan	_
2.9	Marine Travel Routes and Management Plan for Construction and Associated Vessels	
2.10	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier	_
2.11	Marine Mammal Watching Plan	Accepted / approved
2.12	Coral Translocation Plan	Accepted / approved by EPD
2.13	Fisheries Management Plan	-
2.14	Egretry Survey Plan	_
2.15	Silt Curtain Deployment Plan	_
2.16	Spill Response Plan	_
2.17	Detailed Plan on Deep Cement Mixing	_
2.18	Landscape & Visual Plan	_
2.19	Waste Management Plan	_
2.20	Supplementary Contamination Assessment Plan	_
3.1	Updated EM&A Manual	_
3.4	Baseline Monitoring Reports	

7.8 Compliance with Other Statutory Environmental Requirements

During the reporting period, environmental related licenses and permits required for the construction activities were checked. No non-compliance with environmental statutory requirements was recorded. The environmental licenses and permits which are valid in the reporting period are presented in **Appendix F**.

7.9 Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions

7.9.1 Complaints

Complaint received in July 2021

As reported in the previous Monthly EM&A Report, a complaint regarding dust issue at 3RS construction site was received on 13 July 2021.

The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. From the photo provided by the complainant, ET recognised the concerned location, identified a related contractor and requested them to provide information regarding the complaint. Based on the information provided by the contractor, lifting and concreting works were carried out at the concerned location during the concerned period in which watering of vehicular accesses, following the circuits as set out in contractor's dust control management plan, had been arranged. The contractor also provided water spraying record for their fleet of working watering trucks from 1 to 14 July 2021. Based on ET's weekly site inspections, dust generation from the vehicular movement was observed on 6 July 2021, and the related contractor subsequently followed up issue by implementing water spraying on the concerned location. Haul road was appeared slightly dry even though water spraying was observed in progress during the weekly site inspection on 13 July 2021 and the related contractor was advised to provide adequate dust suppression measures to keep haul road in a damp condition. The contractor committed to enhance their fleet by adding one more water truck and stated that they would provide refresher training for their water truck drivers to refresh them on the arrangement of water spraying on haul road and stockpiles. Eventually, ET observed the related contractor was conducting water spraying in concerned location during the weekly site inspection on 22 July 2021 and no dust issue was observed at the concerned location during ad-hoc inspections on 10 and 16 July 2021. The dust mitigation performance was also improved after the enhancement during weekly site inspections on 3, 9 and 17 August 2021. It was worth noting that Hong Kong Observatory recorded a maximum of 35.1°C on 13 July 2021 in which the hot and sunny conditions might increase the evaporation rate of water that was sprayed, leading to haul road and stockpiles drying up quickly. Nevertheless, all air quality monitoring results from 1 to 14 July 2021 were within the corresponding Action and Limit Levels. ET reminded the related contractor to continue implementing their environmental mitigation measures regarding dust control on their haul road and stockpiles especially on sunny days. Hence, the complaint case was considered closed.

Complaint received in this reporting period

No construction activities-related complaint was received during the reporting period.

7.9.2 Notifications of Summons or Status of Prosecution

Neither notification of summons nor prosecution was received during the reporting period.

7.9.3 Cumulative Statistics

Cumulative statistics on complaints, notifications of summons and status of prosecutions are summarised in **Appendix G**.

8 Future Key Issues and Other EIA & EM&A Issues

8.1 Construction Programme for the Coming Reporting Period

Key activities anticipated in the next reporting period for the Project will include the following:

Reclamation Works:

Contract 3206 Main Reclamation Works

- Land-based ground improvement works; and
- Seawall construction.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works; and
- Paving works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Piling and structure works;
- Ducting works; and
- Backfilling and reinstatement works.

Contract 3303 Third Runway and Associated Works

- Footing and utilities work;
- Piling work;
- Construction of approach light;
- · Operation of asphalt plant; and
- Cable laying and ducting works.

Contract 3305 Airfield Ground Lighting System

- · Genset installation; and
- Site establishment.

Contract 3307 Fire Training Facility

- Architectural, Builder's and Finishing works;
- Drainage and utilities works; and
- Building construction.

Contract 3308 Foreign Object Debris Detection System

Site formation.

Contract 3310 North Runway Modification Works

Ground improvement works.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Footing works; and
- Underground utilities construction.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Foundation works;
- Piling work;
- Excavation and backfilling; and
- Road formation.

Contract 3408 Third Runway Concourse and Apron Works

- Site setup works; and
- Excavation and lateral support works.

Terminal 2 Expansion:

Contract 3503 Terminal 2 Foundation and Substructure Works

- T2 re-configuration;
- Excavation works:
- Utilities and road works; and
- Piling and structure works.

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- Site formation;
- Drainage works;
- Piling work; and
- Builders' works.

Automated People Mover (APM) and Baggage Handling System (BHS):

Contract 3601 New Automated People Mover System (TRC Line)

- Pull out test for guideway;
- Guidebeam installation; and
- Concreting work.

Contract 3602 Existing APM System Modification Works

- Car modification;
- Formwork erection and;
- Concreting work.

Contract 3603 Baggage Handling System (BHS)

- BHS installation; and
- Dismantling works.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Laying of drainage pipes and ducts;
- Site clearance;

- Paving works; and
- Road works.

Contract 3722 Construction Support Facilities

Clearance works

Contract 3723 Construction Support Facilities

- Erection of site office;
- Electrical and mechanical installation; and
- Sewage pump and treatment system installation

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Excavation and backfilling; and
- Casting.

Contract 3802 APM and BHS Tunnels and Related Works

- Construction of Airside Fire Station and marine sediment treatment plant;
- Installation of sheet pipes and dewatering well;
- Pre-drilling;
- Ground investigation works; and
- Ducting works.

Construction Support (Services / Licenses):

Contract 3901A Concrete Batching Facility

- Operation of concrete batching plant; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Operation of concrete batching plant; and
- Foundation and superstructure works for conveyor belt.

8.2 Key Environmental Issues for the Coming Reporting Period

The key environmental issues for the Project in the coming reporting period expected to be associated with the construction activities include:

- Generation of dust from construction works and stockpiles;
- Noise from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Water quality from marine filling;
- DEZ monitoring for seawall construction and bored piling for approach lights;
- Implementation of MMWP for silt curtain deployment;
- Sorting, recycling, storage and disposal of general refuse and construction waste;
- Reuse of treated marine sediments from piling and excavation works;
- Management of chemicals and avoidance of oil spillage on-site; and
- Acoustic decoupling measures for equipment on marine vessels.

The implementation of required mitigation measures by the contractors will be monitored by the ET.

8.3 Monitoring Schedule for the Coming Reporting Period

A tentative schedule of the planned environmental monitoring work in the next reporting period is provided in **Appendix C**.

8.4 Review of the Key Assumptions Adopted in the EIA Report

With reference to Appendix E of the Manual, it is noted that the key assumptions adopted in approved EIA report for the construction phase are still valid and no major changes are involved. The environmental mitigation measures recommended in the approved EIA Report remain applicable and shall be implemented in undertaking construction works for the Project.

9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included marine filling, seawall and facilities construction, together with runway and associated works such as bored piling for approach lights. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for APM and BHS systems, and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition of existing facilities, piling, and excavation works.

All the monitoring works for construction dust, construction noise, water quality, construction waste, landscape & visual, and CWD were conducted during the reporting period in accordance with the Manual.

Monitoring results of construction dust, construction noise, construction waste, and CWD did not trigger the corresponding Action and Limit Levels during the reporting period.

The water quality monitoring results for all parameters, except DO and SS, obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For DO and SS, some of the testing results triggered the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the cases were not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection checklists and provided to the contractors to follow up.

On the implementation of the SkyPier Plan, due to the COVID-19 pandemic, all SkyPier HSF services to/from Zhuhai and Macau have been suspended from 25 March 2020 until further notice. No HSF movement between HKIA SkyPier and Zhuhai and Macau was recorded during the reporting period. Therefore, no deviation was recorded in the HSF monitoring in the reporting period. The daily movements of all SkyPier HSFs in the reporting period, including those not using the diverted route, were in the range of 9 to 11 daily movements, which are within the maximum daily cap of 125 daily movements.

On the implementation of MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone and not travelling through the designated gates. ET conducted checking to ensure the MSS records all deviation cases accurately. Trainings have been provided for the concerned skippers to facilitate them in familiarising with the requirements of the MTRMP-CAV. Deviations including speeding in the works area, entered no entry zone, and entry from non-designated gates were reviewed by ET. All the concerned captains were reminded by the contractor's CTCC representative to comply with the requirements of the MTRMP-CAV. The ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park and the Sha Chau & Lung Kwu Chau Marine Park. Three-month rolling

programmes for construction vessel activities, which ensures the proposed vessels are necessary and minimal through good planning, were also received from contractors.

Figures

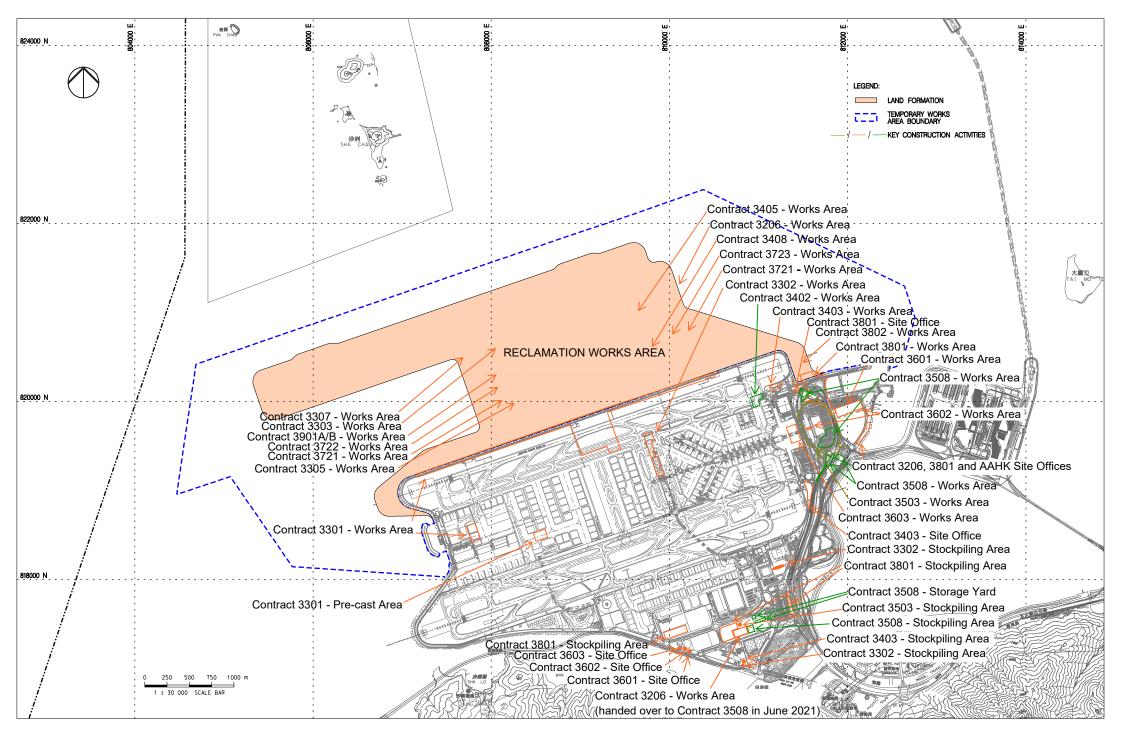
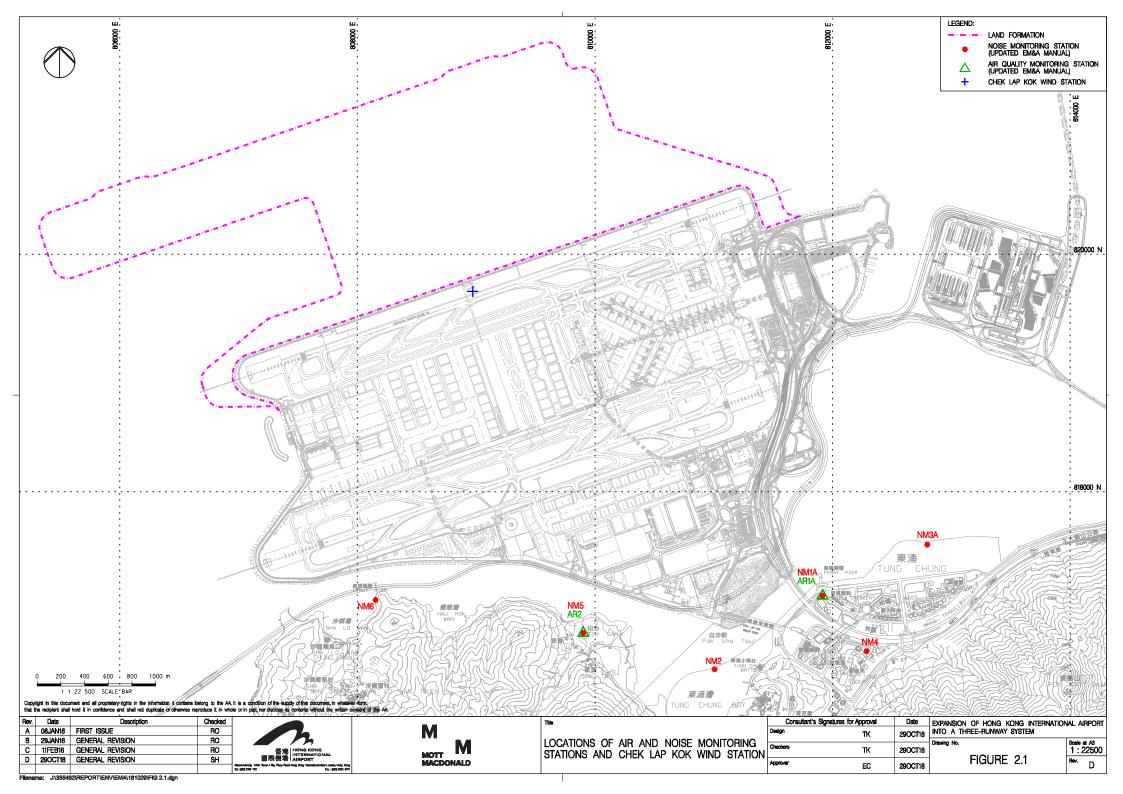
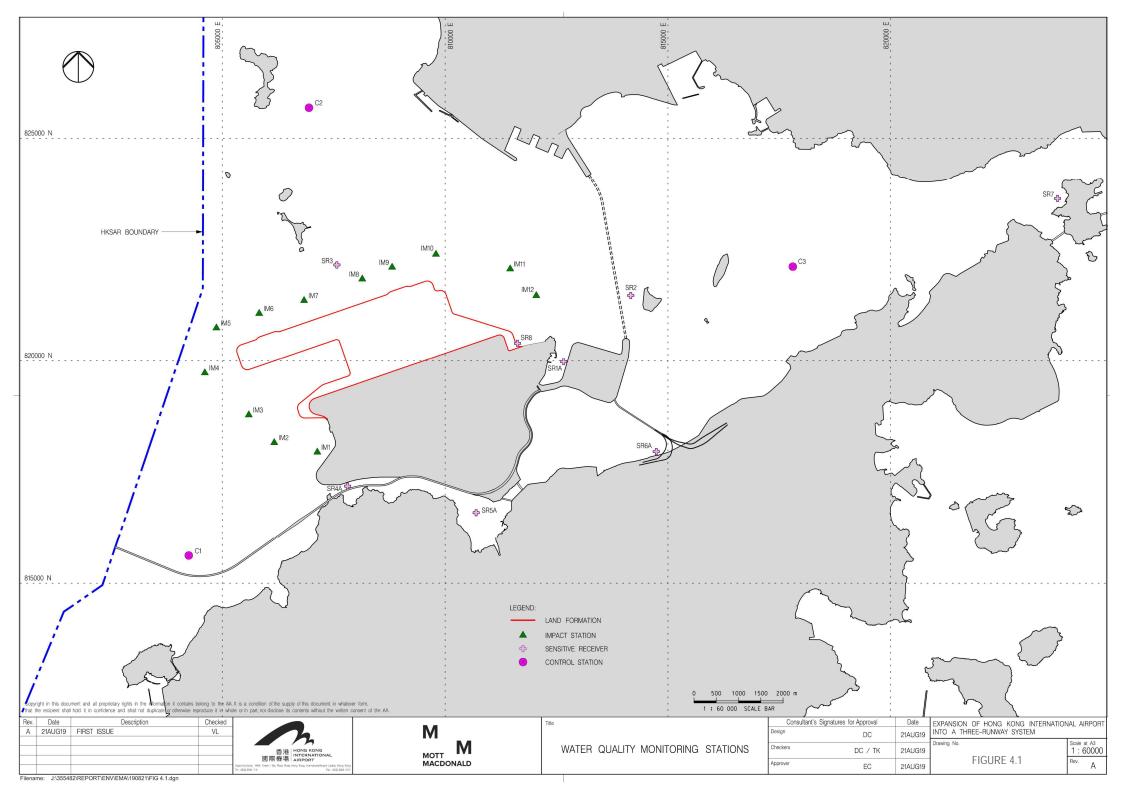
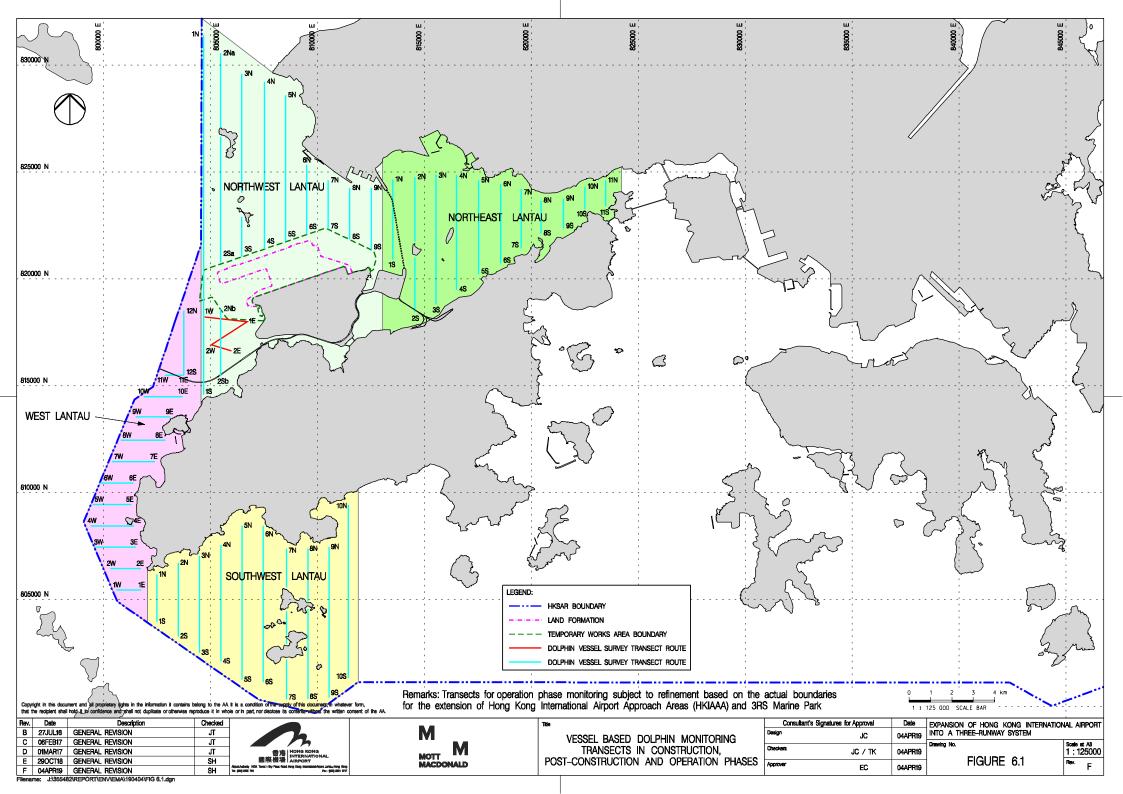
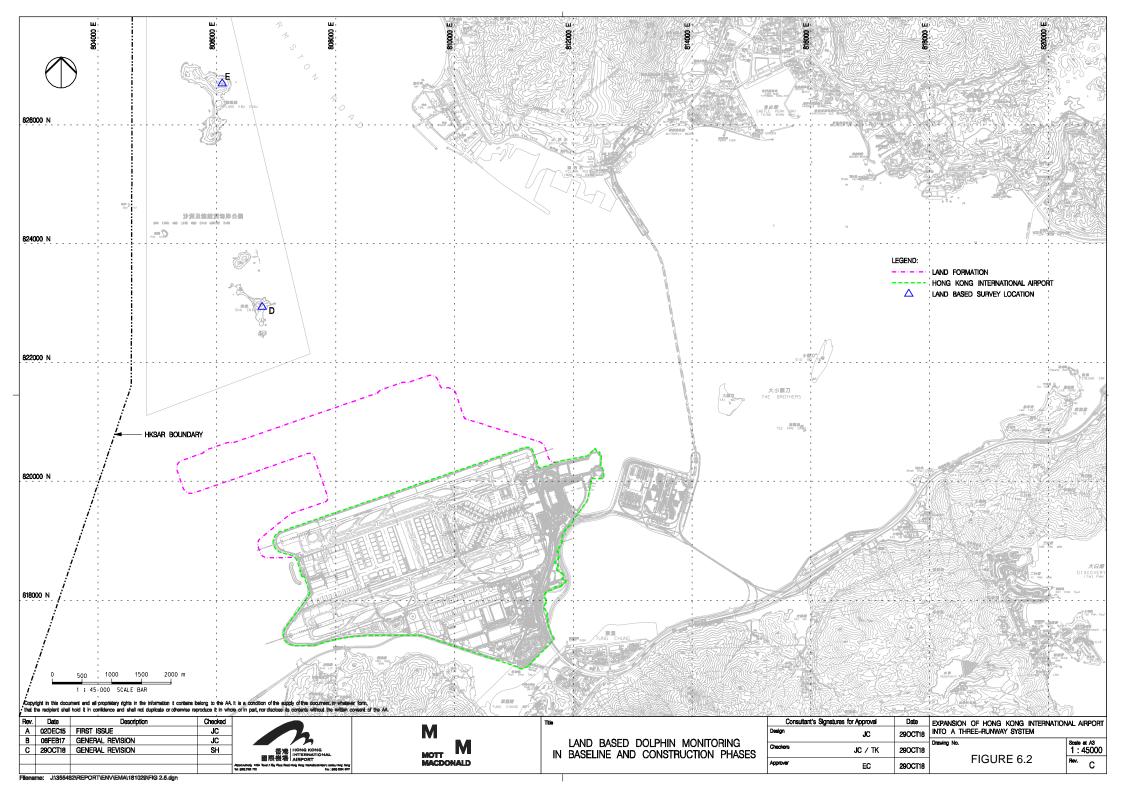


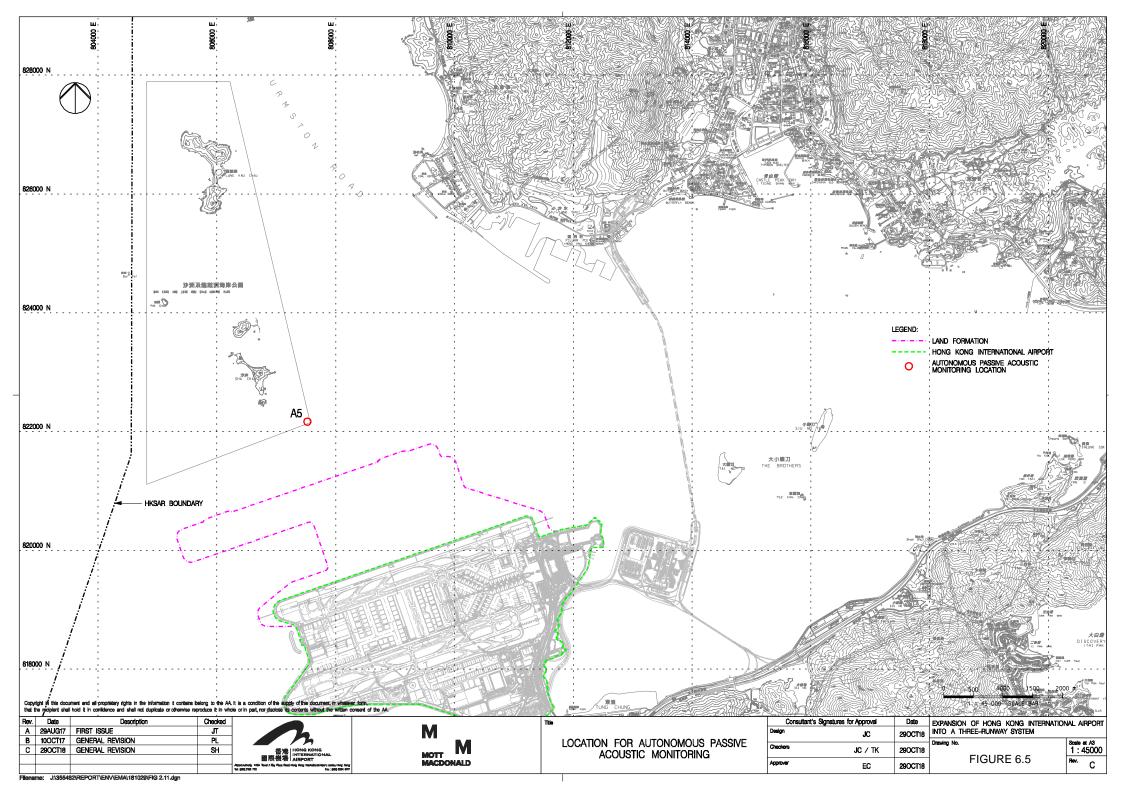
FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES











Appendix A. Contract Description

Contract Description

Contract No.	Contract Title	Contractor	Key Construction Activities	
3206	Reclamation Contract	Zhen Hua Engineering Company LtdChina Communications Construction Company LtdCCCC Dredging (Group) Company Ltd. Joint Venture	The works covered by the Contract 3206 comprise the formation of approximately 650 hectares of land north of the existing airport island for the project, the major construction activities including without limitation the following • Geotechnical and ground improvement works; • Seawall construction; • Marine and land filling works; and • Civil works. The works covered by the Contract 3301 comprise the construction of a new dual taxiway across the existing north runway and utility services and cable ducting systems. The major construction activities include without limitation the following: • Construction of a new dual taxiway; • Cable ducting works; • Extension of existing portable water supply system; and • All associated works. The works covered by the Contract 3302 comprise the design and construction of the first section of the new Eastern Vehicular Tunnel and a Road Tunnel Plant Building. The major construction activities include withour limitation the following: • Foundation and structural works; • Cast-in / Underground electrical & mechanical works and utility services; and • All associated testing and commissioning works. The works covered by the Contract 3303 comprise all elements of permaner	
3301	North Runway Crossover Taxiway	Fujita Corporation-China Harbour Engineering Company LtdZhen Hua Engineering Company Ltd. Joint Venture	ducting systems. The major construction activities include without limitation the following: Construction of a new dual taxiway; Cable ducting works; Extension of existing portable water supply system; and 	
3302	Eastern Vehicular Tunnel Advance Works	China Road and Bridge Corporation	construction of the first section of the new Eastern Vehicular Tunnel and a Road Tunnel Plant Building. The major construction activities include without limitation the following: • Foundation and structural works; • Cast-in / Underground electrical & mechanical works and utility services; and	
3303	Third Runway and Associated Works	Sinohydro Corporation Limited, Powerchina Airport Construction Company Limited, Paul Y. Construction Company Limited, and Rock-One	The works covered by the Contract 3303 comprise all elements of permanent works and temporary works required for the completion, commissioning and operation of the new North Runway and existing South Runway following the closure of the existing North Runway. The major construction activities include without limitation the following: • New runway, taxiways, and associated works;	

Contract No.	Contract Title	Contractor	Key Construction Activities
		Engineering Company Limited Joint Venture	 Infrastructure works; Construction of ancillary buildings and facilities; Set up of various airport systems; and All associated testing and commissioning works.
3305	Airfield Ground Lighting System	ADB Safegate Hong Kong Limited	The works covered by the Contract 3305 comprise the design, manufacture, installation and handover of the Airfield Ground Lighting (AGL) System. The major construction activities include without limitation the following: • Light fittings works; • Power Supply System installation; • Fibre optic cables and data cables supply and connection; • Set up Control and Communication system; • All associated testing and commissioning works.
3307	Fire Training Facility	Paul Y. Construction Company Limited	The works covered by the Contract 3307 comprise the construction of a Fire Training Facility on the new reclamation area to replace the existing facility at the Airport Island. The major construction activities include without limitation the following: • Building services works; • Civil works; and • All associated testing and temporary works.
3308	Foreign Object Debris Detection System	DAS Aviation Services Group	The works cover by the Contract 3308 comprise the entire expanded Foreign Object Debris (FOD) detection system required for the operation of new Three-Runway System at Hong Kong International Airport. The major construction activities include without limitation the following: • Excavation works; • Construction of FOD sensor towers; • Set up FOD detection system; • Civil and structural works; and • All associated electrical and mechanical works.
3310	North Runway Modification Works	China State Construction Engineering (Hong Kong) Ltd Fujita Corporation Joint Venture	The works cover by the Contract 3310 comprise the modification of north runway and the connections of taxiways to the modified north runway on existing airport island. The major construction activities include without limitation the following: Modification works for existing north runway;

Contract No.	Contract Title	Contractor	Key Construction Activities
			Connections works for new taxiways;
			 Construction of ancillary buildings/ facilities;
			Building services and airport systems;
			Infrastructure Works;
			Underground utilities and services; and
			 All associated asphalt pavement work and earthwork.
3402	New Integrated	Wing Hing Construction	The works covered by the Contract 3402 comprise the enabling works for the
	Airport Centers	Co., Ltd.	new Integrated Airport Centers. The major construction activities include
	Enabling Works		without limitation the following:
			Site clearance and demolition;
			Building services works;
			 Utilities diversion and installation works;
			 Roadworks including associated facilities; and
All associated testing and commissioning works.			
New Integrated Sun Fook Kong The works covered by the Contract 3403 comprise the construction		The works covered by the Contract 3403 comprise the construction of a new	
	Airport Centres	Construction Limited	Integrated Airport Centre (IAC) and a number of ancillary facilities and
	 Building and 		Additions and Alteration (A&A) works for converting the existing IAC into a
	Civil Works		back-up IAC, including without limitation the following:
			Site clearance and demolition;
			Building structure and envelope;
			Building Services and Airport Systems; and
			Utilities division and installations.
3405	Third Runway	China Road and Bridge	The works covered by the Contract 3405 comprise without limitation the
	Concourse	Corporation - Bachy	following:
	Foundation and	Soletanche Group Limited	Piled foundation works;
	Substructure	- LT Sambo Co., Ltd. Joint	Basement and tunnel structure works;
	Works	Venture	 Associated internal reinforced concrete structures;
			Backfilling and compaction of works area; and
			 Associated testing and temporary works.

Contract No.	Contract Title	Contractor	Key Construction Activities
3408	Third Runway Concourse and Apron Works	Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture	The works covered by the Contract 3408 comprise the design and construction of the Third Runway Concourse (TRC), the TRC Apron, two cross-field taxiways, Ancillary Buildings, specific section of the Eastern Vehicular Tunnel (EVT), and the associated infrastructure, testing, and commissioning works.
3503	Terminal 2 Foundation and Substructure Works	Leighton - Chun Wo Joint Venture	The works covered by the Contract 3503 comprise the foundations for the new T2 terminal, two annex buildings and associated viaducts, construction of the new T2 basement and south annex building structures, diaphragm walls, utility services and other advance works. The major construction activities include without limitation the following: Re-configuration and demolition of existing utilities and structures; Pile foundations for the expanded T2 Terminal Building, South Annex Building, and North Annex Building; Construction of new South Annex Building; Diversion and provisions of utilities; and All associated testing and commissioning works.
3508	Terminal 2 Expansion Works	Gammon Engineering and Construction Co., Ltd	The works covered by the Contract 3508 comprise the construction of T2, North Annex Building (NAB) and South Annex Building (SAB) with interconnecting bridges, landside transport infrastructure including viaducts and at grade roads, underground utility services, one sewage pumping station with the associated electrical building, footbridges, external works and modification works to existing facilities. The major construction activities include without limitation the following: • Superstructure, interior landscaping, building services and airport system of T2, NAB, SAB and associated footbridges; • Additions and Alteration (A&A) works of the existing Airport World Trade Centre (AWTC); • Modification of the existing APM and BHS tunnels; • External works and road networks around T2; and • Utilities.

Contract No.	Contract Title	Contractor	Key Construction Activities
3601	New Automated People Mover System (TRC Line)	CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture	The works covered by the Contract 3601 comprise the initial phase of the Automated People Mover (APM) system connecting the Third Runway Concourse (TRC) and the APM Interchange Station in the modified T2, and extension of the new APM system into the new APM Depot east of T2. The major construction activities include without limitation the following: • New 3-guideway APM system between TRC and T2; • Extension of the TRC Line into the new APM Depot; • APM associated sub-systems (communications, signalling, etc.) • Associated civil works; and • All associated testing, commissioning works.
3602	Existing APM System Modification Works	Niigata Transys Co., Ltd.	The works covered by the Contract 3602 comprise the detailed design, supply, manufacture, fabrication, implementation, testing and commissioning of the following modification works of the existing APM systems: • Modification of existing APM depot and APM cars; • Modification of existing T1 & T2 tunnels; and • Preparation of new APM depot.
3603	3RS Baggage Handling System	Vanderlande Industries Hong Kong Limited and Shun Hing Systems Integration Company Limited	The works covered by the Contract 3603 comprise the design, supply, manufacture, delivery, installation, testing and commissioning of the high-speed baggage handling system.
3721	Construction Support Infrastructure Works	China State Construction Engineering (Hong Kong) Limited	The works covered by the Contract 3721 comprise the construction of the infrastructure works and building facilities on the reclaimed land formation. The major construction activities include without limitation the following: • Project site road; • Utilities; • Cargo loading quays; and • Security fencing and hoarding.
3722	Western Support Area – Construction	Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture	The works covered by the Contract 3722 comprise the design and construction of support facilities, including site office, Canteen, Safety Induction Centre and Medical Centre, Material Testing Laboratories and Typhoon Shelter, Vehicle Maintenance Facility and Fuel Storage Facility.

Contract No.	Contract Title	Contractor	Key Construction Activities
	Support Facilities		The major construction activities include without limitation the following: Construction of support facilities; Foundation and structural works; and Building services works.
3723	Eastern Support Area – Construction Support Facilities	Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture	The works covered by the Contract 3723 comprise the design and construction of support facilities, including site office, sewage treatment facility, canteen, and centralised power supply building. The major construction activities include without limitation the following: Construction of support facilities; Foundation, structural and superstructure works; Sewage pipe network and connection works; and Building services works.
3728	Minor Site Works	Shun Yuen Construction Company Limited	The works to be executed by the Contract 3728 comprise minor works within the Airside and Landside areas of the existing airport island to support the Project.
3801	APM and BHS Tunnels on Existing Airport Island	China State Construction Engineering (Hong Kong) Limited	The works covered by the Contract 3801 comprise the construction of the APM and Baggage Handling System (BHS) tunnels on existing airport island. The major construction activities include without limitation the following: Construction of APM and BHS tunnels; Construction of ventilation building and associated infrastructure; and Construction, testing and commissioning of sewerage pumping station; and Civil and structural engineering works.
3802	APM and BHS Tunnels and Related Works	Gammon Construction Limited	The works covered by the Contract 3802 comprise the construction of the APM and BHS tunnels on existing airport island. The major construction activities include without limitation the following: • Construction of APM/ BHS Tunnels; • Construction of ancillary buildings/ facilities; • Building services and airport systems; • Infrastructure Works; • Underground utilities and services; and • All associated testing and commissioning works.

Contract No.	Contract Title	Contractor	Key Construction Activities
3901A	Concrete Batching Facility	K. Wah Concrete Company Limited	 The works covered by the Contract 3901A comprise the establishment, operation and maintenance of a concrete batching facility at the Project Site and the supply of concrete products. The major construction activities include without limitation the following: Supply of all equipment for the installation of the Facility to the Site; and Supply of all raw materials required for the production of ready mixed concrete products and the continual operation of the Facility.
3901B	Concrete Batching Facility	Gammon Construction Limited	The works covered by the Contract 3901B comprise the establishment, operation and maintenance of a concrete batching facility at the Project Site and the supply of concrete products. The major construction activities include without limitation the following: • Supply of all equipment for the installation of the Facility to the Site; and • Supply of all raw materials required for the production of ready mixed concrete products and the continual operation of the Facility.

Appendix B. Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase



Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Air Quality Impact – Construction Phase		
5.2.6.2	2.1	-	Dust Control Measures ■ Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	 Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling. 	Within construction site / Duration of the construction phase	I
5.2.6.4	2.1	-	Dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted. These practices include: Good Site Management Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or byproducts should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	Within construction site / Duration of the construction phase	I
			 Exposed Earth Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 	Within construction site / Duration of the construction phase	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?
			Loading, Unloading or Transfer of Dusty Materials • All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.	Within construction site / Duration of the construction phase	I
			Debris Handling Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides; and Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	Within construction site / Duration of the construction phase	1
			Transport of Dusty Materials Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	Within construction site / Duration of the construction phase	1
			Wheel washing Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	Within construction site / Duration of the construction phase	I
			 Use of vehicles The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site; 	Within construction site / Duration of the construction phase	I
			 Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and 		
			• Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.		
			Site hoarding	Within construction	1
			• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	site / Duration of the construction phase	
5.2.6.5	2.1	-	Best Practices for Concrete Batching Plant	Within Concrete	1
			The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include:	Batching Plant / Duration of the construction phase	
			Cement and other dusty materials		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented? ⁷
			• The loading, unloading, handling, transfer or storage of cement, pulverised fuel ash (PFA) and/or other equally dusty materials shall be carried in a totally enclosed system acceptable to EPD. All dust-laden air or waste gas generated by the process operations shall be properly extracted and vented to fabric filtering system to meet the required emission limit;		
			• Cement, PFA and/or other equally dusty materials shall be stored in storage silo fitted with audible high level alarms to warn of over-filling. The high-level alarm indicators shall be interlocked with the material filling line such that in the event of the silo approaching an overfilling condition, an audible alarm will operate, and after 1 minute or less the material filling line will be closed;		
			 Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit; 		
			 Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and 		
			 Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery. 		
			Other raw materials	Within Concrete	I
			 The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions; 	Batching Plant / Duration of the construction phase	
			 The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stock piles and material discharge points; 		
			 All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices; 		
			• The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance;		
			 All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; 		
			 Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; 	;	
			 Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; 		
			 Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side; 		
			 Aggregates with a nominal size greater than 5 mm should preferably be stored in a totally enclosed structure. If open stockpiling is used, the stockpile shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; and 		
			■ The opening between the storage bin and weighing scale of the materials shall be fully enclosed.		
			Loading of materials for batching	Within Concrete	I
			Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented:	Batching Plant / Duration of the	
			(a) Pre-mixing the materials in a totally enclosed concrete mixer before loading the materials into the concrete truck is recommended. All dust-laden air generated by the pre-mixing process as well as the loading process shall be totally vented to fabric filtering system to meet the required emission limit; and	construction phase	
			(b) If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit.		
			The loading bay shall be totally enclosed during the loading process.		
			Vehicles	Within Concrete	1
			 All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and 	Batching Plant / Duration of the	
			 All access and route roads within the premises shall be paved and adequately wetted. 	construction phase	
			Housekeeping	Within Concrete	1
			A high standard of housekeeping shall be maintained. All spillages or deposits of materials on ground, support structures or roofs shall be cleaned up promptly by a cleaning method acceptable to EPD. Any dumping of materials at open area shall be prohibited.	Batching Plant / Duration of the construction phase	
5.2.6.6	2.1	-	Best Practices for Asphaltic Concrete Plant	Within Concrete Batching Plant / Duration of the construction phase	1
			The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Tar and Bitumen Works (Asphaltic Concrete Plant) BPM 15 (94) as well as in the future Specified Process licence should be adopted. These include:		
			Design of Chimney		
			The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater;		
			■ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition;		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures Implemented?
				Timing of completion of measures	implemented:
			■ The flue gas exit temperature shall not be less than the acid dew point; and		
			 Release of the chimney shall be directed vertically upwards and not be restricted or deflected. 		
			Cold feed side	Within Concrete	I
			 The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area; 	Batching Plant / Duration of the	
			• Where there is sufficient buffer area surrounding the plant, ground stockpiling may be used. The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side. If these aggregates are stored above the feeding hopper, they shall be enclosed at least on top and three sides and be wetted on the surface to prevent wind-whipping;	construction phase	
			• The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping;		
			 Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance; 		
			 Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface; 		
			 All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and 		
			 All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures. 		
			Hot feed side	Within Concrete	1
			 The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values; 	Batching Plant / Duration of the construction phase	
			 The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value; 		
			 All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings; 		
			 Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			• All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and		
			 Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units). 		
			Material transportation	Within Concrete Batching Plant / Duration of the construction phase Within Concrete Batching Plant / Duration of the	1
			 The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions; 		
			 Roadways from the entrance of the plant to the product loading points and/or any other working areas where there are regular movements of vehicles shall be paved or hard surfaced; and 		
			 Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers. 		
			Control of emissions from bitumen decanting		1
			 The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note; 		
			 Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached; 	construction phase	
			 Proper chimney for the discharge of bitumen fumes shall be provided at high level; 		
			The emission of bitumen fumes shall not exceed the required emission limit; and		
			The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.		
			Liquid fuel	Within Concrete	1
			 The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air. 	Batching Plant / Duration of the construction phase	
			Housekeeping	Within Concrete	I
			A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis.	Batching Plant / Duration of the construction phase	
5.2.6.7	2.1	-	Best Practices for Rock Crushing Plants	Within Concrete	N/A
			The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include:	Batching Plant / Duration of the construction phase	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures Implemented?^
				Timing of completion of measures	
			Crushers		
			• The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter;		
			• The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping;		
			 Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and 		
			 Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure. 		
			Vibratory screens and grizzlies	Within Concrete Batching Plant / Duration of the construction phase	N/A
			• All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and		
			 All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas. 		
			Belt conveyors	Within Concrete	N/A
			 Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides; 	Batching Plant / Duration of the construction phase	
			• Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and		
			Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures Implemented?^
				Timing of completion of measures	in pionioniou i
			Storage piles and bins	Within Concrete	N/A
			 Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required. 	Batching Plant / Duration of the construction phase	
			 The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; 		
			 All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or 		
			• The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls.		
			 Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly. 		
			Rock drilling equipment	Within Concrete	N/A
			 Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities. 	Batching Plant / Duration of the construction phase	
			Hazard to Human Life - Construction Phase		
Table 6.40	3.2	-	 Precautionary measures should be established to request barges to move away during typhoons. 	Construction Site / Construction Period	1
Table 6.40	3.2	-	 An appropriate marine traffic management system should be established to minimize risk of ship collision. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	 Location of all existing hydrant networks should be clearly identified prior to any construction works. 	Construction Site / Construction Period	1
			Noise Impact – Construction Phase		
7.5.6	4.3	-	Good Site Practice Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:	Within the Project site / During construction phase / Prior to	I
			 only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; 	commencement of operation	
			 machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			 plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; 		
			 mobile plant should be sited as far away from NSRs as possible; and 		
			 material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 		
7.5.6	4.3	-	Adoption of QPME QPME should be adopted as far as applicable.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	 Use of Movable Noise Barriers Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs. 	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	 Use of Noise Enclosure/ Acoustic Shed Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator. 	Within the Project site / During construction phase / Prior to commencement of operation	I
			Water Quality Impact – Construction Phase		



EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
5.1	2.26	 Marine Construction Activities General Measures to be Applied to All Works Areas Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; Use of Lean Material Overboard (LMOB) systems shall be prohibited; Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft 	Within construction site / Duration of the construction phase	
		 the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted. Specific Measures to be Applied to All Works Areas The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be 	Within construction site / Duration of the construction phase	1
		 An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities; Closed grab dredger shall be used to excavate marine sediment; Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and 		N/A *(The arrangement of silt curtain has been modified. The details can be referred to Si Curtain Deployment Plan)
	Ref.	Ref. Condition	5.1 2.26 Marine Construction Activities General Measures to be Applied to All Works Areas Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; Use of Lean Material Overboard (LMOB) systems shall be prohibited; Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. No direct discharge of contaminated water is permitted. Specific Measures to be Applied to All Works Areas The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document; An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities; Closed grab dredger shall be used to excavate marine sediment;	Finding of completion of measures Siming of completion of measures



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains; Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and	Within construction site / Duration of the construction phase	N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan) For C7a, I For C8, I *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			■ The silt curtains and silt screens should be regularly checked and maintained.	•	I
			 Specific Measures to be Applied to Land Formation Activities during Marine Filling Works Double layer 'Type II' or 'Type III' silt curtains to be applied around the eastern openings between partially completed seawalls prior to commencement of marine filling activities. The silt curtains shall be configured to minimise SS release during ebb tides; 	Within construction site / Duration of the construction phase	*(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			 Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities; 		N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			 Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and 		N/A *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			The silt curtains and silt screens should be regularly checked and maintained.		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and 	Within construction site / Duration of the construction phase	N/A
			 Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure. 		
8.8.1.4	5.1	-	 Modification of the Existing Seawall Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works. 	At the existing northern seawall / Duration of the construction phase	I
8.8.1.5	5.1	-	 Construction of New Stormwater Outfalls and Modifications to Existing Outfalls During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations. 	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment.	Within construction site / Duration of the construction phase	I
			For construction of the eastern approach lights at the CMPs Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; The excavated materials shall be removed using a closed grab within the steel casings; No discharge of the cement mixed materials into the marine environment will be allowed; and Excavated materials shall be treated and reused on-site.	_	I
8.8.1.8	5.1	-	Construction of Site Runoff and Drainage The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended:	Within construction site / Duration of the construction phase	
			• Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site	-	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform);		
			Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction;		1
			 All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly; 	_	1
			 Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities; 	_	I
			• In the event that contaminated groundwater is identified at excavation areas, this should be treated on- site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and		ı
			• All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge.		I
8.8.1.9	5.1	-	Sewage Effluent from Construction Workforce	Within construction	I
			 Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. 	site / During construction phase	
8.8.1.10	5.1		General Construction Activities	Within construction	I
8.8.1.11			 Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used; and 	site / During construction phase	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			• Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.		
8.8.1.12	5.1	2.28	Drilling Activities for the Submarine Aviation Fuel Pipelines	Within construction	I
8.8.1.13			To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:	site / During	
			 A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; 	construction phase	
			 No bulk storage of chemicals shall be permitted; and 		
			 A containment pit shall be constructed around the drill holes. This containment pit shall be lined with impermeable lining and bunded on the outside to prevent inflow from off-site areas. 		
			At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater:	Within construction site / During	1
			 During pipe cleaning, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meet the WPCO/TM requirements before discharge; and 	construction phase	
			 Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 		
			Waste Management Implication – Construction Phase		
10.5.1.1	7.1	-	Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended:		
			• The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&D materials;	Project Site Area / During design and construction phase	1
			 Priority should be given to collect and reuse suitable inert C&D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works; 		1
			 Only non-dredged ground improvement methods should be adopted in order to completely avoid the need for dredging and disposal of marine sediment for the proposed land formation work; 	•	I
			 Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and 	-	1



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?
			■ For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development.		I
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include:	Project Site Area /	1
			 Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; 	Construction Phase	
			 Training of site personnel in proper waste management and chemical waste handling procedures; 		
			 Provision of sufficient waste disposal points and regular collection for disposal; 		
			 Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards; 		
			 Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; 		
			 All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas; 		
			 C&D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust; 		
			 The speed of the trucks including dump trucks carrying C&D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and 		
			To avoid or minimise dust emission during transport of C&D or waste materials within the site, each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials. Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.		
10.5.1.3	7.1	- The following practices should be performed to achieve waste reduction include:	The following practices should be performed to achieve waste reduction include:	Project Site Area /	1
			 Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; 	Construction Phase	
			 Adoption of repetitive design to allow reuse of formworks as far as practicable; 		
			 Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			 Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force; 		
			 Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable; 		
			 Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and 		
			 Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. 		
10.5.1.5	7.1		 Inert and non-inert C&D materials should be handled and stored separately to avoid mixing the two types of materials. 	Project Site Area / Construction Phase	1
10.5.1.5	7.1	-	 Any recyclable materials should be segregated from the non-inert C&D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector. 	Project Site Area / Construction Phase	1
10.5.1.6	7.1	-	 A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping. 	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	 The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices. 	Construction Phase	1
10.5.1.16	7.1	-	The following mitigation measures are recommended during excavation and treatment of the sediments: On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;	Project Site Area / Construction Phase	I
			 The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions; 	_	I
			 All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; 	-	I
			 Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; 	-	I
			Treated and untreated sediment should be clearly separated and stored separately; and	_	1
			 Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge. 		ı
10.5.1.18	7.1	-	The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly	Project Site Area / Construction Phase	N/A



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal:		
			 Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; 		
			 Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by EPD; and 		
			 Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. 		
10.5.1.19	7.1	-	Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented:	Project Site Area / Construction Phase	I
			 Good quality containers compatible with the chemical wastes should be used; 		
			Incompatible chemicals should be stored separately;		
			 Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and 		
			 The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. 		
10.5.1.20	7.1	-	 General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. 	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.	Project Site Area / Construction Phase	I
			Land Contamination – Construction Phase		
11.10.1.2	8.1	2.32	For areas inaccessible during site reconnaissance survey	Project Site Area	
to 11.10.1.3			 Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas. 	inaccessible during site reconnaissance / Prior to Construction Phase	I
			 Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas. 	-	I



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			 After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room. 		I*(CAR for golf course and Terminal 2 Emergency Power Supply System Nos.1, 2, 3, 4 and 5)
			 Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively. 		N/A
11.8.1.2	8.1	-	If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any):	Project Site Area / Construction Phase	N/A
			 To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; 		
			 Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; 		
			 Stockpiling of contaminated excavated materials on site should be avoided as far as possible; 		
			 The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; 		
			 Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; 		
			 Truck bodies and tailgates should be sealed to prevent any discharge; 		
			 Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; 		
			 Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit; 		
			 Strictly observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and 		
			 Maintain records of waste generation and disposal quantities and disposal arrangements. 		
			Terrestrial Ecological – Construction Phase		
12.10.1.1	9.2	2.14	Pre-construction Egretry Survey	Breeding season (April	I
			 Conduct ecological survey for Sha Chau egretry to update the latest boundary of the egretry. 	- July) prior to commencement of	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
				HDD drilling works at HKIA	
12.7.2.3	9.1	2.30	Avoidance and Minimisation of Direct Impact to Egretry	During construction	1
and 12.7.2.6			 The daylighting location will avoid direct encroachment to the Sheung Sha Chau egretry. The daylighting location and mooring of flat top barge, if required, will be kept away from the egretry; 	phase at Sheung Sha Chau Island	
			 In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and 		
			The containment pit at the daylighting location shall be covered or camouflaged.		
12.7.2.5	9.1	2.30	Preservation of Nesting Vegetation	During construction	1
			• The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved.	phase at Sheung Sha Chau Island	
12.7.2.4	9.1	2.30	Timing the Pipe Connection Works outside Ardeid's Breeding Season	During construction phase at Sheung Sha Chau Island	I
and 12.7.2.6			 All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons. 		
12.10.1.1	9.3	-	Ecological Monitoring	at Sheung Sha Chau	1
			 During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found. 	Island	
			Marine Ecological Impact – Pre-construction Phase		
13.11.4.1	10.2.2	-	■ Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	I
			Marine Ecological Impact – Construction Phase		
13.11.1.3	-	-	Minimisation of Land Formation Area	Land formation	I
to 13.11.1.6			 Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population. 	footprint / during detailed design phase to completion of construction	
13.11.1.7	-	2.31	Use of Construction Methods with Minimal Risk/Disturbance	During construction	
to 13.11.1.10			 Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; 	phase at marine works area	1



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
				Timing of completion of measures	Implemented?^
			 Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment; 		I
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; 	_	1
			 Avoid bored piling during CWD peak calving season (Mar to Jun); 	_	I
			■ Prohibition of underwater percussive piling; and	_	1
			 Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources. 		I
13.11.2.1	-	-	Mitigation for Indirect Disturbance due to Deterioration of Water Quality	All works area during	
to 13.11.2.7			 Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 	the construction phase	1
			 Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains); 		I
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 	_	1
			Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.	-	I
13.11.1.12	-	-	Strict Enforcement of No-Dumping Policy	All works area during	I
			 A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; 	the construction phase	
			 Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; 		
			 Fines for infractions should be implemented; and 		
			 Unscheduled, on-site audits shall be implemented. 		
13.11.1.13	-	-	 Good Construction Site Practices Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators. 	All works area during the construction phase	I



13.11.1.13 - -	EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Mitigation Measures
13.11.1.6 Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population. 13.11.5.4 10.3.1 SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions SkyPier High Speed Ferries' Speed Restrictions and Route Diversions Area between the footprint and SCLKC Marine Park within a 15 knot speed limit in Diversion on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier High Speed Ferries and Area Maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times. Other mitigation measures The ET will audit various parameters including actual daily numbers of High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed Ferries Speed limit in the speed control zone and diversion compliance for SkyPier High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed Ferries Park during construction phase The ET will audit various parameters including actual daily numbers of High Speed						Implemented?^
13.11.5.13 ***********************************	to	-	-	 Minimise the overall size of the land formation needed for the additional facilities to minimise the overall 	footprint / during detailed design phase to completion of	I
* The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and * The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed. 13.11.5.14 10.3.1 2.31 2.31 Dolphin Exclusion Zone * Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works area during construction phase * A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and * A DEZ would also be implemented during bored piling work but as a precautionary measure only. 13.11.5.19 10.4 2.31 Acoustic Decoupling of Construction Equipment * Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and escoustic decoupling measures shall be specified during the detailed design of the project for	to	10.3.1	-	SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in Drawing No. MCL/P132/EIA/13-023 of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier HSF numbers; and	footprint and SCLKC Marine Park during	I
Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works area during construction phase A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and A DEZ would also be implemented during bored piling work but as a precautionary measure only. A DEZ would also be implemented during bored piling work but as a precautionary measure only. Acoustic Decoupling of Construction Equipment Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and Specific acoustic decoupling measures shall be specified during the detailed design of the project for				 The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF 	footprint and SCLKC Marine Park during	I
for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and • A DEZ would also be implemented during bored piling work but as a precautionary measure only. 13.11.5.19 10.4 2.31 • Acoustic Decoupling of Construction Equipment • Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and • Specific acoustic decoupling measures shall be specified during the detailed design of the project for	to	10.3.1	2.31	 Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation 	land formation works area during	1
Acoustic Decoupling of Construction Equipment Around coastal works I Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and Specific acoustic decoupling measures shall be specified during the detailed design of the project for				for submarine cables diversion, open trench dredging at the field joint locations and seawall	_	1
 Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and Specific acoustic decoupling measures shall be specified during the detailed design of the project for 				A DEZ would also be implemented during bored piling work but as a precautionary measure only.		I
and during the land formation fromto.	13.11.5.19	10.4	2.31	 Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and Specific acoustic decoupling measures shall be specified during the detailed design of the project for 	area during	I
13.11.5.20 10.6.1 2.29 Spill Response Plan Construction phase I	13 11 5 20	10.6.1	2 29		Construction phase	ı



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion	Mitigation Measures Implemented?^
				of measures	
			• An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage.		
13.11.5.21	10.6.1	-	Construction Vessel Speed Limits and Skipper Training	All areas north and	1
to 13.11.5.23			 A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and 	west of Lantau Island during construction	
			 Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing. 	phase	
			Fisheries Impact - Construction Phase		
14.9.1.2 to	-		Minimisation of Land Formation Area	Land formation	I
14.9.1.5			 Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources. 	footprint / during detailed design phase to completion of construction	
14.9.1.6	-	-	Use of Construction Methods with Minimal Risk/Disturbance	During construction	
			 Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; 	phase at marine works area	1
			 Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on fisheries and the marine environment; 	_	I
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 	_	I
			 Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources. 	_	I
14.9.1.11	-		Strict Enforcement of No-Dumping Policy	All works area during	I
			 A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; 	the construction phase	
			 Mandatory educational programme of the no-dumpling policy be made available to all construction site personnel for all project-related works; 		
			Fines for infractions should be implemented; and		
			 Unscheduled, on-site audits shall be implemented. 		



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?
14.9.1.12	-		 Good Construction Site Practices Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; Keep the number of working or stationary vessels present on-site to the minimum anytime; and Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators. 	All works area during the construction phase	I
14.9.1.13	-	Mitigation for Indirect Disturbance due to Deterioration of Water Quality	All works area during		
to 14.9.1.18			 Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 	the construction phase	1
			• Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);	-	I
			 Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 		I
			 Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources. 		I
			Landscape and Visual Impact – Construction Phase		
Table 15.6	12.3	-	CM1 - The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works;	I
				Upon handover and completion of works.	
Table 15.6	12.3	-	CM2 - Reduction of construction period to practical minimum.	All works areas for duration of works;	1
				Upon handover and completion of works.	
Table 15.6	12.3	-	CM3 - Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works;	1
				Upon handover and completion of works.	
Table 15.6	12.3	-	CM4 - Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works;	1
				Upon handover and completion of works.	



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Table 15.6	12.3	-	CM5 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	I
Table 15.6	12.3	-	CM6 - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and	I
T.11. 45.0	10.0			completion of works.	
Table 15.6	12.3	-	CM7 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	·
Table 15.6	12.3	-	CM8 - All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	All existing trees to be retained; Upon handover and completion of works.	1
Table 15.6	12.3	-	CM9 - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	ı
Table 15.6	12.3	-	CM10 - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works;	N/A



EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures	Measures
				Timing of completion of measures	
				Upon handover and completion of works.	
			Cultural Heritage Impact – Construction Phase		
			Not applicable.		
			Health Impact – Aircraft Emissions		
			Not applicable.		
			Health Impact – Aircraft Noise		
	•	_	Not applicable.		_

Notes:

[&]quot; - " For items denoted as " - " provided under the columns of EM&A Ref. or EP Condition, environmental protection measures should be referred to the relevant paragraph(s) / table(s) in the approved EIA Report.

[&]quot;I" Implemented where applicable.

[&]quot; N/A" Not applicable to the construction works implemented during the reporting month.

[&]quot;^" Checked by ET through site inspection and record provided by the Contractor.

Appendix C. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Sep-21

			00p Z1			2.1
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Site Inspection	2 Site Inspection	3 Site Inspection	4
					CWD Survey (Land-based)	AR1A, AR2
						ANTA, ANZ
				WO Company		WO Company
				WQ General 9:	42	WQ General mid-ebb: 11:23
				mid-flood: 22:	15	mid-flood: 18:40
5	6	7	8	9	10	11
	Site Inspection	Site Inspection		Site Inspection	Site Inspection	
	CWD Survey (Vessel)	CWD Survey (Vessel)	CWD Survey (Vessel)	CWD Survey (Land-based)	CWD Survey (Vessel)	
			NM4, NM6		AR1A, AR2 NM1A, NM5	
			1401-1, 14010		140174, 14010	
		WQ General	20	WQ General		WQ General
		mid-ebb: 13:2 mid-flood: 6:3		mid-ebb: 14:: mid-flood: 8:		mid-ebb: 15:53 mid-flood: 9:47
12	13	14	15	16	17	18
	Site Inspection	Site Inspection		Site Inspection	Site Inspection	
				CWD Survey (Vessel)	CWD Survey (Vessel)	
				AR1A, AR2		
			NM4, NM6	NM1A, NM5		
		WQ General		WQ General		WQ General
		mid-ebb: 6:1 mid-flood: 18:4		mid-ebb: 9: mid-flood: 17:		mid-ebb: 11:14 mid-flood: 18:34
19	20	21	22	23	24	25
	Site Inspection	Site Inspection		Site Inspection	Site Inspection	
	CWD Survey (Vessel)			CWD Survey (Vessel)		
		AR1A, AR2				
	NM4, NM6	NM1A, NM5				
		WQ General		WQ General		WQ General
		mid-ebb: 13:1 mid-flood: 6:4		mid-ebb: 14:: mid-flood: 8:		mid-ebb: 15:18 mid-flood: 9:32
26	27	28	29	30		1111d-1100d. 9.32
	Site Inspection	Site Inspection	1 -5	Site Inspection		
	AR1A, AR2					
	NM1A, NM5	NM4, NM6				
		WQ General		WQ General		
		mid-ebb: 5:0		mid-ebb: 7:		
		mid-flood: 17:2 Notes:	21	mid-flood: 20:	16	
		CWD - Chinese White Dolphin	NM1A/AR1A - Man Tung Road Park			
		Air quality and Noise Monitoring Station	NM4 - Ching Chung Hau Po Woon Pri	imary School		
		All quality and Noise Monitoring Station	NM5/AR2 - Village House, Tin Sum			
		WQ - Water Quality	NM6 - House No. 1, Sha Lo Wan			
		, , , , , ,				

Tentative Monitoring Schedule of Next Reporting Period

Oct-21

			00121			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
						AR1A, AR2
						WQ General
						mid-ebb: 09:56
		_		_		mid-flood: 17:33
3	Site Inspection	5 Site Inspection	6	7 Site Inspection	8 Site Inspection	9
	Site inspection	Site inspection		Site inspection	Site inspection	
			CWD Survey (Vessel)	CWD Survey (Vessel)	CWD Survey (Vessel)	
			NM4, NM6		AR1A, AR2 NM1A, NM5	
			INIVIA, INIVIO		NWTA, NWS	
		WQ General		WQ General		WQ General
		mid-ebb: 12:14 mid-flood: 05:43		mid-ebb: 13:3 mid-flood: 07:1		mid-ebb: 14:56 mid-flood: 09:01
10	11	12	13	14 07:11	15	16
10	Site Inspection	Site Inspection	Site Inspection	17	Site Inspection	10
	· ·	·				
		CWD Survey (Vessel, Land-based)	CWD Survey (Vessel) AR1A, AR2		CWD Survey (Vessel, Land-based)	
		NM4, NM6	NM1A, NM5			
		WQ General mid-ebb: 04:48	3	WQ General mid-ebb: 07:1	2	WQ General mid-ebb: 10:00
		mid-flood: 12:39		mid-flood: 20:1		mid-flood: 17:27
17	18	19	20	21	22	23
	Site Inspection	Site Inspection		Site Inspection	Site Inspection	
	CWD Survey (Vessel)	CWD Survey (Vessel)				
		AR1A, AR2				
	NM4, NM6	NM1A, NM5				
		WQ General		WQ General		WQ General
		mid-ebb: 12:14		mid-ebb: 13:1		mid-ebb: 14:21
		mid-flood: 06:00		mid-flood: 07:2		mid-flood: 08:45
24	25	26	27	28	29	30
	Site Inspection	Site Inspection		Site Inspection	Site Inspection	
	AR1A, AR2 NM1A, NM5	NM4, NM6				AR1A, AR2
	NIVITA, NIVIS	NIVI4, NIVIO				
		WQ General		WQ General		WQ General
		mid-ebb: 15:52 mid-flood: 11:08		mid-ebb: 05:1 mid-flood: 17:3		mid-ebb: 07:28 mid-flood: 16:21
31		Notes:	2	mid-100d. 17.5		mid-100d. 10.21
,						
		CWD - Chinese White Dolphin				
			NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Prima	ary School		
		Air quality and Noise Monitoring Station	NM5/AR2 - Village House, Tin Sum	ury 55/150/		
			NM6 - House No. 1, Sha Lo Wan			
		WQ - Water Quality				

Appendix D. Monitoring Results

Mott MacDonald Expansion of Hong Kong International Airport into a Three-Runway System
Air Quality Monitoring Results

1-hour TSP Results

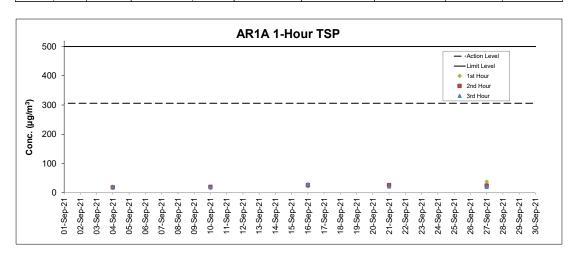
Station: AR1A- Man Tung Road Park

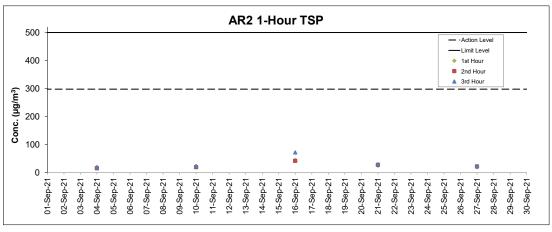
Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m³)	Action Level (μg/m³)	Limit Level (µg/m³)
04-Sep-21	8:32	Cloudy	2.8	Variable	16	306	500
04-Sep-21	9:32	Cloudy	4.2	322	18	306	500
04-Sep-21	10:32	Cloudy	1.7	355	21	306	500
10-Sep-21	14:10	Cloudy	4.7	261	16	306	500
10-Sep-21	15:10	Cloudy	3.6	277	20	306	500
10-Sep-21	16:10	Cloudy	1.9	301	18	306	500
16-Sep-21	14:15	Sunny	1.7	290	22	306	500
16-Sep-21	15:15	Sunny	1.4	Variable	26	306	500
16-Sep-21	16:15	Sunny	4.2	232	29	306	500
21-Sep-21	13:04	Cloudy	5.3	207	23	306	500
21-Sep-21	14:04	Cloudy	7.8	66	26	306	500
21-Sep-21	15:04	Cloudy	3.9	162	21	306	500
27-Sep-21	13:22	Cloudy	3.9	249	38	306	500
27-Sep-21	14:22	Cloudy	3.9	268	68 24 306		500
27-Sep-21	15:22	Cloudy	3.3	251	19	306	500

1-hour TSP Results

Station: AR2- Village House, Tin Sum

Station. ANZ- Villag	ge nouse, m	Julii						
Date	Time	Weather	Wind Speed (m/s)	Wind Direction	1 h = TCD (= /== 3)	Action Level	Limit Level	
Date	Tille	vveatriei	willa speed (III/s)	(deg)	1-hr TSP (μg/m³)	$(\mu g/m^3)$	(μg/m³)	
04-Sep-21	13:41	Cloudy	1.7	Variable	20	298	500	
04-Sep-21	14:41	Cloudy	4.2	271	16	298	500	
04-Sep-21	15:41	Cloudy	3.3	280	20	298	500	
10-Sep-21	14:32	Sunny	4.7	267	21	298	500	
10-Sep-21	15:32	Sunny	3.1	263	263 20		500	
10-Sep-21	16:32	Sunny	2.8	268	24	298	500	
16-Sep-21	14:03	Cloudy	1.7	259	45	298	500	
16-Sep-21	15:03	Cloudy	1.4	Variable	42	298	500	
16-Sep-21	16:03	Cloudy	5.0	232	72	298	500	
21-Sep-21	9:12	Cloudy	2.2	335	25	298	500	
21-Sep-21	10:12	Cloudy	2.2	343	28	298	500	
21-Sep-21	11:12	Cloudy	3.9	318	30	298	500	
27-Sep-21	9:10	Cloudy	3.1	60	19	298	500	
27-Sep-21	10:10	Cloudy	2.5	76	22	298	500	
27-Sep-21	11:10	Cloudy	2.8	331	24	298	500	





- Notes

 1. Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.

