MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No.48 (For December 2019)

January 2020

Airport Authority Hong Kong

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This Monthly EM&A Report No. 48 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 14 January 2020

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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

14 January 2020

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 48 (December 2019)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 48 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 January 2020.

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.

Jackel Law
Independent Environmental Checker

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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
CNP	Construction Noise Permit
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EAR	Ecological Acoustic Recorder
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
FCZ	Fish Culture Zone
HDD	Horizontal Directional Drilling
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
SC	Sha Chau
SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park

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 48th 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 31 December 2019.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included deep cement mixing (DCM) works, marine filling, and seawall construction. Land-side works 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	20
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	3

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

		
Land-Based Theodolite Tracking Survey for CWD at Sha Chau	Inspection of Chemical Waste Storage	Community Liaison Group Meetings

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 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 SS, some of the testing results triggered the relevant Action 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.

Summary of Upcoming Key Issues

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- Stockpiling of compressed materials

DCM Works:

Contract 3205 DCM works

- DCM works

Reclamation Works:

Contract 3206 Main Reclamation Works

- Land base ground improvement works;
- Seawall construction; and
- Marine filling.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works;
- Subgrade compaction and paving works;

- Drainage construction works;
- Operation of aggregate mixing facility; and
- Precast of duct bank and fabrication of steel works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation works;
- Backfilling and reinstatement works
- Piling and structure works; and
- Site establishment.

Contract 3303 Third Runway and Associated Works

- Plant and equipment mobilisation
- Footing and utilities work
- Box culvert construction; and
- Site establishment.

Third Runway Concourse and Integrated Airport Centres Works:

Contract 3402 New Integrated Airport Centres Enabling Works

- Potable water and seawater works;
- Footing construction;
- Road works; and
- Sewerage and pipe works.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Reinstatement Works.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Excavation works
- Utilities, drainage, and road work; and
- Piling and structure works.

Automated People Mover (APM) Works:

Contract 3602 Existing APM System Modification Works

- Modification works at APM depot.

Airport Support Infrastructure & Logistic Works:

Contract 3721 Construction Support Infrastructure Works

- Site clearance and establishment;
- Excavation for utilities works; and
- Construction of utilities.

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Construction of temporary traffic steel deck;
- Cofferdam installation for box culvert;
- Rising main installation;

- Drilling and grouting works;
- Piling and foundation works
- Demolition works; and
- Site clearance.

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^		√	No breach of Action Level was recorded.	Nil
Complaint Received		√	No construction activities-related complaint was received	Nil
Notification of any summons and status of prosecutions		√	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 3.1[1]. 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 updated overall phasing programme of all construction works was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 7 and the contract information was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 46.

1.2 Scope of this Report

This is the 48th 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 31 December 2019.

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, Environment	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leader	Heidi Yu	2828 5704
	Deputy Environmental Team Leader	Daniel Sum	2585 8495
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141

Advanced Works:

Party	Position	Name	Telephone
Contract P560(R) Aviation Fuel Pipeline Diversion Works (Langfang Huayuan Mechanical and Electrical Engineering Co., Ltd.)	Project Manager	Wei Shih	2117 0566
	Environmental Officer	Lyn Liu	5172 6543

Deep Cement Mixing (DCM) Works:

Party	Position	Name	Telephone
Contract 3205 DCM (Package 5) (Bachy Soletanche - Sambo Joint Venture)	Deputy Project Director	Min Park	9683 0765
	Environmental Officer	William Chan	5408 3045

Reclamation Works:

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Kim Chuan Lim	3763 1509
	Environmental Officer	Kwai Fung Wong	3763 1452

Airfield Works:

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Deputy Project Director	Kin Hang Chung	9800 0048
	Environmental Officer	Joe Wong	6182 0351

Party	Position	Name	Telephone
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Wan Cheung Lee	6100 6075
	Environmental Officer	Dennis Ho	5645 0563
Contract 3303 Third Runway and Associated Works (SAPR Joint Venture)	Project Manager	Andrew Keung	6277 6628
	Environmental Officer	Pan Fong	9436 9435

Third Runway Concourse and Integrated Airport Centres Works:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Contract Manager	Michael Kan	9206 0550
	Environmental Officer	Lisa He	5374 3418

Terminal 2 (T2) Expansion Works:

Party	Position	Name	Telephone
Contract 3501 Antenna Farm and Sewage Pumping Station (Build King Construction Ltd.)	Contracts Manager	Vincent Kwan	9833 1313
	Environmental Officer	Edward Tam	9287 8270
Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture)	Project Manager	Eric Wu	3973 1718
	Environmental Officer	Malcolm Leung	3973 0850

Automated People Mover (APM) Works:

Party	Position	Name	Telephone
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Yolanda Gao	5399 3509

Baggage Handling System (BHS) Works:

Party	Position	Name	Telephone
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	Andy Ng	9102 2739
	Environmental Officer	Eric Ha	9215 3432

Airport Support Infrastructure and Logistic Works:

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction Engineering (Hong Kong) Ltd.)	Site Agent	Thomas Lui	9011 5340
	Environmental Officer	Gary Hong	6015 0795
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Tony Wong	9642 8672
	Environmental Officer	Fredrick Wong	9842 2703

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included reclamation works and land-side works. Reclamation works included DCM works, marine filling, and seawall construction. Land-side works 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**. **Figure 1.2** presents the latest layout of enhanced silt curtain deployed and a section of enhanced silt curtain phased out in this reporting period. In accordance with the Silt Curtain Deployment Plan, when a certain section of seawalls were partially completed with rock core to high tide mark and filter layer on the inner side, and an overlapping length of at least 150m for seawall and enhanced silt curtain was maintained, the enhanced silt curtain would be phased out.

1.5 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 and details can be referred to Table 1.2 of the Construction Phase Monthly EM&A Report No. 1.

Table 1.2: Summary of status for all environmental aspects under the Updated EM&A Manual

Parameters	Status
Air Quality	
Baseline Monitoring	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Water Quality	
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint 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	On-going

Parameters	Status
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	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	On-going
Waste Management	
Waste Monitoring	On-going
Land Contamination	
Supplementary Contamination Assessment Plan (CAP)	The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.
Contamination Assessment Report (CAR) for Terminal 2 Emergency Power Supply System No.1 (Volume 1)	The CAR for Terminal 2 Emergency Power Supply System No.1 (Volume 1) was submitted to EPD pursuant to EP Condition 1.9.
Terrestrial Ecology	
Pre-construction Egretry Survey Plan	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology	
Pre-Construction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	The coral translocation was completed.
Post-Translocation Coral Monitoring	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
Chinese White Dolphins (CWD)	
Vessel Survey, Land-based Theodolite Tracking and Passive Acoustic Monitoring (PAM)	
Baseline Monitoring	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	On-going
Landscape & Visual	
Landscape & Visual Plan	The Landscape & Visual Plan was submitted to EPD under EP Condition 2.18
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Environmental Auditing	
Regular site inspection	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	On-going
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	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:

- Four skipper training sessions provided by ET: 4, 13, 18 and 30 December 2019
- Ten environmental management meetings for EM&A review with works contracts: 6, 9, 16, 17, 18, 20, 24, 27 and 30 December 2019

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 A**.

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/m^3)	Limit Level (μg/m^3)
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)	24 Oct 2019	Monthly EM&A Report No. 46, Appendix E
	SIBATA LD-3B-1 (Serial No. 597337)	19 Sep 2019	Monthly EM&A Report No. 45, 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 E of the Construction Phase Monthly EM&A Report No. 46, 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 B**.

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

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
AR1A	13 - 57	306	500
AR2	25 - 111	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 from Project activities was observed during impact air quality monitoring. No major sources of dust was observed at the monitoring stations during the monitoring sessions. It is considered that the monitoring work in the reporting period is effective and there was no adverse impact attributable to the Project activities.

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

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	NTi XL2 (Serial No. A2A-14829-E0)	14 Jul 2019	Monthly EM&A Report No. 43, Appendix D
	Rion NL-52 (Serial No. 01287679)	21 Sep 2019	Monthly EM&A Report No. 45, Appendix D
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	21 Sep 2019	Monthly EM&A Report No. 45, Appendix D
	Castle GA607 (Serial No. 040162)	14 Jul 2019	Monthly EM&A Report No. 43, Appendix D

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 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 B**.

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A) $L_{eq\ (30\ mins)}$	Limit Level, dB(A) $L_{eq\ (30\ mins)}$
NM1A(1)	62 - 73	75
NM4(1)	63 - 66	70(2)
NM5(1)	59 - 66	75
NM6(1)	66 - 71	75

Notes:

(1) +3dB(A) Façade correction included;

(2) Reduced to 65dB(A) during school examination periods at NM4. School examination took place from 5 to 11 Dec 2019 in this reporting period.

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 and aircraft noise near NM1A, NM5 and 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, suspended solids (SS), total alkalinity, chromium, and nickel 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 and Parameters of Impact Water Quality Monitoring

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals(2)
C2	Control Station	806945	825682	
C3(3)	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	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR2(3)	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS DCM Parameters Total Alkalinity, Heavy Metals(2)(4)
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	

Monitoring Station	Description	Coordinates		Parameters
SR5A	San Tau Beach SSSI	810696	816593	
SR6A(5)	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8(6)	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) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (**http://env.threerunwaysystem.com/en/ep-submissions.html**). DCM specific water quality monitoring parameters (total alkalinity and heavy metals) were only conducted at C1 to C3, SR2, and IM1 to IM12.

(3) 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.

(4) Total alkalinity and heavy metals results are collected at SR2 as a control station for regular DCM monitoring.

(5) 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.

(6) 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 and regular DCM 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 and regular DCM monitoring are presented in **Table 4.3**.

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

Parameters		Action Level (AL)		Limit Level (LL)	
Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1A & SR8)					
General Water Quality Monitoring	DO in mg/L (Surface, Middle & Bottom)	Surface and Middle 4.5mg/L		Surface and Middle 4.1mg/L 5mg/L for Fish Culture Zone (SR7) only	
		Bottom 3.4mg/L		Bottom 2.7mg/L	
	Suspended Solids (SS) in mg/L	23	or 120% of upstream control station at the same tide of the same day, whichever is higher	37	or 130% of upstream control station at the same tide of the same day, whichever is higher
	Turbidity in NTU	22.6		36.1	
Regular DCM Monitoring	Total Alkalinity in ppm	95		99	
	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/L	0.2		0.2	
	Representative Heavy Metals for regular DCM monitoring (Nickel) in µg/L	3.2		3.6	
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.

(4) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (**http://env.threerunwaysystem.com/en/ep-submissions.html**)

(5) The Action and Limit Levels for the two representative heavy metals chosen will be the same as that for the intensive DCM monitoring.

Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring and Regular DCM 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 (measurement of DO, pH, temperature, salinity and turbidity)	YSI 6920V2 (Serial No. 0001C6A7)	28 Oct 2019	Monthly EM&A Report No. 46, Appendix E
	YSI 6920V2 (Serial No. 00019CB2)	28 Oct 2019	
	YSI ProDSS (Serial No. 16H104233)	27 Sep 2019(1)	Monthly EM&A Report No. 45, Appendix D
	YSI ProDSS (Serial No. 17H105557)	23 Dec 2019	**Appendix D**
	YSI ProDSS (Serial No. 16H104234)	23 Dec 2019	
	YSI ProDSS (Serial No. 17E100747)	23 Dec 2019	
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (Serial No. 10N64701)	9 Dec 2019	**Appendix D**

Note:

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

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 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, alkalinity and water depth were collected by equipment listed in **Table 4.4** and **Table 4.5**. Water samples for heavy metals and SS analysis were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4ºC 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). Accuracy check of the digital titrator was performed at least once per monitoring day.

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

4.3.3 Laboratory Measurement / Analysis

Analysis of SS and heavy metals 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 and heavy metals determination. The SS and heavy metals determination works were started within 24 hours after collection of the water samples. The analysis of SS and heavy metals have followed the standard methods summarised in **Table 4.6**. The QA/QC procedures for laboratory measurement/ analysis of SS and heavy metals were presented in Appendix F of the Construction Phase Monthly EM&A Report No.8.

Table 4.6: Laboratory Measurement/ Analysis of SS and Heavy Metals

Parameters	Instrumentation	Analytical Method	Reporting Limit
SS	Analytical Balance	APHA 2540D	2mg/L
Heavy Metals			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2µg/L
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2µg/L

4.4 Summary of Monitoring Results

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

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

For SS, some of the testing results triggered the corresponding Action Levels, and investigations were conducted accordingly.

Table 4.7 presents the summary of the SS compliance status at IM and SR stations during mid-ebb tide for the reporting period.

Table 4.7: Summary of SS Compliance Status (Mid-Ebb Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR1A	SR2	SR3	SR4A	SR5A	SR6A	SR7	SR8
03/12/2019																				
05/12/2019																				
07/12/2019																				
10/12/2019																				
12/12/2019																				
14/12/2019																				
17/12/2019																				
19/12/2019																				
21/12/2019																				
24/12/2019																				
26/12/2019																				
28/12/2019		D																		
31/12/2019																				
No. of result triggereing Action or Limit Level	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 4.8 presents the summary of the SS compliance status at IM and SR stations during mid-flood tide for the reporting period.

Table 4.8: Summary of SS Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR1A	SR3	SR4A	SR5A	SR6A	SR7	SR8
03/12/2019																			
05/12/2019																			
07/12/2019																			
10/12/2019																			
12/12/2019																			
14/12/2019																			
17/12/2019							D												
19/12/2019																			
21/12/2019																			
24/12/2019																			
26/12/2019																			
28/12/2019																			
31/12/2019																			
No. of result triggereing Action or Limit Level	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0

Note: Detailed results are presented in **Appendix C**.	
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
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Action Levels were triggered on 17 and 28 December 2019. Some cases occurred at monitoring station upstream of the Project during flood tide and would unlikely be affected by the Project.

Investigation focusing on the cases that occurred at monitoring stations located downstream of the Project was carried out. Details of the Project's marine construction activities and site

observations on the concerned monitoring days were collected. Findings were summarised in **Table 4.9**

Table 4.9: Summary of Findings from Investigation of SS 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
17/12/2019	Marine filling	Around 1km	Relevant section of seawalls partially completed	No	No	No
28/12/2019	DCM works	Around 1km	Localised and enhanced silt curtain deployed	No	No	No

The investigation confirmed that marine filling and DCM works were operating normally with localised and enhanced silt curtains deployed. The silt curtains were maintained properly and checked by ET regularly. Relevant section of seawalls was also partially completed with rock core to high tide mark and filter layer on the inner side, which could contain the SS generated from marine filling activities within the reclamation area.

For the case at IM7 on 17 December 2019 during mid-flood tide and at IM2 on 28 December 2019 during mid-ebb tide, both cases appeared to be isolated cases with no observable temporal and spatial trend to indicate any effect due to Project activities. With no observable silt plume during marine works and mitigation measures implemented properly, cases at both stations were considered not due to Project.

4.5 Conclusion

During the reporting period, it is noted that the vast majority of monitoring results were within their corresponding Action and Limit Levels, while only a minor number of results triggered the corresponding Action Levels, and investigation were conducted accordingly.

Based on the investigation findings, all results that triggered the corresponding Action 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. The 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 during weekly site inspection and regular environmental management meetings. These include maintaining mitigation measures properly for reclamation works including DCM works, marine filling, and seawall construction as recommended in the Manual.

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 had taken actions to implement the recommended measures.

Based on updated information provided by contractors, construction waste generated in the reporting period is summarised in **Table 5.2**.

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.

Table 5.2: Construction Waste Statistics

	C&D[(1)] Material Stockpiled for Reuse or Recycle (m^3)	C&D Material Reused in the Project (m^3)	C&D Material Reused in other Projects (m^3)	C&D Material Transferred to Public Fill (m^3)	Chemical Waste (kg)	Chemical Waste (L)	General Refuse (tonne)
November 2019[(2)(3)]	1,403	*26,774	*0	3,380	90	6,600	680
December 2019[(2)(4)]	835	30,475	0	3,027	70	7,000	779

Notes:

(1) C&D refers to Construction and Demolition.

(2) Metals, paper and/or plastics were recycled in the reporting period.

(3) Updated figures in the past month are reported and marked with an asterisk (*). Updated figures for earlier months will be reported in the forthcoming Annual EM&A Report.

(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.

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. Supplemental theodolite tracking survey of one additional day has also been conducted at LKC, i.e. in total twice per month at the LKC station.

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 STG & ANI will be calculated from the three 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 follow the waypoints set for construction phase monitoring as proposed in the Manual and 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
		NEL			
1S	813525	820900	6N	818568	824433
1N	813525	824657	7S	819532	821420
2S	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	11S	823477	823402
6S	818568	820735	11N	823477	824613
		NWL			
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
		AW			
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
		WL			
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			
		SWL			
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	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 covering the AW, WL and SWL areas as proposed in the Manual and 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 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 photo 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 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 9, 10, 13, 16, 17, 18, 19 and 23 December 2019, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

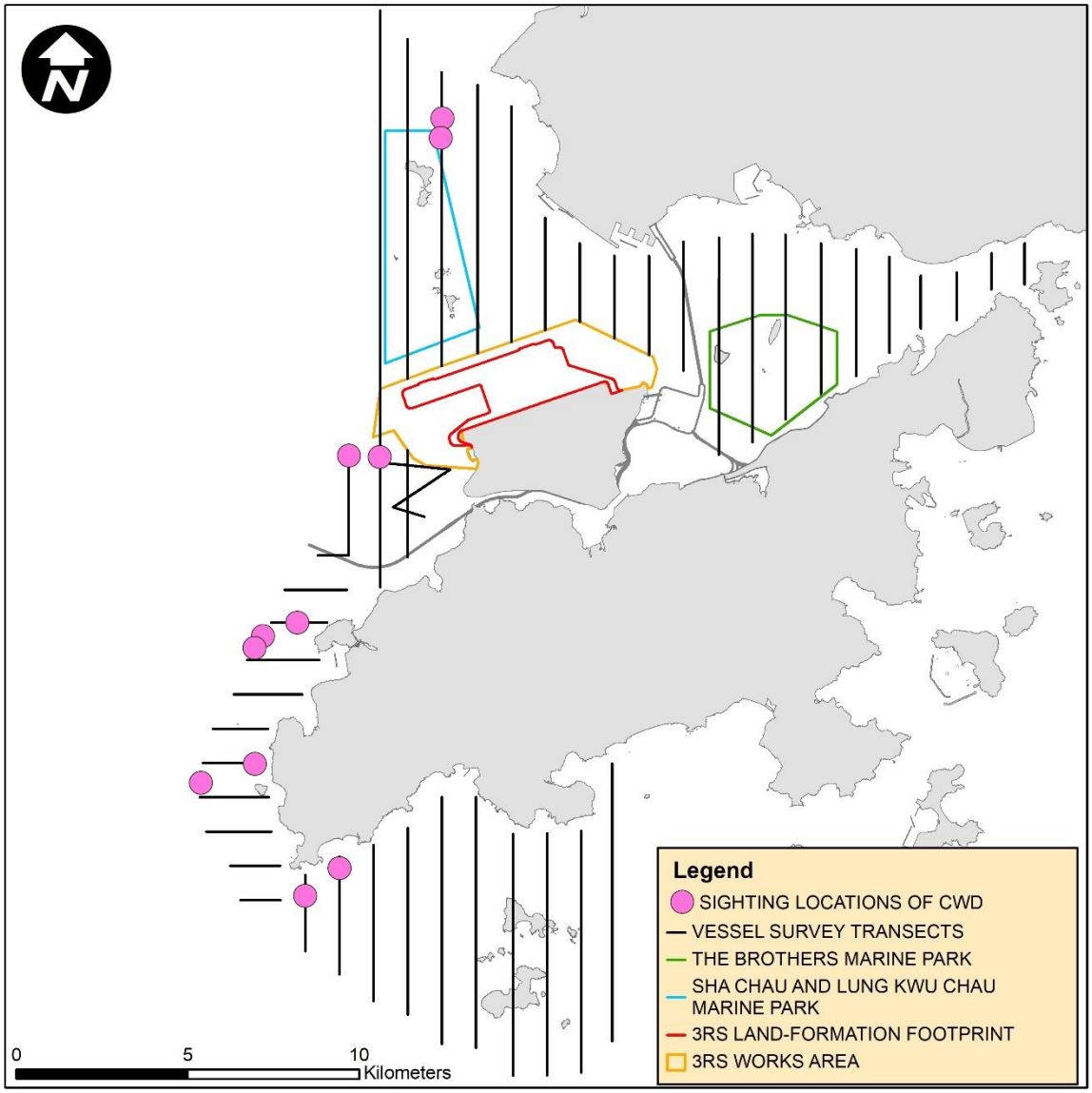
A total of around 457.65 km of survey effort was collected from these surveys and around 93.9% of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In December 2019, 11 sightings with 30 dolphins were sighted. All these sightings are on-effort sightings under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in December 2019 is illustrated in **Figure 6.3**. In NWL, two CWD sightings were recorded around the northeastern corner of SCLKCMP and another sighting was recorded close to southwestern side of the 3RS works area. In WL, CWD sightings were distributed from the northernmost of the survey area to Peaked Hill. In SWL, CWD sightings were located at the coastal waters around Fan Lau. No sightings of CWD were recorded in NEL survey area.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Encounter Rate

Two types of dolphin encounter rates were calculated based on the data from December 2019. 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 December 2019, a total of around 429.82 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 11 on-effort sightings with 30 dolphins were sighted under such condition. Calculation of the encounter rates in December 2019 are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from October 2019 to December 2019), a total of around 1319.61 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 37 on-effort sightings and a total number of 108 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of December 2019 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rate STG remains above the Action Level but the running quarterly encounter rate ANI is below the Action Level. Nevertheless, the overall 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)
December 2019	2.56	6.98
Running Quarter from October 2019 to December 2019(1)	2.80	8.18
Action Level	Running quarterly(1) STG < 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 October 2019 to December 2019, 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 December 2019, 11 groups with 30 dolphins were sighted, and the average group size of CWDs was 2.7 dolphins per group. Sightings with small group size (i.e. 1-2 dolphins) were dominant. No CWD sighting with large group size (i.e. 10 or more dolphins) was recorded.

Activities and Association with Fishing Boats

One sighting of CWD was recorded engaging in feeding activities in December 2019. This CWD sighting was also observed in association with operating gillnetter in SWL.

Mother-calf Pair

In December 2019, there was no sighting of CWD with the presence of mother-and-calf pair.