 2. Weather conditions during monitoring are presented in the data tables above.

 3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Noise Monitori	ing Results		

Mott MacDonald | Expansion of Hong Kong International Airport into a Three-Runway System

Noise Measurement Results

Station: NM1A- Man Tung Road Park

D-4-	14/	T	Measured	Measured	
Date	Weather	Time	$\mathbf{L}_{10}\mathrm{dB}(A)$	L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
10-Sep-21	Cloudy	14:32	69.6	54.4	
10-Sep-21	Cloudy	14:37	65.4	55.0	
10-Sep-21	Cloudy	14:42	59.7	53.5	66
10-Sep-21	Cloudy	14:47	59.8	52.8	00
10-Sep-21	Cloudy	14:52	61.8	52.3	
10-Sep-21	Sep-21 Cloudy 14:37 65.4				
16-Sep-21	Sunny	14:05	61.8	50.5	
16-Sep-21	Sunny	14:10	65.0	50.3	
16-Sep-21	Sunny	14:15	61.7	49.9	63
16-Sep-21	Sunny	14:20	64.3	49.5	03
16-Sep-21	Sunny	14:25	64.8	49.9	
16-Sep-21	Sunny	14:30	60.6	50.7	
21-Sep-21	Cloudy	14:07	72.7	55.2	
21-Sep-21	Cloudy	14:12	69.2	54.6	
21-Sep-21	Cloudy	14:17	68.3	51.8	69
21-Sep-21	Cloudy	14:22	68.2	52.1	09
21-Sep-21	Cloudy	14:27	68.9	56.0	
21-Sep-21	Cloudy	14:32	70.1	50.7	
27-Sep-21	Cloudy	13:54	67.9	54.5	
27-Sep-21	Cloudy	13:59	69.0	54.9	
27-Sep-21	Cloudy	14:04	67.9	52.6	69
27-Sep-21	Cloudy	14:09	65.7	58.0] 09
27-Sep-21	Cloudy	14:14	67.2	57.2	
27-Sep-21	Cloudy	14:19	68.9	57.8	

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured	Measured	Ι μογιν Δ
Date	weather	Time	$\mathbf{L}_{10} \mathrm{dB}(A)$	L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
08-Sep-21	Cloudy	13:04	66.1	57.3	
08-Sep-21	Cloudy	13:09	63.8	55.9	
08-Sep-21	21 Cloudy 13:19 65.1 21 Cloudy 13:24 64.5 21 Cloudy 13:29 65.6 21 Cloudy 13:15 62.6 21 Cloudy 13:20 63.0 21 Cloudy 13:25 63.5 21 Cloudy 13:30 63.8 21 Cloudy 13:35 62.4 21 Cloudy 13:40 63.0 21 Cloudy 13:00 63.3		55.8	65	
08-Sep-21	Cloudy	13:19	65.1	55.6	05
08-Sep-21	Cloudy	13:24	64.5	54.3	
08-Sep-21	Cloudy	13:29	65.6	55.2	
15-Sep-21	Cloudy	13:15	62.6	59.2	
15-Sep-21	Cloudy	13:20	63.0	59.2	
15-Sep-21	Cloudy	13:25	63.5	59.4	65
15-Sep-21	Cloudy	13:30	63.8	58.7	05
15-Sep-21	Cloudy	13:35	62.4	58.2	
15-Sep-21	15-Sep-21 Cloudy		63.0	59.5	
20-Sep-21	Cloudy	13:00	63.3	60.4	
20-Sep-21	Cloudy	13:05	62.9	59.5	
20-Sep-21	Cloudy	13:10	62.5	59.2	66
20-Sep-21	Cloudy	13:15	63.5	60.1	00
20-Sep-21	Cloudy	13:20	64.1	58.4	
20-Sep-21	Cloudy	13:25	65.6	59.2	
28-Sep-21	Cloudy	11:02	60.0	52.7	
28-Sep-21	Cloudy	11:07	61.0	53.3	
28-Sep-21	Cloudy	11:12	60.0	52.2	63
28-Sep-21	Cloudy	11:17	63.4	55.2	05
28-Sep-21	Cloudy	11:22	61.9	53.4	
28-Sep-21	Cloudy	11:27	64.1	53.4	

Remarks: (^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

Remarks:
(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured	Measured	L _{eq(30mins)} dB(A) ^
Dute	Weather		\mathbf{L}_{10} dB(A)	L ₉₀ dB(A)	eq(30mins) dD(A)
10-Sep-21	Sunny	14:16	46.3	44.2	
10-Sep-21	Sunny	14:21	53.2	44.9	
10-Sep-21	Sunny	14:26	52.1	50.8	55
10-Sep-21	Sunny	14:31	52.0	50.7] 33
10-Sep-21	Sunny	14:36	52.4	50.8	
10-Sep-21	Sunny	14:41	52.8	50.4	
16-Sep-21	Cloudy	14:04	51.1	44.1	
16-Sep-21	Cloudy	14:09	58.4	44.2	
16-Sep-21	Cloudy	14:14	50.1	43.8	55
16-Sep-21	Cloudy	14:19	56.4	43.3	33
16-Sep-21	Cloudy	14:24	48.0	43.8	
16-Sep-21	Cloudy	14:29	47.9	42.8	
21-Sep-21	Cloudy	09:18	55.2	46.0	
21-Sep-21	Cloudy	09:23	44.2	41.0	
21-Sep-21	Cloudy	09:28	46.5	40.9	57
21-Sep-21	Cloudy	09:33	50.0	43.0	3/
21-Sep-21	Cloudy	09:38	51.0	41.0	
21-Sep-21	Cloudy	09:43	58.1	41.4	
27-Sep-21	Cloudy	09:22	62.5	50.1	
27-Sep-21	Cloudy	09:27	61.1	46.8	
27-Sep-21	Cloudy	09:32	61.6	45.5	61*
27-Sep-21	Cloudy	09:37	62.2	48.2	91.
27-Sep-21	48.6				
ocp	Cloudy				

Noise Measurement Results

Station: NM6- House No.1 Sha Lo Wan

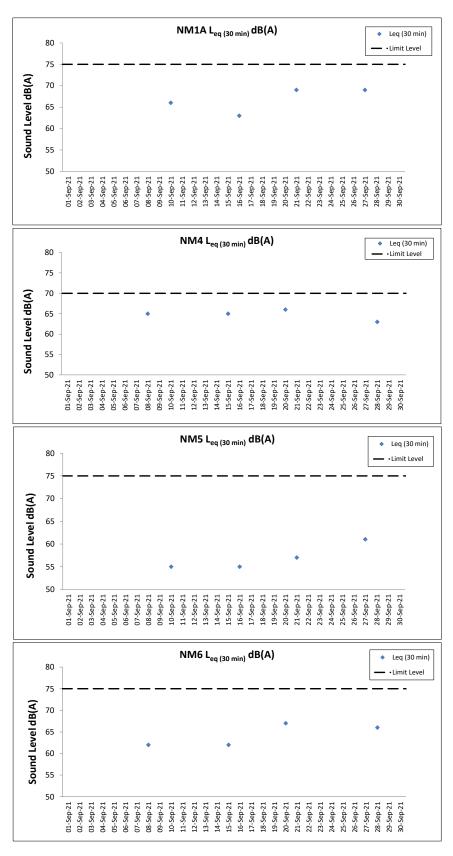
Date	Weather	Time	Measured	Measured	1
Date	weather	Time	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
08-Sep-21	Cloudy	15:42	68.8	59.5	
08-Sep-21	Cloudy	15:47	68.9	61.5	
08-Sep-21	Cloudy	15:52	69.5	60.1	62*
08-Sep-21	Cloudy	15:57	67.2	56.7	02
08-Sep-21	Cloudy	16:02	69.9	62.1	
08-Sep-21	Cloudy	16:07	69.4	60.6	
15-Sep-21	Cloudy	15:44	60.2	44.3	
15-Sep-21	Cloudy	15:49	65.4	42.1	
15-Sep-21	Cloudy	15:54	65.9	41.9	62*
15-Sep-21	Cloudy	15:59	71.2	44.9	02
15-Sep-21	Cloudy	16:04	72.9	44.3	
15-Sep-21	Cloudy	16:09	63.6	45.0	
20-Sep-21	Cloudy	15:47	73.7	55.1	
20-Sep-21	Cloudy	15:52	62.4	55.1	
20-Sep-21	Cloudy	15:57	62.4	53.1	67
20-Sep-21	Cloudy	16:02	65.7	53.5	07
20-Sep-21	Cloudy	16:07	64.4	55.4	
20-Sep-21	Cloudy	16:12	64.0	54.8	
28-Sep-21	Cloudy	09:44	63.1	52.2	
28-Sep-21	Cloudy	09:49	68.0	57.2	
28-Sep-21	Cloudy	09:54	65.8	55.9	66
28-Sep-21	Cloudy	09:59	68.9	58.9	
28-Sep-21	Cloudy	10:04	66.8	54.9	
28-Sep-21	Cloudy	10:09	62.2	52.9	

Z7-36P-21 Cloudy 05.47 59.4 59.48 Cloudy 05.47 59.4 59.49 59

Remarks:

(^) +3dB (A) correction in Leq(30mins) dB(A) was applied to free-field measurement.

(*) The measurement result was corrected with reference to the baseline monitoring levels.



Notes

- $1. \ Major \ site \ activities \ carried \ out \ during \ the \ reporting \ period \ are \ summarized \ in \ Section \ 1.4 \ of \ the \ monthly \ EM\&A \ report.$
- 2. Weather conditions during monitoring are presented in the data tables above.
- 3. QA/QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Water	Quality	Monito	ring Re	sults	

Mott MacDonald | Expansion of Hong Kong International Airport into a Three-Runway System

Vater Qua	lity Monit	toring Resu	ılts on		02 September 21	during Mid-	Ebb Tid	<u>e</u>																
Monitorina	Weather	Sea	Sampling	Water		-	Current Speed	Current	Water Te	emperature (°C)		Н	Salin	nity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/L)		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting
					Surface	1.0	0.3	229 241	26.8 26.8	26.8	7.6 7.6	7.6	29.4 29.4	29.4	73.3 73.0	73.2	5.0 5.0		2.8		3			
C1	Fine	Calm	09:09	8.6	Middle	4.3 4.3	0.4	226	26.9 26.9	26.9	7.6 7.6	7.6	29.4 29.7 29.8	29.7	72.0 71.6	71.8	4.9 4.8	4.9	3.9	3.6	4 5	4	815610	804226
					Bottom	7.6 7.6	0.3	219 227	27.3 27.4	27.4	7.6 7.6	7.6	29.7	29.5	71.5 77.2	74.4	4.8	5.0	4.0		5			
					Surface	1.0 1.0	0.6	174 184	26.7	26.7	7.9 7.9	7.9	25.5 25.6	25.5	68.3 67.3	67.8	4.8 4.7		4.0		4 5			
C2	Sunny	Moderate	10:38	10.8	Middle	5.4 5.4	0.3	174 176	26.6 25.7 25.6	25.7	7.8 7.8	7.8	27.9 28.0	28.0	52.2 52.1	52.2	3.6 3.6	4.2	4.0 4.5 4.7	7.3	3	4	825670	80694
					Bottom	9.8 9.8	0.4	159 164	25.2 25.2	25.2	7.8 7.8	7.8	28.8	28.8	46.9 47.1	47.0	3.3	3.3	13.1		3			
					Surface	1.0 1.0	0.7	103	26.4 26.4	26.4	7.9 7.9	7.9	26.6 26.6	26.6	70.5 70.4	70.5	4.9 4.9		2.6 2.7		4 3			
C3	Sunny	Moderate	08:30	10.6	Middle	5.3 5.3	0.4	87	25.9 25.8	25.9	7.9 7.9	7.9	27.9 28.0	28.0	64.0 63.8	63.9	4.5 4.4	4.7	3.7 3.8	5.7	4 5	4	822117	81778
					Bottom	9.6	0.5	89 35	25.0	25.0	7.9 7.8 7.9	7.8	29.4	29.4	53.5	53.5	3.7	3.7	10.4 11.1		4			
					Surface	9.6	0.5	35 181	25.0 26.6	26.6	7.6	7.6	29.7	29.7	65.2	65.7	4.5		5.4		5			
IM1	Fine	Calm	09:31	4.2	Middle	1.0	0.0	189	26.6	-	7.6	-	29.7	-	66.1		4.5	4.5	5.4	5.7	5	4	817930	80712
					Bottom	3.2	0.0	149	26.5	26.5	7.6	7.6	29.8	29.8	66.5	66.8	4.5	4.6	6.1		3			
					Surface	3.2 1.0	0.0	153 141	26.5 26.6	26.6	7.6 7.6	7.6	29.8 29.8	29.9	67.1 67.8	67.4	4.6 4.6		6.0 3.8		5			
IM2	Fine	Calm	09:39	6.2	Middle	1.0 3.1	0.1	148 123	26.5 26.4	26.4	7.6 7.6	7.6	29.9 30.2	30.2	67.0 65.1	65.2	4.6 4.4	4.5	3.8 4.3	4.5	4	4	818155	80615
					Bottom	3.1 5.2	0.2 0.1	127 135	26.4 26.4	26.5	7.6 7.6	7.6	30.2 30.2	30.1	65.2 63.9	64.6	4.4 4.4	4.5	4.4 5.3		4		4 010133	
					Surface	5.2 1.0	0.1	135 162	26.5 26.4	26.4	7.6 7.6	7.6	30.0 30.1	30.2	65.3 68.3	68.2	4.5 4.6	-1.0	5.2 7.6		3			
IM3	Fine	Calm	09:45	6.4	Middle	1.0 3.2	0.3	172 154	26.4 26.4	26.4	7.6 7.6	7.6	30.2 30.3	30.4	68.1 64.1	64.2	4.6 4.3	4.5	7.7 8.5	8.5	3	3	818805	805585
	1 1110	Guin	00.10	0.1	Bottom	3.2 5.4	0.2	160 135	26.4 26.3	26.4	7.6 7.6	7.6	30.4 30.5	30.4	64.3 65.5	65.5	4.4 4.5	4.5	8.5 9.4	0.0	3 <2		0.0000	00000
					Surface	5.4 1.0	0.1	138 196	26.4 28.0	28.0	7.6 7.6	7.6	30.4 23.8	23.8	65.4 81.6	81.4	4.4 5.6	4.5	9.4 7.2		<2 2			
IM4	Fine	Calm	09:56		Middle	1.0 4.0	0.8	199 203	28.0 26.7		7.6 7.6		23.8 29.4		81.2 69.9		5.6 4.8	5.2	7.1 8.1	8.1	2	2	040740	00.450
IIVI4	rine	Caim	09:56	8.0		4.0 7.0	0.7 0.4	220 178	26.7 26.6	26.7	7.6 7.6	7.6	29.6 29.8	29.5	69.1 70.2	69.5	4.7 4.8		8.2 9.0	8.1	2 <2	2	819712	804598
					Bottom	7.0 1.0	0.4	181 203	26.7 27.2	26.7	7.6 7.6	7.6	29.7 25.5	29.7	74.8 77.2	72.5	5.1 5.3	5.0	9.0 2.0		<2 3			-
					Surface	1.0	0.7	212 218	27.1	27.2	7.6 7.6	7.6	25.7 28.2	25.6	77.0 77.1	77.1	5.3	5.3	2.0		3			
IM5	Fine	Calm	10:05	7.2	Middle	3.6 6.2	0.6	238	27.0 27.0	27.0	7.6 7.6	7.6	28.2	28.2	77.6 80.3	77.4	5.3		2.2	2.4	3	3	820722	804864
					Bottom	6.2	0.4	214	27.0	27.0	7.6	7.6	28.2	28.3	81.4 81.8	80.9	5.5 5.6	5.5	3.0		3			
					Surface	1.0	0.4	220 210	27.3	27.4	7.6 7.6	7.6	26.7 27.0	26.6	81.6 81.2	81.7	5.6 5.5	5.6	1.1		3 2			
IM6	Fine	Calm	10:14	6.6	Middle	3.3	0.3	216	27.2	27.3	7.6	7.6	27.1	27.0	81.2	81.2	5.5		1.9	1.9	2	2	821075	805815
					Bottom	5.6 5.6	0.3	240 262	27.2	27.2	7.6	7.6	27.4	27.4	82.1 83.7	82.9	5.6 5.7	5.7	2.9		2			<u> </u>
					Surface	1.0	0.2	254 260	27.2 27.1	27.2	7.6	7.6	27.5 27.7	27.6	79.6 76.1	77.9	5.4 5.2	5.2	1.3		4			
IM7	Fine	Calm	10:22	7.8	Middle	3.9 3.9	0.2	242 243	27.0 27.0	27.0	7.6	7.6	28.0 28.1	28.0	75.1 74.6	74.9	5.1 5.1		2.5 2.4	2.4	3	4	821358	806822
					Bottom	6.8 6.8	0.1	242 261	26.9 27.0	27.0	7.6 7.6	7.6	28.3	28.1	74.0 77.2	75.6	5.0	5.2	3.5 3.5		3			
					Surface	1.0	0.1	73 74	27.0 27.0	27.0	7.9 7.9	7.9	25.1 25.1	25.1	72.8 72.7	72.8	5.0 5.0	5.0	2.3 2.3		5 4			
IM8	Sunny	Moderate	10:13	7.4	Middle	3.7 3.7	0.2	109 115	27.0 26.9	27.0	7.9 7.9	7.9	25.1 25.2	25.1	72.3 72.4	72.4	5.0 5.0	0.0	2.9 3.1	4.8	4	4	821808	808139
	1		l		Bottom	6.4	0.2	54	26.4	26.4	7.9	7.9	26.7	26.7	67.1	67.1	4.7	4.7	9.0		4			1

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Monitoring	Weather	Sea	Sampling	Water	02 September 21	-	Current Speed	Current	Water Te	emperature (°0	C)	рН	Salir	nity (ppt)		aturation %)	Disso		Turbidity	(NTU)	Suspended (mg/L	Solids .)	Coordinate	Coordina HK Grid
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	(Eastin
					Surface	1.0	0.4	67 67	26.9 26.9	26.9	7.9 7.9	7.9	25.2 25.3	25.3	70.7 70.6	70.7	4.9 4.9		2.3		5			
IM9	Sunny	Moderate	10:08	6.4	Middle	3.2	0.4	89	26.8	26.8	7.9	7.9	25.5	25.5	69.9	69.9	4.9	4.9	2.4	2.6	3	3	822107	8088
IIVI9	Suriny	Woderate	10.06	0.4	Milddle	3.2	0.4	95	26.8	20.0	7.9	7.9	25.5	25.5	69.8	09.9	4.8		2.4	2.0	3	3	022107	0000
					Bottom	5.4 5.4	0.3	84 90	26.6 26.6	26.6	7.9	7.9	25.9 25.9	25.9	70.8 71.2	71.0	4.9 4.9	4.9	3.0	-	3			
					Surface	1.0	0.7	87	26.7	26.7	7.9	7.9	25.7	25.8	65.8	65.8	4.6		2.8		2			
					Surface	1.0	0.7	89	26.7	20.7	7.9	7.9	25.8	25.6	65.8	05.6	4.6	4.4	2.8		2			
IM10	Sunny	Moderate	10:01	7.3	Middle	3.7	0.8	90 96	26.5 26.5	26.5	7.9	7.9	26.3	26.3	60.7 60.7	60.7	4.2	_	3.1	4.8	3	3	822368	8097
					Bottom	6.3	0.7	89	26.1	26.1	7.9	7.9	27.7	27.7	54.1	54.2	3.8	3.8	8.4	t	4			
					BOILOITI	6.3	0.7	95	26.1	20.1	7.9	7.9	27.7	21.1	54.2	54.2	3.8	3.0	8.4		3			
					Surface	1.0	1.0	112 114	26.8 26.7	26.8	7.9	7.9	25.7 25.8	25.8	68.6 68.3	68.5	4.8	ŀ	3.4		4			
	0		00.40		10.00	4.2	0.9	105	26.3	00.0	7.9	7.0	26.9	00.0	56.5	50.5	3.9	4.3	6.8		4		000074	0444
IM11	Sunny	Moderate	09:48	8.4	Middle	4.2	0.9	114	26.3	26.3	7.9	7.9	26.9	26.9	56.4	56.5	3.9		6.8	6.7	2	3	822071	8114
					Bottom	7.4	0.6	95 101	26.2	26.2	7.9	7.9	27.2	27.2	56.6 56.9	56.8	3.9 4.0	4.0	9.6 9.8	-	3			
						1.0	0.8	113	27.1		7.9		25.4		75.4		5.2		2.0		2			_
					Surface	1.0	0.8	115	27.1	27.1	7.9	7.9	25.4	25.4	75.3	75.4	5.2	4.7	2.0		2			
IM12	Sunny	Moderate	09:42	9.0	Middle	4.5	0.8	91	26.3	26.3	7.8	7.8	26.8	26.9	60.0	59.9	4.2	7.7	5.1	5.4	3	3	821441	8120
						4.5 8.0	0.8	98 80	26.3 26.0		7.8 7.8		26.9 27.6		59.8 54.5		4.2 3.8		5.3 8.9	ł	3 4			
					Bottom	8.0	0.5	87	26.0	26.0	7.8	7.8	27.6	27.6	54.8	54.7	3.8	3.8	8.9		4			
					Surface	1.0	-	-	26.6	26.6	7.8	7.8	26.2	26.3	64.0	64.0	4.4		5.8		3			
					-	1.0 2.7	-	-	26.6		7.8		26.3		63.9		4.4	4.4	6.1	ł	3			
SR1A	Sunny	Moderate	09:11	5.3	Middle	2.7			-	-	-	-	-	-	-	-	-	l	-	7.8	-	3	819971	81265
					Bottom	4.3	-	-	26.1	26.1	7.8	7.8	27.2	27.2	57.0	57.1	4.0	4.0	9.7	Ī	3			
						4.3 1.0	0.6	71	26.1 26.6		7.8		27.2		57.2 73.5		4.0 5.1		9.7		3			
					Surface	1.0	0.6	75	26.6	26.6	7.9	7.9	26.1	26.0	73.3	73.4	5.1		2.3	1	3			
SR2	Sunnv	Moderate	08:55	5.1	Middle	-	-	-	-	_	-	-	-	-	-	_	-	5.1	-	2.3	-	3	821453	81415
OILE	Cumy	moderate	00.00	0.1	Middle	4.1	0.3	40	26.4		7.9		26.6		- 68.2		4.7		2.3		3	Ĭ	021100	0.410
					Bottom	4.1	0.3	40	26.4	26.4	7.9	7.9	26.6	26.6	68.3	68.3	4.7	4.7	2.3	ł	4			
					Surface	1.0	0.1	89	26.6	26.6	7.9	7.9	26.2	26.2	63.8	63.8	4.4		3.2		2			
					Guilace	1.0	0.1	89	26.5	20.0	7.9	7.5	26.2	20.2	63.7	00.0	4.4	4.4	3.3		4			
SR3	Sunny	Moderate	10:19	8.4	Middle	4.2	0.1	189 206	26.5 26.5	26.5	7.9	7.9	26.6 26.6	26.6	63.8 63.9	63.9	4.4	ł	4.0 4.1	5.0	4	4	822131	8075
					Bottom	7.4	0.0	101	25.9	25.9	7.9	7.9	28.4	28.4	53.4	53.5	3.7	3.7	7.7	t	4			
					BOILOITI	7.4	0.0	101	25.9	25.9	7.9	7.9	28.4	20.4	53.6	55.5	3.7	3.7	7.8		4			
					Surface	1.0	0.1	78 80	26.5 26.5	26.5	7.6 7.6	7.6	30.0	30.0	66.2 65.4	65.8	4.5 4.4	ł	3.7 3.8	-	5			
0044	F	0.1	00.40		No. com.	4.3	0.1	61	26.8	00.0	7.6	7.0	30.2	00.0	64.1	00.4	4.3	4.5	4.8		4		047400	0070
SR4A	Fine	Calm	08:49	8.6	Middle	4.3	0.1	64	26.9	26.9	7.6	7.6	30.2	30.2	68.6	66.4	4.6		4.8	4.5	4	4	817190	80781
					Bottom	7.6 7.6	0.1	53 56	27.2	27.3	7.6	7.6	30.1	30.0	70.7 71.8	71.3	4.7	4.8	5.1 5.0	ł	4			
						1.0	0.1	196	27.6		7.5		27.0		79.7		5.4		4.1		4			\vdash
					Surface	1.0	0.1	199	27.5	27.6	7.5	7.5	27.0	27.0	80.2	80.0	5.4	5.4	4.2	1	4			
SR5A	Fine	Calm	08:32	3.2	Middle	-	-	-	-	-	-	-	-	-	-	-	-	Ü.,		4.8	-	4	816594	81070
					_	2.2	0.1	166	27.4		7.5		27.1		83.0		5.6		5.4	ł	4			
					Bottom	2.2	0.1	181	27.4	27.4	7.5	7.5	27.2	27.2	84.7	83.9	5.8	5.7	5.4		4			
					Surface	1.0	0.1	5	27.1	27.2	7.5	7.5	27.8	27.9	65.8	65.6	4.5		4.1		6			
						1.0	0.1	5 -	27.2		7.5		27.9		65.3		4.4	4.5	4.1	1	5			
SR6A	Fine	Calm	08:06	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-	l	-	4.6	-	5	817961	81472
					Bottom	4.0	0.0	78	27.4	27.4	7.5	7.5	28.2	28.2	65.3	65.2	4.5	4.5	5.0	[5			
						4.0 1.0	1.2	83 48	27.4 26.1		7.5 7.9		28.1		65.1 72.7		4.4 5.1	-	5.0 2.0		5 4			
					Surface	1.0	1.3	52	26.1	26.1	7.9	7.9	27.3	27.3	72.6	72.7	5.1		2.0	1	4			
SR7	Sunny	Moderate	07:57	16.4	Middle	8.2	0.6	22	25.6	25.6	7.9	7.9	28.5	28.5	65.9	65.9	4.6	4.9	2.5	2.9	4	3	823638	82374
0	Carniy	moderate	0		duic	8.2	0.6	23	25.6	20.0	7.9		28.5		65.8		4.6		2.6		4	ĭ	020000	5257
					Bottom	15.4 15.4	0.5 0.5	43 45	25.4 25.4	25.4	7.9	7.9	28.8	28.8	65.9 66.3	66.1	4.6 4.6	4.6	4.2 4.1	ł	2			
					Qu-f	1.0	-	-	27.2	27.2	7.8	7.0	25.9	25.0	69.1	60.0	4.8		4.5	İ	2			
					Surface	1.0	-	-	27.1	21.2	7.8	7.8	26.0	25.9	68.9	69.0	4.7	4.8	4.7	1	3			
SR8	Sunny	Moderate	09:34	4.8	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.4	-	3	820408	81164
						3.8	-	-	26.6		7.8		26.2		62.2		4.3		6.1	ł	4			
					Bottom	3.8	-	-	26.6	26.6	7.8	7.8	26.2	26.2	62.5	62.4	4.3	4.3	6.2	t	3			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 02 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Fasting) 26.9 0.8 Surface 26.9 7.6 27.2 78.2 1.0 0.8 39 26.8 7.6 26.8 77.5 5.4 3.1 3.8 0.5 21 26.8 3.5 29.7 C1 7.6 29.7 71.2 804239 21:35 7.6 Middle 26.8 2 815638 Fine Calm 26.8 7.6 29.7 4.8 3.6 0.5 24 6.6 0.4 35 26.7 7.6 29.8 76.7 5.2 4.7 2 7.6 77.8 26.7 29.8 5.3 Rottom 7.6 78.9 26.7 29.8 4.6 6.6 0.4 33 343 26.5 0.3 3.9 Surface 26.5 7.8 25.2 65.7 3.9 343 26.4 0.3 4.6 5.6 0.5 25.9 7.8 3 3.6 C2 Cloudy Moderate 20:38 11.2 Middle 25.9 7.8 27.7 51.9 825693 806951 5.6 25.8 7.8 27.7 51.9 3.6 4.4 3 0.5 348 28.8 45.6 10.2 0.4 25.2 7.8 3.2 5.5 4 28.8 25.2 7.8 45.8 Bottom 10.2 320 25.2 7.8 28.8 45.9 5.3 0.5 296 26.3 59.3 5.9 Surface 26.3 7.9 27.0 59.3 0.5 313 26.3 7.9 59.3 4.1 5.9 5.9 0.4 272 272 25.6 7.9 4.1 5.6 5.5 3 28.2 58.2 58.2 C3 22:19 822107 817796 Cloudy Moderate 11.8 Middle 25.6 7.9 28.3 58.2 0.4 25.5 7.9 10.8 0.4 280 25.0 7.9 29.1 52.6 5.6 Bottom 25.0 7.9 29.1 52.8 3.7 10.8 0.4 304 25.0 7.9 29.0 52.9 3.7 5.6 1.0 0.1 355 26.7 30.0 30.0 68.1 67.5 4.6 5.8 <2 Surface 26.7 7.6 67.8 1.0 0.1 327 26.6 7.6 4.6 5.8 <2 21:15 817926 807125 IM1 Fine Calm 4.0 Middle 3.0 0.1 14 26.6 7.6 30.4 72.4 4.9 6.1 <2 Bottom 26.6 7.6 30.4 73.1 3.0 0.1 15 50 26.6 76 30.3 73.8 5.0 6.2 <2 1.0 0.1 26.5 7.6 30.2 65.3 4.5 5.4 Surface 7.6 30.3 65.3 1.0 0.1 62 26.4 7.6 30.3 65.2 4.5 5.3 3 3.0 0.1 26.4 7.6 30.7 67.2 4.5 6.9 2 IM2 Calm 21:08 6.0 Middle 7.6 30.8 67.4 818171 806154 3.0 0.1 38 26.4 7.6 30.8 67.5 4.5 6.9 2 <2 0.1 63 26.4 7.6 30.9 65.1 44 7.3 7.6 30.9 65.3 5.0 63 7.6 7.3 <2 0.1 26.4 30.9 44 65.5 0.2 58 27.3 76 28.4 77.7 5.3 2 1 Surface 27.3 7.6 28.4 77.7 1.0 61 27.3 7.6 5.3 2.1 3.1 2 0.2 28.4 <2 <2 <2 0.2 53 27.2 3.1 7.6 28.6 77.5 5.2 IM3 Fine Calm 21:02 6.2 Middle 27.2 7.6 28.7 77.5 818776 805597 27.2 27.1 3.2 4.6 7.6 3.1 0.2 28.7 0.1 7.6 28.9 79.7 5.4 7.6 Bottom 27.2 28.9 80.5 5.2 0.1 77 27.2 7.6 28.8 81.3 5.5 4.5 <2 0.9 49 7.0 27.4 1.0 7.6 25.1 84.0 5.8 2 Surface 27.4 7.6 25.1 83.8 0.9 43 27.3 6.9 2 2 2 7.8 3.9 29 27.0 7.6 28.0 77.8 5.3 IM4 Fine Calm 20:54 7.8 Middle 27.0 7.6 28.0 76.0 819733 804594 3.9 0.7 27.0 7.7 0.4 9.0 74.6 28.2 27 1 7.6 Bottom 28.1 75.4 5.2 6.8 0.5 29 27.1 7.6 9.0 0.7 27.2 1.0 32 7.6 25.6 84.3 4.8 5.8 Surface 27.2 7.6 25.6 84.1 1.0 0.8 33 27.1 7.6 5.8 4.7 4 3.6 34 27.0 5.2 2 28.3 IM5 Fine 20:49 7.2 Middle 27.0 7.6 28.4 72.4 820721 804875 Calm 3.6 0.7 32 26.9 4.8 5.3 23 7.6 7.6 29.2 4.9 6.5 Bottom 27.1 7.6 29.1 72.7 6.2 0.6 26 27.1 73.4 6.5 1.0 0.4 21 27.5 7.6 26.2 86.7 1.1 4 Surface 7.6 26.3 1.0 0.5 27.5 7.6 1.1 4 3.2 0.4 27.4 7.6 2.2 3 IM6 Fine Calm 20:41 6.4 Middle 27.4 7.6 26.6 83.8 805827 3.2 0.4 24 27.4 7.6 26.7 83.8 5.7 2.2 3 7.6 7.6 3.0 5.4 0.3 23 27.4 5.8 3 5.4 0.3 27.4 3 1.0 0.2 25 26.9 7.6 26.7 78.8 3.1 Surface 7.6 26.8 78.0 7.6 26.8 3.0 1.0 0.2 21 26.8 5.3 3.0 2 0.2 22 4.0 26.8 7.6 29.2 66.5 4.5 IM7 Calm 20:32 8.0 Middle 26.9 7.6 29.3 64.1 821355 806845 4.0 0.2 22 26.9 7.6 29.4 4.2 2.9 7.0 0.0 25 27.2 7.6 7.6 29.6 63.8 4.3 3.5 <2 Bottom 27.3 7.6 29.6 64.9 0.0 27.3 29.6 44 3.5 <2 1.0 0.5 262 27.3 7.9 24.5 75.4 5.2 2.4 <2 Surface 27.3 7.9 24.6 75.4 7.9 24.7 75.4 5.2 2.4 1.0 0.5 275 27.3 <2 3.6 26.6 7.9 26.1 26.1 4.6 3.0 <2 <2 0.4 272 66.5 7.9 26.1 66.5 821835 808155 IM8 Cloudy Moderate 20:56 7.2 Middle 26.6 <2 7.9 66.5 4.6 3.0 3.6 0.4 294 26.6 7.9 7.9 <2 <2 6.2 0.2 271 26.3 27.2 65.8 65.8 4.6 4.6 5.4 26.3 7.9 27.2 65.8 4.6 Rottom

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Qua	ity Moni	toring Resi	ults on		02 September 21	during Mid-		ide					1								-			,
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/l		Coordinate	Coordinate
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	oth (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.7	288	27.2	27.2	7.9 7.9	7.9	24.9	24.9	74.7	74.7	5.2		2.5		2			
						1.0 3.5	0.7	292 286	27.1 26.6		7.9		24.9 26.2		74.6 68.5		5.2 4.8	5.0	2.6 4.4		<2			
IM9	Cloudy	Moderate	21:01	7.0	Middle	3.5	0.7	291	26.5	26.6	7.9	7.9	26.3	26.3	68.2	68.4	4.7		4.8	4.9	<2	2	822100	808829
					Bottom	6.0	0.6	282	26.3	26.4	7.9	7.9	27.4	27.3	58.2	58.4	4.0	4.1	7.4	İ	<2			
					BOILOITI	6.0	0.6	299	26.4	20.4	7.9	7.9	27.3	21.3	58.6	30.4	4.1	4.1	7.6		<2			
					Surface	1.0	0.6	297	27.1	27.1	7.9	7.9	25.2	25.2	74.4	74.4	5.2		2.6		2			
						1.0	0.6	305	27.0		7.9		25.2		74.4		5.2	5.0	2.7		2			
IM10	Cloudy	Moderate	21:07	7.1	Middle	3.6	0.6	296 304	26.8 26.8	26.8	7.9	7.9	25.6 25.7	25.6	67.7 67.6	67.7	4.7		3.0 3.4	4.6	2	2	822373	809775
						6.1	0.4	285	26.6		7.9		26.8		62.7		4.3		7.9	ł	3			
					Bottom	6.1	0.4	286	26.6	26.6	7.9	7.9	26.8	26.8	63.1	62.9	4.4	4.4	8.0	t	3			
					Surface	1.0	0.7	317	26.8	26.8	7.9	7.9	25.9	25.9	67.6	67.6	4.7		3.8		4			
					Surface	1.0	0.7	325	26.7	20.6	7.9	7.5	26.0	23.5	67.6	07.0	4.7	4.5	4.0		4			
IM11	Cloudy	Moderate	21:16	7.9	Middle	4.0	0.6	316	26.4	26.4	7.9	7.9	26.6	26.6	60.0	59.9	4.2		6.1	6.9	4	4	822057	811462
	,					4.0 6.9	0.7 0.5	345 304	26.4 26.1		7.9 7.9		26.6 27.4		59.8		4.2		6.1 10.8	ŀ	3			
					Bottom	6.9	0.5	310	26.2	26.2	7.9	7.9	27.3	27.4	58.0 58.3	58.2	4.0	4.0	10.8	ł	3			
				1		1.0	0.5	288	27.2		7.9		24.9		74.9		5.2		2.2		3			
					Surface	1.0	0.5	292	27.2	27.2	7.9	7.9	24.9	24.9	74.7	74.8	5.2		2.3		3			
IM12	Cloudy	Moderate	21:20	8.4	Middle	4.2	0.6	282	26.5	26.6	7.9	7.9	26.3	26.3	62.0	62.1	4.3	4.8	5.9	6.0	3	3	821444	812051
IIVI1Z	Cloudy	Woderate	21.20	0.4	ivildule	4.2	0.6	297	26.6	20.0	7.9	1.5	26.2	20.3	62.1	02.1	4.3		6.0	0.0	3	3	021444	612031
					Bottom	7.4	0.3	277	26.3	26.4	7.9	7.9	26.9	26.9	60.2	60.4	4.2	4.2	9.7		3			
				<u> </u>		7.4	0.3	289	26.4		7.9		26.9		60.5		4.2		9.8		3			
					Surface	1.0	-	-	27.0 26.9	27.0	7.8	7.8	25.8 25.9	25.8	67.3 67.0	67.2	4.6 4.6		3.2		5			
						2.6	-	-	-		-		-		-		-	4.6	-		-			
SR1A	Cloudy	Moderate	21:46	5.2	Middle	2.6	-	-	-	-	-	1 -	-	-	-	-	-		-	3.3	-	4	819975	812660
					Bottom	4.2	-		26.7	26.7	7.8	7.8	26.1	26.1	67.3	67.3	4.7	4.7	3.4	İ	3			
					BOILOTT	4.2	-	-	26.7	20.7	7.8	7.0	26.1	20.1	67.3	07.3	4.7	4.7	3.4		3			
					Surface	1.0	0.1	257	27.2	27.2	7.9	7.9	25.5	25.6	75.0	75.0	5.2		2.1		4			
						1.0	0.1	282	27.2		7.9		25.6		75.0		5.2	5.2	2.2		4			
SR2	Cloudy	Moderate	21:59	4.2	Middle		-	-	-	-	-	-	-	-	-	-	-		-	2.6	-	4	821467	814172
						3.2	0.1	285	26.7		7.9		26.1		69.9		4.8		3.1	ł	3			
					Bottom	3.2	0.1	289	26.7	26.7	7.9	7.9	26.1	26.1	69.7	69.8	4.8	4.8	3.2	t	3			
					Surface	1.0	0.2	260	27.3	27.3	7.9	7.9	24.3	24.3	74.4	74.4	5.2		2.5		2			
					Surface	1.0	0.2	277	27.2	21.3	7.9	1.5	24.3	24.3	74.3	74.4	5.2	4.7	2.6		2			
SR3	Cloudy	Moderate	20:52	8.4	Middle	4.2	0.2	260	26.6	26.6	7.9	7.9	26.4	26.4	60.4	60.8	4.2	7.7	3.8	5.1	<2	2	822161	807556
	,					4.2	0.2	281	26.5		7.9		26.4		61.1		4.2		3.8		<2	_		
					Bottom	7.4	0.1 0.1	41 42	26.0 26.0	26.0	7.9	7.9	27.9 27.9	27.9	56.5 56.4	56.5	3.9	3.9	8.8 8.9		<2 <2			
						1.0	0.4	252	28.3		7.6		26.7		77.8		5.2		4.3		3			
					Surface	1.0	0.5	262	28.3	28.3	7.6	7.6	26.7	26.7	76.1	77.0	5.1		4.3	t	3			
SR4A	Fine	Calm	21:58	7.2	Middle	3.6	0.4	253	26.7	26.7	7.6	7.6	29.8	29.8	65.6	65.6	4.4	4.8	5.7	5.6	3	3	817166	807822
SR4A	rine	Cairri	21.56	1.2	ivildule	3.6	0.4	255	26.7	20.7	7.6	7.0	29.8	29.0	65.6	05.0	4.5		5.8	5.0	3	3	01/100	00/022
					Bottom	6.2	0.3	243	26.7	26.8	7.6	7.6	29.7	29.7	66.8	67.2	4.5	4.6	6.8		3			
						6.2	0.3	264	26.8		7.6		29.6		67.6		4.6		6.7		3			
					Surface	1.0	0.2	299 312	28.1 28.1	28.1	7.6	7.6	26.7 26.7	26.7	84.4 84.4	84.4	5.7 5.7		3.2	ł	3			
						-	-		-		-		-		-		-	5.7	-		-			
SR5A	Fine	Calm	22:18	4.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	3.8	-	3	816589	810682
					Bottom	3.0	0.1	308	28.1	28.2	7.6	7.6	26.8	26.7	86.1	86.7	5.8	5.9	4.3	Ī	3			
					Bottom	3.0	0.1	336	28.2	20.2	7.6	7.0	26.7	20.7	87.3	00.7	5.9	5.5	4.3		3			
					Surface	1.0	0.1	284	28.0	28.1	7.6	7.6	26.7	26.7	84.2	84.3	5.7		5.5		4			
						1.0	0.1	299	28.1	-	7.6		26.7		84.3		5.7	5.7	5.5		4			
SR6A	Fine	Calm	22:33	3.8	Middle		-	-	-	-	-	-	-	-	-	-	-			6.0	-	7	817944	814718
					_	2.8	0.0	137	28.1		7.6	.	26.7		84.4		5.7		6.5	t	9			
					Bottom	2.8	0.0	139	28.1	28.1	7.6	7.6	26.7	26.7	84.2	84.3	5.7	5.7	6.5	İ	10			
					Surface	1.0	0.0	139	26.6	26.6	7.9	7.9	26.5	26.5	69.3	69.3	4.8		2.7		3			
					Suriace	1.0	0.0	148	26.6	20.0	7.9	1.5	26.5	20.0	69.3	05.5	4.8	4.5	2.7	1	4			
SR7	Cloudy	Moderate	22:42	16.8	Middle	8.4	0.1	141	26.2	26.2	7.8	7.8	27.3	27.3	58.8	58.8	4.1		3.5	3.3	2	3	823622	823736
	-					8.4 15.8	0.1	151 296	26.2 25.8		7.8		27.3		58.8		4.1		3.5 3.8	ł	3			
					Bottom	15.8	0.0	308	25.8	25.8	7.9	7.9	28.0 27.9	27.9	57.5 60.8	59.2	4.0	4.1	3.8	ł	3			
			1	<u> </u>		1.0	-	-	27.2		7.9	 	25.4		73.3		5.1		3.2		4			
					Surface	1.0	-	-	27.2	27.2	7.9	7.9	25.4	25.4	73.5	73.4	5.1	ا ر ۽	3.3	İ	4			
SR8	Cloudy	Moderate	21:26	4.5	Middle	-	-	-	-		-		-		-		-	5.1	-	3.3	-	3	820396	811608
0110	Cicuuy	WOUTHALE	21.20	7.5	wilduic	-	-	-	-	-	-	<u> </u>	-		-		-		-	0.3	-	J	020330	0.1000
					Bottom	3.5	-	-	27.2	27.2	7.9	7.9	25.5	25.4	76.1	76.2	5.2	5.3	3.3	1	3			
			ı	ı		3.5	-	-	27.2	1	7.9	1	25.4		76.3	I	5.3		3.3	1	2			l

DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
Value exceeding Action Level is underlined: Value exceeding Limit Level is boilded and underlined

Water Qua	ity Moni	toring Res	ults on		04 September 21	during Mid-		е	_		_				DO 0		D'	1 1			10	10.51		1
Monitoring	Weather	Sea	Sampling	Water	0	11. ()	Current Speed	Current	Water T	emperature (°C)		pН	Salin	ity (ppt)	DO S	aturation (%)	Disso	olved gen	Turbidity	(NTU)	Suspende (mg/		Coordinate	Coordinate
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.8	208	28.1	28.1	8.0	8.0	26.4	26.4	82.6	82.6	5.6		4.8		5			
						1.0 3.6	0.8	208 224	28.1 27.4		8.0		26.4 29.3		82.5 70.5		5.6 4.7	5.2	4.8 3.8		6 4			
C1	Cloudy	Rough	11:16	7.1	Middle	3.6	0.6	226	27.4	27.4	8.0	8.0	29.3	29.3	70.4	70.5	4.7		3.7	4.4	3	4	815639	804269
					Bottom	6.1	0.5	253 264	27.3 27.3	27.3	8.0	8.0	30.0	30.0	68.3 68.2	68.3	4.6 4.6	4.6	4.7	ŀ	3 4			
					Surface	1.0	1.0	173	28.2	28.2	8.1	8.1	24.0	24.0	90.3	90.2	6.2		3.4		2			
C2	011	Moderate	40.40	10.6		1.0 5.3	1.0 0.8	183 175	28.1 27.1	07.4	8.1		24.0	00.4	90.0 67.3	67.3	6.2 4.6	5.4	3.9 9.3	7.0	4	4	825673	806955
62	Cloudy	Woderate	12:49	10.6	Middle	5.3 9.6	0.9	182	27.1	27.1	8.0	8.0	28.5	28.4	67.2	67.3	4.6		9.6 10.7	7.9	3 5	4	023073	000955
					Bottom	9.6	0.3	158 167	26.8 26.8	26.8	8.0	8.0	29.2	29.2	63.4 63.8	63.6	4.3	4.3	10.7	ŀ	4			
					Surface	1.0	0.4	113 117	27.3 27.2	27.3	8.1 8.1	8.1	28.3	28.3	79.6 79.3	79.5	5.4 5.4		3.7		5 5			
СЗ	Cloudy	Moderate	10:22	12.6	Middle	6.3	0.4	89	27.1	27.1	8.1	8.1	28.8	28.8	77.1	77.1	5.2	5.3	3.8	5.4	5	4	822089	817786
C3	Cloudy	Woderate	10.22	12.0	iviidale	6.3 11.6	0.2	96 51	27.0 26.3	27.1	8.1 8.0	0.1	28.8 30.3		77.0 71.1		5.2 4.8		3.9 8.5	5.4	4	4	022009	01//00
					Bottom	11.6	0.4	56	26.3	26.3	8.0	8.0	30.3	30.3	71.1	71.1	4.8	4.8	8.6		3			
					Surface	1.0	0.0	167 169	28.1 28.1	28.1	8.0	8.0	28.5 28.5	28.5	81.3 81.1	81.2	5.4 5.4		3.5 3.5		3			
IM1	Sunny	Calm	11:39	4.4	Middle	-	-	-	20.1		-		-		-		-	5.4	-	5.0	-	3	817961	807113
IIVII	Suriny	Callii	11.55	4.4	ivildale	3.4	0.0	- 161	27.2	-	8.0		30.9	-	64.5	-	4.3		6.5	3.0	3	3	01/301	007113
					Bottom	3.4	0.0	169	27.2	27.2	8.0	8.0	30.9	30.9	64.6	64.6	4.3	4.3	6.5		3			
					Surface	1.0	0.1	42 43	27.8 27.8	27.8	8.0	8.0	29.3	29.2	71.0 71.0	71.0	4.7		4.1		3 4			
IM2	Sunny	Calm	11:46	6.2	Middle	3.1	0.1	160	27.1	27.1	8.0	8.0	30.3	30.3	70.7	70.7	4.7	4.7	9.3	7.1	4	4	818156	806155
	Guiny	Odini	11.10	0.2		3.1 5.2	0.1	160 69	27.1 27.0		8.0		30.3		70.7 63.1		4.7 4.2		9.4 7.7		3 4		010100	000100
					Bottom	5.2	0.0	73	27.0	27.0	8.0	8.0	31.2	31.2	63.3	63.2	4.2	4.2	7.8		4			
					Surface	1.0	0.1	179 184	28.2	28.2	8.0	8.0	27.3	27.3	81.6 81.5	81.6	5.5 5.5		3.0	ŀ	4 5			
IM3	Sunny	Calm	11:53	6.1	Middle	3.1	0.1	166	27.9	27.9	8.0	8.0	28.9	28.9	75.2	75.2	5.0	5.3	3.1	3.5	3	3	818782	805606
	,				_	3.1 5.1	0.1	175 270	27.9 27.0		8.0 7.9		28.8		75.1 59.6		5.0 4.0		3.1 4.5		2			
					Bottom	5.1	0.0	281	27.0	27.0	7.9	7.9	30.7	30.7	59.7	59.7	4.0	4.0	4.6		3			
					Surface	1.0	1.1	208 223	28.5 28.5	28.5	8.0	8.0	25.7 25.7	25.7	89.5 89.3	89.4	6.0		3.1	ŀ	2			
IM4	Sunny	Calm	12:04	7.1	Middle	3.6	0.8	209	28.1	28.1	8.0	8.0	26.8	26.8	79.9	79.9	5.4	5.7	6.2	5.8	2	3	819720	804629
					D. #	3.6 6.1	0.9	229 207	28.1 28.0	00.0	8.0		26.8 26.9	00.0	79.9 79.6		5.4 5.4		6.2 8.2	ŀ	3			
					Bottom	6.1	0.8	217	28.0	28.0	8.0	8.0	26.9	26.9	79.8	79.7	5.4	5.4	8.3		3			
					Surface	1.0	1.1	182 192	28.8 28.8	28.8	8.0	8.0	24.7	24.7	95.5 95.5	95.5	6.4	5.9	2.6	ł	3			
IM5	Sunny	Calm	12:16	6.9	Middle	3.5	0.9	186 203	27.9 27.9	27.9	7.9 7.9	7.9	27.2 27.2	27.2	79.0 78.9	79.0	5.3 5.3	5.9	5.6 5.6	5.2	5 4	4	820746	804852
					Bottom	3.5 5.9	0.9	178	27.9	27.9	7.9	7.9	27.3	27.3	78.0	78.0	5.3	5.3	7.5	ł	5			
					Bollom	5.9 1.0	0.7 1.0	189 206	27.9 28.3	27.9	7.9 8.0	7.9	27.3 26.0		78.0 87.6		5.3 5.9	5.3	7.5 2.4		5 5			
					Surface	1.0	1.0	206	28.3	28.3	8.0	8.0	26.0	26.0	87.5	87.6	5.9	5.4	2.4		4			
IM6	Sunny	Calm	12:26	6.8	Middle	3.4	0.9	203 219	27.7	27.7	7.9 7.9	7.9	27.9 27.9	27.9	71.0 71.0	71.0	4.8 4.8	3.4	8.6 8.6	6.9	4	4	821047	805804
					Bottom	5.8	0.7	201	27.7	27.7	7.9	7.9	27.9	27.9	70.7	70.8	4.8	4.8	9.6	İ	3			
					Bottom	5.8 1.0	0.8	220 270	27.7	21.1	7.9 8.0	7.5	27.9 25.8		70.8 86.7		4.8 5.8	4.0	9.6 2.6		3			
					Surface	1.0	0.7	291	28.5	28.5	8.0	8.0	25.8	25.8	86.7	86.7	5.8	5.7	2.5	İ	2			
IM7	Sunny	Calm	12:36	7.5	Middle	3.8	0.7	269 288	28.3 28.3	28.3	7.9 7.9	7.9	26.3 26.3	26.3	83.3 83.3	83.3	5.6 5.6	5.1	2.7	4.8	2	3	821359	806841
					Bottom	6.5	0.6	269	28.1	28.1	7.9	7.9	26.7	26.7	81.2	81.2	5.5	5.5	9.1	İ	2			
						6.5	0.6	291 210	28.1		7.9 8.2		26.7 24.5		81.2 96.6		5.5 6.6	0.0	9.1		3 2			
					Surface	1.0	0.4	219	28.4	28.5	8.2	8.2	24.4	24.5	96.2	96.4	6.5	6.1	3.3	İ	3			
IM8	Cloudy	Moderate	12:16	7.0	Middle	3.5 3.5	0.2	235 241	28.0 28.0	28.0	8.1 8.1	8.1	26.7 26.8	26.8	85.1 83.3	84.2	5.7 5.6	0.1	4.1 4.3	4.1	2	2	821827	808153
					Bottom	6.0	0.1	250	27.9	27.9	8.1	8.1	27.1	27.1	76.4	76.5	5.2	5.2	4.8	†	2			
A. Depth-Aver					50	6.0	0.1	272	27.9		8.1	1	27.1	27	76.5	. 0.0	5.2	0.2	4.8		2			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Monitoring Station	Weather Condition	Sea Condition	Sampling	Water	04 September 21		Current								DO S	aturation	Disso	hod			Suspended :	Colida	0	
Station	Condition	Condition					Speed	Current	Water Te	emperature (°C) p	Η	Salin	ity (ppt)		%)	Оху		Turbidity(NTU)	(mg/L)	Sullus	Coordinate	Coordinate
IM9			Time	Depth (m)	Sampling Dept	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA		DA	HK Grid (Northing)	HK Grid (Easting)
IM9					Surface	1.0	0.4	152	28.7	28.7	8.1	8.1	24.3	24.3	96.0	95.9	6.5		3.2		4			
IIVI9	Claudu	Moderate	12:10	6.8	Middle	1.0 3.4	0.4	162 137	28.6 28.0	28.0	8.1 8.1	8.1	24.3 26.8	26.9	95.8 81.6	81.5	6.5 5.5	6.0	3.2 5.3	5.3	5 3	3	822079	808802
	Cloudy	Woderate	12:10	0.0		3.4 5.8	0.2	140 69	27.9 27.8		8.1 8.1		27.0 27.6		81.3 71.0		5.5 4.8		5.7 7.4	5.3	3	3	022079	000002
					Bottom	5.8	0.2	73	27.8	27.8	8.1	8.1	27.6	27.6	71.4	71.2	4.8	4.8	7.4		2			
					Surface	1.0	0.6	120 121	28.1 28.0	28.1	8.1	8.1	26.6	26.6	81.6 81.5	81.6	5.5 5.5		3.6 4.0		5			
IM10	Cloudy	Moderate	12:01	7.4	Middle	3.7 3.7	0.5 0.5	111 116	27.8 27.8	27.8	8.1 8.1	8.1	27.3 27.3	27.3	71.7 71.5	71.6	4.8 4.8	5.2	7.4 7.6	6.7	4 5	4	822364	809783
					Bottom	6.4	0.4	104	27.7	27.7	8.1	8.1	27.4	27.4	71.1	71.2	4.8	4.8	8.8		3			
					0.7	6.4 1.0	0.4	107 132	27.7		8.1 8.1		27.4		71.3 83.7		4.8 5.6		8.7 4.8		3 4			
					Surface	1.0 3.7	0.6 0.6	132 120	28.2 27.9	28.2	8.1 8.1	8.1	26.4 27.1	26.4	83.5 73.5	83.6	5.6 5.0	5.3	5.0 6.5		5 4			
IM11	Cloudy	Moderate	11:48	7.4	Middle	3.7	0.7	125	27.9	27.9	8.1	8.1	27.1	27.1	73.4	73.5	5.0		6.6	7.7	5	5	822048	811472
					Bottom	6.4	0.4	108 113	27.8 27.8	27.8	8.1	8.1	27.5 27.5	27.5	71.3 71.5	71.4	4.8	4.8	11.6 11.5		6 4			
					Surface	1.0	0.7	109	28.4	28.4	8.2	8.2	25.3	25.3	86.7	86.8	5.9		4.0	,	3 2			
IM12	Cloudy	Moderate	11:40	9.1	Middle	1.0 4.6	0.5	118 109	28.4 27.7	27.7	8.2 8.0	8.0	25.3 27.4	27.5	86.8 71.0	70.9	5.9 4.8	5.4	4.0 9.1	7.6	3	3	821441	812065
114112	Cloudy	Woderate	11.40	3.1		4.6 8.1	0.5	115 77	27.6 27.4		8.0		27.5 28.0		70.8 63.4		4.8		9.2 9.7		3	Ĭ	021441	012003
					Bottom	8.1	0.2	84	27.4	27.4	8.0	8.0	28.0	28.0	63.3	63.4	4.3	4.3	9.8		3			
					Surface	1.0 1.0	-	-	28.1 28.1	28.1	8.1 8.1	8.1	26.0 26.2	26.1	86.5 86.1	86.3	5.9 5.8	5.9	3.9 4.0		3 4			
SR1A	Cloudy	Moderate	11:06	5.0	Middle	2.5 2.5	-	-	-	-	-	-	-	-	-	-	-	3.5	-	4.6	-	4	819972	812656
					Bottom	4.0	-	-	27.5	27.5	8.0	8.0	27.8	27.8	76.8	76.9	5.2	5.2	5.2		4			
					Surface	4.0 1.0	0.4	81	27.5 27.7	27.7	8.0	۰.۰	27.8 27.2	27.2	76.9 75.4	75.3	5.2 5.1		5.4 4.6		2			
					Surface	1.0	0.4	84	27.7		8.0	8.0	27.2	21.2	75.1	15.5	5.1	5.1	4.8		2			
SR2	Cloudy	Moderate	10:49	4.7	Middle		-	-		-		-	-	-	-	-	-		-	5.8	-	2	821444	814175
					Bottom	3.7	0.2	82 86	27.6 27.6	27.6	8.0	8.0	27.6 27.6	27.6	74.4 74.5	74.5	5.0	5.0	6.8 6.9		2			
					Surface	1.0 1.0	0.5 0.5	210 229	28.2 28.1	28.2	8.1 8.1	8.1	24.7 25.0	24.9	87.3 86.6	87.0	5.9 5.9		3.8 4.0		3 2			
SR3	Cloudy	Moderate	12:23	8.3	Middle	4.2	0.4	221	27.5	27.5	8.0	8.0	27.9	27.9	67.9	67.9	4.6	5.3	5.0	4.5	3	3	822142	807572
	,					4.2 7.3	0.4	234 243	27.5 27.4		8.0		28.0		67.9 68.7		4.6 4.6	47	5.0 4.9		3	-		
					Bottom	7.3 1.0	0.3 0.2	249 253	27.4 27.6	27.4	8.0 8.0	8.0	28.0	28.0	69.0	68.9	4.7 4.5	4.7	4.4 5.0		2			
					Surface	1.0	0.3	261	27.6	27.6	8.0	8.0	29.3	29.3	67.9 67.9	67.9	4.6	4.5	5.0		3			
SR4A	Cloudy	Moderate	10:55	9.1	Middle	4.6 4.6	0.1	255 266	27.2 27.2	27.2	8.0	8.0	30.5	30.5	65.7 65.7	65.7	4.4	1.0	4.9 4.9	5.0	3	3	817183	807820
					Bottom	8.1 8.1	0.1	273 295	27.2 27.2	27.2	8.0	8.0	30.9	30.9	64.4 64.4	64.4	4.3	4.3	5.0 5.0		2			
					Surface	1.0	0.0	180	28.5	28.5	7.9	7.9	27.4	27.4	79.2	79.1	5.3		3.9		2			
						1.0	0.0	194	28.5		7.9	7.0	27.4		79.0		5.3	5.3	4.0		3			
SR5A	Cloudy	Moderate	10:14	5.5	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.5	-	3	816603	810718
					Bottom	4.5 4.5	0.0	337 343	27.7 27.7	27.7	7.9 7.9	7.9	28.8	28.8	67.3 67.6	67.5	4.5 4.5	4.5	5.1 5.2		4			
					Surface	1.0	0.2	27 27	27.9 27.9	27.9	7.9 7.9	7.9	27.5 27.5	27.5	75.2 75.2	75.2	5.1 5.1		5.0 5.0		3 4			
SR6A	Cloudy	Moderate	09:48	5.1	Middle	-	-	-	-	-	-		-	_	-		-	5.1	-	5.9	-	3	817947	814743
	,					4.1	0.2	9	27.2	27.2	7.9	7.0	28.9	28.9	60.7	60.8	4.1	4.4	6.9		3			
					Bottom	4.1 1.0	0.2	9 82	27.2 27.1		7.9 8.1	7.9	28.9 28.6		60.8 84.1		4.1 5.7	4.1	6.8 3.1		3			
					Surface	1.0	0.4	87	27.0	27.1	8.1	8.1	28.8	28.7	83.6	83.9	5.7	5.4	3.1		3			
SR7	Cloudy	Moderate	09:42	16.8	Middle	8.4 8.4	0.0	76 78	26.3 26.2	26.3	8.0	8.0	30.2	30.3	74.2 74.0	74.1	5.1 5.0		3.4	4.5	<2 3	3	823639	823742
					Bottom	15.8 15.8	0.1	50 51	25.8 25.7	25.8	8.0	8.0	31.0 31.1	31.1	62.8 62.9	62.9	4.3	4.3	7.2 6.8		<2 <2			
					Surface	1.0	-	-	28.4	28.4	8.1	8.1	25.4	25.4	91.8	91.7	6.2		4.5		3			
000	011			4.0		1.0	-	-	28.4		8.1	···	25.4	20	91.6	0	6.2	6.2	4.5		2		000400	044057
SR8	Cloudy	Moderate	11:31	4.6	Middle	3.6	-	-	28.9	-	8.1	-	- 25.0	-	90.8	-	-		6.7	5.6	3	3	820409	811626
					Bottom	3.6		-	28.9	28.9	8.1	8.1	25.9 25.9	25.9	90.8	90.7	6.1 6.1	6.1	6.7		4			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 04 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 0.3 27.9 Surface 27.9 7.9 27.6 70.5 1.0 0.4 75 27.9 7.9 27.6 70.5 4.8 3.1 3.4 0.2 78 27.5 4.3 29.1 65.2 C1 27.5 7.9 29 1 65.2 804251 18:08 6.8 Middle 815634 Fine Moderate 7.9 65.2 4.4 4.3 3 0.2 76 27.5 5.8 0.2 58 27.4 8.0 29.5 66.4 4.5 6.9 4 8.0 27.4 29.5 66.5 45 Rottom 29.5 6.9 0.2 66.6 4.5 5.8 58 27.4 28.3 4.0 23.1 Surface 28.3 8.1 23.1 86.7 1.1 28.2 27.4 5.9 4.1 5.4 1.0 61 6.2 67.2 4.6 2 8.0 26.1 C2 Sunny Moderate 16:58 10.7 Middle 27.4 8.0 26.1 67.1 3 825669 806950 1.0 27.3 8.0 26.1 67.0 4.6 6.9 3 5.4 64 8.0 28.8 28.8 60.1 9.7 0.3 93 26.9 8.0 4.1 10.4 3 60.0 Bottom 26.9 9.7 8.0 28.8 59.9 11.0 0.3 96 26.9 230 28.4 8.2 4.6 Surface 28.4 8.2 26.3 92.6 0.3 233 28.3 8.2 26.3 92.4 6.2 4.7 4 5.5 0.2 232 239 27.5 6.1 4 8.1 27.8 27.8 74.2 5.0 C3 27.8 822125 817820 Sunnv Moderate 18:53 10.9 Middle 27.5 8.1 74.1 0.2 27.5 6.3 9.9 0.3 268 26.1 8.0 30.6 64.6 6.7 Bottom 26.2 8.0 30.6 64.8 9.9 268 26.2 8.0 30.7 65.0 44 6.5 4 1.0 0.1 201 27.8 29.5 29.5 29.5 76.0 3.2 4 Surface 27.8 8.0 76.1 1.0 0.1 217 27.8 8.0 5.1 3.3 3 17:48 4.1 817930 IM1 Fine Moderate Middle 3.1 0.0 191 27.2 8.0 31.0 63.9 4.3 5.2 Bottom 27.2 8.0 31.0 64.0 3.1 0.0 208 27.2 8.0 31.0 64.0 43 5.2 4 1.0 0.2 28.6 3.2 8.0 28.5 86.0 Surface 8.0 28.5 86.0 1.0 0.2 23 28.6 8.0 28.5 86.0 5.7 3.1 2 4 3.1 0.3 358 27.9 8.0 29.4 71.9 4.8 4.2 IM2 Moderate 17:41 6.2 Middle 8.0 29.4 71.9 818174 806168 3.1 0.3 329 27.9 8.0 29.4 71.8 4.8 4.2 4 5.7 4 5.2 0.1 27 1 8.0 31.0 61 9 41 8.0 31.0 62.0 5.2 27 1 8.0 5.7 5 0.1 6 31.0 62.0 42 0.1 310 28 1 8.0 28.7 78.8 5.3 3.4 4 Surface 8.0 28.7 78.6 3.4 5.2 5.2 9.7 1.0 326 28.1 8.0 28.7 78.3 5.2 0.1 4 0.1 308 27.1 4 3.1 7.9 30.6 58.9 3.9 IM3 Fine Moderate 17:34 6.1 Middle 27.1 7.9 30.6 59.1 818805 805605 27.1 27.0 322 337 7.9 4 3.1 0.1 30.6 4.0 6 0.2 7.9 31.2 58.0 3.9 7.9 Bottom 27.0 31.2 58.1 3 0 5.1 0.2 310 27.0 7.9 31.2 58.1 3.9 9.7 5 1.0 1.0 49 28.4 3.2 8.0 25.9 85.5 5.8 3 Surface 28.4 8.0 25.9 85.5 1.0 28.4 3.2 3 3.4 49 28.4 5.2 5 0.8 8.0 26.0 85.0 5.7 IM4 Fine 17:26 6.8 Middle 28.4 8.0 26.0 85.0 819706 804609 Moderate 3.4 0.9 51 28.4 8.0 5.2 6.9 5 0.6 28.3 8.0 84.4 Bottom 28.3 8.0 26.1 84.4 5.8 0.6 28.3 6.9 28.9 1.0 1.0 24 8.0 25.4 89.4 4.4 4 6.0 Surface 28.9 8.0 25.4 89.5 1.0 1.0 29 28.9 8.0 6.0 4.5 3.6 1.0 28.5 6.8 4 26.3 5.6 IM5 Fine Moderate 17:20 7.1 Middle 28.5 7.9 26.3 84.3 820737 804873 3.6 25 28.5 6.8 28.0 7.9 7.9 27.4 12.5 6 Bottom 28.0 7.9 27.4 76.0 6.1 1.1 23 28.0 12.5 1.0 1.0 25 28.2 7.9 26.4 83.1 4.9 3 Surface 7.9 26.4 1.0 1.1 28.2 79 26.4 83.1 4.9 4 3.3 1.0 24 28.1 79.4 5.4 8.3 3 Moderate 17:14 6.5 Middle 28.1 7.9 26.8 79.5 821073 805814 3.3 1.0 22 28.1 7.9 26.8 79.5 5.4 8.3 4 5.4 12.1 12.1 5.5 0.7 28.1 7.9 79.6 5 5.5 0.8 21 28 1 79 6 1.0 1.0 28 29.1 8.0 24.1 96.2 2.9 Surface 8.0 24.1 96.2 29 27 8.0 24 1 2.9 7.6 1.0 1.0 29 1 96 1 6.5 0.8 5 3.4 28.4 5.7 8.0 26.0 85.0 IM7 Moderate 17:02 6.7 Middle 28.4 8.0 25.9 85.0 821371 806839 3.4 0.9 25 28.4 8.0 25.9 84.9 5.7 7.6 5.7 0.7 20 28.3 8.0 26.2 83.3 5.6 5.6 8.4 4 Bottom 28.3 8.0 26.2 83.3 5.6 5.7 0.7 28.3 8.0 8.4 1.0 0.4 322 28.4 8.2 24.4 99.5 6.8 3.2 3 Surface 28.4 8.1 24.4 99.7 8.1 24.5 6.8 99.8 3.3 1.0 0.4 323 28.4 4 3.6 0.3 28.3 25.1 25.2 6.2 4.7 3 320 8.1 91.9 8.1 25.2 91.7 821841 808146 IM8 Sunny Moderate 17:20 7.2 Middle 28.3 4 91.5 4.8 3.6 303 28.3 8.1 6.2 0.3 6.2 0.3 324 28.3 8.1 8.1 25.4 25.4 90.3 6.1 6.1 9.1 5 28.3 8.1 25.4 90.4 6.1 Rottom