6.4.2 Photo Identification

In December 2019, a total number of 19 different CWD individuals were identified for total 19 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

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
NLMM001	18-Dec-19	3	WL	SLMM044	18-Dec-19	3	WL
NLMM004	16-Dec-19	3	NWL	SLMM050	18-Dec-19	3	WL
NLMM006	16-Dec-19	2	NWL	WLMM003	10-Dec-19	3	SWL
NLMM013	16-Dec-19	2	NWL	WLMM007	18-Dec-19	5	WL
NLMM016	18-Dec-19	2	WL	WLMM008	18-Dec-19	5	WL
NLMM063	16-Dec-19	3	NWL	WLMM027	18-Dec-19	1	WL
NLMM072	16-Dec-19	3	NWL	WLMM054	18-Dec-19	1	WL
SLMM010	10-Dec-19	2	SWL	WLMM065	18-Dec-19	3	WL
SLMM012	18-Dec-19	3	WL	WLMM067	18-Dec-19	3	WL
SLMM014	18-Dec-19	4	WL				

6.4.3 Land-based Theodolite Tracking Survey

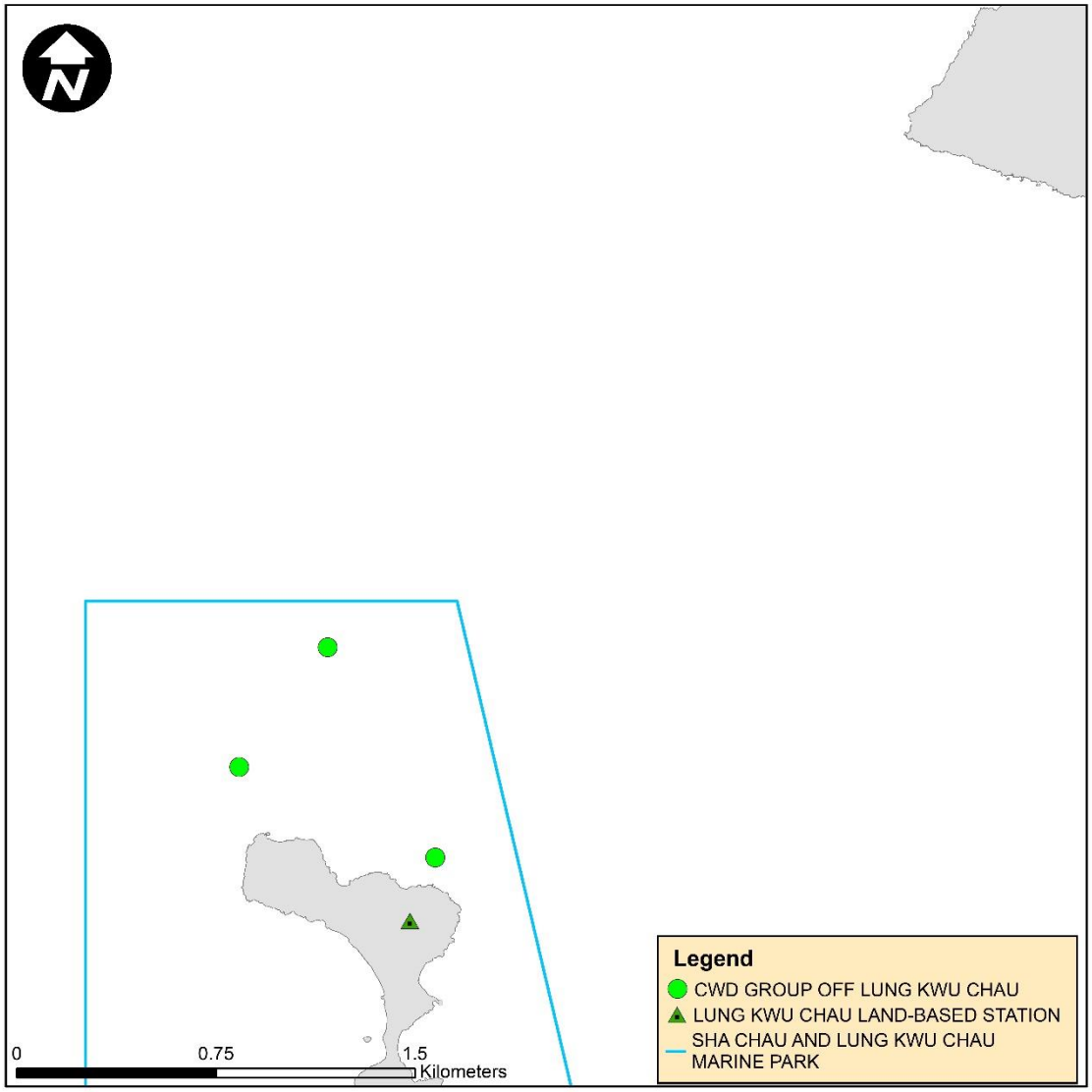
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 11 and 18 December 2019 and at SC on 30 December 2019, with a total of three days of land-based theodolite tracking survey effort accomplished in this reporting period. Three CWD groups were tracked at LKC station during the surveys. Information of survey effort and CWD groups sighted during these land-based theodolite tracking surveys are presented in **Table 6.6**. Details of the survey effort and CWD groups tracked are presented in **Appendix C**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking surveys in December 2019 were depicted in **Figure 6.4**. No CWD group was sighted from SC station in this reporting month.

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	2	12:00	3	0.25
Sha Chau	1	6:00	0	0
TOTAL	**3**	**18:00**	**3**	**0.17**

Figure 6.4: Plots of First Sightings of All CWD Groups obtained from Land-based Stations



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. In this reporting period, the Ecological Acoustic Recorder (EAR) was retrieved on 6 December 2019 and subsequently redeployed and positioned at south of Sha Chau Island inside the SCLKCMP with 20% duty cycle (**Figure 6.5**). The EAR deployment is generally for 6 weeks prior to data retrieval for analysis. Acoustic data is reviewed to give an indication of CWDs occurrence patterns and to obtain anthropogenic noise information simultaneously. Analysis (by a specialised team of acousticians) involved manually browsing through every acoustic recording and logging the occurrence of dolphin signals. All data will be re-played by computer as well as listened to by human ears for accurate assessment of dolphin group presence. As the period of data collection and analysis takes more than 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 , in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 4 to 8 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for DCM works and seawall construction 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 679 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 the DEZs in this reporting month, whilst there was one record of dolphin sighting outside the DEZ of DCM works. 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 7.2** and **Section 7.3** 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 three 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 B**. Bi-weekly 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 appropriate 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.

During the reporting period, implementation of recommended landscape and visual mitigation measures (CM1 – CM10) where applicable was monitored weekly in accordance with the Manual and no non-conformity was recorded. In case of non-conformity, specific recommendations will be made, and actions will be proposed according to the Event and Action Plan. The monitoring status is summarised in **Appendix A**.

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 A**.

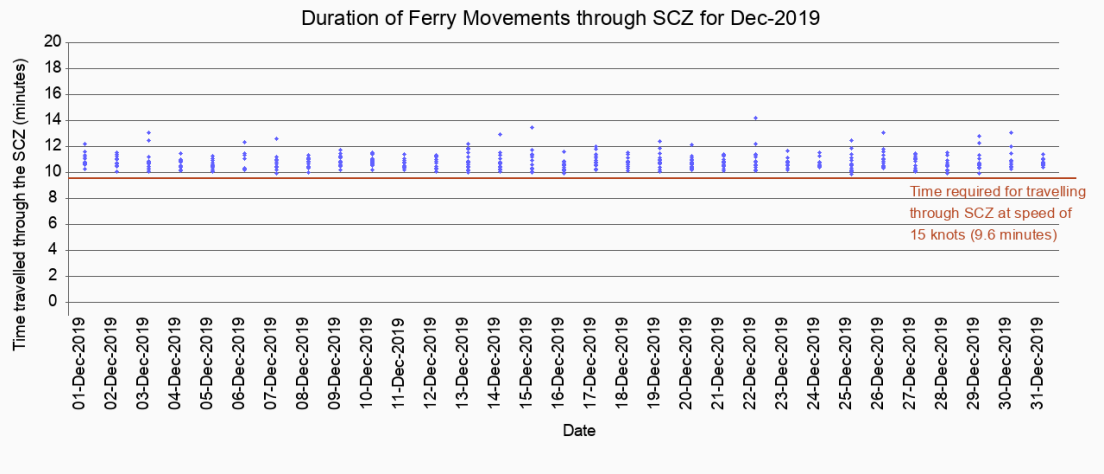
7.2 Audit of SkyPier High Speed Ferries

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.

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 7.1**. The daily movements of all SkyPier HSFs in this reporting period (i.e., 78 to 83 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.

In total, 532 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in December 2019 and the data are presented in **Appendix G**. The time spent by the SkyPier HSFs travelling through the SCZ in December 2019 were presented in **Figure 7.1**. It will take 9.6 minutes to travel through the SCZ when the SkyPier HSFs adopt the maximum allowable speed of 15 knots within the SCZ. **Figure 7.1** shows that all of the SkyPier HSFs spent more than 9.6 minutes to travel through the SCZ.

Figure 7.1: Duration of the SkyPier HSFs travelling through the SCZ for December 2019



Note: Data above the red line indicated that the time spent by the SkyPier HSFs travelling through the SCZ is more than 9.6 minutes, which is in compliance with the SkyPier Plan.

A ferry was recorded with route deviation on 11 December 2019. Notice was sent to the ferry operator and the case is under investigation by ET.

Table 7.1: Summary of Key Audit Findings against the SkyPier Plan

Requirements in the SkyPier Plan	1 to 31 December 2019
Total number of ferry movements recorded and audited	532
Use diverted route and enter / leave SCZ through Gate Access Points	1 deviation
Speed control in speed control zone	The average speeds of all HSFs travelling through the SCZ ranged from 10.4 to 13.8 knots. All HSFs had travelled through the SCZ with average speeds under 15 knots in compliance with the SkyPier Plan. The time used by HSFs to travel through SCZ is presented in **Figure 7.1**.
Daily Cap (including all SkyPier HSFs)	78-83 daily movements (within the maximum daily cap - 125 daily movements).

7.3 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 November 2016 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:

- Four 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
- One skipper training session was held by a contractor's Environmental Officer. 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, 23 skippers were trained by ET and 2 skippers were trained by a contractor's Environmental Officer. In total, 1284 skippers were trained from August 2016 to December 2019.
- 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 MTCC 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.

7.4 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 DCM works 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. Nevertheless, ET was notified on one record of dolphin sighting outside the DEZ of DCM works by the contractor. The ET checked the dolphin sighting record and relevant records by the contractors to audit the implementation of DEZ.

7.5 Status of Submissions under Environmental Permits

The current status of submissions under the EP up to the reporting period is presented in **Table 7.2**.

Table 7.2: Status of Submissions under Environmental Permit

EP Condition	Submission	Status
2.1	Complaint Management Plan	Accepted / approved by EPD
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	
2.12	Coral Translocation Plan	
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	Submitted to EPD
2.19	Waste Management Plan	Accepted / approved by EPD
2.20	Supplementary Contamination Assessment Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

7.6 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 E**.

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

7.7.1 Complaints

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

7.7.2 Notifications of Summons or Status of Prosecution

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

7.7.3 Cumulative Statistics

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

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:

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- Stockpiling of compressed materials

DCM Works:

Contract 3205 DCM works

- DCM works

Reclamation Works:

Contract 3206 Main Reclamation Works

- Land base ground improvement works;
- Seawall construction; and
- Marine filling.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works;
- Subgrade compaction and paving works;
- Drainage construction works;
- Operation of aggregate mixing facility; and
- Precast of duct bank and fabrication of steel works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation works;
- Backfilling and reinstatement works
- Piling and structure works; and
- Site establishment.

Contract 3303 Third Runway and Associated Works

- Plant and equipment mobilisation
- Footing and utilities work
- Box culvert construction; and
- Site establishment.

Third Runway Concourse and Integrated Airport Centres Works:

Contract 3402 New Integrated Airport Centres Enabling Works

- Potable water and seawater works;
- Footing construction;
- Road works; and
- Sewerage and pipe works.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Reinstatement Works.

Contract 3503 Terminal 2 Foundation and Substructure Works

- Site establishment;
- Excavation works
- Utilities, drainage, and road work; and
- Piling and structure works.

Automated People Mover (APM) Works:

Contract 3602 Existing APM System Modification Works

- Modification works at APM depot.

Airport Support Infrastructure & Logistic Works:

Contract 3721 Construction Support Infrastructure Works

- Site clearance and establishment;
- Excavation for utilities works; and
- Construction of utilities.

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Construction of temporary traffic steel deck;
- Cofferdam installation for box culvert;
- Rising main installation;
- Drilling and grouting works;
- Piling and foundation works
- Demolition works; and
- Site clearance.

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 DCM works and marine filling;
- DEZ monitoring for ground improvement works (DCM works) and seawall construction;
- Implementation of MMWP for silt curtain deployment;
- Sorting, recycling, storage and disposal of general refuse and construction waste;
- 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 B**.

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-side works. Reclamation works included DCM works, marine filling and seawall construction. Land-side works 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 SS, obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigations and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For SS, some of the testing results triggered the relevant Action 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.

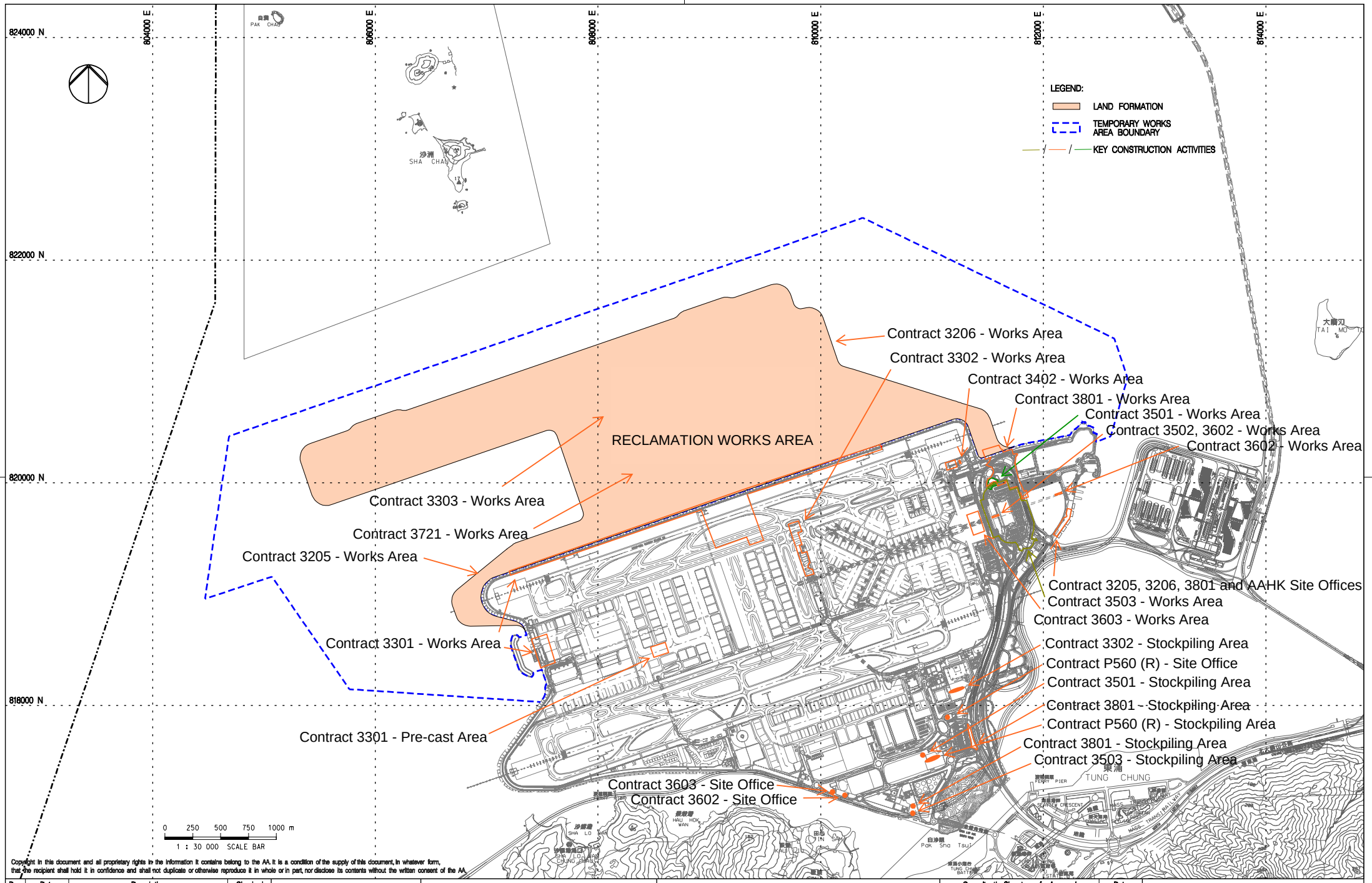
Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection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

On the implementation of the SkyPier Plan, the daily movements of all SkyPier HSFs in December 2019 were in the range of 78 to 83 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 532 HSF movements under the SkyPier Plan were recorded in the reporting period. The average speeds of all HSFs travelling through the SCZ ranged from 10.4 to 13.8 knots. All HSFs had travelled through the SCZ with average speeds under 15 knots in compliance with the SkyPier Plan. One deviation from the diverted route in December 2019 was recorded in the HSF monitoring. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigations or actions accordingly.

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. Training has 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 MTCC 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



Rev.	Date	Description	Checked
A	31AUG15	FIRST ISSUE	DC
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香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title: LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

Consultant's Signatures for Approval		Date
Design	JC	04APR19
Checkers	JC / TK	04APR19
Approver	EC	04APR19

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No. FIGURE 1.1

Scale at A3 1 : 30000

Rev. B

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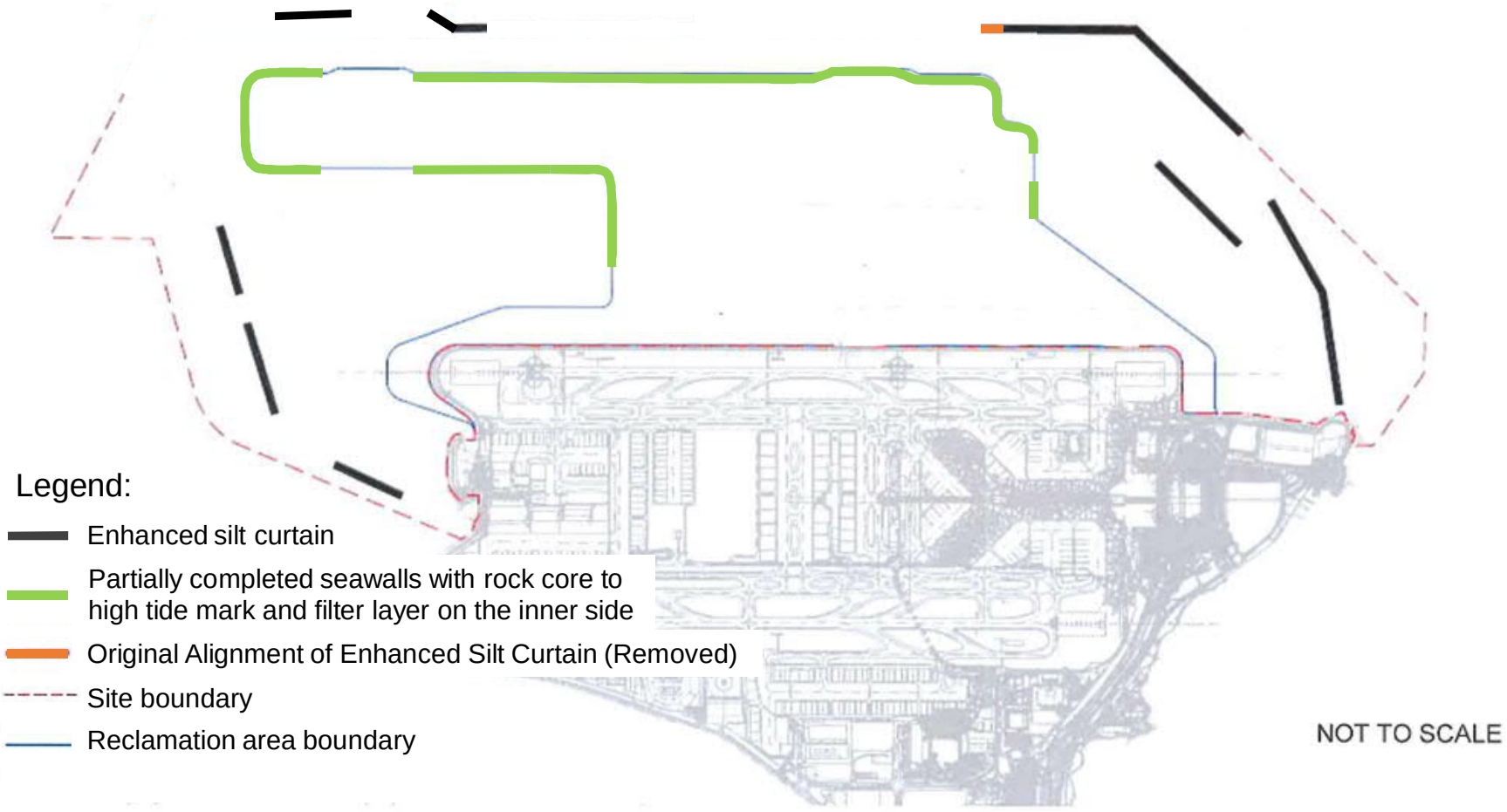
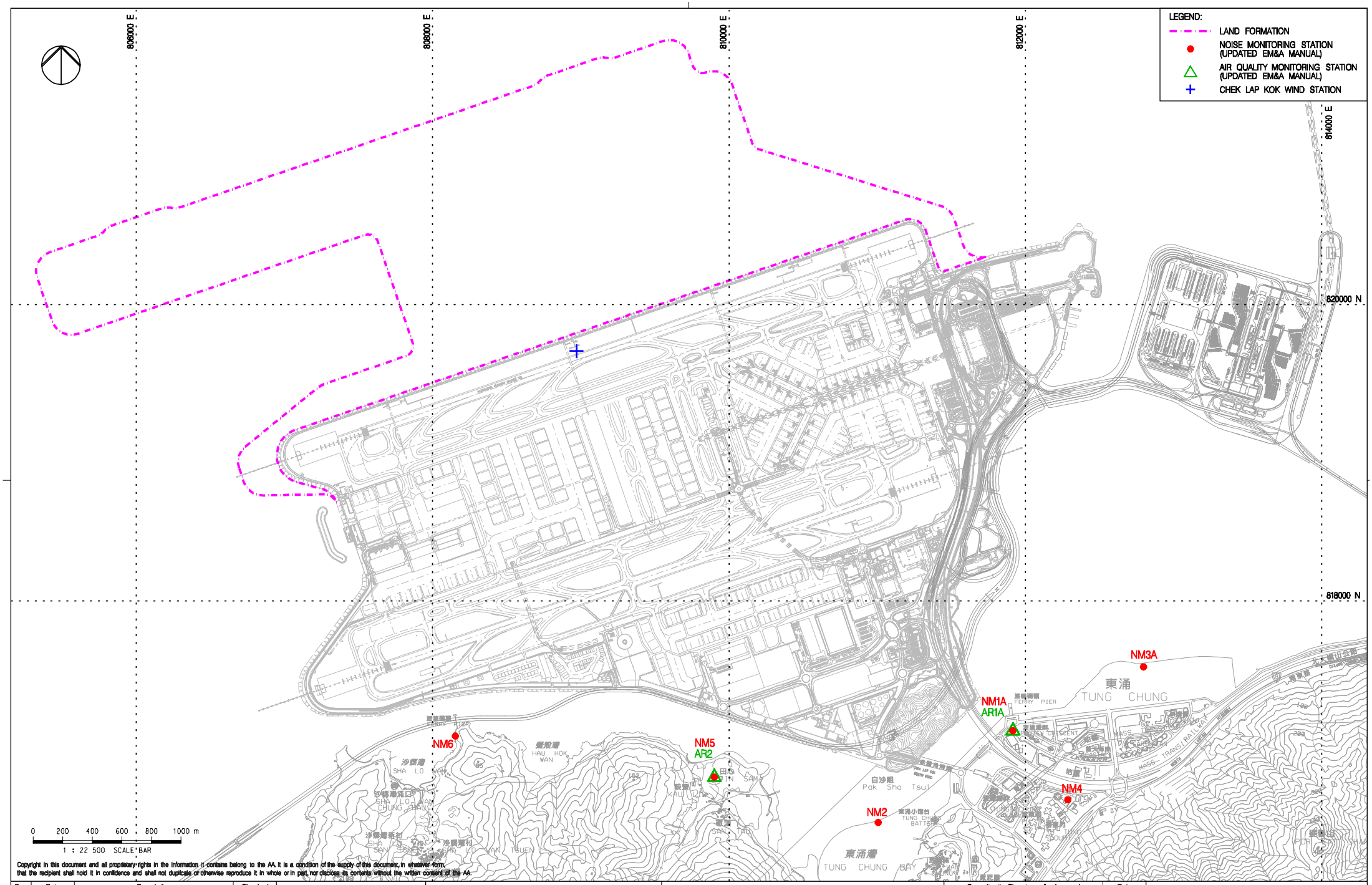
Note: The locations are for indicative purpose. The actual construction work locations are in accordnace with the construction work programme.

Figure 1.2

Latest Layout of the Enhanced Silt Curtain





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香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LOCATIONS OF AIR AND NOISE MONITORING STATIONS AND CHEK LAP KOK WIND STATION

Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

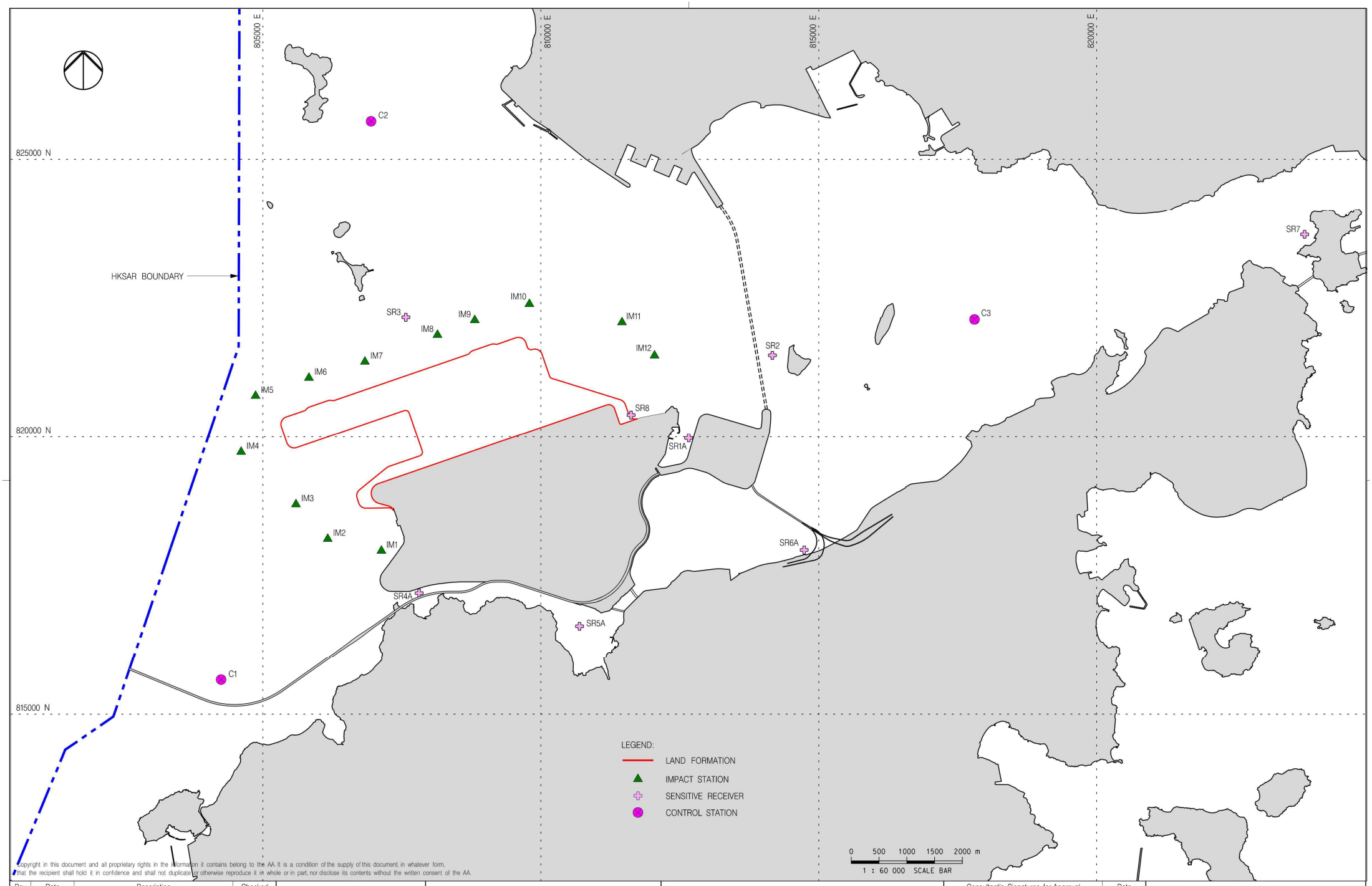
Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. D

Filename: J:\355482\REPORT\ENV\EMA\181029\FIG 2.1.dgn



Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

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Title

WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
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EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

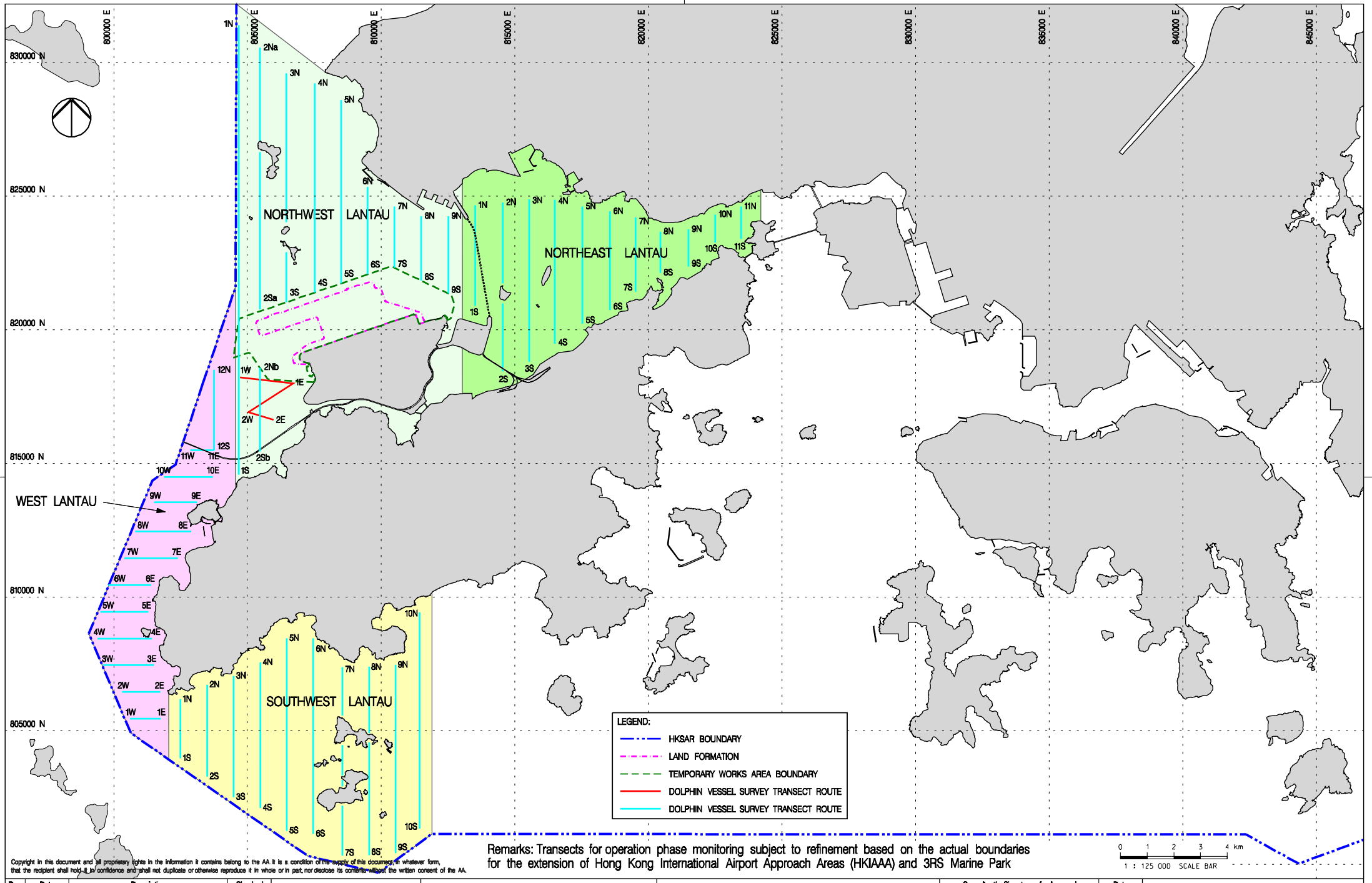
Drawing No.

FIGURE 4.1

Scale at A3 1 : 60000

Rev. A

Filename: J:\355482\REPORT\ENV\EMA\190821\FIG 4.1.dgn



Remarks: Transects for operation phase monitoring subject to refinement based on the actual boundaries for the extension of Hong Kong International Airport Approach Areas (HKIAAA) and 3RS Marine Park

Rev.	Date	Description	Checked
B	27JUL16	GENERAL REVISION	JT
C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

VESSEL BASED DOLPHIN MONITORING TRANSECTS IN CONSTRUCTION, POST-CONSTRUCTION AND OPERATION PHASES

Consultant's Signatures for Approval		Date
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EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

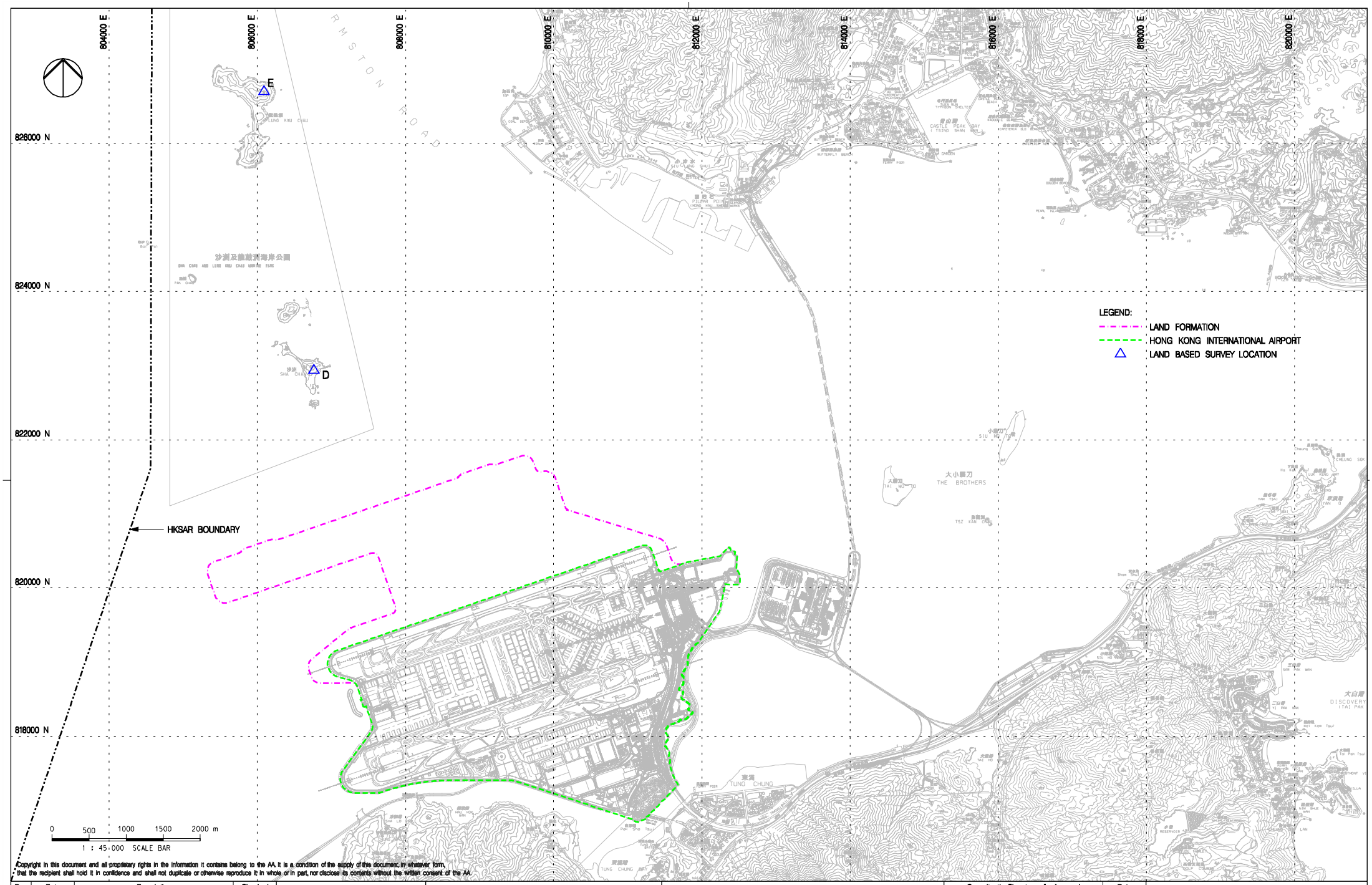
Drawing No.

FIGURE 6.1

Scale at A3 1 : 125000

Rev. F

Filename: J:\355482\REPORT\ENV\EMA\190404\FIG 6.1.dgn



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香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LAND BASED DOLPHIN MONITORING IN BASELINE AND CONSTRUCTION PHASES

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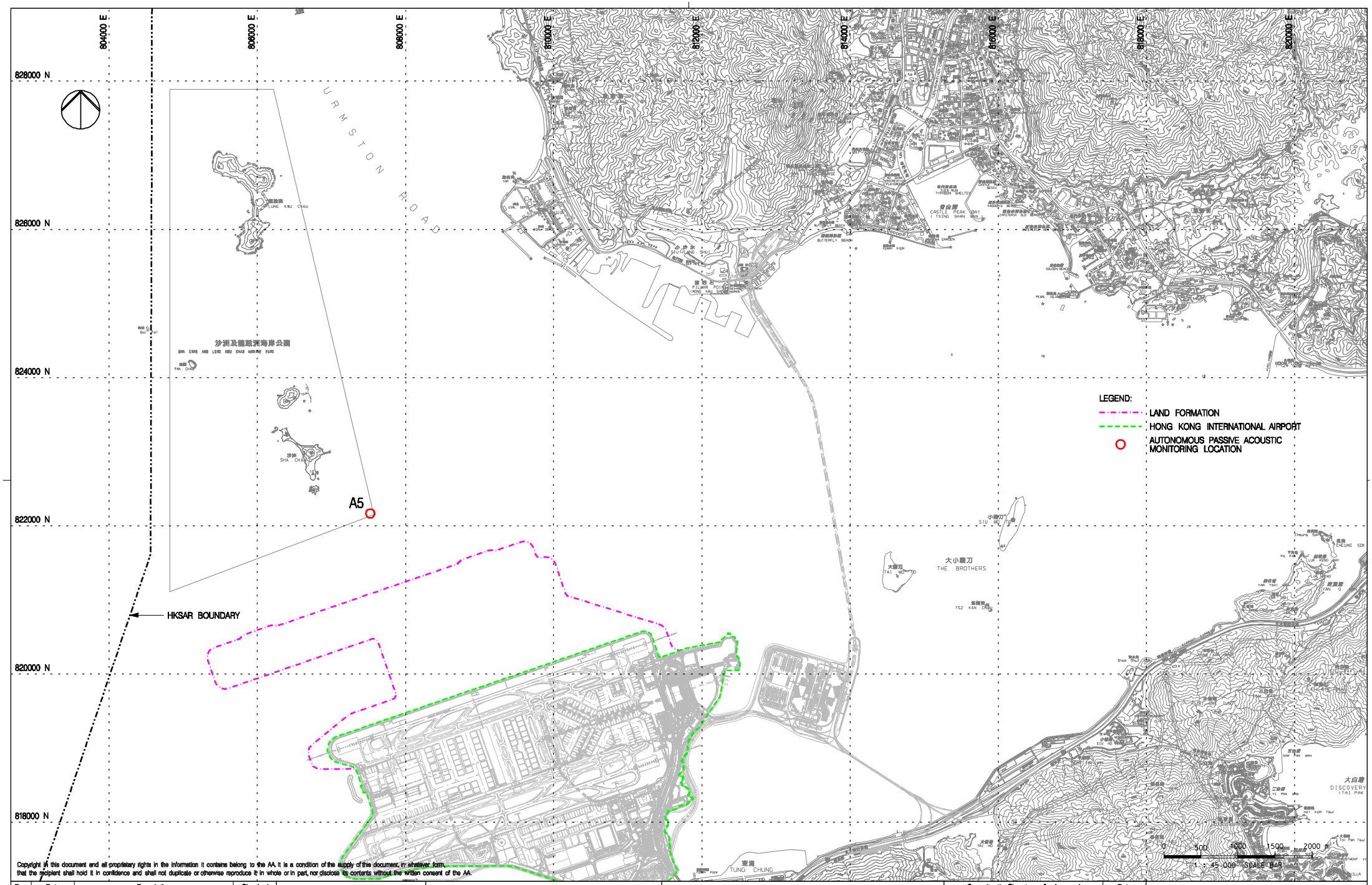
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No. FIGURE 6.2

Scale at A3 1 : 45000

Rev. C

Filename: J:\355482\REPORT\ENV\EMA\181029\FIG 2.5.dgn



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香港國際機場 | HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

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EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

Drawing No.

FIGURE 6.5

Scale at A3 1 : 45000

Rev. C

Filename: J:\355482\REPORT\EN\EMA\181029\FIG 2.11.dgn

Appendix A. 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 by-products 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 Timing of completion of measures	Mitigation 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	I
			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	I
			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; ▪ 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.	Within construction site / Duration of the construction phase	I
			Site hoarding ▪ 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.	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	**Best Practices for Concrete Batching Plant** 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: Cement and other dusty materials	Within Concrete Batching Plant / Duration of the 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?^
			▪ 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 ▪ 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; ▪ 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;	Within Concrete Batching Plant / Duration of the 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?^
			▪ 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 ▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: (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 (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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Vehicles ▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and ▪ All access and route roads within the premises shall be paved and adequately wetted.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Housekeeping ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.6	2.1	-	**Best Practices for Asphaltic Concrete Plant** 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;	Within Concrete Batching Plant / Duration of the 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?^
			▪ 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 ▪ 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; ▪ 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; ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Hot feed side ▪ 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; ▪ 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;	Within Concrete Batching Plant / Duration of the 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?^
			▪ 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 ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Control of emissions from bitumen decanting ▪ 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; ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Liquid fuel ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Housekeeping ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.7	2.1	-	**Best Practices for Rock Crushing Plants** 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:	Within Concrete Batching Plant / Duration of the 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?^
			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 ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Belt conveyors ▪ 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; ▪ 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.	Within Concrete Batching Plant / Duration of the 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?^
			Storage piles and bins ▪ 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. ▪ 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.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Rock drilling equipment ▪ Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			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	I
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	I
			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: ▪ only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; ▪ machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;	Within the Project site / During construction phase / Prior to commencement of operation	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation 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		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.2 and 8.8.1.3	5.1	2.26	**Marine Construction Activities** <u>General Measures to be Applied to All Works Areas</u> ▪ 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. The Contractor should ensure the waste water meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.	Within construction site / Duration of the construction phase	I
			<u>Specific Measures to be Applied to All Works Areas</u> ▪ 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;	Within construction site / Duration of the construction phase	I
			▪ 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;		I
			▪ 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 Silt Curtain Deployment Plan)
			▪ The Silt Curtain Deployment Plan shall be implemented.		I

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;	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)
			▪ 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		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	I *(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.		I

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 ▪ Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.	Within construction site / Duration of the construction phase	N/A
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	N/A
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	N/A
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. 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.	Within construction site / Duration of the construction phase	N/A
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: ▪ 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	Within construction site / Duration of the construction phase	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;		I
			▪ 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;		I
			▪ 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		N/A
			▪ 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** ▪ 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.	Within construction site / During construction phase	I
8.8.1.10 8.8.1.11	5.1		**General Construction Activities** ▪ 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	Within construction site / During construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation 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 8.8.1.13	5.1	2.28	**Drilling Activities for the Submarine Aviation Fuel Pipelines** To prevent potential water quality impacts at Sha Chau, the following measures shall be applied: ▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; ▪ 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.	Within construction site / During construction phase	I
			At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater: ▪ 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 ▪ 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.	Within construction site / During construction phase	I
			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	I
			▪ 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;		I
			▪ 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		I

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: ▪ 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; ▪ 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.	Project Site Area / Construction Phase	I
10.5.1.3	7.1	-	The following practices should be performed to achieve waste reduction include: ▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; ▪ 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;	Project Site Area / Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation 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	I
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	I
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	I
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		I
			▪ 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.		I
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: ▪ 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.	Project Site Area / Construction Phase	I
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 to 11.10.1.3	8.1	2.32	For areas inaccessible during site reconnaissance survey ▪ Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.	Project Site Area 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)
			▪ 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): ▪ 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.	Project Site Area / Construction Phase	N/A
			Terrestrial Ecological – Construction Phase		
12.10.1.1	9.2	2.14	**Pre-construction Egretry Survey** ▪ Conduct ecological survey for Sha Chau egretry to update the latest boundary of the egretry.	Breeding season (April - July) prior to commencement of HDD drilling works at HKIA	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
12.7.2.3 and 12.7.2.6	9.1	2.30	**Avoidance and Minimisation of Direct Impact to Egretry** ▪ 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; ▪ 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.	During construction phase at Sheung Sha Chau Island	I
12.7.2.5	9.1	2.30	**Preservation of Nesting Vegetation** ▪ 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.	During construction phase at Sheung Sha Chau Island	I
12.7.2.4 and 12.7.2.6	9.1	2.30	**Timing the Pipe Connection Works outside Ardeid's Breeding Season** ▪ 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.	During construction phase at Sheung Sha Chau Island	I
12.10.1.1	9.3	-	**Ecological Monitoring** ▪ 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.	at Sheung Sha Chau Island	I
			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 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ 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.	Land formation footprint / during detailed design phase to completion of construction	I
13.11.1.7 to 13.11.1.10	-	2.31	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	I
			▪ 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

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;		N/A
			▪ Avoid bored piling during CWD peak calving season (Mar to Jun);		I
			▪ Prohibition of underwater percussive piling; and		I
			▪ 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 to 13.11.2.7	-	-	**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			▪ 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		N/A
			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** ▪ 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; ▪ 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.	All works area during the construction phase	I
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
13.11.1.3 to 13.11.1.6	-	-	**Minimisation of Land Formation Area** ▪ 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.	Land formation footprint / during detailed design phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				to completion of construction	
13.11.5.4 to 13.11.5.13	10.3.1	-	**SkyPier High Speed Ferries' Speed Restrictions and Route Diversions** ▪ 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 ▪ A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.	Area between the footprint and SCLKC Marine Park during construction phase	I
			Other mitigation measures ▪ 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.	Area between the footprint and SCLKC Marine Park during construction phase	I
13.11.5.14 to 13.11.5.18	10.3.1	2.31	**Dolphin Exclusion Zone** ▪ Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;	Marine waters around land formation works area during construction phase	I
			▪ 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		I
			▪ A DEZ would also be implemented during bored piling work but as a precautionary measure only.		N/A
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 use during the land formation works.	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	**Spill Response Plan** ▪ 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.	Construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.5.21 to 13.11.5.23	10.6.1	-	**Construction Vessel Speed Limits and Skipper Training** ▪ A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and ▪ 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.	All areas north and west of Lantau Island during construction phase	I
			Fisheries Impact – Construction Phase		
14.9.1.2 to 14.9.1.5	-		**Minimisation of Land Formation Area** ▪ Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.	Land formation footprint / during detailed design phase to completion of construction	I
14.9.1.6	-	-	**Use of Construction Methods with Minimal Risk/Disturbance** ▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	I
			▪ 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		N/A
			▪ 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** ▪ 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; ▪ 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.	All works area during the construction phase	I
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	All works area during the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ 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.		
14.9.1.13 to 14.9.1.18	-		**Mitigation for Indirect Disturbance due to Deterioration of Water Quality** ▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			▪ 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		N/A
			▪ 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; Upon handover and completion of works.	I
Table 15.6	12.3	-	**CM2 -** Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
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; Upon handover and completion of works.	I
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; Upon handover and completion of works.	I
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. –	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				may be disassembled in phases	
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 completion of works.	N/A
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	I
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.	I
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.	I
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; Upon handover and completion of works.	N/A
			Cultural Heritage Impact – Construction Phase		
			Not applicable.		