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

rater Qua		toring Res	1		04 September 21	during wild	Current	luc	1		T =		T T		DO S	aturation	Disso	lved			Suspended	Solids		T
Monitoring	Weather	Sea	Sampling	Water	0	4. ()	Speed	Current	Water To	emperature (°C	:)	pН	Salin	ity (ppt)		(%)	Oxy		Turbidity	(NTU)	(mg/L)		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	otn (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Gri (Eastin
					Surface	1.0	0.3	263	28.4	28.4	8.1	8.1	24.4	24.5	96.9	96.8	6.6		3.4		4			
					Gundoo	1.0	0.3	266	28.3	20.1	8.1	0.1	24.6	21.0	96.7	00.0	6.6	6.4	3.5	ļ	4			
IM9	Sunny	Moderate	17:26	7.0	Middle	3.5	0.2	270	28.2	28.2	8.1	8.1	25.3	25.3	90.9	90.9	6.2		4.1 4.2	4.6	5	4	822092	80880
					-	6.0	0.2	284 226	28.2		8.1 8.1		25.4 25.8		87.3		5.9		6.1	ł	4			
					Bottom	6.0	0.0	227	28.1	28.1	8.1	8.1	25.8	25.8	87.5	87.4	5.9	5.9	6.2		4			
					0(1.0	0.6	220	28.7	00.7	8.2	0.4	23.6	00.0	100.6	400.5	6.8		3.2		5			
					Surface	1.0	0.6	222	28.7	28.7	8.1	8.1	23.6	23.6	100.3	100.5	6.8	6.4	3.2	ĺ	4			
IM10	Sunnv	Moderate	17:34	7.1	Middle	3.6	0.5	212	28.1	28.1	8.1	8.1	25.5	25.5	86.6	86.6	5.9	0.1	4.0	4.0	4	4	822393	8097
	,					3.6 6.1	0.5	218 209	28.1		8.1 8.1		25.5 25.6		86.6 87.3		5.9 5.9		4.1		2			
					Bottom	6.1	0.4	213	28.2	28.2	8.1	8.1	25.6	25.6	87.5	87.4	5.9	5.9	4.7	ŀ	3			
						1.0	0.6	215	28.3		8.1		25.4		92.8		6.3		4.8		4			
					Surface	1.0	0.6	213	28.3	28.3	8.1	8.1	25.5	25.4	92.3	92.6	6.2	6.0	5.1	İ	3			
IM11	Sunnv	Moderate	17:44	7.2	Middle	3.6	0.5	208	28.2	28.2	8.1	8.1	25.9	25.9	84.4	84.4	5.7	0.0	6.1	6.2	4	4	822064	8114
	Curry	moderate		,	Mildulo	3.6	0.5	218	28.2	20.2	8.1	0.1	26.0	20.0	84.3	01.1	5.7		6.4		3		OLLOO!	0
					Bottom	6.2	0.2	229 229	28.2 28.2	28.2	8.1 8.1	8.1	26.1	26.1	84.9 85.3	85.1	5.7 5.8	5.8	7.2 7.4		4			
					i i	1.0	0.5	208	28.4		8.1		25.0		94.8		6.4		4.8		2			i i
					Surface	1.0	0.5	213	28.4	28.4	8.1	8.1	25.1	25.1	94.5	94.7	6.4		5.0	İ	3			
IM12	Sunnv	Moderate	17:49	8.4	Middle	4.2	0.3	203	28.1	28.1	8.1	8.1	26.1	26.2	86.4	86.2	5.8	6.1	7.4	6.8	4	4	821440	8120
IIVITZ	Guilly	Woderate	17.43	0.4	Wildelic	4.2	0.3	205	28.1	20.1	8.1	0.1	26.2	20.2	86.0	00.2	5.8		7.7	0.0	3	7	021440	0120
					Bottom	7.4	0.1	287	28.0	28.0	8.1	8.1	26.6	26.6	78.3	78.4	5.3	5.3	8.1		5			
						7.4 1.0	0.1	290	28.0		8.1 8.2		26.6		78.5 105.0		5.3 7.1		8.2 5.7		4			<u> </u>
					Surface	1.0		-	28.8	28.9	8.2	8.2	24.7	24.8	105.0	105.1	7.1		6.5	i	5			
SR1A			40.40		M. 1.11.	2.2	-	-	-		-		-	_	-		-	7.1	-	7.5	-	4	819982	8126
SKIA	Sunny	Moderate	18:18	4.4	Middle	2.2	-	-	-	-	-	-	-	-	-		-			7.5	-	4	019902	0120
					Bottom	3.4	-	-	28.4	28.4	8.1	8.1	25.9	25.9	93.4	93.5	6.3	6.3	8.8		4			
					1	3.4	-	-	28.4		8.1		25.9		93.5		6.3		8.9		4			<u> </u>
					Surface	1.0	0.2	243 243	29.3 29.2	29.3	8.3 8.3	8.3	23.5	23.5	115.9 116.5	116.2	7.8		5.0 5.3	ŀ	6			
	_					-	-	-	-		-		-		-		-	7.8	-		-	_		
SR2	Sunny	Moderate	18:31	4.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	9.1	-	5	821465	8141
					Bottom	3.0	0.1	244	28.6	28.6	8.2	8.2	25.2	25.2	99.2	99.2	6.7	6.7	13.2	Ī	4			
					Dottom	3.0	0.1	251	28.6	20.0	8.2	0.2	25.2	LU.L	99.2	00.L	6.7	0.1	12.8		4			
					Surface	1.0	0.6	20 22	28.4 28.3	28.4	8.1 8.1	8.1	24.1	24.1	94.4	94.1	6.4		3.1		3 4			
						4.1	0.6	29	27.9		8.1		26.3		80.8		5.5	6.0	4.5	ł	4			
SR3	Sunny	Moderate	17:15	8.1	Middle	4.1	0.6	28	27.9	27.9	8.1	8.1	26.3	26.3	80.7	80.8	5.5		4.9	4.6	3	3	822163	8075
					Bottom	7.1	0.4	29	27.8	27.8	8.1	8.1	27.0	27.0	81.6	81.8	5.5	5.5	5.9	İ	3			
					Bottom	7.1	0.4	27	27.8	21.0	8.1	0.1	27.0	27.0	81.9	01.0	5.5	3.3	6.0		3			
					Surface	1.0	0.8	292	28.6	28.6	8.0	8.0	28.3	28.3	80.7	80.7	5.3		2.6		2			
						1.0 4.3	0.8	292 289	28.6 28.4		8.0		28.3 28.4		80.6 79.1		5.3 5.3	5.3	2.6 3.3	ł	3			
SR4A	Fine	Moderate	18:29	8.5	Middle	4.3	0.8	297	28.4	28.4	8.0	8.0	28.4	28.4	79.2	79.2	5.3		3.3	4.5	4	3	817193	8077
					D-#	7.5	0.6	291	28.3	20.2	8.0	0.0	28.5	20.5	78.3	70.4	5.2	5.2	7.4	İ	4			
					Bottom	7.5	0.7	312	28.3	28.3	8.0	8.0	28.5	28.5	78.4	78.4	5.2	5.2	7.5		3			
					Surface	1.0	0.5	310	28.7	28.7	8.0	8.0	28.0	28.0	88.4	88.4	5.9		3.3		4			
						1.0	0.5	332	28.7		8.0		28.0		88.4		5.9	5.9	3.3	ļ	4			
SR5A	Fine	Moderate	18:51	3.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.0	-	5	816574	8106
			1		B.::	2.4	0.4	311	28.7		8.0	0	28.1	05 :	88.0	00.	5.8		4.7	t	5			
					Bottom	2.4	0.4	340	28.7	28.7	8.0	8.0	28.1	28.1	88.1	88.1	5.8	5.8	4.7		6			
					Surface	1.0	0.1	276	28.2	28.2	8.0	7.9	28.0	28.1	85.9	85.5	5.7		2.6		6			
					Ouriace	1.0	0.1	282	28.1	20.2	7.9	7.0	28.1	20.1	85.1	00.0	5.7	5.7	2.6		5			
SR6A	Fine	Moderate	19:20	3.8	Middle	-	- :	-	-	-	-	-	-	-	-	-	-		-	3.5	-	5	817944	8147
					-	2.8	0.1	283	27.8		8.0		28.9		71.7		4.8		4.4	ł	5			
					Bottom	2.8	0.1	289	27.8	27.8	8.0	8.0	28.8	28.8	71.9	71.8	4.8	4.8	4.4	ł	4			
	İ		Ì		Curtana	1.0	0.2	261	28.4	20.4	8.2	0.0	26.8	26.0	96.9	96.8	6.5		3.4	İ	4			i –
			1		Surface	1.0	0.2	270	28.3	28.4	8.2	8.2	26.9	26.9	96.7	96.8	6.5	5.7	3.4	l	4			
SR7	Sunny	Moderate	19:31	16.5	Middle	8.3	0.2	225	26.9	26.9	8.0	8.0	29.0	29.1	71.9	71.9	4.9	5.1	4.3	4.2	5	5	823623	8237
						8.3	0.2	236	26.8		8.0		29.2		71.8		4.9		4.4	''-	6	-		
			1		Bottom	15.5 15.5	0.0	317	26.5 26.6	26.6	8.0	8.0	29.9	29.8	68.0 68.3	68.2	4.6 4.6	4.6	4.8	ł	6 5			
			 		<u> </u>	1.0	- 0.0	320	29.8		8.0		23.4		112.9		7.6		6.1	_	6	-		
			1		Surface	1.0	-	-	29.8	29.8	8.2	8.2	23.5	23.5	113.3	113.1	7.6		6.0	İ	5			
SR8	Sunny	Moderate	17:57	4.2	Middle	-	-		-		-		-		-		-	7.6	-	7.0	-	5	820366	8116
SNO	Julily	WOUCHARE	17.57	4.2	Middle	-	-	-	-	_	-	-	-		-	-	-		-	1.0	-	5	320300	01102
			1		Bottom	3.2	-	-	29.9	29.9	8.2	8.2	23.8	23.8	105.8	106.0	7.0	7.1	8.0	1	5			
	1		1		1	3.2	-		29.9		8.2		23.8		106.1		7.1	•••	8.0	<u></u>	5			L

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is boiled and underlined

	Weather	Sea	Sampling	Water		during Mid-	Current		Water To	emperature (°C)	r	ьН	Salir	nity (ppt)	DO S	aturation	Disso		Turbidity	(NTU)	Suspended		Coordinate	Coordin
Monitoring Station	Condition	Condition	Time	Depth (m)	Sampling Dep	oth (m)	Speed (m/s)	Current Direction	Value	Average	 	Average	Value	1	Value	(%) Average	Oxyg	pen DA	Value	DA	(mg/L) Value	DA	HK Grid (Northing)	HK Gı (Eastir
					Surface	1.0	0.3	226	28.5	28.5	7.7	7.7	28.3	28.3	92.9	92.8	6.2		6.8		7			
						1.0 3.8	0.4	234 214	28.5 28.5		7.7		28.3 28.4		92.7 91.6		6.2	6.2	6.8 7.1	-	8			
C1	Misty	Moderate	13:10	7.6	Middle	3.8	0.3	227	28.5	28.5	7.7	7.7	28.4	28.4	91.2	91.4	6.1		7.1	7.3	7	7	815632	8042
					Bottom	6.6	0.4	205	28.6	28.6	7.7	7.7	28.3	28.3	90.1	92.3	6.0	6.2	8.1	I	5			
						6.6	0.4	216 163	28.6		7.7		28.2		94.4		6.3		8.0 7.3		6 5	<u> </u>		<u> </u>
					Surface	1.0	0.6	172	28.5	28.5	7.6	7.6	27.7	27.6	90.8	91.0	6.1	6.0	7.3	İ	4			
C2	Misty	Moderate	11:38	12.4	Middle	6.2	0.5	150 159	28.1 28.1	28.1	7.6	7.6	28.3 28.4	28.3	88.8 88.1	88.5	5.9 5.9	0.0	8.2 8.1	8.4	5 4	4	825663	806
					D. II.	11.4	0.3	143	27.9	07.0	7.6		28.7	00.7	81.8	04.0	5.5		9.7	ł	4			
					Bottom	11.4	0.3	150	27.9	27.9	7.6	7.6	28.7	28.7	82.0	81.9	5.5	5.5	9.8		3			
					Surface	1.0	0.2	115 115	28.5 28.5	28.5	7.7	7.7	28.3	28.3	90.5	90.6	6.0		4.4	ł	7 8			
C3	Misty	Moderate	14:16	12.2	Middle	6.1	0.2	114	28.5	28.5	7.7	7.7	29.3	29.2	91.4	91.5	6.0	6.0	5.4	5.4	7	7	822106	817
CS	iviisty	Woderate	14.10	12.2	Middle	6.1	0.2	114	28.5	20.5	7.7	1.1	29.2	29.2	91.6	91.5	6.1		5.5	5.4	8	′	022100	01/
					Bottom	11.2 11.2	0.2	80 84	28.6 28.6	28.6	7.7	7.7	28.0	28.0	91.2	91.3	6.1	6.1	6.4	ł	7			
					Surface	1.0	0.1	134	28.7	28.7	7.7	7.7	27.9	27.9	94.6	94.6	6.3		6.9		5			_
					Guilace	1.0	0.1	140	28.7	20.7	7.7	1.1	27.9	27.0	94.6	34.0	6.3	6.3	6.9		6			
IM1	Misty	Moderate	12:50	4.0	Middle	-	-		-	-	-	-	-	-	-	-	-		-	7.4	-	6	817952	807
					Bottom	3.0	0.1	311	28.7	28.7	7.7	7.7	27.9	27.9	95.3	95.5	6.3	6.3	7.8	İ	7			
						3.0 1.0	0.1	319 186	28.7		7.7		27.9 28.2	<u> </u>	95.7 91.9	-	6.3 6.1		7.9 6.6		7			
					Surface	1.0	0.1	196	28.3	28.3	7.7	7.7	28.2	28.2	90.9	91.4	6.1	5.8	6.7	i	6			
IM2	Misty	Moderate	12:43	6.0	Middle	3.0	0.1	167	28.4	28.4	7.7	7.7	28.2	28.2	83.4	83.3	5.6	5.6	7.7	7.5	7	7	818177	806
	,					3.0 5.0	0.1	176 118	28.4		7.7		28.2		83.1 85.6		5.5 5.7		7.6 8.2	ł	7			
					Bottom	5.0	0.1	124	28.7	28.7	7.7	7.7	27.9	27.9	87.8	86.7	5.8	5.8	8.1		7			
					Surface	1.0	0.1	182 198	28.1 28.1	28.1	7.7	7.7	28.5	28.5	91.7 90.8	91.3	6.1		5.5 5.5		4			
IM3					Middle	3.1	0.1	156	28.2		7.7		28.5		81.0		6.1 5.4	5.8	6.3	1	5 6	_		
IIVI3	Misty	Moderate	12:37	6.2	Middle	3.1	0.2	164	28.2	28.2	7.7	7.7	28.5	28.5	80.7	80.9	5.4		6.4	6.3	5	5	818801	805
					Bottom	5.2 5.2	0.2	93	28.6 28.6	28.6	7.7	7.7	28.3	28.3	82.5 84.5	83.5	5.5 5.6	5.6	7.1 7.2	1	5			
					Surface	1.0	0.4	211	28.4	28.4	7.7	7.7	28.2	28.2	91.9	91.6	6.1		6.2		5			
					Surface	1.0	0.5	216	28.4	20.4	7.7	1.1	28.2	20.2	91.3	91.0	6.1	6.0	6.1		6			
IM4	Misty	Moderate	12:29	7.8	Middle	3.9	0.3	181 193	28.2 28.1	28.2	7.7	7.6	28.4	28.5	89.2 87.8	88.5	5.9 5.9		7.3 7.3	7.3	5 6	6	819723	804
					Bottom	6.8	0.2	158	28.1	28.3	7.6	7.6	28.6	28.4	87.0	89.8	5.8	6.0	8.4	İ	6			
					Doublin	6.8 1.0	0.2	159 243	28.4 28.3	20.0	7.7	7.0	28.3 28.3	20.1	92.5 91.3		6.1 6.1	0.0	8.5 5.9		6			<u> </u>
					Surface	1.0	0.4	265	28.3	28.3	7.7	7.7	28.4	28.4	90.0	90.7	6.0		6.0	ł	5			
IM5	Mistv	Moderate	12:24	7.2	Middle	3.6	0.3	205	28.6	28.7	7.7	7.7	28.5	28.5	87.4	87.7	5.8	5.9	6.0	6.3	5	5	820730	8048
						3.6 6.2	0.3	221 173	28.7 28.8		7.7		28.5 28.4		87.9 88.8		5.8		6.0 7.1		5 4	-		
					Bottom	6.2	0.2	186	28.8	28.8	7.7	7.7	28.3	28.3	89.0	88.9	5.9	5.9	7.1		4			
					Surface	1.0	0.3	260	28.3	28.3	7.7	7.7	28.5	28.5	92.0	89.2	6.1		6.2		5			
						1.0 3.2	0.3	284 219	28.3 28.5		7.7		28.5 28.5		86.4 84.5		5.7 5.6	5.8	6.1 7.4		5			
IM6	Misty	Moderate	12:16	6.4	Middle	3.2	0.2	231	28.6	28.6	7.7	7.7	28.5	28.5	85.3	84.9	5.6		7.4	7.4	6	5	821069	8058
					Bottom	5.4 5.4	0.2	191 191	28.8	28.8	7.7	7.7	28.4	28.3	89.7 89.8	89.8	5.9 5.9	5.9	8.6 8.7	ŀ	5			
						1.0	0.2	224	28.4		7.7		27.9		95.3		6.3		6.1		4			
					Surface	1.0	0.2	237	28.3	28.4	7.7	7.7	28.1	28.0	95.4	95.4	6.4	6.0	6.2		5			
IM7	Misty	Moderate	12:07	8.0	Middle	4.0	0.1	182 198	28.2 28.2	28.2	7.7	7.7	28.5 28.6	28.5	85.1 85.6	85.4	5.7 5.7		7.2 7.1	7.3	5 6	5	821372	806
					Datter.	7.0	0.1	140	28.2	20.2	7.7	7.6	28.5	28.4	91.1	91.6	6.1	6.1	8.8	t	6			
					Bottom	7.0	0.1	152	28.2	28.2	7.6	1.0	28.3		92.0	91.0	6.1	6.1	8.7		5			<u> </u>
					Surface	1.0	0.1	145 159	28.3 28.3	28.3	7.6 7.6	7.6	27.9 28.0	28.0	91.6 91.3	91.5	6.1		6.7 6.6	ł	3			
IM8	Misty	Moderate	12:00	8.2	Middle	4.1	0.2	83	28.4	28.4	7.6	7.6	27.9	27.9	83.5	83.4	5.6	5.8	7.1	7.3	4	4	821847	808
IIVIO	iviiSty	wouldtate	12.00	0.2	Midule	4.1	0.2	83	28.4	20.4	7.6	7.0	27.8		83.2		5.5		7.2	٠.٥	3	-	02 1041	3001
					Bottom	7.2 7.2	0.2	79 83	28.6 28.7	28.7	7.6	7.6	27.4	27.4	83.6 84.9	84.3	5.6 5.7	5.7	8.2 8.2	ł	3			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Qua Water Qua		toring Resu	ults on		07 September 21	during Mid-	Ebb Tid	е																
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)	DO S	aturation	Disso		Turbidity	(NTU)	Suspended (mg/l		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.3	102	28.3	28.3	7.6	7.6	28.0	28.0	89.5	89.2	6.0		6.7		3			
						1.0 3.8	0.3	102 119	28.3 28.4		7.6 7.6		28.0 27.9		88.9 83.1		5.9 5.5	5.7	6.7 7.0	ŀ	3			
IM9	Misty	Moderate	12:07	7.6	Middle	3.8	0.3	130	28.4	28.4	7.6	7.6	27.8	27.9	82.9	83.0	5.5		7.1	7.5	4	4	822107	808792
					Bottom	6.6	0.3	91	28.6	28.6	7.6	7.6	27.5	27.4	84.0	84.7	5.6	5.7	8.6	I	6			
						6.6 1.0	0.3	91 118	28.6		7.6		27.4		85.4		5.7 6.0		8.6 4.6		5			
					Surface	1.0	0.7	119	28.5	28.5	7.7	7.7	27.9	27.9	89.7	89.8	6.0	6.0	4.7	İ	5			
IM10	Misty	Moderate	12:14	8.0	Middle	4.0 4.0	0.7	117 119	28.5 28.5	28.5	7.7	7.7	28.0	28.0	90.1	90.2	6.0		5.9 5.8	5.8	5 6	6	822400	809786
					Bottom	7.0	0.4	106	28.5	28.5	7.7	7.7	28.0	28.0	91.0	91.1	6.1	6.1	7.0	İ	6			
					Bottom	7.0	0.4	108	28.5	20.5	7.7	1.7	28.0	20.0	91.2	91.1	6.1	0.1	6.9		6			
					Surface	1.0	0.8	128 128	28.4 28.4	28.4	7.7	7.7	27.7	27.7	92.6 89.1	90.9	6.2 5.9		6.2	ł	6 5			
IM11	Misty	Moderate	12:24	8.8	Middle	4.4	0.8	129	28.5	28.5	7.7	7.7	27.9	27.9	88.9	89.0	5.9	6.0	7.4	7.4	6	6	822047	811475
IIVITT	iviioty	Woderate	12.24	0.0	Wilde	4.4 7.8	0.9	135 117	28.5 28.6	20.0	7.7		27.9		89.1 90.6		5.9		7.4 8.6	/	5 7	ı l	022047	011473
					Bottom	7.8	0.7	127	28.6	28.6	7.7	7.7	27.9 27.9	27.9	91.4	91.0	6.0	6.1	8.7		6			
					Surface	1.0	0.7	108	28.4	28.4	7.7	7.7	28.1	28.1	88.4	88.4	5.9		4.2		10			
						1.0 4.9	0.8	110 113	28.4 28.5		7.7		28.1 28.6		88.4 89.1		5.9 5.9	5.9	4.1 5.7	ŀ	10 8			
IM12	Misty	Moderate	12:30	9.8	Middle	4.9	0.8	117	28.5	28.5	7.7	7.7	28.7	28.6	89.2	89.2	5.9		5.7	5.4	9	8	821481	812023
					Bottom	8.8	0.5	107	28.5	28.5	7.7	7.7	29.5	29.5	91.0	91.1	6.0	6.0	6.4	Ī	7			
						8.8 1.0	0.5	115	28.5 28.6		7.7		29.5 28.5		91.2 93.2		6.0		6.4 4.7		6 10			
					Surface	1.0	-	-	28.6	28.6	7.7	7.7	28.4	28.5	93.3	93.3	6.2	6.2	4.8	İ	9			
SR1A	Misty	Moderate	13:32	4.8	Middle	2.4	-		-	-	-	-	-	-	-	-	-	0.2	-	5.0	-	9	819981	812657
					_	2.4 3.8	-		28.5		7.7		28.2		88.6		5.9		5.2	ł	9			
					Bottom	3.8	-	-	28.5	28.5	7.7	7.7	28.3	28.2	88.8	88.7	5.9	5.9	5.1		8			
					Surface	1.0	0.5	83 83	28.6 28.6	28.6	7.7	7.7	28.2	28.2	91.9	92.0	6.1		7.3 7.2	ŀ	6 7			
SR2	Misty	Moderate	13:55	4.0	Middle	-	-	-	-	-	-		-		-		-	6.1	-	7.7	-	6	821454	814158
SKZ	iviisty	Woderate	13.55	4.0	ivildale	-	-	-		-	-		-	-	-		-			'.'	-	0	021434	014150
					Bottom	3.0	0.4	69 69	28.6 28.6	28.6	7.7	7.7	28.3	28.3	92.4 92.5	92.5	6.1	6.1	8.2 8.1	ł	6 5			
					Surface	1.0	0.1	181	28.3	28.3	7.6	7.6	28.0	28.0	92.0	91.5	6.1		6.2		5			
					Ganado	1.0 4.7	0.1	196 284	28.2		7.6		28.1 28.2		90.9 82.9		6.1 5.5	5.8	6.1 7.5	l	3			
SR3	Misty	Moderate	11:53	9.4	Middle	4.7	0.0	294	28.2	28.2	7.6	7.6	28.2	28.2	82.6	82.8	5.5		7.5	7.4	4	4	822156	807593
					Bottom	8.4	0.1	96	28.5	28.6	7.6	7.6	27.6	27.5	83.2	83.7	5.5	5.6	8.4	ĺ	3			
						8.4 1.0	0.1	100 81	28.6 28.4		7.6		27.4 28.5		93.2		5.6 6.2		8.5 5.5		7			
					Surface	1.0	0.1	81	28.4	28.4	7.7	7.7	28.5	28.5	93.0	93.1	6.2	6.1	5.6	İ	6			
SR4A	Misty	Moderate	13:33	7.2	Middle	3.6	0.0	78	28.4	28.4	7.7	7.7	28.5	28.5	90.7	88.7	6.0	0.1	6.5	6.4	6	6	817177	807817
	,				_	3.6 6.2	0.0	82 4	28.4 28.6		7.7		28.5 28.3		86.7 86.3		5.8 5.7		6.4 7.3	ł	5 6			
					Bottom	6.2	0.0	4	28.6	28.6	7.7	7.7	28.2	28.2	89.0	87.7	5.9	5.8	7.4		5			
					Surface	1.0	0.1	348 354	28.6 28.6	28.6	7.7	7.7	28.1	28.1	94.7 94.7	94.7	6.3		5.8 5.8	-	5			
SR5A	N.E-4	Madassa	12.52	4.0	Middle	-	-	-	-	-	-		-	-	-	_	-	6.3	-	6.4	-	5	816584	810674
SKSA	Misty	Moderate	13:53	4.0	ivildale	-	-		-	-	-	-	-	-	-	-	-		-	0.4	-	5	010304	610074
					Bottom	3.0	0.1	337 310	28.6 28.6	28.6	7.7	7.7	28.1 28.1	28.1	94.5 94.3	94.4	6.3	6.3	7.0 6.9		5 6			
					Surface	1.0	0.0	21	28.6	28.6	7.7	7.7	28.1	28.1	94.2	94.2	6.2		6.6		5			
					Ounacc	1.0	0.0	21	28.6	20.0	7.7	7.7	28.1	20.1	94.2	34.2	6.2	6.2	6.7	ļ	6			
SR6A	Misty	Moderate	14:08	3.8	Middle	-	-			-	-	-	-	-	-	-	-		-	6.8		6	817940	814722
					Bottom	2.8	0.0	195	28.6	28.6	7.7	7.7	28.1	28.1	94.6	94.7	6.3	6.3	7.0	Ī	6			
						2.8	0.0	204 68	28.6		7.7		28.1		94.7		6.3		7.0 6.2		5			
					Surface	1.0	1.0	73	28.6	28.6	7.7	7.7	27.9	27.9	90.6	90.5	6.0	6.0	6.2	i	7			
SR7	Misty	Moderate	14:49	14.0	Middle	7.0	0.8	57	28.5	28.5	7.7	7.7	27.8	27.8	90.8	90.8	6.0	0.0	7.2	7.2	6	7	823653	823733
						7.0 13.0	0.8	57 18	28.5 28.5		7.7		27.8 27.7		90.8		6.0		7.2 8.1	}	7			
					Bottom	13.0	0.4	18	28.5	28.5	7.7	7.7	27.6	27.6	91.1	91.0	6.1	6.1	8.1	1	7			
					Surface	1.0	-	-	28.5	28.5	7.7	7.7	28.7	28.7	89.8	89.8	5.9		4.1		10			
			l	l		1.0	-		28.5		7.7		28.7		89.8	-	5.9	5.9	4.1	١	9			
SR8	Misty	Moderate	12:39	4.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.7	-	9	820380	811620
					Bottom	3.4	-	-	28.5 28.5	28.5	7.7	7.7	29.0	28.9	90.6	90.8	6.0	6.0	5.4 5.4	-	9			
					1	3.4	-		28.5		1./	<u> </u>	28./		90.9	1	b.U		5.4		ŏ			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 07 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 28.0 0.5 Surface 28.0 7.7 27.6 92.9 1.0 0.5 27 28.0 7.7 27.7 92.7 6.2 2.9 0.5 40 28.0 4.1 27.8 89.0 C1 07:08 7.6 27.7 89.0 804266 8.6 Middle 28.0 815640 Mistv Moderate 28.0 7.6 89.0 6.0 4.2 6 0.5 7.6 0.4 30 28.1 7.6 27.6 89.8 6.0 4.2 7 7.6 27.6 28 1 90.0 6.1 Rottom 7.6 27.6 28.1 90.1 6.1 4.3 0.4 31 336 28.0 Surface 28.0 7.7 27.7 88.4 7.6 8.6 0.2 28.0 88.3 5.9 309 28.2 5.9 27.6 88.8 C2 Mistv Moderate 08:19 12.2 Middle 28.2 7.7 27.6 89.2 825690 806940 28.2 7.7 27.5 89.5 6.0 8.5 5 6.1 0.4 27.4 94.3 11.2 0.6 36 28.2 7.7 27.3 6.3 9.5 5 7.7 94.2 Bottom 28.2 6.3 11.2 0.6 38 9.5 4 28.1 262 26.8 6.3 Surface 26.8 7.6 29.9 80.9 0.8 271 26.7 7.6 29.9 80.2 5.4 6.4 5.5 0.7 264 26.8 7.5 7.2 7.2 5 5 7.5 30.2 30.1 <u>72.9</u> 73.1 4.9 4.9 C3 Misty 06:16 822091 817811 Moderate 11.0 Middle 26.9 73.0 5 0.8 26.9 7.5 10.0 0.5 267 27.2 7.5 29.9 75.4 8.1 Bottom 27.3 7.5 29.9 76.0 10.0 0.5 290 27.3 7.5 29.9 76.6 5.1 8.1 1.0 0.2 29 28.1 27.6 27.6 27.6 91.4 91.6 5.6 Surface 28.2 7.7 91.5 1.0 0.2 31 28.2 7.7 6.1 5.6 7 807151 07:30 4.2 817944 IM1 Misty Moderate Middle 3.2 0.0 209 28.2 77 27.6 92.7 6.2 6.3 8 Bottom 28.2 7.7 27.5 92.9 3.2 0.0 209 28.2 77 27.5 93.1 6.2 6.2 8 1.0 0.4 28.3 7.6 26.7 90.7 6.1 4.0 6 Surface 7.6 26.7 90.8 1.0 0.4 28.3 7.6 26.7 90.8 6.1 4.0 7 3.1 0.3 28.1 7.6 26.8 91.7 6.2 4.5 9 IM2 Misty Moderate 07:38 6.2 Middle 7.6 26.8 92.1 818160 806187 3.1 0.4 28.1 7.6 92 4 6.2 4.5 9 339 q 0.2 28 1 27.5 91.8 6.2 5.4 7.7 27.5 91.8 5.2 341 77 6.2 10 0.2 28.1 27.6 91.7 5.4 0.4 355 28.4 76 26.5 92.6 6.2 7.8 8 Surface 28.4 7.6 26.5 92.6 1.0 327 7.6 26.5 7.8 0.5 28.4 92.6 6.2 9 8.6 8.7 0.4 346 28.4 8 3.2 7.6 26.5 92.4 6.2 IM3 Misty Moderate 07:44 6.4 Middle 28.4 7.6 26.5 92.3 818761 805602 318 28.4 28.4 7.6 9 3.2 0.5 26.5 6.2 9.6 0.2 301 7.6 26.6 90.8 6.1 7.6 Bottom 28.4 26.6 90.8 5.4 0.2 309 28.4 7.6 26.6 90.7 6.1 9.6 0.8 28.5 7.3 1.0 4 7.6 26.6 91.4 6.1 9 Surface 28.5 7.6 26.6 91.3 0.9 28.5 7.3 9 4.0 354 8.3 28.5 6.0 9 0.7 7.6 26.6 89.4 IM4 Misty 07:55 8.0 Middle 28.5 7.6 26.6 89.5 819743 804615 Moderate 4.0 0.8 326 343 28.5 8.3 8 0.5 28.4 9.2 7.6 Bottom 28.4 26.5 93.0 6.2 7.0 0.5 350 28.4 9.2 28.4 1.0 1.2 7.7 26.5 93.6 2.2 8 6.3 Surface 28.4 7.6 26.5 93.6 1.0 1.2 28.4 7.6 6.3 2.2 3.6 1.0 11 28.4 2.3 7 6.3 Misty IM5 08:04 7.2 Middle 28.4 7.6 26.5 93.3 820713 804880 Moderate 3.6 1.0 11 28.4 2.4 8 28.4 7.6 7.6 26.5 26.0 6.2 3.2 Bottom 28.4 7.6 26.3 92.7 6.2 0.6 12 28.4 1.0 0.1 203 28.5 7.6 26.6 90.7 1.2 8 Surface 7.6 26.6 1.0 0.1 211 28.5 7.6 90.8 6.1 1.2 8 3.3 0.1 82 28.5 7.6 6.1 2.1 7 Misty Moderate 08:13 6.6 Middle 7.6 26.6 91.8 805823 3.3 0.1 89 28.5 7.6 26.6 92.0 6.2 2.1 8 7.6 7.6 3.1 5.6 0.1 73 28.4 6.2 8 5.6 0.2 78 28.4 357 1.0 0.0 28.5 7.6 26.6 91.4 6.1 1.5 Surface 7.6 26.6 91.5 328 121 7.6 1.0 0.0 28.5 26.6 91.5 6.1 1.4 2.7 3.9 0.2 28.5 6 7.6 26.6 92.1 6.2 IM7 Misty Moderate 08:21 7.8 Middle 7.6 26.6 92.2 821365 806814 3.9 0.2 128 28.5 7.6 26.6 92.3 6.2 2.6 6 6.8 0.2 75 28.4 7.6 7.6 26.5 92.9 6.2 3.7 7 Bottom 28.4 7.6 26.5 93.0 6.2 6.8 0.2 79 28.4 3.7 1.0 0.3 88 27.9 7.6 27.7 88.0 5.9 4.7 5 Surface 27.9 7.6 27.7 88.0 7.6 27.7 87.9 5.9 4.6 1.0 0.3 90 27.9 4 3.9 27.9 7.6 27.5 27.3 6.0 5.9 4 0.3 82 89.0 7.6 27.4 07:51 90.7 821813 808131 IM8 Misty Moderate 7.8 Middle 27.9 7.6 92.4 5.9 5 3.9 86 27.9 6.2 0.3 7.6 7.6 16 6.8 0.3 73 27.8 27.9 28.0 87.9 87.7 5.9 5.9 5.9 6.8 27.8 7.6 27.9 87.8 Rottom

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 07 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Current Speed Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northing) 27.7 0.3 28.2 27.8 7.6 28.2 83.9 6.7 17 3.5 0.3 58 27.9 7.6 28.1 85.4 7.7 15 IM9 07:45 7.6 28.0 85.9 822091 808823 Misty Moderate 7.0 Middle 12 3.5 0.3 59 27.9 7.6 28.0 86.4 5.8 7.8 14 6.0 0.3 62 27.9 76 27.7 87.9 5.9 8.6 4 27.9 7.6 27.7 88.0 6.0 0.3 62 27.9 76 27.7 88 1 5.9 8.7 5 349 19 1.0 0.5 27.9 76 27.8 88.7 6.0 5.5 Surface 27.9 7.6 27.8 88.8 1.0 0.5 349 27.9 7.6 27.8 88.8 6.0 5.6 19 4.1 0.5 325 340 27.9 7.6 89.1 6.0 6.4 18 19 IM10 Misty Moderate 07:37 8.2 Middle 7.6 27.8 89.2 822373 809794 4.1 27.9 7.6 6.3 0.5 27.8 89.2 6.0 0.5 27.9 7.7 15 7.2 323 7.6 27.9 88.4 5.9 Bottom 27.9 7.6 27.9 88.5 14 72 0.5 342 27.9 76 27.9 88.5 5.9 7.6 0.6 296 27.9 3.4 16 88.8 Surface 27.9 7.6 27.9 89.0 308 7.6 27.9 15 1.0 0.7 27.9 89.2 6.0 3.4 4.2 16 15 0.6 297 326 27.9 27.9 27.9 27.9 4.5 90.9 IM11 Mistv Moderate 07:27 9.0 Middle 27.9 7.6 27.9 91.4 15 822047 811480 4.5 7.6 0.6 6.2 15 8.0 0.3 281 27.9 7.6 27.9 5.8 5.4 86.9 27.9 7.6 87.0 Bottom 27.9 5.9 8.0 0.3 303 27.9 7.6 27.9 87.0 5.9 5.5 14 274 27.8 6.2 16 5.9 Surface 27.8 7.6 27.9 88.0 1.0 0.8 278 27.8 88.1 5.9 6.2 17 272 27.8 7.6 7.9 13 28.0 88.5 6.0 07:18 821469 812035 IM12 Mistv Moderate 10.0 Middle 27.8 7.6 28.0 88.5 0.7 27.8 7.8 12 11 288 276 0.6 27.9 7.6 8.7 27.8 85.0 27 9 7.6 27.8 85.1 Rottom 5.7 9.0 0.6 285 27.9 7.6 27.8 85.1 5.7 8.8 12 27.6 7.6 4.5 28.0 87.2 Surface 27.6 7.6 28.0 86.9 1.0 27.5 5.9 4.5 8 2.5 812655 SR1A Misty Moderate 06:45 5.0 Middle 2.5 4 0 27.1 7.6 29.2 87.2 5.5 9 Bottom 27.1 7.6 29.2 86.8 4.0 27.0 76 29.3 86.3 5.8 5.4 10 1.0 0.1 283 27.0 7.6 29.5 4.9 6.2 6 Surface 27.1 7.6 29.4 73.2 1.0 0.1 310 27.1 7.6 29.4 73.2 4.9 6.2 5 SR2 Moderate 06:36 4.0 Middle 821446 814184 6.9 0.1 278 3.0 27.4 7.6 28.8 74 9 5 5.1 28.7 7.6 28.7 75.7 5.1 3.0 27 4 6.9 0.1 295 6 1.0 0.2 55 28.0 7.7 27.5 93.2 6.3 6.1 6 Surface 28.0 7.7 27.5 93.0 7.7 27.6 92.7 6.2 6.1 1.0 0.3 59 28.0 4.5 74 27.9 27.7 27.7 6.2 7.5 7.5 6 0.5 7.6 92.4 SR3 Misty Moderate 07:58 9.0 Middle 27.7 92.7 822141 807581 7.6 92.9 0.5 78 4.5 27.9 8.0 0.6 81 28.0 7.6 7.6 27.7 88.9 88.8 6.0 8.9 9.0 5 18 Bottom 28.0 7.6 27.6 88.9 6.0 8.0 0.6 85 27.9 0.1 271 28.0 1.0 7.7 27.7 90.2 6.1 3.9 8 Surface 28.0 7.7 27.7 90.1 7.7 27.7 89.9 1.0 0.1 293 28.0 6.0 4.0 9 4.3 0.1 270 28.1 5.0 7 7.7 6.0 27.7 89.2 SR4A 06:48 7.7 27.7 89.2 817183 807788 Misty Moderate 8.6 Middle 28.1 8 4.3 294 89.2 6.0 5.0 8 0.1 28.1 28.2 28.2 7.6 0.1 262 273 90.3 6.0 5.2 5.2 7.7 27.6 7 28.2 90.7 6.1 Rottom 7.7 27.4 27.4 1.0 0.2 288 28.2 7.7 27.4 93.8 93.8 3.3 10 6.3 Surface 28.2 7.7 93.8 1.0 291 28.2 7.7 6.3 3.3 9 0.2 SR5A Misty 06:31 3.2 Middle 816602 810701 Moderate 2.2 0.2 287 28.2 93.9 6.3 4.6 Bottom 28.2 7.7 27.3 93.9 6.3 289 7.7 93.9 28.2 1.0 0.0 270 28.3 94.1 5.3 Surface 28.3 7.7 27.3 94.1 1.0 0.0 284 28.3 7.7 27.3 94.0 6.3 5.3 8 SR6A Misty Moderate 06:05 5.0 Middle 817950 814722 4.0 0.1 292 28.3 7.7 94.0 6.3 6.2 10 28.3 7.7 27.3 94.0 6.3 4.0 0.1 300 28.3 77 27.3 94.0 6.2 10 1.0 0.1 184 26.8 7.5 29.9 73.7 5.0 3.1 8 Surface 7.5 29.9 73.6 1.0 0.1 193 26.8 7.5 29.9 73.5 5.0 3.2 7 7.7 0.1 188 26.7 7.5 30.0 73.1 5.0 4.4 8 SR7 Misty Moderate 05:41 15.4 Middle 7.5 30.0 73.1 823658 823729 7.7 0.1 200 26.7 7.5 30.0 73.1 5.0 4.3 14.4 0.1 176 26.7 7.5 30.0 73.8 5.0 5.3 12 Rottom 26.7 7.5 30.0 73.9 14.4 0.1 186 26.7 7.5 30.0 74.0 5.2 12 1.0 27.9 7.6 27.8 85.3 5.7 7.6 Surface 27.9 7.6 27.8 85.4 5.7 7.7 7 1.0 27.9 7.6 27.8 85.4 811617 07:06 820402 SR8 Misty Moderate 5.0 Middle 4.0 27.7 7.6 27.9 8.2 8 87.3 5.9 27.7 7.6 27.9 87.3 5.9

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined.

	Weather	Sea	Sampling	Water	09 September 21		Current		Water T	emperature (°C)		ьН	Salir	nity (ppt)	DO S	aturation	Disso		Turbidity	(NTU)	Suspended		Coordinate	Coordi
Monitoring Station	Condition	Condition	Time	Depth (m)	Sampling De	oth (m)	Speed (m/s)	Current Direction	Value	Average	Hi	Average	Value	1	Value	(%) Average	Oxyç Value	gen DA	Value	DA	(mg/L Value	DA DA	HK Grid (Northing)	HK G (Easti
					Surface	1.0	0.3	198	28.0	28.0	7.9	7.9	27.0	27.0	73.6	73.6	5.0		6.9		13			
						1.0 4.3	0.3	211	28.0		7.9 7.9		27.0 27.0		73.6 73.8		5.0	5.0	6.8		14 15			
C1	Cloudy	Moderate	14:07	8.6	Middle	4.3	0.3	221	28.0	28.0	7.9	7.9	27.0		73.7	73.8	5.0		6.3	8.6	14	14	815613	804
					Bottom	7.6 7.6	0.3	226 246	27.4 27.4	27.4	7.9 7.9	7.9	27.7 27.6	27.6	67.1 67.1	67.1	4.6	4.6	12.9 12.2	1	15 14			
					Surface	1.0	0.7	174	28.3	28.3	7.9	7.9	26.3	26.3	74.1	74.1	5.0		7.2		10			Ī
C2	01		12:52	40.4	10.11	1.0 6.2	0.8	187 163	28.3 27.5	07.5	7.9 7.9	7.0	26.3 27.3	07.0	74.1 68.1	00.4	5.0 4.6	4.8	7.2 12.5	11.4	11 8		825676	806
C2	Cloudy	Moderate	12:52	12.4	Middle	6.2 11.4	0.4	165	27.5	27.5	7.9	7.9	27.3	27.3	68.1	68.1	4.6		12.7 14.2	11.4	7 8	9	825676	806
					Bottom	11.4	0.3	164 179	27.2 27.2	27.2	7.9 7.9	7.9	27.7 27.7	27.7	66.5 66.8	66.7	4.5 4.5	4.5	14.2	1	7			
					Surface	1.0	0.3	47	27.7	27.7	7.9	7.9	27.2	27.2	70.8	70.8	4.8		9.5		10			
СЗ	01		44.50	44.0		1.0 5.9	0.3	49 59	27.7 27.2	07.0	7.9 7.9	7.0	27.2 27.8	07.0	70.7 66.5	00.5	4.8	4.7	9.4 15.9	13.1	10 9	9	000440	817
C3	Cloudy	Moderate	14:53	11.8	Middle	5.9	0.2	62	27.2	27.2	7.9	7.9	27.8	27.8	66.5	66.5	4.5		16.1	13.1	8	9	822110	817
					Bottom	10.8	0.2	66 66	27.2 27.2	27.2	7.9 7.9	7.9	27.9 27.9	27.9	67.6 67.7	67.7	4.6 4.6	4.6	13.4 14.1	1	7			
					Surface	1.0	0.1	233	28.3	28.3	7.9	7.9	26.7	26.7	75.2	75.3	5.1		12.3		11			Ī
	01		40.45	- 4		1.0	0.1	236	28.2		7.9		26.7		75.3		5.1	5.1	12.6	12.9	12	40	047040	
IM1	Cloudy	Moderate	13:45	5.4	Middle		-	-	-		-	-	-	-	-	-	-		-	12.9	-	13	817948	807
					Bottom	4.4	0.1	233 252	28.2	28.2	7.9 7.9	7.9	26.8	26.8	77.3 77.8	77.6	5.2	5.2	13.4 13.2	-	15 14			
					Surface	1.0	0.1	211	28.4	28.4	7.9	7.9	26.6	26.6	75.1	75.1	5.0		13.3		7			
						1.0 3.6	0.1	219 126	28.4 28.3		7.9 7.9		26.6 26.7		75.0 73.7		5.0	5.0	13.4 14.3		8 9	_		
IM2	Cloudy	Moderate	13:36	7.2	Middle	3.6	0.2	137	28.3	28.3	7.9	7.9	26.7	26.7	73.7	73.7	5.0		14.1	15.4	10	9	818164	806
					Bottom	6.2	0.1	62 64	28.2	28.2	7.9	7.9	26.8	26.8	73.1 73.4	73.3	4.9	4.9	18.7 18.7	1	10			
					Surface	1.0	0.1	251	28.4	28.4	7.9	7.9	26.6	26.6	74.6	74.6	5.0		12.1		6			
						1.0 3.5	0.1	253 192	28.4 28.3		7.9 7.9		26.6 26.7		74.5 73.3		5.0 4.9	5.0	12.2 14.7		16 9			
IM3	Cloudy	Moderate	13:28	6.9	Middle	3.5	0.1	204	28.3	28.3	7.9	7.9	26.7	26.7	73.3	73.3	4.9		14.6	14.7	10	11	818781	80
					Bottom	5.9 5.9	0.1	93 94	28.2	28.3	7.9	7.9	26.8	26.7	73.5 73.7	73.6	4.9 5.0	5.0	17.3 17.2	-	11			
					Surface	1.0	0.8	195	28.3	28.3	7.9	7.9	26.7	26.7	75.4	75.4	5.1		8.2		11			t
						1.0 3.8	0.8	211 186	28.3 28.0		7.9 7.9		26.7 26.9		75.3 72.4		5.1 4.9	5.0	8.2 12.2	-	11			
IM4	Cloudy	Moderate	13:18	7.5	Middle	3.8	0.5	188	28.0	28.0	7.9	7.9	26.9	26.9	72.4	72.4	4.9		12.2	13.0	9	10	819729	804
					Bottom	6.5 6.5	0.4	179 181	27.6 27.6	27.6	7.9 7.9	7.9	27.4	27.4	68.8	68.8	4.7	4.7	18.7 18.8	ł	9 8			
					Surface	1.0	0.7	207	28.8	28.8	7.9	7.9	26.4	26.5	79.8	79.7	5.3		6.6		5			
						1.0 3.3	0.7	220 229	28.7 28.2		7.9 7.9		26.5 27.0		79.6 73.6		5.3 4.9	5.1	6.8 7.1	-	6			
IM5	Cloudy	Moderate	13:12	6.5	Middle	3.3	0.6	247	28.2	28.2	7.9	7.9	27.0	27.0	73.7	73.7	4.9		7.0	9.9	6	7	820741	804
					Bottom	5.5 5.5	0.4	198 205	27.7	27.7	7.9	7.9	27.1	27.1	70.1	70.2	4.7	4.8	15.9 15.9	-	8			
					Surface	1.0	0.5	222	28.2	28.2	7.9	7.9	26.4	26.4	76.3	76.3	5.1		6.1		8			\dagger
						1.0 3.1	0.5	222 256	28.2 28.2		7.9 7.9		26.4 26.8		76.2 74.7		5.1 5.0	5.1	6.1 12.3	-	9			
IM6	Cloudy	Moderate	13:05	6.2	Middle	3.1	0.5	262	28.2	28.2	7.9	7.9	26.8	26.8	74.8	74.8	5.0		12.2	11.7	7	8	821049	80
					Bottom	5.2 5.2	0.3	260 280	28.3	28.3	8.0	8.0	27.4	27.4	77.0 77.4	77.2	5.2	5.2	16.9 16.9	-	7 8			
					Surface	1.0	0.2	254	28.3	28.3	7.9	7.9	26.4	26.4	74.2	74.3	5.0		10.8		9			\vdash
					Ouriace	1.0 3.6	0.2	262 251	28.3 28.3		7.9 7.9		26.5 26.5		74.3 74.7		5.0 5.0	5.0	10.8	-	9			
IM7	Cloudy	Moderate	12:58	7.1	Middle	3.6	0.4	255	28.3	28.3	7.9	7.9	26.6	26.5	75.2	75.0	5.1		10.5	10.3	8	9	821338	80
					Bottom	6.1	0.2	249 257	28.4 28.4	28.4	8.0	8.0	27.2 27.2	27.2	76.8 76.6	76.7	5.1 5.1	5.1	9.2 9.8	ł	11			
					Surface	1.0	0.0	262	28.3	28.3	7.9	7.9	26.3	26.3	74.5	74.5	5.0		10.8		11			+
					Sunace	1.0	0.0	270	28.3	20.3	7.9	1.9	26.3	20.3	74.5		5.0 5.0	5.0	10.8		11			
IM8	Cloudy	Moderate	13:17	8.3	Middle	4.2	0.2	189 189	28.3 28.3	28.3	8.0	8.0	26.7 26.9	26.8	75.1 75.2	75.2	5.0		11.9 12.5	13.1	10 10	11	821813	808
					Bottom	7.3	0.1	218	28.2	28.2	8.0	8.0	27.7	27.7	75.6	75.7	5.1	5.1	16.3	Ī	10			

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Monitoring	Weather	Sea	Sampling	Water	0	4. ()	Current Speed	Current	Water Te	emperature (°C)		pН	Salini	ty (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/l		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling De	oth (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting
					Surface	1.0	0.2	130	28.2	28.2	7.9 7.9	7.9	26.4	26.4	75.8 75.8	75.8	5.1		6.3		8			
						1.0 3.9	0.2	135 137	28.2		7.9		26.4 26.9		75.8		5.1 5.0	5.1	6.3 13.0		8			
IM9	Cloudy	Moderate	13:24	7.8	Middle	3.9	0.2	140	28.2	28.2	7.9	7.9	26.9	26.9	74.2	74.2	5.0		12.8	12.5	7	7	822085	80881
					Bottom	6.8	0.2	122	28.3	28.3	8.0	8.0	27.5	27.5	74.7	74.7	5.0	5.0	18.5		7			
					Bottom	6.8	0.2	125	28.3	20.3	8.0	0.0	27.5	21.5	74.7	14.1	5.0	5.0	18.1		6			
					Surface	1.0	0.5	125 137	29.1 29.1	29.1	7.9 7.9	7.9	26.3 26.3	26.3	80.0 79.9	80.0	5.3		6.2		8			
						3.8	0.6	131	28.5		7.9		26.9		75.3		5.0	5.2	7.1		8			
IM10	Cloudy	Moderate	13:31	7.6	Middle	3.8	0.6	139	28.4	28.5	7.9	7.9	26.9	26.9	75.0	75.2	5.0		7.1	10.3	7	7	822379	80977
					Bottom	6.6	0.3	127	27.7	27.8	7.9	7.9	27.1	27.1	70.9	71.0	4.8	4.8	17.7		6			
					Bottom	6.6	0.4	134	27.8	27.0	7.9	1.5	27.0	27.1	71.0	71.0	4.8	4.0	17.6		5			
					Surface	1.0	0.5	104	28.3	28.3	7.9	7.9	26.6	26.6	75.7	75.7	5.1		9.1		12			
						1.0 4.4	0.5	113 106	28.3 27.9		7.9 7.9		26.6 27.0		75.7 71.6		5.1 4.8	5.0	9.0 12.2		11 10			
IM11	Cloudy	Moderate	13:42	8.7	Middle	4.4	0.4	109	27.9	27.9	7.9	7.9	27.0	27.0	71.4	71.5	4.8		12.0	12.5	9	10	822046	81144
					Bottom	7.7	0.2	102	27.5	27.5	7.9	7.9	27.5	27.4	67.9	68.0	4.6	4.6	16.7		9			
					Bottom	7.7	0.2	111	27.5	21.5	7.9	1.5	27.4	21.4	68.0	00.0	4.6	4.0	16.3		10			
					Surface	1.0	0.5	108	28.4	28.4	7.9	7.9	26.6	26.6	75.4	75.4	5.1		12.0		12			
						1.0 4.7	0.5 0.5	108 106	28.4 28.3		7.9 7.9		26.6 26.7		75.4 73.7		5.1 5.0	5.1	11.9 12.1		11 12			
IM12	Cloudy	Moderate	13:48	9.4	Middle	4.7	0.5	106	28.3	28.3	7.9	7.9	26.7	26.7	73.7	73.7	5.0		12.1	13.7	11	11	821475	81202
					Bottom	8.4	0.2	77	28.2	28.2	7.9	7.9	26.7	26.7	74.9	75.0	5.0	5.1	17.2		11			
					Bottom	8.4	0.2	84	28.2	28.2	7.9	7.9	26.7	26.7	75.5	75.2	5.1	5.1	16.8		11			
					Surface	1.0		-	28.6	28.6	7.9	7.9	26.3	26.3	80.6	80.8	5.4		8.2		9			
						1.0	-	-	28.5		7.9		26.4		81.0		5.4	5.4	7.8		9			
SR1A	Cloudy	Calm	14:21	4.6	Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-	7.4	-	10	819979	81266
					_	3.6			28.5		7.9		26.5		82.3		5.5		6.8		11			
					Bottom	3.6	-		28.5	28.5	7.9	7.9	26.4	26.4	82.4	82.4	5.5	5.5	6.7		10			
					Surface	1.0	0.4	86	28.4	28.4	7.9	7.9	26.6	26.6	76.2	76.1	5.1		10.4		10			
					Ouriace	1.0	0.4	90	28.3	20.4	7.9	7.5	26.6	20.0	76.0	70.1	5.1	5.1	10.7		9			
SR2	Cloudy	Moderate	14:35	4.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	11.9	-	9	821450	81416
						3.0	0.2	75	28.2		7.9		26.7		75.4		5.1		13.5		9			
					Bottom	3.0	0.2	81	28.2	28.2	7.9	7.9	26.7	26.7	75.5	75.5	5.1	5.1	13.1		8			
					Surface	1.0	0.2	200	28.2	28.3	7.9	7.9	26.4	26.4	74.2	74.3	5.0		12.7		9			
					Surface	1.0	0.3	217	28.3	20.3	7.9	1.5	26.4	20.4	74.4	14.5	5.0	5.1	12.3		9			
SR3	Cloudy	Moderate	13:11	9.0	Middle	4.5	0.3	178	28.3	28.3	7.9	7.9	26.6	26.6	75.3	75.5	5.1	0.1	11.9	12.6	8	8	822170	80756
						4.5 8.0	0.3	192 210	28.3 28.4		7.9 8.0		26.6 27.6		75.6 78.2		5.1 5.2		12.1 13.5		7			
					Bottom	8.0	0.1	230	28.4	28.4	8.0	8.0	27.5	27.6	78.4	78.3	5.2	5.2	13.2		8			
					0	1.0	0.1	215	28.1	00.4	7.9	7.0	26.9	00.0	75.0	75.0	5.1		5.7		11			
					Surface	1.0	0.1	224	28.1	28.1	7.9	7.9	26.9	26.9	75.0	75.0	5.1	5.1	5.7		12			
SR4A	Cloudy	Moderate	14:32	8.8	Middle	4.4	0.1	65	28.1	28.1	7.9	7.9	27.0	27.0	74.5	74.5	5.0	5.1	5.7	6.1	14	13	817206	80778
	,					4.4	0.1	66	28.1		7.9		27.0		74.4		5.0		5.7		14			
					Bottom	7.8 7.8	0.1	131 132	27.9 27.9	27.9	7.9	7.9	27.1 27.1	27.1	72.7 72.9	72.8	4.9 4.9	4.9	7.1 7.0		14 14			
				l		1.0	0.0	315	28.5		7.9		26.6		83.1		5.6		3.9		11			
					Surface	1.0	0.0	343	28.4	28.5	7.9	7.9	26.6	26.6	83.0	83.1	5.6	5.6	3.9		12			
SR5A	Cloudy	Calm	14:56	4.8	Middle	-	-	-	-	_	-		-	_			-	0.0	-	3.9	-	12	816606	81071
21.07.	Sicus	Julin		1	middio	-	-	-	-		-		-		-		-		-	0.0	-		3.0000	0.071
					Bottom	3.8	0.0	335 339	28.2 28.2	28.2	7.9	7.9	26.9 26.9	26.9	80.9 81.1	81.0	5.4 5.5	5.5	3.9		12 12			
						1.0	0.0	85	28.5		7.9	<u> </u>	26.6		83.1		5.6		3.8		10			1
					Surface	1.0	0.0	89	28.4	28.5	7.9	7.9	26.6	26.6	82.6	82.9	5.5	5.6	3.8		11			
SR6A	Cloudy	Calm	15:31	4.3	Middle	-	-		-		-	_	-		-		-	0.0	-	3.8	-	11	817943	81475
JINON	Jioudy	Cairii	10.01	7.5	Wildelic		-	-	-	-	-	<u> </u>	- 7		-	_	7		-	0.0	- 7	''	311343	0.473
					Bottom	3.3	0.0	74 75	28.3 28.3	28.3	7.9	7.9	26.8 26.8	26.8	81.9 82.3	82.1	5.5 5.5	5.5	3.8		11 12			
						1.0	0.0	75 94	28.3		7.9		26.8		82.4		5.5		4.0		6			1
					Surface	1.0	0.8	103	28.4	28.4	7.9	7.9	26.6	26.6	82.4	82.4	5.5		4.0		7			
SR7	Cloudy	Moderate	15:21	15.8	Middle	7.9	0.3	78	27.8	27.8	7.9	7.9	27.3	27.3	75.5	75.4	5.1	5.3	3.9	5.1	5	5	823645	82374
317	Cloudy	wouerate	15.21	15.0	ivildale	7.9	0.3	82	27.8	21.0	7.9	1.9	27.3	21.3	75.3	75.4	5.1		3.9	5.1	4	5	023040	023/4
					Bottom	14.8	0.1	47	27.4	27.4	7.9	7.9	27.8	27.8	71.5	71.6	4.8	4.9	7.5		5			
			<u> </u>	ļ	1	14.8	0.1	51	27.4 29.1		7.9 7.9		27.8 26.4		71.6 81.5		4.9 5.4		7.5 7.7		5 11			1
			i	l	Surface	1.0	-	-	29.1	29.1	7.9	7.9	26.4	26.4	81.5	81.5	5.4		7.7		10			
000	011	0.1	40.50	4.0		1.0	-		-		-		-		-		-	5.4	-		-		000405	0445
SR8	Cloudy	Calm	13:58	4.8	Middle	1.0 - - 3.8			- 28.3	-	7.9	-	26.7	-	76.4	-	5.1	5.4	9.7	8.6	- - - 11	11	820405	81164

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 09 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Easting) Condition (Northing) 28.0 0.3 Surface 28.0 7.9 26.7 76.4 1.0 0.3 54 28.0 7.9 26.7 76.4 5.2 9.2 17 0.3 35 27.8 10.8 17 26.9 73.2 C1 27.8 7.9 26.9 73.2 804224 08:01 89 Middle 17 815628 Cloudy Calm 4.5 7.9 26.9 4.9 10.6 16 0.3 36 27.8 7.9 0.2 29 27.8 7.9 26.9 74.8 5.1 12.7 18 27 9 7.9 26.9 75.1 5.1 Rottom 7.9 19 0.2 26.8 75.3 12.6 27.9 0.4 28.0 Surface 28.0 7.9 25.4 71.6 5.7 11.8 0.5 28.0 25.4 4.9 0.1 330 27.9 6.3 7.9 4.8 6 25.8 70.6 C2 Cloudy Moderate 09:39 12.5 Middle 27.9 7.9 25.8 70.6 825696 806926 304 27.9 7.9 25.8 70.5 4.8 12.0 7 6.3 0.1 7.9 26.3 26.4 69.4 11.5 0.3 322 27.8 7.9 4.7 12.2 6 27.8 69.4 Bottom 11.5 332 27.8 26.4 69.4 12.5 6 0.3 240 27.6 3.8 Surface 27.6 7.9 27.2 71.4 0.3 243 27.6 7.9 71.3 4.8 3.9 5.8 0.2 256 267 27.5 7.9 3.8 6 7 27.3 27.4 69.5 C3 07:29 27.3 822113 817815 Cloudy Moderate 11.5 Middle 27.5 7.9 69.3 6 27.5 7.9 4.7 4.5 17.8 10.5 0.1 288 27.0 7.9 28.0 65.9 Bottom 27.0 7.9 28.0 66.0 10.5 0.1 289 27.0 7.9 28.0 66.0 4.5 18.0 1.0 0.2 327 28.0 26.6 26.6 26.6 73.9 73.8 5.7 17 Surface 28.0 7.9 73.9 1.0 0.2 334 28.0 7.9 5.0 5.7 4 08:27 817942 807123 IM1 Cloudy Moderate 5.2 Middle 42 0.2 258 28.0 7.9 26.6 73.7 5.0 6.8 4 Bottom 28.0 7.9 26.6 73.7 5.0 265 350 42 0.2 28.0 79 26.6 73.7 5.0 6.6 2 1.0 0.5 5 28.0 7.9 26.5 74.6 5.0 4.6 Surface 7.9 26.5 74.6 1.0 0.6 322 28.0 7.9 26.5 74.6 5.0 4.7 6 3.6 0.4 329 28.0 7.9 26.6 72.6 4.9 5.9 6 IM2 Cloudy Moderate 08:42 7.1 Middle 28.0 7.9 26.6 72.6 818176 806153 5.7 3.6 0.5 355 28.0 7.9 26.6 72.6 4.9 7 266 6.1 0.2 28.0 79 26.8 72.4 49 116 7.9 26.7 72.6 6.1 287 7.9 72 7 11.7 6 0.2 28.0 26.7 49 0.6 326 27.9 79 26.9 72.2 72.1 49 72 20 Surface 27.9 7.9 26.9 72.2 21 1.0 356 27.9 7.9 7.4 0.6 26.9 4.9 11.9 25 25 25 0.4 3.4 307 27.9 7.9 27.0 71.8 4.9 IM3 Cloudy Moderate 08:54 6.8 Middle 27.9 7.9 27.0 71.8 24 818792 805609 12.1 14.9 308 27.9 3.4 0.4 7.9 27.0 4.8 0.2 285 27.9 7.9 26.9 71.9 4.9 7.9 Bottom 27.9 26.9 72.0 5.8 0.2 298 27.9 7.9 26.9 72.0 4.9 14.9 26 327 0.5 27.9 11.1 27 1.0 7.9 26.8 72.7 4.9 Surface 27.9 7.9 26.8 72.7 0.6 344 27.9 11.0 26 26 25 26 13.0 3.9 330 4.9 0.4 27.8 7.9 26.9 72.2 IM4 Cloudy 09:06 7.7 Middle 27.8 7.9 26.9 72.2 26 819702 804620 Moderate 3.9 0.5 353 27.8 4.9 13.2 0.3 27.8 15.4 7.9 4.9 26.9 7.9 72.5 Bottom 27.8 26.9 6.7 0.3 347 27.8 15.1 25 344 28.1 17 1.0 0.4 7.9 26.6 76.7 10.6 5.2 Surface 28.1 7.9 26.6 76.7 1.0 0.4 316 28.1 7.9 76.6 5.2 10.8 16 3.2 0.5 357 28.0 15.5 16 17 5.2 IM5 Cloudy 09:19 6.4 Middle 28.0 7.9 26.7 76.3 820713 804849 Moderate 3.2 0.5 328 28.0 15.3 0.2 28.0 7.9 7.9 18.2 17 Bottom 28.0 7.9 26.7 76.1 76.1 5.4 0.3 18 28.0 17.9 17 1.0 0.4 271 28.2 7.9 24.7 3.4 4 Surface 7.9 24.7 76.2 1.0 0.4 281 28.2 79 24.7 3.5 4 3.2 0.1 337 28.1 74.1 7.1 5 Cloudy Moderate 09:25 6.3 Middle 28.1 7.9 25.8 74.2 821079 805822 3.2 0.1 356 28.1 7.9 25.8 74.2 5.0 7.4 5 5.9 5.3 0.1 46 28.2 7.9 25.3 25.1 75.5 6 5.3 0.1 49 28.2 79 5 1.0 0.4 247 28.3 7.8 24.0 76.8 3.2 4 Surface 7.8 24.0 76.8 79 76.8 3.2 1.0 0.4 271 28.3 24 N 5.2 5.0 5.4 4 3.6 0.4 263 28.1 7.9 25.2 73.5 IM7 Moderate 09:39 7.2 Middle 7.9 25.2 73.5 821335 806819 Cloudy 5 36 0.4 268 28.1 7.9 25.3 73.5 5.0 5.6 6.2 0.2 196 28.1 7.9 25.8 74.0 5.0 6.8 5 Bottom 28.1 7.9 25.8 74.2 5.0 6.2 0.2 202 125 28.1 6.5 1.0 0.0 28.3 7.8 24.0 76.9 5.2 3.2 3 Surface 28.3 7.8 24.0 76.9 7.8 5.2 24.0 76.8 3.2 1.0 0.0 132 28.3 3 4.1 0.0 103 28.1 25.2 25.3 5.0 5.8 4 7.9 73.7 7.9 25.3 73.7 821822 808136 IM8 Cloudy Moderate 09:14 8.1 Middle 28.1 4 7.9 73.7 5.0 6.1 4 4.1 106 28.1 0.0 7.1 7.9 7.9 0.1 211 28.1 25.8 25.7 74.7 5.1 5.1 8.4 4 28.1 7.9 25.7 75.0 Rottom 5.1

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 09 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 28.2 319 24.6 349 28.2 7.9 24.6 3.5 3.8 0.1 282 28.1 7.9 25.7 74.4 5.0 9.4 09:07 7.9 25.7 74.5 808829 IM9 Cloudy Moderate 7.5 Middle 3.8 0.1 298 28.1 7.9 25.8 74.5 5.0 9.3 4 6.5 0.2 228 28.1 7.9 25.8 75.7 5.1 13.3 3 28.1 7.9 25.8 75.9 6.5 0.2 234 28.1 79 25.8 76 O 5.1 13.7 3 15 1.0 0.2 41 28.1 7.9 26.5 9.3 Surface 7.9 26.5 77.7 1.0 0.2 41 28.1 7.9 26.5 77.7 5.2 9.2 14 3.6 0.3 352 324 28.0 7.9 76.6 15.5 14 15 IM10 Cloudy 08:58 7.2 Middle 7.9 26.6 76.6 822401 809808 28.0 7.9 15.4 0.4 26.6 76.6 28.0 18.9 11 6.2 0.4 316 7.9 26.6 77.6 5.2 Bottom 28.0 7.9 26.6 77.8 5.3 5.3 10 6.2 0.4 327 28.0 79 26.6 78 N 18.9 0.2 345 27.9 19 12.2 4.9 Surface 27.9 7.9 26.8 73.0 12.3 16.3 16.2 1.0 357 7.9 18 0.2 27.9 26.8 72.9 4.9 20 0.4 27.8 27.8 26.8 26.8 4.5 310 340 72.4 4.9 IM11 Cloudy Moderate 08:48 8.9 Middle 27.8 7.9 26.8 72.4 21 822035 811473 4.5 7.9 0.5 312 7.9 0.3 27.8 7.9 4.9 17.8 25 26.8 72.3 27.8 7.9 72.3 Bottom 26.8 4.9 7.9 0.3 335 27.8 7.9 26.8 72.3 4.9 17.9 25 27.9 17.4 21 4.9 72.8 Surface 27.9 7.9 72.8 26.9 1.0 0.3 329 27.9 72.8 4.9 17.2 20 4.4 0.5 292 27.8 7.9 4.9 17.7 19 26.9 71.8 821448 812036 IM12 Cloudy Moderate 08:39 8.8 Middle 27.8 7.9 26.9 71.8 20 4.4 27.8 18.0 19 19 0.5 293 276 0.2 27.8 7.9 26.9 4.9 18.6 72.0 27.8 7.9 72.0 Rottom 26.9 49 7.8 0.3 299 27.8 7.9 26.9 72.0 4.9 18.5 20 28.0 7.9 26.4 26.4 3.8 75.8 Surface 28.0 7.9 26.4 75.8 1.0 28.0 7.9 3.9 2.2 819977 812662 SR1A Cloudy Calm 08:05 4.3 Middle 2.2 3.3 28.0 7.9 26.5 4.5 2 Bottom 28.0 7.9 26.5 75.3 3.3 28.0 79 26.5 4.6 1.0 0.0 109 27.8 7.9 4.9 10.4 11 Surface 27.8 7.9 26.9 72.3 1.0 0.0 118 27.8 7.9 26.9 72.3 4.9 10.4 10 SR2 Cloudy Moderate 07:49 3.2 Middle 821452 814157 18 0.0 346 13.5 22 27.8 26.8 72.0 4.9 7.9 26.8 72.0 4.9 22 318 27.8 13.8 18 0.0 1.0 0.1 284 28.1 7.9 24.8 74.4 3.7 5 Surface 28.2 7.9 24.8 74.5 3.7 79 74.5 1.0 0.2 292 28.2 24.8 4.6 255 25.0 25.0 73.0 73.0 5.0 5.0 5.3 3 0.1 28.1 7.9 SR3 Cloudy Moderate 09:21 9.2 Middle 25.0 73.0 822159 807551 5.2 0.1 273 28.1 4.6 9.7 10.2 8.2 0.2 210 213 28.1 7.9 7.9 25.1 25.1 73.2 73.5 5.0 3 Bottom 28.1 7.9 25.1 73.4 5.0 0.2 28.1 50 0.2 27.6 1.0 7.9 27.2 71.0 4.8 3.3 5 Surface 27.6 7.9 27.2 71.0 27.6 7.9 27.3 70.9 4.8 1.0 0.3 52 3.3 4.3 0.0 257 27.5 3.3 6 7.9 4.8 27.3 70.4 07:40 27.5 7.9 27.3 70.4 5 817208 807788 SR4A Cloudy Calm 8.5 Middle 4.3 272 7.9 70.3 4.8 3.3 5 0.0 27.5 27.2 27.2 7.3 6.8 7.5 0.0 343 7.9 27.9 27.8 66.7 66.7 4.5 4.5 7.9 27.8 66.7 27.2 45 Rottom 7.9 334 27.6 1.0 0.0 7.9 27.3 27.4 27.3 72.1 4.9 3.5 27.6 7.9 72.0 Surface 1.0 0.0 346 27.6 7.9 4.9 3.5 6 SR5A 07:23 4.3 Middle 816595 810692 Cloudy Calm 3.3 0.0 354 27.4 27.6 4.8 3.4 Bottom 27.4 7.9 27.6 71.1 4.8 7.9 27.6 71.1 4.8 326 1.0 0.0 100 27.6 7.9 71.9 3.5 Surface 27.6 7.9 27.3 71.9 1.0 0.0 107 27.5 7.9 27.4 71.8 4.9 3.4 4 SR6A Cloudy Calm 06:54 4.1 Middle 817978 814762 4.8 3.1 0.0 178 27.4 7.9 27.6 70.9 3.5 5 27.4 7.9 27.6 71.0 3.1 0.0 188 27.4 7.0 27.6 71.0 3.4 4 1.0 0.1 224 27.6 79 27.3 72.2 49 3.2 Surface 27.3 72.2 1.0 0.1 227 27.6 79 27.3 72.2 4.9 3.2 6 8 1 0.1 233 27.3 7.9 27.8 69.4 47 3.7 5 5 SR7 Moderate 07:01 16.2 Middle 27.3 7.9 27.8 69.4 823617 823736 Cloudy 8.1 0.1 237 27.3 7.9 27.8 69.3 4.7 3.8 15.2 0.1 269 27.3 7.9 27.8 69.0 4.7 3.7 5 Rottom 27.3 7.9 27.8 69.1 15.2 0.1 285 27.3 7.9 27.8 69.1 4.7 3.7 5 1.0 28.0 7.9 26.4 75.9 5.1 13.6 Surface 28.0 7.9 26.5 76.0 15 1.0 28.0 7.9 26.5 76.0 5.1 811612 820381 SR8 Cloudy Calm 08:31 4.8 Middle 12 14 3.8 27.9 7.9 26.7 19.8 76.3 5.2 27.9 7.9 26.7 76.3 5.2

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined.