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Health Impact – Aircraft Emissions		
			Not applicable.		
			Health Impact – Aircraft Noise		
			Not applicable.		

Notes:

I= implemented where applicable;

N/A= not applicable to the construction works implemented during the reporting month.

^ Checked by ET through site inspection and record provided by the Contractor.

Appendix B. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Dec-19

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	**2**	**3** Site Inspection WQ General & Regular DCM mid-ebb: 05:03 mid-flood: 17:26	**4**	**5** Site Inspection WQ General & Regular DCM mid-ebb: 06:51 mid-flood: 15:13	**6** Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6	**7** WQ General & Regular DCM mid-ebb: 09:10 mid-flood: 16:09
8	**9** Site Inspection CWD Survey (Vessel)	**10** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 11:36 mid-flood: 17:18	**11** Site Inspection CWD Survey (Land-based) NM4, NM6	**12** Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 13:00 mid-flood: 18:17	**13** Site Inspection CWD Survey (Vessel)	**14** WQ General & Regular DCM mid-ebb: 14:25 mid-flood: 09:13
15	**16** CWD Survey (Vessel)	**17** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 16:56 mid-flood: 11:46	**18** CWD Survey (Vessel, Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6	**19** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 05:55 mid-flood: 13:44	**20** Site Inspection	**21** WQ General & Regular DCM mid-ebb: 08:35 mid-flood: 15:19
22	**23** Site Inspection CWD Survey (Vessel) NM4, NM6	**24** AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 11:51 mid-flood: 17:09	**25**	**26** WQ General & Regular DCM mid-ebb: 13:20 mid-flood: 08:02	**27** Site Inspection	**28** WQ General & Regular DCM mid-ebb: 14:36 mid-flood: 09:26
29	**30** Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6	**31** Site Inspection WQ General & Regular DCM mid-ebb: 16:38 mid-flood: 11:26				

Notes:

CWD - Chinese White Dolphin

Air quality and Noise Monitoring Station

WQ - Water Quality

DCM - Deep Cement Mixing

NM1A/AR1A - Man Tung Road Park
NM4 - Ching Chung Hau Po Woon Primary School
NM5/AR2 - Village House, Tin Sum
NM6 - House No. 1, Sha Lo Wan

Tentative Monitoring Schedule of Next Reporting Period

Jan-20

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 Site Inspection WQ General & Regular DCM mid-ebb: 05:05 mid-flood: 13:04	3 Site Inspection AR1A, AR2	4 WQ General & Regular DCM mid-ebb: 06:36 mid-flood: 14:20
5	6 CWD Survey (Vessel)	7 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 10:16 mid-flood: 15:55	8 CWD Survey (Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6	9 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 12:00 mid-flood: 17:13	10 Site Inspection CWD Survey (Vessel)	11 WQ General & Regular DCM mid-ebb: 13:31 mid-flood: 08:21
12	13 CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	14 Site Inspection CWD Survey (Land-based) WQ General & Regular DCM mid-ebb: 15:49 mid-flood: 10:29	15 CWD Survey (Vessel, Land-based)	16 Site Inspection CWD Survey (Vessel, Land-based) WQ General & Regular DCM mid-ebb: 17:39 mid-flood: 11:59	17 Site Inspection	18 AR1A, AR2 WQ General & Regular DCM mid-ebb: 06:40 mid-flood: 13:37
19	20	21 Site Inspection WQ General & Regular DCM mid-ebb: 10:55 mid-flood: 16:00	22 Site Inspection CWD Survey (Vessel)	23 Site Inspection WQ General & Regular DCM mid-ebb: 12:31 mid-flood: 17:26	24 Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6	25 WQ General & Regular DCM mid-ebb: 13:43 mid-flood: 08:31
26	27	28 WQ General & Regular DCM mid-ebb: 15:25 mid-flood: 10:03	29 Site Inspection	30 Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6 WQ General & Regular DCM mid-ebb: 16:33 mid-flood: 10:48	31 Site Inspection	

Notes:

CWD - Chinese White Dolphin

Air quality and Noise Monitoring Station

NM1A/AR1A - Man Tung Road Park
NM4 - Ching Chung Hau Po Woon Primary School
NM5/AR2 - Village House, Tin Sum
NM6 - House No. 1, Sha Lo Wan

WQ - Water Quality
DCM - Deep Cement Mixing

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

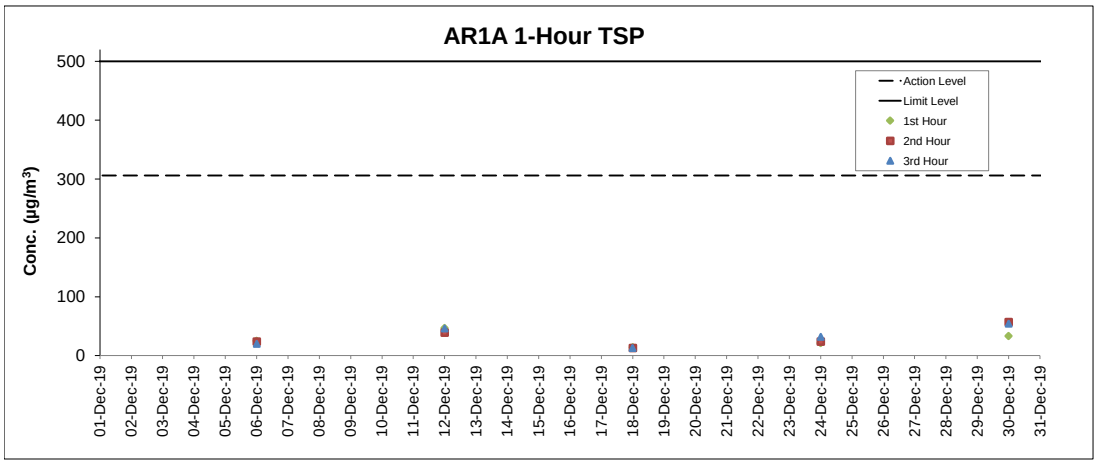
Station: AR1A- Man Tung Road Park

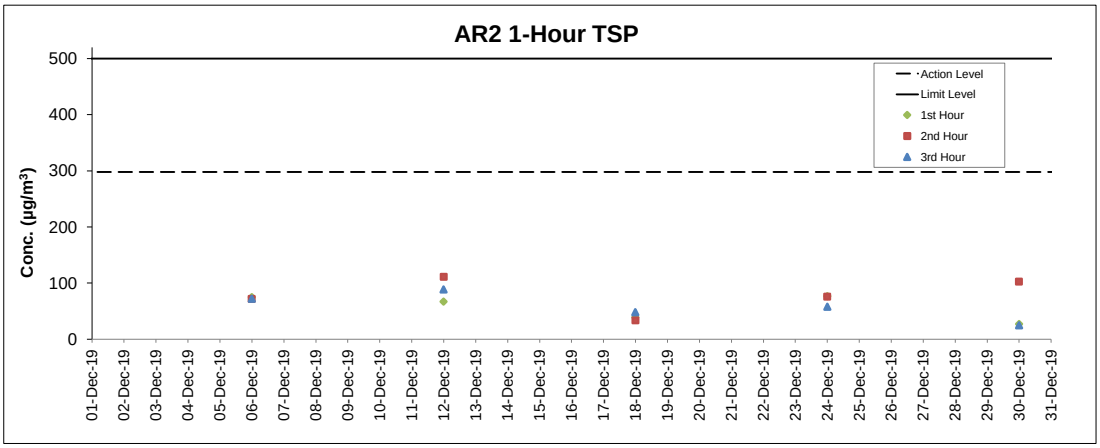
Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
06-Dec-19	13:17	Sunny	7.8	360	25	306	500
06-Dec-19	14:17	Sunny	9.0	352	24	306	500
06-Dec-19	15:17	Sunny	7.0	358	20	306	500
12-Dec-19	9:02	Sunny	2.8	21	47	306	500
12-Dec-19	10:02	Sunny	3.1	52	39	306	500
12-Dec-19	11:02	Sunny	5.4	55	46	306	500
18-Dec-19	12:59	Sunny	3.5	260	14	306	500
18-Dec-19	13:59	Sunny	3.8	259	13	306	500
18-Dec-19	14:59	Sunny	2.5	265	13	306	500
24-Dec-19	12:04	Sunny	3.6	54	21	306	500
24-Dec-19	13:04	Sunny	2.5	11	24	306	500
24-Dec-19	14:04	Sunny	3.3	273	32	306	500
30-Dec-19	14:01	Cloudy	3.1	93	33	306	500
30-Dec-19	15:01	Cloudy	3.3	236	57	306	500
30-Dec-19	16:01	Cloudy	2.5	233	54	306	500

1-hour TSP Results

Station: AR2- Village House, Tin Sum

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
06-Dec-19	9:38	Sunny	8.1	356	75	298	500
06-Dec-19	10:38	Sunny	9.2	358	72	298	500
06-Dec-19	11:38	Sunny	7.1	354	72	298	500
12-Dec-19	13:17	Sunny	4.8	93	67	298	500
12-Dec-19	14:17	Sunny	3.2	244	111	298	500
12-Dec-19	15:17	Sunny	3.8	255	89	298	500
18-Dec-19	10:04	Sunny	1.9	17	39	298	500
18-Dec-19	11:04	Sunny	2.2	22	34	298	500
18-Dec-19	12:04	Sunny	2.0	346	48	298	500
24-Dec-19	14:18	Sunny	Variable	Variable	77	298	500
24-Dec-19	15:20	Sunny	3.9	257	76	298	500
24-Dec-19	16:20	Sunny	3.6	252	58	298	500
30-Dec-19	9:34	Cloudy	1.7	35	27	298	500
30-Dec-19	10:34	Cloudy	1.4	variable	103	298	500
30-Dec-19	11:34	Cloudy	2.8	58	25	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 Monitoring Results

Noise Measurement Results

Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Dec-19	Sunny	14:32	70.5	53.4	69
06-Dec-19	Sunny	14:37	70.0	53.6	
06-Dec-19	Sunny	14:42	69.5	54.6	
06-Dec-19	Sunny	14:47	69.7	54.1	
06-Dec-19	Sunny	14:52	70.9	56.3	
06-Dec-19	Sunny	14:57	67.8	52.3	
12-Dec-19	Sunny	10:43	75.1	58.8	73
12-Dec-19	Sunny	10:48	74.0	60.1	
12-Dec-19	Sunny	10:53	72.9	60.0	
12-Dec-19	Sunny	10:58	73.2	59.4	
12-Dec-19	Sunny	11:03	74.1	59.9	
12-Dec-19	Sunny	11:08	72.4	58.9	
18-Dec-19	Sunny	13:20	67.6	51.5	67
18-Dec-19	Sunny	13:25	68.2	54.1	
18-Dec-19	Sunny	13:30	67.2	53.6	
18-Dec-19	Sunny	13:35	67.2	51.9	
18-Dec-19	Sunny	13:40	68.1	53.3	
18-Dec-19	Sunny	13:45	67.1	52.3	
24-Dec-19	Cloudy	12:08	63.0	50.8	62
24-Dec-19	Cloudy	12:13	63.3	49.0	
24-Dec-19	Cloudy	12:18	62.9	49.7	
24-Dec-19	Cloudy	12:23	63.1	49.1	
24-Dec-19	Cloudy	12:28	63.3	49.2	
24-Dec-19	Cloudy	12:33	62.9	50.1	
30-Dec-19	Cloudy	14:04	67.4	51.2	69
30-Dec-19	Cloudy	14:09	69.9	51.7	
30-Dec-19	Cloudy	14:14	70.8	52.3	
30-Dec-19	Cloudy	14:19	69.5	53.9	
30-Dec-19	Cloudy	14:24	70.9	54.6	
30-Dec-19	Cloudy	14:29	70.5	52.9	

Remarks:

+3dB (A) correction was applied to free-field measurement.

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Dec-19	Sunny	14:28	63.3	59.7	66
06-Dec-19	Sunny	14:33	63.9	59.2	
06-Dec-19	Sunny	14:38	66.8	58.2	
06-Dec-19	Sunny	14:43	64.1	59.0	
06-Dec-19	Sunny	14:48	62.9	58.5	
06-Dec-19	Sunny	14:53	64.2	59.9	
11-Dec-19	Sunny	14:31	61.7	57.1	63
11-Dec-19	Sunny	14:36	62.1	57.9	
11-Dec-19	Sunny	14:41	62.0	56.8	
11-Dec-19	Sunny	14:46	62.6	56.8	
11-Dec-19	Sunny	14:51	61.6	57.4	
11-Dec-19	Sunny	14:56	62.9	57.6	
18-Dec-19	Sunny	14:28	63.1	59.5	66
18-Dec-19	Sunny	14:33	63.0	59.8	
18-Dec-19	Sunny	14:38	63.5	59.4	
18-Dec-19	Sunny	14:43	65.4	58.6	
18-Dec-19	Sunny	14:48	66.5	58.8	
18-Dec-19	Sunny	14:53	64.8	58.6	
23-Dec-19	Sunny	12:08	65.9	58.6	66
23-Dec-19	Sunny	12:13	66.5	59.3	
23-Dec-19	Sunny	12:18	67.0	60.0	
23-Dec-19	Sunny	12:23	66.3	58.5	
23-Dec-19	Sunny	12:28	63.4	58.0	
23-Dec-19	Sunny	12:33	63.4	58.2	
30-Dec-19	Cloudy	13:33	63.3	60.2	64
30-Dec-19	Cloudy	13:38	62.5	58.8	
30-Dec-19	Cloudy	13:43	63.4	59.3	
30-Dec-19	Cloudy	13:48	63.9	59.3	
30-Dec-19	Cloudy	13:53	62.2	58.5	
30-Dec-19	Cloudy	13:58	62.3	58.2	

Remarks:

+3dB (A) correction was applied to free-field measurement.

Limit Level at NM4 was reduced to 65 dB(A) during school examination period from 5 to 11 Dec 2019 (8:30 am to 12:00 pm).

Impact noise monitoring at NM4 on 6 and 11 Dec 2019 were conducted after the school examination those days.

The corresponding Limit Level for the monitoring sessions was 70 dB(A).

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Dec-19	Sunny	10:44	62.5	55.8	65
06-Dec-19	Sunny	10:49	62.7	56.4	
06-Dec-19	Sunny	10:54	65.0	53.0	
06-Dec-19	Sunny	10:59	61.4	53.1	
06-Dec-19	Sunny	11:04	64.0	52.9	
06-Dec-19	Sunny	11:09	68.1	52.7	
12-Dec-19	Sunny	13:19	56.2	48.5	61
12-Dec-19	Sunny	13:24	57.2	50.0	
12-Dec-19	Sunny	13:29	60.2	49.6	
12-Dec-19	Sunny	13:34	58.6	49.3	
12-Dec-19	Sunny	13:39	63.2	50.2	
12-Dec-19	Sunny	13:44	65.3	49.6	
18-Dec-19	Sunny	11:12	53.9	47.6	59
18-Dec-19	Sunny	11:17	52.8	47.3	
18-Dec-19	Sunny	11:22	57.5	47.8	
18-Dec-19	Sunny	11:27	55.2	48.0	
18-Dec-19	Sunny	11:32	58.5	49.2	
18-Dec-19	Sunny	11:37	58.4	48.9	
24-Dec-19	Sunny	14:52	54.1	47.0	66
24-Dec-19	Sunny	14:57	51.3	46.8	
24-Dec-19	Sunny	15:02	71.0	47.8	
24-Dec-19	Sunny	15:07	55.7	46.5	
24-Dec-19	Sunny	15:12	52.9	46.8	
24-Dec-19	Sunny	15:17	61.1	45.4	
30-Dec-19	Cloudy	10:06	60.3	49.2	59
30-Dec-19	Cloudy	10:11	57.6	45.5	
30-Dec-19	Cloudy	10:16	57.0	52.6	
30-Dec-19	Cloudy	10:21	56.5	52.2	
30-Dec-19	Cloudy	10:26	56.5	50.6	
30-Dec-19	Cloudy	10:31	57.6	47.3	

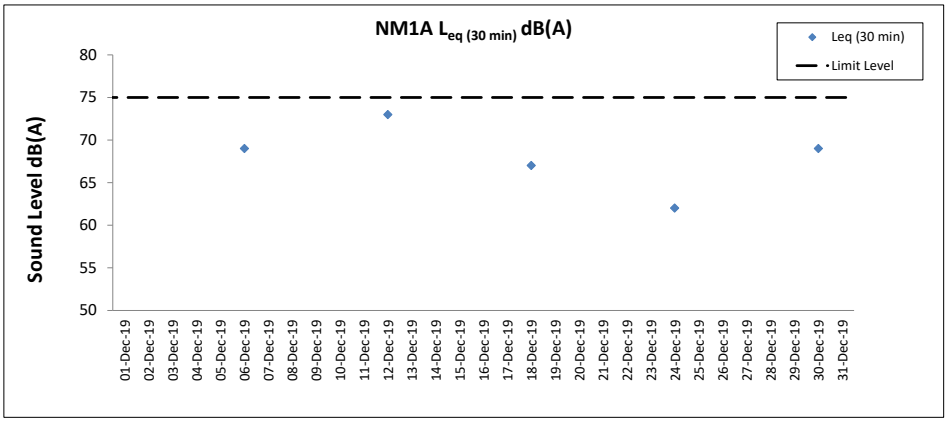
Remarks:
+3dB (A) correction was applied to free-field measurement.

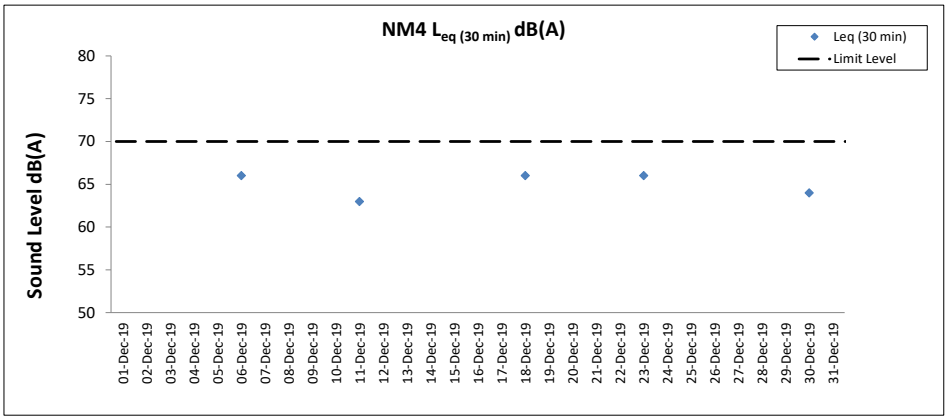
Noise Measurement Results

Station: NM6- House No.1 Sha Lo Wan

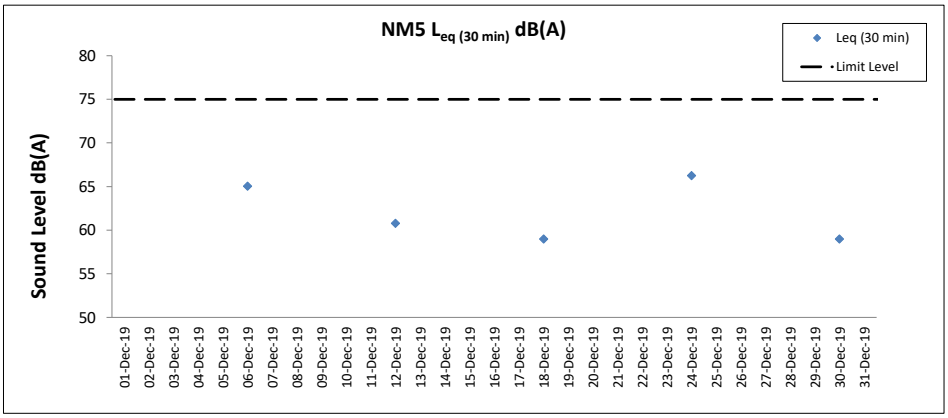
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Dec-19	Sunny	15:41	75.5	56.9	71
06-Dec-19	Sunny	15:46	74.0	56.0	
06-Dec-19	Sunny	15:51	71.6	54.1	
06-Dec-19	Sunny	15:56	69.3	55.8	
06-Dec-19	Sunny	16:01	78.8	60.5	
06-Dec-19	Sunny	16:06	73.1	60.6	
11-Dec-19	Sunny	15:40	72.4	48.6	68
11-Dec-19	Sunny	15:45	75.6	56.0	
11-Dec-19	Sunny	15:50	64.6	46.4	
11-Dec-19	Sunny	15:55	72.3	46.2	
11-Dec-19	Sunny	16:00	72.2	48.0	
11-Dec-19	Sunny	16:05	74.1	46.9	
18-Dec-19	Sunny	15:43	71.3	50.5	71
18-Dec-19	Sunny	15:48	76.7	53.3	
18-Dec-19	Sunny	15:53	74.5	54.8	
18-Dec-19	Sunny	15:58	70.5	52.9	
18-Dec-19	Sunny	16:03	67.8	52.1	
18-Dec-19	Sunny	16:08	67.0	53.5	
23-Dec-19	Sunny	15:49	64.5	47.3	66
23-Dec-19	Sunny	15:54	73.4	47.3	
23-Dec-19	Sunny	15:59	70.2	49.3	
23-Dec-19	Sunny	16:04	70.5	49.4	
23-Dec-19	Sunny	16:09	70.7	50.4	
23-Dec-19	Sunny	16:14	70.4	47.9	
30-Dec-19	Cloudy	15:52	67.7	50.5	71
30-Dec-19	Cloudy	15:57	68.4	52.8	
30-Dec-19	Cloudy	16:02	70.1	48.7	
30-Dec-19	Cloudy	16:07	69.9	50.8	
30-Dec-19	Cloudy	16:12	71.1	52.4	
30-Dec-19	Cloudy	16:17	77.8	45.2	

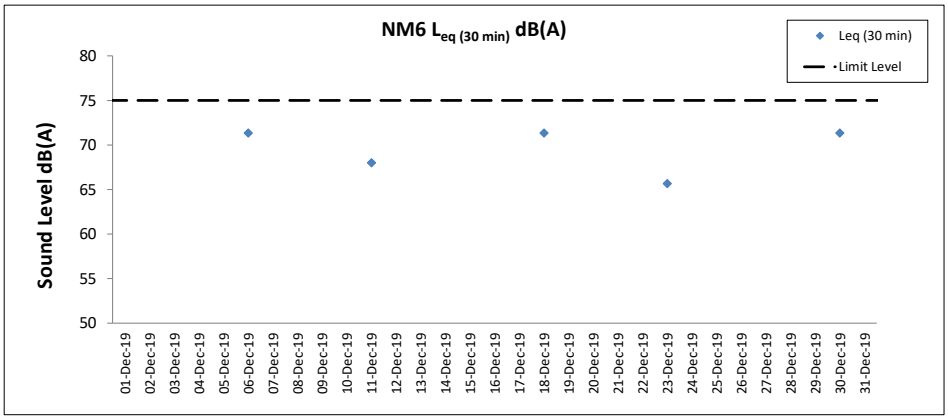
Remarks:
+3dB (A) correction was applied to free-field measurement.





Remark: Limit Level at NM4 was reduced to 65 dB(A) during school examination period from 5 to 11 Dec 2019 (8:30 am to 12:00 pm). Impact noise monitoring at NM4 on 6 and 11 Dec 2019 were conducted after the school examination those days. The corresponding Limit Level for the monitoring sessions was 70 dB(A).





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 Monitoring Results

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Sunny	Rough	04:33	7.2	Surface	1.0	0.1	134	21.9	21.9	8.0	8.0	33.6	33.6	98.6	98.6	7.0	7.1	8.1	8.4	16	16	82	87	815596	804241	<0.2	<0.2	1.0	1.1
						1.0	0.1	135	21.9		8.0		33.6		98.6		7.0		8.1		17		83				<0.2		1.1	
					Middle	3.6	0.1	128	22.0	22.0	8.0	8.0	33.7	33.7	99.2	99.2	7.1		7.6		16		87				<0.2		1.1	
						3.6	0.1	139	22.0		8.0		33.7		99.1		7.1		7.7		14		88				<0.2		1.0	
					Bottom	6.2	0.0	112	22.0	22.0	8.0	8.0	33.7	33.7	98.3	98.4	7.0	7.0	9.5		15		90				<0.2		1.1	
						6.2	0.0	120	22.0		8.0		33.7		98.4		7.0		9.5		17		91				<0.2		1.0	
C2	Fine	Rough	05:39	8.6	Surface	1.0	0.3	159	21.8	21.8	8.3	8.3	31.7	31.8	96.7	96.5	7.1	7.0	4.0	4.7	10	8	85	88	825684	806937	<0.2	<0.2	1.2	1.2
						1.0	0.3	160	21.8		8.3		31.8		96.2		7.0		4.0		8		84				<0.2		1.2	
					Middle	4.3	0.4	142	22.1	22.1	8.2	8.2	32.0	32.0	94.5	94.4	6.9		4.3		7		88				<0.2		1.2	
						4.3	0.4	152	22.1		8.2		32.0		94.3		6.8		4.6		8		88				<0.2		1.2	
					Bottom	7.6	0.5	150	22.3	22.3	8.2	8.2	32.1	32.1	94.5	94.6	6.8	6.8	5.8		6		92				<0.2		1.2	
						7.6	0.6	166	22.3		8.2		32.1		94.7		6.8		5.8		6		92				<0.2		1.2	
C3	Fine	Rough	03:45	11.2	Surface	1.0	0.3	70	22.8	22.8	8.2	8.2	33.2	33.2	92.8	92.7	6.6	6.6	2.2	5.1	5	5	82	86	822090	817786	<0.2	<0.2	0.9	0.9
						1.0	0.3	76	22.8		8.2		33.2		92.6		6.6		2.2		5		82				<0.2		0.9	
					Middle	5.6	0.1	90	22.8	22.8	8.2	8.2	33.3	33.3	91.4	91.4	6.5		4.7		5		87				<0.2		0.9	
						5.6	0.1	108	22.8		8.2		33.3		91.4		6.5		4.4		4		86				<0.2		1.0	
					Bottom	10.2	0.2	104	22.7	22.7	8.2	8.2	33.3	33.3	92.2	92.3	6.6	6.6	8.7		5		90				<0.2		0.9	
						10.2	0.2	113	22.7		8.2		33.3		92.4		6.6		8.7		4		90				<0.2		0.9	
IM1	Sunny	Rough	04:52	4.5	Surface	1.0	0.0	123	21.9	21.9	8.0	8.0	32.6	32.6	100.4	100.5	7.2	7.2	3.2	3.5	15	13	83	85	817968	807115	<0.2	<0.2	1.1	1.2
						1.0	0.0	123	21.9		8.0		32.6		100.5		7.2		3.2		17		83				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.0	247	21.9	21.9	8.0	8.0	32.6	32.6	100.8	100.8	7.2	7.2	3.7		9		87				<0.2		1.2	
						3.5	0.0	267	21.9		8.0		32.6		100.7		7.2		3.7		9		87				<0.2		1.1	
IM2	Sunny	Rough	05:00	7.0	Surface	1.0	0.1	133	21.7	21.7	8.0	8.0	32.7	32.7	99.2	99.2	7.1	7.1	5.5	6.5	15	14	83	87	818142	806185	<0.2	<0.2	1.1	1.1
						1.0	0.1	135	21.7		8.0		32.7		99.2		7.1		5.5		15		83				<0.2		1.1	
					Middle	3.5	0.1	118	21.7	21.7	8.0	8.0	32.7	32.7	99.0	99.0	7.1		6.7		15		87				<0.2		1.1	
						3.5	0.1	118	21.7		8.0		32.7		98.9		7.1		6.7		13		87				<0.2		1.0	
					Bottom	6.0	0.1	129	21.7	21.7	8.0	8.0	32.7	32.7	98.3	98.4	7.1	7.1	7.3		12		90				<0.2		1.0	
						6.0	0.1	122	21.7		8.0		32.7		98.4		7.1		7.4		12		90				<0.2		1.0	
IM3	Sunny	Rough	05:08	6.6	Surface	1.0	0.3	129	21.5	21.5	8.1	8.1	32.7	32.7	98.6	98.6	7.1	7.1	5.1	6.7	13	13	82	87	818794	805616	<0.2	<0.2	1.2	1.1
						1.0	0.3	130	21.5		8.1		32.7		98.5		7.1		5.1		12		82				<0.2		1.1	
					Middle	3.3	0.2	156	21.5	21.5	8.0	8.0	32.7	32.7	96.7	96.7	7.0		7.3		14		87				<0.2		1.2	
						3.3	0.2	159	21.5		8.0		32.7		96.7		7.0		7.3		13		87				<0.2		1.1	
					Bottom	5.6	0.2	108	21.5	21.5	8.0	8.0	32.7	32.7	97.5	97.5	7.0	7.0	7.7		12		90				<0.2		1.1	
						5.6	0.2	121	21.5		8.0		32.7		97.4		7.0		7.7		11		91				<0.2		1.1	
IM4	Sunny	Rough	05:16	7.8	Surface	1.0	0.4	244	21.6	21.6	8.0	8.0	32.9	32.9	98.2	98.2	7.1	7.1	5.2	7.3	17	18	82	87	819711	804609	<0.2	<0.2	1.2	1.3
						1.0	0.4	216	21.6		8.0		32.9		98.1		7.1		5.2		18		83				<0.2		1.2	
					Middle	3.9	0.4	254	21.6	21.6	8.0	8.0	32.9	32.9	98.3	98.3	7.1		7.8		18		87				<0.2		1.2	
						3.9	0.5	225	21.6		8.0		32.9		98.3		7.1		7.8		17		88				<0.2		1.3	
					Bottom	6.8	0.4	201	21.6	21.6	8.0	8.0	32.9	32.9	98.4	98.4	7.1	7.1	9.0		17		90				<0.2		1.3	
						6.8	0.4	203	21.6		8.0		32.9		98.4		7.1		9.0		19		91				<0.2		1.4	
IM5	Sunny	Rough	05:24	7.5	Surface	1.0	0.4	209	21.4	21.4	8.0	8.0	32.6	32.6	98.6	98.7	7.1	7.1	6.6	7.0	14	14	83	87	820745	804877	<0.2	<0.2	1.6	1.4
						1.0	0.4	221	21.4		8.0		32.6		98.8		7.1		6.6		14		83				<0.2		1.6	
					Middle	3.8	0.4	223	21.4	21.4	8.0	8.0	32.6	32.6	98.3	98.3	7.1		7.2		13		87				<0.2		1.3	
						3.8	0.4	223	21.4		8.0		32.6		98.3		7.1		7.2		15		87				<0.2		1.2	
					Bottom	6.5	0.3	229	21.4	21.4	8.0	8.0	32.6	32.6	98.2	98.1	7.1	7.1	7.3		14		90				<0.2		1.2	
						6.5	0.3	231	21.4		8.0		32.6		98.0		7.1		7.3		15		90				<0.2		1.2	
IM6	Sunny	Rough	05:32	6.9	Surface	1.0	0.2	180	21.6	21.6	8.0	8.0	32.3	32.3	97.9	97.8	7.1	7.1	5.7	4.7	14	15	82	87	821059	805844	<0.2	<0.2	1.4	1.4
						1.0	0.2	182	21.6		8.0		32.3		97.7		7.1		5.7		16		83				<0.2		1.5	
					Middle	3.5	0.2	198	21.6	21.6	8.0	8.0	32.4	32.4	97.4	97.4	7.0		3.7		15		87				<0.2		1.3	
						3.5	0.2	174	21.6		8.0		32.4		97.3		7.0		3.7		15		87				<0.2		1.3	
					Bottom	5.9	0.1	192	21.6	21.6	8.0	8.0	32.4	32.4	97.9	97.9	7.1	7.1	4.8		15		90				<0.2		1.3	
						5.9	0.2	188	21.6		8.0		32.4		97.8		7.1		4.8		16		91				<0.2		1.4	
IM7	Sunny	Rough	05:40	8.3	Surface	1.0	0.0	154	22.0	22.0	8.0	8.0	32.3	32.3	98.2	98.3	7.0	7.1	2.2	2.8	15	15	82	87	821333	806856	<0.2	<0.2	1.3	1.3
						1.0	0.0	158	22.0		8.0		32.3		98.3		7.0		2.3		14		83				<0.2		1.4	
					Middle	4.2	0.2	199	21.9	21.9	8.0	8.0	32.4	32.4	98.2	98.2	7.1		2.7		15		87				<0.2		1.3	
						4.2	0.2	185	21.9		8.0		32.4		98.2		7.1		2.7		14		87				<0.2		1.3	
					Bottom	7.3	0.2	162	21.7	21.7	8.0	8.0	32.4	32.4	98.0	98.1	7.1	7.1	3.3		14		90				<0.2		1.2	
						7.3	0.2	168	21.7		8.0		32.4		98.1		7.1		3.3		15		91				<0.2		1.2	
IM8	Fine	Moderate	05:17	8.0	Surface	1.0	0.2	159	21.8	21.8	8.2	8.2	31.9	31.9	95.7	95.7	7.0	7.0	5.8	5.9	11	9	82	87	821828	808163	<0.2	<0.2	1.0	1.1
						1.0	0.2	160	21.8		8.2		31.9		95.7		7.0		5.7		10		82				<0.2		1.1	
					Middle	4.0	0.2	168	21.8	21.8	8.2	8.2	31.9	31.9	94.9	94.8	6.9		6.1		9		87				<0.2		1.1	
						4.0	0.2	155	21.8		8.2		31.9		94.6		6.9		6.2		9		87				<0.2		1.1	
					Bottom	7.0	0.1	142	22.0	22.1	8.2	8.2	32.0	32.0	93.6	93.6	6.8	6.8	5.9		8		91				<0.2		1.2	
						7.0	0.1	144	22.1		8.2		32.0		93.6		6.8		5.9		9		91				<0.2		1.2	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	05:12	7.7	Surface	1.0	0.2	147	21.6	21.6	8.3	8.3	31.8	31.8	96.9	96.9	7.1	7.1	7.8	8.3	9	10	82	87	822101	808798	<0.2	<0.2	1.2	1.1
						1.0	0.2	147	21.6		8.3		31.8		96.9		7.1		7.9		9		86				<0.2		1.0	
					Middle	3.9	0.3	180	21.7	21.7	8.3	8.3	31.9	31.9	97.1	97.2	7.1		8.2		11		87				<0.2		1.0	
						3.9	0.3	167	21.7		8.3		31.9		97.2		7.1		8.2		11		86				<0.2		1.0	
					Bottom	6.7	0.1	154	21.7	21.7	8.3	8.3	31.9	31.9	99.7	100.1	7.3	7.3	8.8		10		91				<0.2		1.1	
						6.7	0.1	157	21.6		8.3		31.9		100.5		7.3		8.8		11		90				<0.2		1.2	
IM10	Fine	Moderate	05:07	7.5	Surface	1.0	0.1	143	22.3	22.3	8.2	8.2	32.4	32.4	93.9	93.9	6.8	6.8	5.3	6.1	8	9	84	88	822386	809799	<0.2	<0.2	0.9	1.0
						1.0	0.1	144	22.3		8.2		32.4		93.9		6.8		5.4		9		84				<0.2		0.9	
					Middle	3.8	0.2	149	22.3	22.3	8.2	8.2	32.4	32.4	93.9	94.0	6.8		6.1		9		88				<0.2		1.2	
						3.8	0.2	144	22.3		8.2		32.4		94.0		6.8		6.3		9		88				<0.2		1.0	
					Bottom	6.5	0.2	149	22.3	22.3	8.3	8.3	32.4	32.4	94.9	95.1	6.8	6.9	6.9		8		91				<0.2		1.1	
						6.5	0.2	132	22.3		8.3		32.4		95.3		6.9		6.8		8		92				<0.2		1.0	
IM11	Fine	Moderate	04:58	8.4	Surface	1.0	0.1	128	22.4	22.4	8.2	8.2	32.5	32.5	93.7	93.6	6.7	6.7	5.2	9.1	7	6	84	88	822059	811448	<0.2	<0.2	1.0	1.1
						1.0	0.1	129	22.4		8.2		32.5		93.5		6.7		5.8		8		84				<0.2		1.1	
					Middle	4.2	0.1	129	22.4	22.4	8.2	8.2	32.6	32.6	92.9	92.9	6.7		8.3		6		88				<0.2		1.1	
						4.2	0.1	133	22.4		8.3		32.6		92.8		6.7		9.4		6		88				<0.2		1.0	
					Bottom	7.4	0.1	132	22.4	22.4	8.3	8.3	32.7	32.7	93.8	94.0	6.7	6.8	13.2		6		92				<0.2		1.2	
						7.4	0.1	133	22.4		8.3		32.7		94.2		6.8		12.6		5		92				<0.2		1.0	
IM12	Fine	Moderate	04:53	8.6	Surface	1.0	0.2	126	22.5	22.5	8.2	8.2	32.7	32.7	92.9	92.8	6.7	6.6	5.3	9.7	8	8	84	88	821474	812051	<0.2	<0.2	1.0	1.0
						1.0	0.2	128	22.5		8.2		32.7		92.6		6.6		5.2		7		84				<0.2		0.9	
					Middle	4.3	0.2	127	22.5	22.5	8.2	8.2	32.8	32.8	92.1	92.2	6.6		10.2		8		88				<0.2		1.1	
						4.3	0.2	124	22.5		8.2		32.8		92.2		6.6		10.5		7		88				<0.2		1.0	
					Bottom	7.6	0.2	118	22.5	22.5	8.2	8.2	32.8	32.8	92.9	93.0	6.7	6.7	13.6		8		91				<0.2		1.0	
						7.6	0.2	123	22.5		8.2		32.8		93.1		6.7		13.6		8		92				<0.2		0.9	
SR1A	Fine	Moderate	04:42	4.7	Surface	1.0	-	-	22.2	22.2	8.2	8.2	32.2	32.2	94.6	94.7	6.8	6.8	6.2	6.3	9	10	-	-	819977	812659	-	-	-	-
						1.0	-	-	22.2		8.2		32.3		94.7		6.8		6.2		10		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	22.2	22.2	8.2	8.2	32.3	32.2	95.6	95.8	6.9	6.9	6.4		10		-				-		-	
						3.7	-	-	22.2		8.2		32.2		95.9		6.9		6.3		10		-				-		-	
SR2	Fine	Moderate	04:05	4.2	Surface	1.0	0.2	21	22.4	22.4	8.2	8.2	32.6	32.6	93.7	93.8	6.7	6.7	5.1	5.2	6	7	82	84	821477	814166	<0.2	<0.2	0.8	0.8
						1.0	0.2	22	22.4		8.2		32.6		93.8		6.7		5.2		7		82				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	66	22.4	22.4	8.2	8.2	32.6	32.6	94.6	94.7	6.8	6.8	5.2		7		87				<0.2		0.8	
						3.2	0.1	68	22.4		8.2		32.6		94.8		6.8		5.2		7		86				<0.2		0.8	
SR3	Fine	Moderate	05:22	8.1	Surface	1.0	0.3	169	21.7	21.7	8.3	8.3	31.8	31.8	99.1	99.1	7.3	7.1	4.3	4.0	7	7	-	-	822146	807547	-	-	-	-
						1.0	0.4	168	21.7		8.3		31.8		99.0		7.2		4.3		7		-				-		-	
					Middle	4.1	0.4	181	21.8	21.8	8.2	8.2	31.8	31.8	96.5	96.2	7.0		4.0		7		-				-		-	
						4.1	0.5	182	21.8		8.2		31.9		95.9		7.0		4.0		6		-				-		-	
					Bottom	7.1	0.5	167	22.2	22.2	8.3	8.3	32.1	32.1	95.4	95.5	6.9	6.9	3.6		7		-				-		-	
						7.1	0.5	169	22.2		8.3		32.1		95.6		6.9		3.6		8		-				-		-	
SR4A	Sunny	Rough	04:08	10.1	Surface	1.0	0.4	76	21.7	21.7	8.0	8.0	32.1	32.1	96.1	96.1	6.9	6.9	3.5	5.8	9	9	-	-	817205	807822	-	-	-	-
						1.0	0.4	81	21.7		8.0		32.1		96.0		6.9		3.5		10		-				-		-	
					Middle	5.1	0.3	73	21.7	21.7	8.0	8.0	32.5	32.5	96.0	95.9	6.9		5.2		9		-				-		-	
						5.1	0.3	74	21.7		8.0		32.5		95.8		6.9		5.3		9		-				-		-	
					Bottom	9.1	0.3	46	21.8	21.8	8.1	8.1	32.9	32.9	97.0	97.1	7.0	7.0	8.6		8		-				-		-	
						9.1	0.4	46	21.8		8.1		32.9		97.2		7.0		8.7		7		-				-		-	
SR5A	Sunny	Rough	03:49	3.2	Surface	1.0	0.1	49	22.0	22.0	8.1	8.1	32.2	32.2	96.9	97.0	7.0	7.0	6.3	9.5	9	9	-	-	816581	810673	-	-	-	-
						1.0	0.1	50	22.0		8.1		32.2		97.1		7.0		6.3		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.2	42	21.8	21.8	8.1	8.1	32.2	32.2	95.8	95.7	6.9	6.9	12.7		9		-				-		-	
						2.2	0.2	42	21.8		8.1		32.2		95.6		6.9		12.7		10		-				-		-	
SR6A	Sunny	Rough	03:21	4.1	Surface	1.0	0.0	86	22.0	22.0	8.1	8.1	32.2	32.2	97.2	97.2	7.0	7.0	2.6	4.3	9	10	-	-	817945	814759	-	-	-	-
						1.0	0.0	105	22.0		8.1		32.2		97.1		7.0		2.7		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	127	21.7	21.7	8.1	8.1	32.2	32.2	93.9	94.3	6.8	6.8	5.9		9		-				-		-	
						3.1	0.1	139	21.7		8.1		32.2		94.6		6.8		5.9		10		-				-		-	
SR7	Fine	Rough	03:20	16.7	Surface	1.0	0.6	75	22.8	22.8	8.2	8.2	33.4	33.4	92.5	92.5	6.6	6.6	3.1	4.0	6	6	-	-	823622	823740	-	-	-	-
						1.0	0.7	81	22.8		8.2		33.4		92.5		6.6		3.1		7		-				-		-	
					Middle	8.4	0.1	71	22.8	22.8	8.1	8.1	33.4	33.4	92.0	92.0	6.5		3.8		6		-				-		-	
						8.4	0.1	72	22.8		8.1		33.4		92.0		6.5		3.8		7		-				-		-	
					Bottom	15.7	0.1	300	22.8	22.8	8.1	8.1	33.4	33.4	92.0	92.1	6.5	6.5	5.0		5		-				-		-	
						15.7	0.1	304	22.8		8.1		33.4		92.2		6.5		5.1		6		-				-		-	
SR8	Fine	Moderate	04:46	3.8	Surface	1.0	-	-	21.9	22.0	8.2	8.2	32.0	32.0	93.6	93.2	6.8	6.8	6.2	8.0	9	9	-	-	820409	811624	-	-	-	-
						1.0	-	-	22.0		8.2		32.1		92.7		6.7		6.7		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	-	-	22.3	22.3	8.2	8.2	32.5	32.5	91.3	91.4	6.6	6.6	9.5		9		-				-		-	
						2.8	-	-	22.3		8.2		32.5		91.4		6.6		9.4		8		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Rough	17:00	7.3	Surface	1.0	0.3	352	22.1	22.1	8.0	8.0	33.8	33.8	99.9	99.9	7.1	7.1	7.3	7.2	6	12	82	87	815628	804246	<0.2	<0.2	0.8	0.9
						1.0	0.3	16	22.1		8.0		33.8		99.8		7.1		7.3		7		83				<0.2		0.9	
					Middle	3.7	0.3	2	22.1	22.1	8.0	8.0	33.9	33.9	99.8	99.7	7.1		7.2		14		86				<0.2		0.9	
						3.7	0.3	2	22.1		8.0		33.9		99.6		7.1		7.2		13		86				<0.2		0.9	
					Bottom	6.3	0.3	357	22.1	22.1	8.0	8.0	33.9	33.9	99.6	99.6	7.1	7.1	7.2		15		91				<0.2		0.8	
						6.3	0.3	28	22.1		8.0		33.9		99.5		7.1		7.2		15		91				<0.2		1.0	
C2	Fine	Rough	15:41	8.3	Surface	1.0	0.2	344	21.9	21.9	8.2	8.2	31.8	31.8	96.1	96.0	7.0	7.0	4.2	4.6	6	6	83	88	825674	806936	<0.2	<0.2	1.3	1.2
						1.0	0.3	357	21.9		8.2		31.8		95.8		7.0		4.2		6		87				<0.2		1.3	
					Middle	4.2	0.1	348	22.0	22.1	8.2	8.2	31.9	32.0	94.5	94.5	6.9		4.5		5		88				<0.2		1.3	
						4.2	0.1	355	22.1		8.2		32.0		94.5		6.9		4.5		6		87				<0.2		1.2	
					Bottom	7.3	0.1	350	22.2	22.2	8.2	8.2	32.1	32.1	94.9	95.0	6.9	6.9	5.2		7		92				<0.2		1.2	
						7.3	0.1	322	22.2		8.2		32.1		95.1		6.9		5.0		6		91				<0.2		1.1	
C3	Fine	Moderate	17:25	11.5	Surface	1.0	0.1	2	22.8	22.8	8.3	8.3	33.5	33.5	93.2	93.2	6.6	6.6	2.8	2.7	4	5	86	90	822127	817791	<0.2	<0.2	1.3	1.1
						1.0	0.1	2	22.8		8.3		33.5		93.2		6.6		2.8		6		86				<0.2		1.3	
					Middle	5.8	0.2	69	22.8	22.8	8.3	8.3	33.5	33.5	93.3	93.4	6.6		2.6		4		89				<0.2		1.0	
						5.8	0.2	72	22.8		8.3		33.5		93.4		6.6		2.7		5		90				<0.2		1.0	
					Bottom	10.5	0.2	74	22.8	22.8	8.3	8.3	33.5	33.5	94.1	94.3	6.7	6.7	2.7		5		93				<0.2		0.9	
						10.5	0.2	74	22.8		8.3		33.5		94.4		6.7		2.7		5		93				<0.2		1.0	
IM1	Fine	Rough	16:39	3.2	Surface	1.0	0.1	44	21.7	21.7	8.1	8.1	32.6	32.6	102.5	102.5	7.4	7.4	2.4	2.3	6	7	82	87	817960	807125	<0.2	<0.2	1.2	1.2
						1.0	0.1	46	21.7		8.1		32.6		102.5		7.4		2.4		7		83				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.2	351	21.7	21.7	8.1	8.1	32.6	32.6	102.5	102.6	7.4	7.4	2.2		7		90				<0.2		1.1	
						2.2	0.2	353	21.7		8.1		32.6		102.6		7.4		2.1		8		91				<0.2		1.1	
IM2	Fine	Rough	16:32	7.9	Surface	1.0	0.1	358	21.5	21.5	8.1	8.1	32.8	32.8	98.5	98.6	7.1	7.1	6.1	6.7	13	12	82	87	818173	806178	<0.2	<0.2	1.1	1.1