	Weather	toring Res	Sampling	Water	11 September 21		Current		Water To	emperature (°C)		Н	Salir	nity (ppt)	DO S	aturation	Disso		Turbidity	(NTU)	Suspended 3	Solids	oordinate	Coordin
Monitoring Station	Condition	Condition	Time	Depth (m)	Sampling De	oth (m)	Speed (m/s)	Current Direction	Value	Average	Value	Average	Value	1	Value	(%) Average	Oxyg	pen DA	Value	DA	(mg/L) Value		HK Grid Northing)	HK Gr (Eastin
					Surface	1.0	0.2	195	28.9	28.9	8.0	8.0	30.0		83.1	83.1	5.4		6.9		5	,		È
						1.0 3.9	0.2	211 194	28.9 28.8		8.0		30.0		83.1 80.8		5.4	5.4	6.9 8.9		4			
C1	Sunny	Rough	15:17	7.8	Middle	3.9	0.2	209	28.8	28.8	8.0	8.0	30.0		80.9	80.9	5.3		9.0	9.5	5	4	815601	8042
					Bottom	6.8	0.1	194 196	28.7	28.7	8.0	8.0	30.3	30.3	80.7 80.8	80.8	5.3	5.3	12.5 12.6		4			l
					0(1.0	0.2	148	28.8	00.0	7.9	7.0	26.1		76.2	70.0	5.3		6.9		3			
					Surface	1.0	0.4	157	28.7	28.8	7.9	7.9	26.2	26.2	76.2	76.2	5.1	4.9	6.8	ļ	4			1
C2	Misty	Moderate	14:09	11.2	Middle	5.6 5.6	0.4	144 149	28.3 28.3	28.3	7.9	7.9	27.3	27.3	70.6 70.8	70.7	4.7		8.0 8.0	7.9	3	4	825703	806
					Bottom	10.2	0.3	151	28.3	28.3	7.9	7.9	27.3	27.2	71.6	71.8	4.8	4.8	8.7	İ	4			1
						10.2	0.3	165 63	28.3		7.9 7.9		27.2 27.8		72.0 70.4		4.8		8.8 4.3		3 4			
					Surface	1.0	0.5	65	27.7	27.8	7.9	7.9	27.9	27.8	68.8	69.6	4.6	4.5	4.2	İ	4			1
C3	Misty	Moderate	15:54	12.2	Middle	6.1	0.3	65 68	27.6 27.6	27.6	7.9	7.9	28.0	28.0	65.4 65.5	65.5	4.4	1.0	5.1 5.1	5.0	5	5 8	822126	817
					Bottom	11.2	0.3	82	27.6	27.6	7.9	7.9	28.0	28.0	71.8	72.3	4.8	4.9	5.5	ł	6			1
					BOILOTTI	11.2	0.2	89	27.6	27.0	7.9	7.9	28.0		72.7	12.3	4.9	4.9	5.6	<u> </u>	5			<u> </u>
					Surface	1.0	0.1	148 151	29.9 29.9	29.9	7.9	7.9	29.1	29.2	92.0 92.0	92.0	5.9		6.7	ŀ	5			l
IM1	Sunny	Moderate	14:55	3.4	Middle	-	-	-	-		-		-				-	5.9	-	9.1	-	5 8	817958	807
	,					2.4	0.1	136	29.2		7.9		29.3		83.5		5.4		11.3		- 4			
					Bottom	2.4	0.1	138	29.2	29.2	7.9	7.9	29.3	29.3	83.6	83.6	5.5	5.5	11.5		4			
					Surface	1.0	0.1	141 146	29.4	29.5	7.9	7.9	29.3 29.3	29.3	84.4 84.3	84.4	5.5 5.5		6.9 6.9		5			
11.40	0		44.47	7.0	14.14	3.5	0.2	119	29.5 29.1	00.4	7.9	7.0	29.6	00.0	82.1	00.4	5.4	5.5	7.7		3		040454	
IM2	Sunny	Moderate	14:47	7.0	Middle	3.5	0.1	128	29.1	29.1	7.9	7.9	29.6	29.6	82.1	82.1	5.4		7.7	9.2	3	4	818151	806
					Bottom	6.0	0.2	66 67	28.8	28.8	7.9	7.9	30.1	30.1	81.7 81.8	81.8	5.3 5.4	5.4	13.0 13.0	ł	3			1
					Surface	1.0	0.0	227	29.8	29.8	7.9	7.9	29.4	29.4	86.4	86.5	5.6		6.3		5			
						1.0 3.6	0.0	230 107	29.7 29.1		7.9 7.9		29.4 29.7		86.5 83.4		5.6 5.4	5.5	6.3 6.4	ŀ	4			1
IM3	Sunny	Rough	14:41	7.2	Middle	3.6	0.1	116	29.1	29.1	7.9	7.9	29.8	29.7	83.4	83.4	5.4		6.4	8.4	3	4	818776	805
					Bottom	6.2	0.1	48	28.9	28.9	7.9	7.9	30.0		82.1	82.2	5.4	5.4	12.4	Ī	4			1
						1.0	0.1	51 156	28.9		7.9 7.9		30.0 28.6	1	82.2 87.1		5.4		12.4 5.6		3 4			
					Surface	1.0	0.2	158	29.9	29.9	7.9	7.9	28.6	28.6	87.1	87.1	5.6	5.5	5.7	İ	4			1
IM4	Sunny	Rough	14:33	8.6	Middle	4.3	0.1	174 176	29.1 29.1	29.1	7.9	7.9	29.4 29.5	29.5	81.6 81.6	81.6	5.3	0.0	8.3 8.2	8.9	5 6	5	819723	804
					Bottom	7.6	0.1	89	28.8	28.8	7.9	7.9	30.0	30.0	80.0	80.0	5.2	5.2	12.7	İ	6			1
					Bottom	7.6	0.1	95	28.8	20.0	7.9	1.5	30.0	30.0	80.0	80.0	5.2	5.2	12.7		5			Ь—
					Surface	1.0	0.3	205 205	29.5 29.5	29.5	7.9	7.9	27.7	27.7	87.3 87.2	87.3	5.7 5.7		4.8 4.8		5 4			1
IM5	Sunny	Rough	14:27	8.8	Middle	4.4	0.2	204	29.1	29.1	7.9	7.9	29.3	29.2	80.9	80.9	5.3	5.5	7.5	7.4	3	4	820757	8048
		J				4.4 7.8	0.2	223 127	29.1 29.0		7.9 7.9		29.2 29.8		80.9 79.1		5.3 5.2		7.5 10.0	ŀ	4			
					Bottom	7.8	0.1	135	29.0	29.0	7.9	7.9	29.8	29.8	79.2	79.2	5.2	5.2	10.0		3			
					Surface	1.0	0.1	220 227	29.5 29.6	29.6	7.9	7.9	28.0	28.0	86.5 86.5	86.5	5.7		5.2 5.2		5			
IM6	C	Daviele	14:10	7.0	NA:-J-II-	3.6	0.0	241	29.0	20.2	7.9	7.0	29.2	29.2	80.4	80.4	5.7	5.5	7.8	8.4	4	5 8	004000	805
IIVIO	Sunny	Rough	14:19	7.2	Middle	3.6	0.0	245	29.2	29.2	7.9	7.9	29.2	29.2	80.4	80.4	5.3		7.9	8.4	5	5 6	821082	805
					Bottom	6.2	0.1	108 113	29.2	29.2	7.9	7.9	29.3	29.3	79.4 79.4	79.4	5.2	5.2	12.1 12.2	ŀ	5			1
					Surface	1.0	0.0	168	29.4	29.4	7.9	7.9	28.6	28.6	83.0	83.0	5.4		7.3		5			
					Curiaso	1.0 3.6	0.0	168 174	29.4 29.3		7.9 7.9		28.6 29.0		83.0 81.4		5.4 5.3	5.4	7.3 7.8	-	5 6			1
IM7	Sunny	Rough	14:11	7.1	Middle	3.6	0.0	186	29.3	29.3	7.9	7.9	29.0	29.0	81.4	81.4	5.3		7.7	9.1	6	6	821331	806
					Bottom	6.1	0.1	178	29.2	29.2	7.9	7.9	29.4	29.4	79.6	79.6	5.2	5.2	12.4	[6			1
						6.1 1.0	0.1	182 110	29.2		7.9 7.9		29.4		79.6 79.4		5.2		12.4 7.2		6 4			—
					Surface	1.0	0.3	116	28.9	28.9	7.9	7.9	26.1	26.0	79.2	79.3	5.3	5.2	7.1	1	3			l
IM8	Misty	Moderate	14:31	8.2	Middle	4.1	0.3	119 122	28.7 28.7	28.7	8.0	8.0	27.2	27.2	74.8 74.8	74.8	5.0	J.2	8.1 8.1	8.3	3	3 8	821822	808
					Bottom	7.2	0.3	84	28.6	28.6	8.0	0.0	27.5	27.5	75.5	75.6	5.0	5.0	9.7	t	3			l
	1				DOLLOTTI	7.2	0.3	87	28.6	20.0	8.0	8.0	27.4	21.5	75.7	75.0	5.0	5.0	9.7		2			<u> </u>

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

	Weather	Sea	Sampling	Water			Current	e	Water To	emperature (°C		Н	Salin	ity (ppt)		aturation	Disso		Turbidity((NITLI)	Suspended	Solids	Coordinate	Coordi
Monitoring Station	vveatner	Sea	Sampling	vvater	Sampling Dep	th (m)	Speed	Current	vvater re	emperature (C	1	л	Salii	ity (ppt)	(%)	Oxyg	jen	Turbidity	(NTU)	(mg/L)	HK Grid	HK G
Station	Condition	Condition	Time	Depth (m)			(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	(Northing)	(East
					Surface	1.0	0.5	101	28.8	28.8	8.0	8.0	26.7	26.8	78.4	76.4	5.2		5.9		5			T
					Cunaco	1.0	0.5	105	28.7	20.0	8.0	0.0	26.9	20.0	74.4	70.1	5.0	5.1	6.0		4			
IM9	Misty	Moderate	14:39	7.6	Middle	3.8	0.5	96 97	28.7 28.7	28.7	8.0	8.0	27.3 27.3	27.3	74.4 74.5	74.5	5.0		7.2 7.3	7.1	3	3	822113	808
					Datte-	6.6	0.4	81	28.7	28.7	8.0	0.0	27.3	27.3	75.6	76.0	5.0	5.1	8.1		3			
					Bottom	6.6	0.4	87	28.7	28.7	8.0	8.0	27.3	21.3	76.4	76.0	5.1	5.1	8.1		2			
					Surface	1.0	0.6	109	28.9	28.9	8.0	8.0	25.4	25.4	81.1 80.9	81.0	5.4 5.4		6.9		7			
						1.0 4.0	0.6	112 112	28.8 28.7		8.0		25.4 27.1		74.4		5.0	5.2	7.0 7.7		10			
IM10	Misty	Moderate	14:44	8.0	Middle	4.0	0.6	119	28.7	28.7	8.0	8.0	27.2	27.1	74.5	74.5	5.0		7.6	7.6	9	9	822398	809
					Bottom	7.0	0.5	107	28.7	28.7	8.0	8.0	27.2	27.2	77.2	79.2	5.1	5.3	8.3		9			
						7.0 1.0	0.6	109 113	28.7		8.0 7.9		27.2 26.4		81.2 79.0		5.4		8.2 7.4		10 14			+
					Surface	1.0	0.6	118	28.6	28.7	7.9	7.9	26.5	26.4	78.0	78.5	5.2		7.4		13			
IM11	Misty	Moderate	14:53	7.4	Middle	3.7	0.5	114	28.5	28.5	7.9	7.9	26.8	26.8	73.3	73.3	4.9	5.1	8.6	8.3	13	12	822050	811
IIVI I	iviioty	Woderate	14.55	1.3	Wildelic	3.7	0.6	114	28.5	20.0	7.9	7.5	26.8	20.0	73.3	70.0	4.9		8.6	0.0	13	12	022030	"
					Bottom	6.4	0.3	110 119	28.5 28.5	28.5	7.9 7.9	7.9	26.9 26.9	26.9	75.0 76.3	75.7	5.0 5.1	5.1	9.1 9.0		10 9			
					0	1.0	0.6	112	28.9	00.0	7.9	7.0	26.1	00.0	79.8	70.0	5.3		5.7		11			+
					Surface	1.0	0.7	114	28.8	28.9	7.9	7.9	26.3	26.2	79.3	79.6	5.3	5.2	5.8		12			
IM12	Misty	Moderate	14:59	9.2	Middle	4.6	0.5	111	28.6	28.6	7.9	7.9	26.7	26.7	74.7 74.7	74.7	5.0	0.2	6.1	6.3	11	12	821476	812
						4.6 8.2	0.5	111 88	28.6 28.5		7.9 7.9		26.7 26.8		79.5		5.0		6.1 7.0		12 12			
					Bottom	8.2	0.3	92	28.5	28.5	7.9	7.9	26.7	26.8	80.9	80.2	5.4	5.4	7.0		13			
					Surface	1.0	-	-	29.6	29.6	7.9	7.9	26.4	26.4	80.0	79.9	5.3		7.3		6			
						1.0 2.4	-	-	29.6		7.9		26.4		79.8		5.3	5.3	7.2		7			
SR1A	Misty	Moderate	15:30	4.8	Middle	2.4	-	-		-	-	-	-	-			-		-	7.6	-	6	819975	812
					Bottom	3.8	-	-	29.7	29.7	7.9	7.9	26.3	26.3	79.3	79.2	5.2	5.2	8.0		5			
					Bottom	3.8	-	-	29.7	20.1	7.9	1.0	26.3	20.0	79.1	13.2	5.2	J.2	8.0		4			₩
					Surface	1.0	0.3	89 94	28.8 28.7	28.8	7.9	7.9	26.3 26.4	26.4	79.7 79.4	79.6	5.3		6.6		9			
SR2	Mistv	Moderate	15:37	4.0	Middle	-	-	-	-	-	-		-	_	-		-	5.3	-		-	9	821439	814
SR2	iviisty	Woderate	15.57	4.0	ivildale	-					-	-	-	-		-	-			6.9	-	9	021439	014
					Bottom	3.0 3.0	0.3	81 85	28.6 28.6	28.6	7.9	7.9	26.7	26.7	80.3 81.4	80.9	5.4 5.4	5.4	7.3 7.3		9			
						1.0	0.3	189	28.8		7.9		26.1		75.1		5.0		7.4		8			+
					Surface	1.0	0.1	198	28.8	28.8	7.9	7.9	26.3	26.2	75.0	75.1	5.0	5.0	7.4		2			
SR3	Misty	Moderate	14:26	9.4	Middle	4.7	0.3	176	28.8	28.8	7.9	7.9	26.8	26.9	75.5	75.6	5.0	5.0	8.5	8.6	2	6	822126	807
	'					4.7 8.4	0.3	188 126	28.8 28.8		7.9 8.0		26.9 27.1		75.6 77.5		5.0 5.2		8.6 9.8		6 8			
					Bottom	8.4	0.2	137	28.8	28.8	8.0	8.0	27.0	27.0	78.2	77.9	5.2	5.2	9.8		9			
					Surface	1.0	0.3	69	29.7	29.7	7.9	7.9	29.4	29.4	88.1	88.1	5.7		6.8		6			
						1.0	0.3	75	29.7		7.9		29.4		88.1		5.7	5.5	6.8		6			
SR4A	Sunny	Rough	15:31	9.8	Middle	4.9 4.9	0.2	101 101	29.0 29.0	29.0	7.9	7.9	29.8	29.8	80.9 80.9	80.9	5.3		8.9 8.9	8.4	5 4	5	817191	807
					Bottom	8.8	0.1	114	29.0	29.0	7.9	7.9	29.9	29.9	80.3	80.4	5.2	5.2	9.6		5			
					DOILOITI	8.8	0.1	121	29.0	29.0	7.9	7.9	29.9	29.9	80.4	00.4	5.2	5.2	9.5		4			
					Surface	1.0	0.0	32 32	29.5 29.5	29.5	7.9	7.9	29.3	29.3	85.9 85.9	85.9	5.6 5.6		5.6 5.7		4			
						-	-	-	-		-		-		- 00.9		-	5.6	5.1		-	_		
SR5A	Sunny	Calm	15:47	3.9	Middle	-	-	-	-		-	•	-	-	-	-	-		-	7.4	-	5	816615	810
					Bottom	2.9	0.1	144	29.4	29.4	7.9	7.9	29.6	29.6	83.3	83.3	5.4	5.4	9.2		5			
						2.9	0.1	152 313	29.4 29.9		7.9 7.9		29.6		83.3 93.1		5.4 6.0		9.2 5.7		5 4			+
					Surface	1.0	0.0	319	29.9	29.9	7.9	7.9	28.5	28.5	93.1	93.1	6.0		5.7		3			
SR6A	Sunny	Calm	16:13	4.1	Middle	-	-	-	-		-	-	-		-		-	6.0	-	7.2	-	4	817955	814
0.10/1	Cumy	Odim	10.10		middio	3.1	0.1	309	-		- 70		28.6		-		-		8.7		4	.	011000	0.
					Bottom	3.1	0.1	326	29.2	29.2	7.9	7.9	28.6	28.6	82.0 81.8	81.9	5.4	5.4	8.9		3			
					Surface	1.0	0.5	69	27.7	27.7	7.9	7.9	27.9	27.9	82.4	82.4	5.3		5.9		5			T
					Surface	1.0	0.5	73	27.7	21.1	7.9	1.9	27.9	21.9	82.3	02.4	5.3	5.3	5.8		4			
SR7	Misty	Moderate	16:20	14.0	Middle	7.0 7.0	0.4	43 43	27.7 27.8	27.8	7.9 7.9	7.9	27.9 27.8	27.9	84.1 84.0	84.1	5.3		6.6 6.5	6.5	7	7	823632	82
					D. #	13.0	0.4	14	28.1	00.4	7.9	7.0	27.5	07.5	64.8	05.0	4.3		7.2		8			
					Bottom	13.0	0.2	14	28.1	28.1	7.9	7.9	27.5	27.5	65.1	65.0	4.4	4.4	7.2		7			<u>L</u>
					Surface	1.0	-	-	29.5	29.5	7.9	7.9	26.4	26.4	68.5	68.8	4.6		7.1		13			
			1			1.0	-	-	29.5		7.9		26.4		69.0	-	4.7	4.7	7.1		13			1
						_																		
SR8	Misty	Moderate	15:07	4.2	Middle	-	-	-	-	-	-	-	-	-	-		-		-	7.8	-	13	820411	811

DA: Depth-Averaged

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

Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 11 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Easting) (Northing) 28.9 0.4 Surface 28.9 7.9 29.4 81.1 1.0 0.4 59 28.9 7.9 29.4 81.1 5.3 5.7 0.3 55 28.9 7.7 29.4 80.5 C1 7.9 29.4 80.5 804248 09:54 7.5 Middle 28.9 815605 Sunnv Moderate 28.9 7.9 29.4 80.5 5.3 7.7 8 0.4 57 6.5 0.3 56 28.9 7.9 29.4 82.2 5.4 8.9 7 7.9 5.4 28.9 29.4 82.3 Rottom 7.9 9.0 28.9 29.4 82.3 5.4 0.3 61 6.5 28.6 4.2 0.4 Surface 28.6 7.9 25.0 72.7 4.3 0.4 28.6 4.9 4 28.5 6.0 0.3 7.9 4.8 25.6 71.6 C2 Mistv Moderate 10:45 12.0 Middle 28.5 7.9 25.6 71.6 825704 806945 0.4 44 7.9 25.6 71.6 4.8 5.1 4 6.0 28.5 7.9 25.5 11.0 0.2 28.5 7.9 4.9 6.1 4 72.0 28.6 25.4 72.5 Bottom 11.0 28.6 7.9 25.4 72.9 6.1 0.2 261 28.3 5.9 Surface 28.3 7.9 27.0 71.0 1.0 0.6 277 28.3 7.9 71.0 4.8 5.8 6.1 0.7 263 27.9 7.9 27.5 66.8 6.5 6 5 27.5 27.5 C3 08:55 822127 817790 Mistv Moderate 12.2 Middle 27.9 7.9 66.8 5 27.9 7.9 4.5 6.4 11.2 0.6 262 27.7 7.9 69.7 7.9 Bottom 27.7 7.9 27.7 70.1 11.2 0.6 287 27.7 7.9 27.7 70.4 4.8 7.8 4 1.0 0.1 324 28.9 29.2 29.2 29.2 85.7 5.6 Surface 28.9 8.0 85.7 1.0 0.1 345 28.9 8.0 5.6 5.5 7 10:07 4.4 817942 IM1 Sunnv Moderate Middle 3.4 0.1 325 28.9 8.0 29.2 86.1 5.6 6.3 Bottom 28.9 8.0 29.2 86.1 335 355 3.4 0.1 28.9 8.0 29.2 86.1 5.6 6.4 8 1.0 0.2 29.1 7.9 29.1 81.4 5.3 5.9 8 Surface 7.9 29.1 81.4 1.0 0.2 327 29.1 7.9 29.1 81.4 5.3 6.0 9 3.5 0.2 349 28.9 7.9 29.2 80.6 5.3 4.3 9 IM2 Sunny Moderate 10:19 6.9 Middle 7.9 29.2 80.6 818172 806186 321 333 3.5 0.2 28.9 7.9 80.6 5.3 4.3 8 5.9 0.2 28.9 79 29.2 81.5 5.3 6.0 7.9 29.2 81.6 5.9 346 7.9 5.3 6 0.2 28.9 29.2 81.6 6.0 0.5 301 29.3 79 28.8 82.6 5.4 5.0 Surface 7.9 28.8 82.6 1.0 307 7.9 5.4 5.1 0.6 29.3 28.8 82.5 8 9 10 10 0.5 296 28.9 5.2 6.2 3.7 7.9 29.4 79.4 IM3 Sunny Moderate 10:28 7.3 Middle 28.9 7.9 29.4 79.4 818769 805607 6.3 8.4 3.7 28.9 0.5 320 7.9 29.4 794 6.3 0.4 286 28.9 7.9 29.4 79.7 5.2 5.2 7.9 Bottom 28.9 29.4 79.7 5.2 6.3 0.4 314 28.9 7.9 29.4 79.7 8.5 9 0.8 5.3 1.0 29.0 7.9 28.9 81.2 5.3 6 Surface 29.0 7.9 28.8 81.2 0.8 28 29.0 5.3 7.0 6 7 3.9 28.9 7.9 29.2 79.3 5.2 IM4 10:35 7.8 Middle 28.9 7.9 29.2 79.3 819730 804619 Sunny Moderate 3.9 0.7 28.9 7.0 0.4 28.9 8.1 6 29.3 79.6 7.9 Bottom 28 9 29.3 79.6 5.2 6.8 0.5 14 28.9 8.1 0.8 29.1 14 1.0 18 7.9 28.9 10.6 80.1 5.3 Surface 29.1 7.9 28.9 80.1 1.0 0.9 19 29.1 7.9 5.3 10.6 14 4.0 29.0 9.3 12 28.9 5.2 IM5 10:40 7.9 Middle 29.0 7.9 28.9 79.7 12 820736 804877 Sunny Moderate 4.0 0.8 21 29.0 9.3 11 21 29.0 7.9 7.9 28.9 80.4 10 Bottom 29.0 7.9 80.4 28.9 11 6.9 0.6 21 29.0 11.7 1.0 0.8 35 29.2 7.9 28.9 5.1 13 Surface 7.9 28.8 1.0 0.8 35 29.2 79 28.8 5.1 13 3.4 0.7 37 29.1 6.1 13 Sunny Moderate 10:46 6.7 Middle 29.1 7.9 29.0 80.5 821070 3.4 0.8 40 29.1 7.9 29.0 80.5 5.3 6.1 13 5.7 0.7 40 29.1 7.9 29.0 9.7 12 5.7 0.7 40 29 1 79 9.8 13 125 1.0 0.1 29.4 7.9 26.8 83.9 5.7 8 Surface 7.9 26.8 83.9 79 5.7 1.0 0.1 130 29.4 26.9 83.9 5.5 112 7.8 8 3.6 0.2 29.2 7.9 28.1 82.1 5.4 IM7 Moderate 10:52 7.1 Middle 29.2 7.9 28.1 82.1 821332 806832 Sunny 7.7 3.6 0.2 115 29.2 7.9 28.1 82.1 5.4 6.1 0.4 104 29.2 7.9 28.8 80.8 5.3 5.3 14.5 9 Bottom 29.2 7.9 28.8 80.8 5.3 6.1 0.4 109 29.2 28.8 14.5 1.0 0.2 44 28.8 7.9 24.7 76.9 5.2 3.4 5 Surface 28.8 7.9 24.7 76.8 7.9 24.7 76.7 5.2 1.0 0.2 44 28.8 3.4 6 3.9 0.2 62 28.7 25.1 25.1 5.2 4.2 5 7.9 76.7 7.9 25.1 76.8 821833 808132 IM8 Misty Moderate 10:20 7.8 Middle 28.7 5 7.9 76.9 4.2 6 3.9 67 28.7 5.2 0.2 7.9 7.9 6.8 0.2 84 28.6 25.2 77.9 5.3 5.3 5.4 5 28.6 7.9 25.2 78.1 5.3 Rottom

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 11 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 28.7 152 26.0 75.2 158 28.6 7.9 26.0 7.5 3.6 0.1 129 28.6 7.9 26.0 76.5 8.3 IM9 10:14 7.2 Middle 7.9 26.0 76.7 808820 Misty Moderate 3.6 0.1 139 28.6 7.9 26.0 76.8 5.2 8.3 6 6.2 0.1 76 28.5 7.9 26.0 78.9 5.3 9.5 7 28.5 7.9 26.0 79.3 6.2 0.1 76 28.5 79 26.0 79.6 5.4 9.4 6 307 1.0 0.7 28.6 7.9 26.3 74.4 4.6 Surface 7.9 26.3 74.4 1.0 0.8 328 28.6 7.9 26.3 74.3 5.0 4.5 5 4.1 0.7 305 330 28.6 7.9 75.5 6.0 5.9 5 IM10 Misty Moderate 10:07 8.2 Middle 7.9 26.3 75.7 822378 809793 4.1 28.6 7.9 4 0.7 26.3 75.8 0.5 28.5 7.0 7.0 7.2 305 7.9 26.4 77.3 5.2 4 Bottom 28.5 7.9 26.4 77.6 5.2 5.2 72 0.5 307 28.5 79 26.4 77 9 5 0.6 288 28.5 5.0 4.9 Surface 28.5 7.9 26.5 73.8 1.0 298 7.9 26.5 5.1 0.7 28.5 73.8 4.9 5 6.5 5 6 0.6 288 290 28.5 26.7 26.7 3.9 74.0 IM11 Mistv Moderate 09:58 7.8 Middle 28.5 7.9 26.7 74.1 5 822049 811444 28.4 7.9 6.5 0.6 6.8 0.5 300 28.4 7.9 7.4 5 26.8 75.1 5.0 7.9 75.2 Bottom 28.4 26.8 5.0 6.8 0.5 305 28.4 7.9 26.8 75.2 5.0 7.5 28.4 73.5 Surface 28.4 7.9 73.5 26.7 1.0 0.6 311 28.4 73.5 4.9 7.2 3 0.6 281 28.4 7.9 74.3 8.4 4 26.8 5.0 821447 812024 IM12 Mistv Moderate 09:52 10.0 Middle 28.4 7.9 26.8 74.4 8.3 0.6 288 282 28.4 0.6 28.3 7.9 75.2 9.2 26.8 28.3 7.9 75.4 5.1 Rottom 26.8 9.0 0.7 300 28.3 7.9 26.8 75.6 9.2 28.5 7.9 26.6 26.6 6.4 Surface 28.5 7.9 26.6 74.8 1.0 28.5 7.9 5.0 6.4 2.5 812655 SR1A Misty Moderate 09:28 5.0 Middle 2.5 4 0 28.3 7.9 26.7 7.2 7 Bottom 28.3 7.9 26.7 75.9 4.0 28.3 79 26.7 76.0 7.1 6 1.0 0.1 159 28.4 7.9 26.8 72.5 4.9 7.4 Surface 28.4 7.9 26.8 72.6 1.0 0.1 162 28.4 7.9 26.8 72.7 4.9 7.5 3 SR2 Moderate 09:14 4.3 Middle 821474 814187 8.0 0.1 152 7 33 28.3 26.8 5.1 7.9 75.5 5.1 8.1 3.3 155 26.9 6 0.1 28.2 1.0 0.1 114 28.8 7.9 24.7 77.0 77.0 5.2 4 Surface 28.8 7.9 24.7 77.0 5.2 5.2 79 24.8 1.0 0.1 123 28.7 4.5 85 28.6 73.8 73.9 5.0 5.0 6.4 4 0.1 7.9 24.9 SR3 Misty Moderate 10:26 9.0 Middle 7.9 24.9 73.9 822134 807567 7.9 24.9 0.1 28.6 6.4 4.5 86 8.0 0.2 63 28.6 7.8 7.8 24.9 74.2 74.4 5.0 7.5 7.6 3 Bottom 28.6 7.8 24.9 74.3 5.0 8.0 0.2 65 28.6 110 0.1 29.2 13 1.0 7.9 29.1 81.3 5.3 3.2 Surface 29.2 7.9 29.1 81.4 117 7.9 81.4 1.0 0.1 29.2 29.1 3.2 14 4.6 0.1 54 29.1 6.1 12 7.9 5.3 29.2 81.0 09:40 7.9 29.2 81.0 13 817182 807798 SR4A Sunny Calm 9.1 Middle 29.1 4.6 56 7.9 29.2 81.0 6.1 13 0.1 29.1 12 13 8.1 0.1 29.1 29.1 7.9 7.9 29.2 81.2 81.2 8.4 7.9 81.2 5.3 29.1 29.2 5.3 Rottom 8.4 1.0 0.2 340 29.1 7.9 28.8 28.8 8.5 28.8 80.2 5.3 Surface 29.1 7.9 80.3 1.0 0.2 356 29.1 7.9 5.3 8.5 16 SR5A 09:22 4.9 Middle 816616 810708 Calm Sunny 3.9 0.2 334 29.1 28.8 81.2 5.3 10.1 15 Bottom 29.1 7.9 28.8 81.2 5.3 307 7.9 10.1 14 3.9 1.0 0.1 260 28.8 7.8 28.6 6.8 Surface 28.8 7.8 28.6 78.0 1.0 0.1 269 28.8 7.8 28.6 78.0 5.1 6.9 6 SR6A Sunny Calm 08:52 4.2 Middle 817982 814739 3.2 0.1 272 28.8 7.8 28.6 78.0 9.2 4 28.8 7.8 28.6 78.1 3.2 0.1 285 28.8 7.8 28.6 78 1 9.2 4 354 1.0 0.3 28.2 79 27 N 73.0 3.3 Surface 72.9 27.1 1.0 0.3 326 28.2 79 27 1 72 7 5.1 3.4 4 7.7 0.2 34 28.0 7.9 27.2 72.1 5.0 5.0 6 SR7 Misty Moderate 08:24 15.4 Middle 7.9 27.2 72.2 823615 823760 7.7 5.0 0.3 34 28.0 7.9 27.2 72.2 5.0 14.4 0.2 46 27.9 7.8 27.2 72.2 4.9 5.1 6 Rottom 27.9 7.8 27.2 72.5 14.4 0.2 46 27.8 7.8 4.9 5.2 1.0 28.5 7.9 26.6 73.5 4.9 5.4 8 Surface 28.5 7.9 26.6 73.7 1.0 28.5 7.9 26.6 73.8 4.9 5.4 9 811600 09:46 820376 SR8 Misty Moderate 5.0 Middle 10 11 4.0 28.5 7.9 26.6 5.8 73.7 4.9 28.5 7.9 26.6 73.8 4.9

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined.

Water Qua Water Qua			ults on		14 September 21	durina Mid-	Ebb Tid	e																
Monitoring	Weather	Sea	Sampling	Water	l coptomic 2:	uugu	Current	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)		aturation	Disso	olved	Turbidity	(NTU)	Suspende (mg.		Coordinate	Coordinate
Station	Condition	Condition	Time	Depth (m)	Sampling Dept	h (m)	Speed (m/s)	Direction	Value	Average	Value	Average		Average	Value	(%) Average	Value	gen DA	Value	DA	(mg. Value	DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.4	204	29.0	29.0	8.0	8.0	26.0	26.1	75.6	75.5	5.0		6.6		7			
C1	Fine	Calm	06:39	8.6	Middle	1.0 4.3	0.5 0.4	220 212	28.9 28.8	28.8	8.0	8.0	26.3 26.8	26.8	75.3 75.2	75.2	5.0 5.0	5.0	6.5 8.3	8.0	7 8	. 7	815642	804264
0.		Cairr	00.00	0.0		4.3 7.6	0.4	229 226	28.7 28.3		8.0 7.9		26.9 27.6		75.2 77.4		5.0 5.2		8.3 9.1	0.0	7		010012	001201
					Bottom	7.6	0.4	228	28.2	28.3	7.9	7.9	27.5	27.6	79.1	78.3	5.3	5.3	9.0		6	,		
					Surface	1.0	0.8	153 161	30.0 29.9	30.0	8.0	8.0	23.6	23.6	87.9 88.0	88.0	5.8 5.9		4.6 4.6	-	5			
C2	Cloudy	Moderate	07:33	8.0	Middle	4.0	0.6	154 166	29.4	29.4	8.0	8.0	27.2	27.3	75.1 75.0	75.1	4.9	5.4	6.9 7.0	6.6	5	5	825675	806930
					Bottom	7.0	0.2	167	29.4	29.4	8.0	8.0	27.4 27.4	27.4	75.3	75.4	5.0	5.0	8.4	İ	5			
					Surface	7.0 1.0	0.2	173 105	29.4 29.1	29.1	8.0	8.0	28.4	28.4	75.5 75.1	75.1	5.0 4.9		8.4 5.3		6			
СЗ	Cloudy	Moderate	05:15	10.4	Middle	1.0 5.2	0.1 0.1	115 107	29.1 28.8	28.8	8.0	8.0	28.4 29.1	29.1	75.1 74.7	74.6	4.9 4.9	4.9	5.3 6.7	6.7	5 5	- 5	822125	817818
- 63	Cloudy	Woderate	03.13	10.4	Wildule	5.2 9.4	0.1	117 19	28.7 28.8		8.0	0.0	29.2		74.5 70.9		4.9		6.6 8.0	0.7	6		022123	017010
					Bottom	9.4	0.2	20	28.8	28.8	8.0	8.0	29.2	29.1	71.5	71.2	4.7	4.7	8.0		5			
					Surface	1.0 1.0	0.0	4	28.8	28.8	8.0 7.9	7.9	27.1	27.1	74.3 75.0	74.7	4.9 5.0		4.1 4.2		3			
IM1	Fine	Calm	07:01	4.2	Middle		-		-	-	-		-		-	-	-	5.0	-	4.7	-	4	817964	807120
					Bottom	3.2 3.2	0.1 0.1	265 286	28.7 28.6	28.7	7.9 7.9	7.9	27.3 27.2	27.2	80.0 79.5	79.8	5.3 5.3	5.3	5.3 5.2		5 4			
					Surface	1.0	0.0	70 71	29.0 28.9	29.0	8.0	8.0	26.6 26.7	26.6	77.4 77.0	77.2	5.1 5.1		1.2		4			
IM2	Fine	Calm	07:10	6.2	Middle	3.1	0.0	55	28.8	28.8	8.0	8.0	26.9	27.0	75.7	75.2	5.0	5.1	2.3	2.2	4	4	818171	806169
					_	3.1 5.2	0.0	55 309	28.7 28.6		8.0		27.1 27.5		74.7 76.6		5.0 5.1		3.3	ł	5			
					Bottom	5.2	0.1	309	28.7	28.7	8.0	8.0	27.2	27.4	79.1	77.9	5.3	5.2	3.3		5			
					Surface	1.0	0.1	184 193	29.0 28.9	29.0	8.0	8.0	26.5 26.7	26.6	78.3 78.0	78.2	5.2		4.2 4.1	1	3			
IM3	Fine	Calm	07:17	6.0	Middle	3.0 3.0	0.1 0.1	207 217	28.8 28.8	28.8	8.0	8.0	27.1 27.2	27.1	71.0 70.8	70.9	4.7 4.7	5.0	5.1 5.1	5.1	4	4	818774	805590
					Bottom	5.0	0.1	313 327	28.8	28.8	8.0	8.0	27.2	27.2	70.9	71.4	4.7	4.8	6.0	į	4			
					Surface	1.0	0.8	208	29.4	29.4	7.9	7.9	24.2	24.2	80.9	81.0	5.4		7.6		18			
						1.0 4.0	0.8	216 206	29.4 29.3		7.9 7.9		24.3		81.0 81.9		5.4 5.5	5.5	7.7 8.8		17 17			
IM4	Fine	Calm	07:26	8.0	Middle	4.0	0.8	219	29.2	29.3	7.9	7.9	24.4	24.4	82.1	82.0	5.5		8.7	8.5	18	18	819731	804612
					Bottom	7.0 7.0	0.7	198 198	29.0 28.9	29.0	7.9	7.9	24.5	24.5	82.9 83.5	83.2	5.6 5.6	5.6	9.1 9.1	1	18 18			
					Surface	1.0	0.8	230	29.3	29.3	7.9	7.9	24.8	24.8	76.9	77.0	5.1		7.4		16			
	_					1.0 3.5	0.9	238 224	29.3 29.3		7.9 7.9		24.8		77.1 77.5		5.2	5.2	7.4 8.1		16 17			
IM5	Fine	Calm	07:36	7.0	Middle	3.5	0.8	242	29.2	29.3	7.9	7.9	24.9	24.9	77.7	77.6	5.2		8.1	8.2	16	16	820740	804850
					Bottom	6.0	0.6 0.7	226 239	29.0 28.9	29.0	7.9	7.9	25.1 25.1	25.1	78.7 79.3	79.0	5.3 5.3	5.3	9.0 9.1	1	15 16			
					Surface	1.0 1.0	0.8	248 254	29.4 29.4	29.4	7.9 7.9	7.9	23.9	23.9	79.7 79.8	79.8	5.3 5.3		7.7		12 13			
IM6	Fine	Calm	07:45	6.6	Middle	3.3	0.8	247	29.4	29.4	7.9	7.9	23.9	23.9	80.2	80.3	5.4	5.4	8.8	8.5	14	14	821051	805846
IIVIO	TING	Cairi	07.43	0.0		3.3 5.6	0.8	252 248	29.3 29.1		7.9 7.9		23.9		80.3 81.0		5.4 5.5		8.8 9.2	0.5	15 16		021001	003040
					Bottom	5.6	0.7	263	29.1	29.1	7.9	7.9	24.0	24.0	81.5	81.3	5.5	5.5	9.2		15			
					Surface	1.0	0.8	237 256	29.5 29.5	29.5	7.9	7.9	23.3	23.3	81.5 81.8	81.7	5.5 5.5		5.1 5.0	ł	8			
IM7	Fine	Calm	07:55	7.2	Middle	3.6	0.7	241	29.4	29.4	7.9	7.9	23.4	23.4	82.3	82.4	5.5	5.5	6.2	6.3	6	7	821357	806847
					Bottom	3.6 6.2	0.8	259 251	29.3 29.2	29.2	7.9 7.9	7.9	23.4 23.6	23.6	82.5 83.5	83.9	5.5 5.6	5.7	6.1 7.6	ł	7			
			1		DOROITI	6.2 1.0	0.7	258 245	29.1 30.0	23.2	7.9 8.0	1.9	23.6 25.1	23.0	84.2 89.1	03.9	5.7 5.9	5.7	7.7 5.2		6			
					Surface	1.0	0.4	248	30.0	30.0	8.0	8.0	25.2	25.2	89.1	89.1	5.9	5.9	5.2	İ	4			
IM8	Cloudy	Moderate	07:07	6.6	Middle	3.3 3.3	0.3	256 265	30.0 30.0	30.0	8.0	8.0	25.5 25.5	25.5	90.3 90.4	90.4	5.9 5.9	5.5	5.6 5.7	5.7	5 5	5	821828	808137
					Bottom	5.6 5.6	0.3	283 293	29.9 29.9	29.9	8.0	8.0	25.6 25.6	25.6	91.8	92.0	6.0	6.1	6.3	1	6			
		l	<u> </u>	I	L	0.0	0.5	293	29.9	l	0.0		25.0		92.2		0.1		0.3	<u> </u>	5			1

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

	Weather	Sea	Sampling	Water	14 September 21 during Mid-		Current		Water Temperature (°C) pH			Salinity (ppt)		DO Saturation		Dissolved		Turbidity(NTU)		Suspended Solids		Coordinate	Coordinate	
Monitoring Station	Condition	Condition	Time	Water Depth (m)	Sampling Depth (m)		Speed (m/s)	Current Direction	vvater remperature (c)				Samily (ppt)		(%)		Oxygen				(mg/L)		HK Grid	HK Grid
									Value	Average	Value	Average	Value	Average	Value Average	Value	DA	Value	DA	Value	DA	(Northing)		
					Surface	1.0	0.2	171	30.0	30.0	8.0	8.0	25.6	25.6	87.5	87.5	5.7		5.6		4			
						1.0 3.1	0.2	175 171	30.0		8.0		25.6 25.7		87.5 89.1		5.8 5.9	5.8	5.6 5.9	1	5 4			
IM9	Cloudy	Moderate	06:59	6.3	Middle	3.1	0.1	187	30.0	30.0	8.0	8.0	25.8	25.7	89.5	89.3	5.9		5.9	5.8	5	5	822090	80879
					Bottom	5.3	0.1	174	30.0	30.0	8.0	8.0	25.8	25.8	92.3	92.7	6.1	6.1	5.9	İ	5			
					BOROITI	5.3	0.1	185	30.0	30.0	8.0	6.0	25.8	25.6	93.0	52.1	6.1	0.1	6.0		4			
IM10		l		ĺ	Surface	1.0	0.5 0.5	115 126	30.1	30.1	8.0	8.0	25.5 25.6	25.6	86.5 86.3	86.4	5.7 5.7		5.3 5.2	-	3			
						3.3	0.5	102	30.0		8.0		26.2		85.6		5.6	5.7	7.7	<u> </u>	4			
	Cloudy	Moderate	06:51	6.5	Middle	3.3	0.4	102	30.0	30.0	8.0	8.0	26.3	26.3	85.6	85.6	5.6		7.8	7.1	3	3	822394	80980
					Bottom	5.5	0.3	75	29.9	29.9	8.0	8.0	26.3	26.3	88.5	88.6	5.8	5.8	8.5		4			
						5.5 1.0	0.3	76 144	29.9 30.0		8.0		26.3		88.7 86.1		5.8 5.6		8.5 8.1		3 6			
					Surface	1.0	0.5	145	30.0	30.0	8.0	8.0	26.3	26.2	83.6	84.9	5.5		8.2	ł	5			
	Cloudy	Moderate	06:37	7.7	Middle	3.9	0.5	135	29.9	29.9	8.0	8.0	26.4	26.4	83.7	83.7	5.5	5.5	9.2	9.0	5	5	822034	81144
	Cioday	Woderate	00.57	1.1	Wilddie	3.9	0.5	146	29.9	23.3	8.0	0.0	26.4	20.4	83.7	00.7	5.5		9.2	3.0	4	,	022004	01144
					Bottom	6.7	0.3	123 132	29.9 29.9	29.9	8.0	8.0	26.4 26.4	26.4	85.3 85.5	85.4	5.6 5.6	5.6	9.6 9.7	+	4 5			
					0	1.0	0.4	126	29.9	00.0	8.0	0.0	26.4	00.4	82.8	00.0	5.4		7.3		5			
IM12	Cloudy	Moderate	06:27	9.0	Surface	1.0	0.4	135	29.9	29.9	8.0	8.0	26.4	26.4	82.7	82.8	5.4	5.4	7.4		6	6	821458	812055
					Middle	4.5	0.4	120	29.8	29.8	8.0	8.0	26.6	26.6	81.5	81.5	5.3	0.1	10.9	10.7	6 7			
	-					4.5 8.0	0.4	129 113	29.8 29.8		8.0		26.6 26.7		81.4 81.8		5.3 5.4		11.0 13.7	ł	7			
					Bottom	8.0	0.3	116	29.8	29.8	8.0	8.0	26.7	26.7	82.0	81.9	5.4	5.4	13.8	t	6			
					Surface	1.0	-	-	29.8	29.8	8.0	8.0	26.2	26.2	85.4	85.3	5.6		5.3		2			
SR1A						1.0 2.5	-	-	29.8		8.0		26.3		85.2		5.6	5.6	5.3		2			
	Cloudy	Moderate	05:58	5.0	Middle	2.5		-	-	-	-	-	-	-	-	-	-		-	5.1	-	3	819972	812664
					Bottom	4.0	-	-	29.8	29.8	8.0	8.0	26.7	26.7	84.9	85.0	5.6	5.6	5.0	İ	4			
					Bottom	4.0	-	-	29.8	29.0	8.0	6.0	26.7	20.7	85.0	00.0	5.6	3.0	5.0		4			
SR2					Surface	1.0	0.3	117 128	29.8 29.8	29.8	8.0	8.0	26.9 26.9	26.9	83.1 83.2	83.2	5.4 5.4		8.5 8.4	1	4			
						-	-	-	-		- 0.0		20.5		- 00.2		-	5.4	-		-			
	Cloudy	Moderate	05:41	5.0	Middle	-	-	-	-	-	-	-	-	-	-		-		-	9.5	-	4	821475	814144
					Bottom	4.0	0.3	117	29.7	29.7	8.0	8.0	27.1	27.1	83.0	83.1	5.4	5.4	10.6		3			
						1.0	0.3	126 212	29.7		8.0		27.1		83.1 84.6		5.4 5.6		10.6 6.2		5			
SR3					Surface	1.0	0.7	227	29.9	29.9	8.0	8.0	25.7	25.6	84.5	84.6	5.6		6.3	1	4			
	Cloudy	Moderate	07:14	8.2	Middle	4.1	0.5	222	29.9	29.9	8.0	8.0	26.4	26.4	85.6	85.7	5.6	5.6	9.2	8.7	4	4	822168	80758
	,					4.1 7.2	0.6	234	29.9 29.9		8.0 8.1		26.5 26.6		85.8 88.1		5.6 5.8		9.3 10.6		3	•		
					Bottom	7.2	0.4	255 257	29.9	29.9	8.1	8.1	26.6	26.6	88.6	88.4	5.8	5.8	10.6		4			
					Surface	1.0	0.5	239	28.9	28.9	7.9	7.9	26.7	26.7	68.0	67.8	4.5		4.7		7			
SR4A					Surface	1.0	0.5	255	28.9	20.9	7.9	1.5	26.7	20.7	67.6	07.0	4.5	4.5	4.6		7			
	Fine	Calm	06:20	8.6	Middle	4.3	0.5	244 259	28.8	28.8	7.9	7.9	26.9	26.9	66.9 66.8	66.9	4.5 4.4		5.1 5.1	5.5	7	7	817182	807819
						7.6	0.4	246	28.8		7.9		26.9		66.9		4.5		6.8	t	5			
					Bottom	7.6	0.4	264	28.8	28.8	7.9	7.9	26.9	26.9	67.0	67.0	4.5	4.5	6.8		6			
					Surface	1.0	0.2	300	29.5	29.5	7.8	7.8	25.9	25.9	76.0	76.1	5.0		7.2		3			
SR5A SR6A	Fine	Calm	06:05	3.2		1.0	0.2	304	29.5		7.8		25.9		76.1		5.0	5.0	7.1	ł	2	4		810676
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	7.6	-		816585	
					Bottom	2.2	0.1	307	29.5	29.5	7.8	7.8	25.9	25.9	76.7	76.9	5.1	5.1	8.1	I	5			
						2.2	0.1	334 104	29.5 29.5		7.8		25.9		77.0		5.1		8.0 3.8		5			
					Surface	1.0	0.0	104	29.5	29.5	7.8	7.8	25.8 25.7	25.7	79.3 79.5	79.4	5.2		3.8	+	6			
	Fine	Calm	05:38	5.0	Middle	-	-	-	-		-		-	_	-	-	-	5.3	-	4.1	-	6	817951	814755
	rine	Gaiiii	03.36	3.0	Wilde	-	-	-	-	-	-		-		-		-		-	4.1	-	0	01/931	01473
					Bottom	4.0	0.0	273 292	29.5 29.5	29.5	7.8	7.8	25.7 25.7	25.7	80.1	80.4	5.3 5.3	5.3	4.3 4.4	ł	6			
SR7					0	1.0	0.0	111	29.5	00.4	7.8	7.0	28.1	00.4	81.0	04.0	5.3		3.9		5	- 1		
					Surface	1.0	0.1	123	29.4	29.4	7.8	7.8	28.1	28.1	80.9	81.0	5.3	5.3	3.9	1	5			
	Cloudy	Moderate	04:35	14.1	Middle	7.0	0.2	98	29.3	29.3	7.8	7.8	28.3	28.3	80.2	80.2	5.3	0.0	4.1	4.2	5	5	823656	82375
					_	7.0 13.1	0.2	99 104	29.3 29.3		7.8 7.8		28.3 28.3		80.1 80.1		5.3 5.2		4.1 4.6	ł	5			
					Bottom	13.1	0.3	110	29.3	29.3	7.8	7.8	28.3	28.3	80.1	80.1	5.2	5.2	4.6	t	4			
					Surface	1.0	-	-	30.5	30.5	8.0	8.0	26.4	26.4	88.7	88.6	5.8		7.8		5			T
SR8				1	Saliado	1.0	-	-	30.5	50.0	8.0	5.0	26.4	25.4	88.5	55.0	5.7	5.8	7.8	1	4			
	Cloudy	Moderate	06:19	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	8.3	-	5	820378	811627
					D-"	4.0		-	30.2	20.0	8.0	0.0	26.3	26.0	85.2	07.0	5.6	<i>-</i> -	8.8	t	4			
	1		1	1	Bottom	4.0	-	-	30.2	30.2	8.0	8.0	26.3	26.3	88.7	87.0	5.8	5.7	8.7	I	5	J		1

DA: Depth-Averaged

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

Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined.

Water Quality Monitoring Results on 14 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 28.7 0.3 Surface 28.7 8.0 26.8 75.6 1.0 0.3 33 28.7 8.0 26.9 75.1 5.0 5.9 3.8 0.3 36 28.7 4.7 6.7 70.6 C1 17:52 8.0 27.4 70.6 804258 7.6 Middle 28.7 815616 Rainv Calm 69 8 8.0 70.5 4.7 6.7 8 0.3 37 28.7 6.6 0.3 34 28.9 8.0 27.4 71.0 4.7 8.0 8 8.0 71.5 29.0 27.4 48 Rottom 7.9 27.4 72.0 4.8 6.6 0.3 34 29.0 0.3 4.9 Surface 30.2 8.0 23.0 88.2 8.0 0.4 5.9 4.9 5.0 61 29.7 0.3 5.3 4 8.0 26.1 81.2 C2 Fine Moderate 17:07 7.9 Middle 29.7 8.0 26.2 81.2 825701 806951 29.7 8.0 26.2 81.2 5.3 5.0 4 4.0 0.3 65 6.9 0.1 35 29.8 8.1 5.4 5.3 4 26.2 81.6 8.1 26.2 81.7 Bottom 29.8 6.9 8.1 26.2 5.2 0.1 36 29.8 209 29.4 4.3 Surface 29.4 8.0 27.9 80.0 0.2 216 29.4 8.0 28.0 79.9 5.2 4.4 6.3 0.2 246 28.4 8.0 4.9 5 4 29.9 30.0 68.4 67.6 4.5 C3 19:11 30.0 822112 817825 Fine Moderate 12.5 Middle 28.4 8.0 68.0 0.2 28.4 4.5 4.9 11.5 0.3 258 28.3 8.0 30.3 5.7 Bottom 28.3 8.0 30.3 71.9 11.5 0.3 271 28.3 8.0 30.3 72.3 4.8 5.7 4 1.0 0.2 29.0 25.7 25.7 25.7 77.0 7.1 4 Surface 29.0 8.0 77.0 1.0 0.3 29.0 8.0 5.1 7.1 3 17:39 4.0 817936 IM1 Rainv Calm Middle 3.0 0.1 330 29.1 8.0 26.0 77 A 5.2 7.5 6 Bottom 29.1 8.0 26.0 77.5 3.0 0.1 335 29.1 8.0 26.0 77.6 5.2 7.4 5 1.0 28.7 5 0.3 8.0 26.6 76.5 7.5 Surface 8.0 26.7 74.5 1.0 0.3 14 28.7 8.0 26.8 72.5 4.8 7.4 6 3.0 0.3 28.7 8.0 71.8 4.8 8.6 6 IM2 Rainy Calm 17:32 6.0 Middle 8.0 27.2 71.8 818166 806173 3.0 0.3 28.8 8.0 4.8 8.6 6 7 348 0.3 29.0 8.0 27.3 72 7 4.8 9.1 8.0 27.2 73.2 5.0 320 8.0 7 0.3 29.1 27.2 73.6 49 9.0 0.4 337 28.8 8.0 25.1 78.6 5.3 6.8 Surface 8.0 25.1 78.3 6.8 7.9 7.9 8.3 1.0 344 28.7 8.0 25.1 5.3 0.4 78.0 6 5 0.4 325 28.7 3.1 8.0 27.0 73.1 4.9 IM3 Rainy Calm 17:25 6.2 Middle 28.7 8.0 27.0 73.0 818788 805614 6 8 335 311 28.6 3.1 0.4 8.0 4.9 0.3 28.5 8.0 27.2 73.8 4.9 74.2 Bottom 28.5 8.0 27.1 5.2 0.4 334 28.4 8.0 27.1 74.5 5.0 8.2 8 0.5 350 6.9 1.0 29.1 8.0 26.1 76.9 5.1 5 Surface 29.1 8.0 26.2 76.9 0.6 322 29.0 6.9 4.9 7.2 3.9 339 28.9 5 0.5 8.0 27.1 73.1 IM4 Calm 17:22 7.8 Middle 28.9 8.0 27.1 73.2 819736 804598 Rainv 3.9 345 28.9 8.0 4.9 7.1 0.5 0.4 319 29.2 8.1 6 7.9 Bottom 29.3 27.0 75.9 6.8 0.5 332 29.3 7.9 8.0 318 29.5 1.0 0.2 7.9 24.0 82.6 6.6 4 5.5 Surface 29.5 7.9 24.0 82.7 1.0 0.2 319 29.4 7.9 82.7 5.5 6.7 3.6 0.3 351 29.3 7.2 3 24.8 5.2 Rainy IM5 17:14 7.2 Middle 29.3 7.9 24.8 77.8 820752 804855 Calm 3.6 0.3 323 29.3 7.1 0.4 29.4 7.9 7.9 26.6 26.5 78.6 8.7 Bottom 29.5 7.9 26.5 79.6 6.2 0.4 29.5 8.8 4 1.0 0.3 277 29.6 7.9 22.4 84.2 3.3 2 Surface 7.9 22.4 1.0 0.4 286 29.6 79 84 0 5.7 3.2 3.2 0.3 282 29.6 84.7 4.0 4 Rainy Calm 17:09 6.4 Middle 7.9 22.6 84.9 821041 5 3.2 0.3 285 29.6 7.9 22.6 85.0 5.7 4.0 5.4 0.2 275 29.7 7.9 5.7 5 5.4 0.3 282 29.7 79 5.6 4 1.0 0.4 248 29.6 7.9 22.5 83.8 3.7 Surface 7.9 22.5 83.8 79 5.6 3.8 1.0 0.4 258 29.6 22.6 83.7 5 4.0 0.4 254 29.6 4.9 7.9 22.7 83.9 5.6 IM7 Rainy Calm 17:04 8.0 Middle 29.6 7.9 22.7 84.0 821345 806834 4 4.0 0.4 277 29.6 7.9 22.7 84.0 5.6 4.9 7.0 0.3 248 29.6 7.9 7.9 22.6 84.8 5.7 5.3 3 Bottom 29.6 7.9 22.6 85.1 0.3 258 199 29.6 1.0 0.2 30.3 8.0 23.1 92.2 6.1 4.0 2 Surface 30.3 8.0 23.1 92.2 8.0 92.1 6.1 4.0 1.0 0.2 205 30.3 23.2 3 3.3 0.1 216 30.2 8.0 23.9 5.3 2 91.8 6.1 8.0 23.9 92.0 821835 808120 IM8 Fine Moderate 17:26 6.5 Middle 30.2 2 92.2 5.3 3.3 216 30.2 6.1 0.1 <2 <2 5.5 0.1 208 30.2 8.0 23.8 93.7 94.0 6.2 5.5 5.6 30.2 8.0 23.8 93.9 6.2 Rottom

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

Water Quality Monitoring Results on 14 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Current Speed Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 30.3 218 8.0 22.9 232 30.3 8.0 22.9 92.8 4.5 3.2 0.1 242 30.2 8.0 23.9 91.9 6.1 4.8 IM9 17:32 Middle 23.9 91.8 822071 808794 Fine Moderate 6.4 8.0 3.2 0.2 252 30.2 8.0 23.9 91.7 6.1 4.9 2 5.4 0.1 259 30.2 8.0 23.8 91.4 6.0 5.0 3 30.2 8.0 23.7 91.8 5.4 0.1 283 30.2 8.0 23.7 92.2 6.1 5.0 2 8.7 1.0 0.4 275 30.1 8.0 24.9 89.9 5.9 4 Surface 8.0 24.9 89.9 1.0 0.4 283 30.0 8.0 25.0 89.8 5.9 8.6 3 3.3 0.3 268 30.0 8.0 84.6 9.7 9.7 3 IM10 Moderate 17:40 6.6 Middle 8.0 25.3 84.6 822405 809790 289 30.0 8.0 5.6 0.3 25.3 84.6 30.0 10.2 5.6 0.2 264 8.0 25.3 85.7 5.6 4 Bottom 30.0 8.0 25.3 85.8 5.7 5.6 0.2 289 30.0 8.0 25.3 85.9 5.7 10.2 4 0.4 349 30.0 8.0 89.4 6.5 Surface 30.0 8.0 25.9 89.3 7.0 9.3 9.3 1.0 354 0.4 29.9 8.0 26.0 89.1 5.8 3 0.4 337 342 8.0 26.7 26.8 5.4 3.8 82.0 IM11 Fine Moderate 17:53 7.6 Middle 8.0 26.7 81.8 2 822039 811460 29.7 0.4 5.4 316 6.6 0.3 29.6 11.3 2 8.0 26.8 82.7 5.4 29.7 8.0 Bottom 26.7 83.1 5.5 6.6 0.3 340 29.7 8.0 26.7 83.4 5.5 11.3 2 89.4 5.9 4 Surface 30.0 8.0 25.8 89.3 1.0 0.3 329 30.0 89.2 5.9 5.0 3.8 313 29.8 5.3 4 0.3 8.0 26.8 84.1 5.5 7.7 821438 812034 IM12 Fine Moderate 18:02 Middle 29.8 8.0 26.8 84.1 5.4 3.8 0.3 338 29.8 309 29.8 8.0 84.3 6.3 27.2 29.8 8.0 27.1 84.5 5.5 Rottom 6.7 0.4 336 29.8 8.0 27.1 84.7 5.5 6.3 8.0 25.1 4.8 94.3 Surface 30.2 8.0 25.0 94.2 1.0 30.2 8.0 6.2 4.8 4 2.4 812659 819979 SR1A Moderate 18:32 Middle 2.4 30.1 8.0 26.7 86.9 5.5 4 Bottom 30.1 8.0 26.7 87.0 87.0 3.7 30.1 8.0 26.7 5.6 4 1.0 0.4 292 29.8 8.0 26.8 84.4 6.6 Surface 29.8 8.0 26.8 1.0 0.4 311 29.8 8.0 26.8 84.2 5.5 6.6 5 SR2 Moderate 18:46 4.6 Middle 821465 814154 0.3 291 29.6 7.5 3.6 8.0 83.4 4 27.3 5.5 8.0 27.3 83.6 5.5 7.6 3.6 0.4 299 29.6 1.0 0.3 186 30.4 8.0 22.3 93.8 6.2 3.8 <2 Surface 30.4 8.0 22.4 93.7 8.0 6.2 22.4 93.6 3.8 <2 1.0 0.3 189 30.4 <2 <2 3.9 200 30.3 8.0 22.6 22.6 6.2 3.9 0.3 92.8 SR3 Moderate 17:20 7.8 Middle 30.3 22.6 92.9 822164 807552 93.0 3.9 30.3 3.9 0.3 211 6.8 0.2 247 30.1 8.0 24.8 85.6 85.6 5.6 5.6 4.3 2 Bottom 30.1 8.0 24.7 85.6 5.6 6.8 0.2 262 30.1 57 0.2 29.7 10 1.0 7.9 25.9 76.0 5.0 7.2 Surface 29.7 7.9 25.9 76.0 7.9 76.0 7.2 1.0 0.2 61 29.7 26.0 11 3.6 0.2 64 29.7 8.5 10 7.9 5.0 26.0 76.0 SR4A 18:29 7.9 26.0 76.1 10 817173 807819 Misty Calm 7.2 Middle 29.7 64 7.9 26.0 76.1 8.6 11 3.6 0.2 29.7 6.2 0.1 51 29.7 7.9 25.9 25.9 76.5 76.7 9.7 9 7.9 5.0 29.7 25.9 76.6 5.1 Rottom 29.7 7.9 9.8 67 25.8 81.9 1.0 0.1 29.6 7.9 25.7 25.8 7.9 14 5.4 Surface 29.5 7.9 82.2 1.0 0.1 71 29.4 7.9 82.5 5.5 7.9 14 SR5A 18:49 4.0 Middle 816571 810710 Misty Calm 3.0 0.1 93 29.1 26.1 5.6 8.0 17 Bottom 29.1 7.9 26.1 85.3 7.9 85.9 18 29.0 1.0 0.1 265 29.8 7.9 77.4 10 25.9 Surface 29.8 7.9 25.9 77.5 1.0 0.1 286 29.8 7.9 25.9 77.6 5.1 7.0 10 SR6A Misty Calm 19:05 3.8 Middle 817975 814747 2.8 0.0 236 29.8 7.9 25.8 78.4 8.6 12 29.8 7.9 25.8 78.6 5.2 2.8 0.0 249 29.8 7.0 25.8 78.8 8.6 13 1.0 0.2 139 28.7 8.0 29.2 71 9 44 Surface 8.0 29.3 71.8 1.0 0.2 147 28.7 8.0 29.4 71 7 5.1 4.4 2 <2 <2 7.5 0.0 339 27.7 8.0 31 1 62.2 5.0 5.3 SR7 Moderate 19:43 15.0 Middle 27.7 8.0 31.1 62.1 823619 823729 7.5 0.0 345 27.6 8.0 31.1 62.0 5.0 5.3 14.0 0.2 76 27.3 8.0 31.6 63.3 4.2 5.7 <2 Rottom 27.3 8.0 31.6 63.4 14.0 0.2 76 27.3 8.0 31.6 63.5 42 5.6 <2 1.0 29.9 8.0 25.9 91.0 6.0 5.7 Surface 29.9 8.0 25.9 90.9 1.0 29.9 8.0 26.0 90.7 6.0 5.6 2 811638 18:10 820369 SR8 Fine Moderate 4.9 Middle 3.9 29.9 26.0 85.6 5.6 5.7 8.4 3 8.0 29.9 8.0 26.0 85.9 5.7

DA: Depth-Averaged

Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher Value exceeding Action Level is underlined: Value exceeding Limit Level is bolded and underlined.

Water Quality Monitoring Results on 16 September 21 during Mid-Ebb Tide Turbidity(NTU) Suspended Solids DO Saturation Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 0.4 29.2 222 23.8 0.4 224 29.1 8.0 23.8 4.6 43 0.4 211 29.0 8.0 24.1 77.8 5.2 5.1 3 C1 08:26 24.2 77.3 804256 Misty Moderate 8.6 8.0 815601 4.3 0.4 221 29.0 8.0 24.2 76.7 5.2 5.1 2 7.6 0.4 211 29.1 8.0 26.5 79.4 5.3 6.0 2 8.0 26.5 80.5 7.6 0.4 219 29.1 8.0 26.5 81.5 5.4 6.0 2 205 1.0 0.1 28.9 8.0 23.5 77.6 5.3 1.2 Surface 7.9 23.5 77.1 1.0 0.1 210 28.9 7.9 23.6 76.5 5.2 1.2 2 6.0 0.1 348 357 28.8 7.9 26.3 70.0 4.7 2.1 C2 Misty Moderate 09:45 12.0 Middle 7.9 26.4 67.9 825700 806936 6.0 28.8 7.9 26.4 0.1 65.7 4.4 11.0 0.2 342 29.0 3.7 7.9 26.9 67.1 4.5 7.9 Bottom 26.8 67.8 3 11.0 0.2 356 29.1 79 26.8 68.5 4.5 3.8 0.4 205 28.6 Surface 28.6 7.9 26.7 75.1 2 <2 <2 1.0 213 28.5 7.9 74.7 5.0 1.0 0.5 26.9 3.0 28.4 28.4 0.5 246 263 27.1 4.6 68.5 C3 Mistv Moderate 07:55 12.2 Middle 7.9 27.1 68.2 822121 817813 6.1 0.5 7.9 254 <2 11.2 0.4 28.6 7.9 68.3 3.1 27.0 4.6 28.7 7.9 Bottom 26.8 69.1 11.2 0.5 271 28.7 7.9 26.7 69.8 3.1 <2 175 29.3 84.8 1.5 8.0 23.8 Surface 29.3 8.0 23.8 84.8 1.0 0.3 180 29.3 8.0 23.8 84.8 5.7 1.6 <2 4.2 817943 807140 IM1 Mistv Moderate 08:48 Middle 3.2 0.2 211 29.3 8.0 23.7 84.8 2.6 29.3 8.0 23.7 84.8 5.7 Rottom 3.2 0.2 226 29.3 8.0 23.7 84.7 5.7 2.6 0.3 29.0 Surface 29.0 7.9 22.5 82.3 1.0 0.3 174 29.0 7.9 5.5 5.1 3.1 152 29.0 6.2 4 818166 806172 Misty Moderate 08:57 Middle 7.9 26.7 71.0 165 29.0 4.7 6.2 0.2 5.2 0.1 167 28.8 7.9 26.9 73.5 4.9 7.0 4 Bottom 28.8 7.9 26.9 74.2 5.2 0.2 175 28.7 79 27.0 74.8 7.0 5 1.0 0.3 148 29.1 8.0 22.5 82.4 2.2 4 Surface 8.0 22.5 82.0 0.3 152 29.0 8.0 22.5 81.6 5.5 2.3 4 3.0 0.2 137 29.0 8.0 4.7 3.0 4 IM3 Moderate 09:04 6.0 Middle 26.6 818774 805581 0.2 142 143 3.0 29.0 8.0 4.6 3.0 29.2 3 8.0 26.7 72.3 4.8 49 73.5 8.0 26.5 74.7 49 49 5.0 0.2 148 29.2 1.0 0.4 182 29.2 8.0 22.7 85.2 5.8 2.5 Surface 29.2 8.0 22.8 84.9 8.0 22.8 84.5 2.5 1.0 0.5 191 29.2 4.0 172 29.2 8.0 23.6 77.8 76.6 5.2 5.2 3.6 3.5 2 0.4 IM4 Misty Moderate 09:13 8.0 Middle 23.7 77.2 819703 804590 0.4 175 29.2 4.0 172 174 4.6 4.5 7.0 0.3 29.2 8.0 25.9 25.5 76.8 79.9 5.1 5.3 3 Bottom 29.3 8.0 25.7 78.4 5.2 0.4 29.3 184 1.0 0.3 29.2 5.0 8.0 22.3 85.3 5.8 3 Surface 29.2 8.0 22.4 84.9 188 8.0 22.5 84.4 5.7 4.9 1.0 0.3 29.1 3.5 0.2 196 29.1 5.5 3 8.0 77.6 5.2 24.0 IM5 09:23 7.0 8.0 24.2 75.4 820734 804856 Misty Moderate Middle 29.1 3 202 29.1 8.0 24.3 73.1 4.9 5.5 2 3.5 0.3 29.2 29.2 6.0 0.2 201 8.0 26.6 26.6 74.2 78.0 4.9 5.2 6.6 8.0 26.6 76.1 2 Rottom 29.2 22.4 22.5 22.5 1.0 0.3 226 29.2 8.0 5.9 3.2 Surface 29.2 8.0 86.4 238 29.1 8.0 86.2 5.8 3.1 0.3 3.3 0.2 232 29.1 8.0 4.2 84.0 IM6 09:32 6.6 Middle 29.0 8.0 22.7 83.0 821074 805811 Misty Moderate 3.3 0.2 246 28.9 8.0 22.8 81.9 5.6 4.1 5.6 0.3 240 28.7 7.9 26.3 78.4 5.2 5.5 5.0 Bottom 28.6 7.9 26.3 80.3 28.5 7.9 5.0 1.0 0.1 160 29.0 8.0 22.6 82.1 2.5 Surface 29.0 8.0 22.7 81.0 1.0 0.1 171 29.0 8.0 22.7 79.8 5.4 2.4 3 2 3.6 0.2 138 29.0 8.0 4.7 3.1 IM7 Misty Moderate 09:42 7.2 Middle 29.0 8.0 26.7 71.1 821332 806829 3.6 143 29.0 8.0 26.7 71 1 47 3.1 6.2 0.1 169 29.2 8.0 26.8 73.2 4.8 4.6 8.0 26.7 73.9 6.2 0.1 175 29.2 8.0 26.7 74.6 10 4.7 1.0 0.1 267 29.0 79 23.6 80.8 5.5 3.7 <2 Surface 23.7 80.4 1.0 0.1 278 29.0 79 23.7 80.0 5.4 3.7 <2 3.9 0.1 333 28.9 7.9 24.1 77.8 5.2 4.4 2 IM8 Misty Moderate 09:20 7.8 Middle 7.9 24.1 76.8 821820 808134 3.9 0.1 347 28.9 7.9 24.1 75.7 5.1 4.5 6.8 0.0 178 28.4 7.9 25.8 75.6 5.1 5.6 2 7.9 Bottom 28.4 25.7 77.4 181 28.4

DA: Depth-Averaged

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

Monitoring	Weather	Sea	Sampling	Water	16 September 21	-	Current Speed	Current	Water Te	emperature (°C)	рН	Salin	ity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/L		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value		HK Grid (Northing)	HK Gri (Eastin
					Surface	1.0	0.2	304	29.2	29.2	8.0	8.0	22.8	22.8	83.5	83.2	5.7		1.1		3			
						1.0 3.6	0.2	309 304	29.1 29.1		8.0		22.8		82.8 76.3		5.6 5.1	5.4	1.2 2.1	ł	3 <2			
IM9	Misty	Moderate	09:14	7.2	Middle	3.6	0.1	319	29.1	29.1	8.0	8.0	25.1	25.0	75.8	76.1	5.1		2.1	1.9	<2	2	822087	80881
					Bottom	6.2	0.2	269	29.1	29.2	8.0	8.0	25.4	25.4	76.4	76.9	5.1	5.2	2.6	İ	<2			
					Bottom	6.2	0.2	270	29.2	20.2	8.0	0.0	25.4	20.1	77.4	70.0	5.2	0.2	2.6		<2			
					Surface	1.0	0.4	329 303	29.0 28.9	29.0	7.9	7.9	23.3	23.3	79.3 76.2	77.8	5.4		1.2		2			
						4.1	0.4	327	28.8		7.9		26.4		66.5		4.4	4.9	2.1		3			
IM10	Misty	Moderate	09:07	8.2	Middle	4.1	0.4	346	28.8	28.8	7.9	7.9	26.5	26.4	66.4	66.5	4.4		2.1	2.3	2	3	822401	80978
					Bottom	7.2	0.3	306	28.9	28.9	7.9	7.9	26.5	26.5	66.8	67.0	4.4	4.5	3.5		4			
						7.2	0.3	335	28.9		7.9		26.5		67.2		4.5		3.6		5			
					Surface	1.0	0.5 0.5	294 294	29.0 28.9	29.0	7.9	7.9	23.3	23.4	79.0 77.0	78.0	5.3		1.2	ł	<2 <2			
			00.50	7.0	10.00	3.9	0.5	292	28.9	00.0	7.9	7.0	26.2	00.0	68.2	00.0	4.6	4.9	2.2		<2		000004	0444
IM11	Misty	Moderate	08:58	7.8	Middle	3.9	0.5	311	28.9	28.9	7.9	7.9	26.3	26.2	68.1	68.2	4.5		2.3	2.2	<2	<u><2</u>	822061	81147
					Bottom	6.8	0.2	306	29.0	29.1	8.0	8.0	26.5	26.5	69.9	70.7	4.6	4.7	3.1		<2			
						6.8	0.3	336 253	29.1		8.0 7.9		26.4		71.4		4.7		3.1 1.2		<2 2			
					Surface	1.0	0.3	275	29.1 29.0	29.1	7.9	7.9	23.0	23.0	81.9 81.1	81.5	5.5 5.5		1.1	ł	2			
11.440			00.54	40.0	10.00	5.0	0.3	259	28.9	00.0	7.9	7.0	26.1	00.4	69.5	00.4	4.6	5.1	2.6		2		004470	04000
IM12	Misty	Moderate	08:51	10.0	Middle	5.0	0.3	276	28.8	28.9	7.9	7.9	26.1	26.1	69.3	69.4	4.6		2.7	2.5	3	3	821470	81206
					Bottom	9.0	0.2	276	28.8	28.8	7.9	7.9	26.3	26.2	70.8	72.0	4.7	4.8	3.7		4			
						9.0	0.3	280	28.8		7.9		26.1		73.2		4.9		3.8		3			
					Surface	1.0	-	-	28.8 28.8	28.8	7.9 7.9	7.9	26.2	26.3	76.8 76.7	76.8	5.1 5.1		2.7	ł	3			
SR1A	Misty	Moderate	08:27	5.0	Middle	2.5	-	-	-		-		-	-	-		-	5.1	-	3.2	-	2	819978	81265
SKIA	Wildly	Moderate	08:27	5.0	Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-	3.2	-	2	819978	81265
					Bottom	4.0	-	-	28.8	28.8	7.9	7.9	26.5	26.5	77.7	78.3	5.2	5.3	3.6		<2			
						4.0 1.0	0.5	321	28.8		7.9 7.9		26.5		78.9 77.9		5.3		3.6 1.1		<2 3			
					Surface	1.0	0.5	347	28.8	28.8	7.9	7.9	26.0	26.0	77.9	77.9	5.2		1.0	ł	3			
SR2	Misty	Moderate	08:14	5.0	Middle	-	-	-	-		-		-		-		-	5.2	-	1.5	-	3	821446	81418
SINZ	iviisty	Woderate	00.14	3.0	ivildule	-	-	-	-	-	-	-	-	-		-	-		-	1.5	-	3	02 1440	01410
					Bottom	4.0	0.2	310	28.8	28.8	7.9	7.9	26.1	26.1	78.7	79.0	5.3	5.3	1.8		<2			
						4.0 1.0	0.2	320 260	28.8		7.9		26.0		79.3 77.5		5.3		1.9 4.2		<2 3			
					Surface	1.0	0.2	272	28.7	28.8	7.9	7.9	23.6	23.5	76.1	76.8	5.2		4.1	ĺ	3			
SR3	Mistv	Moderate	09:26	9.0	Middle	4.5	0.1	237	28.7	28.8	7.9	7.9	26.8	26.8	64.4	64.3	4.3	4.8	5.2	5.3	3	3	822125	80757
SNS	iviisty	Woderate	09.20	9.0	Wilddle	4.5	0.1	253	28.8	20.0	7.9	1.5	26.8	20.0	64.2	04.3	4.3		5.1	5.5	3	3	022123	60737
					Bottom	8.0 8.0	0.1	175 191	29.0 29.1	29.1	8.0	8.0	26.7 26.5	26.6	67.2 69.5	68.4	4.5 4.6	4.6	6.6 6.7		2			
						1.0	0.1	71	29.1		8.0		23.8		83.3		5.6	_	4.2		2			
					Surface	1.0	0.2	73	29.1	29.1	8.0	8.0	23.8	23.8	82.9	83.1	5.6	- 1	4.1	İ	3			
SR4A	Mistv	Moderate	08:07	8.6	Middle	4.3	0.1	60	29.1	29.1	7.9	7.9	24.0	24.0	79.9	77.8	5.4	5.4	5.5	5.4	2	2	817200	80781
0.00	wasty	moderate	00.01	0.0	madio	4.3	0.1	62	29.1	20.1	7.9	7.0	24.0	21.0	75.7	11.0	5.1		5.4	0	3	-	011200	00.01
					Bottom	7.6 7.6	0.0	223 227	28.8 28.7	28.8	7.9 7.9	7.9	26.5 26.5	26.5	76.8 79.0	77.9	5.1 5.3	5.2	6.7 6.8	ł	<2 <2			
					0	1.0	0.0	331	29.1	00.4	8.0	0.0	23.3	00.0	82.3	00.4	5.6		3.7		2			
					Surface	1.0	0.1	342	29.1	29.1	8.0	8.0	23.3	23.3	78.4	80.4	5.3	5.5	3.6	İ	3			
SR5A	Misty	Moderate	07:52	3.2	Middle	-	-	-	-		-	-	-	-	-	_	-	5.5	-	4.0	-	2	816600	81068
	,					2.2	0.1	323	29.2		8.0		25.3		77.9		5.2		4.4		- <2			
					Bottom	2.2	0.1	325	29.2	29.2	8.0	8.0	25.2	25.2	80.4	79.2	5.4	5.3	4.4	ŀ	<2			
					Surface	1.0	0.1	64	29.2	29.2	8.0	8.0	23.5	23.5	83.6	83.5	5.6		2.8		<2			
					Surface	1.0	0.1	67	29.2	29.2	8.0	6.0	23.6	23.5	83.4	03.5	5.6	5.6	2.9		<2			
SR6A	Misty	Moderate	07:25	5.0	Middle	-	-	-	-		\pm	-	-	-	-	-	-		-	3.0	-	2	817956	81475
	-					4.0	0.1	264	29.2		8.0		24.0		83.8		5.6		3.2	ł	2			
					Bottom	4.0	0.1	290	29.2	29.2	8.0	8.0	23.9	23.9	84.6	84.2	5.7	5.7	3.2	i	2			
					Surface	1.0	0.2	180	28.7	28.7	7.9	7.9	26.4	26.5	75.8	76.0	5.1		2.0		2			
					Gullauc	1.0	0.2	186	28.7	20.1	7.9	7.5	26.5	20.0	76.1	, 0.0	5.1	5.2	1.9		3			
SR7	Misty	Moderate	07:24	15.4	Middle	7.7	0.1	38 38	28.7	28.7	7.9 7.9	7.9	26.5 26.5	26.5	77.5 77.8	77.7	5.2		2.1	2.1	3	2	823646	82373
	'				_	14.4	0.1	134	28.7	_	7.9		26.5	H	79.0		5.2	_	2.1	ł	-3 -<2			
					Bottom	14.4	0.1	134	28.7	28.7	7.9	7.9	26.5	26.5	79.8	79.4	5.3	5.3	2.2	İ	<2			
					Surface	1.0	-		28.8	28.8	7.9	7.9	26.3	26.3	75.4	75.4	5.0		3.8		3			
					Suriace	1.0	-	-	28.8	20.0	7.9	1.5	26.4	20.3	75.3	10.4	5.0	5.0	3.8	1	2			
SR8	Misty	Moderate	08:46	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	3.9	-	2	820369	81164
	1		I	l		-		-			-		-		-		-		-	ŀ				1
					Bottom	4.0	-	-	28.8	28.8	7.9	7.9	26.5	26.5	75.9	76.2	5.1	5.1	4.0	l	2	1		

Water Quality Monitoring Results on 16 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 29.4 0.3 Surface 29.4 7.9 23.0 85.6 1.0 0.3 62 29.3 7.9 23.1 84.7 5.7 5.7 3.8 0.3 33 29.3 6.2 24.9 79.9 C1 7.9 25.0 78.7 815618 804249 Mistv 16:25 7.6 Middle 29.3 2 Calm 6.5 7.9 25.1 77.5 5.2 6.1 0.3 34 29.3 <2 <2 6.6 0.2 21 29.4 7.9 25.4 72.2 4.8 5.2 7.7 7.9 5.0 29.6 25.3 75.2 Rottom 8.0 25.2 78.1 7.6 29.7 6.6 0.3 21 29.1 0.6 Surface 29.1 7.9 24.3 75.7 1.2 0.7 29.0 182 187 24.3 5.6 28.8 0.6 7.9 4.5 4 25.7 C2 Mistv Calm 15:36 11.2 Middle 28.8 7.9 25.7 67.6 3 825703 806952 28.8 7.9 25.7 67.5 4.5 2.1 3 5.6 0.6 201 7.9 25.6 25.6 68.2 10.2 0.4 167 28.9 7.9 4.6 4.0 4 68.6 Bottom 28.9 10.2 0.4 183 28.9 7.9 25.5 69.0 4.0 0.2 21.7 4.6 Surface 30.0 8.0 21.7 97.2 1.0 0.3 30.0 8.0 96.8 6.5 4.5 <2 <2 6.1 0.2 87 8.0 5.8 5.9 30.0 8.0 <u>21.9</u> 21.9 92.6 6.2 C3 Misty 17:27 21.9 822086 817794 Calm 12.2 Middle 30.0 92.4 2 11.2 0.2 57 30.0 8.0 21.9 91.8 6.2 6.2 <2 Bottom 30.0 8.0 21.9 92.4 6.2 11.2 0.2 61 30.0 8.0 21.8 93.0 6.2 6.1 <2 1.0 0.2 321 29.8 8.0 23.3 23.5 23.4 87.7 7.2 Surface 29.8 8.0 87.5 1.0 0.2 351 29.8 8.0 5.8 7.2 4 16:12 4.0 817971 807145 IM1 Misty Calm Middle 3.0 0.1 260 29.8 8.0 23.7 88.3 5.9 8.0 Bottom 29.9 8.0 23.6 89.2 6.0 279 342 3.0 0.1 29.9 8.0 23.5 90.0 6.0 8.0 3 1.0 0.6 29.6 8.0 23.6 88.2 5.9 4.9 4 Surface 8.0 23.7 87.9 1.0 0.6 351 29.5 8.0 23.7 87.6 5.9 4.8 4 4 3.0 0.4 321 29.5 8.0 24.1 83.6 5.6 5.0 IM2 Misty Calm 16:05 6.0 Middle 8.0 24.1 81.4 818181 806165 352 275 5.0 6.7 3.0 0.4 29.6 8.0 24.2 79.1 5.3 4 4 0.2 29.8 8.0 24.2 80 Q 5.4 8.0 24.1 82.2 5.0 302 8.0 5.5 4 0.2 29.8 24 0 6.6 83.4 0.6 317 29.5 79 22.8 89.8 6.0 6.4 Surface 7.9 22.7 89.4 328 1.0 29.4 7.9 22.7 6.0 6.3 7.1 2 0.6 89.0 0.4 5.5 4 3.1 300 29.2 7.9 24.7 81.6 IM3 Misty Calm 15:58 6.2 Middle 29.2 7.9 24.8 79.8 818792 805600 29.1 28.9 7.1 3 313 294 3.1 0.4 7.9 24.9 78.0 8.4 0.2 7.9 25.4 72.3 4.8 7.9 Bottom 29.0 25.3 73.2 5.2 0.2 321 29.0 7.9 25.2 74.0 5.0 8.4 5 324 0.5 30.0 6.4 1.0 8.0 22.1 93.5 6.3 3 Surface 30.0 8.0 22.2 93.0 0.6 349 30.0 6.3 3 7.4 4 3.9 326 29.8 0.5 8.0 22.5 88.9 6.0 IM4 Misty Calm 15:56 7.8 Middle 29.8 8.0 22.6 86.7 819714 804611 3.9 0.5 349 29.8 8.0 7.4 4 0.3 346 29.9 8.9 4 85.6 7.9 Bottom 29 9 22.8 87.0 6.8 0.3 318 29.9 7.9 8.9 4 331 29.8 1.0 0.4 7.9 22.0 89.6 6.2 3 6.0 Surface 29.8 7.9 22.0 88.9 1.0 0.4 355 29.7 7.9 5.9 6.1 4 3.6 0.5 351 29.7 7.2 3 22.4 5.5 IM5 Misty 15:48 7.2 Middle 29.7 7.9 22.4 80.3 820724 804850 Calm 3.6 0.5 323 29.7 7.9 7.1 29.9 8.0 25.2 24.8 80.2 83.5 8.1 Bottom 30.0 8.0 25.0 81.9 6.2 0.3 29 30.0 8.0 1.0 0.4 282 30.0 8.0 22.1 93.6 4.1 3 Surface 8.0 22.2 93.1 1.0 0.4 296 30.0 8.0 92.5 6.2 4.1 3.2 0.1 336 30.0 8.0 5.2 4 IM6 Misty Calm 15:42 6.4 Middle 30.0 8.0 22.6 86.0 805816 5 3.2 0.1 340 30.0 8.0 22.6 83.6 5.6 5.2 5.4 0.1 30.0 7.9 84.7 6.9 5 5.4 0.1 60 30.1 79 6.8 4 1.0 0.4 243 29.8 7.9 21.7 90.4 2.2 Surface 7.9 21.8 89.9 250 251 79 21.8 2.1 1.0 0.4 29.7 89.3 6.0 3.8 3 4.0 0.4 29.5 5.7 7.9 22.0 84.5 IM7 Misty Calm 15:37 8.0 Middle 7.9 22.0 82.3 821329 806826 4.0 0.4 255 29.4 7.9 22.1 80.1 5.4 3.8 7.0 0.2 188 29.2 7.9 25.1 74.4 5.0 4.8 3 Bottom 29.2 7.9 25.1 74.9 5.0 0.2 200 163 29.2 25.1 4.8 1.0 0.1 28.8 7.9 25.6 25.8 68.6 4.6 2.5 4 Surface 28.8 7.9 25.7 68.5 7.9 68.3 4.6 2.6 1.0 0.1 176 28.8 4 4.1 0.2 164 28.9 25.8 25.8 68.2 68.3 4.6 3.7 5 7.9 7.9 25.8 68.3 821810 808119 IM8 Misty Calm 15:58 8.2 Middle 28.9 4 7.9 4 179 4.6 3.7 4.1 28.9 0.2 7.2 192 7.9 7.9 0.1 29.3 25.5 25.4 70.0 4.7 4.7 4 29.3 7.9 25.4 70.9 Rottom 4.8

DA: Depth-Averaged

Water Quality Monitoring Results on 16 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Current Speed Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 29.1 0.3 120 21.5 123 112 29.0 7.9 214 77.6 6.5 3.8 0.3 28.8 7.9 25.7 68.5 4.6 7.5 4 IM9 16:06 Middle 7.9 25.7 68.5 808807 Misty Calm 7.6 3.8 0.4 122 29.0 7.9 25.7 68.5 4.6 7.5 4 6.6 0.2 87 29.2 7.9 25.8 69.6 4.6 8.5 4 29.3 7.9 25.8 70.1 6.6 0.2 95 29.3 79 25.8 70.5 47 8.5 5 107 1.0 0.6 28.8 7.9 24.5 69.1 4.7 2.7 4 Surface 7.9 24.4 69.0 2.7 1.0 0.6 116 28.8 7.9 24.3 68.8 4.7 5 4.0 0.6 106 107 29.0 7.9 68.9 4.6 3.8 5 IM10 Misty 16:11 8.0 Middle 7.9 25.8 69.0 822380 809808 4.0 29.1 7.9 0.6 25.8 69.1 4.6 0.5 112 29.4 4.7 7.0 7.9 25.5 70.6 4.7 Bottom 29.5 7.9 25.5 71.2 7.0 114 0.5 29.5 79 25.4 71 7 4.8 47 6 0.7 108 29.9 3.4 Surface 29.9 7.9 20.8 96.9 1.0 109 7.9 0.7 29.8 20.8 96.7 6.5 3.3 5 0.7 29.5 29.4 5 4 22.9 5.9 5.8 4.0 105 87.1 IM11 Mistv Calm 16:26 7.4 Middle 29.5 7.9 23.0 86.6 6 822048 811451 109 7.9 4.1 0.7 112 5.7 6.4 0.5 29.2 7.9 4 24.9 80.7 5.4 7.9 81.5 Bottom 29.3 24.8 5.5 6.4 0.5 120 29.3 7.9 24.7 82.2 5.5 5.8 10 113 29.7 2.6 95.7 6.5 Surface 29.7 7.9 21.3 93.8 1.0 0.7 113 29.7 8.0 6.2 2.6 5 4.6 0.6 108 29.6 3.7 4 8.0 23.0 89.1 6.0 821475 812034 IM12 Mistv Calm 16:32 9.2 Middle 29.6 8.0 23.1 88.7 4.6 114 3.7 0.6 29.6 0.4 29.7 8.0 4.7 23.9 83.5 29.8 8.0 24.0 84.9 5.7 Rottom 8.2 0.4 88 29.9 8.0 24.0 86.2 5.7 4.8 8.0 21.4 90.8 Surface 30.1 8.0 21.5 90.6 1.0 30.1 8.0 6.1 2.6 6 2.4 812656 819975 SR1A Misty Calm 17:03 Middle 2.4 3.8 30.1 7.9 21.6 88.8 3.2 6 Bottom 30.1 7.9 21.6 88.5 3.8 30.1 79 88.2 5.9 3.1 1.0 0.4 30.0 8.0 96.8 47 4 Surface 30.0 8.0 21.6 96.4 1.0 0.5 82 30.0 8.0 21.7 96.0 6.4 4.6 4 SR2 Misty 17:10 4.0 Middle 821472 814142 0.3 55 30.0 3 3.0 8.0 91.6 6.1 5.8 21.9 91.5 6.1 8.0 21 9 91.4 6.1 5.7 3.0 60 30.0 0.3 1.0 0.2 207 28.9 7.9 24.8 71.9 4.8 2.5 Surface 28.9 7.9 24.8 71.6 79 4.8 2.5 4 1.0 0.2 227 28 9 24.8 4.7 211 26.0 25.9 4.0 4 5 0.1 28.8 7.9 68.5 4.6 SR3 Misty Calm 15:53 9.4 Middle 25.9 68.7 822145 807553 7.9 68.8 4.6 3.9 4.7 0.1 230 28.9 8.4 0.1 226 29.2 7.9 7.9 25.8 25.8 4.7 5.1 4.9 5 4 Bottom 29.2 7.9 25.8 71.9 8.4 0.1 239 29.2 57 0.2 28.9 6.7 1.0 7.9 24.4 81.8 5.5 5 Surface 28.9 7.9 24.4 81.0 7.9 24.3 5.4 6.6 1.0 0.2 62 28.8 80.1 4 3.6 0.0 265 4.5 7.5 5 28.5 7.9 26.6 67.4 SR4A 17:03 7.9 26.6 67.3 817200 807833 Misty Calm 7.2 Middle 28.5 290 28.4 7.9 26.7 67.2 4.5 7.4 4 3.6 0.0 6.2 0.0 352 324 28.4 7.9 26.9 26.8 69.3 71.1 4.6 8.9 9.0 3 7.9 70.2 28.4 26.8 47 Rottom 28.4 7.9 326 1.0 0.0 29.2 8.0 23.7 23.7 88.0 7.7 5.9 Surface 29.2 7.9 87.0 1.0 0.0 336 29.2 7.9 5.8 7.7 4 SR5A 17:23 4.0 Middle 816572 810692 Misty Calm 3.0 0.0 359 29.5 8.0 26.1 4.9 8.5 Bottom 29.6 8.0 26.1 76.4 29.6 8.0 78.1 8.5 3.0 332 1.0 0.0 104 29.4 8.0 89.4 6.4 4 23.6 Surface 29.4 8.0 23.6 87.8 1.0 0.0 113 29.3 8.0 23.6 86.2 5.8 6.3 3 SR6A Misty Calm 17:38 3.8 Middle 817958 814730 2.8 0.0 186 29.5 8.0 25.8 77.4 7.9 29.6 8.0 25.8 79.7 2.8 0.0 188 29.6 8.0 25.7 82.0 5.4 7.9 1.0 0.4 81 29.8 8.0 21 4 94 9 6.4 6.4 Surface 8.0 21.5 94.6 1.0 0.4 83 29.8 8.0 21.5 94.2 6.4 6.3 3 7.0 0.1 15 29.8 8.0 21.8 90.8 6.1 7.5 7.6 3 SR7 Misty Calm 17:54 14.0 Middle 8.0 21.8 90.1 823636 823744 7.0 0.1 15 29.8 8.0 21.8 89 4 6.0 13.0 0.3 66 30.0 8.0 24.3 86.3 5.7 8.2 3 Rottom 30.0 8.0 24.3 87.8 13.0 0.3 72 30.0 8.0 24.2 89.3 5.9 8.1 4 1.0 30.0 8.0 21.2 99.8 6.7 3.1 4 Surface 30.0 8.0 21.2 99.8 1.0 30.0 8.0 21.2 99.7 6.7 3.2 5 -811615 820376 SR8 Misty Calm 16:40 4.2 Middle 5 3.2 30.0 8.0 8.0 99.5 6.7 6.7 4.1 4 21.3 30.1 8.0 21.3 99.6 6.7

DA: Depth-Averaged

Water Quality Monitoring Results on 18 September 21 during Mid-Ebb Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 0.5 28.0 227 8.0 27.9 0.5 244 28.0 8.0 27.9 81.3 2.1 42 0.3 209 27.5 8.0 29.7 73.8 4.9 6 C1 10:34 29.7 73.8 804223 Sunny Rough 8.4 8.0 815604 4.2 0.4 214 27.5 8.0 29.7 73.8 4.9 2.3 7 7.4 0.3 215 26.8 7.9 30.1 55.3 3.7 10.0 7 26.8 7.9 30.1 55.4 7.4 0.3 225 26.8 79 30.1 55.4 3.7 10.0 7 207 1.0 0.6 29.1 76 28.8 80.0 5.2 2.5 Surface 7.6 28.8 79.9 1.0 0.7 227 29.1 7.6 28.8 79.8 5.2 2.5 6 6.0 0.6 211 29.1 7.6 28.9 79.9 5.2 3.9 6 C2 Calm 12:58 12.0 Middle 7.6 28.9 80.1 825684 806955 6.0 231 29.2 7.6 28.9 0.6 80.3 11.0 0.3 244 29.3 4.7 7.6 28.9 82.3 5.4 5 7.6 Bottom 29.3 28.9 83.1 5.5 5.5 11.0 0.4 249 29.3 76 28.9 83.8 4.6 6 0.3 81 27.1 2.4 4.4 Surface 27.1 7.5 31.2 65.6 2.5 3.7 3.7 1.0 27.1 7.5 31.2 0.3 88 65.4 4.4 6 6 5 0.3 31.3 31.3 64.0 4.3 C3 Fine Calm 10:16 12.2 Middle 7.5 31.3 63.8 822085 817820 6.1 0.3 27.1 7.5 76 11.2 0.3 74 27.3 7.5 4.2 4.1 5 31.4 63.6 27.3 7.5 64.3 Bottom 31.4 4.3 11.2 0.3 81 27.3 7.5 31.4 64.9 4.3 4.0 4 140 28.2 28.6 63.4 4.4 7.9 4.2 Surface 28.2 7.9 28.6 63.4 1.0 0.1 143 28.2 7.9 28.6 63.4 4.2 4.4 9 4.2 10:57 817965 807147 IM1 Sunny Moderate 4.6 Middle 3.6 0.1 153 27.4 7.9 29.2 58.1 3.9 8.3 6 27.4 7.9 29.2 58.2 39 Rottom 3.6 0.1 163 27.4 7.9 29.2 58.2 3.9 8.3 0.2 152 28.0 6 28.5 Surface 28.0 8.0 28.5 69.5 1.0 0.2 156 28.0 8.0 4.6 3.0 6 3.5 145 27.2 5.5 6 29.4 53.2 3.6 818166 806173 Sunnv Rough 11:04 Middle 7.9 29.4 53.3 3.5 157 27.2 27.1 7.9 5.4 0.3 5.9 0.1 149 7.9 29.5 10.0 5 Bottom 27.1 7.9 29.5 55.4 3.7 5.9 0.1 163 27.1 79 29.5 55.4 10.1 6 1.0 0.4 143 27.4 7.9 29.1 54.3 6.7 9 Surface 7.9 29.1 0.4 145 27.4 7.9 29.1 54.3 3.7 6.7 10 3.2 0.3 137 27.3 29.2 52.6 3.6 8.3 9 IM3 Sunny Rough 11:12 6.3 Middle 52.6 818797 805571 138 126 27.3 27.2 9 10 0.3 8.3 5.3 13.7 0.2 7.9 29.2 52.6 Bottom 3.6 7.9 29.2 52.6 3.6 13.7 10 5.3 136 27.2 0.3 1.0 0.9 204 28.3 8.0 71.6 4.8 3.5 6 Surface 28.3 8.0 27.6 71.6 8.0 27.6 71.6 4.8 3.5 6 1.0 0.9 223 28.3 36 198 28.0 8.0 27.9 27.9 6.4 6 0.8 69.0 4.6 IM4 Sunny 11:22 7.2 Middle 27.9 69.0 819703 804590 Rough 69.0 4.6 0.8 202 28.0 3.6 9.7 9.7 6.2 0.5 181 27.6 7.9 7.9 28.5 28.5 62.7 62.6 4.2 5 7.9 Bottom 27.6 28.5 62.7 42 187 0.5 27.6 0.7 208 28.3 2.7 1.0 8.0 26.4 78.5 5.3 5 Surface 28.3 8.0 26.4 78.5 8.0 26.4 78.4 5.3 2.7 1.0 0.8 223 28.3 3.7 0.8 205 27.8 27.8 4.2 4 8.0 64.5 4.3 IM5 11:32 7.3 27.8 8.0 27.8 65.4 5 820720 804877 Sunny Moderate Middle 27.8 8.0 66.3 4.5 4.3 5 0.8 222 27.4 27.4 6.3 0.5 204 214 7.9 7.9 28.7 59.5 59.5 4.0 11.8 4 27.4 7.9 28.7 59.5 Rottom 11.8 243 28.5 8.0 27.1 27.0 1.0 0.6 8.0 73.5 4.9 3.7 Surface 28.5 27.0 73.5 0.6 264 28.5 8.0 73.5 4.9 3.7 3.5 0.5 234 28.2 8.0 27.6 27.6 74.0 4.9 3.3 IM6 11:41 6.9 Middle 28.2 8.0 27.6 74.0 821075 805829 Sunny Moderate 3.5 0.5 244 28.2 8.0 73.9 4.9 3.2 6 5.9 0.4 240 27.4 7.9 28.8 3.9 7.5 Bottom 27.4 7.9 28.8 57.3 257 7.9 28.8 7.6 6 0.4 1.0 0.3 241 28.7 8.0 26.6 78.0 2.8 Surface 28.7 8.0 26.6 78.0 1.0 0.3 260 28.7 8.0 26.6 78.0 5.2 2.9 5 4.0 0.3 233 27.9 8.0 64.5 4.3 4.3 6 28.0 IM7 Sunny Moderate 11:50 8.0 Middle 27.9 8.0 28.0 64.5 821336 806816 4.0 0.3 27.9 8.0 28.0 64.5 13 4.3 5 7.0 0.2 242 27.3 7.9 29.1 52.1 3.5 8.2 7 27.3 7.9 29.1 52.2 7.0 0.2 260 27.3 7.0 29.1 52.3 8.2 6 1.0 0.6 139 29.0 7.6 28.8 86.4 5.7 1.5 8 Surface 7.6 28.8 85.9 1.0 0.7 150 29.0 7.6 28.8 85.3 5.6 1.5 9 3.9 0.5 129 29.2 7.6 28.6 79.1 5.2 2.2 4 5 IM8 Fine Calm 12:42 7.8 Middle 29.3 7.6 28.5 79.1 821829 808120 2.2 3.9 0.5 134 29.3 7.6 28.5 79.1 5.2 6.8 0.4 104 29.4 7.6 28.3 80.5 5.3 3.8 3 7.6 Bottom 29.5 28.3 80.9 5.3 105 29.5

DA: Depth-Averaged

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

Water Qual	lity Monit	toring Resi	ults on		18 September 21	during Mid-		e																
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water Te	emperature (°C)		рН	Salin	ity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/l		Coordinate	Coordinate
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	oth (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.5 0.6	110 110	28.8 28.8	28.8	7.7	7.7	29.1 29.2	29.1	80.8 80.6	80.7	5.3 5.3		4.0 3.9		2 2			
						3.6	0.6	101	28.8		7.7		29.2		80.4		5.3	5.3	4.3	1	4			
IM9	Fine	Calm	12:34	7.2	Middle	3.6	0.6	108	28.9	28.9	7.7	7.7	29.2	29.2	80.6	80.5	5.3		4.3	4.6	3	4	822117	808825
					Bottom	6.2	0.5	86	29.0	29.0	7.7	7.7	29.1	29.1	82.5	83.2	5.4	5.5	5.6	1	6			
					Bottom	6.2	0.5	88	29.0	20.0	7.7		29.0	20.1	83.8	00.2	5.5	0.0	5.7		5			
					Surface	1.0	0.6	128 137	28.9 28.9	28.9	7.7	7.7	29.0 29.1	29.1	85.1 84.6	84.9	5.6 5.6		5.4 5.4	1	2			
						3.8	0.6	123	28.7		7.7		29.3		79.8		5.3	5.5	6.6	ł	2			
IM10	Fine	Calm	12:27	7.6	Middle	3.8	0.6	127	28.6	28.7	7.7	7.7	29.3	29.3	80.0	79.9	5.3	•	6.7	6.7	3	2	822387	809775
					Bottom	6.6	0.4	117	28.6	28.7	7.7	7.7	29.3	29.3	83.5	86.0	5.5	5.7	7.9	1	2			
				<u> </u>		6.6	0.5	117	28.7		7.7		29.2		88.5		5.8		7.9	<u> </u>	3			
					Surface	1.0	0.6	133 142	28.9 28.9	28.9	7.6	7.6	28.9	28.9	87.9 87.3	87.6	5.8 5.7		7.6 7.5	-	3			
						3.9	0.5	138	28.8		7.6		29.0		79.4		5.2	5.5	8.5	1	3			
IM11	Fine	Calm	11:40	7.8	Middle	3.9	0.5	145	28.9	28.9	7.6	7.6	29.2	29.2	79.1	79.3	5.2		8.5	8.4	2	3	822035	811478
					Bottom	6.8	0.5	120	29.0	29.0	7.6	7.6	29.1	29.1	82.8	83.3	5.4	5.5	9.2]	2			
					Bottom	6.8	0.5	131	29.0	25.0	7.6	7.0	29.1	23.1	83.8	00.0	5.5	0.0	9.1		3			
					Surface	1.0	0.7	136 137	28.9	28.9	7.6	7.6	29.0	29.0	80.4 80.2	80.3	5.3		6.4	4	2			
						4.6	0.6	122	28.8		7.6		29.0		79.9		5.3	5.3	7.6	1	2			
IM12	Fine	Calm	11:32	9.2	Middle	4.6	0.6	123	28.8	28.8	7.6	7.6	29.1	29.1	79.9	79.9	5.3		7.6	7.7	2	2	821462	812045
					Bottom	8.2	0.5	128	28.7	28.7	7.6	7.6	29.2	29.2	82.9	83.9	5.5	5.6	8.8]	3			
					BOROITI	8.2	0.5	130	28.6	20.7	7.6	7.0	29.2	25.2	84.8	03.9	5.6	5.0	8.9		2			
					Surface	1.0	-	-	29.2	29.2	7.6	7.6	28.3	28.3	79.4 79.0	79.2	5.2		2.9	-	3			
						1.0 2.5	-		29.2		7.6		28.3		79.0		5.2	5.2	2.8	ł	-			
SR1A	Fine	Calm	10:57	5.0	Middle	2.5	-			-		-	-	-	-	-	-		-	3.2	-	4	819980	812661
					Bottom	4.0	-	-	29.3	29.3	7.7	7.7	28.4	28.4	79.4	79.9	5.2	5.3	3.6	t	4			
					DOLLOITI	4.0	-		29.3	29.3	7.7	1.1	28.4	20.4	80.4	19.9	5.3	5.3	3.7		4			
					Surface	1.0	0.4	50	27.4	27.5	7.6	7.6	30.7	30.7	75.3	75.4	5.0		2.1	4	3			
						1.0	0.5	52	27.5		7.6		30.8		75.4		5.0	5.0	2.1	-	4			
SR2	Fine	Calm	10:44	5.0	Middle	-	-		1	-	-	-	-	-	-	-	-			2.6	-	3	821470	814159
					D. II.	4.0	0.4	32	27.6	27.6	7.6	7.6	30.7	30.7	86.5	87.6	5.7	5.8	3.1	t	3			
					Bottom	4.0	0.4	32	27.6	21.0	7.6	7.0	30.7	30.7	88.7	07.0	5.9	5.0	3.2		3			
					Surface	1.0	0.2	147	28.7	28.7	7.6	7.6	29.3	29.3	80.7	80.7	5.3		5.5	1	3			
						1.0 4.5	0.2	152 155	28.7 28.8		7.6 7.6		29.3 29.4		80.6 73.2		5.3 4.8	5.1	5.5 6.4	-	4			
SR3	Fine	Calm	12:49	9.0	Middle	4.5	0.1	167	28.8	28.8	7.6	7.6	29.4	29.4	72.9	73.1	4.8		6.4	6.4	3	3	822143	807548
					D. II.	8.0	0.1	135	29.5	20.0	7.6	7.0	29.4	00.0	75.9	70.7	4.9		7.2	t	3			
					Bottom	8.0	0.1	136	29.6	29.6	7.6	7.6	29.3	29.3	77.5	76.7	5.0	5.0	7.1		3			
					Surface	1.0	0.1	83	28.0	28.0	7.9	7.9	28.7	28.7	66.5	66.5	4.4		3.6	1	4			
						1.0 4.8	0.1	89 122	28.0 27.4		7.9 7.9		28.7		66.5 56.6		4.4 3.8	4.1	3.6 6.3	-	5 3			
SR4A	Sunny	Rough	10:14	9.6	Middle	4.8	0.1	129	27.4	27.4	7.9	7.9	29.2	29.2	56.6	56.6	3.8		6.3	5.7	4	4	817178	807823
					D. II.	8.6	0.0	100	27.2	07.0	7.9	7.0	29.4	00.4	54.8	55.0	3.7	3.7	7.3	t	4			
					Bottom	8.6	0.0	108	27.2	27.2	7.9	7.9	29.4	29.4	55.1	55.0	3.7	3.7	7.3		3			
					Surface	1.0	0.1	3	28.9	28.9	7.9	7.9	26.9	26.9	71.7	71.7	4.8		4.3	1	4			
						1.0	0.1	3	28.9		7.9		26.9		71.7		4.8	4.8	4.4	-	5 -			
SR5A	Sunny	Moderate	09:57	3.8	Middle	-	1	-		-	H	-	-	-	÷	-	÷		-	5.3	-	5	816591	810676
					D. #	2.8	0.0	314	28.7	00.7	7.9	7.0	27.1	07.4	67.7	07.7	4.5	4.5	6.3	t	6			
					Bottom	2.8	0.0	327	28.7	28.7	7.9	7.9	27.1	27.1	67.7	67.7	4.5	4.5	6.3		5			
					Surface	1.0	0.1	34	28.6	28.6	7.9	7.9	25.8	25.9	64.9	64.7	4.4		3.8	1	7			
						1.0	0.1	34	28.6		7.9		25.9		64.5		4.3	4.4	3.8	-	8			
SR6A	Sunny	Moderate	09:30	4.7	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.3	-	6	817953	814754
						3.7	0.0	72	28.2		7.9		27.1		61.9		4.2		4.7	t	4			
					Bottom	3.7	0.0	75	28.2	28.2	7.9	7.9	27.1	27.1	61.9	61.9	4.2	4.2	4.7	1	3			
					Surface	1.0	0.7	47	26.9	26.9	7.5	7.5	31.5	31.5	68.0	67.9	4.6		1.7		4			
			1			1.0	0.7	51	26.9		7.5		31.6		67.7		4.5	4.5	1.6	-	3			
SR7	Fine	Calm	09:31	15.4	Middle	7.7	0.3	53 55	26.6 26.5	26.6	7.5 7.5	7.5	31.8 31.9	31.9	66.3 65.4	65.9	4.5 4.4		2.6	2.7	3 4	3	823658	823723
			1		D. #	14.4	0.1	14	26.2	00.0	7.5	7.5	32.2	00.0	62.3	00.0	4.2	4.0	3.7	t	2			
					Bottom	14.4	0.1	15	26.3	26.3	7.5	7.5	32.1	32.2	63.2	62.8	4.3	4.3	3.7	1	3			
				l	Surface	1.0	-	-	29.2	29.2	7.6	7.6	28.3	28.3	79.4	79.3	5.2	ı	4.0	1	2			
						1.0	-	-	29.2		7.6	H	28.3		79.2		5.2	5.2	4.1	1	3 -			
SR8	Fine	Calm	11:20	5.0	Middle	-	-	-		-	-	-	+	-	-	-		}	-	4.3	-	3	820407	811613
			1		D-"	4.0	-	-	29.3	20.0	7.6	7.0	28.3	20.0	81.2	04.5	5.3		4.5	†	3			
			1	l	Bottom	4.0	-	-	29.3	29.3	7.6	7.6	28.3	28.3	81.7	81.5	5.4	5.4	4.5	1	4			1

Water Quality Monitoring Results on 18 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Easting) (Northing) 28.7 0.2 61 Surface 28.7 8.0 27.5 76.9 1.0 0.2 63 28.7 8.0 27.5 76.8 5.1 6.9 11 3.4 0.2 13 28.5 8.7 10 73.5 C1 17:56 8.0 27.7 73.5 804236 6.8 Middle 28.5 10 815596 Sunnv Rough 8.0 73.5 4.9 8.6 11 0.2 28.5 5.8 0.2 43 27.6 7.9 29.1 60.3 4.0 7.9 9 7.9 27.6 29.1 60.4 41 Rottom 7.9 7.9 0.2 29.1 4.1 5.8 43 27.6 60.4 0.0 29.3 6.4 Surface 29.3 7.7 26.0 92.0 6.3 0.0 101 4 5.6 35 28.9 0.1 7.7 5.6 5 28.1 85.5 C2 Fine Calm 16:53 11.2 Middle 28.9 7.7 28.2 83.4 825686 806933 5.6 37 28.8 7.7 28.3 81.2 5.4 7.5 4 0.1 29.4 80.9 10.2 0.1 8 28.4 7.6 7.6 29.4 5.4 8.2 4 82.8 Bottom 28.4 5.5 10.2 28.4 7.6 29.4 8.3 0.1 247 29.2 28.1 6.9 Surface 29.2 7.6 28.1 82.9 1.0 0.6 259 29.1 7.6 28.1 82.8 5.4 6.8 7.6 7.6 6.1 0.5 240 29.3 7.6 7.6 3 7.6 28.1 28.1 82.8 5.4 5.4 C3 822091 817817 Fine Calm 18:59 12.2 Middle 29.3 82.9 0.6 29.3 11.2 0.5 241 29.3 7.6 28.1 83.4 8.1 Bottom 29.3 7.6 28.1 83.6 5.5 11.2 0.5 248 29.3 7.6 28 1 83.7 5.5 8.1 3 1.0 0.1 79 28.0 8.0 29.0 29.0 29.0 69.7 5.5 6 Surface 28.0 8.0 69.7 1.0 0.1 83 28.0 8.0 4.6 5.5 6 17:32 817941 807153 IM1 Sunnv Moderate 3.7 Middle 27 0.1 90 27.5 8.0 29.4 65.9 44 9.5 6 Bottom 27.5 8.0 29.4 66.0 90 326 2.7 0.1 27.5 8.0 29.4 66.0 44 9.3 5 1.0 28.2 6.7 6 0.3 8.0 28.6 69.0 4.6 Surface 8.0 28.6 69.0 6.6 7.7 7.7 1.0 0.3 329 28.2 8.0 28.6 68.9 4.6 7 7 3.3 0.2 333 28.0 7.9 28.8 66.0 44 IM2 Sunny Moderate 17:24 6.5 Middle 28.0 7.9 28.8 66.1 818154 806158 3.3 0.2 306 28.0 7.9 28.8 66.1 44 6 312 6.8 8 5.5 0.2 27.3 79 29.3 55.0 7.9 29.3 55.0 5.5 324 7.9 3.7 7 0.2 27.3 29.3 54.9 6.9 0.2 345 28.5 79 28.4 70.0 46 7.3 8 Surface 7.9 28.4 70.0 317 1.0 28.5 7.9 69.9 7.4 0.3 28.4 4.6 8 8.2 0.2 346 28.2 8 3.5 7.9 28.6 67.3 4.5 IM3 Sunny Rough 17:16 6.9 Middle 28.2 7.9 28.6 67.2 818785 805605 318 347 8.3 5.0 28.2 8 10 3.5 0.2 7.9 28.6 4.5 0.1 27.2 7.9 29.4 53.0 3.6 7.9 Bottom 27.2 29.4 53.0 3.6 5.9 0.1 355 27.2 7.9 29.4 53.0 3.6 5.0 9 0.4 319 11 28.9 7.1 1.0 8.0 26.8 82.4 5.5 Surface 28.9 8.0 26.8 82.4 0.4 320 28.9 7.2 11 6.9 10 3.6 328 28.7 0.4 8.0 27.5 77.0 5.1 IM4 17:08 7.1 Middle 28.7 8.0 27.6 77.1 819712 804611 Sunny Rough 3.6 0.4 352 328 28.6 8.0 6.9 11 0.3 28.3 7.5 10 28.4 70.1 7.9 Bottom 28.3 28.4 70.1 6.1 0.3 342 28.3 7.9 10 332 28.7 16 1.0 0.8 7.9 26.5 79.3 5.2 5.3 Surface 28.7 7.9 26.5 79.3 1.0 0.9 346 28.7 7.9 5.3 5.2 17 3.3 0.8 331 28.7 9.6 16 26.5 79.2 IM5 17:02 6.6 Middle 28.7 7.9 26.5 79.2 820732 804854 Sunny Rough 3.3 0.8 352 28.7 9.6 16 335 28.7 7.9 7.9 26.5 26.5 79.4 79.4 12.6 15 Bottom 28.7 7.9 26.5 79.4 346 16 5.6 0.8 28.7 12.6 1.0 1.1 346 28.7 7.9 26.5 79.0 7.4 13 Surface 7.9 26.5 79.0 1.0 1.2 318 28.7 79 7.4 14 3.7 1.0 348 28.6 8.8 12 IM6 Sunny Rough 16:56 7.3 Middle 7.9 26.6 78.3 821078 3.7 1.0 320 28.6 7.9 26.6 78.3 5.2 8.8 13 9.2 6.3 1.0 346 28.6 7.9 78.6 5.3 13 6.3 11 346 28.6 79 12 1.0 0.8 339 29.1 7.9 25.7 85.5 6.1 5 Surface 7.9 25.7 85.4 350 344 79 25.8 1.0 0.8 29.0 85.3 6.1 0.7 9.2 4.0 28.5 5 7.9 26.7 76.4 5.1 IM7 16:50 7.9 Middle 7.9 26.7 76.5 821366 806812 Sunny Rough 4 4.0 0.7 352 28.5 7.9 26.7 76.5 5.1 9.2 6.9 0.6 354 28.5 7.9 26.6 76.9 10.1 5 Bottom 28.5 7.9 26.6 77.0 5.2 6.9 0.6 326 276 28.5 26.6 10.1 1.0 0.1 29.7 7.7 26.6 95.8 6.3 4.0 3 Surface 29.7 7.7 26.6 95.2 7.7 26.7 6.2 94.5 4.0 1.0 0.1 295 29.7 4 4.1 0.1 7.7 26.8 26.8 90.2 5.9 4.7 3 276 29.9 7.7 26.8 90.5 821810 808156 IM8 Fine Calm 17:18 8.2 Middle 29.9 7.7 4.6 4.1 284 29.9 5.9 0.1 7.2 7.7 <2 <2 0.2 292 30.1 26.7 26.6 94.6 97.0 6.2 5.4 30.1 7.7 26.6 95.8 6.3 Rottom

DA: Depth-Averaged

Water Quality Monitoring Results on 18 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Current Speed Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 29.5 0.2 266 26.8 282 29.5 7.6 26.8 89.6 3.2 3.8 0.2 263 29.4 7.6 27 1 80.3 5.3 4.0 3 IM9 17:22 Middle 27.1 80.0 808832 Fine Calm 7.6 7.6 3.8 0.2 263 29.3 7.6 27.2 79.6 5.3 4.1 2 6.6 0.3 270 28.6 76 29.1 82.0 5.4 5.1 3 28.6 7.6 28.7 83.5 6.6 0.3 271 28.6 76 28.3 85.0 5.5 5.0 4 268 1.0 0.2 29.3 76 27.6 94.8 6.2 6.0 Surface 7.6 27.6 94.3 1.0 0.2 290 29.2 7.6 27.7 93.8 6.2 6.0 3 3.4 0.2 262 263 29.1 7.6 28.1 83.7 7.6 7.6 IM10 17:32 6.8 Middle 7.6 28.1 83.8 822384 809775 29.2 7.6 28.1 5.5 0.2 83.9 0.3 29.4 8.8 <2 5.8 266 7.6 28.2 87.1 Bottom 29.5 7.6 28.2 88.0 5.8 5.8 0.3 271 29.5 76 28.2 88.9 5.8 8.8 <2 0.2 257 28.9 4.2 Surface 28.9 7.6 28.2 85.5 1.0 281 7.6 0.2 28.9 28.3 83.6 5.5 4.3 2 0.2 3 258 278 28.0 5.4 IM11 Fine Calm 17:44 6.2 Middle 29.2 7.6 27.9 77.8 2 822069 811469 3.1 29.2 7.6 5.4 265 <2 5.2 0.2 29.5 7.6 27.4 6.2 79.2 5.2 29.6 7.6 79.5 Bottom 27.3 5.2 5.2 0.2 289 29.6 7.6 27.2 79.8 5.2 6.3 <2 29.0 4.0 <2 88.8 28.1 5.8 Surface 29.0 7.6 86.5 28.1 1.0 0.3 259 29.0 5.5 4.1 <2 <2 <2 2 4.6 255 7.6 5.6 0.2 29.2 28.3 77.1 5.1 17:52 821438 812059 IM12 Fine Calm 9.2 Middle 29.3 7.6 28.3 77.3 4.6 273 253 5.5 0.2 29.3 29.6 7.6 79.4 6.8 28.0 29.7 7.6 80.3 5.3 Rottom 28.0 8.2 0.2 275 29.7 7.6 27.9 81 1 5.3 6.9 29.3 7.6 8.6 <2 28.0 86.5 Surface 29.3 7.6 28.0 86.5 1.0 29.3 5.7 8.5 <2 2.4 819974 SR1A Calm 18:17 Middle 2.4 3.8 29.4 7.6 28.0 87.5 9.0 2 Bottom 29.4 7.6 28.0 87.7 27 9 3.8 29.4 7.6 87.8 5.8 9.1 1.0 0.3 285 29.2 7.6 28.1 84.5 5.6 7.4 Surface 29.2 7.6 28.1 1.0 0.3 296 29.2 7.6 28.1 84.7 5.6 7.5 2 SR2 18:33 4.0 Middle 821470 814162 0.2 278 3 3.0 29.3 28 1 86.5 8.5 5.7 28.1 7.6 28.0 87.4 5.7 3.0 8.6 0.3 286 29.3 1.0 0.1 299 29.5 7.7 26.6 96.6 6.4 2.2 Surface 29.5 7.7 26.6 95.3 26.7 94 N 6.2 22 1.0 0.2 321 29.5 4.7 326 29.7 26.9 26.9 5.5 5.5 3.9 3 0.1 7.7 84.3 SR3 Calm 17:10 9.4 Middle 26.9 84.2 822144 807553 3.8 84.0 0.1 356 29.7 4.7 8.4 0.3 311 29.9 7.7 27.9 27.6 86.7 92.7 5.6 6.0 4.3 3 Bottom 30.0 7.7 27.8 89.7 5.8 8.4 0.3 337 30.0 15 0.5 256 29.4 1.0 7.9 27.1 77.0 5.1 3.3 Surface 29.4 7.9 27.1 77.0 7.9 27.1 77.0 1.0 0.6 270 29.4 3.4 15 4.1 0.5 253 29.3 5.3 15 7.9 76.7 5.1 27.1 SR4A 18:20 7.9 27.1 76.7 15 817202 807811 Sunny Moderate 8.1 Middle 29.3 4.1 264 29.3 7.9 27.1 76.7 5.3 14 0.5 29.3 29.3 14 7.1 0.4 247 7.9 27.1 27.1 77.0 77.1 5.1 5.1 7.4 7.9 27.1 29.3 77.1 Rottom 0.4 268 7.9 15 1.0 0.3 288 29.4 7.9 27.1 27.1 27.1 81.8 9.1 5.4 Surface 29.4 7.9 81.9 1.0 0.4 303 29.4 7.9 5.4 9.1 6 SR5A 18:39 3.5 Middle 816616 810680 Sunny Moderate 2.5 0.3 287 29.4 80.3 5.3 9.1 Bottom 29.4 7.9 27.0 80.3 5.3 312 7.9 29.4 1.0 0.0 334 28.8 8.0 6.1 Surface 28.8 8.0 27.1 75.5 1.0 0.0 307 28.8 8.0 27.1 75.3 5.0 6.1 6 SR6A Sunny Moderate 19:09 3.6 Middle 817978 814752 2.6 0.0 82 28.0 7.9 27.6 57.5 3.9 8.9 7 28.0 7.9 27.6 57.6 3.9 2.6 0.0 87 28.0 7.0 27.6 57.6 8.9 6 1.0 0.1 37 29.2 7.6 27.9 89.9 7.0 Surface 7.6 28.0 88.8 1.0 0.1 39 29.2 7.6 28.0 87.6 5.8 7.1 3 7.0 0.1 232 29.3 7.6 28.1 83.0 5.4 8.3 3 SR7 Fine Calm 19:19 14.0 Middle 7.6 28.1 83.1 823612 823758 7.0 0.1 251 29.3 7.6 28.1 83.2 5.5 8.4 13.0 0.1 44 29.4 7.6 28.0 84.1 5.5 9.1 2 Rottom 29.5 7.6 28.0 84.4 13.0 0.1 44 29.5 7.6 28.0 84.6 5.5 9.1 1.0 29.5 7.6 27.3 95.7 6.3 5.4 Surface 29.5 7.6 27.4 95.9 1.0 29.5 7.6 27.4 96.1 6.3 5.4 2 811642 820409 SR8 Fine Calm 18:13 4.2 Middle 2 <2 3.2 29.5 7.6 27.4 98.5 6.0 6.5 29.5 7.6 27.4 99.0 6.5

DA: Depth-Averaged

Water Quality Monitoring Results on 21 September 21 during Mid-Ebb Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 28.7 0.4 243 27.3 0.4 255 214 28.7 7.9 27.3 74.3 4.9 3.7 42 0.4 28.6 7.9 27.5 72 9 49 6.3 4 C1 12:45 7.9 27.5 72.9 815632 804235 Fine Rough 8.3 4.2 0.5 231 28.6 7.9 27.5 72.8 4.8 6.4 5 7.3 0.4 204 28.5 7.9 27.7 71.2 47 8.8 4 28.5 7.9 27.7 71.3 7.3 0.4 222 28.5 79 27.7 71.3 47 9.0 5 135 1.0 0.2 28.5 7.9 27.3 70.9 4.7 44 4 Surface 7.9 27.2 71.0 1.0 0.2 148 28.5 7.9 27.2 71.0 4.7 4.6 3 6.1 0.5 154 168 27.7 27.7 7.9 28.4 64.5 4.3 5.6 5.6 4 C2 Moderate 11:37 12.2 Middle 7.9 28.4 64.6 825675 806958 6.1 7.9 0.5 28.4 64.6 4.3 11.2 0.5 144 27.6 7.2 4 7.9 28.6 64.7 4.4 7.9 Bottom 27.6 28.6 64.8 7.6 112 0.5 158 27.6 79 28.6 64.8 44 3 0.4 286 28.3 5.3 Surface 28.3 7.9 27.9 74.7 1.0 288 7.9 27.9 74.7 5.4 5 0.4 28.3 5.0 6.9 0.2 4 5 257 280 28.1 28.1 28.0 4.9 5.6 73.1 C3 Rainv Rough 14:09 11.2 Middle 7.9 28.0 73.1 5 822096 817783 7.9 4.9 120 7.6 10.2 0.1 28.1 7.9 4.9 4 28.0 73.8 7.9 73.9 Bottom 28.1 28.0 5.0 10.2 0.1 126 28.1 7.9 28.0 73.9 5.0 7.6 5 184 29.4 4.0 7.9 27.4 79.5 5.2 Surface 29.4 7.9 27.4 79.5 1.0 0.2 191 29.3 7.9 79.4 5.2 4.1 4 12:18 817956 807128 IM1 Fine Moderate 5.4 Middle 4.4 0.2 165 28.7 7.9 27.6 74.5 5.0 6.1 28.7 7.9 27.6 74.5 5.0 Rottom 4.4 0.2 171 28.7 7.9 27.6 74.5 5.0 6.2 169 28.5 6 Surface 28.5 7.9 27.4 73.2 1.0 0.1 183 28.5 7.9 4.9 3.2 5 3.6 0.2 163 28.5 4.8 4.7 4 72.5 818140 806184 Moderate 12:11 Middle 7.9 27.4 3.6 176 28.5 4.8 5.0 0.2 6.2 0.2 173 28.5 7.9 27.4 4.8 7.6 4 Bottom 28.5 7.9 27.4 72.5 6.2 0.2 182 28.5 79 27.4 72.5 4.8 7.6 5 1.0 0.0 253 28.4 8.0 72.5 4.8 3.8 4 Surface 8.0 27.7 72.5 0.0 267 28.4 8.0 27.7 72.4 4.8 3.8 5 3.8 0.1 119 28.2 69.8 4.7 5.8 4 IM3 Moderate 12:03 7.5 Middle 27.9 69.8 818790 805587 129 119 28.2 27.9 5 3.8 0.1 4.7 5.8 6.5 0.2 7.9 28.3 67.5 4.5 8.4 4 Bottom 67.6 7.9 28.3 67.6 4.5 8.4 123 27.9 3 6.5 0.2 1.0 0.3 200 28.4 8.0 27.6 75.0 74.9 5.0 2.9 Surface 28.4 8.0 27.6 75.0 5.0 8.0 27.7 2.9 1.0 0.3 212 28.3 4.3 0.2 203 28.1 28.0 28.0 4.3 6 7 7.9 68.1 4.6 IM4 Fine 11:54 8.6 Middle 7.9 28.0 68.1 819743 804611 Rough 7.9 68.0 4.6 4.2 0.2 215 28.1 4.3 6 7.6 7.6 0.2 171 28.1 8.0 28.0 68.5 68.6 4.6 6.5 8.0 Bottom 28.1 27.9 68.6 173 0.2 28.1 230 28.7 1.0 0.4 7.9 27.1 73.9 4.9 3.8 6 Surface 28.7 7.9 27.1 73.9 247 28.7 7.9 27.1 73.8 4.9 1.0 0.4 4.1 6 3.9 0.2 207 28.5 4.8 6.3 6 8.0 27.2 72.2 IM5 11:48 7.7 28.5 8.0 27.2 72.2 6 820721 804861 Fine Moderate Middle 3.9 207 28.5 8.0 6.0 6 0.2 156 157 28.3 28.3 6.7 0.1 8.0 27.6 27.6 72.2 72.2 4.8 8.0 7.8 6 7 8.0 27.6 72.2 Rottom 28.3 28.7 27.1 73.6 4.7 1.0 0.3 260 7.9 27.1 27.1 Surface 28.7 7.9 73.5 1.0 271 28.6 8.0 73.4 4.9 4.8 0.3 3.8 0.2 238 28.4 8.0 27.4 27.4 72.4 4.8 6.0 IM6 11:43 7.5 Middle 28.4 8.0 27.4 72.4 821048 805820 Fine Moderate 3.8 0.2 247 28.4 8.0 72.3 4.8 6.0 6 6.5 0.2 220 28.2 8.0 27.9 71.4 4.8 7.6 Bottom 28.2 8.0 27.8 71.5 8.0 4.8 7.6 231 28.2 1.0 0.1 245 28.7 7.9 26.9 73.6 4.9 3.5 Surface 28.7 7.9 26.9 73.6 1.0 0.1 260 28.7 7.9 26.9 73.6 4.9 3.5 6 4.5 0.0 92 28.4 7.9 4.8 4.5 7 27.2 IM7 Fine Moderate 11:36 8.9 Middle 28.4 7.9 27.2 72.3 821356 806816 4.5 0.0 100 28.4 7.9 4.8 4.4 6 7.9 0.1 108 28.4 8.0 27.4 72.5 4.8 6.6 9 7.9 27.4 72.5 7.9 0.1 110 28.4 7.0 27.3 18 6.5 8 1.0 0.0 185 28.7 79 27 0 73.9 49 6.8 Surface 27.0 73.9 1.0 0.0 188 28.7 79 27.0 73.9 4.9 6.9 4 42 0.1 142 28.4 8.0 27.4 73.1 49 8.0 4 IM8 Fine Moderate 12:02 8.3 Middle 28.4 8.0 27.4 73.1 821827 808163 147 4.2 0.1 28.4 8.0 27.4 73.0 4.9 8.3 7.3 0.2 72 28.2 8.0 27.8 71.6 4.8 9.6 5 Bottom 28.2 8.0 27.8 71.7 28.2