						1.0	0.1	329	21.5		8.1		32.8		98.7		7.1		6.1		12		83				<0.2		1.1	
					Middle	4.0	0.2	5	21.6	21.6	8.1	8.1	32.8	32.8	98.3	98.4	7.1		6.4		13		86				<0.2		1.0	
						4.0	0.2	5	21.6		8.1		32.8		98.4		7.1		6.5		15		87				<0.2		1.1	
					Bottom	6.9	0.2	33	21.7	21.7	8.1	8.1	33.2	33.2	99.8	99.7	7.2	7.2	7.6		9		90				<0.2		1.1	
						6.9	0.2	35	21.7		8.1		33.2		99.5		7.1		7.6		8		91				<0.2		1.1	
IM3	Fine	Rough	16:22	8.1	Surface	1.0	0.0	9	21.7	21.7	8.1	8.1	33.3	33.3	99.4	99.5	7.1	7.1	5.4	6.0	7	13	82	87	818776	805610	<0.2	<0.2	1.1	1.2
						1.0	0.0	9	21.7		8.1		33.3		99.5		7.1		5.4		13		83				<0.2		1.3	
					Middle	4.1	0.1	68	21.7	21.7	8.1	8.1	33.3	33.3	99.8	99.8	7.1		6.2		13		87				<0.2		1.2	
						4.1	0.1	69	21.7		8.1		33.3		99.8		7.2		6.2		15		87				<0.2		1.2	
					Bottom	7.1	0.0	50	21.7	21.7	8.1	8.1	33.3	33.3	99.6	99.7	7.1	7.1	6.5		14		90				<0.2		1.2	
						7.1	0.0	50	21.7		8.1		33.3		99.7		7.1		6.4		15		90				<0.2		1.1	
IM4	Fine	Rough	16:13	6.8	Surface	1.0	0.2	65	21.6	21.6	8.0	8.0	33.2	33.2	99.2	99.3	7.1	7.1	6.6	6.8	13	13	82	86	819704	804613	<0.2	<0.2	1.5	1.5
						1.0	0.3	66	21.6		8.0		33.2		99.4		7.1		6.5		12		83				<0.2		1.5	
					Middle	3.4	0.2	50	21.7	21.7	8.0	8.0	33.2	33.2	98.5	98.6	7.1		7.0		13		86				<0.2		1.5	
						3.4	0.2	51	21.7		8.0		33.2		98.6		7.1		7.0		12		86				<0.2		1.5	
					Bottom	5.8	0.2	56	21.7	21.7	8.0	8.0	33.2	33.2	99.3	99.3	7.1	7.1	6.9		13		90				<0.2		1.5	
						5.8	0.2	59	21.7		8.0		33.2		99.3		7.1		6.9		12		90				<0.2		1.5	
IM5	Fine	Rough	16:05	7.3	Surface	1.0	0.4	72	21.4	21.4	8.0	8.0	32.7	32.7	100.1	100.0	7.2	7.2	5.6	7.0	6	9	82	87	820738	804876	<0.2	<0.2	1.4	1.3
						1.0	0.4	73	21.4		8.0		32.7		99.9		7.2		5.6		4		83				<0.2		1.5	
					Middle	3.7	0.3	74	21.5	21.5	8.0	8.0	32.7	32.7	98.5	98.6	7.1		7.1		8		87				<0.2		1.2	
						3.7	0.3	79	21.5		8.0		32.7		98.6		7.1		7.2		13		88				<0.2		1.3	
					Bottom	6.3	0.3	83	21.5	21.5	8.0	8.0	32.8	32.8	99.3	99.3	7.2	7.2	8.3		12		90				<0.2		1.2	
						6.3	0.3	83	21.5		8.0		32.8		99.2		7.2		8.2		13		91				<0.2		1.2	
IM6	Fine	Rough	15:56	7.8	Surface	1.0	0.1	322	21.5	21.5	8.0	8.0	32.4	32.4	97.3	97.3	7.0	7.0	7.1	6.7	6	6	83	87	821045	805815	<0.2	<0.2	1.4	1.5
						1.0	0.1	323	21.5		8.0		32.4		97.2		7.0		7.1		7		83				<0.2		1.5	
					Middle	3.9	0.1	324	21.6	21.6	8.0	8.0	32.4	32.4	97.2	97.3	7.0		6.7		6		87				<0.2		1.5	
						3.9	0.1	347	21.6		8.0		32.4		97.3		7.0		6.7		6		87				<0.2		1.5	
					Bottom	6.8	0.1	327	21.6	21.6	8.0	8.0	32.4	32.4	97.6	97.5	7.0	7.0	6.3		5		90				<0.2		1.4	
						6.8	0.1	345	21.6		8.0		32.4		97.4		7.0		6.3		4		91				<0.2		1.5	
IM7	Fine	Rough	15:46	7.5	Surface	1.0	0.1	146	22.0	22.0	8.0	8.0	32.3	32.3	98.6	98.7	7.1	7.1	2.4	3.4	7	9	83	87	821357	806832	<0.2	<0.2	1.6	1.5
						1.0	0.1	150	22.0		8.0		32.3		98.7		7.1		2.4		7		83				<0.2		1.5	
					Middle	3.8	0.0	236	21.8	21.8	8.1	8.1	32.3	32.3	99.1	99.1	7.1		3.5		8		87				<0.2		1.4	
						3.8	0.0	256	21.8		8.1		32.3		99.0		7.1		3.6		11		87				<0.2		1.5	
					Bottom	6.5	0.0	198	21.6	21.6	8.1	8.1	32.4	32.4	98.6	98.6	7.1	7.1	4.3		10		90				<0.2		1.3	
						6.5	0.0	215	21.6		8.1		32.4		98.6		7.1		4.4		9		91				<0.2		1.5	
IM8	Fine	Rough	16:05	8.2	Surface	1.0	0.0	168	22.2	22.2	8.2	8.2	32.0	32.0	97.1	97.2	7.0	7.1	3.6	4.7	9	7	83	88	821819	808116	<0.2	<0.2	1.2	1.3
						1.0	0.0	174	22.1		8.2		32.0		97.2		7.0		3.8		8		83				<0.2		1.3	
					Middle	4.1	0.1	223	21.8	21.8	8.2	8.2	32.0	32.0	96.7	96.7	7.1		4.8		7		88				<0.2		1.1	
						4.1	0.1	225	21.8		8.2		32.0		96.7		7.1		4.8		6		88				<0.2		1.3	
					Bottom	7.2	0.1	177	21.7	21.7	8.2	8.2	32.0	32.0	96.8	96.9	7.1	7.1	5.7		6		91				<0.2		1.3	
						7.2	0.1	179	21.7		8.2		32.0		96.9		7.1		5.7		7		92				<0.2		1.4	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 03 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Rough	16:10	7.5	Surface	1.0	0.3	270	21.9	21.9	8.2	8.2	31.9	31.9	97.8	97.8	7.1	7.1	4.7	5.2	5	6	83	88	822075	808809	<0.2	<0.2	0.9	1.0
						1.0	0.3	292	21.9		8.2		31.9		97.8		7.1		4.7		6		83				<0.2		0.8	
					Middle	3.8	0.3	275	21.9	21.9	8.2	8.2	31.9	31.9	97.3	97.3	7.1		5.2		6	6	88				<0.2		1.2	
						3.8	0.3	292	21.9		8.2		32.0		97.2		7.1		5.3		6		88				<0.2		1.2	
					Bottom	6.5	0.4	267	21.9	21.9	8.2	8.2	32.0	32.0	97.2	97.3	7.1	7.1	5.5		6		91				<0.2		1.1	
						6.5	0.4	286	21.9		8.2		32.0		97.3		7.1		5.4		7		92				<0.2		1.0	
IM10	Fine	Rough	16:18	8.0	Surface	1.0	0.1	335	22.4	22.4	8.2	8.2	32.6	32.6	93.1	93.1	6.7	6.7	6.3	7.2	8	8	83	88	822404	809792	<0.2	<0.2	1.0	1.2
						1.0	0.1	345	22.4		8.2		32.6		93.1		6.7		6.1		9		84				<0.2		0.9	
					Middle	4.0	0.2	301	22.4	22.4	8.2	8.2	32.6	32.6	92.9	92.9	6.7		7.3		7		87				<0.2		1.2	
						4.0	0.2	309	22.4		8.2		32.6		92.9		6.7		7.4		7		88				<0.2		1.3	
					Bottom	7.0	0.2	310	22.4	22.4	8.2	8.2	32.6	32.6	93.6	93.9	6.7	6.8	8.1		7		92				<0.2		1.3	
						7.0	0.2	333	22.4		8.2		32.6		94.1		6.8		7.9		7		91				<0.2		1.4	
IM11	Fine	Rough	16:29	8.7	Surface	1.0	0.3	314	22.5	22.5	8.2	8.2	32.7	32.7	92.6	92.6	6.6	6.6	11.3	10.7	7	8	84	88	822052	811445	<0.2	<0.2	1.3	1.3
						1.0	0.3	317	22.5		8.2		32.7		92.6		6.6		10.9		6		83				<0.2		1.4	
					Middle	4.4	0.2	307	22.5	22.5	8.2	8.2	32.7	32.7	92.6	92.6	6.6		9.3		9		88				<0.2		1.3	
						4.4	0.2	310	22.5		8.2		32.7		92.6		6.6		9.3		8		88				<0.2		1.4	
					Bottom	7.7	0.1	354	22.5	22.5	8.2	8.2	32.7	32.7	92.6	92.7	6.6	6.6	11.7		9		92				<0.2		1.2	
						7.7	0.1	326	22.5		8.2		32.7		92.8		6.6		11.6		10		91				<0.2		1.1	
IM12	Fine	Rough	16:35	8.7	Surface	1.0	0.3	67	22.5	22.5	8.2	8.2	32.7	32.7	92.3	92.3	6.6	6.6	4.6	6.2	8	8	83	87	821448	812044	<0.2	<0.2	1.4	1.4
						1.0	0.3	67	22.5		8.2		32.7		92.3		6.6		4.7		8		83				<0.2		1.5	
					Middle	4.4	0.2	71	22.5	22.5	8.2	8.2	32.8	32.8	92.1	92.2	6.6		6.0		7		87				<0.2		1.3	
						4.4	0.2	71	22.5		8.2		32.8		92.2		6.6		6.3		8		87				<0.2		1.5	
					Bottom	7.7	0.1	45	22.5	22.5	8.2	8.2	32.8	32.8	92.9	93.1	6.7	6.7	7.8		9		91				<0.2		1.4	
						7.7	0.1	46	22.5		8.2		32.8		93.2		6.7		8.0		8		91				<0.2		1.3	
SR1A	Fine	Calm	16:52	4.3	Surface	1.0	-	-	21.8	21.8	8.3	8.3	31.9	31.9	97.0	97.1	7.1	7.1	7.1	7.5	8	8	-	-	819983	812657	-	-	-	-
						1.0	-	-	21.8		8.3		32.0		97.1		7.1		7.2		9		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	21.8	21.8	8.3	8.3	31.9	31.9	98.1	98.2	7.2	7.2	7.9		7		-				-		-	
						3.3	-	-	21.8		8.3		31.9		98.3		7.2		7.7		8		-				-		-	
SR2	Fine	Moderate	17:05	5.0	Surface	1.0	0.2	54	22.5	22.5	8.2	8.2	32.8	32.8	93.3	93.2	6.7	6.7	3.8	4.9	10	9	84	86	821461	814185	<0.2	<0.2	1.4	1.3
						1.0	0.2	59	22.5		8.2		32.8		93.1		6.7		4.0		11		84				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	108	22.6	22.6	8.2	8.2	33.1	33.1	92.9	93.0	6.6	6.7	6.0		8		87				<0.2		1.3	
						4.0	0.1	118	22.6		8.2		33.1		93.1		6.7		5.9		7		88				<0.2		1.3	
SR3	Fine	Rough	16:00	8.9	Surface	1.0	0.1	311	21.9	21.9	8.2	8.2	32.0	32.0	97.9	97.9	7.1	7.1	5.0	8.2	8	7	-	-	822130	807583	-	-	-	-
						1.0	0.1	329	21.9		8.2		32.0		97.9		7.1		5.3		7		-				-		-	
					Middle	4.5	0.1	292	21.6	21.6	8.2	8.2	32.0	32.0	97.4	97.4	7.1		8.8		7		-				-		-	
						4.5	0.1	316	21.6		8.2		32.1		97.4		7.1		9.2		6		-				-		-	
					Bottom	7.9	0.1	304	21.5	21.5	8.3	8.3	32.1	32.1	98.0	98.1	7.2	7.2	10.6		7		-				-		-	
						7.9	0.1	314	21.5		8.3		32.1		98.2		7.2		10.6		6		-				-		-	
SR4A	Fine	Rough	17:22	9.4	Surface	1.0	0.4	210	21.6	21.6	8.0	8.0	32.7	32.7	102.1	102.1	7.4	7.3	4.5	5.7	14	13	-	-	817180	807825	-	-	-	-
						1.0	0.4	211	21.6		8.0		32.7		102.0		7.3		4.5		15		-				-		-	
					Middle	4.7	0.4	225	21.6	21.6	8.0	8.0	32.7	32.7	101.4	101.5	7.3		4.9		13		-				-		-	
						4.7	0.4	223	21.6		8.0		32.7		101.5		7.3		4.9		11		-				-		-	
					Bottom	8.4	0.3	208	21.7	21.7	8.0	8.0	32.7	32.7	100.9	100.9	7.3	7.3	7.5		11		-				-		-	
						8.4	0.3	213	21.7		8.0		32.7		100.9		7.3		7.7		11		-				-		-	
SR5A	Fine	Rough	17:38	3.8	Surface	1.0	0.2	196	21.6	21.6	8.0	8.0	32.2	32.2	97.7	97.7	7.1	7.1	3.7	4.0	9	9	-	-	816600	810687	-	-	-	-
						1.0	0.2	196	21.6		8.0		32.2		97.6		7.1		3.7		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	219	21.5	21.5	8.0	8.0	32.1	32.1	99.1	99.2	7.2	7.2	4.4		8		-				-		-	
						2.8	0.1	235	21.5		8.0		32.1		99.3		7.2		4.3		9		-				-		-	
SR6A	Fine	Rough	18:05	3.7	Surface	1.0	0.0	277	22.2	22.2	8.0	8.0	32.6	32.6	97.9	97.8	7.0	7.0	2.8	3.1	11	11	-	-	817942	814756	-	-	-	-
						1.0	0.0	293	22.2		8.0		32.6		97.6		7.0		2.9		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.0	227	22.3	22.3	8.0	8.0	32.7	32.7	97.5	97.5	6.9	6.9	3.3		10		-				-		-	
						2.7	0.0	248	22.3		8.0		32.7		97.5		6.9		3.3		9		-				-		-	
SR7	Fine	Moderate	18:05	15.4	Surface	1.0	0.2	19	22.8	22.8	8.3	8.3	33.5	33.5	95.1	95.2	6.8	6.8	3.5	3.7	7	5	-	-	823626	823721	-	-	-	-
						1.0	0.2	20	22.8		8.3		33.5		95.2		6.8		3.6		6		-				-		-	
					Middle	7.7	0.3	342	22.8	22.8	8.3	8.3	33.5	33.5	95.7	95.8	6.8		3.9		5		-				-		-	
						7.7	0.3	357	22.8		8.3		33.5		95.8		6.8		3.7		4		-				-		-	
					Bottom	14.4	0.2	346	22.8	22.8	8.3	8.3	33.5	33.5	97.4	97.6	6.9	6.9	3.6		4		-				-		-	
						14.4	0.2	318	22.8		8.3		33.5		97.7		6.9		3.7		3		-				-		-	
SR8	Fine	Calm	16:45	4.2	Surface	1.0	-	-	22.3	22.3	8.2	8.2	32.4	32.4	94.5	94.6	6.8	6.8	5.6	5.3	6	7	-	-	820388	811610	-	-	-	-
						1.0	-	-	22.3		8.2		32.4		94.7		6.8		5.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	22.3	22.3	8.2	8.2	32.5	32.5	95.4	95.7	6.9	6.9	5.1		8		-				-		-	
						3.2	-	-	22.3		8.2		32.5		95.9		6.9		5.1		8		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 05 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Rainy	Rough	06:24	8.3	Surface	1.0	0.1	142	20.3	20.3	8.0	8.0	33.6	33.6	101.7	101.7	7.5	7.5	2.6	3.4	8	9	84	86	815635	804230	<0.2	<0.2	0.6	0.6
						1.0	0.1	134	20.3		8.0		33.6		101.7		7.5		2.7		9		85				<0.2		0.5	
					Middle	4.2	0.1	129	20.3	20.3	8.0	8.0	33.6	33.6	101.2	101.3	7.4		3.4		8		86				<0.2		0.6	
						4.2	0.1	139	20.3		8.0		33.6		101.3		7.4		3.5		10		87				<0.2		0.7	
					Bottom	7.3	0.0	113	20.3	20.3	8.0	8.0	33.6	33.6	102.1	102.2	7.5	7.5	4.0		9		88				<0.2		0.6	
						7.3	0.0	120	20.3		8.0		33.6		102.2		7.5		4.1		10		88				<0.2		0.7	
C2	Rainy	Moderate	07:46	9.6	Surface	1.0	0.3	159	21.1	21.1	8.1	8.1	32.1	32.1	94.5	94.5	7.0	6.9	3.5	4.2	7	7	85	86	825693	806927	<0.2	<0.2	1.1	1.0
						1.0	0.3	140	21.1		8.1		32.1		94.5		7.0		3.5		7		84				<0.2		1.0	
					Middle	4.8	0.4	135	21.6	21.6	8.1	8.1	32.9	32.9	92.8	92.8	6.8		3.0		6		86				<0.2		1.1	
						4.8	0.4	138	21.6		8.1		32.9		92.8		6.8		3.0		6		86				<0.2		1.0	
					Bottom	8.6	0.5	144	21.7	21.7	8.1	8.1	33.1	33.1	91.6	91.7	6.6	6.6	6.1		8		88				<0.2		0.8	
						8.6	0.6	145	21.7		8.1		33.1		91.7		6.6		6.1		8		87				<0.2		1.0	
C3	Rainy	Moderate	05:44	11.5	Surface	1.0	0.3	78	22.1	22.1	8.1	8.1	33.5	33.5	93.3	93.3	6.7	6.7	2.2	3.2	5	5	85	87	822106	817782	<0.2	<0.2	0.4	0.5
						1.0	0.3	81	22.1		8.1		33.5		93.3		6.7		2.2		4		85				<0.2		0.4	
					Middle	5.8	0.1	129	22.1	22.1	8.1	8.1	33.5	33.5	93.2	93.2	6.7		2.3		5		87				<0.2		0.4	
						5.8	0.1	136	22.1		8.1		33.5		93.2		6.7		2.3		4		87				<0.2		0.5	
					Bottom	10.5	0.2	128	22.0	22.0	8.1	8.1	33.5	33.5	92.9	92.9	6.7	6.7	5.1		5		89				<0.2		0.7	
						10.5	0.2	129	22.0		8.1		33.5		92.9		6.7		5.1		6		88				<0.2		0.6	
IM1	Rainy	Moderate	06:37	4.8	Surface	1.0	0.0	129	20.4	20.4	8.0	8.0	33.5	33.5	100.8	100.8	7.4	7.4	3.6	3.9	11	11	83	85	817930	807123	<0.2	<0.2	0.6	0.7
						1.0	0.0	140	20.4		8.0		33.5		100.7		7.4		3.7		10		84				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	241	20.4	20.4	8.0	8.0	33.5	33.5	101.5	101.6	7.4	7.4	4.2		10		87				<0.2		0.8	
						3.8	0.0	253	20.4		8.0		33.5		101.6		7.4		4.2		11		87				<0.2		0.7	
IM2	Rainy	Moderate	06:46	7.1	Surface	1.0	0.1	129	20.4	20.4	8.0	8.0	33.6	33.6	99.8	99.9	7.3	7.3	2.9	4.6	11	10	84	86	818184	806157	<0.2	<0.2	0.7	0.8
						1.0	0.1	130	20.4		8.0		33.6		99.9		7.3		3.0		10		85				<0.2		0.8	
					Middle	3.6	0.1	122	20.4	20.4	8.0	8.0	33.6	33.6	100.1	100.1	7.3		3.5		11		86				<0.2		0.8	
						3.6	0.1	123	20.4		8.0		33.6		100.1		7.3		3.5		10		87				<0.2		0.8	
					Bottom	6.1	0.1	130	20.4	20.4	8.0	8.0	33.7	33.7	99.1	99.0	7.2	7.2	7.1		10		88				<0.2		0.7	
						6.1	0.1	131	20.4		8.0		33.7		98.9		7.2		7.3		9		88				<0.2		0.8	
IM3	Rainy	Rough	06:56	7.0	Surface	1.0	0.3	136	20.3	20.3	8.0	8.0	33.5	33.5	99.9	99.8	7.3	7.3	3.1	3.1	8	9	83	85	818798	805595	<0.2	<0.2	0.7	0.7
						1.0	0.3	136	20.3		8.0		33.5		99.6		7.3		3.2		8		84				<0.2		0.7	
					Middle	3.5	0.2	134	20.3	20.3	8.0	8.0	33.5	33.5	99.0	99.2	7.3		2.9		10		85				<0.2		0.7	
						3.5	0.2	132	20.3		8.0		33.5		99.3		7.3		3.0		9		85				<0.2		0.7	
					Bottom	6.0	0.2	113	20.3	20.3	8.0	8.0	33.5	33.5	99.3	99.4	7.3	7.3	3.2		9		87				<0.2		0.8	
						6.0	0.3	121	20.3		8.0		33.6		99.4		7.3		3.4		10		87				<0.2		0.8	
IM4	Rainy	Rough	07:06	7.4	Surface	1.0	0.4	202	20.3	20.3	8.0	8.0	33.4	33.3	100.4	100.3	7.4	7.4	2.6	2.9	11	9	85	87	819717	804622	<0.2	<0.2	0.8	0.6
						1.0	0.4	223	20.3		8.0		33.3		100.2		7.4		2.6		12		85				<0.2		0.6	
					Middle	3.7	0.5	234	20.3	20.3	8.0	8.0	33.4	33.4	100.6	100.7	7.4		2.7		9		87				<0.2		0.6	
						3.7	0.5	235	20.3		8.0		33.4		100.8		7.4		2.7		9		87				<0.2		0.6	
					Bottom	6.4	0.4	236	20.3	20.3	8.0	8.0	33.5	33.5	100.9	101.1	7.4	7.4	3.5		7		88				<0.2		0.6	
						6.4	0.4	233	20.3		8.0		33.5		101.2		7.4		3.5		8		89				<0.2		0.6	
IM5	Rainy	Rough	07:16	7.3	Surface	1.0	0.4	212	20.4	20.4	8.0	8.0	33.3	33.3	100.1	100.2	7.3	7.3	2.6	3.2	8	8	84	87	820724	804868	<0.2	<0.2	0.8	0.7
						1.0	0.4	208	20.4		8.0		33.4		100.2		7.4		2.6		9		85				<0.2		0.8	
					Middle	3.7	0.4	221	20.4	20.4	8.0	8.0	33.4	33.4	100.0	100.1	7.3		3.1		9		87				<0.2		0.7	
						3.7	0.4	222	20.4		8.0		33.4		100.1		7.3		3.2		8		87				<0.2		0.6	
					Bottom	6.3	0.3	207	20.4	20.4	8.0	8.0	33.5	33.5	99.7	99.8	7.3	7.3	3.8		7		89				<0.2		0.7	
						6.3	0.3	203	20.4		8.0		33.5		99.8		7.3		3.9		7		89				<0.2		0.6	
IM6	Rainy	Rough	07:23	7.9	Surface	1.0	0.1	198	20.4	20.3	8.0	8.0	33.2	33.2	100.4	100.3	7.4	7.4	2.7	3.6	7	7	84	87	821070	805835	<0.2	<0.2	0.7	0.7
						1.0	0.2	182	20.3		8.0		33.2		100.1		7.4		2.8		8		84				<0.2		0.6	
					Middle	4.0	0.2	192	20.3	20.3	8.0	8.0	33.3	33.3	100.3	100.3	7.4		3.5		7		87				<0.2		0.7	
						4.0	0.2	199	20.3		8.0		33.3		100.2		7.4		3.6		7		87				<0.2		0.7	
					Bottom	6.9	0.1	202	20.3	20.3	8.0	8.0	33.4	33.4	100.8	101.0	7.4	7.4	4.4		7		89				<0.2		0.7	
						6.9	0.1	210	20.3		8.0		33.4		101.1		7.4		4.3		8		89				<0.2		0.8	
IM7	Rainy	Rough	07:32	7.6	Surface	1.0	0.0	184	20.4	20.4	8.0	8.0	33.1	33.1	100.5	100.7	7.4	7.4	1.5	1.9	7	7	86	88	821327	806852	<0.2	<0.2	0.7	0.7
						1.0	0.0	175	20.4		8.0		33.1		100.9		7.4		1.6		6		88				<0.2		0.7	
					Middle	3.8	0.2	198	20.4	20.4	8.0	8.0	33.1	33.2	100.3	100.2	7.4		1.8		7		87				<0.2		0.8	
						3.8	0.2	171	20.4		8.0		33.2		100.1		7.3		2.0		8		87				<0.2		0.6	
					Bottom	6.6	0.2	160	20.4	20.4	8.0	8.0	33.2	33.2	101.8	101.9	7.5	7.5	2.2		8		88				<0.2		0.6	
						6.6	0.2	168	20.4		8.0		33.2		101.9		7.5		2.2		7		89				<0.2		0.6	
IM8	Rainy	Moderate	07:26	7.1	Surface	1.0	0.2	186	20.4	20.4	8.2	8.2	32.9	32.9	98.6	98.6	7.3	7.3	5.5	6.1	8	9	84	86	821813	808143	<0.2	<0.2	0.7	0.7
						1.0	0.2	191	20.4		8.2		32.9		98.6		7.3		5.5		8		84				<0.2		0.7	
					Middle	3.6	0.2	194	20.4	20.4	8.2	8.2	32.9	32.9	98.5	98.5	7.3		5.7		9		86				<0.2		0.7	
						3.6	0.2	194	20.4		8.2		32.9		98.5		7.3		5.7		10		85				<0.2		0.6	
					Bottom	6.1	0.1	163	20.4	20.4	8.2	8.2	32.9	32.9	98.4	98.5	7.3	7.3	7.0		10		87				<0.2		0.6	
						6.1	0.1	165	20.4		8.2		32.9		98.5		7.3		7.1		11		87				<0.2		0.6	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 05 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Rainy	Moderate	07:21	6.8	Surface	1.0	0.2	152	20.4	20.4	8.2	8.2	32.9	32.9	98.3	98.3	7.3	7.3	6.4	7.0	11	10	85	86	822100	808807	<0.2	<0.2	0.7	0.7
						1.0	0.2	156	20.4		8.2		32.9		98.3		7.3		6.5		10		84				<0.2		0.6	
					Middle	3.4	0.3	179	20.4	20.4	8.2	8.2	32.9	32.9	98.3	98.3	7.3		6.8		12		86				<0.2		0.7	
						3.4	0.3	180	20.4		8.2		32.9		98.3		7.3		6.8		11		85				<0.2		0.8	
					Bottom	5.8	0.1	155	20.4	20.4	8.2	8.2	32.9	32.9	98.2	98.2	7.3	7.3	7.7		8		87				<0.2		0.6	
						5.8	0.1	160	20.4		8.2		32.9		98.2		7.3		7.7		7		87				<0.2		0.6	
IM10	Rainy	Moderate	07:14	6.9	Surface	1.0	0.1	143	20.4	20.4	8.2	8.2	32.9	32.9	97.7	97.7	7.3	7.3	5.4	6.1	8	10	84	86	822392	809792	<0.2	<0.2	0.8	0.7
						1.0	0.2	144	20.4		8.2		32.9		97.7		7.3		5.4		9		85				<0.2		0.7	
					Middle	3.5	0.2	130	20.4	20.4	8.2	8.2	32.9	32.9	97.5	97.5	7.3		6.4		8		86				<0.2		0.7	
						3.5	0.2	141	20.4		8.2		32.9		97.5		7.3		6.4		10		85				<0.2		0.6	
					Bottom	5.9	0.2	129	20.4	20.4	8.2	8.2	32.9	32.9	97.4	97.4	7.2	7.2	6.6		11		87				<0.2		0.5	
						5.9	0.2	131	20.4		8.2		32.9		97.4		7.2		6.6		11		87				<0.2		0.7	
IM11	Rainy	Moderate	07:04	7.5	Surface	1.0	0.1	137	21.1	21.1	8.1	8.1	33.0	33.0	94.8	94.8	7.0	7.0	3.3	3.5	6	6	84	86	822073	811440	<0.2	<0.2	0.6	0.6
						1.0	0.1	132	21.1		8.1		33.0		94.8		7.0		3.3		7		85				<0.2		0.7	
					Middle	3.8	0.1	139	21.1	21.1	8.1	8.1	33.0	33.0	94.7	94.7	6.9		3.5		5		85				<0.2		0.6	
						3.8	0.1	138	21.1		8.1		33.0		94.7		6.9		3.5		5		86				<0.2		0.6	
					Bottom	6.5	0.1	136	21.2	21.2	8.1	8.1	33.0	33.0	94.7	94.8	6.9	6.9	3.6		5		87				<0.2		0.6	
						6.5	0.1	137	21.2		8.1		33.0		94.8		6.9		3.6		5		86				<0.2		0.5	
IM12	Rainy	Moderate	06:58	8.3	Surface	1.0	0.2	126	21.3	21.3	8.1	8.1	33.0	33.0	92.6	92.6	6.8	6.8	4.3	4.6	8	7	84	86	821443	812068	<0.2	<0.2	0.6	0.6
						1.0	0.2	127	21.3		8.1		33.0		92.6		6.8		4.3		7		84				<0.2		0.5	
					Middle	4.2	0.2	132	21.3	21.3	8.1	8.1	33.0	33.0	92.6	92.7	6.8		4.6		8		86				<0.2		0.6	
						4.2	0.2	124	21.3		8.1		33.0		92.7		6.8		4.7		7		86				<0.2		0.6	
					Bottom	7.3	0.2	119	21.2	21.2	8.1	8.1	33.0	33.0	92.9	93.0	6.8	6.8	4.9		7		88				<0.2		0.6	
						7.3	0.2	126	21.2		8.1		33.0		93.0		6.8		4.8		6		87				<0.2		0.6	
SR1A	Rainy	Moderate	06:23	5.1	Surface	1.0	-	-	20.7	20.7	8.1	8.1	32.5	32.5	92.5	92.5	6.9	6.9	3.4	3.4	6	6	-	-	819978	812666	-	-	-	-
						1.0	-	-	20.7		8.1		32.5		92.5		6.9		3.4		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	20.9	20.9	8.1	8.1	32.7	32.7	93.5	93.5	6.9	6.9	3.5		7		-				-		-	
						4.1	-	-	20.9		8.1		32.7		93.4		6.9		3.5		6		-				-		-	
SR2	Rainy	Moderate	06:05	4.9	Surface	1.0	0.2	20	21.6	21.6	8.1	8.1	33.3	33.3	93.5	93.5	6.8	6.8	2.9	3.2	5	5	86	87	821442	814176	<0.2	<0.2	0.6	0.5
						1.0	0.2	21	21.6		8.1		33.3		93.5		6.8		2.9		4		86				<0.2		0.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	68	21.7	21.7	8.1	8.1	33.3	33.3	93.6	93.7	6.8	6.8	3.5		5		88				<0.2		0.4	
						3.9	0.1	69	21.7		8.1		33.3		93.7		6.8		3.5		6		88				<0.2		0.5	
SR3	Rainy	Moderate	07:31	8.2	Surface	1.0	0.3	198	20.4	20.4	8.2	8.2	32.8	32.8	98.0	98.0	7.3	7.3	3.3	3.7	7	5	-	-	822165	807570	-	-	-	-
						1.0	0.3	170	20.4		8.2		32.8		98.0		7.3		3.3		7		-				-		-	
					Middle	4.1	0.4	175	20.4	20.4	8.2	8.2	32.8	32.8	97.8	97.8	7.3		3.6		5		-				-		-	
						4.1	0.4	181	20.4		8.2		32.8		97.8		7.3		3.6		4		-				-		-	
					Bottom	7.2	0.5	170	20.4	20.4	8.2	8.2	32.8	32.8	97.4	97.4	7.2	7.2	4.1		3		-				-		-	
						7.2	0.5	176	20.4		8.2		32.8		97.4		7.2		4.1		4		-				-		-	
SR4A	Fine	Calm	06:13	8.9	Surface	1.0	0.4	76	20.5	20.5	8.0	8.0	32.8	32.8	97.0	96.9	7.1	7.1	2.6	4.5	7	7	-	-	817209	807801	-	-	-	-
						1.0	0.4	83	20.5		8.0		32.8		96.8		7.1		2.7		8		-				-		-	
					Middle	4.5	0.3	84	20.5	20.5	8.0	8.0	33.0	33.0	96.7	96.7	7.1		3.8		8		-				-		-	
						4.5	0.3	89	20.5		8.0		33.0		96.7		7.1		4.0		8		-				-		-	
					Bottom	7.9	0.3	32	20.5	20.5	8.1	8.1	33.4	33.4	97.4	97.4	7.1	7.1	6.8		6		-				-		-	
						7.9	0.3	34	20.5		8.1		33.4		97.4		7.1		6.9		5		-				-		-	
SR5A	Fine	Calm	05:57	3.4	Surface	1.0	0.1	67	20.6	20.6	8.2	8.2	32.7	32.7	98.3	98.5	7.2	7.2	4.4	5.6	8	8	-	-	816614	810715	-	-	-	-
						1.0	0.1	68	20.6		8.2		32.7		98.7		7.2		4.5		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.4	0.2	32	20.6	20.6	8.2	8.2	32.7	32.7	98.6	98.7	7.2	7.2	6.5		8		-				-		-	
						2.4	0.2	34	20.6		8.2		32.7		98.8		7.2		7.0		9		-				-		-	
SR6A	Fine	Calm	05:31	4.2	Surface	1.0	0.0	98	20.5	20.6	8.1	8.1	32.3	32.3	93.1	93.1	6.9	6.9	4.7	6.1	6	6	-	-	817973	814717	-	-	-	-
						1.0	0.0	99	20.7		8.1		32.2		93.0		6.8		5.2		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	116	21.1	21.1	8.1	8.1	33.0	33.0	95.1	95.5	6.9	7.0	7.2		6		-				-		-	
						3.2	0.0	132	21.1		8.2		33.0		95.8		7.0		7.2		7		-				-		-	
SR7	Rainy	Moderate	05:14	15.4	Surface	1.0	0.6	78	22.2	22.2	8.1	8.0	33.5	33.5	92.6	92.6	6.6	6.6	2.9	2.8	5	5	-	-	823654	823752	-	-	-	-
						1.0	0.7	79	22.2		8.0		33.5		92.6		6.6		2.9		6		-				-		-	
					Middle	7.7	0.1	54	22.2	22.2	8.0	8.0	33.5	33.5	92.5	92.5	6.6		2.7		4		-				-		-	
						7.7	0.1	58	22.2		8.0		33.5		92.5		6.6		2.7		5		-				-		-	
					Bottom	14.4	0.1	311	22.2	22.2	8.0	8.0	33.5	33.5	92.6	92.7	6.6	6.6	2.8		4		-				-		-	
						14.4	0.1	326	22.2		8.0		33.5		92.7		6.6		2.8		5		-				-		-	
SR8	Rainy	Moderate	06:46	4.7	Surface	1.0	-	-	20.8	20.8	8.1	8.1	32.8	32.8	94.2	94.2	7.0	7.0	6.2	5.6	8	8	-	-	820375	811613	-	-	-	-
						1.0	-	-	20.8		8.1		32.8		94.2		7.0		6.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	20.9	20.9	8.1	8.1	32.9	32.9	95.0	95.0	7.0	7.0	5.0		8		-				-		-	
						3.7	-	-	20.9		8.1		32.9		95.0		7.0		5.1		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 05 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Rough	14:41	8.2	Surface	1.0	0.1	335	20.6	20.6	8.1	8.1	34.0	34.0	99.5	99.5	7.2	7.2	2.5	2.6	7	7	85	87	815598	804226	<0.2	<0.2	0.6	0.7
						1.0	0.1	358	20.6		8.1		34.0		99.5		7.2		2.5		8		85				<0.2		0.6	
					Middle	4.1	0.1	320	20.6	20.6	8.1	8.1	34.0	34.0	98.9	99.0	7.2		2.7		8		88				<0.2		0.6	
						4.1	0.1	340	20.6		8.1		34.0		99.0		7.2		2.7		6		88				<0.2		0.7	
					Bottom	7.2	0.1	319	20.6	20.6	8.1	8.1	34.0	34.0	98.9	98.9	7.2	7.2	2.5		7		89				<0.2		0.7	
						7.2	0.1	348	20.6		8.1		34.0		98.8		7.2		2.5		8		89				<0.2		0.9	
C2	Rainy	Moderate	13:29	9.8	Surface	1.0	0.1	29	20.9	20.9	8.1	8.1	32.0	32.0	94.6	94.6	7.0	6.9	3.7	4.1	6	6	85	86	825668	806957	<0.2	<0.2	0.8	0.8
						1.0	0.1	30	20.9		8.1		32.0		94.6		7.0		3.7		6		84				<0.2		0.8	
					Middle	4.9	0.1	356	21.6	21.6	8.1	8.1	32.8	32.8	92.2	92.2	6.7		3.0		6		87				<0.2		0.8	
						4.9	0.1	328	21.6		8.1		32.8		92.1		6.7		3.1		6		86				<0.2		0.8	
					Bottom	8.8	0.1	18	21.7	21.7	8.1	8.1	33.1	33.1	91.8	91.8	6.7	6.7	5.5		6		87				<0.2		0.7	
						8.8	0.1	18	21.7		8.1		33.1		91.8		6.7		5.6		7		87				<0.2		0.8	
C3	Rainy	Moderate	15:48	11.7	Surface	1.0	0.0	234	22.2	22.2	8.1	8.1	33.5	33.5	92.9	92.9	6.7	6.7	2.2	2.8	6	5	85	87	822120	817795	<0.2	<0.2	0.6	0.6
						1.0	0.0	246	22.2		8.1		33.5		92.9		6.7		2.2		5		86				<0.2		0.7	
					Middle	5.9	0.1	259	22.2	22.2	8.1	8.1	33.5	33.5	92.8	92.8	6.7		2.7		4		87				<0.2		0.7	
						5.9	0.1	264	22.2		8.1		33.5		92.8		6.7		2.6		5		88				<0.2		0.5	
					Bottom	10.7	0.1	257	22.2	22.2	8.1	8.1	33.5	33.5	93.1	93.2	6.7	6.7	3.5		5		89				<0.2		0.6	
						10.7	0.1	269	22.2		8.1		33.5		93.2		6.7		3.5		4		89				<0.2		0.7	
IM1	Rainy	Moderate	14:20	4.3	Surface	1.0	0.2	2	20.3	20.3	8.1	8.1	33.5	33.5	102.2	102.3	7.5	7.5	3.1	3.2	7	7	83	85	817930	807138	<0.2	<0.2	0.6	0.7
						1.0	0.2	2	20.3		8.1		33.5		102.4		7.5		3.1		6		84				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	0	20.3	20.3	8.1	8.1	33.5	33.5	103.4	103.7	7.6	7.6	3.2		8		87				<0.2		0.7	
						3.3	0.2	0	20.3		8.1		33.5		103.9		7.6		3.2		7		87				<0.2		0.7	
IM2	Rainy	Moderate	14:12	6.6	Surface	1.0	0.2	349	20.3	20.3	8.1	8.1	33.3	33.3	100.5	100.5	7.4	7.4	2.3	3.0	5	6	85	87	818147	806147	<0.2	<0.2	0.7	0.8
						1.0	0.2	321	20.3		8.1		33.3		100.5		7.4		2.3		5		85				<0.2		0.7	
					Middle	3.3	0.2	27	20.3	20.3	8.1	8.1	33.4	33.4	100.5	100.5	7.4		2.7		7		87				<0.2		0.8	
						3.3	0.2	28	20.3		8.1		33.4		100.4		7.4		2.8		7		88				<0.2		0.9	
					Bottom	5.6	0.1	11	20.4	20.4	8.1	8.1	33.6	33.6	101.2	101.2	7.4	7.4	3.8		6		89				<0.2		0.8	
						5.6	0.1	11	20.4		8.1		33.6		101.2		7.4		3.9		6		89				<0.2		0.8	
IM3	Rainy	Moderate	14:04	6.7	Surface	1.0	0.1	77	20.2	20.2	8.1	8.1	33.7	33.7	101.4	101.2	7.4	7.4	3.0	3.3	6	7	84	86	818794	805570	<0.2	<0.2	0.7	0.7
						1.0	0.1	80	20.2		8.1		33.7		101.0		7.4		2.9		7		84				<0.2		0.8	
					Middle	3.4	0.1	64	20.2	20.2	8.1	8.1	33.7	33.7	100.9	101.0	7.4		3.2		7		87				<0.2		0.6	
						3.4	0.1	66	20.2		8.1		33.7		101.0		7.4		3.2		8		87				<0.2		0.7	
					Bottom	5.7	0.0	58	20.2	20.2	8.1	8.1	33.7	33.7	100.7	100.9	7.4	7.4	3.7		7		88				<0.2		0.7	
						5.7	0.0	58	20.2		8.1		33.7		101.1		7.4		3.9		7		88				<0.2		0.7	
IM4	Rainy	Moderate	13:54	7.4	Surface	1.0	0.2	28	20.3	20.3	8.1	8.1	33.5	33.5	100.3	100.1	7.4	7.4	3.6	3.5	8	8	83	86	819738	804595	<0.2	<0.2	0.7	0.6
						1.0	0.2	30	20.3		8.1		33.5		99.9		7.3		3.5		8		84				<0.2		0.6	
					Middle	3.7	0.2	30	20.3	20.3	8.1	8.1	33.5	33.5	100.2	100.3	7.3		3.4		9		87				<0.2		0.7	
						3.7	0.2	31	20.3		8.1		33.5		100.3		7.4		3.4		8		88				<0.2		0.6	
					Bottom	6.4	0.2	42	20.3	20.3	8.1	8.1	33.5	33.5	101.1	101.3	7.4	7.4	3.5		7		88				<0.2		0.5	
						6.4	0.2	45	20.3		8.1		33.5		101.4		7.4		3.5		8		88				<0.2		0.6	
IM5	Rainy	Moderate	13:45	6.8	Surface	1.0	0.1	247	20.4	20.4	8.1	8.1	33.5	33.5	99.9	99.9	7.3	7.3	4.6	5.0	10	12	84	86	820747	804844	<0.2	<0.2	1.5	1.5
						1.0	0.1	249	20.4		8.1		33.5		99.8		7.3		4.6		10		84				<0.2		1.6	
					Middle	3.4	0.1	238	20.4	20.4	8.1	8.1	33.5	33.5	99.7	99.7	7.3		4.4		13		86				<0.2		1.5	
						3.4	0.2	239	20.4		8.1		33.5		99.7		7.3		4.4		12		87				<0.2		1.5	
					Bottom	5.8	0.1	257	20.4	20.4	8.1	8.1	33.5	33.5	100.3	100.4	7.4	7.4	5.8		12		88				<0.2		1.4	
						5.8	0.1	266	20.4		8.1		33.5		100.4		7.4		6.0		13		89				<0.2		1.3	
IM6	Rainy	Moderate	13:37	6.7	Surface	1.0	0.1	286	20.3	20.3	8.1	8.1	33.3	33.3	100.6	100.7	7.4	7.4	2.4	3.0	4	7	85	87	821041	805822	<0.2	<0.2	1.4	1.3
						1.0	0.1	309	20.3		8.1		33.3		100.7		7.4		2.4		6		85				<0.2		1.3	
					Middle	3.4	0.1	294	20.3	20.3	8.1	8.1	33.4	33.4	100.9	100.6	7.4		3.3		6		87				<0.2		1.2	
						3.4	0.1	315	20.3		8.1		33.4		100.3		7.4		3.3		8		88				<0.2		1.2	
					Bottom	5.7	0.1	293	20.3	20.3	8.1	8.1	33.4	33.4	101.6	101.7	7.5	7.5	3.4		7		89				<0.2		1.2	
						5.7	0.1	303	20.3		8.1		33.4		101.7		7.5		3.4		8		89				<0.2		1.3	
IM7	Rainy	Moderate	13:29	7.9	Surface	1.0	0.0	220	20.4	20.4	8.1	8.1	33.1	33.1	99.9	99.8	7.3	7.3	2.5	4.2	7	6	84	87	821355	806824	<0.2	<0.2	0.8	0.7
						1.0	0.0	236	20.4		8.1		33.1		99.7		7.3		2.5		6		84				<0.2		0.7	
					Middle	4.0	0.1	186	20.4	20.4	8.1	8.1	33.1	33.1	100.2	100.1	7.4		3.4		6		87				<0.2		0.7	
						4.0	0.1	195	20.4		8.1		33.1		100.0		7.3		3.4		5		87				<0.2		0.7	
					Bottom	6.9	0.1	192	20.4	20.4	8.0	8.0	33.2	33.2	100.3	100.4	7.4	7.4	6.5		5		88				<0.2		0.7	
						6.9	0.1	209	20.4		8.0		33.2		100.4		7.4		6.6		6		89				<0.2		0.7	
IM8	Rainy	Moderate	13:54	7.7	Surface	1.0	0.1	92	20.3	20.3	8.2	8.2	32.8	32.8	99.0	99.0	7.4	7.4	4.3	4.5	6	6	85	87	821830	808128	<0.2	<0.2	1.7	1.3
						1.0	0.1	100	20.3		8.2		32.8		99.0		7.4		4.3		5		85				<0.2		1.8	
					Middle	3.9	0.1	89	20.3	20.3	8.2	8.2	32.8	32.8	98.7	98.7	7.4		4.4		6		87				<0.2		1.1	
						3.9	0.1	90	20.3		8.2		32.8		98.7		7.4		4.4		5		87				<0.2		1.2	
					Bottom	6.7	0.1	86	20.3	20.3	8.2	8.2	32.9	32.9	98.4	98.4	7.3	7.3	4.8		7		87				<0.2		1.0	
						6.7	0.1	87	20.3		8.2		32.9		98.4		7.3		4.8		6		88				<0.2		0.8	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 05 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Rainy	Moderate	14:00	7.0	Surface	1.0	0.3	272	20.3	20.3	8.2	8.2	32.7	32.7	98.5	98.5	7.4	7.3	5.8	5.7	8	8	85	86	822085	808811	<0.2	<0.2	0.7	0.6
						1.0	0.3	298	20.3		8.2		32.7		98.5		7.3		5.8		8		84				<0.2		0.7	
					Middle	3.5	0.3	299	20.3	20.3	8.2	8.2	32.7	32.7	98.1	98.1	7.3		5.6		8		86				<0.2		0.6	
						3.5	0.3	315	20.3		8.2		32.7		98.1		7.3		5.6		9		87				<0.2		0.5	
					Bottom	6.0	0.3	288	20.4	20.4	8.2	8.2	32.8	32.8	97.9	97.9	7.3	7.3	5.5		7		87				<0.2		0.6	
						6.0	0.3	296	20.4		8.2		32.8		97.9		7.3		5.6		8		88				<0.2		0.5	