DA: Depth-Averaged

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

	Weather	Sea	Sampling	Water			Current		Water To	emperature (°C		pН	Salir	nity (ppt)		aturation			Turbidity	(NITLI)	Suspended :	Solids	Coordinate	Coordin
Monitoring	vveatner	Sea	Sampling	vvater	Sampling Dep	th (m)	Speed	Current	vvater re	emperature (C)	рп	Salli	iity (ppt)	((%)	Oxyg	jen	Turbidity	(NTU)	(mg/L))	HK Grid	HK G
Station	Condition	Condition	Time	Depth (m)	, , ,		(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	(Northing)	(East
					Surface	1.0	0.2	149	28.5	28.5	7.9	7.9	27.1	27.1	73.0	73.1	4.9		3.8		4			
					Cunado	1.0	0.2	157	28.5	20.0	7.9	7.0	27.1	27	73.1	70.1	4.9	4.9	3.8		4			
IM9	Fine	Moderate	12:09	7.8	Middle	3.9	0.3	119 122	28.4 28.4	28.4	8.0	8.0	27.2 27.3	27.2	72.7 72.7	72.7	4.9		4.3 4.4	4.3	5	5	822107	808
					D	6.8	0.3	88	28.3	28.3	8.0	0.0	27.6	27.6	72.9	73.0	4.9	4.9	4.7	t	5			
					Bottom	6.8	0.3	88	28.3	28.3	8.0	8.0	27.6	27.6	73.0	73.0	4.9	4.9	4.5		5			
					Surface	1.0	0.6	100	29.2	29.2	8.0	8.0	27.1	27.1	78.9 78.8	78.9	5.2		4.1		14			
						1.0 4.2	0.7	106 105	29.2 28.2		8.0		27.1 27.7		71.9		5.2 4.8	5.0	4.2 5.7	ŀ	13 15			
IM10	Fine	Moderate	12:17	8.4	Middle	4.2	0.5	114	28.2	28.2	8.0	8.0	27.7	27.7	71.9	71.9	4.8		6.1	5.8	14	14	822395	8098
					Bottom	7.4	0.5	96	28.0	28.0	7.9	7.9	27.9	27.9	67.7	67.7	4.5	4.5	7.3		15			
						7.4 1.0	0.5	101 142	28.0 28.4		7.9 8.0		27.9 27.7		67.7 72.2		4.5		7.6 5.1		14 14			
					Surface	1.0	0.7	154	28.4	28.4	8.0	8.0	27.7	27.7	72.0	72.1	4.8		4.8		14			
IM11	Rainy	Moderate	12:26	8.6	Middle	4.3	0.7	140	28.2	28.2	7.9	7.9	27.9	27.9	70.3	70.3	4.7	4.8	6.6	6.4	12	8	822042	8114
IIVIII	reality	Woderate	12.20	0.0	Wildlie	4.3	0.7	144	28.2	20.2	7.9	1.5	27.9	21.5	70.3	70.0	4.7		6.2	0.4	3	۰	022042	011-
					Bottom	7.6 7.6	0.5 0.5	146 159	27.8 27.8	27.8	7.9 7.9	7.9	28.3	28.3	67.7 67.9	67.8	4.5	4.6	8.1 7.9		3			
					0	1.0	0.5	95	28.5	00.5	7.9	7.0	27.3	07.0	73.0	70.0	4.9		3.9		12			
					Surface	1.0	0.5	100	28.5	28.5	7.9	7.9	27.3	27.3	73.0	73.0	4.9	4.9	4.0		13			
IM12	Rainy	Moderate	12:33	9.9	Middle	5.0	0.4	116	28.5	28.5	7.9	7.9	27.3	27.3	72.9 72.9	72.9	4.9	1.0	4.8	4.8	9	7	821455	8120
						5.0 8.9	0.4	124 92	28.5 28.5		7.9 8.0		27.3		73.2		4.9 4.9		4.5 5.9	ł	3			
					Bottom	8.9	0.2	94	28.5	28.5	8.0	8.0	27.3	27.3	73.2	73.2	4.9	4.9	5.7		3			
					Surface	1.0	-	-	28.7	28.7	7.9	7.9	27.2	27.2	76.2	76.2	5.1		5.5		14			
						1.0 2.5	-	-	28.7		7.9		27.2		76.1		5.1	5.1	5.5	-	13			
SR1A	Rainy	Moderate	13:30	5.0	Middle	2.5		-		-	-	-	-	-	-	-	-		-	6.2	-	9	819982	8126
					Bottom	4.0	-	-	28.6	28.6	7.9	7.9	27.5	27.5	76.4	76.7	5.1	5.1	6.8	İ	3			
					Bottom	4.0	-	-	28.6	20.0	7.9	1.5	27.5	27.5	76.9	70.7	5.1	J. I	7.0		4			
					Surface	1.0	0.6	52 54	28.4 28.4	28.4	8.0	8.0	27.7	27.7	73.5 73.5	73.5	4.9		4.6 5.1		3			
SR2	01	Dt	40.40	4.5		-	-	-	-		-		-		-		-	4.9	-		-		004404	8141
SKZ	Cloudy	Rough	13:46	4.5	Middle	-	-	-		-	-	-	-	-		-	-			5.6	-	3	821484	8141
					Bottom	3.5	0.5 0.5	47	28.4 28.4	28.4	8.0	8.0	27.7	27.7	73.6 73.6	73.6	4.9	4.9	6.3 6.4		3			
						3.5 1.0	0.0	51 246	28.6		7.9		26.9		73.6		4.9		3.3		3			
					Surface	1.0	0.0	252	28.6	28.6	7.9	7.9	26.9	26.9	73.6	73.6	4.9	4.9	3.3	İ	3			
SR3	Fine	Moderate	11:55	9.4	Middle	4.7	0.1	194	28.4	28.4	8.0	8.0	27.2	27.2	73.1	73.1	4.9	4.9	4.3	4.2	3	3	822148	8075
						4.7 8.4	0.1	200 258	28.4 28.3		8.0		27.2 27.7		73.1 73.6		4.9 4.9		4.0 5.3		3	-		
					Bottom	8.4	0.1	277	28.3	28.3	8.0	8.0	27.7	27.7	73.8	73.7	4.9	4.9	5.2		4			
					Surface	1.0	0.1	79	28.4	28.4	8.0	8.0	27.7	27.7	74.0	74.0	4.9		3.0		6			
					Ounacc	1.0	0.1	79	28.4	20.4	8.0	0.0	27.7	21.1	73.9	74.0	4.9	4.9	3.0		6			
SR4A	Fine	Calm	13:11	9.5	Middle	4.8	0.2	62 64	28.4 28.4	28.4	8.0	8.0	27.7	27.7	73.1 73.1	73.1	4.9		5.0 5.1	4.8	6	6	817197	8077
					D. II.	8.5	0.1	68	28.4	00.4	8.0	0.0	27.7	07.7	73.2	70.0	4.9	4.0	6.3	ŀ	5			
					Bottom	8.5	0.1	73	28.4	28.4	8.0	8.0	27.7	27.7	73.3	73.3	4.9	4.9	6.3		6			
					Surface	1.0	0.1	103	28.3	28.3	7.9	7.9	28.0	28.0	73.7	73.7	4.9		5.0		7			
						1.0	0.1	104	28.3		7.9		28.0		73.6		4.9	4.9	5.1	ł	6			
SR5A	Fine	Calm	13:30	3.9	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.7	-	7	816588	8107
					Bottom	2.9	0.1	144	28.1	28.1	7.9	7.9	28.1	28.1	72.6	72.6	4.9	4.9	6.4	Ī	6			
						2.9	0.1	147 18	28.1		7.9 7.9		28.1		72.5 74.8		4.8 5.0		6.5 4.7		7			
					Surface	1.0	0.0	19	28.2	28.2	7.9	7.9	28.0	28.0	74.8	74.8	5.0		4.7		7			
SR6A	Cloudy	Moderate	14:04	4.5	Middle	-	-	-	-		-		-		-		-	5.0	-	5.5	-	7	817952	8147
SNOA	Cloudy	Woderate	14.04	4.5	ivildule	-	-	-	-	-	-		-	-		-	-		-	3.3	-	'	01/932	0147
					Bottom	3.5 3.5	0.1	249 272	28.2 28.2	28.2	7.9	7.9	28.0	28.0	75.0 75.1	75.1	5.0	5.0	6.4	-	7			
						1.0	0.6	61	28.2		7.9		28.0		76.9		5.1		4.8		3			
					Surface	1.0	0.7	62	28.2	28.2	7.9	7.9	28.0	28.0	76.9	76.9	5.1	5.1	4.8	ĺ	2			
SR7	Cloudy	Moderate	14:32	15.4	Middle	7.7	0.2	14	28.1	28.1	7.9	7.9	28.1	28.1	74.8	74.8	5.0	0.1	4.7	5.3	3	3	823651	823
						7.7 14.4	0.2	15 55	28.1 27.9		7.9 7.9		28.1 28.3		74.8 71.5		5.0 4.8		4.7 6.4	ł	2			
					Bottom	14.4	0.2	57	27.9	27.9	7.9	7.9	28.3	28.3	71.5	71.5	4.8	4.8	6.4	ł	3			
					Surface	1.0	-	-	29.1	29.1	7.9	7.9	27.4	27.4	78.1	78.1	5.2		5.3		4			
					Ounado	1.0	-	-	29.1	20.1	7.9	1.0	27.4	21.4	78.0	70.1	5.2	5.2	5.4	1	4			
SR8	Rainy	Moderate	12:43	4.9	Middle	-	-	-	-	-	+	-	-	-	-	-	-		-	5.7	-	3	820405	8116
					D.::	3.9	-	-	28.6	07.7	8.0	0	27.5	0= -	75.4	75 -	5.0		6.2	t	3			
	1		1		Bottom	3.9	-	-	28.6	28.6	8.0	8.0	27.5	27.5	75.6	75.5	5.0	5.0	6.1	İ	2			1

Water Quality Monitoring Results on 21 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Easting) Condition (Northina) 28.4 0.5 Surface 28.4 7.9 27.6 70.3 1.0 0.5 28 28.4 7.9 27.6 70.3 4.7 2.2 4.0 0.5 23 28.4 4.7 3.6 70.1 C1 7.9 27.7 70.1 804227 06:40 8.0 Middle 28.4 815637 Fine Rough q 28.4 7.9 70.1 3.4 0.6 23 7.0 0.5 38 28.4 7.9 27.7 69.8 4.7 6.5 7 7.9 27.7 28.4 69.8 47 Rottom 7.9 27.7 4.7 6.3 28.4 69.8 16 0.5 28.6 0.3 4.9 Surface 28.6 8.0 27.2 73.6 2.7 28.5 0.3 322 28 4.9 0.4 28.5 6.3 4.8 6 7.9 72.0 C2 Fine Moderate 08:28 12.6 Middle 28.5 7.9 27.2 72.0 825696 806938 0.4 7.9 27.2 71.9 4.8 3.3 6 6.3 29 28.5 7.9 27.2 11.6 0.4 346 28.5 7.9 4.8 4.7 6 71.4 27.2 71.4 Bottom 28.5 11.6 0.4 318 28.4 7.9 5.0 241 28.0 3.4 Surface 28.0 7.9 27.9 71.2 0.3 248 28.0 7.9 71.3 4.8 3.4 6.0 0.4 252 270 27.2 7.9 62.3 62.4 4.9 6 5 29.1 29.1 4.2 C3 822120 817806 Fine Moderate 06:02 11.9 Middle 27.2 7.9 29.1 62.4 6 0.4 27.2 7.9 5.0 10.9 0.4 266 27.2 7.9 29.0 62.6 6.1 Bottom 27.2 7.9 29.0 62.7 42 10.9 0.4 288 27.2 7.9 29.0 62.7 42 6.3 1.0 0.2 28.3 27.6 27.6 27.6 70.8 3.8 20 Surface 28.3 7.9 70.8 1.0 0.2 28.3 7.9 4.7 3.8 19 07:02 817937 IM1 Fine Moderate 5.3 Middle 43 0.2 15 28 1 7.9 27.9 68.4 4.6 6.2 21 Bottom 28.1 7.9 27.9 68.5 20 22 4.3 0.2 15 28 1 79 27 9 68.5 46 5.8 27.7 1.0 0.4 28.2 7.9 70.1 4.7 2.6 Surface 7.9 27.7 70.0 1.0 0.4 28.2 7.9 27.7 69.9 4.7 2.6 21 4.5 3.6 0.3 359 28.2 7.9 27.7 69.4 4.6 21 IM2 Moderate 07:07 7.1 Middle 28.2 7.9 27.7 69.4 21 818150 806158 22 20 3.6 0.3 330 28.2 7.9 69 4 4.6 4.5 343 7.5 7.7 6.1 0.2 28.2 79 27.7 69.4 46 7.9 27.7 69.4 6.1 316 7.9 19 0.2 28.2 27.7 46 69 4 0.4 337 28.2 79 27.7 69.3 46 3.3 16 Surface 28.2 7.9 27.7 69.2 310 27.7 17 1.0 7.9 3.3 0.5 28.2 69.1 4.6 20 21 25 5.9 0.5 28.0 4.5 3.7 341 7.9 27.9 67.8 IM3 Fine Moderate 07:13 7.3 Middle 28.0 7.9 27.9 67.8 21 818762 805582 314 341 5.8 8.7 3.7 0.5 28.0 7.9 27.9 67.8 4.5 6.3 28.0 7.9 28.0 67.6 4.5 7.9 Bottom 28.0 28.0 67.7 6.3 0.4 358 28.0 7.9 28.0 67.8 4.6 8.8 24 0.9 350 28.5 3.1 1.0 7.9 27.1 72.8 4.9 21 Surface 28.6 7.9 27.1 72.8 0.9 322 28.6 3.1 21 4.2 4.3 351 28.2 4.6 9 0.8 7.9 27.7 68.7 IM4 Fine 07:20 8.4 Middle 28.2 7.9 27.7 68.7 12 819727 804605 Rough 8 4.2 0.9 352 356 28.2 4.6 4.8 0.8 28.2 6.3 4.6 68.0 7.9 Bottom 28.2 27.8 68.0 7.4 0.8 356 28.2 6.3 14 28.7 1.0 7.9 26.4 73.6 4.9 2.7 Surface 28.7 7.9 26.4 73.5 1.0 1.2 14 28.7 7.9 4.9 2.8 10 3.3 1.0 28.6 4.8 4.3 8 IM5 Fine Moderate 07:30 6.6 Middle 28.6 7.9 26.7 72.2 820741 804874 3.3 28.6 4.8 4.6 7.9 0.9 28.5 26.9 26.9 4.7 8 Bottom 28.5 7.9 70.9 26.9 7.9 5.6 1.0 11 28.5 1.0 0.0 4 28.7 7.9 26.3 4.9 2.7 10 Surface 7.9 26.3 73.4 1.0 0.0 4 28.7 79 49 2.8 11 3.7 0.2 52 28.5 4.9 3.5 10 Moderate 07:38 Middle 28.5 7.9 27.1 72.9 821042 805809 3.7 0.2 54 28.4 8.0 27.1 72.8 4.9 3.5 11 4.8 6.0 6.4 0.1 28.4 7.9 7 27.5 64 0.1 38 28.4 79 8 1.0 0.1 238 28.5 8.0 26.6 73.4 4.9 2.5 8 Surface 8.0 26.6 73.3 243 112 8.0 73.1 1.0 0.1 28.5 26.6 49 2.5 8 3.8 7 4.4 0.2 28.3 8.0 27.6 71.6 4.8 IM7 Moderate 07:46 8.7 Middle 28.3 8.0 27.6 71.6 821372 806844 8 4.4 0.2 117 28.3 8.0 27.6 4.8 3.8 7.7 0.1 73 28.3 8.0 27.6 4.8 6.2 6 Bottom 28.3 8.0 27.6 71.7 0.1 73 28.3 8.0 4.8 6.2 1.0 0.2 74 28.7 7.9 26.3 73.8 4.9 2.4 24 Surface 28.7 7.9 26.3 73.9 7.9 26.3 4.9 2.4 1.0 0.2 77 28.7 73.9 23 4.3 0.1 28.5 26.7 26.8 4.9 3.3 24 72 7.9 73.0 7.9 07:59 26.7 73.0 821814 808153 IM8 Fine Moderate 8.6 Middle 28.5 23 7.9 73.0 23 4.9 3.2 4.3 76 28.5 0.1 7.6 8.0 22 21 0.1 105 28.4 27.4 72.9 73.0 4.9 4.9 4.1 28.4 8.0 27.4 73.0 4.9 Rottom

DA: Depth-Averaged

Water Quality Monitoring Results on 21 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Current Speed Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Station Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 28.7 253 26.3 254 28.7 7.9 26.3 74 4 4.1 41 0.2 274 28.7 7.9 26.4 72.8 49 5.5 IM9 07:51 Middle 7.9 26.4 72.8 808827 Fine Rough 8.1 822088 4.1 0.2 274 28.7 7.9 26.4 72.8 4.9 5.5 8 7.1 0.1 307 28.5 7.9 26.8 71.9 4.8 6.4 7 28.5 7.9 26.7 72.0 7.1 0.1 317 28.5 79 26.7 72 N 4.8 6.4 6 1.0 0.8 321 28.5 7.9 72.9 4.9 6.4 Surface 7.9 27.2 72.9 1.0 0.9 326 28.5 7.9 27.1 72.8 4.9 6.4 7 4.0 0.7 321 337 28.2 7.9 27.6 70.4 4.7 7.4 7.5 6 7 IM10 Moderate 07:41 8.0 Middle 7.9 27.6 70.4 822372 809778 4.0 28.2 7.9 0.8 27.6 4.7 0.6 323 28.2 9.0 7.0 7.9 27.7 68.6 4.6 6 Bottom 28.2 7.9 27.7 68.7 7.0 0.6 326 28.2 79 27.6 68.8 46 8.9 6 0.8 315 28.2 6.5 Surface 28.2 7.9 27.6 70.4 1.0 331 7.9 6.6 7.4 0.9 28.2 27.6 70.4 4.7 6 6 28.0 28.0 27.9 27.9 4.6 321 346 67.9 4.6 IM11 Fine Moderate 07:30 9.2 Middle 28.0 7.9 27.9 67.9 822035 811442 4.6 0.7 7.9 7.0 4.6 314 8.2 0.7 28.0 7.9 67.5 9.1 6 27.9 4.5 28.0 7.9 67.6 Bottom 27.9 4.5 8.2 0.7 325 28.0 7.9 27.9 67.6 8.9 28.2 5.5 Surface 28.2 7.9 27.6 70.8 1.0 1.0 319 28.2 5.4 4.4 0.8 301 28.2 4.7 6.6 5 7.9 69.8 07:21 821458 812026 IM12 Fine Moderate 8.8 Middle 28.2 7.9 27.7 69.9 4.4 6.5 0.8 326 28.2 28.2 7.9 27.6 8.3 69.8 28.2 7.9 27.6 69.8 Rottom 7.8 0.7 310 28.2 7.9 27.6 69.8 47 8.0 28.4 7.9 27.6 27.6 2.9 Surface 28.4 7.9 27.6 70.2 1.0 28.4 4.7 3.0 6 2.4 812664 SR1A Calm 06:42 Middle 2.4 28.4 7.9 4.7 3.5 9 Bottom 28.4 7.9 27.7 70.2 3.7 28.4 79 27.7 70.2 47 3.5 10 1.0 0.1 184 28.2 7.9 27.6 4.7 3.5 10 Surface 28.2 7.9 27.6 70.1 1.0 0.1 198 28.2 7.9 27.6 70.1 4.7 3.7 10 SR2 Moderate 06:24 4.2 Middle 821442 814184 0.1 204 43 5 32 28 1 70.2 4.7 7.9 27.6 70.2 4.7 42 10 32 28.1 0.1 206 1.0 0.2 51 28.6 8.0 26.7 73.5 4.9 4.3 q Surface 28.6 8.0 26.7 73.4 8.0 26.7 49 42 8 1.0 0.2 53 28.5 4.9 79 28.3 8.0 27.5 27.5 6.6 9 0.2 4.8 SR3 Moderate 08:07 9.7 Middle 27.5 71.7 822169 807562 4.8 6.8 0.2 79 4.9 28.3 7.2 7.2 8.7 0.1 31 28.3 8.0 27.5 27.5 72.2 72.3 4.8 8 Bottom 28.3 8.0 27.5 72.3 0.1 31 28.3 0.1 28.2 1.0 221 7.9 27.7 69.8 4.7 3.0 4 Surface 28.2 7.9 27.7 69.8 7.9 27.7 69.8 4.7 1.0 0.1 228 28.2 3.1 4.4 0.2 63 28.2 4.7 4.3 5 7.9 27.7 69.5 SR4A 06:22 7.9 27.7 69.5 817172 807811 Fine Calm 8.8 Middle 28.2 5 4.4 28.2 7.9 69.5 4.6 4 0.2 69 28.2 28.2 7.8 0.1 7.9 69.5 69.5 4.7 6.7 4 7.9 27.7 28.2 69.5 Rottom 7.9 6.6 307 27.9 70.1 1.0 0.2 28.0 7.9 27.9 28.0 4.1 Surface 28.0 7.9 70.1 1.0 0.2 320 28.0 7.9 70.0 4.7 4.1 SR5A 06:04 3.2 Middle 816587 810678 Fine Calm 2.2 0.2 293 27.9 28.2 68.9 4.6 Bottom 27.9 7.9 28.2 68.9 4.6 308 7.9 68.9 4.6 1.0 0.1 201 27.5 7.9 28.7 65.9 5.0 4 Surface 27.5 7.9 28.7 65.9 1.0 0.1 216 27.5 7.9 28.7 65.9 4.7 5.2 3 SR6A Fine Calm 05:34 4.3 Middle 817957 814715 4.3 4.3 3.3 0.1 223 27.3 7.9 28.9 64.2 6.0 3 27.3 7.9 28.9 64.3 3.3 0.1 227 116 27.3 7.0 28.9 6/13 13 5.9 4 0.0 27.4 79 28.7 75.6 2.3 Surface 28.7 75.6 1.0 0.0 127 27.4 79 28.7 75.6 5.1 2.3 8 8.2 0.1 184 27.0 7.9 29.3 74.9 5.0 4.2 7 SR7 Moderate 05:13 16.4 Middle 27.0 7.9 29.3 74.9 823645 823746 8 8.2 0.1 192 27.0 7.9 29.3 74.9 5.0 4.2 15.4 0.1 76 26.9 7.9 29.4 70.0 4.7 5.8 10 Rottom 26.9 7.9 29.4 70.0 15.4 0.1 81 26.9 7.9 29 4 70.0 4.7 5.9 10 1.0 28.3 7.9 27.6 71.1 4.8 3.9 4 Surface 28.3 7.9 27.6 71.1 1.0 28.3 7.9 27.6 71.1 4.8 4.0 5 -811613 07:11 820370 SR8 Fine Calm 5.1 Middle 5 4.1 28.1 7.9 27.8 5.5 4 68.7 4.6 28.1 7.9 27.8 69.1 4.7

DA: Depth-Averaged

Water Quality Monitoring Results on 23 September 21 during Mid-Ebb Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) 28.9 0.3 249 27.4 259 28.9 7.9 27.4 75.7 3.2 10 3.8 0.2 196 28.8 7.9 27.4 73.4 4.9 4.8 8 C1 13:45 7.9 27.4 73.4 804256 Cloudy Rough 7.5 815638 3.8 0.2 210 28.8 7.9 27.4 73.4 4.9 4.8 7 6.5 0.2 204 28.6 7.9 27.4 69.1 4.6 7.2 8 7.9 27.4 69.1 6.5 0.2 216 163 28.6 79 27.4 69 1 46 7.3 7 1.0 0.2 28.5 8.0 27.6 76.8 5.1 3.2 Surface 8.0 27.6 76.8 3.2 1.0 0.2 175 28.5 8.0 27.6 76.8 5.1 5 4.1 0.2 165 170 28.5 8.0 27.6 76.0 4.8 7 C2 Cloudy Rough 12:36 8.1 Middle 8.0 27.6 76.0 825664 806928 4.1 28.5 8.0 4.9 6 0.2 27.6 76.0 0.3 160 28.4 5.9 6 7.1 8.0 27.7 74.9 5.0 Bottom 28.4 8.0 27.7 75.0 5.0 167 7.1 5.0 0.3 28.4 8.0 27.7 75.1 6.0 7 0.4 28.4 5.1 Surface 28.4 7.9 27.9 70.8 1.0 59 7.9 27.9 5.1 0.5 28.4 70.7 4.7 6 27.7 27.7 4.8 5 6 0.3 104 28.7 6.3 61.0 4.1 C3 Cloudy Rough 14:34 12.6 Middle 27.7 7.9 28.7 61.0 6 822110 817795 113 7.9 4.8 0.3 7.0 11.6 0.3 89 27.6 7.9 5 28.8 61.8 4.2 27.6 7.9 61.9 Bottom 28.8 4.2 11.6 0.3 89 27.6 7.9 28.8 62.0 4.2 7.0 6 206 29.2 79.2 4.0 7.9 5.2 Surface 29.2 7.9 27.1 79.2 1.0 0.1 223 29.2 7.9 79.1 5.2 4.0 10 13:23 817970 807117 IM1 Cloudy Rough 5.4 Middle 12 4.4 0.2 164 28.6 7.9 27.4 71.9 4.8 5.2 28.6 7.9 27.4 72.0 48 Rottom 4.4 0.2 166 28.6 7.9 27.4 72.0 4.8 5.2 11 29.0 26.4 8 Surface 29.0 7.9 26.4 80.3 1.0 0.0 80 29.0 7.9 5.3 3.4 9 3.7 163 28.6 4.8 4.7 9 72.0 818172 806164 Cloudy Rough 13:15 7.3 Middle 7.9 27.2 3.7 168 28.6 4.8 4.8 10 11 0.2 6.3 0.2 174 28.5 7.9 68.3 4.6 5.4 Bottom 28.5 7.9 27.6 68.4 6.3 0.2 186 28.5 79 27.6 68.5 46 5.4 11 1.0 0.1 69 29.0 7.9 26.4 78.8 3.4 9 Surface 7.9 26.4 78.8 0.2 75 29.0 7.9 26.4 78.7 5.2 3.4 8 3.8 0.1 115 28.9 5.2 4.0 9 IM3 Cloudy Rough 13:08 7.5 Middle 26.5 77.5 818768 805605 124 102 10 3.8 0.1 28.9 4.0 28.5 6.5 0.1 7.9 41 Bottom 27.3 71.2 7.9 27.3 71.2 4.7 4.1 11 0.1 102 6.5 28.5 95 1.0 0.1 29.1 7.9 26.2 81.0 5.4 5.4 10 Surface 29.1 7.9 26.2 80.9 5.4 5.5 11 0.1 79 26.2 80.8 1.0 99 29 1 4.3 0.2 90 28.6 27.3 27.3 71.6 71.5 6.9 11 11 7.9 4.8 IM4 Cloudy 12:58 8.6 Middle 7.9 27.3 71.6 819741 804603 Rough 4.8 0.2 90 28.6 4.3 124 130 8.2 8.3 11 11 7.6 7.6 0.2 28.5 7.9 7.9 27.4 27.4 71.3 4.8 7.9 71.3 Bottom 28.5 27.4 28.5 226 5.7 1.0 0.3 29.0 7.9 26.3 79.0 5.3 9 Surface 29.0 7.9 26.3 79.0 7.9 26.3 78.9 5.3 5.7 1.0 0.3 230 29.0 9 3.7 0.1 170 28.8 4.1 8 7.9 74.8 5.0 26.7 IM5 12:51 7.4 28.8 7.9 26.7 74.8 820755 804884 Cloudy Rough Middle 9 3.7 186 28.8 7.9 74.8 4.2 9 0.1 10 120 129 6.4 0.1 28.4 8.0 27.6 27.6 71.6 71.5 4.8 6.2 8.0 27.6 71.6 Rottom 28.4 0.2 28.4 1.0 0.3 229 29.0 7.9 26.3 26.3 75.4 2.1 Surface 29.0 7.9 26.3 75.4 1.0 244 29.0 7.9 75.4 5.0 2.2 0.3 3.8 0.0 95 28.7 7.9 72.3 4.8 3.2 9 26.9 IM6 Cloudy 12:44 7.6 Middle 28.7 7.9 26.9 72.3 821064 805818 Rough 3.8 0.0 28.7 7.9 26.9 72.3 4.8 3.2 8 6.6 0.0 156 28.3 8.0 27.9 72.0 4.8 3.8 Bottom 28.3 8.0 27.9 72.1 169 28.3 8.0 4.8 3.8 1.0 0.2 273 29.1 7.9 26.1 77.8 5.4 10 Surface 29.1 7.9 26.1 77.8 1.0 0.2 289 29.1 7.9 26.1 77.8 5.2 5.4 9 3.6 0.1 276 28.9 7.9 72.9 4.9 3.9 9 26.6 IM7 Cloudy Rough 12:38 7.1 Middle 28.9 7.9 26.6 72.9 821363 806840 3.6 0.1 282 28.9 7.9 26.6 72 Q 4.9 3.9 8 6.1 0.1 176 28.6 7.9 27.1 71.8 4.8 6.3 8 7.9 27.1 71.9 6.1 0.1 180 28.6 7.0 27 1 71.0 18 6.4 1.0 0.1 120 29.0 79 26.3 75.9 5.1 3.0 Surface 7.9 26.3 75.9 1.0 0.1 126 29.0 79 26.3 75.9 5.1 3.0 6 43 0.2 95 28.8 7.9 26.8 72.5 4.8 3.2 6 5 IM8 Cloudy Rough 12:56 8.6 Middle 28.8 7.9 26.8 72.6 821816 808121 3.2 4.3 0.2 96 28.8 7.9 26.8 72.6 4.8 7.6 0.2 57 28.4 7.9 27.8 71.1 4.7 5.9 6 7.9 Bottom 28.4 27.8 71.1 28.4

DA: Depth-Averaged

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

Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water To	emperature (°C	:)	pН	Salin	ity (ppt)		aturation %)	Disso		Turbidity	(NTU)	Suspended : (mg/L)		Coordinate	Coordina
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	oth (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA			HK Grid Northing)	HK Gri (Easting
					Surface	1.0	0.3	107	28.8	28.8	7.9 7.9	7.9	26.6	26.6	75.7 75.7	75.7	5.0 5.0		3.5		10			
IM9	01	Dt	13:03	7.9	Middle	1.0 4.0	0.3	113 100	28.7	00.7	7.9	7.0	26.6 26.9	00.0	72.4	72.4	4.8	4.9	3.5 4.0	4.1	9	9	822102	00004
IIVI9	Cloudy	Rough	13:03	7.9	Middle	4.0	0.3	105	28.7	28.7	7.9	7.9	26.9	26.9	72.4	72.4	4.8		4.0	4.1	8	9	822102	80881
					Bottom	6.9	0.2	78 79	28.4 28.4	28.4	8.0	8.0	27.7	27.7	71.6 71.6	71.6	4.8	4.8	5.0 5.0		7 8			1
					0(1.0	0.5	112	29.0	00.4	7.9	7.0	26.3	00.0	80.0	00.0	5.3		3.8		6			
					Surface	1.0	0.5	122	29.1	29.1	7.9	7.9	26.3	26.3	79.9	80.0	5.3	5.1	3.9	1	5			l
IM10	Cloudy	Rough	13:12	8.1	Middle	4.1 4.1	0.6	101 105	28.7	28.7	7.9 7.9	7.9	27.0 27.0	27.0	73.4 73.3	73.4	4.9 4.9		4.7 4.7	5.2	6 5	6	822400	80980
					Bottom	7.1	0.3	104	28.5	28.5	7.9	7.9	27.3	27.3	71.2	71.2	4.7	4.7	7.0	ł	5			l
					BOILOTT	7.1	0.4	111	28.5	20.5	7.9	7.9	27.3	21.3	71.2	/1.2	4.7	4.7	7.0		6			<u> </u>
					Surface	1.0	0.5	105 108	28.9 28.9	28.9	7.9 7.9	7.9	26.5 26.5	26.5	77.7 77.6	77.7	5.2		2.3	ŀ	9			l
IM11	01		40.04			4.6	0.4	115	28.6	00.0	7.9	7.0	27.3	27.3	70.9	70.9	4.7	5.0	3.7		5	_	000044	04445
IM11	Cloudy	Moderate	13:21	9.2	Middle	4.6	0.4	121	28.6	28.6	7.9	7.9	27.3	21.3	70.9	70.9	4.7		3.8	3.8	6	7	822044	81145
					Bottom	8.2 8.2	0.2	110 118	28.5 28.5	28.5	7.9 7.9	7.9	27.4 27.4	27.4	70.8 70.9	70.9	4.7	4.7	5.4 5.4		6			1
					0(1.0	0.5	107	29.1	00.4	7.9	7.0	26.4	00.4	80.2	00.0	5.3		4.3		2			
					Surface	1.0	0.6	115	29.0	29.1	7.9	7.9	26.4	26.4	80.1	80.2	5.3	5.1	4.3		2			1
IM12	Cloudy	Moderate	13:29	8.3	Middle	4.2 4.2	0.4	107 115	28.6 28.6	28.6	7.9	7.9	27.2	27.2	72.6 72.6	72.6	4.8		5.0 5.1	5.4	5 4	4	821444	81204
					B	7.3	0.4	95	28.5	00.5	7.9	7.0	27.5	07.5	69.0	00.4	4.6	4.6	6.7	ł	4			1
					Bottom	7.3	0.2	103	28.5	28.5	7.9	7.9	27.5	27.5	69.1	69.1	4.6	4.6	6.8		5			
					Surface	1.0	-	-	28.8	28.8	7.9	7.9	27.4	27.4	74.1 74.1	74.1	4.9 4.9		3.1 3.1	ŀ	7 8			1
SR1A	01		40.57	4.0		2.4	-	-	-		-		-	-			-	4.9	-	4.7	-	8	819977	81265
SKIA	Cloudy	Moderate	13:57	4.8	Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-	4.7	-	8	819977	81265
					Bottom	3.8	-	-	28.7	28.7	7.9 7.9	7.9	27.4	27.4	70.4 70.5	70.5	4.7	4.7	6.2		7 8			1
					0(1.0	0.7	101	28.7	00.7	7.9	7.0	27.0	07.0	75.1	75.4	5.0		4.4		6			
					Surface	1.0	0.7	104	28.7	28.7	7.9	7.9	27.0	27.0	75.0	75.1	5.0	5.0	4.4		6			1
SR2	Cloudy	Moderate	14:14	5.5	Middle	-	- :	-	-	-	-	-	-	-	-	-	-		-	5.7	-	7	821474	81415
					B	4.5	0.4	48	28.6	00.0	7.9	7.0	27.3	07.0	73.3	70.4	4.9	4.0	7.1	ł	7			1
					Bottom	4.5	0.4	52	28.6	28.6	7.9	7.9	27.3	27.3	73.5	73.4	4.9	4.9	7.1		8			
					Surface	1.0	0.1	198 200	29.1 29.1	29.1	7.9 7.9	7.9	26.1 26.1	26.1	77.3 77.3	77.3	5.1 5.1		2.4		6 7			1
SR3	01	Dt	40.40	7.4	Middle	3.7	0.1	171	28.7	00.7	7.9	7.0	26.9	00.0	72.0	70.0	4.8	5.0	3.0		7		000400	00757
SK3	Cloudy	Rough	12:49	7.4	Middle	3.7	0.2	181	28.7	28.7	7.9	7.9	26.9	26.9	72.0	72.0	4.8		3.0	3.5	6	6	822139	80757
					Bottom	6.4	0.1	190 191	28.6 28.6	28.6	8.0	8.0	27.1 27.2	27.1	72.0 72.1	72.1	4.8	4.8	4.9 4.9		5			1
					0(1.0	0.1	75	29.0	00.0	8.0	0.0	26.7	00.7	80.5	00.5	5.3		2.3		9			
					Surface	1.0	0.3	77	29.0	29.0	8.0	8.0	26.7	26.7	80.5	80.5	5.3	5.2	2.4	İ	8			l
SR4A	Cloudy	Rough	14:08	9.9	Middle	5.0 5.0	0.3	69 70	28.8	28.8	7.9	7.9	27.0	27.0	76.1 76.1	76.1	5.1 5.1		3.6	3.4	9	9	817179	80781
					B	8.9	0.3	67	28.8	00.0	7.9	7.0	27.1	07.4	75.3	75.4	5.0	5.0	4.2	ł	9			1
					Bottom	8.9	0.2	69	28.8	28.8	7.9	7.9	27.1	27.1	75.4	75.4	5.0	5.0	4.3		8			<u> </u>
					Surface	1.0	0.1	272 274	28.4	28.4	7.9 7.9	7.9	27.9 27.9	27.9	73.1 73.2	73.2	4.9		6.2		10 9			1
SR5A	01	Dt	14:29		Middle	- 1.0	-	-	-		-		-	_	-	_	-	4.9	- 0.2	7.4	-	9	816569	04074
SK5A	Cloudy	Rough	14:29	5.1	Middle	-	-	-	-	-	-		-	-		-	-		-	7.4	-	9	816569	810710
					Bottom	4.1	0.1	269 278	28.1	28.1	7.9	7.9	28.2	28.2	66.4 66.3	66.4	4.4	4.4	8.5 8.5		7 8			1
					0(1.0	0.0	95	27.8	07.0	7.9	7.0	28.7	00.7	67.8	07.0	4.5		6.1		10			
					Surface	1.0	0.0	98	27.8	27.8	7.9	7.9	28.7	28.7	68.0	67.9	4.6	4.6	6.1	1	11			1
SR6A	Cloudy	Rough	14:52	5.7	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.9	-	10	817961	81471
					B	4.7	0.0	195	27.7	07.7	7.9	7.0	28.8	00.0	64.4	04.5	4.3	4.0	5.8	ł	9			1
					Bottom	4.7	0.0	202	27.7	27.7	7.9	7.9	28.8	28.8	64.5	64.5	4.3	4.3	5.8		8			<u> </u>
					Surface	1.0	0.5	74	27.8	27.8	7.9 7.9	7.9	28.7	28.6	79.3 79.4	79.4	5.4 5.4		3.6		5			1
0.07		D t	45.04	40.4	*****	1.0 8.1	0.5	80 54	27.8 27.6	07.0	7.9	7.0	28.9	00.0	67.7	07.7	4.5	5.0	3.6 5.5		5	_	000000	000==
SR7	Cloudy	Rough	15:01	16.1	Middle	8.1	0.2	58	27.6	27.6	7.9	7.9	28.9	28.9	67.7	67.7	4.5		5.5	5.7	5	5	823620	82376
					Bottom	15.1	0.2	33	27.4	27.4	7.9	7.9	29.2	29.2	61.2 61.2	61.2	4.1	4.1	7.8		4			l
					<u> </u>	15.1	0.2	34	27.3 29.3		7.9 7.9	-	27.1		79.3		4.1 5.2		7.8 5.5	 	3 6	_		—
					Surface	1.0	-	-	29.3	29.3	7.9	7.9	27.1	27.1	79.3	79.3	5.2	5.2	5.5	1	6			l
SR8	Cloudy	Moderate	13:36	5.1	Middle	-	-	-	-	-			-	-	-	-	-	J.2	-	7.4	-	6	820399	81161
					<u> </u>	4.1	-	-	28.7		7.9		27.4		73.5		4.9		9.3	ł	2			l .
	1		1	l	Bottom	4.1	l .	-	28.7	28.7	7.9	7.9	27.4	27.4	73.5	73.5	4.9	4.9	9.3	İ	10			1

Water Quality Monitoring Results on 23 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Northing) (Easting) Condition 28.8 0.4 61 Surface 28.8 7.9 27.2 69.0 1.0 0.5 62 28.8 7.9 27.2 68.9 4.6 5.1 13 3.2 0.5 49 28.8 3.3 12 27.3 69.6 C1 07:42 7.9 27.3 69.6 804244 6.3 Middle 28.8 815620 Cloudy Rough 11 28.8 7.9 69.6 4.6 3.3 13 0.6 51 5.3 0.4 50 28.7 7.9 27.4 70.4 4.7 4.2 7 7.9 28.7 27.4 70.4 47 Rottom 7.9 27.4 4.7 28.7 70.4 4.2 5.3 0.4 0.2 28.8 3.8 4.8 Surface 28.8 7.9 26.4 72.6 0.2 3.8 5.6 28.8 26.4 4.8 28.8 3.6 7.9 4.8 9 26.6 72.4 C2 Rainv Rough 09:23 7.2 Middle 28.8 7.9 26.6 72.4 825705 806960 0.2 58 28.8 7.9 26.6 72.4 4.8 5.7 10 3.6 7.9 26.8 26.8 72.1 6.2 0.2 346 28.7 7.9 4.8 7.5 9 28.7 72.1 Bottom 6.2 318 28.7 7.9 26.8 72.1 7.6 10 0.2 254 28.5 3.1 Surface 28.5 7.9 27.6 70.0 0.7 256 28.4 7.9 27.6 69.9 4.7 3.2 5.9 5.9 5.9 0.6 252 258 27.5 7.9 4.1 8 28.9 28.9 60.4 C3 07:17 822117 817814 Cloudy Rough 11.7 Middle 27.5 7.9 60.4 9 0.6 27.5 7.9 10.7 0.4 257 27.5 7.9 29.0 60.7 9.3 11 Bottom 27.5 7.9 29.0 60.7 10.7 0.4 259 27.5 7.9 29.0 60.7 41 9.4 10 1.0 0.2 31 28.7 27.2 27.2 27.2 72.6 72.6 4.8 4.7 4 Surface 28.7 7.9 72.6 1.0 0.2 32 28.7 7.9 4.8 4.7 5 08:05 4.4 817925 IM1 Cloudy Moderate Middle 3.4 0.1 331 28.4 7.9 27.7 69.3 4.6 9.3 9 Bottom 28.4 7.9 27.7 69.4 3.4 0.1 342 28.4 79 27.7 69.4 46 9.3 8 1.0 44 3.7 0.3 28.6 7.9 27.4 70.3 4.7 6 Surface 7.9 27.4 70.3 1.0 0.3 46 28.6 7.9 27.4 70.3 4.7 3.7 6 4.7 0.3 16 28.4 7.9 27.6 68.3 4.6 4.2 3 IM2 Cloudy Rough 08:13 9.4 Middle 7.9 27.6 68.3 818140 806154 4.7 0.3 16 28.4 7.9 27.6 68.3 4.6 4.2 3 348 7.5 8.4 0.2 28.3 79 27.7 67.8 4.5 7.9 27.7 67.8 351 7.9 27.7 7.6 3 8.4 0.3 28.3 67.8 4.5 0.3 346 28.5 79 27.5 71.0 47 24 Surface 7.9 27.5 71.0 1.0 318 28.5 7.9 27.5 71.0 2.4 0.4 4.7 6 0.3 304 28.4 4.6 5 3.9 7.9 27.6 68.9 IM3 Cloudy Rough 08:21 7.7 Middle 28.4 7.9 27.6 68.9 818774 805588 317 294 2.6 5.3 28.4 28.4 6 5 3.9 0.3 7.9 27.6 68.9 4.6 0.2 7.9 27.6 68.2 4.6 7.9 Bottom 28.4 27.6 68.3 6.7 0.2 294 28.4 7.9 27.6 68.3 4.6 5.3 6 328 1.0 0.6 3.6 29.0 7.9 26.4 77.9 5.2 5 Surface 29.0 7.9 26.4 77.9 0.6 352 29.0 3.6 4 4.4 4.7 5 331 28.9 4.9 0.5 7.9 26.6 74.2 IM4 Cloudy 08:31 8.8 Middle 28.9 7.9 26.6 74.2 819736 804598 Rough 4.4 0.5 354 28.9 74.2 4.9 4.7 4 0.4 325 28.6 8.2 4 7.9 71.3 Bottom 28.6 27.4 7.8 0.4 351 28.6 8.3 1.0 0.7 29.1 7.9 25.7 77.7 5.9 8 5.2 Surface 29.1 7.9 25.7 77.7 1.0 0.8 29.1 7.9 77.6 5.2 6.0 7 4.1 0.6 29.0 4.6 9 26.0 5.0 Rainy IM5 08:43 8.1 Middle 29.0 7.9 26.0 74.4 820730 804866 Rough 4.1 0.6 29.0 4.7 2.2 28.9 26.3 4.9 4.9 Bottom 28.9 7.9 26.3 72.9 7.9 7.1 0.5 28.9 8 1.0 0.1 184 29.1 7.9 3.2 12 25.5 Surface 7.9 25.5 1.0 0.1 190 29.1 79 77 1 3.1 11 3.1 0.2 92 28.8 8.0 74.0 4.9 2.1 9 Rainy Rough 08:54 6.2 Middle 28.8 8.0 26.7 74.0 821063 805813 10 3.1 0.3 92 28.8 8.0 26.7 74.0 4.9 2.1 8.0 4.8 5.2 0.3 28.5 72.5 4.0 10 27.6 0.3 87 28.5 4 0 q 1.0 0.2 273 28.9 7.9 26.3 74.2 2.1 12 Surface 7.9 26.3 74.2 286 166 79 5.0 11 1.0 0.2 28.9 26.3 74 2 2.1 3.8 5.0 12 0.1 28.6 8.0 27.1 72.9 4.9 IM7 Rainy 09:04 7.6 Middle 28.6 8.0 27.1 73.0 821338 806852 Rough 11 3.8 0.1 180 28.6 8.0 27.1 4.9 4.9 6.6 0.1 84 28.4 8.0 27.6 72.1 4.8 5.3 11 Bottom 28.4 8.0 27.6 72.2 6.6 0.1 88 28.4 8.0 4.8 5.4 11 1.0 0.2 50 29.0 7.9 25.6 25.6 76.1 5.1 4.0 6 Surface 29.0 7.9 25.6 76.1 7.9 5.1 76.1 4.0 7 1.0 0.2 50 29.0 3.7 0.2 8.0 4.9 5.5 7 62 28.6 27.4 73.3 8.0 27.4 73.4 821850 808145 IM8 Cloudy Rough 08:59 7.4 Middle 28.6 27.4 73.4 5.5 7 4.9 3.7 65 28.6 0.2 27.6 27.6 6.4 0.2 100 28.5 8.0 73.0 4.9 4.9 4.9 12.2 9 28.5 8.0 27.6 73.0 Rottom

DA: Depth-Averaged

Water Quality Monitoring Results on 23 September 21 during Mid-Flood Tide DO Saturation Dissolved Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Weather Sampling Water Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Station Direction Time Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Fasting) Condition Condition Depth (m) (m/s) (Northina) 29.1 0.3 100 25.7 100 29.1 7.9 25.7 77.5 4.0 4 0 0.2 106 29.0 7.9 26.0 74.2 4.9 4.8 8 08:51 7.9 26.0 74.2 808804 IM9 Cloudy Rough 7.9 Middle 4.0 0.2 106 29.0 7.9 26.0 74 1 4.9 4.8 7 6.9 0.2 124 28.8 7.9 26.6 72.4 4.8 8.5 7 28.8 7.9 26.6 72.4 6.9 0.2 131 28.8 79 26.6 72 4 4.8 8.4 8 298 10 1.0 0.6 28.9 7.9 26.4 5.2 3.5 Surface 7.9 26.4 77.5 1.0 0.6 298 28.9 7.9 26.4 77.4 5.2 3.5 9 3.9 0.5 301 28.9 7.9 75.3 5.1 5.1 8 IM10 Cloudy Rough 08:42 7.8 Middle 7.9 26.5 75.3 822369 809781 323 28.9 7.9 0.5 26.5 75.3 28.6 6.8 6.8 0.3 294 7.9 27.4 70.8 8 Bottom 28.6 7.9 27.4 70.9 6.8 0.3 300 28.6 79 27.4 70.9 47 6.8 q 0.4 299 28.5 2.9 Surface 28.5 7.9 27.5 70.8 2.9 3.7 3.7 1.0 306 7.9 27.5 0.4 28.5 70.8 4.7 8 28.5 28.5 7 0.3 4.6 4.1 281 301 69.4 IM11 Cloudy Rough 08:32 8.2 Middle 28.5 7.9 27.5 69.5 8 822045 811471 7.9 4.6 4.1 0.3 279 10 7.2 0.2 28.4 7.9 68.3 4.6 4.0 27.6 7.9 68.3 Bottom 28.4 27.6 7.2 0.2 299 28.4 7.9 27.6 68.3 4.1 9 28.6 2.7 Surface 28.6 7.9 27.4 70.3 1.0 0.6 282 28.6 2.7 10 3.8 0.5 273 28.5 7.9 4.6 1.5 10 27.4 69.5 821473 812057 IM12 Cloudy 08:25 7.6 Middle 28.5 7.9 27.4 69.5 Rough 1.6 3.8 0.5 291 28.5 0.3 28.4 7.9 27.6 4.6 3.3 68.3 28.4 7.9 27.6 68.3 Rottom 46 6.6 0.4 293 28.4 7.9 27.6 68.3 4.6 3.3 28.8 7.9 5.4 73.8 Surface 28.8 7.9 27.1 73.8 1.0 28.8 7.9 4.9 5.4 8 2.2 819981 812665 SR1A Cloudy Rough 07:53 Middle 2.2 10 3.3 28.7 7.9 72.0 4.8 4.8 Bottom 28.7 7.9 27.3 72.0 3.3 28.7 79 27.3 71 9 4.8 4.8 9 1.0 0.2 332 28.5 7.9 70.4 4.7 1.2 9 Surface 28.5 7.9 27.4 70.5 1.0 0.2 305 28.5 7.9 27.4 70.5 4.7 1.2 8 SR2 Cloudy Rough 07:36 4.1 Middle 821462 814173 0.0 29 9 3.1 28.5 2.1 27.4 4.7 7.9 27.4 70.5 4.7 2.2 3.1 0.0 29 28.5 q 72 1.0 0.1 28.9 7.9 26.3 74.2 4.9 2.1 8 Surface 28.9 7.9 26.3 74.2 2.2 77 79 26.3 49 1.0 0.1 28.9 3.7 0.2 99 8.0 4.0 8 7 28.6 27.1 72.7 72.7 4.9 SR3 Rainy 09:06 7.3 Middle 27.1 72.7 822169 807557 Rough 27.1 4.1 0.2 100 28.6 4.9 3.7 107 107 6.3 0.2 28.4 8.0 27.7 4.8 4.6 9 Bottom 28.4 8.0 27.7 71.3 6.3 0.2 28.4 125 0.1 28.5 2.2 1.0 7.9 27.3 70.8 4.7 4 Surface 28.5 7.9 27.3 70.8 136 7.9 27.3 70.8 4.7 1.0 0.1 28.5 2.3 4.8 0.2 95 28.5 4.7 3.4 4 7.9 27.4 69.9 07:19 7.9 27.4 69.9 5 817201 807790 SR4A Cloudy Moderate 9.5 Middle 28.5 4.8 28.5 7.9 27.4 69.9 3.4 5 0.2 28.5 28.5 5.7 8.5 0.2 7.9 27.4 27.4 69.5 69.5 4.6 4.6 6 7.9 27.4 69.5 28.5 46 Rottom 7.9 5.8 331 28.2 1.0 0.1 7.9 27.9 28.0 27.9 69.2 4.6 3.0 12 Surface 28.2 7.9 69.1 1.0 0.1 356 28.2 7.9 4.6 3.1 11 SR5A 07:01 4.3 Middle 816614 810695 Cloudy Moderate 3.3 0.1 339 27.6 28.9 4.2 2.1 11 Bottom 27.6 7.9 28.9 61.9 312 7.9 28.9 61.9 11 1.0 0.0 188 28.1 7.9 10 Surface 28.1 7.9 28.0 71.8 1.0 0.0 196 28.1 7.9 28.0 71.8 4.8 5.0 9 SR6A Cloudy Moderate 06:31 4.8 Middle 817977 814722 4.2 3.8 0.0 189 27.7 7.9 28.5 63.2 4.2 9 27.7 7.9 28.5 63.2 3.8 0.0 192 27.7 7.0 28.5 63.2 12 4.2 1.0 0.1 339 28.0 79 28.2 85.8 5.3 5.0 Surface 28.1 85.8 1.0 0.1 312 28.0 79 28 1 85.8 5.3 5.0 8 8.3 0.4 26 27.7 7.9 28.4 65.8 46 3.9 8 9 SR7 Cloudy 06:48 16.5 Middle 27.7 7.9 28.4 65.9 823647 823749 Rough 8.3 0.4 28 27.7 7.9 28.4 65.9 4.6 3.9 15.5 0.4 35 27.4 7.9 28.8 60.7 4.3 2.5 7 Rottom 27.4 7.9 28.8 60.7 15.5 0.4 35 27.4 7.9 28.8 60.7 44 2.6 8 1.0 28.7 7.9 27.3 71.8 4.8 2.3 9 Surface 28.7 7.9 27.3 71.8 1.0 28.7 7.9 27.3 71.8 4.8 2.3 9 811608 820367 SR8 Cloudy Rough 08:16 4.2 Middle 7 3.2 28.4 7.9 27.7 27.7 67.6 1.5 4.5 28.4 7.9 27.7 67.7 4.5

DA: Depth-Averaged

Water Quality Monitoring Results on 25 September 21 during Mid-Ebb Tide DO Saturation Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Speed Oxvaen Sampling Depth (m) HK Grid HK Grid Direction Condition Time (m/s) Value Average Value Average Value Average Value DA Value DA Value DA Condition Depth (m) (Northing) (Easting) 29.0 0.2 116 30.9 123 119 29.0 8.1 30.9 96.0 2.9 3.4 42 0.3 28.7 8.1 31.2 90.6 5.9 6 C1 14:36 Middle 31.2 90.6 815616 804256 Sunny Rough 8.3 8.1 4.2 0.3 120 28.7 8.1 31.2 90.5 5.9 3.5 5 7.3 0.2 117 28.5 8.1 31.9 80.0 5.2 9.2 5 Bottom 8.1 31.9 80.1 5.2 28.5 7.3 0.2 126 28.5 8.1 31.9 80.1 5.2 9.2 6 0.2 27.4 1.0 86 28.9 8.0 80.6 1.0 Surface 8.0 27.4 80.6 1.0 0.3 87 28.8 8.0 80.5 5.3 1.1 5 5.6 0.4 89 28.7 8.0 80.1 1.2 5 6 C2 Calm 13:35 11.2 Middle 27.7 80.1 825659 806945 5.6 93 8.0 0.4 28.7 80.1 10.2 0.4 102 28.7 2.0 8.0 27.8 80.1 5.3 4 Bottom 28.7 8.0 27.8 80.2 103 27.8 10.2 0.4 28.6 8.0 80.2 5.3 19 4 0.5 28.4 4.9 Surface 28.4 7.9 28.2 80.3 1.0 68 7.9 28.2 79.7 4.9 5.4 0.5 28.4 5.3 2 <2 <2 28.1 28.0 28.3 28.4 5.0 7.9 74.5 C3 Fine Calm 15:16 12.2 Middle 28.1 7.9 28.4 74.8 2 822087 817802 0.3 7.9 5.5 6.1 93 <2 11.2 0.3 110 28.0 7.9 6.1 28.4 77.5 7.9 5.2 Bottom 28.1 28.4 78.3 5.3 11.2 0.3 115 28.1 8.0 28.4 79.1 5.3 6.1 <2 29.1 4.5 8.0 30.9 90.4 Surface 29.1 8.0 90.4 30.9 1.0 0.1 203 29.1 8.0 30.9 90.3 5.9 4.5 7 14:19 817935 807135 IM1 Sunny 5.2 Middle Rough 4.2 0.1 164 28.5 8.0 30.9 30.9 81.5 5.3 12.2 6 28.5 8.0 30.9 81.6 5.3 Rottom 4.2 0.1 171 28.5 8.0 81.6 5.3 12.3 0.4 353 28.8 6.0 6 Surface 28.8 8.0 30.9 83.8 1.0 0.4 325 28.8 6.0 0.4 354 28.5 8.7 6 7 30.9 14:12 818145 806155 Sunny Rough 7.1 Middle 8.0 30.9 78.8 0.4 326 354 28.5 28.5 8.7 6.1 0.4 8.0 31.0 9.9 4 Bottom 28.5 8.0 31.0 78.0 5.1 8.0 6.1 0.4 326 28.5 78 N 5.1 99 4 8.0 30.9 5.7 5.7 1.0 0.4 11 28.9 Surface 8.0 30.9 83.6 1.0 0.4 11 28.8 83.4 5.4 8 3.7 0.4 14 28.5 8.0 78.4 5.1 6.4 7 IM3 Sunny Rough 14:05 7.3 Middle 31.0 78.4 818800 805603 28.5 28.5 3.7 0.4 14 8.0 6.4 11 8.0 31.1 31.1 77.3 77.4 12.3 7 6.3 0.4 Bottom 77.4 31.1 5.1 12.3 0.4 11 2 6.3 28.5 1.0 0.3 124 29.3 8.0 30.9 30.9 88.3 4.8 3 Surface 29.3 8.0 30.9 88.3 5.7 0.3 88.2 4.8 1.0 133 29.2 3 3 <2 <2 4.2 119 8.0 6.1 0.4 28.6 31.1 78.9 5.1 IM4 Sunny 13:55 8.3 Middle 31.1 78.9 819748 804623 Rough 78.9 6.1 31.1 5.1 0.4 121 4.2 28.6 8.0 7.3 0.4 119 28.5 8.0 31.1 77.0 77.1 5.0 Bottom 28.5 8.0 31.1 77.1 5.0 0.4 119 28.5 143 1.0 0.3 29.3 8.0 3.1 29.3 29.4 87.8 87.7 5.7 2 Surface 29.3 8.0 29.3 87.8 152 3.1 1.0 0.3 29.3 5.7 4.3 0.4 139 28.7 6.1 2 8.0 5.3 30.9 81.2 IM5 13:49 28.7 8.0 30.9 81.2 2 820748 804882 Sunny Rough 8.5 Middle 4.3 152 8.0 30.9 6.2 3 0.4 28.7 7.5 28.6 28.6 7.0 7.0 0.4 138 8.0 30.9 30.9 30.9 79.4 5.2 5.2 8.0 79.4 2 Rottom 28.6 5.2 148 8.0 1.0 0.3 190 29.4 29.0 29.0 29.0 86.6 2.8 3 5.6 Surface 29.4 8.0 86.6 0.3 203 29.4 5.6 2.8 4.0 0.3 188 28.7 8.0 30.5 30.5 30.5 79.6 2.9 <2 IM6 Sunny Rough 13:42 8.0 Middle 28.7 8.0 79.7 821053 805851 4.0 0.3 196 28.7 2.9 <2 7.0 0.3 186 28.7 8.0 30.6 30.6 81.9 5.3 3.9 <2 Bottom 28.7 8.0 30.6 81.9 28.7 8.0 3.9 <2 0.3 1.0 0.4 345 29.4 7.9 28.9 86.4 2.9 Surface 29.4 7.9 28.9 86.4 1.0 0.4 355 29.4 7.9 28.9 86.4 5.6 2.9 3 4.2 0.3 347 28.8 8.0 30.3 30.2 81.9 4.3 Sunny Rough 13:35 8.4 Middle 28.8 8.0 30.2 82.0 821330 806840 4.2 349 28.8 8.0 82.0 5.4 4.4 7.4 0.3 345 28.7 8.0 30.5 79.1 5.8 <2 30.5 79.1 7.4 0.3 317 28.7 8.0 30.5 70 1 5.8 <2 27.4 1.0 0.3 92 28.8 8.0 82.7 5.5 1.0 Surface 27.4 82.9 1.0 0.4 97 28.8 8.0 83 1 5.5 1.0 4 41 0.3 92 28.8 8.0 27.5 27.5 83.6 5.6 1.8 3 IM8 Fine Calm 13:51 8.2 Middle 8.0 27.5 83.7 821831 808134 4.1 0.3 93 28.8 8.0 83.8 5.6 1.8 7.2 0.3 90 28.8 7.9 27.4 85.1 5.6 2.0 3 Bottom 28.9 7.9 27.3 85.5

DA: Depth-Averaged

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

Water Quality Monitoring Results on 25 September 21 during Mid-Ebb Tide DO Saturation Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Water Water Temperature (°C) Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Time Value Value Average Value Average Value Average Value DA Value DA Value DA Condition Condition Depth (m) (m/s) Average (Northing) (Easting) 28.6 0.5 114 27.7 124 28.5 8.0 3.4 3.8 0.5 120 28.5 8.0 27.8 80.7 5.4 4.3 IM9 14:02 Middle 27.8 80.9 808807 Fine Calm 7.6 28.5 8.0 3 822114 3.8 0.5 121 28.5 8.0 27.8 81.0 5.4 4.4 2 6.6 0.3 108 28.5 7.9 27.9 82.6 5.5 5.6 2 Bottom 7.9 27.9 83.0 28.5 6.6 0.4 115 28.5 79 27.8 83.4 5.6 5.6 2 107 1.0 0.4 28.8 7.9 81.4 5.4 3.2 <2 Surface 7.9 27.1 81.5 27.1 1.0 0.5 115 28.8 7.9 81.6 5.4 3.1 5 3.4 0.5 111 28.8 7.9 4.4 5 IM10 Calm 14:11 6.8 Middle 7.9 27.2 82.5 822395 809770 3.4 7.9 5.5 4.3 0.5 28.8 0.4 113 5.3 5.8 28.8 7.9 83.7 5.6 Bottom 28.8 7.9 27.1 84.1 115 27.1 5.8 0.4 28.8 79 84.5 5.6 5.3 4 0.5 111 28.8 7.9 Surface 28.8 7.9 27.6 81.1 27.6 3.2 5.0 4.9 1.0 121 7.9 0.5 28.8 80.9 5.4 0.3 109 113 80.2 79.8 3 IM11 Fine Calm 14:18 6.2 Middle 7.9 27.7 80.0 3 822037 811470 28.7 7.9 3.1 0.4 111 5.2 0.3 28.7 7.9 5.0 27.7 84.0 5.6 3 Bottom 28.8 7.9 27.6 84.6 5.2 0.3 114 28.8 7.9 27.6 85.2 5.6 5.1 113 28.8 2.2 84.1 Surface 28.8 7.9 27.4 83.6 1.0 0.5 114 28.8 2.3 3 0.4 110 3.6 3 28.7 7.9 5.2 14:19 812023 IM12 Fine Calm 9.2 Middle 28.7 7.9 27.6 77.6 821477 4.6 111 7.9 4 0.4 28.7 3.6 0.3 111 28.8 7.9 78.8 4.3 28.9 7.9 27.5 79.9 5.3 Rottom 0.3 115 28.9 7.9 27.5 81.0 4.3 29.1 8.0 Surface 29.1 8.0 27.5 86.6 1.0 29.1 2.1 SR1A Fine Calm 14:47 4.8 Middle 819974 812656 2.4 3.8 29.1 8.0 88.5 2.5 2 Bottom 29.1 8.0 27.4 88.5 5.9 88.5 3.8 29.1 8.0 5.9 2.5 8.0 84.6 84.8 1.0 0.4 93 29.4 1.1 Surface 29.4 8.0 27.4 1.0 0.4 96 29.4 5.6 1.2 3 SR2 15:00 4.0 Middle 821456 814154 3.0 0.2 89 8.0 27.4 27.4 85.2 85.5 5.6 5.6 29.4 14 3 5.6 27.4 0.2 92 1.5 3.0 29.4 1.0 0.2 168 28.7 7.9 26.8 26.8 78.5 1.5 6 Surface 28.7 7.9 26.8 78.7 177 79 78.8 5.3 1.5 1.0 0.2 28.7 4.7 165 28.7 26.9 26.9 79.3 79.5 2.4 4 0.2 7.9 5.3 SR3 Calm 13:45 9.4 Middle 28.7 26.9 79.4 822156 807593 7.9 5.3 181 28.7 2.3 4.7 0.2 8.4 0.3 93 28.7 7.9 7.9 26.9 26.9 26.9 80.4 5.4 5.4 2.6 3 Bottom 28.7 7.9 80.6 5.4 8.4 0.3 95 28.7 320 1.0 29.1 8.1 <2 0.2 30.9 89.4 5.8 5.2 Surface 29.1 8.1 30.9 89.4 8.1 89.4 0.2 335 29.1 5.8 5.2 <2 5.0 0.2 327 28.7 6.6 3 8.0 30.9 82.8 5.4 SR4A 14:56 8.0 30.9 82.8 2 817198 807819 Sunny Moderate 9.9 Middle 28.7 5.0 346 8.0 30.9 5.4 6.7 2 0.2 28.7 28.5 28.5 7.6 7.6 8.9 318 8.0 30.9 30.9 80.4 80.5 5.3 0.2 8.0 2 28.5 30.9 80.5 5.3 Rottom 1.0 0.1 60 29.3 8.0 30.5 30.5 30.5 86.2 86.2 6.6 5.6 29.3 8.0 86.2 Surface 0.1 60 29.3 8.0 5.6 6.5 3 1.0 SR5A 15:12 4.0 Middle 816599 810676 Moderate Sunny 3.0 0.1 99 28.9 8.0 30.8 5.4 28.9 8.0 30.8 83.4 5.4 Bottom 8.0 7.9 28.9 1.0 0.0 349 29.4 8.0 10.3 Surface 29.4 8.0 29.7 85.4 1.0 0.0 354 29.4 8.0 29.7 85.3 5.5 10.3 3 SR6A Sunny Moderate 15:38 5.3 Middle 817981 814759 4.3 0.1 308 29.0 8.0 29.8 78.8 5.1 8.2 4 29.0 29.8 78.9 5.2 4.3 0.1 317 29.0 8.0 29.8 78 Q 8.2 3 1.0 0.4 79 28.3 79 28.2 3.9 Surface 28.2 78.4 28.2 77.6 1.0 0.4 85 28.3 79 5.2 3.8 2 7.0 0.2 90 28.4 79 28.2 71.3 47 4.5 2 SR7 Fine Calm 15:52 14.0 Middle 7.9 28.2 71.3 823634 823740 7.0 0.2 96 28.4 7.9 28.1 71.2 4.7 4.6 13.0 0.3 74 28.7 7.9 28.0 72.8 4.8 5.2 3 Bottom 28.8 7.9 28.0 73.6 13.0 0.3 80 28.8 7.9 28.0 74.4 4.9 5.3 4 1.0 29.0 7.9 27.5 83.4 5.5 4.0 5 Surface 29.0 7.9 27.5 83.5 27.5 <2 1.0 29.0 7.9 83.5 5.5 3.9 14:27 820368 811624 SR8 Fine Calm 4.2 Middle 4 3.2 29.0 27.6 27.6 4.7 3 7.9 84.4 5.6 29.0 7.9 27.6 84.8 5.6

DA: Depth-Averaged

Water Quality Monitoring Results on 25 September 21 during Mid-Flood Tide DO Saturation Water Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value DA Value DA Value DA Condition (Northing) (Easting) 0.4 28.5 354 Surface 28.5 8.0 31.0 78.8 1.0 0.4 28.5 8.0 31.0 78.7 5.1 5.8 355 28.4 9.1 <2 C1 09-47 28.4 8.0 31.0 77.9 815615 804235 Fine 7.7 Middle 2 Rough 8.0 9.2 <2 0.4 16 28.4 <2 6.7 0.4 356 28.4 8.0 31.0 77.9 5.1 14.2 8.0 5.1 28.4 31.0 77.9 Rottom 8.0 77.9 <2 31.0 5.1 14.4 0.4 28.4 Surface 28.8 7.9 26.4 77.8 1.1 7.9 0.4 28.8 28.8 26.4 358 4 0.4 7.9 5.3 4 26.5 26.5 78.8 C2 Fine Calm 10:22 12 0 Middle 28.8 7.9 26.5 79.0 825698 806957 7.9 79.2 1.6 5 6.0 0.4 28.8 5.3 11.0 0.4 339 28.9 7.9 7.9 26.5 26.5 26.5 80.3 80.5 80.4 5.3 5.4 2.2 6 Bottom 29.0 5.4 11.0 344 7.9 2.1 6 0.5 29.0 261 28.2 27.9 27.9 27.9 73.5 73.6 2.0 Surface 28.2 7.9 73.6 0.5 273 28.2 7.9 4.9 2.1 4 3.9 5.4 0.5 264 7.9 7.9 4.9 4.9 28.1 7.9 28.1 3 C3 08:30 822094 817818 Fine Calm 10.8 Middle 28.1 28.1 73.8 3 0.5 28.1 9.8 0.5 265 28.1 7.9 5.2 4.3 Bottom 28.1 7.9 28.1 77.4 0.5 272 353 28.1 7.9 28 1 77.9 5.2 1.0 0.3 28.7 8.0 30.7 30.7 82.3 82.2 5.9 Surface 28.7 8.0 82.3 1.0 325 28.7 8.0 5.4 5.9 4 0.3 10:06 4.8 807122 IM1 Sunny Rough Middle 817957 3.8 0.3 353 28.4 8.0 30.7 79.2 5.2 111 4 Bottom 28.4 8.0 30.7 79.2 325 334 3.8 0.3 28.4 8.0 30.7 79.2 5.2 11.2 3 0.2 80.8 6.5 1.0 28.7 8.0 30.7 3 Surface 8.0 30.7 80.8 1.0 0.2 307 28.7 8.0 30.7 80.8 5.3 6.5 3 8.6 3.4 0.3 330 28.5 8.0 30.7 77.3 5.1 3 IM2 Sunny Rough 10:13 6.8 Middle 8.0 30.7 77.3 818143 806149 3.4 0.3 331 28.5 8.0 30.7 5.1 8.6 4 116 5.8 0.3 341 28.5 8.0 30.6 77.4 5.1 3 30.6 77.4 314 8.0 30.6 77.4 5.8 0.3 28.5 5.1 115 4 1.0 0.2 335 337 28.7 8.0 30.7 81.4 5.3 6.3 4 Surface 28.7 8.0 30.7 81.4 30.7 1.0 28.7 8.0 81.4 6.4 5.9 0.2 5.3 3 0.3 325 3 3.8 28.5 8.0 30.7 79.2 5.2 IM3 Sunny Rough 10:19 7.6 Middle 28.5 8.0 30.7 79.3 818794 805586 5.9 8.7 0.3 8.0 3.8 340 28.5 30.7 79.3 4 344 6 28.5 8.0 30.7 78.9 5.2 Rottom 28.5 8.0 30.7 79.0 5.2 6.6 0.3 316 28.5 8.0 30.7 79.0 5.2 8.7 5 341 0.3 4.6 28.5 8.0 30.7 80.0 5.2 3 Surface 28.5 8.0 30.7 80.0 0.3 348 28.5 4.6 4 5.7 338 3 0.3 28.5 8.0 30.7 79.9 5.2 IM4 Sunny 10:27 7.8 Middle 28.5 8.0 30.7 80.0 819738 804622 Rough 3.9 0.3 340 28.5 8.0 5.7 4 0.3 28.5 7.4 4 8.0 Bottom 28.5 8.0 30.7 80.0 5.2 6.8 0.3 358 28.5 7.4 350 0.3 28.6 8.0 30.7 80.3 80.3 8.6 3 5.3 Surface 28.6 8.0 30.7 80.3 1.0 0.3 322 28.6 5.3 8.7 341 11.0 4 0.3 28.6 5.2 IM5 Moderate 10:34 7.3 Middle 28.6 8.0 30.7 79.3 820749 804882 Sunny 3.7 0.3 314 28.6 10.9 0.4 28.6 28.6 8.0 30.7 78.7 13.4 13.4 4 28.6 8.0 30.7 78.7 5.2 Bottom 6.3 0.4 328 1.0 0.3 344 28.9 8.0 29.9 5.3 3 Surface 8.0 29.9 1.0 0.3 316 28.9 8.0 5.4 5.3 4 3.5 0.3 355 28.6 8.0 9.1 3 Sunny Rough 10:41 7.0 Middle 28.6 8.0 30.5 80.5 821059 805849 3.5 0.3 327 28.6 8.0 30.5 80.5 5.3 9.1 4 8.0 10.7 6.0 0.4 28.6 5.2 4 30.6 80.1 6.0 0.4 28.6 q 7.9 7.9 1.0 0.4 29.3 28.5 10 Surface 7.9 28.5 83.2 28.5 83.2 3.0 6.5 1.0 0.4 29.3 5.4 4.1 0.4 28.8 29.9 30.0 9 8.0 80.0 5.2 IM7 Sunny 10:51 8.1 Middle 29.9 80.0 10 821335 806821 Rough 9 4.1 0.4 28.8 8.0 80.0 5.2 6.5 7.1 0.4 28.7 8.0 30.4 78.3 5.1 5.1 12.3 11 Bottom 28.7 8.0 30.4 78.3 5.1 7.1 0.4 28.7 8.0 30.4 78.3 12.3 12 1.0 0.1 340 28.7 7.9 27.0 27.0 81.2 5.4 2.3 4 Surface 28.7 7.9 27.0 81.3 7.9 81.4 5.4 1.0 0.1 345 28.7 3 3.9 0.0 306 7.9 7.9 27.1 27.1 5.5 3.2 3.1 5 4 28.5 82.0 7.9 27.1 82.1 IM8 Fine Calm 09:51 7.8 Middle 28.5 4 821848 808137 82.2 3.9 0.0 28.5 5.5 307 6.8 0.1 345 28.4 7.9 7.9 27.1 27.1 83.6 84.0 5.6 5.6 5.0 4 28.4 7.9 27.1 83.8 5.6 Bottom

DA: Depth-Averaged

Water Quality Monitoring Results on 25 September 21 during Mid-Flood Tide DO Saturation Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Water Water Temperature (°C) Monitoring Speed Current Oxvaen (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Time Value Value Average Value Average Value DA Value DA Value DA Condition Depth (m) (m/s) Average (Northing) (Easting) 28.6 0.2 224 27.1 224 28.6 7.9 79.3 1.0 3.6 0.2 222 28.6 79 80.2 5.3 9 IM9 09:45 Middle 27.1 80.3 822085 808823 Fine Calm 7.2 7.9 10 3.6 0.2 224 28.6 7.9 27 1 80.4 5.4 1.4 10 6.2 0.2 225 28.4 7.9 27.3 82.0 5.5 2.4 9 Bottom 7.9 27.3 82.4 6.2 0.2 226 28.3 79 27.3 82.8 5.5 2.4 10 0.6 27.3 1.0 293 28.5 7.9 78.1 1.1 12 Surface 7.9 27.3 78.3 1.0 0.6 313 28.5 7.9 78.5 5.2 1.0 11 3.8 0.6 295 308 28.5 7.9 79.4 1.1 11 10 IM10 Calm 09:39 7.6 Middle 7.9 27.3 79.5 822385 809800 28.4 7.9 1.2 3.8 0.6 79.6 0.5 297 316 1.5 6.6 28.3 7.9 27.4 81.0 5.4 8 Bottom 28.3 7.9 27.4 81.4 6.6 0.6 28.3 79 27.4 81.8 5.5 1.5 q 0.6 291 28.5 10 4.3 7.9 Surface 28.5 7.9 27.5 77.8 27.6 1.0 312 7.9 77.9 4.3 5.4 10 0.6 28.5 5.2 0.6 296 305 8 28.4 78.6 IM11 Fine Calm 09:30 8.2 Middle 28.4 7.9 27.6 78.7 9 822062 811436 0.6 28.4 7.9 5.4 4.1 7.2 0.4 298 28.3 7.9 6.0 8 27.7 80.2 5.4 Bottom 28.3 7.9 27.7 80.6 5.4 7.2 0.4 320 28.2 7.9 27.7 80.9 5.4 6.0 9 28.4 1.1 12 Surface 28.4 7.9 77.9 27.6 1.0 0.7 312 28.4 5.2 1.0 13 0.6 287 1.6 10 28.4 7.9 27.6 78.6 5.2 821453 812060 IM12 Fine Calm 09:24 9.2 Middle 28.4 7.9 27.6 78.8 11 4.6 0.6 307 7.9 11 28.4 0.5 28.3 7.9 2.2 28.3 7.9 80.5 Rottom 27.6 5.4 0.6 307 28.2 7.9 27.6 80.8 5.4 10 28.4 7.9 7.9 2.6 8 Surface 28.4 7.9 27.4 77.4 1.0 28.4 2.6 8 SR1A Fine Calm 09:04 5.0 Middle 819974 812665 4 0 28.4 7.9 27.4 77.6 3.0 6 Bottom 28.4 7.9 27.4 77.7 5.2 4 0 28.4 79 3.0 81.9 82.3 1.0 0.3 119 28.3 7.9 1.7 10 Surface 7.9 27.5 82.1 1.0 0.3 121 28.2 7.9 5.5 1.7 5 SR2 08:49 3.4 Middle 821456 814185 24 0.3 118 28.0 7.9 7.9 27.6 27.7 83.6 84.2 5.6 5.7 2.9 3 83.9 5.7 27.6 2.9 123 27.9 24 0.3 1.0 0.1 98 28.8 7.9 26.4 26.4 80.2 80.1 2.2 5 Surface 28.8 7.9 26.4 80.2 79 5.4 2.3 1.0 0.1 105 28.8 4 4.5 347 26.6 26.7 3.7 4 0.1 28.6 7.9 80.7 5.4 SR3 Calm 09:57 9.0 Middle 26.7 80.9 822133 807558 7.9 3.7 0.1 319 5.4 4.5 28.5 8.0 0.1 28.4 7.9 7.9 26.8 26.8 26.8 82.6 5.5 5.6 4.4 4.4 Bottom 28.4 7.9 83.1 5.6 0.1 28.4 1.0 0.3 28.5 8.0 10 23 30.8 83.7 5.5 6.2 Surface 28.5 8.0 30.8 83.7 8.0 83.7 1.0 0.3 23 28.5 5.5 6.2 10 4.6 0.4 21 8.4 9 28.4 8.0 30.8 81.9 5.4 SR4A 09:24 8.0 82.0 817184 807822 Fine Moderate 9.1 Middle 28.4 30.8 8 4.6 8.0 30.8 82.0 5.4 8.4 8 0.4 22 28.4 8.1 0.4 28.4 8.0 30.7 81.2 81.2 5.3 11.0 20 8.0 81.2 7 28.4 30.7 5.3 Rottom 28.4 11.1 93 1.0 0.0 28.9 7.9 30.0 30.0 30.0 79.7 79.6 5.8 9 5.2 28.9 7.9 79.7 Surface 0.0 93 28.9 7.9 5.2 5.8 1.0 8 SR5A 09:07 4.9 Middle 816615 810679 Fine Moderate 3.9 0.0 68 28.8 30.0 30.0 78.7 78.7 8.5 Bottom 28.8 7.9 30.0 78.7 5.2 7.9 8.5 28.8 1.0 0.1 222 7.9 4.0 10 Surface 28.9 7.9 29.6 77.0 1.0 0.1 233 28.9 7.9 29.6 77.0 5.0 4.0 10 SR6A Fine Moderate 08:28 4.6 Middle 817980 814762 3.6 0.1 251 28.8 7.9 4.9 5.7 8 7.9 29.6 75.3 4.9 3.6 0.1 275 28.8 7.0 29.6 75.3 40 5.7 9 1.0 0.1 141 28.2 79 74 1 3.4 Surface 7.9 74.2 27.7 27.7 1.0 0.1 153 28.2 79 74.2 5.0 3.5 4 8.0 0.1 139 28.2 79 27.7 75.2 5.0 47 4 SR7 Fine Calm 08:03 16.0 Middle 7.9 27.7 75.3 823615 823763 11 8.0 0.1 143 28.2 7.9 27.7 75.3 5.0 4.7 15.0 0.2 161 28.1 7.9 27.7 76.5 5.1 5.2 10 Bottom 28.1 7.9 27.7 76.8 15.0 0.2 168 28.1 7.9 5.1 1.0 28.2 7.9 81.2 5.4 1.2 13 Surface 28.2 7.9 27.5 81.5 27.5 12 1.0 28.2 7.9 81.8 5.5 1.2 -820379 811635 SR8 Fine Calm 09:19 5.0 Middle 10 10 4.0 28.1 27.6 27.5 2.3 7.9 83.9 5.6 28.1 7.9 27.5 84.4 5.7

DA: Depth-Averaged

Water Qua	lity Monit	toring Res	ults on	1	28 September 21	during Mid-		е							L DO 2	-t-setie	Die	-1:			I C	10-11-1		
Monitoring	Weather	Sea	Sampling	Water	0	H- ()	Current Speed	Current	Water Te	emperature (°C)		pН	Salir	nity (ppt)	DOS	aturation (%)	Oxy	olved /gen	Turbidity	(NTU)	Suspended (mg/l		Coordinate	Coordina
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average		DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting
					Surface	1.0	0.4	213	29.3	29.3	7.9	7.9	28.0	28.0	88.5	88.5	5.8		3.5		<2			
						1.0 4.4	0.4	223 205	29.3 29.2		7.9 7.9		28.0 28.4		88.4 86.6		5.8	5.8	3.5	-	<2 <2			
C1	Cloudy	Moderate	05:15	8.8	Middle	4.4	0.5	209	29.2	29.2	7.9	7.9	28.4	28.4	86.5	86.6	5.7		3.4	3.9	<2	2	815642	804229
					Bottom	7.8 7.8	0.7	193 194	29.2	29.2	7.9	7.9	28.7	28.7	80.7	80.8	5.3	5.3	4.9 4.6		3			
			1		Surface	1.0	0.8	135	29.9	29.9	7.5	7.5	23.5	23.4	86.8	86.7	5.8		4.0		5			
					Surface	1.0	0.2	141	29.9	29.9	7.5	7.5	23.4	23.4	86.6		5.8	5.5	4.1		4 5			
C2	Cloudy	Moderate	06:49	11.4	Middle	5.7 5.7	0.5	154 159	29.4 29.4	29.4	7.6	7.6	28.0	28.1	78.6 78.5	78.6	5.2	ł	4.5 4.5	4.7	4	4	825701	806965
					Bottom	10.4	0.5	144	29.1	29.1	7.6	7.6	28.9	28.9	76.8	76.9	5.0 5.0	5.0	5.6	Ī	4			
						10.4	0.5	148 286	29.1 29.0		7.6 7.6		28.9		76.9 82.7		5.4		5.3 3.6		3			
					Surface	1.0	0.4	304	29.0	29.0	7.6	7.6	28.9	28.9	82.7	82.7	5.4	5.2	3.6	ĺ	4			
C3	Cloudy	Moderate	04:14	11.6	Middle	5.8 5.8	0.2	257 267	28.8	28.8	7.6	7.6	29.5	29.5	76.8 76.7	76.8	5.0	ł	4.9 4.9	4.4	4	4	822104	817817
					Bottom	10.6	0.1	120	28.5	28.5	7.6	7.6	30.3	30.3	72.1	72.2	4.7	4.7	4.7	İ	4			
						10.6	0.1	130 155	28.5		7.6 7.9		30.3	1	72.3 87.0		4.7 5.7		4.7 3.9		5			
					Surface	1.0	0.1	161	29.7	29.7	7.9	7.9	28.3	28.3	86.9	87.0	5.7	5.7	3.9		5			
IM1	Cloudy	Moderate	05:35	5.6	Middle	-	-	-	-	-	-		-	-	-		-	5.7	-	4.6	-	4	817927	807112
					Bottom	4.6	0.1	124	29.4	29.4	7.9	7.9	28.5	28.5	82.3	82.4	5.4	5.4	5.2	l	3			
					Bottom	4.6 1.0	0.1	127	29.4		7.9		28.5	1	82.4		5.4	3.4	5.3		4			
					Surface	1.0	0.2	196 201	29.6 29.6	29.6	7.9	7.9	26.7 26.8	26.8	90.0	90.0	5.9 5.9		3.1	ł	4			
IM2	Cloudy	Moderate	05:43	7.7	Middle	3.9	0.2	190	29.3	29.3	7.9	7.9	28.4	28.4	83.6	83.6	5.5	5.7	4.1	3.7	4	4	818172	806163
						3.9 6.7	0.2	195 200	29.3 29.2		7.9 7.9		28.4 28.6		83.6 83.4		5.5 5.5		4.1 3.9	ŀ	3			
					Bottom	6.7	0.1	205	29.2	29.2	7.9	7.9	28.6	28.6	83.4	83.4	5.5	5.5	4.0		4			
					Surface	1.0	0.3	151 151	29.6 29.6	29.6	7.9	7.9	27.0 27.0	27.0	88.2 88.1	88.2	5.8	1	3.5 3.5	ł	5 6			
IM3	Cloudy	Moderate	05:52	8.0	Middle	4.0	0.2	138	29.5	29.5	7.9	7.9	27.4	27.4	86.8	86.8	5.7	5.8	4.1	3.9	6	5	818771	805604
					_	4.0 7.0	0.3	150 106	29.5 29.4		7.9 7.9		27.4 27.6	1	86.7 86.4		5.7 5.7		4.1 3.9	ł	6			
					Bottom	7.0	0.1	111	29.4	29.4	7.9	7.9	27.6	27.6	86.4	86.4	5.7	5.7	3.9		3			
					Surface	1.0	0.1	70 70	29.8 29.7	29.8	7.9	7.9	26.1	26.1	90.0	89.9	5.9		3.2		6			
IM4	Cloudy	Rough	06:01	9.1	Middle	4.6	0.1	49	29.6	29.6	7.9	7.9	26.9	26.9	87.8	87.8	5.8	5.9	3.8	3.6	5	5	819733	804630
	O.Guay	rtougn	00.01	0.1		4.6 8.1	0.1	52 63	29.5 29.5		7.9 7.9		26.9 27.2	1	87.8 87.3		5.8 5.7		3.8	0.0	5	·	010100	001000
					Bottom	8.1	0.1	66	29.5	29.5	7.9	7.9	27.1	27.1	87.3	87.3	5.7	5.7	3.7		4			
					Surface	1.0	0.9	204 221	30.0 29.9	30.0	7.9	7.9	24.6	24.6	93.5	93.4	6.2		3.3		2			
IM5	Cloudy	Moderate	06:08	7.3	Middle	3.7	0.8	191	29.8	29.8	7.9	7.9	25.8	25.8	91.6	91.6	6.0	6.1	3.6	4.1	2	3	820728	804887
IIVIS	Cloudy	Woderate	00.08	7.3		3.7 6.3	0.8	201 176	29.8 29.6		7.9 7.9		25.8		91.6 90.9		6.0		3.6 5.6	4.1	3	3	020720	004007
					Bottom	6.3	0.5	182	29.6	29.6	7.9	7.9	26.3	26.3	90.9	90.9	6.0	6.0	5.4	i	3 4			
					Surface	1.0	1.0	226	29.9	29.9	7.9	7.9	24.7	24.7	92.7	92.7	6.1		3.4		5			
						1.0 4.0	1.1 0.8	232 219	29.9 29.8		7.9 7.9		24.7 25.4		92.7 92.3		6.1	6.1	3.4		5	_		
IM6	Cloudy	Moderate	06:16	8.0	Middle	4.0	0.9	231	29.8	29.8	7.9	7.9	25.4	25.4	92.3	92.3	6.1		3.7	3.6	4	5	821077	805836
					Bottom	7.0 7.0	0.6	210 226	29.7 29.7	29.7	7.9	7.9	25.9 25.9	25.9	91.8	91.8	6.1	6.1	3.7	ŀ	5 6			
					Surface	1.0	0.8	250	30.2	30.2	7.9	7.9	21.8	21.8	95.7	95.7	6.4		3.4		3			
			1			1.0 4.7	0.8	259 256	30.2 29.8		7.9 7.9		21.8 26.2		95.7 88.5		6.4 5.8	6.1	3.4 4.4	ł	4			
IM7	Cloudy	Moderate	06:24	9.3	Middle	4.7	0.8	258	29.8	29.8	7.9	7.9	26.2	26.2	88.5	88.5	5.8		4.5	4.4	5	4	821349	806840
					Bottom	8.3 8.3	0.5	244 258	29.6 29.6	29.6	7.9	7.9	26.5 26.5	26.5	88.5 88.5	88.5	5.8	5.8	5.5 5.4	-	5			
			† 		Surface	1.0	0.3	202	29.9	29.9	7.6	7.6	24.8	24.8	92.6	02.6	6.1		3.6		4			
					Suriace	1.0	0.3	213	29.9		7.6		24.8		92.6	92.6	6.1	6.1	3.6		3			
IM8	Cloudy	Moderate	06:14	7.7	Middle	3.9 3.9	0.1	231 247	29.8 29.8	29.8	7.6	7.6	25.5 25.5	25.5	92.3 92.3	92.3	6.1	t	3.8	4.0	2	3	821842	808145
					Bottom	6.7	0.2	299	29.6	29.6	7.6	7.6	26.1	26.1	92.3	92.3	6.1	6.1	4.5	Ī	3			
A· Depth-Ave			1		1	6.7	0.2	322	29.6		7.6		26.1	<u> </u>	92.3	· .	6.1		4.6		2			

Water Qua	lity Moni	toring Resi	ults on		28 September 21	during Mid		е																
Monitoring	Weather	Sea	Sampling	Water			Current Speed	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspended (mg/l		Coordinate	Coordinate
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	oth (m)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	HK Grid (Northing)	HK Grid (Easting)
					Surface	1.0	0.4	180	29.9	29.9	7.6	7.6	25.4	25.4	92.1	92.1	6.1		3.3		3			
						1.0 3.6	0.4	197 143	29.9 29.7		7.6 7.6		25.4 26.0		92.0 91.4		6.1	6.1	3.4	ł	3			
IM9	Cloudy	Moderate	06:08	7.1	Middle	3.6	0.2	153	29.7	29.7	7.6	7.6	26.0	26.0	91.4	91.4	6.0		3.9	4.0	2	3	822099	808832
					D. II.	6.1	0.1	79	29.6	20.0	7.6	7.0	26.3	00.0	90.9	00.0	6.0		4.8	İ	3			
					Bottom	6.1	0.1	85	29.6	29.6	7.6	7.6	26.3	26.3	90.9	90.9	6.0	6.0	4.9	İ	2			
					Surface	1.0	0.6	152	29.8	29.8	7.6	7.6	25.8	25.8	91.1	91.0	6.0		3.1		4			
					Canado	1.0	0.6	155	29.8	20.0	7.6	7.0	25.8	20.0	90.9	01.0	6.0	5.9	3.1		3			
IM10	Cloudy	Moderate	06:00	8.6	Middle	4.3	0.6	118	29.5	29.5	7.6	7.6	27.1	27.1	87.4	87.4	5.7		3.9	4.1	4	3	822383	809807
						4.3 7.6	0.6	119 86	29.5 29.4		7.6 7.6		27.1 27.5		87.4 86.7		5.7		4.0 5.3	ł	3			
					Bottom	7.6	0.4	89	29.4	29.4	7.6	7.6	27.5	27.5	86.7	86.7	5.7	5.7	5.4	t	2			
				İ	0	1.0	0.6	132	29.7	00.7	7.6	7.0	26.8	00.0	89.5	00.5	5.9		3.4		2			
					Surface	1.0	0.6	144	29.7	29.7	7.6	7.6	26.8	26.8	89.4	89.5	5.9	5.8	3.4		2			
IM11	Cloudy	Moderate	05:49	8.3	Middle	4.2	0.5	125	29.4	29.4	7.6	7.6	27.6	27.6	86.4	86.4	5.7	5.0	3.9	4.0	3	3	822076	811461
	Oloday	moderate	00.10	0.0	Middle	4.2	0.6	125	29.4	20.1	7.6	7.0	27.6	27.0	86.3	00.1	5.7		3.9		3	Ü	OLLOTO	011101
					Bottom	7.3	0.3	127	29.2	29.2	7.6	7.6	28.4	28.4	82.9	83.0	5.4	5.4	4.7		3			
			<u> </u>	<u> </u>		7.3	0.3	136 128	29.2 29.6		7.6	 	28.4		83.1 88.6		5.4 5.8		4.6 3.2	<u> </u>	3			
					Surface	1.0	0.6	134	29.6	29.6	7.6	7.6	27.0	27.0	88.5	88.6	5.8		3.2	1	4			
						4.4	0.6	125	29.2		7.6		28.5		83.2		5.5	5.7	4.1	1	3			
IM12	Cloudy	Moderate	05:40	8.8	Middle	4.4	0.6	126	29.2	29.2	7.6	7.6	28.5	28.5	83.3	83.3	5.5		4.1	4.1	4	4	821457	812032
					D-#	7.8	0.2	109	29.2	29.2	7.6	7.6	28.7	28.7	82.4	82.5	5.4	5.4	5.0	İ	4			
					Bottom	7.8	0.3	109	29.2	29.2	7.6	7.0	28.7	20.7	82.6	02.5	5.4	5.4	5.0		4			
					Surface	1.0		-	29.2	29.3	7.6	7.6	28.1	28.1	88.7	88.7	5.8		3.6		5			
					Canado	1.0	-	-	29.3	20.0	7.6	7.0	28.1	20.1	88.7	00.1	5.8	5.8	3.6		4			
SR1A	Cloudy	Calm	04:59	4.7	Middle	2.4	-	-	-	-	-		-	-	-	-	-		-	3.5	-	4	819971	812657
						2.4 3.7	-	-	29.2		7.6	-	28.5		87.1		5.7		3.5	ł	3			
					Bottom	3.7	-	-	29.2	29.2	7.6	7.6	28.5	28.5	87.2	87.2	5.7	5.7	3.5		4			
				1		1.0	0.3	97	29.3		7.6	l	28.3		88.9		5.8		4.9		<2			
					Surface	1.0	0.4	104	29.3	29.3	7.6	7.6	28.3	28.3	85.5	87.2	5.6		5.1	i	<2			
SR2	Cloudy	Daviels	04:40	4.5	Middle	-	-	-	-		-		-		-		-	5.7	-	5.5	-		821443	814184
SR2	Cloudy	Rough	04.40	4.5	ivildule	-	-	-	-	-	-		-	-	-	-	-		-	5.5	-	<u><2</u>	021443	014104
					Bottom	3.5	0.3	111	29.3	29.3	7.7	7.7	28.5	28.5	86.6	86.7	5.7	5.7	6.2		<2			
			<u> </u>		Bottom	3.5	0.3	117	29.3	20.0	7.7		28.5	20.0	86.8	00.1	5.7	0.,	6.0		<2			
					Surface	1.0	0.6	207	30.1	30.1	7.5	7.5	25.3	25.3	90.4	90.4	5.9		3.7	ļ	3			
						1.0 4.5	0.7	208 226	30.1 29.7		7.5 7.6	<u> </u>	25.3 26.5		90.3 88.2		5.9 5.8	5.9	3.8 4.3		3			
SR3	Cloudy	Moderate	06:22	9.0	Middle	4.5	0.2	228	29.7	29.7	7.6	7.6	26.5	26.5	88.3	88.3	5.8		4.4	4.6	4	3	822156	807550
						8.0	0.3	273	29.6		7.6	l	26.6		88.5		5.8		5.9	t	3			
					Bottom	8.0	0.2	284	29.6	29.6	7.6	7.6	26.6	26.6	88.5	88.5	5.8	5.8	5.8	t	4			
					Surface	1.0	0.4	211	29.4	29.4	7.9	7.9	27.6	27.6	92.9	93.0	6.1		4.7		2			
					Surface	1.0	0.4	218	29.4	29.4	7.9	1.5	27.6	21.0	93.0	93.0	6.1	5.8	4.8		3			
SR4A	Cloudy	Calm	04:51	9.7	Middle	4.9	0.4	183	29.2	29.2	7.9	7.9	28.6	28.6	82.9	82.8	5.4	0.0	5.6	5.5	2	2	817197	807794
	, ,					4.9	0.5	194	29.2		7.9		28.6		82.7		5.4		5.9	1	2			
					Bottom	8.7 8.7	0.2	232 236	29.3 29.3	29.3	7.9	7.9	28.7	28.7	83.3	83.3	5.4 5.4	5.4	6.1		2			
						1.0	0.2	228	29.3		7.9	<u> </u>	28.8		83.6		5.5		3.4		3			
					Surface	1.0	0.1	229	29.1	29.1	7.9	7.9	28.8	28.8	83.6	83.6	5.5		3.4	t	4			
						-	-	-	-		-		-		-		-	5.5	-	1	-			
SR5A	Cloudy	Calm	04:36	3.3	Middle	-	-	-	-	-	-	1 -	-	-	-	-	-		-	3.5	-	4	816588	810686
					Bottom	2.3	0.1	158	29.0	29.0	7.9	7.9	29.0	29.0	82.4	82.4	5.4	5.4	3.6	Ī	5			
					Bottom	2.3	0.1	163	29.0	29.0	7.9	1.5	29.0	25.0	82.4	02.4	5.4	3.4	3.6		4			
					Surface	1.0	0.1	66	28.9	28.9	7.9	7.9	29.2	29.2	85.0	85.0	5.6		3.0		2			
						1.0	0.1	67	28.9		7.9		29.2		85.0		5.6	5.6	3.0	1	3			
SR6A	Cloudy	Calm	03:55	4.2	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	3.1	-	3	817986	814734
						3.2	0.1	66	28.8		7.9		29.3		85.6		5.6		3.2	ł	4			
					Bottom	3.2	0.1	70	28.8	28.8	7.9	7.9	29.3	29.3	85.6	85.6	5.6	5.6	3.2	ł	3			
				1		1.0	0.6	61	28.8		7.6	l	29.3		82.7		5.4		3.1		2			
			1		Surface	1.0	0.7	66	28.8	28.8	7.6	7.6	29.4	29.3	82.6	82.7	5.4	-,	3.1	İ	3			
SR7	Cloudy	Moderate	03:22	16.0	Middle	8.0	0.2	14	28.8	28.8	7.6	7.6	29.6	29.6	81.2	81.2	5.3	5.4	3.6	3.4	3	3	823615	823737
Jri/	Cioudy	wouerate	03:22	10.0	iviidale	8.0	0.2	14	28.8	∠0.0	7.6	7.0	29.6	29.0	81.2	01.2	5.3		3.6	3.4	4	٥	023013	023/3/
			1		Bottom	15.0	0.2	55	28.8	28.8	7.6	7.6	29.6	29.6	81.3	81.4	5.3	5.3	3.4	1	3			
			<u> </u>	<u> </u>		15.0	0.2	56	28.8		7.6		29.6		81.4		5.3		3.4		4			
			1		Surface	1.0	-	-	29.4	29.4	7.6	7.6	28.3	28.3	87.2	87.3	5.7		3.8	ł	6			
			1			1.0	-	-	29.4		7.6	 	28.3		87.3	-	5.7	5.7	3.9	ł	6 -			
SR8	Cloudy	Calm	05:31	4.9	Middle		-	- :	+:-	-	H	1 -	+	-		-				4.7	-	6	820369	811608
			1			3.9		-	29.3		7.6		28.3		87.2		5.7		5.4	t	6			
			1	1	Bottom	3.9	-		29.3	29.3	7.6	7.6	28.3	28.3	87.2	87.2	5.7	5.7	5.8	İ	6			

Water Quality Monitoring Results on 28 September 21 during Mid-Flood Tide Turbidity(NTU) Suspended Solids DO Saturation Dissolved Water Water Temperature (°C) Salinity (ppt) Coordinate Coordinate Sampling Monitoring Current Oxygen Speed (mg/L) Sampling Depth (m) HK Grid HK Grid Direction Condition Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Average Value DA Value DA Value DA (Easting) (Northing) 30.2 0.4 24 Surface 30.2 7.9 28.0 103.7 1.0 0.4 26 30.2 7.9 28.0 103.7 6.7 3.3 4.2 0.5 44 29.8 3.9 28.8 95.7 C1 7.9 28.8 95.7 804250 16:52 84 Middle 29.8 815638 Fine Rough 7.9 28.8 95.7 6.2 3.9 2 0.5 46 29.8 7.4 0.2 46 29.2 7.9 29.2 83.9 5.5 4.4 4 7.9 84.0 5.5 29.2 29.1 Rottom 7.9 29.1 5.5 29.2 84.0 4.2 7.4 0.3 49 3.3 0.3 Surface 30.2 7.6 25.6 95.0 3.3 322 28 94.7 6.2 4 0.3 5.8 0.4 29.3 7.6 79.6 5.2 4 28.1 C2 Fine Moderate 15:41 11.5 Middle 29.3 7.6 28.1 79.6 825701 806955 5.8 0.4 7.6 28.1 79.6 5.2 4.8 5 30 29.3 10.5 0.4 346 28.9 7.6 4.8 6.0 4 29.6 73.7 28.9 7.6 29.6 73.8 Bottom 10.5 0.4 350 28.9 7.6 29.6 73.9 6.1 241 29.8 2.9 Surface 29.8 7.6 28.7 95.9 0.3 243 29.8 7.6 28.7 95.8 6.2 2.9 4 5.8 0.4 252 270 28.9 7.6 7.6 2.9 3 30.1 30.1 79.9 5.2 C3 17:50 822094 817790 Fine Moderate 11.5 Middle 28.9 7.6 30.1 79.9 0.4 28.9 10.5 0.4 266 28.6 7.6 30.4 75.4 5.4 Bottom 28.6 7.6 30.4 75.5 10.5 0.4 273 28.6 7.6 30.4 75.5 49 5.4 4 1.0 0.1 31.1 27.8 27.8 27.8 98.1 98.0 4.3 <2 Surface 31.1 7.9 98.1 1.0 0.1 31.1 7.9 6.3 4.4 <2 16:31 817942 807150 IM1 Fine Moderate 5.5 Middle 45 0.2 259 29.3 7.9 28.8 90.1 5.9 5.1 4 Bottom 29.3 7.9 28.8 90.1 261 357 3 <2 4.5 0.2 29.3 79 28.8 90.1 5.9 5.1 1.0 3.2 0.3 30.4 8.0 25.0 104.7 6.9 Surface 8.0 25.0 104.7 1.0 0.3 328 30.3 8.0 25.0 104.6 6.9 3.3 <2 3.8 0.3 29.3 7.9 28.9 89.6 5.9 4.2 2 IM2 Moderate 16:22 7.5 Middle 7.9 28.9 89.7 818178 806164 3.8 0.3 29.3 7.9 28.9 89.7 5.9 4.2 3 310 4.5 6.5 0.2 29 1 79 29.1 84.3 5.5 4 7.9 29.0 84.4 6.5 317 7.9 5.5 3 0.2 29.2 4.5 29.0 84 4 0.6 30.3 8.0 25.7 104.2 6.8 3.1 Surface 8.0 25.7 104.2 1.0 8.0 25.8 3.1 2 0.6 30.3 104.2 6.8 <2 <2 <2 0.5 342 29.9 3.1 3.9 7.9 28.2 97.9 6.3 IM3 Fine Moderate 16:14 7.8 Middle 29.9 7.9 28.2 97.9 818761 805578 349 330 29.9 29.4 3.2 0.5 7.9 3.9 28.2 6.3 6.8 7.9 29.0 88.88 5.8 7.9 Bottom 29.4 29.0 88.9 6.8 0.4 304 29.4 7.9 88.9 5.8 3.6 <2 29.0 0.7 346 1.0 31.2 3.5 <2 7.9 22.4 104.8 6.9 Surface 31.2 7.9 22.4 104.8 348 31.2 3.5 <2 <2 <2 <2 4.4 346 4.0 29.7 0.6 7.9 26.5 93.0 6.1 IM4 Fine 16:04 8.8 Middle 29.7 7.9 26.4 93.1 <2 819719 804613 Rough 4.4 0.6 318 29.7 4.0 93.1 0.5 347 29.4 4.4 7.9 86.8 7.9 Bottom 29.5 28.7 86.7 7.8 0.5 347 29.5 7.9 4.4 <2 0.4 277 30.5 1.0 7.9 23.9 6.8 3.4 4 103.4 Surface 30.5 7.9 23.9 103.4 1.0 0.5 298 30.5 7.9 6.8 3.4 3.8 0.2 269 29.9 4.7 3 6.2 IM5 Fine Moderate 15:55 7.6 Middle 29.9 7.9 25.7 94.3 820742 804887 3.8 0.3 286 29.9 4.7 4 29.5 7.9 7.9 88.2 88.3 5.8 5.8 5.1 Bottom 29.5 7.9 27.2 88.3 6.6 0.1 52 29.5 5.1 1.0 0.2 255 30.6 7.9 23.7 3.3 3 Surface 7.9 23.7 1.0 0.3 261 30.6 79 6.7 3.3 <2 4.1 0.2 254 29.6 5.9 4.5 Moderate 15:46 8.1 Middle 7.9 26.9 89.2 821047 805835 <2 4.1 0.2 272 29.6 7.9 26.9 89.1 5.9 4.5 5.2 5.1 7.1 0.1 283 29.5 7.9 27.4 85.1 <2 27.4 7 1 0.1 283 29.6 79 27.4 <2 1.0 0.5 238 30.3 7.9 24.3 98.8 3.3 Surface 30.3 7.9 24.3 98.8 256 263 79 3.2 1.0 0.6 30.3 24.3 98.7 6.5 <2 <2 4.7 0.5 29.5 4.3 7.9 27.3 84.8 5.6 IM7 Moderate 15:37 9.4 Middle 7.9 27.3 84.8 821346 806818 4.7 0.5 274 29.5 7.9 27.3 84.7 5.6 4.6 8.4 0.3 258 29.5 7.9 27.6 83.9 5.5 5.5 5.3 <2 Bottom 29.5 7.9 27.6 84.0 5.5 8.4 0.3 264 29.5 84.1 <2 1.0 0.1 258 30.3 7.6 24.7 6.4 3.4 3 Surface 30.3 7.6 24.7 97.2 7.6 24.8 97.1 6.4 3.4 1.0 0.2 281 30.3 3 0.1 29.6 7.6 27.0 27.0 5.6 4.8 3 4.0 229 86.0 7.6 27.0 86.0 821837 808147 IM8 Fine Moderate 16:07 7.9 Middle 296 3 7.6 85.9 5.6 4.8 4.0 235 29.6 0.1 7.6 7.6 6.9 0.2 199 29.4 27.5 84.1 5.5 5.5 6.0 2 29.4 7.6 27.5 84.2 5.5 Rottom

DA: Depth-Averaged

		toring Resu			28 September 21	during ima	Current		I		. [0.1	26 - 6 1	DO S	aturation	Disso	olved	T	(A ITLI)	Suspended	Solids	0	0
Monitoring	Weather	Sea	Sampling	Water	Sampling Dep	oth (m)	Speed	Current	Water Te	emperature (°C	:)	pН	Salin	ity (ppt)		(%)	Оху		Turbidity	(NTU)	(mg/L		Coordinate HK Grid	Coordi HK G
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	nui (III)	(m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	(Northing)	(East
					Surface	1.0	0.4	255	30.3	30.3	7.6	7.6	24.6	24.6	100.1	100.1	6.6		3.5		3			
					Ouriace	1.0	0.4	256	30.3	50.5	7.6	7.0	24.6	24.0	100.1	100.1	6.6	6.2	3.5		3			
IM9	Fine	Moderate	16:13	7.3	Middle	3.7	0.3	250	29.6	29.6	7.6	7.6	26.9	26.9	87.0	86.9	5.7		4.2	4.4	4	3	822113	808
						3.7 6.3	0.3	274 234	29.6 29.4		7.6 7.6		26.9 28.0		86.7 84.2		5.7 5.5		4.2 5.6	ŀ	3			
					Bottom	6.3	0.2	255	29.4	29.4	7.6	7.6	28.0	28.0	84.3	84.3	5.5	5.5	5.6		3			
					Curtana	1.0	0.6	280	30.4	20.4	7.6	7.0	24.3	24.2	100.5	100 F	6.6		3.8		3			
					Surface	1.0	0.7	303	30.4	30.4	7.6	7.6	24.3	24.3	100.4	100.5	6.6	6.3	3.8		3			
IM10	Fine	Moderate	16:20	8.0	Middle	4.0	0.4	279	29.5	29.5	7.6	7.6	27.9	27.9	91.3	91.3	6.0	0.0	4.1	4.5	3	3	822406	809
						4.0 7.0	0.4	289 274	29.5 29.3		7.6 7.6		27.9 28.9		91.2 82.0		6.0 5.4		4.0 5.6		3 2			
					Bottom	7.0	0.3	281	29.3	29.3	7.6	7.6	28.9	28.9	82.1	82.1	5.4	5.4	5.6	ł	3			
					0(1.0	0.5	272	30.2	00.0	7.7		26.6	00.0	101.8	101.0	6.6		3.1		2			
					Surface	1.0	0.6	294	30.2	30.2	7.7	7.7	26.6	26.6	101.7	101.8	6.6	6.3	3.1		3			
IM11	Fine	Moderate	16:31	8.7	Middle	4.4	0.5	269	29.5	29.5	7.6	7.6	28.8	28.8	92.1	91.9	6.0	0.0	3.5	3.8	2	2	822051	811
						4.4 7.7	0.5	278 272	29.5 28.8		7.6		28.8		91.7		6.0		3.5 4.9		2 <2			
					Bottom	7.7	0.3	296	28.8	28.8	7.6 7.6	7.6	29.7	29.7	75.2 75.2	75.2	4.9 4.9	4.9	5.0	ł	<2			
						1.0	0.5	292	30.3		7.7		27.2		101.5		6.6		3.1		2	1		†
					Surface	1.0	0.5	302	30.3	30.3	7.7	7.7	27.0	27.1	101.7	101.6	6.6	6.0	3.2	İ	2			
IM12	Fine	Moderate	16:37	9.2	Middle	4.6	0.4	295	29.1	29.1	7.6	7.6	29.0	29.0	81.9	81.9	5.4	0.0	4.7	4.4	<2	2	821463	812
						4.6	0.4	299	29.1		7.6		29.0		81.9		5.4		4.7		<2	-		
					Bottom	8.2 8.2	0.2	256 257	28.9 29.0	29.0	7.6 7.6	7.6	29.5 29.4	29.5	74.4 74.8	74.6	4.9 4.9	4.9	5.4 5.3		<2 <2			
						1.0	- 0.2	-	30.0		7.6		28.4		103.0		6.7		3.8		<2			
					Surface	1.0	-	-	29.9	30.0	7.6	7.6	28.4	28.4	103.0	103.0	6.7	6.7	3.9	İ	<2			
SR1A	Fine	Calm	17:11	4.9	Middle	2.5	-	-	-	_	-	-	-	-	-		-	6.7	-	4.4	-	2	819982	812
OIVIA		Odilli	17.11	4.5	Wildule	2.5	-	-	-	-	-		-		-		-		-	7.7	-	-	013302	012
					Bottom	3.9	-	-	29.4 29.4	29.4	7.6	7.6	29.1	29.1	88.1 88.2	88.2	5.7	5.7	5.0 5.0		3 2			
						1.0	0.0	209	30.1		7.6		27.9		100.3		6.5		3.1		3			1
					Surface	1.0	0.0	210	30.1	30.1	7.6	7.6	27.9	27.9	100.2	100.3	6.5		3.2	i	3			
SR2	Fine	Moderate	17:27	4.7	Middle	-		-	-		-	_	-	_	-	_		6.5	-	4.1	-	3	821449	814
0.112	1 1110	moderate			Middle	-	-	-	-		-		-		-		-		-		-		021110	0.1
					Bottom	3.7	0.1	207	29.3	29.3	7.6	7.6	28.9	28.9	88.1 88.1	88.1	5.8	5.8	5.3 5.0		3			
						1.0	0.1	222	29.3 30.1		7.6 7.6		28.9		96.8		5.8 6.4		3.2	<u> </u>	2			
					Surface	1.0	0.2	247	30.1	30.1	7.6	7.6	25.0	25.0	96.5	96.7	6.4		3.2	i	3			
SR3	Fine	Moderate	16:01	8.8	Middle	4.4	0.3	246	29.5	29.5	7.6	7.6	27.5	27.5	82.5	82.4	5.4	5.9	4.4	4.2	3	3	822141	807
SKS	rine	woderate	10.01	0.0	Middle	4.4	0.3	255	29.5	29.5	7.6	7.0	27.5	27.5	82.3	02.4	5.4		4.5	4.2	2	3	022141	007
					Bottom	7.8	0.2	225	29.4	29.4	7.7	7.7	28.3	28.3	79.7	79.8	5.2	5.2	5.0	ļ	3			
						7.8 1.0	0.2	235 14	29.4 29.8		7.7		28.3		79.8 98.6		5.2 6.4		5.0 3.3		3 <2			1
					Surface	1.0	0.1	15	29.8	29.8	7.9	7.9	28.2	28.2	98.6	98.6	6.4		3.3		<2			
SR4A	Fine	0.1	17:18	0.5	Middle	4.8	0.1	51	29.7	00.7	7.9	7.0	28.3	00.0	97.0	97.0	6.3	6.4	4.2		<2	-0	817196	807
SR4A	rine	Calm	17:18	9.5	Middle	4.8	0.1	52	29.7	29.7	7.9	7.9	28.3	28.3	96.9	97.0	6.3		4.3	4.2	<2	<2	817196	807
					Bottom	8.5	0.1	44	29.8	29.8	7.9	7.9	28.3	28.2	98.2	98.3	6.4	6.4	5.3	ļ	<2			
						8.5 1.0	0.1	46 302	29.8		7.9		28.2		98.4 96.7		6.4		5.1 2.9		<2 <2			<u> </u>
					Surface	1.0	0.0	319	29.6	29.6	7.9	7.9	29.0	28.9	96.6	96.7	6.3		2.8	ł	<2			
						-	-	-	-		-		-		-		-	6.3	-		-	_		
SR5A	Fine	Calm	17:39	3.7	Middle	-			-	-	-	-	-	-	-	-	-		-	2.8	-	<2	816581	8107
					Bottom	2.7	0.1	308	29.3	29.4	7.9	7.9	29.3	29.3	86.6	86.6	5.6	5.6	2.8		<2			
						2.7	0.1	327	29.4		7.9		29.3		86.6		5.6		2.8		<2			
					Surface	1.0	0.0	215 221	28.9 28.9	28.9	7.9 7.9	7.9	30.0	30.0	81.2 81.1	81.2	5.3 5.3		3.4	ł	3			
						-	-	- 221	- 20.9		1.5		-		- 01.1		-	5.3	-	·	-			
SR6A	Fine	Calm	18:17	4.2	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	3.4	-	2	817939	814
					Bottom	3.2	0.0	287	28.9	28.9	7.9	7.9	30.0	30.0	80.5	80.5	5.3	5.3	3.4	Ī	<2			
					Bottom	3.2	0.0	311	28.9	20.3	7.9	7.5	30.0	30.0	80.5	00.0	5.3	5.5	3.4		<2			
					Surface	1.0	0.0	116	28.9	28.9	7.6	7.6	29.9	29.9	81.8	81.8	5.3		3.3	-	3			
						1.0 7.8	0.0	118 184	28.9 28.9		7.6 7.6		29.9 30.1		81.7 79.1		5.3 5.2	5.3	3.3	ł	3			
SR7	Fine	Rough	18:25	15.6	Middle	7.8	0.1	184	28.9	28.9	7.6	7.6	30.1	30.1	79.1	79.1	5.2		3.5	3.6	2	2	823658	823
					Pc#	14.6	0.1	76	28.6	20.7	7.6	7.0	30.6	20.5	73.1	73.2	4.8	40	4.1	t	2			
					Bottom	14.6	0.1	80	28.7	28.7	7.6	7.6	30.5	30.5	73.3	/3.2	4.8	4.8	4.0	<u> </u>	2			
	I				Surface	1.0			30.8	30.8	7.6	7.6	27.9	27.9	96.7	96.6	6.2		4.9		5			
						1.0	-	-	30.7		7.6		27.9		96.4		6.2	6.2	5.1		5			
	Fine	Calm	16:47	5.1	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.6	-	5	820380	811
SR8	1 1110																							
SR8	Tillo				Bottom	4.1	-	-	29.1	29.1	7.6	7.6	29.2	29.2	83.0	83.1	5.4	5.4	6.2	f	4			

Water Quality Monitoring Results on 30 September 21 during Mid-Ebb Tide DO Saturation Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Water Monitoring Current Speed Oxvaen Sampling Depth (m) HK Grid HK Grid Direction Condition Time Depth (m) (m/s) Value Average Value Average Value Average Value Value DA Value DA Value DA (Northina) (Easting) Condition Average 2.6 28.9 230 8.0 28.0 252 231 28.9 6.4 6.1 4 0 2.5 28.8 7.9 28.4 86.6 6.3 <2 C1 07:45 7.9 28.4 86.6 815628 804263 Fine Moderate 4.0 2.7 237 28.8 7.9 28.4 86.5 5.7 6.3 <2 7.0 2.4 232 28.8 8.0 28.7 80.7 5.3 7.7 <2 8.0 28.7 80.8 5.3 7.0 2.6 248 28.8 8.0 28.6 80.8 5.3 7.5 <2 167 1.0 1.0 29.7 8.0 23.6 99.0 3.4 Surface 8.0 23.6 98.9 1.0 1.1 180 29.8 8.0 23.6 98.8 6.6 3.5 2 5.8 5.8 0.8 165 174 29.3 29.3 7.8 3.1 3 C2 Fine Moderate 08:49 11.5 Middle 7.8 28.8 75.7 825667 806943 5.8 3.1 0.9 7.8 4.9 29.0 4.1 10.5 0.2 163 7.8 29.6 69.7 4.6 7.8 69.9 4.6 Bottom 29.6 177 4.7 10.5 0.3 29.0 7.8 46 4 296 70.1 29.9 2.5 7.9 Surface 7.9 27.4 93.7 35 29.9 7.9 <2 1.0 0.3 27.4 93.7 2.5 6.0 29.7 29.7 2.4 5.8 7.8 3 C3 Fine Moderate 06:20 12.3 Middle 7.8 28.3 88.8 822132 817798 69 7.8 0.2 0.2 78 28.9 7.7 4.4 5.1 30.7 67.7 5 7.7 67.8 4.4 Bottom 28.9 30.7 11.3 0.3 78 28.9 7.7 30.7 67.8 5.0 29.3 6.8 Surface 29.3 7.9 28.3 99.6 1.0 0.8 84 29.3 7.9 6.5 6.8 3 6.5 4.9 817951 807138 IM1 Fine Moderate 08:05 Middle 3.9 0.4 29.0 7.9 28.5 82.3 5.4 8.0 <2 5.4 Rottom 29 N 7.9 28.5 82.4 3.9 0.4 91 29.0 7.9 82.4 8.1 296 29.2 7.9 6.0 Surface 29.2 7.9 26.8 102.5 1.0 2.3 325 29.2 8.0 6.0 2 2.8 28.9 7.0 <2 8.0 28.4 83.6 818141 806167 IM2 Fine Moderate 08:13 Middle 3.8 294 292 28.9 28.8 <2 <2 6.5 3.1 8.0 28.6 6.8 Bottom 8.0 28.6 83.4 5.5 6.5 3.2 298 28.8 8.0 6.8 <2 7.9 94.5 1.0 0.2 203 29.2 6.4 <2 Surface 7.9 27.0 94.7 1.0 0.2 203 29.2 6.4 <2 6.0 3.9 0.1 245 29.1 5.7 7.0 <2 IM3 08:22 7.8 Middle 7.9 27.4 86.8 818804 805613 29.1 29.0 3.9 0.1 259 267 6.9 <2 7.9 7.9 27.6 27.6 <2 6.8 0.1 76.4 5.0 6.8 Bottom 7.9 27.6 76.4 5.0 76.4 6.7 0.1 275 <2 6.8 29.0 1.0 16 230 29.4 7.9 26.1 6.7 6.0 <2 Surface 29.4 7.9 26.1 100.5 16 79 6.6 6.1 1.0 250 29.3 <2 4.2 1.2 226 29.2 6.6 7.9 26.9 5.8 2 IM4 Moderate 08:31 8.4 Middle 7.9 26.9 87.8 819727 804623 7.9 1.3 6.6 4.2 244 29.1 7.4 1.0 225 241 29.1 29.1 7.9 7.9 27.2 5.1 5.1 6.6 3 7.9 77.3 5.1 Bottom 29.1 27.1 137 29.6 1.0 1.3 7.9 7.9 6.1 24.6 103.0 6.8 <2 103.0 Surface 29.6 7.9 24.6 1.3 143 29.5 6.8 6.1 <2 6.5 4.0 1.2 142 29.4 7.9 6.5 <2 25.8 25.8 91.6 6.1 08:38 7.9 7.9 25.8 91.6 820747 804848 IM5 Fine Moderate Middle 29.4 4.0 148 6.5 <2 1.2 29.4 29.2 29.2 6.9 1.1 134 7.9 7.9 26.3 26.3 5.4 5.4 8.4 7.9 80.9 5.4 29.2 26.3 Rottom 8.3 331 29.5 1.0 1.0 7.9 24.7 6.8 6.2 29.5 7.9 24.7 102.8 Surface 340 29.5 7.9 6.2 6.5 3.5 0.3 41 29.4 7.9 6.5 08:46 7.0 Middle 29.4 7.9 25.4 92.3 821058 805828 IM6 Fine Moderate 3.5 44 29.4 7.9 25.4 92.3 6.5 6.0 11 29.3 25.9 5.4 5.4 6.6 <2 Bottom 29.3 7.9 25.9 81.8 5.4 29.3 7.9 6.6 <2 1.0 57 29.8 7.9 6.2 4 Surface 29.8 7.9 21.8 95.7 1.0 3.2 58 29.8 7.9 21.8 95.7 6.4 6.2 4 4.4 58 29.4 7.9 5.8 7.2 3 IM7 Fine Moderate 08:54 8.8 Middle 7.9 26.2 88.5 821358 806828 5.8 11 62 29.4 7.9 88 5 7.3 3 7.8 2.9 63 29.2 7.9 8.3 7.9 26.5 78.5 5.2 7.8 3.0 66 29.2 7.0 78.5 8.3 3 29.6 1.0 0.2 180 8.0 26.2 95.5 6.3 3.0 <2 8.0 26.2 95.4 Surface 1.0 0.3 190 29.6 8.0 26.3 95.3 6.3 3.1 <2 5.9 3.9 0.2 192 29.7 79 27.8 83.8 5.5 4.9 <2 <2 IM8 Fine Moderate 08:16 7.8 Middle 7.9 27.8 83.7 821838 808162 5.1 3.9 0.2 205 29.7 7.9 27.9 83.6 5.5 6.8 0.2 236 29.5 7.9 28.4 75.2 4.9 6.3 3 7.9 Bottom 29.5 28.4 75.3 4.9 240 29.5

DA: Depth-Averaged

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

Monitoring	Weather	Sea	Sampling	Water	30 September 21		Current	Current	Water Te	emperature (°C)		pН	Salin	ity (ppt)		aturation	Disso		Turbidity	(NTU)	Suspende (mo		Coordinate	
Station	Condition	Condition	Time	Depth (m)	Sampling Dep	th (m)	Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA DA	HK Grid (Northing)	HK Grid
				/	Surface	1.0	0.2	125	29.7	29.7	8.0	8.0	26.4	26.4	94.1	94.1	6.2		2.8		2		, ,,	H
					Surface	1.0	0.2	129	29.7	29.7	8.0	0.0	26.4	20.4	94.0	94.1	6.2	6.1	2.8	1	3			
IM9	Fine	Moderate	08:08	7.2	Middle	3.6 3.6	0.3	119 126	29.7 29.7	29.7	7.9	7.9	26.7 26.7	26.7	89.5 89.3	89.4	5.9 5.9		3.0	4.4	<2 <2	2	822105	80882
					Bottom	6.2	0.2	87	29.5	20.5	7.9	7.9	28.4	20.4	75.1	75.2	4.9	4.0	7.4	1	<2			
					Bottom	6.2	0.2	88	29.5	29.5	7.9	7.9	28.4	28.4	75.3	75.2	4.9	4.9	7.4		<2			
					Surface	1.0	0.6	138 142	29.6 29.6	29.6	8.0	8.0	25.8 25.8	25.8	98.4 98.1	98.3	6.5		2.6 2.6	1	<2 <2			
IM10	Fine	Moderate	07:57	8.0	Middle	4.0	0.6	141	29.7	20.7	7.9	7.9	27.3	27.2	85.9	05.7	5.6	6.1	3.2	5.9	2	3	822400	80978
IMTU	Fine	Moderate	07:57	8.0	Middle	4.0	0.7	147	29.7	29.7	7.9	7.9	27.4	27.3	85.5	85.7	5.6		3.5	5.9	2	3	822400	80978
					Bottom	7.0	0.5 0.5	122 129	29.6 29.6	29.6	7.9	7.9	28.0	28.0	78.7 78.8	78.8	5.1 5.1	5.1	11.6 11.8	1	6			
					0	1.0	0.8	111	29.6	00.0	8.0	8.0	26.2	00.0	94.8	04.7	6.3		2.7		<2			
					Surface	1.0	0.8	117	29.6	29.6	8.0	8.0	26.2	26.2	94.5	94.7	6.2	5.8	2.7		<2			
IM11	Fine	Moderate	07:42	7.8	Middle	3.9	0.7	110 120	29.7 29.7	29.7	7.9	7.8	27.7 27.7	27.7	81.5 81.5	81.5	5.3		3.8	4.6	<2 <2	2	822042	81146
					D. H	6.8	0.4	98	29.1	00.4	7.8	7.0	29.2	00.0	67.4	07.5	4.4		7.3	1	2			
					Bottom	6.8	0.4	107	29.1	29.1	7.8	7.8	29.2	29.2	67.5	67.5	4.4	4.4	7.3		2			
					Surface	1.0	0.6	106	29.7	29.7	7.9	7.9	26.0	26.0	95.9	95.9	6.3		2.5	1	<2			
	_					1.0 4.5	0.6 0.5	112 96	29.7 29.9		7.9 7.9		26.0 27.1		95.8 89.0		6.3 5.8	6.1	2.5 2.7	١	<2 2			
IM12	Fine	Moderate	07:30	9.0	Middle	4.5	0.6	101	29.9	29.9	7.9	7.9	27.1	27.1	88.8	88.9	5.8		2.7	3.4	2	2	821439	81204
					Bottom	8.0	0.3	83	29.5	29.5	7.9	7.9	28.0	28.0	76.9	77.1	5.0	5.1	4.9		3			
						8.0 1.0	0.3	85	29.5 29.9		7.9 7.9		28.0 25.6		77.3 91.8		5.1 6.0		4.8 2.7		2 2			
					Surface	1.0	-	-	29.9	29.9	7.9	7.9	25.6	25.6	91.7	91.8	6.0	6.0	2.9	1	2			
SR1A	Fine	Moderate	07:11	5.6	Middle	2.8	-		-		-	-			-			0.0		3.6	-	3	819976	81265
						2.8 4.6	-	-	29.6		7.9		28.1		79.6		5.2		4.5	1	3			
					Bottom	4.6		-	29.6	29.6	7.9	7.9	28.1	28.1	80.0	79.8	5.2	5.2	4.5	1	4			
					Surface	1.0	0.6	87	29.7	29.7	7.9	7.9	25.1	25.1	97.3	97.2	6.4		2.4		2			
						1.0	0.6	90	29.7		7.9		25.1		97.1		6.4	6.4	2.4	-	2			
SR2	Fine	Moderate	06:45	5.6	Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	4.1	-	2	821462	81414
					Bottom	4.6	0.4	79	29.6	29.6	7.9	7.9	27.7	27.7	85.1	85.2	5.6	5.6	5.8	1	3			
					Bottom	4.6	0.4	83	29.6	23.0	7.9	1.5	27.7	21.1	85.3	00.2	5.6	5.0	5.9		2			—
					Surface	1.0	0.4	202 220	29.7 29.7	29.7	7.9	7.9	26.4 26.5	26.5	94.2 94.0	94.1	6.2		2.8	1	<2 <2			
SR3	Fine	Moderate	08:24	9.5	Middle	4.8	0.3	205	29.7	29.7	7.9	7.9	27.5	27.5	85.4	85.3	5.6	5.9	3.2	4.2	<2	2	822124	80755
SKS	rine	woderate	06.24	9.5	Middle	4.8	0.3	207	29.7	29.7	7.9	7.9	27.5	27.5	85.1	65.5	5.6		3.2	4.2	<2	2	022124	00/55
					Bottom	8.5 8.5	0.1	299 327	29.2 29.3	29.3	7.8	7.8	28.9	28.8	71.4 71.6	71.5	4.7	4.7	6.6	ł	2			
					Curfore	1.0	0.9	120	29.0	29.0	8.0	8.0	27.6	27.6	102.9	102.9	6.8		7.6		5			
					Surface	1.0	1.0	130	29.0	29.0	8.0	0.0	27.6	27.0	102.8	102.9	6.8	6.1	7.6		4			
SR4A	Fine	Moderate	07:21	9.2	Middle	4.6 4.6	0.7	115 118	28.8 28.8	28.8	8.0	8.0	28.6 28.6	28.6	82.9 82.7	82.8	5.5 5.4		8.5 8.7	8.4	3	4	817198	80782
						8.2	0.8	118	28.9		8.0		28.7		83.3		5.5		8.9		3			
					Bottom	8.2	0.8	120	28.9	28.9	8.0	8.0	28.7	28.7	83.3	83.3	5.5	5.5	8.9		2			
					Surface	1.0	0.0	327	28.7	28.7	7.9	7.9	28.8	28.8	96.4	96.4	6.3		6.3		4			
	_					1.0	0.0	348	28.7		7.9		28.8		96.4		6.3	6.3	6.3	١	-			
SR5A	Fine	Moderate	07:06	3.8	Middle	-	-		-		-	-	-		-	-	-			6.4	-	4	816608	81071
					Bottom	2.8	0.1	97	28.6	28.6	7.9	7.9	29.0	29.0	82.4	82.4	5.4	5.4	6.4		3			
						2.8 1.0	0.1	99 21	28.6 28.5		7.9		29.0		82.4 95.8		5.4 6.3		6.5 5.9		4 2			_
					Surface	1.0	0.1	21	28.5	28.5	8.0	7.9	29.2	29.2	95.8	95.8	6.3	6.3	5.9	1	3			
SR6A	Fine	Moderate	06:25	4.2	Middle	-	-		-		-	_			-			0.3	-	5.9	-	4	817951	81472
						3.2	0.1	178	28.4		8.0		29.3		85.6		5.6		6.0	1	5			
					Bottom	3.2	0.1	184	28.4	28.4	8.0	8.0	29.3	29.3	85.6	85.6	5.6	5.6	6.0	1	5			
					Surface	1.0	0.4	62	30.0	30.0	7.7	7.7	27.1	27.1	100.6		6.6		2.3		<2			
						1.0 7.7	0.4	66 51	30.0 29.8		7.7		27.1 27.5		100.5 97.2		6.5	6.4	2.3	1	<2 3			
SR7	Fine	Moderate	05:39	15.3	Middle	7.7	0.2	51	29.8	29.8	7.7	7.7	27.5	27.5	97.2	97.2	6.3		2.3	3.2	2	3	823625	82376
					Bottom	14.3	0.2	12	28.8	28.8	7.7	7.7	31.3	31.3	70.0	70.1	4.5	4.6	4.7	1	3			
					Dottom	14.3	0.2	12	28.8	20.0	7.7	1.7	31.3	01.0	70.1	70.1	4.6	7.0	5.0	<u> </u>	3			<u> </u>
					Surface	1.0	-	-	30.0 29.9	30.0	7.9	7.9	26.1 26.2	26.2	90.0 89.5	89.8	5.9 5.9		3.2	1	<2 <2			
SR8	Fine	Moderate	07:21	4.0	Middle	-	-	-	-		-		-		-		-	5.9	-	3.4	-	2	820408	01164
ono	rine	Moderate	07:21	4.0	Middle	-	-	-	-		-	_	-	-	-		-		-	3.4	-	2	020408	81164
	1				Bottom	3.0	-	-	29.8 29.8	29.8	7.9	7.9	26.4 26.4	26.4	88.6 88.7	88.7	5.8 5.8	5.8	3.5 3.5	4	2			1

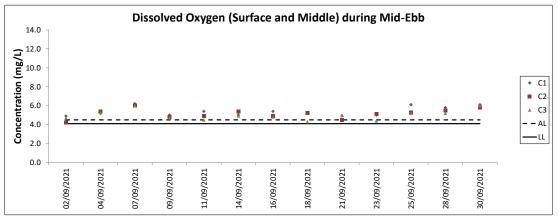
Water Quality Monitoring Results on 30 September 21 during Mid-Flood Tide DO Saturation Water Water Temperature (°C Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Monitoring Current Speed Oxvaen Sampling Depth (m) HK Grid HK Grid Direction Time Depth (m) (m/s) Value Average Value Average Value Average Value DA Value DA Value DA (Northina) (Easting) Condition Condition Average Value 30.2 0.3 41 Surface 30.2 8.0 28.0 105.2 0.3 41 30.2 8.0 28.0 6.8 6.1 6.5 4.0 37 29.8 6.8 8.0 28.8 95.7 804232 C1 Cloudy 19:52 8.0 Middle 29.8 815640 Moderate 8.0 95.7 6.8 3 0.4 38 29.8 7.0 0.3 28 29.2 8.0 29.2 83.9 5.4 7.3 2 8.0 84.0 5.4 29.2 29.1 Rottom 7.1 8.0 5.4 0.3 29.2 29 1 84.0 30.4 3.4 Surface 30.4 7.9 22.1 106.6 3.4 223 321 30.4 6.3 29.5 7.8 3 C2 Fine Moderate 18:31 10.2 Middle 29.5 7.8 27.6 83.6 825683 806955 7.8 83.4 3.7 5.1 0.2 324 29.5 3 9.2 0.3 338 29.3 7.8 28.7 5.0 4.3 76.0 7.8 28.7 76.0 5.0 Bottom 29.3 9.2 354 7.8 4.2 0.3 29.3 249 30.2 109.0 Surface 30.2 8.0 26.9 0.6 253 30.1 2.8 5.6 0.5 249 29.5 3.2 7.8 28.4 28.5 C3 817814 Fine 20:45 11.2 Middle 29.5 7.8 28.5 86.3 2 822095 Moderate 263 29.5 10.2 0.4 261 29.3 7.8 3.9 5.3 29.3 7.8 29.2 80.6 Bottom 0.4 29.3 7.8 80.8 5.3 3.9 0.2 346 31.1 8.0 7.2 <2 Surface 31.1 8.0 27.8 108.8 1.0 0.2 351 31.1 8.0 27.8 108.8 6.9 7.2 <2 6.9 19:31 807141 IM1 Cloudy Moderate 5.3 817931 43 0.2 276 29.3 8.0 28.8 90.1 5.8 7.9 <2 Bottom 8.0 28.8 90.1 5.8 284 350 43 0.2 29.3 8.0 28.8 90.1 5.8 7.9 <2 1.0 0.2 30.4 8.0 104 7 6.8 6.1 Surface 8.0 25.0 104.7 1.0 0.3 322 30.3 8.0 25.0 104 6 6.8 6.1 2 3.3 0.3 12 29.3 7.9 89.6 5.8 7.0 IM2 Cloudy Moderate 19:22 6.6 Middle 7.9 28.9 89.7 818181 806189 29.3 29.1 3.3 0.3 12 7.9 5.8 7.0 32 5.6 0.1 8.0 29 1 80.4 5.2 7.4 8.0 29.0 80.4 5.2 5.6 0.1 34 7.3 29.2 8.0 5.2 3 29 0 80.4 0.4 333 30.3 8.0 6.8 5.9 Surface 8.0 25.7 104.2 1.0 358 8.0 5.9 0.5 30.3 6.8 3 6.6 328 5.9 <2 3.6 0.3 29.9 8.0 6.3 IM3 Cloudy Moderate 19:14 7.2 Middle 29.9 8.0 28.2 97.9 818781 805598 29.9 29.4 6.0 345 304 3.6 0.4 8.0 <2 <2 0.3 8.0 29.0 5.1 78.9 5.1 Bottom 8.0 29.0 6.2 0.3 311 29.4 8.0 29.0 6.5 <2 0.4 342 31.2 8.0 22.4 104.8 6.8 6.3 3 Surface 31.2 8.0 22.4 104.8 346 31.2 6.3 6.8 4.1 29.7 <2 0.4 355 8.0 6.1 IM4 Cloudy Moderate 19:04 8.2 Middle 29.7 8.0 26.4 93.1 819727 804606 4.1 0.4 327 321 29.7 6.8 <2 <2 8.0 7.3 8.0 79.8 5.2 Bottom 29.5 28.7 7.2 324 29.5 329 30.5 0.3 8.0 7.2 6.2 <2 23.9 Surface 30.5 8.0 23.9 110.3 1.0 359 30.5 8.0 6.2 <2 6.7 29.9 7.5 3 6.2 Cloudy 18:55 7.4 Middle 29.9 8.0 25.7 94.3 820734 804853 IM5 Moderate 3.7 330 29.9 7.6 6.4 29.5 29.5 8.0 5.8 5.8 7.9 29.5 8.0 27.2 88.3 5.8 Bottom 337 6.4 0.4 7.9 1.0 0.3 289 30.6 8.0 6.9 6.2 4 Surface 8.0 23.7 105.2 1.0 0.3 301 30.6 8.0 6.9 6.2 3 7.3 3.7 0.2 263 29.6 7.9 5.8 4 Cloudy Moderate 18:46 Middle 29.6 7.9 26.9 89.2 805824 3.7 0.2 263 29.6 7.9 26.9 89.1 5.8 7.4 3 8.0 5.5 5.5 6.4 0.1 11 29.5 8.0 4 8.0 27.4 85.2 5.5 6.4 0.1 11 29.6 79 3 1.0 0.2 235 30.3 8.0 24.3 6.1 Surface 8.0 24.3 108.6 8.0 6.1 1.0 0.2 241 30.3 7.9 7.2 4.5 0.2 260 29.5 <2 27.3 84.8 5.5 IM7 Cloudy Moderate 18:37 9.0 Middle 7.9 27.3 84.8 821339 806823 4.5 0.3 278 29.5 7.9 84.7 5.5 7.4 <2 8.0 0.2 246 29.5 8.0 27.6 4.9 8.2 <2 4.9 Bottom 29.5 8.0 27.6 74.5 8.0 0.2 262 193 29.5 30.6 8.0 8.1 1.0 0.1 8.0 7.4 3.6 3 Surface 30.6 8.0 23.5 113.0 8.0 1.0 0.1 207 30.5 23.6 7.4 3.7 2 0.0 105 30.2 8.0 24.5 24.5 4.8 3 3.6 107.5 7.1 107.4 808135 8.0 24.5 821827 IM8 Fine Moderate 19:00 7.1 Middle 30.2 2 4.8 3.6 108 0.0 30.2 5.7 6.1 0.1 58 30.2 8.0 24.8 7.0 106.5 3 30.2 8.0 24.8 106.7 7.0 Rottom

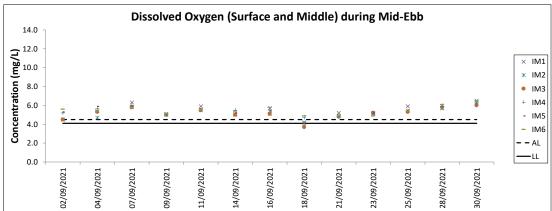
DA: Depth-Averaged

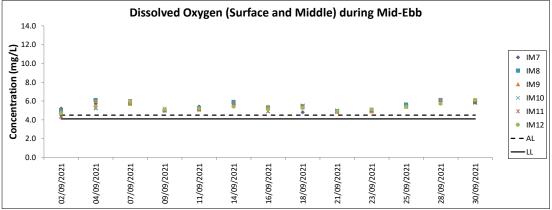
Calm: Small or no wave: Moderate: Between calm and rough: Rough: White capped or rougher

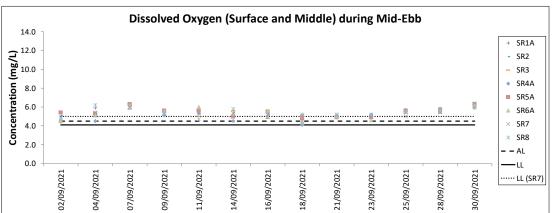
30 September 21 during Mid-Flood Tide Water Quality Monitoring Results on DO Saturation Water Temperature (°C) Salinity (ppt) Turbidity(NTU) Coordinate Coordinate Sampling Water Monitoring Current Speed Oxvaen Sampling Depth (m) HK Grid HK Grid Direction Time (m/s) Value Average DA Value DA Value DA (Easting) Condition Condition Depth (m) Value Average Value Average Value Average Value (Northing) 30.9 0.1 Surface 8.0 22.4 114.7 0.1 30.9 7.6 3.9 0.1 29 30.5 7.9 24.7 72 9.2 IM9 7.9 110.2 808829 Fine Moderate 19:08 7.8 24.8 3.9 0.1 29 30.5 7.9 24.8 110.2 7.2 9.4 3 6.8 0.1 288 30.3 7.9 25.1 105.3 6.9 8.2 7.9 25.1 105.5 6.9 Bottom 6.8 0.1 296 30.3 7.9 25.0 105.7 6.9 8.1 4 321 1.0 0.4 30.6 8.0 2.6 Surface 8.0 24.3 112.2 1.0 0.5 348 30.6 8.0 24.3 7.3 2.6 3 7.2 3.7 0.5 304 305 30.4 30.3 7.9 3.5 IM10 Fine Moderate 19:16 7.3 Middle 7.9 25.1 108.9 822391 809777 0.5 7.9 4.7 6.3 0.4 309 30.2 7.9 25.5 6.4 97.3 Bottom 7.9 25.5 6.4 4.7 6.3 0.4 320 30.2 79 25.4 64 3 0.3 30.3 3.7 7.9 Surface 30.3 7.9 25.8 104.0 350 7.9 1.0 0.3 30.2 6.8 3.5 4 6.6 29.8 29.8 312 318 IM11 Fine Moderate 19:27 7.8 Middle 7.9 26.8 96.0 822065 811467 7.9 7.6 0.4 3 6.8 0.2 300 29.7 7.9 5.8 9.2 27.1 88.3 7.9 88.5 5.8 Bottom 29.8 27.1 6.8 0.3 311 29.8 7.9 88.6 5.8 9.4 2 30.4 3.1 Surface 30.4 8.0 25.6 107.9 1.0 0.4 293 30.3 8.0 3.1 6.8 4.3 0.5 317 29.9 7.9 3.4 6.5 812029 IM12 Fine 19:33 8.5 Middle 29.9 7.9 26.2 98.7 821454 Moderate 4.3 0.5 340 29.8 3.5 296 29.5 7.8 8.0 28.1 5.1 29.6 7.8 28.1 77.6 Rottom 7.5 0.2 304 29.6 7.8 8.0 8.0 5.9 25.6 Surface 30.4 8.0 25.8 115.5 1.0 30.4 8.0 6.5 4 812659 SR1A Fine Moderate 19:52 Middle 2.6 41 30.1 7.9 26.9 97.1 6.3 9.5 4 Bottom 30.1 7.9 26.9 97.3 6.3 41 30.1 79 97.4 93 8.0 1.0 0.1 153 30.3 4.6 Surface 30.3 8.0 26.6 106.9 1.0 0.1 165 30.2 26.7 6.9 4.9 4 7.0 SR2 20:22 4.0 Middle 821469 814164 3.0 0.1 21 29.5 7.9 7.8 28.3 82.8 82.2 2 5.4 7 1 7.8 28.3 82.5 5.4 7 1 0.1 3.0 21 29.5 1.0 0.1 180 30.4 8.0 24.2 7.6 2.6 <2 Surface 30.4 8.0 24.3 115.2 8.0 2.6 1.0 0.2 193 30.4 <2 209 7.9 7.9 6.1 4.3 0.1 30.0 2 SR3 Moderate 18:54 8.6 Middle 7.9 25.5 102.9 822134 807547 0.1 6.3 4.3 219 30.0 7.6 0.1 193 30.0 8.0 6.8 8.1 8.8 103.1 6.8 Bottom 30.0 8.0 25.6 0.1 29.8 201 8.0 6.1 1.0 5.2 28.2 6.6 2 Surface 29.8 8.0 28.2 102.2 5.4 211 29.8 6.6 6.1 6.5 4.8 5.0 201 29.7 7.0 8.0 28.3 6.3 SR4A 8.0 97.0 817170 807816 Cloudy Moderate 20:18 9.5 Middle 29.7 28.3 2 4.8 8.0 7.1 5.3 210 29.7 29.8 29.8 8.5 5.1 198 8.0 6.3 8.2 8.0 8.0 28.3 98.3 6.3 29.8 28.2 Rottom 198 29.6 1.0 0.2 290 8.0 6.2 5.7 28.9 96.7 29.6 8.0 28.9 96.7 Surface 1.0 0.3 29.6 8.0 5.7 300 6.2 20:39 3.8 Middle 816601 810694 SR5A Cloudy Moderate 2.8 0.2 295 29.3 29.3 29.4 8.0 29.3 76.8 5.0 Bottom 5.7 309 29.4 1.0 0.1 208 28.9 7.9 6.2 28.9 7.9 30.0 96.4 Surface 1.0 0.1 210 28.9 7.9 30.0 96.4 6.3 6.3 3 6.3 SR6A Cloudy Moderate 21:17 4.1 Middle 817974 814722 3.1 0.1 229 28.9 7.9 6.3 7.9 30.0 78.5 5.1 3.1 0.1 237 28.9 7.0 78.4 5.1 6.2 3 1.0 0.1 36 29.8 7.9 93.4 2.7 7.9 27.6 93.4 Surface 1.0 0.1 39 29.8 79 27.6 93.4 6.1 2.7 3 5.4 8 1 0.2 98 29.0 7.8 30.1 47 5.5 SR7 Fine Moderate 21:21 16.2 Middle 7.8 30.2 72.4 823618 823747 6.2 8.1 0.2 105 29.0 7.8 30.2 4.7 3 15.2 0.1 83 28.9 7.8 30.8 4.4 10.8 <2 Bottom 7.8 30.8 68.0 4.4 15.2 0.1 90 28.9 7.9 44 10.5 <2 1.0 31.0 8.0 8.0 4 Surface 31.0 8.0 24.7 115.3 1.0 30.9 8.0 24.7 7.5 8.0 3 7.5 820393 811618 SR8 Fine Moderate 19:42 4.1 Middle <2 3.1 30.6 5.9 8.0 24.7 7.2 7.2 30.6 8.1 24.6 109.9

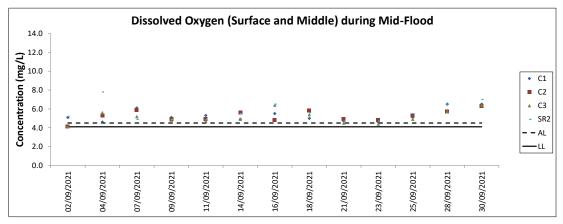
DA: Depth-Averaged

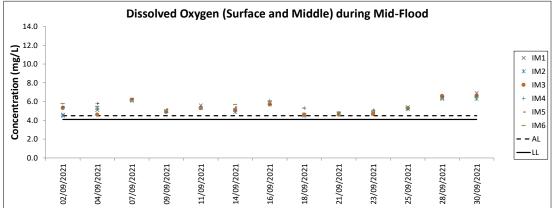


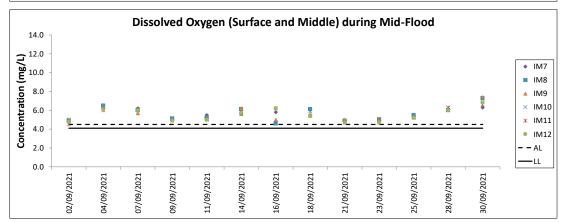


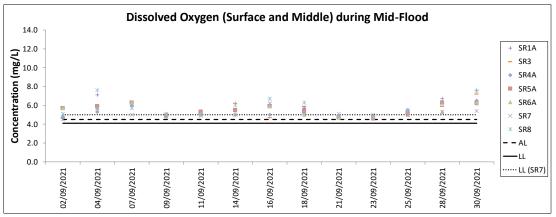


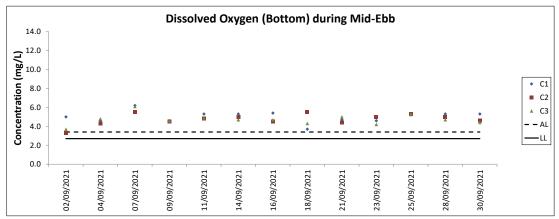


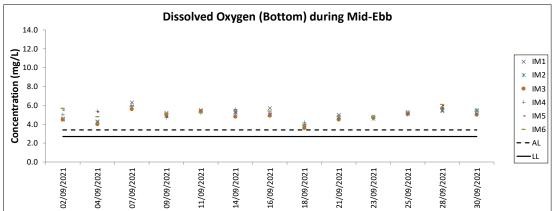


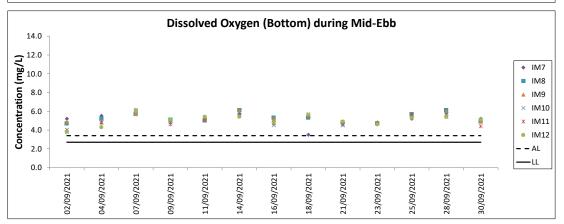


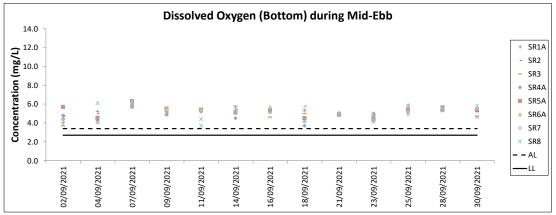


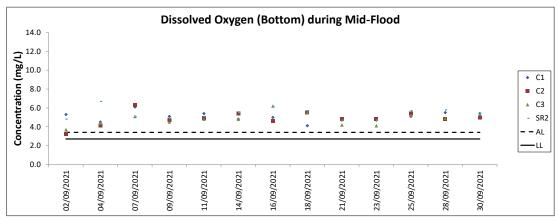


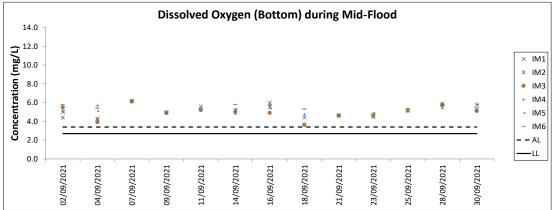


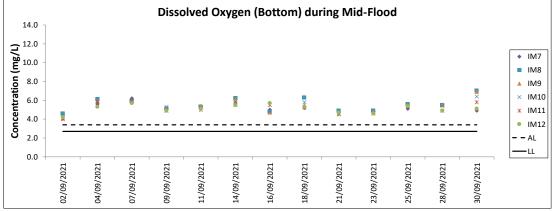


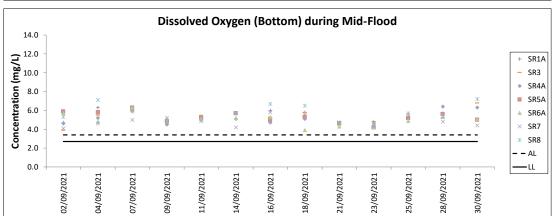


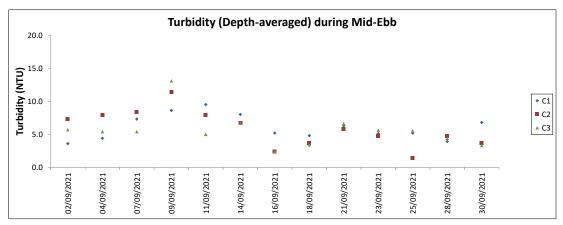


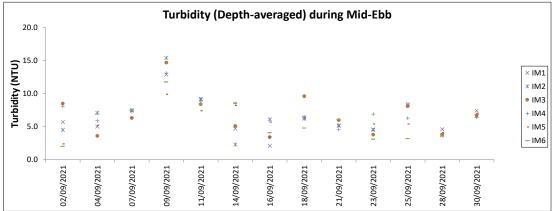


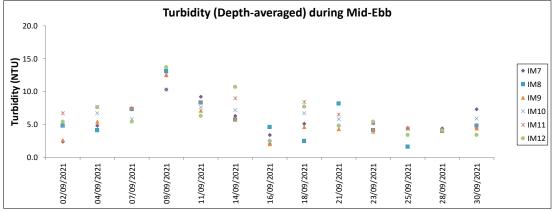


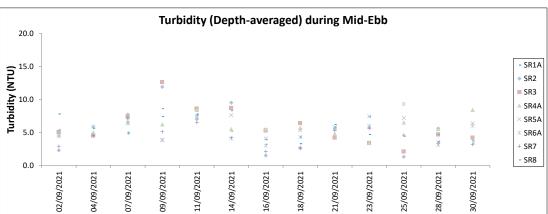




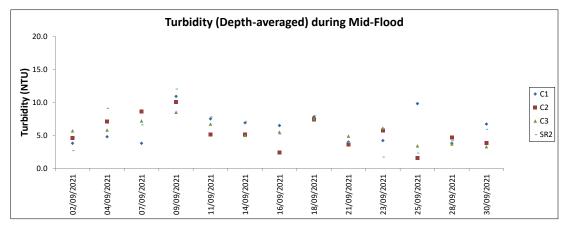


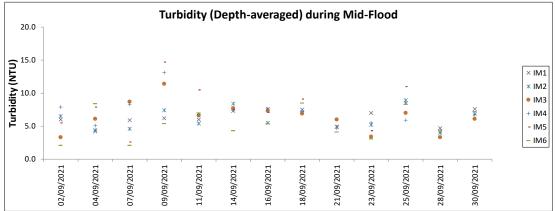


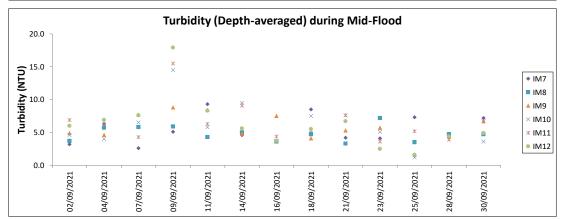


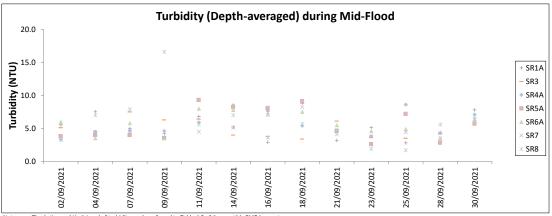


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

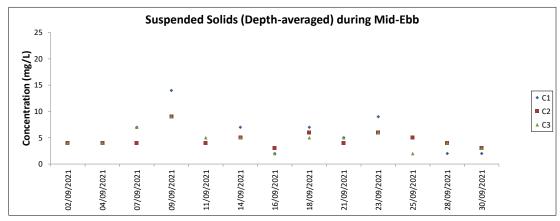


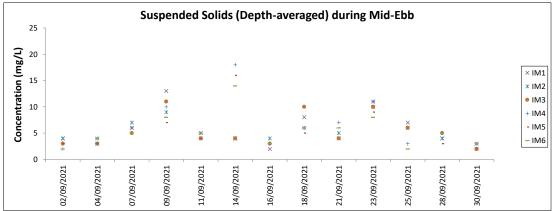


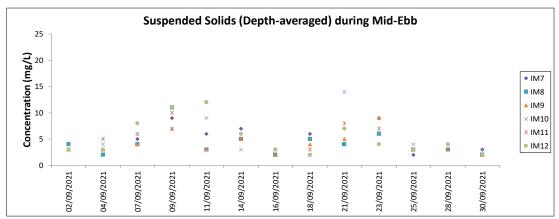


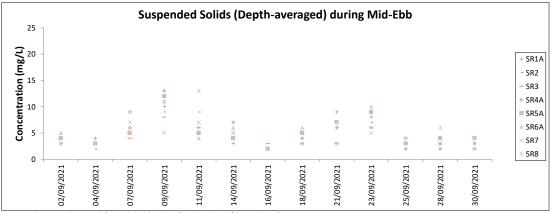


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A repor

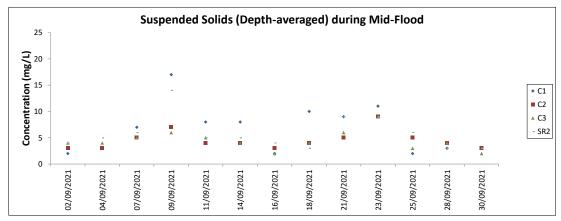


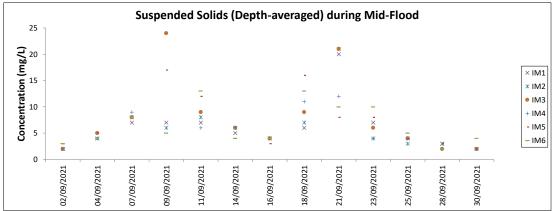


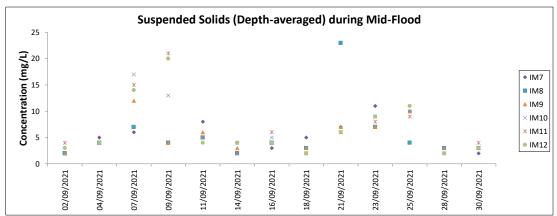


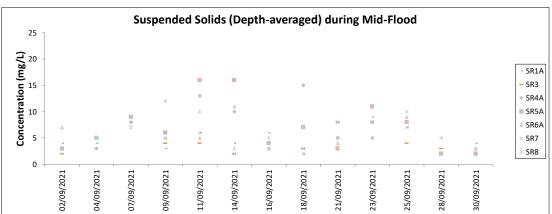


The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.









Mott MacDonald Expansion of Hong Kong International Airport into a Three-Runway System
Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey

Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
12-Jul-21	SWL	2	25.750	SUMMER	32166	3RS ET	Р
12-Jul-21	SWL	3	25.520	SUMMER	32166	3RS ET	Р
12-Jul-21	SWL	2	8.900	SUMMER	32166	3RS ET	S
12-Jul-21	SWL	3	6.610	SUMMER	32166	3RS ET	S
13-Jul-21	SWL	1	1.050	SUMMER	32166	3RS ET	Р
13-Jul-21	SWL	2	35.764	SUMMER	32166	3RS ET	Р
13-Jul-21	SWL	3	14.402	SUMMER	32166	3RS ET	Р
13-Jul-21	SWL	1	1.160	SUMMER	32166	3RS ET	S
13-Jul-21	SWL	2	9.900	SUMMER	32166	3RS ET	S
13-Jul-21	SWL	3	4.150	SUMMER	32166	3RS ET	S
14-Jul-21	AW	2	4.740	SUMMER	32166	3RS ET	Р
14-Jul-21	WL	1	0.970	SUMMER	32166	3RS ET	Р
14-Jul-21	WL	2	6.905	SUMMER	32166	3RS ET	Р
14-Jul-21	WL	3	8.190	SUMMER	32166	3RS ET	Р
14-Jul-21	WL	2	4.141	SUMMER	32166	3RS ET	S
14-Jul-21	WL	3	5.059	SUMMER	32166	3RS ET	S
19-Jul-21	NEL	3	31.750	SUMMER	32166	3RS ET	Р
19-Jul-21	NEL	4	5.200	SUMMER	32166	3RS ET	Р
19-Jul-21	NEL	3	8.950	SUMMER	32166	3RS ET	S
19-Jul-21	NEL	4	1.300	SUMMER	32166	3RS ET	S
21-Jul-21	NEL	2	5.200	SUMMER	32166	3RS ET	Р
21-Jul-21	NEL	3	31.980	SUMMER	32166	3RS ET	Р
21-Jul-21	NEL	2	4.000	SUMMER	32166	3RS ET	S
21-Jul-21	NEL	3	6.120	SUMMER	32166	3RS ET	S
22-Jul-21	AW	2	2.010	SUMMER	32166	3RS ET	Р
22-Jul-21	AW	3	2.980	SUMMER	32166	3RS ET	Р
22-Jul-21	WL	2	9.208	SUMMER	32166	3RS ET	Р
22-Jul-21	WL	3	5.108	SUMMER	32166	3RS ET	Р
22-Jul-21	WL	4	0.310	SUMMER	32166	3RS ET	Р
22-Jul-21	WL	2	2.660	SUMMER	32166	3RS ET	S
22-Jul-21	WL	3	4.919	SUMMER	32166	3RS ET	S
22-Jul-21	WL	4	0.660	SUMMER	32166	3RS ET	S
26-Jul-21	NWL	2	62.210	SUMMER	32166	3RS ET	Р
26-Jul-21	NWL	2	10.690	SUMMER	32166	3RS ET	S
28-Jul-21	NWL	2	34.380	SUMMER	32166	3RS ET	Р
28-Jul-21	NWL	3	28.060	SUMMER	32166	3RS ET	Р
28-Jul-21	NWL	4	0.600	SUMMER	32166	3RS ET	Р
28-Jul-21	NWL	2	3.370	SUMMER	32166	3RS ET	S
28-Jul-21	NWL	3	7.420	SUMMER	32166	3RS ET	S
11-Aug-21	NWL	2	50.150	SUMMER	32166	3RS ET	Р
11-Aug-21	NWL	3	10.620	SUMMER	32166	3RS ET	Р
11-Aug-21	NWL	2	11.950	SUMMER	32166	3RS ET	S
16-Aug-21	SWL	2	38.120	SUMMER	32166	3RS ET	Р
16-Aug-21	SWL	3	16.400	SUMMER	32166	3RS ET	Р
16-Aug-21	SWL	2	12.480	SUMMER	32166	3RS ET	S
16-Aug-21	SWL	3	3.200	SUMMER	32166	3RS ET	S
18-Aug-21	AW	2	2.970	SUMMER	32166	3RS ET	Р

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
18-Aug-21	AW	3	1.820	SUMMER	32166	3RS ET	Р
18-Aug-21	WL	2	3.420	SUMMER	32166	3RS ET	Р
18-Aug-21	WL	3	15.902	SUMMER	32166	3RS ET	Р
18-Aug-21	WL	2	1.090	SUMMER	32166	3RS ET	S
18-Aug-21	WL	3	8.908	SUMMER	32166	3RS ET	S
19-Aug-21	NWL	2	35.700	SUMMER	32166	3RS ET	Р
19-Aug-21	NWL	3	28.600	SUMMER	32166	3RS ET	Р
19-Aug-21	NWL	2	9.900	SUMMER	32166	3RS ET	S
19-Aug-21	NWL	3	1.300	SUMMER	32166	3RS ET	S
20-Aug-21	SWL	1	1.087	SUMMER	32166	3RS ET	Р
20-Aug-21	SWL	2	48.720	SUMMER	32166	3RS ET	Р
20-Aug-21	SWL	3	3.500	SUMMER	32166	3RS ET	Р
20-Aug-21	SWL	1	14.483	SUMMER	32166	3RS ET	S
20-Aug-21	SWL	2	2.300	SUMMER	32166	3RS ET	S
24-Aug-21	AW	2	4.770	SUMMER	32166	3RS ET	P
24-Aug-21	WL	2	6.700	SUMMER	32166	3RS ET	P
24-Aug-21 24-Aug-21	WL	3	13.750	SUMMER	32166	3RS ET	P
24-Aug-21 24-Aug-21	WL	2	3.190	SUMMER	32166	3RS ET	S
24-Aug-21	WL	3	7.610	SUMMER	32166	3RS ET	S
25-Aug-21	NEL	2	27.950	SUMMER	32166	3RS ET	P
25-Aug-21 25-Aug-21	NEL	3	9.200	SUMMER	32166	3RS ET	Р
		2					S
25-Aug-21	NEL NEL	3	6.650 3.400	SUMMER	32166	3RS ET 3RS ET	S
25-Aug-21				SUMMER	32166		P
26-Aug-21	NEL	2	26.405	SUMMER	32166	3RS ET	
26-Aug-21	NEL	3	10.375	SUMMER	32166	3RS ET	P
26-Aug-21	NEL	2	7.360	SUMMER	32166	3RS ET	S
26-Aug-21	NEL	3	3.160	SUMMER	32166	3RS ET	S
6-Sep-21	NEL	2	36.750	AUTUMN	32166	3RS ET	P
6-Sep-21	NEL	2	8.950	AUTUMN	32166	3RS ET	S
6-Sep-21	NEL	3	1.200	AUTUMN	32166	3RS ET	S
7-Sep-21	NWL	2	19.780	AUTUMN	32166	3RS ET	P -
7-Sep-21	NWL	3	37.420	AUTUMN	32166	3RS ET	P -
7-Sep-21	NWL	4	6.000	AUTUMN	32166	3RS ET	Р
7-Sep-21	NWL	2	5.300	AUTUMN	32166	3RS ET	S
7-Sep-21	NWL	3	6.000	AUTUMN	32166	3RS ET	S
7-Sep-21	NWL	4	1.100	AUTUMN	32166	3RS ET	S
8-Sep-21	SWL	2	28.388	AUTUMN	32166	3RS ET	P
8-Sep-21	SWL	3	23.140	AUTUMN	32166	3RS ET	Р
8-Sep-21	SWL	2	10.386	AUTUMN	32166	3RS ET	S
8-Sep-21	SWL	3	4.150	AUTUMN	32166	3RS ET	S
10-Sep-21	NEL	2	7.300	AUTUMN	32166	3RS ET	Р
10-Sep-21	NEL	3	26.580	AUTUMN	32166	3RS ET	Р
10-Sep-21	NEL	4	3.200	AUTUMN	32166	3RS ET	Р
10-Sep-21	NEL	2	2.820	AUTUMN	32166	3RS ET	S
10-Sep-21	NEL	3	7.300	AUTUMN	32166	3RS ET	S
14-Sep-21	SWL	2	29.785	AUTUMN	32166	3RS ET	Р
14-Sep-21	SWL	3	20.800	AUTUMN	32166	3RS ET	Р
14-Sep-21	SWL	4	2.450	AUTUMN	32166	3RS ET	Р
	SWL	2	9.852	AUTUMN	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
14-Sep-21	SWL	3	7.200	AUTUMN	32166	3RS ET	S
16-Sep-21	AW	2	4.860	AUTUMN	32166	3RS ET	Р
16-Sep-21	WL	2	9.094	AUTUMN	32166	3RS ET	Р
16-Sep-21	WL	3	5.730	AUTUMN	32166	3RS ET	А
16-Sep-21	WL	2	3.753	AUTUMN	32166	3RS ET	S
16-Sep-21	WL	3	4.210	AUTUMN	32166	3RS ET	S
20-Sep-21	NWL	2	57.280	AUTUMN	32166	3RS ET	Р
20-Sep-21	NWL	3	6.990	AUTUMN	32166	3RS ET	Р
20-Sep-21	NWL	2	9.500	AUTUMN	32166	3RS ET	S
20-Sep-21	NWL	3	1.630	AUTUMN	32166	3RS ET	S
23-Sep-21	AW	2	1.200	AUTUMN	32166	3RS ET	Р
23-Sep-21	AW	3	3.820	AUTUMN	32166	3RS ET	Р
23-Sep-21	WL	2	6.040	AUTUMN	32166	3RS ET	Р
23-Sep-21	WL	3	7.319	AUTUMN	32166	3RS ET	Р
23-Sep-21	WL	4	4.400	AUTUMN	32166	3RS ET	Р
23-Sep-21	WL	2	5.350	AUTUMN	32166	3RS ET	S
23-Sep-21	WL	3	3.161	AUTUMN	32166	3RS ET	S
23-Sep-21	WL	4	2.090	AUTUMN	32166	3RS ET	S

Notes: CWD monitoring survey data of the two preceding survey months are presented for reference only.

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG#	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
12-Jul-21	1	1225	CWD	1	SWL	3	70	ON	3RS ET	22.1605	113.8981	SUMMER	NONE	S
12-Jul-21	2	1314	CWD	1	SWL	3	1	ON	3RS ET	22.1962	113.8975	SUMMER	NONE	Р
12-Jul-21	3	1426	CWD	2	SWL	2	531	ON	3RS ET	22.1933	113.8785	SUMMER	NONE	Р
12-Jul-21	4	1507	CWD	5	SWL	3	41	ON	3RS ET	22.1860	113.8690	SUMMER	NONE	Р
12-Jul-21	5	1540	CWD	3	SWL	2	63	ON	3RS ET	22.1944	113.8590	SUMMER	NONE	Р
12-Jul-21	6	1610	CWD	4	SWL	3	573	ON	3RS ET	22.1894	113.8497	SUMMER	NONE	Р
13-Jul-21	1	1357	CWD	3	SWL	2	379	ON	3RS ET	22.2073	113.8789	SUMMER	PURSE SEINER	S
13-Jul-21	2	1413	CWD	2	SWL	2	15	ON	3RS ET	22.2061	113.8780	SUMMER	NONE	Р
13-Jul-21	3	1538	CWD	7	SWL	3	14	ON	3RS ET	22.1906	113.8495	SUMMER	PURSE SEINER	Р
14-Jul-21	1	1036	CWD	1	WL	2	127	ON	3RS ET	22.2621	113.8558	SUMMER	NONE	S
14-Jul-21	2	1044	CWD	2	WL	1	343	ON	3RS ET	22.2616	113.8506	SUMMER	NONE	Р
14-Jul-21	3	1055	CWD	5	WL	2	44	ON	3RS ET	22.2608	113.8475	SUMMER	NONE	Р
14-Jul-21	4	1109	CWD	3	WL	2	779	ON	3RS ET	22.2546	113.8355	SUMMER	NONE	S
14-Jul-21	5	1147	CWD	4	WL	3	325	ON	3RS ET	22.2399	113.8277	SUMMER	NONE	S
14-Jul-21	6	1214	CWD	2	WL	3	17	ON	3RS ET	22.2300	113.8381	SUMMER	NONE	S
14-Jul-21	7	1240	CWD	3	WL	3	466	ON	3RS ET	22.2143	113.8223	SUMMER	NONE	Р
22-Jul-21	1	1037	CWD	8	WL	2	453	ON	3RS ET	22.2644	113.8574	SUMMER	PURSE SEINER	S
22-Jul-21	2	1117	CWD	7	WL	3	411	ON	3RS ET	22.2499	113.8377	SUMMER	NONE	Р
22-Jul-21	3	1147	CWD	2	WL	2	358	ON	3RS ET	22.2419	113.8391	SUMMER	NONE	Р
22-Jul-21	4	1202	CWD	3	WL	3	32	ON	3RS ET	22.2326	113.8240	SUMMER	NONE	S
22-Jul-21	5	1211	CWD	2	WL	3	221	ON	3RS ET	22.2316	113.8299	SUMMER	NONE	Р
22-Jul-21	6	1234	CWD	6	WL	3	22	ON	3RS ET	22.2141	113.8254	SUMMER	NONE	Р
22-Jul-21	7	1314	CWD	3	WL	4	20	ON	3RS ET	22.2010	113.8252	SUMMER	NONE	S
22-Jul-21	8	1323	CWD	1	WL	3	170	ON	3RS ET	22.1963	113.8363	SUMMER	NONE	Р
22-Jul-21	9	1336	CWD	4	WL	2	115	ON	3RS ET	22.1930	113.8426	SUMMER	PURSE SEINER	S
26-Jul-21	1	1204	CWD	1	NWL	2	567	ON	3RS ET	22.3826	113.8878	SUMMER	NONE	Р
26-Jul-21	2	1309	CWD	4	NWL	2	490	ON	3RS ET	22.3885	113.8978	SUMMER	NONE	Р
28-Jul-21	1	1035	CWD	1	NWL	2	32	ON	3RS ET	22.2820	113.8694	SUMMER	NONE	Р
28-Jul-21	2	1105	CWD	2	NWL	2	302	ON	3RS ET	22.2920	113.8774	SUMMER	NONE	Р
28-Jul-21	3	1305	CWD	1	NWL	2	63	ON	3RS ET	22.3522	113.8980	SUMMER	NONE	Р
11-Aug-21	1	0948	CWD	3	NWL	3	29	ON	3RS ET	22.39316	113.87011	SUMMER	NONE	Р
11-Aug-21	2	1226	CWD	4	NWL	2	415	ON	3RS ET	22.38048	113.88752	SUMMER	NONE	Р

DATE	STG#	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
11-Aug-21	3	1328	CWD	1	NWL	2	27	ON	3RS ET	22.38116	113.89752	SUMMER	NONE	Р
16-Aug-21	1	1109	FP	1	SWL	2	145	ON	3RS ET	22.16096	113.92744	SUMMER	NONE	Р
18-Aug-21	1	1110	CWD	1	WL	3	75	ON	3RS ET	22.24156	113.84087	SUMMER	NONE	Р
18-Aug-21	2	1221	CWD	6	WL	3	177	ON	3RS ET	22.19608	113.84060	SUMMER	PURSE SEINER	Р
20-Aug-21	1	1048	FP	1	SWL	1	22	ON	3RS ET	22.15401	113.93612	SUMMER	NONE	Р
20-Aug-21	2	1102	FP	1	SWL	2	352	ON	3RS ET	22.15871	113.92758	SUMMER	NONE	Р
24-Aug-21	1	1148	CWD	4	WL	2	598	ON	3RS ET	22.20577	113.83268	SUMMER	NONE	Р
8-Sep-21	1	1312	FP	4	SWL	2	119	ON	3RS ET	22.1520	113.8973	AUTUMN	NONE	Р
8-Sep-21	2	1350	CWD	1	SWL	2	141	ON	3RS ET	22.2059	113.8879	AUTUMN	NONE	Р
8-Sep-21	3	1436	CWD	1	SWL	3	133	ON	3RS ET	22.1733	113.8687	AUTUMN	NONE	Р
8-Sep-21	4	1502	CWD	3	SWL	2	95	ON	3RS ET	22.1946	113.8587	AUTUMN	NONE	Р
8-Sep-21	5	1537	CWD	6	SWL	3	729	ON	3RS ET	22.1754	113.8499	AUTUMN	NONE	Р
14-Sep-21	1	1037	FP	3	SWL	2	157	ON	3RS ET	22.1819	113.9359	AUTUMN	NONE	Р
14-Sep-21	2	1048	FP	1	SWL	2	170	ON	3RS ET	22.1602	113.9368	AUTUMN	NONE	Р
14-Sep-21	3	1050	FP	4	SWL	2	35	ON	3RS ET	22.1577	113.9368	AUTUMN	NONE	Р
14-Sep-21	4	1108	FP	2	SWL	2	179	ON	3RS ET	22.1582	113.9277	AUTUMN	NONE	Р
14-Sep-21	5	1114	FP	5	SWL	2	234	ON	3RS ET	22.1666	113.9280	AUTUMN	NONE	Р
14-Sep-21	6	1123	FP	2	SWL	2	63	ON	3RS ET	22.1830	113.9276	AUTUMN	NONE	Р
16-Sep-21	1	1044	CWD	1	WL	3	154	ON	3RS ET	22.2606	113.8501	AUTUMN	NONE	Р
16-Sep-21	2	1123	CWD	3	WL	3	170	ON	3RS ET	22.2410	113.8409	AUTUMN	NONE	Р
16-Sep-21	3	1151	CWD	9	WL	2	67	ON	3RS ET	22.2255	113.8318	AUTUMN	NONE	Р
16-Sep-21	4	1221	CWD	2	WL	2	215	ON	3RS ET	22.2051	113.8324	AUTUMN	NONE	Р
16-Sep-21	5	1236	CWD	3	WL	2	141	ON	3RS ET	22.2012	113.8245	AUTUMN	NONE	S
16-Sep-21	6	1250	CWD	10	WL	2	208	ON	3RS ET	22.1961	113.8416	AUTUMN	NONE	Р
16-Sep-21	7	1308	CWD	1	WL	2	31	ON	3RS ET	22.1926	113.8425	AUTUMN	NONE	S
20-Sep-21	1	1201	CWD	3	NWL	2	7	ON	3RS ET	22.3859	113.8781	AUTUMN	NONE	Р
23-Sep-21	1	1046	CWD	1	WL	2	71	ON	3RS ET	22.2608	113.8454	AUTUMN	NONE	Р
23-Sep-21	2	1110	CWD	2	WL	2	1497	ON	3RS ET	22.2444	113.8491	AUTUMN	NONE	S
23-Sep-21	3	1203	CWD	6	WL	3	22	ON	3RS ET	22.2139	113.8312	AUTUMN	NONE	Р

Abbreviations: STG# = Sighting Number; GP SZ = Group Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance (in metres); N/A = Not Applicable; DEC LAT = Latitude (WGS84 in Decimal), DEC LON = Longitude (WGS84 in Decimal); BOAT ASSOC. = Fishing Boat Association; P/S = Primary Transect / Secondary Transect

Notes:

CWD monitoring survey data of the two preceding survey months are presented for reference only. No relevant figure or text will be mentioned in this monthly EM&A report.

Sighting data of finless porpoise (FP) are presented for reference only. No relevant figure or text will be mentioned in the monthly EM&A report. All FP sightings are excluded in calculation.

Calculation of the encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 423.038 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 15 on-effort sightings and total number of 52 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in September 2021 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in September 2021

$$STG = \frac{15}{423.038} \times 100 = 3.55$$

Encounter Rate by Number of Dolphins (ANI) in September 2021

$$ANI = \frac{52}{423.038} \times 100 = 12.29$$

Calculation of the running quarterly STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 1300.404 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 50 on-effort sightings and total number of 161 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

Running Quarterly Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{50}{1300.404} \times 100 = 3.84$$

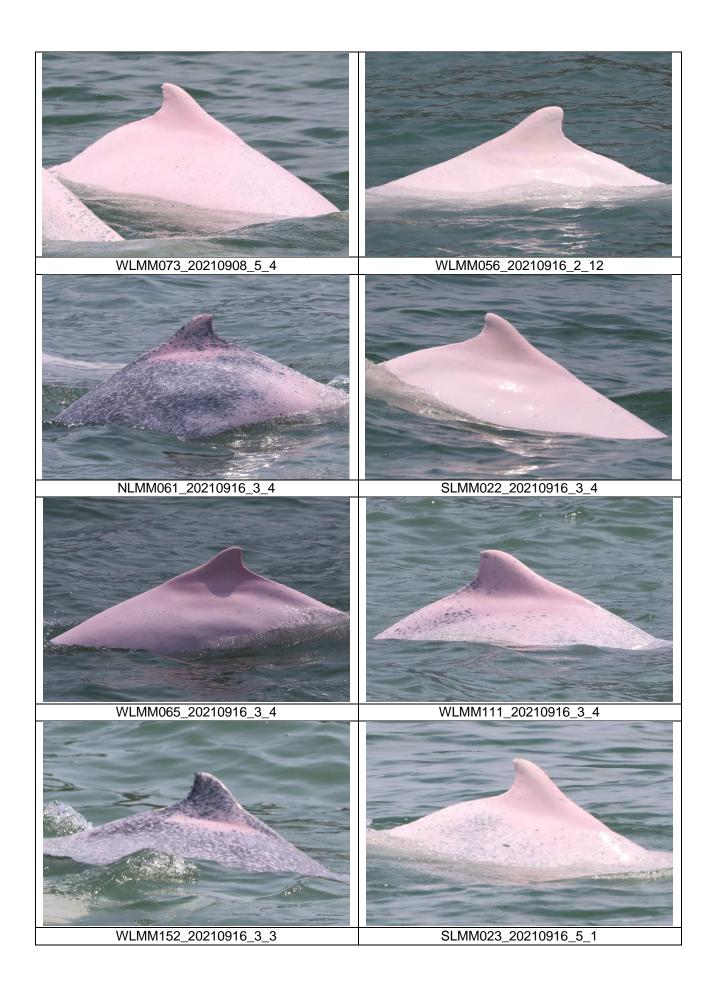
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

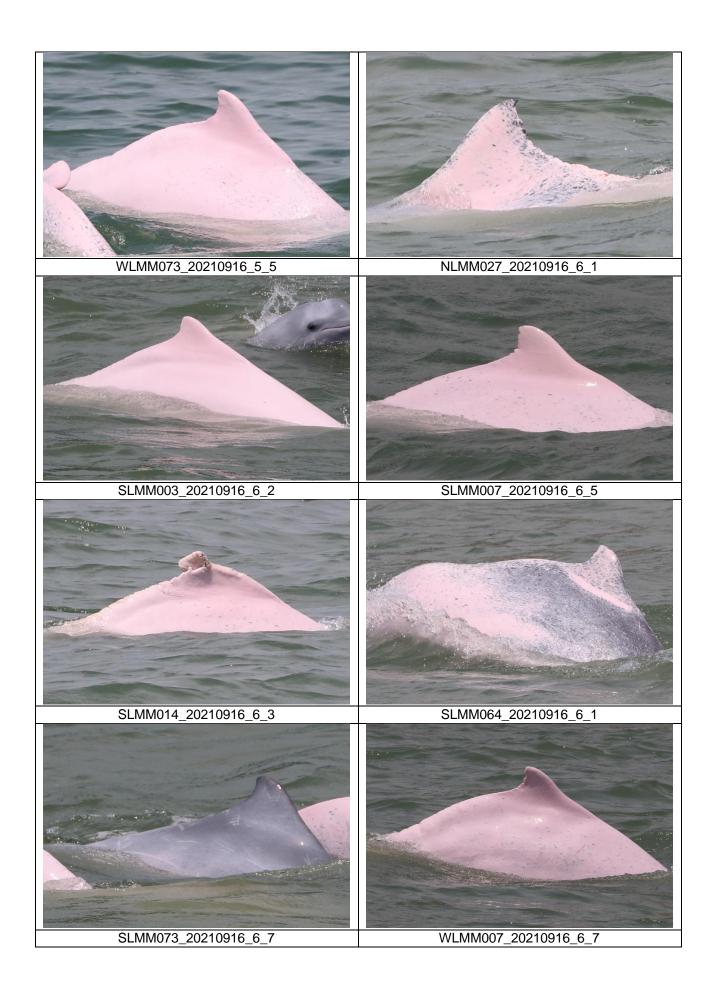
$$ANI = \frac{161}{1300.404} \times 100 = 12.38$$

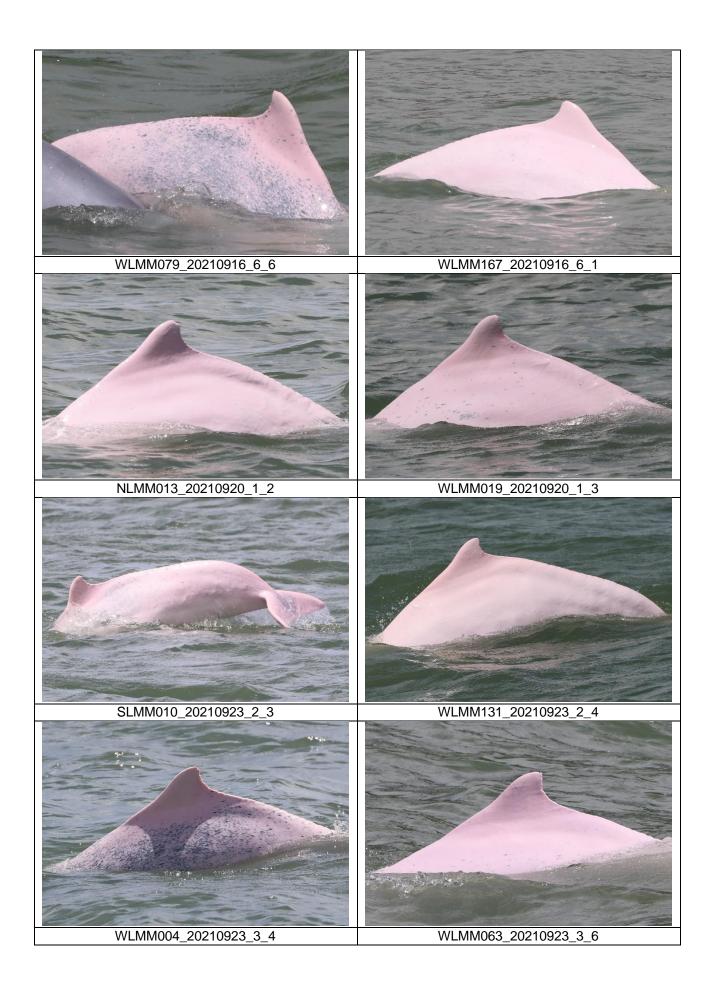
CWD Small Vessel Line-transect Survey

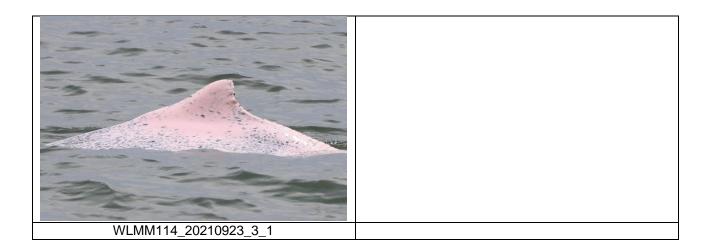
Photo Identification











CWD Land-based Theodolite Tracking Survey

CWD Groups by Survey Date

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility	No. of Focal Follow Dolphin Groups Tracked	Dolphin Group Size Range
3/Sep/21	Lung Kwu Chau	9:09	15:09	6:00	1-2	1	0	-
9/Sep/21	Sha Chau	10:59	16:59	6:00	1-2	3-4	0	-

Visibility: 1=Excellent, 2=Good, 3=Fair, 4=Poor

Appendix E. Calibration Certificates



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.

BA090071

Date of Issue

27 September 2021

Page No.

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

Date of Calibration

Sep 24, 2021 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 APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity Temperature APHA 21e 2130 B 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): -

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

The results relate only to the calibrated equipment as received

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source. "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

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

> LEE Chun-ning Senior Chemist

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

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No.

BA090071

Date of Issue

27 September 2021

Page No.

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): -

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

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



專業化驗有限公司 OUALITY 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

Page No.

1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.

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

PART B - DESCRIPTION

Name of Equipment

YSI ProDSS (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

21G105356

Date of Received

Sep 24, 2021

Date of Calibration

Sep 24, 2021 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 APHA 21e 4500-O G

Dissolved Oxygen 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 Senior Chemist



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

Page No.

2 of 2

PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.18	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): -

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

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

Appendix F. Status of Environmental Permits and Licences

	Description	Reference No.	Status
EIAO	Environmental Permit	EP-489/2014	Approved on 7 Nov 2014

Contract No.	Description	Location	Permit/ Reference No.	Status
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016
	Registration as Chemical Waste	Site office of 3206	WPN 5213-951- Z4035-01	Completion of Registration on 18 Nov 2016
	Producer	Works area of 3206	WPN 5213-951- Z4035-02	Completion of Registration on 18 Nov 2016
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0505-21	Valid from 7 Jul 2021 to 5 Jan 2022
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
Con unde Reg Che Proc Disc unde Bill / disp	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951- F2718-02	Completion of Registration on 9 Jun 2017
	Discharge License under WPCO	Works area of 3301	WT00029286- 2017	Valid from 20 Sep 2017 to 30 Sep 2022
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
	Construction Noise Permit (General Works)	Works area of 3301	GW-RS0631-21	Valid from 22 Aug 2021 to 21 Feb 2022
		Works area of 3301	GW-RS0188-21	Superseded by GW-RS0744-21
		(Cable ducting works) (Special Case)	GW-RS0744-21	Valid from 2 Oct 2021 to 29 Mar 2022
3302	Notification of Construction Work	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018
	under APCO	Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
			454882	Receipt acknowledged by EPD on 2 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331- 01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Works area of 3302	WT00034539- 2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541- 2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General	Works area of 3302	GW-RS0497-21	Valid from 7 July 2021 to 6 Jan 2022
	Works)	0002	GW-RS0501-21	Valid from 7 July 2021 to 6 Jan 2022
			PP-RS0005-21	Valid from 3 May 2021 to 1 Nov 2021
3303	Notification of Construction Work under APCO	Works area of 3303	445611	Receipt acknowledged by EPD on 27 May 2019
	Specified Process license under APCO	Works area of 3303	L-15-040 (1)	Valid from 29 Mar 2021 to 28 Mar 2025
	Registration as Chemical Waste Producer	Works area of 3303	5213-951-S4174- 01	Completion of Registration on 17 Jun 2019
	Discharge License under WPCO	Works area of 3303	WT00035689- 2020	Valid from 11 May 2020 to 31 May 2025
		Works area of 3303	WT00036734- 2020	Valid from 1 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3303	A/C 7034272	Approval granted from EPD on 10 Jun 2019
	Construction Noise Permit (General Works)	Works area of 3303 (Existing airport)	GW-RS0286-21	Valid from 16 May 2021 to 15 Nov 2021
		Works area of 3303 (Reclamation area)	GW-RS0630-21	Valid from 27 Aug 2021 to 24 Feb 2022
3305	Notification of Construction Work under APCO	Works area of 3305	460857	Receipt acknowledged by EPD on 12 Oct 2020
	Registration as Chemical Waste Producer	Works area of 3305	5213-951-A3024- 01	Completion of Registration on 13 Nov 2020
	Bill Account for disposal	Works area of 3305	A/C 7035360	Approval granted from EPD on 9 Oct 2019
3307	Notification of Construction Work under APCO	Works area of 3307	454964	Receipt acknowledged by EPD on 6 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3307	5211-951-P3379- 01	Completion of Registration on 8 Jun 2020
	Discharge License under WPCO	Works area of 3307	WT00036926- 2020	Valid from 31 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3307	A/C 7037129	Approval granted from EPD on 5 May 2020
	Construction Noise Permit (General Works)	Works area of 3307	GW-RS0562-21	Valid from 6 Aug 2021 to 5 Feb 2022
3308	Construction Noise Permit (General Works)	Works area of 3308	GW-RS0655-21	Valid from 2 Sep 2021 to 28 Feb 2022
3310	Notification of Construction Work under APCO	Works area of 3310	469170	Receipt acknowledged by EPD on 6 Jul 2021
	Registration as Chemical Waste Producer	Works area of 3310	5213-951-C4620- 01	Approval granted from EPD on 26 Jul 2021
	Bill Account for disposal	Works area of 3310	A/C 7040969	Approval granted from EPD on 8 Jul 2021
	Construction Noise Permit (General Works)	Works area of 3310	GW-RS0768-21	Valid from 6 Oct 2021 to 5 Apr 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3402	Notification of Construction Work under APCO	Works area of 3402	464622	Receipt acknowledged by EPD on 18 Feb 2021
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0129-21	Valid from 20 Mar 2021 to 9 Sep 2021
3403	Notification of Construction Work	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019
	under APCO	Works area of 3403 (with Area 17 and Area 15)	453912	Receipt acknowledged by EPD on 3 Mar 2020
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951- S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841- 2020	Valid from 5 Jun 2020 to 30 Jun 2025
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0329-21	Superseded by GW-RS0653-21
		Works area of 3403	GW-RS0653-21	Valid from 4 Sep 2021 to 28 Feb 2022
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0338-21	Valid from 1 June 2021 to 30 Nov 2021
3405	Notification of Construction Work under APCO	Works area of 3405	453447	Receipt acknowledged by EPD on 18 Feb 2020
	Registration as Chemical Waste Producer	Works area of 3405	WPN 5218-951- C4431-01	Completion of Registration on 12 Mar 2020
	Discharge License under WPCO	Works area of 3405	WT00037084- 2020	Valid from 17 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3405	A/C 7036796	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General	Works area of 3405	GW-RS0339-21	Superseded by GW-RS0700-21
	Works)	Works area of 3405	GW-RS0700-21	Valid from 16 Sep 2021 to 14 Mar 2022
3408	Notification of Construction Work under APCO	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020
	Registration as Chemical Waste Producer	Works area of 3408	WPN 5218-951- B2621-01	Completion of Registration on 14 Jan 2021
	Discharge License under WPCO	Works area of 3408	WT00038836- 2021	Valid from 27 Sep 2021 to 30 Sep 2026
	Bill Account for disposal	Works area of 3408	A/C 7039063	Approval granted from EPD on 2 Dec 2020
	Construction Noise Permit (General Works)	Works area of 3408	GW-RS0594-21	Valid from 6 Aug 2021 to 31 Jan 2022
3503	,	Works area of 3503	459394	Receipt acknowledged by EPD on 28 Aug 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Notification of Construction Work under APCO	Stockpiling area of 3503	459392	Receipt acknowledged by EPD on 28 Aug 2020
	Registration as Chemical Waste	Works area of 3503	WPN 5113-951- L2845-02	Completion of Registration on 3 Sep 2019
	Producer	Stockpiling area of 3503	WPN 5113-951- L2845-04	Completion of Registration on 19 Jun 2020
	Discharge License under WPCO	Works area of 3503	WT00031258- 2018	Valid from 6 Aug 2019 to 30 Jun 2023
			WT00036551- 2020	Valid from 17 Sep 2020 to 30 Sep 2025
			WT00036697- 2020	Valid from 2 Nov 2020 to 30 Nov 2025
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise Permit (General	Works area of 3503	GW-RS0588-21	Superseded by GW-RS0695-21
	Works)	Works area of 3503	GW-RS0695-21	Valid from 16 Sep 2021 to 14 Feb 2022
		Stockpiling area of 3503	GW-RS0215-21	Valid from 19 Apr 2021 to 18 Oct 2021
3508	Notification of Construction Work under APCO	Works area of 3508	459017	Receipt acknowledged by EPD on 19 Aug 2020
			459469	Receipt acknowledged by EPD on 4 Sep 2020
		Works area of 3508 (Area J)	467132	Receipt acknowledged by EPD on 3 May 2021
	Registration as Chemical Waste Producer	Works area of 3508	WPN-5218-951- G2898-01	Completion of Registration on 28 Sep 2020
	Discharge License under WPCO	Works area of 3508	WT00037209- 2020	Valid from 11 Mar 2021 to 31 Mar 2026
			WT00037523- 2021	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037225- 2020	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037549- 2021	Valid from 1 Apr 2021 to 30 Apr 2026
	Bill Account for disposal	Works area of 3508	7038224	Approval granted from EPD on 8 Sep 2020
	Construction Noise Permit (General	Works area of 3508	GW-RS0608-21	Superseded by GW-RS0710-21
	Works)	Works area of 3508	GW-RS0710-21	Valid from 23 Sep 2021 to 22 Mar 2022
		Works area of 3508 (Area 3, Area C, Area J, Area K)	GW-RS0534-21	Valid rom 16 Jul 2021 to 14 Jan 2022
		Works area of 3508 (Area 10)	GW-RS0493-21	Valid from 27 Jun 2021 to 24 Dec 2021
		Works area of 3508 (Special Case)	GW-RS0414-21	Valid from 30 May 2021 to 25 Nov 2021

		Works area of 3508 (Special	GW-RS0315-21	Valid from 12 May 2021 to 9 Nov 2021
		Case)		
		Works area of 3508 (Area 10)	GW-RS0566-21	Valid from 19 Jul 2021 to 19 Sep 2021
		Works area of 3508 (Area 13)	GW-RS0711-21	Valid from 17 Sep 2021 to 30 Nov 2021
C	Notification of Construction Work under APCO	Works area of 3601	451762	Receipt acknowledged by EPD on 10 Dec 2019
C	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951- C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 7029991	Approval granted from EPD on 1 Feb 2018
P	Construction Noise Permit (General Works)	Works area of 3601	GW-RS0407-21	Valid from 3 June 2021 to 30 Nov 2021
C	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
C	Registration as Chemical Waste	Works area of 3602	WPN 5296-951- N2673-01	Completion of Registration on 9 Oct 2017
Р	Producer	Site office of 3602	WPN 5296-951- N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
Р	Construction Noise Permit (General Vorks)	Works area of 3602	GW-RS0186-21	Valid from 31 Mar 2021 to 30 Sep 2021
C	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069- 01	Completion of Registration on 22 Jan 2018
Р		Test Loop Site of 3603	8334-512-S4273- 01	Completion of Registration on 17 Sep 2020
_	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
Р	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0367-21	Valid from 24 May 2021 to 23 Nov 2021
C	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
C	Registration as Chemical Waste Producer	Works area of 3721	WPN 5218-951- C4412-01	Completion of Registration on 9 Dec 2019
	Bill Account for disposal	Works area of 3721	A/C 7035234	Approval granted from EPD on 25 Sep 2019
Р	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0326-21	Valid from 15 May 2021 to 12 Nov 2021
3722		Works area of 3722A	465843	Receipt acknowledged by EPD on 14 Aug 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Notification of Construction Work under APCO	Works area of 3722B	465845	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722C	465842	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722D	465846	Receipt acknowledged by EPD on 14 Aug 2020
	Registration as Chemical Waste Producer	Works area of 3722A	WPN 5218-951- T3863-01	Completion of Registration on 18 Mar 2020
		Works area of 3722B	WPN 5218-951- T3864-01	Completion of Registration on 18 Mar 2020
		Works area of 3722C	WPN 5218-951- T3862-01	Completion of Registration on 18 Mar 2020
		Works area of 3722D	WPN 5218-951- T3865-01	Completion of Registration on 18 Mar 2020
	Discharge License under WPCO	Sewage Treatment Facility of 3722D	WT00037491- 2021	Valid from 30 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722B	A/C 7036966	Approval granted from EPD on 6 Apr 2020
		Works area of 3722C	A/C 7036967	Approval granted from EPD on 6 Apr 2020
		Works area of 3722D	A/C 7036795	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3722A, 3722B, 3722C and 3722D	GW-RS0153-21	Valid from 15 Mar 2021 to 14 Sep 2021
3723	Notification of Construction Work under APCO	3723A	464440	Receipt acknowledged by EPD on 9 Feb 2021
		3723B	464444	Receipt acknowledged by EPD on 9 Feb 2021
	Registration as Chemical Waste Producer	3723A	WPN 5218-951- T3920-01	Completion of Registration on 9 Feb 2021
		3723B	WPN 5218-951- T3921-01	Completion of Registration on 9 Feb 2021
	Discharge License under WPCO	Works area of 3723A & 3723B	1	Application submitted on 15 March 2021
	Bill Account for disposal	Works area of 3723A	A/C 7039755	Approval granted from EPD on 24 Feb 2021
		Works area of 3723B	A/C 7039754	Approval granted from EPD on 24 Feb 2021
	Construction Noise Permit (General Works)	Works area of 3723A & 3723B	GW-RS0320-21	Valid from 13 May 2021 to 11 Nov 2021 Superseded by GW-RS0697-21 since 16 Sep 2021
		Works area of 3723A & 3723B	GW-RS0697-21	Valid from 16 Sep 2021 to 13 Mar 2022
3728	Registration as Chemical Waste Producer	Works area of 3728	WPN 5111-951- S3467-03	Completion of Registration on 7 May 2021
	Discharge License under WPCO	Works area of 3728	WT00037809- 2021	Valid from 27 Jul 2021 to 31 Jul 2026

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3728	A/C 7039409	Approval granted from EPD on 22 Jan 2021
3801	Notification of Construction Work under APCO	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
			430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
			451991	Receipt acknowledged by EPD on 18 Dec 2019
		Stockpiling area of 3801	450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951- C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535- 2017	Valid from 24 Nov 2017 to 30 Nov 2022
		Stockpiling area of 3801	WT00037354- 2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-RS0634-21	Valid from 27 Aug 2021 to 26 Feb 2022
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
	Registration as Chemical Waste Producer	Works area of 3802	WPN 5218-951- G2895-01	Completion of Registration on 28 Aug 2020
		Works area of 3802	WPN 5218-951- G2945-01	Completion of Registration on 29 Sep 2020
	Discharge License under WPCO	Works area of 3802	WT00037032- 2020	Valid from 25 May 2021 to 31 May 2026
	Bill Account for disposal	Works area of 3802	A/C 7037575	Approval granted from EPD on 15 Jun 2020
	Construction Noise Permit (General Works)	Works area of 3802	GW-RS0404-21	Valid from 31 May 2021 to 30 Nov 2021
3901A	Notification of Construction Work under APCO	Works area of 3901A	466883	Receipt acknowledged by EPD on 26 Apr 2021
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951- K3400-01	Completion of Registration on 17 Jul 2020
	Landfill disposal of waste concrete from batching plant	Works area of 3901A	EP195/01/18	Valid from 5 May 2021 to 2 Feb 2022
	Bill Account for disposal	Works area of 3901A	A/C7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0597-21	Valid from 7 Aug 2021 to 4 Feb 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3901B	Notification of Construction Work under APCO	Works area of 3901B	466885	Receipt acknowledged by EPD on 26 Apr 2021
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951- G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0146-21	Valid from 14 Mar 2021 to 10 Sep 2021 Superseded by GW-RS0702-21 since 16 Sep 2021
		Works area of 3901B	GW-RS0702-21	Valid from 16 Sep 2021 to 13 Mar 2022

Appendix G. Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions

Statistics for Exceedances for 1-hour TSP, Noise, Water, Waste, CWD Monitoring

		Total no. recorded in the reporting period	Total no. recorded since the project commenced
1-hr TSP	Action	0	0
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water	Action	0	0
	Limit	0	0
Waste	Action	0	0
	Limit	0	0
CWD	Action	0	0
	Limit	0	0

Remark: Exceedances, which are not project related, are not shown in this table.

Statistics for Complaints, Notifications of Summons and Prosecutions

Reporting Period	Cumulative Statistics			
	Complaints	Notifications of Summons	Prosecutions	
This reporting period	0	0	0	
From 28 December 2015 to end of the reporting period	40	1	1	