IM10	Rainy	Moderate	14:09	7.6	Surface	1.0	0.3	289	20.6	20.6	8.2	8.2	32.8	32.8	96.9	96.9	7.2	7.2	4.2	4.4	7	6	85	86	822406	809793	<0.2	<0.2	1.0	0.8
						1.0	0.3	308	20.6		8.2		32.8		96.9		7.2		4.2		6		84				<0.2		0.8	
					Middle	3.8	0.3	291	20.6	20.6	8.2	8.2	32.8	32.8	96.7	96.7	7.2		4.6		6		87				<0.2		0.8	
						3.8	0.3	319	20.6		8.2		32.8		96.7		7.2		4.5		6		87				<0.2		0.7	
					Bottom	6.6	0.3	299	20.6	20.6	8.2	8.2	32.8	32.8	96.8	96.8	7.2	7.2	4.3		5		88				<0.2		0.7	
						6.6	0.3	319	20.6		8.2		32.8		96.8		7.2		4.3		5		87				<0.2		0.8	
IM11	Rainy	Rough	14:21	8.1	Surface	1.0	0.2	269	21.6	21.6	8.1	8.1	33.3	33.3	93.5	93.5	6.8	6.8	3.7	3.7	8	6	85	86	822065	811474	<0.2	<0.2	0.7	0.7
						1.0	0.3	269	21.6		8.1		33.3		93.5		6.8		3.7		7		84				<0.2		0.8	
					Middle	4.1	0.3	274	21.6	21.6	8.1	8.1	33.3	33.3	93.3	93.3	6.8		3.7		6		86				<0.2		0.6	
						4.1	0.3	295	21.6		8.1		33.3		93.3		6.8		3.7		5		87				<0.2		0.7	
					Bottom	7.1	0.3	276	21.6	21.6	8.1	8.1	33.3	33.3	93.5	93.5	6.8	6.8	3.8		5		88				<0.2		0.6	
						7.1	0.3	290	21.6		8.1		33.3		93.5		6.8		3.8		4		88				<0.2		0.7	
IM12	Rainy	Rough	14:30	8.6	Surface	1.0	0.2	269	21.2	21.2	8.1	8.1	33.0	33.0	94.3	94.3	6.9	6.9	4.1	4.0	7	6	84	86	821446	812051	<0.2	<0.2	0.5	0.6
						1.0	0.2	293	21.2		8.1		33.0		94.3		6.9		4.1		6		85				<0.2		0.6	
					Middle	4.3	0.2	269	21.3	21.3	8.1	8.1	33.1	33.1	93.8	93.8	6.9		3.6		6		85				<0.2		0.5	
						4.3	0.2	289	21.3		8.1		33.1		93.8		6.9		3.6		6		86				<0.2		0.4	
					Bottom	7.6	0.2	265	21.4	21.4	8.1	8.1	33.2	33.2	93.2	93.2	6.8	6.8	4.3		6		88				<0.2		0.7	
						7.6	0.2	265	21.4		8.1		33.2		93.2		6.8		4.3		6		88				<0.2		0.7	
SR1A	Rainy	Moderate	15:03	4.8	Surface	1.0	-	-	20.9	20.9	8.1	8.1	32.6	32.6	91.8	91.8	6.8	6.8	6.9	8.3	9	9	-	-	819975	812656	-	-	-	-
						1.0	-	-	20.9		8.1		32.6		91.8		6.8		6.8		9		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	21.1	21.1	8.1	8.1	32.7	32.7	92.7	92.7	6.8	6.8	9.7		9		-				-		-	
						3.8	-	-	21.1		8.1		32.7		92.7		6.8		9.7		9		-				-		-	
SR2	Rainy	Moderate	15:25	4.3	Surface	1.0	0.1	235	21.8	21.8	8.1	8.1	33.5	33.5	94.1	94.1	6.8	6.8	3.2	3.5	6	5	82	84	821448	814153	<0.2	<0.2	0.5	0.4
						1.0	0.1	240	21.8		8.1		33.5		94.0		6.8		3.2		6		81				<0.2		0.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	290	21.8	21.8	8.1	8.1	33.5	33.5	93.7	93.7	6.8	6.8	3.7		4		87				<0.2		0.4	
						3.3	0.0	299	21.8		8.1		33.5		93.7		6.8		3.7		5		86				<0.2		0.4	
SR3	Rainy	Moderate	13:48	8.9	Surface	1.0	0.3	261	20.4	20.4	8.2	8.2	32.8	32.8	98.9	98.9	7.4	7.4	3.5	3.7	5	5	-	-	822140	807588	-	-	-	-
						1.0	0.3	274	20.4		8.2		32.8		98.9		7.4		3.4		5		-				-		-	
					Middle	4.5	0.3	257	20.4	20.4	8.2	8.2	32.8	32.8	98.5	98.5	7.3		3.5		5		-				-		-	
						4.5	0.3	259	20.4		8.2		32.8		98.5		7.3		3.5		4		-				-		-	
					Bottom	7.9	0.3	262	20.5	20.5	8.2	8.2	32.8	32.8	98.3	98.3	7.3	7.3	4.0		4		-				-		-	
						7.9	0.3	262	20.5		8.2		32.8		98.3		7.3		4.0		5		-				-		-	
SR4A	Fine	Moderate	15:03	7.8	Surface	1.0	0.3	348	20.3	20.3	8.0	8.0	32.8	32.8	98.1	98.1	7.2	7.3	2.9	3.6	8	7	-	-	817189	807787	-	-	-	-
						1.0	0.3	358	20.3		8.0		32.8		98.0		7.2		3.0		7		-				-		-	
					Middle	3.9	0.3	3	20.2	20.2	8.0	8.0	32.8	32.8	98.5	98.5	7.3		3.7		6		-				-		-	
						3.9	0.3	3	20.2		8.0		32.8		98.5		7.3		3.7		6		-				-		-	
					Bottom	6.8	0.3	6	20.2	20.2	8.0	8.0	32.9	32.9	99.8	100.1	7.4	7.4	4.0		6		-				-		-	
						6.8	0.3	6	20.2		8.0		32.9		100.3		7.4		4.0		6		-				-		-	
SR5A	Fine	Calm	15:21	3.4	Surface	1.0	0.2	286	20.3	20.3	8.0	8.0	32.8	32.8	100.1	100.3	7.4	7.4	5.9	6.0	10	10	-	-	816582	810708	-	-	-	-
						1.0	0.2	298	20.3		8.0		32.8		100.4		7.4		5.9		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.4	0.2	293	20.2	20.2	8.0	8.0	32.8	32.8	103.1	103.2	7.6	7.6	6.0		10		-				-		-	
						2.4	0.2	297	20.2		8.0		32.8		103.2		7.6		6.0		9		-				-		-	
SR6A	Fine	Calm	15:48	4.2	Surface	1.0	0.1	195	20.6	20.6	8.0	8.0	32.8	32.8	98.4	98.4	7.2	7.2	3.5	3.7	5	5	-	-	817980	814742	-	-	-	-
						1.0	0.1	197	20.6		8.0		32.9		98.4		7.2		3.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	112	20.6	20.6	8.0	8.0	33.0	33.0	99.8	100.1	7.3	7.3	3.8		5		-				-		-	
						3.2	0.1	112	20.6		8.0		33.0		100.3		7.3		3.5		5		-				-		-	
SR7	Rainy	Moderate	16:25	15.8	Surface	1.0	0.1	192	22.2	22.2	8.1	8.1	33.6	33.6	92.3	92.3	6.6	6.6	3.2	3.3	5	4	-	-	823648	823762	-	-	-	-
						1.0	0.1	197	22.2		8.1		33.6		92.3		6.6		3.2		5		-				-		-	
					Middle	7.9	0.1	298	22.2	22.2	8.1	8.1	33.6	33.6	92.3	92.3	6.6		3.4		4		-				-		-	
						7.9	0.1	322	22.2		8.1		33.6		92.3		6.6		3.5		3		-				-		-	
					Bottom	14.8	0.1	338	22.1	22.1	8.1	8.1	33.6	33.6	92.4	92.4	6.6	6.6	3.3		3		-				-		-	
						14.8	0.1	339	22.1		8.1		33.6		92.4		6.6		3.3		2		-				-		-	
SR8	Rainy	Moderate	14:40	5.1	Surface	1.0	-	-	21.2	21.2	8.1	8.1	33.1	33.1	93.7	93.7	6.9	6.9	5.3	5.7	5	6	-	-	820405	811642	-	-	-	-
						1.0	-	-	21.2		8.1		33.1		93.7		6.9		5.3		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	21.3	21.3	8.1	8.1	33.1	33.1	93.7	93.7	6.9	6.9	6.1		7		-				-		-	
						4.1	-	-	21.3		8.1		33.1		93.7		6.9		6.2		8		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Fine	Rough	08:57	7.2	Surface	1.0	0.2	195	19.8	19.8	8.2	8.2	34.4	34.4	98.6	98.6	7.4	7.4	3.5	3.2	9	8	83	88	815631	804255	<0.2	<0.2	0.5	0.5
						1.0	0.2	202	19.8		8.2		34.4		98.6		7.4		3.5		8		84				<0.2		0.4	
					Middle	3.6	0.2	178	19.8	19.8	8.2	8.2	34.4	34.4	98.8	98.8	7.4		3.1		7		88				<0.2		0.4	
						3.6	0.2	182	19.8		8.2		34.4		98.7		7.4		3.1		7		88				<0.2		0.5	
					Bottom	6.2	0.1	204	19.8	19.8	8.2	8.2	34.4	34.4	99.7	99.7	7.4	7.4	2.9		8		91				<0.2		0.8	
						6.2	0.1	223	19.8		8.2		34.4		99.7		7.4		2.9		6		91				<0.2		0.6	
C2	Sunny	Moderate	10:33	10.8	Surface	1.0	0.2	209	21.0	21.0	8.1	8.1	34.5	34.5	93.2	93.2	6.8	6.8	2.9	3.2	5	5	86	90	825674	806966	<0.2	<0.2	0.5	0.6
						1.0	0.3	209	21.0		8.1		34.5		93.2		6.8		2.9		4		86				<0.2		0.5	
					Middle	5.4	0.2	210	20.9	20.9	8.1	8.1	34.5	34.5	93.2	93.2	6.8		3.0		5		91				<0.2		0.5	
						5.4	0.2	215	20.9		8.1		34.5		93.2		6.8		3.0		5		90				<0.2		0.5	
					Bottom	9.8	0.2	166	20.4	20.4	8.1	8.1	34.5	34.5	94.3	94.3	7.0	7.0	3.7		4		94				<0.2		0.8	
						9.8	0.2	181	20.4		8.1		34.5		94.3		7.0		3.7		4		94				<0.2		0.6	
C3	Sunny	Moderate	08:17	12.3	Surface	1.0	0.1	86	21.2	21.2	8.1	8.1	34.5	34.5	90.9	90.9	6.6	6.6	3.1	3.0	4	5	86	91	822093	817797	<0.2	<0.2	0.5	0.4
						1.0	0.1	88	21.2		8.1		34.5		90.9		6.6		3.1		5		87				<0.2		0.4	
					Middle	6.2	0.1	126	21.3	21.3	8.1	8.1	34.5	34.5	91.2	91.2	6.6		3.0		5		91				<0.2		0.4	
						6.2	0.1	126	21.3		8.1		34.5		91.2		6.6		3.0		4		91				<0.2		0.5	
					Bottom	11.3	0.1	112	21.2	21.2	8.0	8.0	34.5	34.5	93.2	93.4	6.8	6.8	3.0		5		95				<0.2		0.4	
						11.3	0.1	117	21.2		8.0		34.5		93.5		6.8		3.0		4		95				<0.2		0.4	
IM1	Fine	Rough	09:20	4.6	Surface	1.0	0.1	197	18.8	18.8	8.2	8.2	34.2	34.2	101.9	101.9	7.7	7.7	3.3	3.8	8	8	83	86	817959	807111	<0.2	<0.2	0.6	0.6
						1.0	0.2	211	18.8		8.2		34.2		101.8		7.7		3.3		8		84				<0.2		0.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	192	18.8	18.8	8.3	8.3	34.2	34.2	103.1	103.0	7.8	7.8	4.2		8		88				<0.2		0.6	
						3.6	0.1	201	18.8		8.3		34.2		102.9		7.8		4.2		9		88				<0.2		0.6	
IM2	Fine	Rough	09:28	7.1	Surface	1.0	0.2	193	18.8	18.8	8.1	8.1	34.1	34.1	102.5	102.5	7.8	7.8	1.9	3.5	5	6	83	87	818165	806183	<0.2	<0.2	0.7	0.7
						1.0	0.2	197	18.8		8.1		34.1		102.4		7.8		1.9		6		83				<0.2		0.7	
					Middle	3.6	0.1	190	18.8	18.8	8.1	8.1	34.1	34.1	101.9	101.9	7.8		2.2		5		87				<0.2		0.6	
						3.6	0.2	208	18.8		8.1		34.1		101.8		7.7		2.2		6		87				<0.2		0.7	
					Bottom	6.1	0.0	185	18.8	18.8	8.1	8.1	34.3	34.3	101.3	101.3	7.7	7.7	6.5		8		91				<0.2		0.7	
						6.1	0.0	199	18.8		8.1		34.3		101.2		7.7		6.5		7		91				<0.2		0.7	
IM3	Fine	Rough	09:35	6.3	Surface	1.0	0.2	172	18.8	18.8	8.1	8.1	34.2	34.2	103.7	103.6	7.9	7.9	2.1	4.0	6	5	84	87	818762	805587	<0.2	<0.2	1.4	1.5
						1.0	0.3	177	18.8		8.1		34.2		103.5		7.9		2.1		6		84				<0.2		1.7	
					Middle	3.2	0.2	173	18.8	18.8	8.0	8.0	34.2	34.2	103.1	103.2	7.8		4.3		5		87				<0.2		1.3	
						3.2	0.2	183	18.8		8.0		34.2		103.2		7.8		4.3		5		87				<0.2		1.3	
					Bottom	5.3	0.2	170	18.8	18.8	8.0	8.0	34.2	34.2	104.1	104.3	7.9	7.9	5.5		5		91				<0.2		1.7	
						5.3	0.2	179	18.8		8.0		34.2		104.4		7.9		5.5		4		91				<0.2		1.6	
IM4	Fine	Rough	09:45	7.8	Surface	1.0	0.3	176	19.2	19.2	8.0	8.0	34.4	34.4	100.6	100.7	7.6	7.6	3.1	3.5	8	8	83	87	819714	804586	<0.2	<0.2	1.3	1.3
						1.0	0.3	183	19.2		8.0		34.4		100.7		7.6		3.1		8		83				<0.2		1.4	
					Middle	3.9	0.3	166	19.2	19.2	8.0	8.0	34.4	34.4	101.5	101.5	7.7		3.4		9		87				<0.2		1.4	
						3.9	0.3	173	19.2		8.0		34.4		101.4		7.6		3.4		8		87				<0.2		1.3	
					Bottom	6.8	0.3	178	19.2	19.2	8.0	8.0	34.4	34.4	101.9	102.0	7.7	7.7	3.9		7		91				<0.2		1.3	
						6.8	0.3	183	19.2		8.0		34.4		102.0		7.7		3.9		8		91				<0.2		1.3	
IM5	Fine	Rough	09:55	7.9	Surface	1.0	0.4	192	19.2	19.2	8.0	8.0	34.5	34.5	100.8	100.7	7.6	7.6	3.7	4.8	9	10	84	88	820714	804863	<0.2	<0.2	1.1	1.2
						1.0	0.4	194	19.2		8.0		34.5		100.6		7.6		3.7		10		84				<0.2		1.2	
					Middle	4.0	0.3	192	19.2	19.2	8.0	8.0	34.4	34.4	100.6	100.6	7.6		3.9		10		88				<0.2		1.2	
						4.0	0.4	210	19.2		8.0		34.4		100.5		7.6		3.9		10		88				<0.2		1.2	
					Bottom	6.9	0.3	199	19.2	19.2	8.0	8.0	34.4	34.4	100.4	100.4	7.6	7.6	6.7		10		91				<0.2		1.2	
						6.9	0.3	203	19.2		8.0		34.4		100.4		7.6		6.7		11		92				<0.2		1.2	
IM6	Fine	Rough	10:04	7.4	Surface	1.0	0.3	213	19.2	19.2	8.0	8.0	34.4	34.4	100.3	100.3	7.6	7.6	3.7	4.6	9	9	84	88	821068	805845	<0.2	<0.2	1.2	1.2
						1.0	0.3	216	19.2		8.0		34.4		100.2		7.6		3.7		8		84				<0.2		1.1	
					Middle	3.7	0.3	212	19.2	19.2	8.0	8.0	34.4	34.4	100.9	100.9	7.6		4.4		9		88				<0.2		1.2	
						3.7	0.3	225	19.2		8.0		34.4		100.9		7.6		4.4		9		88				<0.2		1.2	
					Bottom	6.4	0.3	221	19.2	19.2	8.0	8.0	34.4	34.4	102.3	102.4	7.7	7.7	5.8		10		91				<0.2		1.1	
						6.4	0.3	226	19.2		8.0		34.4		102.4		7.7		5.8		9		92				<0.2		1.2	
IM7	Fine	Rough	10:13	7.6	Surface	1.0	0.2	209	19.0	19.0	8.0	8.0	34.2	34.2	103.2	103.3	7.8	7.8	1.7	2.3	5	5	83	87	821366	806839	<0.2	<0.2	1.1	1.2
						1.0	0.2	211	19.0		8.0		34.2		103.4		7.8		1.7		4		83				<0.2		1.2	
					Middle	3.8	0.2	210	19.0	19.0	8.0	8.0	34.3	34.3	103.6	103.6	7.8		2.3		5		87				<0.2		1.2	
						3.8	0.2	228	19.0		8.0		34.3		103.5		7.8		2.3		5		88				<0.2		1.3	
					Bottom	6.6	0.2	209	19.1	19.1	8.0	8.0	34.4	34.4	105.0	105.1	7.9	7.9	2.8		6		91				<0.2		1.2	
						6.6	0.2	214	19.1		8.0		34.4		105.1		7.9		2.8		5		91				<0.2		1.4	
IM8	Sunny	Moderate	10:03	7.7	Surface	1.0	0.1	26	18.9	18.9	8.1	8.1	34.5	34.5	100.0	100.0	7.6	7.6	5.0	5.0	6	7	87	91	821817	808121	<0.2	<0.2	0.7	0.6
						1.0	0.1	26	18.9		8.1		34.5		100.0		7.6		4.8		7		87				<0.2		0.8	
					Middle	3.9	0.2	37	18.9	18.9	8.1	8.1	34.5	34.5	99.4	99.4	7.5		5.1		6		91				<0.2		0.5	
						3.9	0.2	37	18.9		8.1		34.5		99.3		7.5		5.1		7		91				<0.2		0.5	
					Bottom	6.7	0.2	47	19.0	19.0	8.1	8.1	34.6	34.6	98.9	98.9	7.5	7.5	4.8		8		95				<0.2		0.4	
						6.7	0.2	47	19.0		8.1		34.6		98.9		7.5		4.9		8		95				<0.2		0.4	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 07 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	09:56	7.1	Surface	1.0	0.3	79	19.0	19.0	8.1	8.1	34.5	34.5	99.0	99.0	7.5	7.5	5.3	5.6	8	8	86	91	822078	808826	<0.2	<0.2	0.5	0.4
						1.0	0.3	86	19.0		8.1		34.5		98.9		7.5		5.4		9		87				<0.2		0.4	
					Middle	3.6	0.2	83	19.0	19.0	8.1	8.1	34.5	34.5	98.7	98.7	7.5		5.4		7		91				<0.2		0.5	
						3.6	0.2	84	19.0		8.1		34.5		98.7		7.5		5.5		7		91				<0.2		0.4	
					Bottom	6.1	0.3	88	19.0	19.0	8.1	8.1	34.5	34.5	98.2	98.2	7.4	7.4	6.1		7		95				<0.2		0.4	
						6.1	0.3	88	19.0		8.1		34.5		98.2		7.4		6.1		8		95				<0.2		0.4	
IM10	Sunny	Moderate	09:48	8.3	Surface	1.0	0.2	107	19.4	19.4	8.1	8.1	34.3	34.3	98.6	98.6	7.4	7.4	3.9	4.8	6	6	86	91	822395	809784	<0.2	<0.2	0.5	0.5
						1.0	0.2	114	19.4		8.1		34.3		98.6		7.4		3.9		5		87				<0.2		0.4	
					Middle	4.2	0.2	91	19.4	19.4	8.1	8.1	34.3	34.3	98.5	98.5	7.4		4.1		5		92				<0.2		0.4	
						4.2	0.2	98	19.4		8.1		34.3		98.4		7.4		4.1		6		91				<0.2		0.4	
					Bottom	7.3	0.2	79	19.1	19.1	8.1	8.1	34.3	34.3	97.9	97.9	7.4	7.4	6.5		7		94				<0.2		0.5	
						7.3	0.2	84	19.1		8.1		34.3		97.9		7.4		6.4		7		95				<0.2		0.6	
IM11	Sunny	Moderate	09:37	7.6	Surface	1.0	0.2	84	21.0	21.0	8.0	8.0	34.5	34.5	92.1	92.1	6.7	6.7	3.2	3.5	5	6	86	91	822038	811465	<0.2	<0.2	0.4	0.4
						1.0	0.2	88	21.0		8.0		34.5		92.1		6.7		3.1		4		87				<0.2		0.4	
					Middle	3.8	0.1	82	21.0	21.0	8.0	8.0	34.5	34.5	91.7	91.7	6.7		3.7		6		91				<0.2		0.4	
						3.8	0.1	86	21.0		8.0		34.5		91.7		6.7		3.7		5		91				<0.2		0.5	
					Bottom	6.6	0.2	99	21.0	21.0	8.0	8.0	34.5	34.5	91.7	91.7	6.7	6.7	3.6		7		95				<0.2		0.5	
						6.6	0.2	105	21.0		8.0		34.5		91.7		6.7		3.7		6		95				<0.2		0.4	
IM12	Sunny	Moderate	09:30	9.7	Surface	1.0	0.1	87	21.0	21.0	8.0	8.0	34.5	34.5	91.8	91.9	6.7	6.7	2.6	2.7	4	5	86	92	821476	812038	<0.2	<0.2	0.4	0.4
						1.0	0.1	91	21.0		8.0		34.5		91.9		6.7		2.7		5		91				<0.2		0.4	
					Middle	4.9	0.3	94	21.0	21.0	8.0	8.0	34.5	34.5	91.8	91.8	6.7		2.9		4		91				<0.2		0.4	
						4.9	0.3	96	21.0		8.0		34.5		91.8		6.7		2.9		5		91				<0.2		0.4	
					Bottom	8.7	0.2	146	21.0	21.0	8.0	8.0	34.5	34.5	92.1	92.2	6.7	6.7	2.7		5		95				<0.2		0.4	
						8.7	0.2	156	21.0		8.0		34.5		92.2		6.7		2.7		4		95				<0.2		0.4	
SR1A	Sunny	Moderate	08:59	5.5	Surface	1.0	-	-	19.5	19.5	8.0	8.0	33.9	33.9	91.3	91.3	6.9	6.9	3.6	4.0	3	5	-	-	819975	812664	-	-	-	-
						1.0	-	-	19.5		8.0		33.9		91.3		6.9		3.6		4		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	-	19.8	19.8	8.0	8.0	34.1	34.1	91.6	91.6	6.8	6.8	4.4		5		-				-		-	
						4.5	-	-	19.8		8.0		34.1		91.6		6.8		4.4		7		-				-		-	
SR2	Sunny	Moderate	08:39	4.8	Surface	1.0	0.1	32	20.9	20.9	8.0	8.0	34.5	34.5	91.2	91.2	6.7	6.7	2.7	2.9	4	6	87	89	821463	814149	<0.2	<0.2	0.4	0.5
						1.0	0.1	33	20.9		8.0		34.5		91.2		6.7		2.7		5		86				<0.2		0.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	48	20.8	20.8	8.0	8.0	34.6	34.6	91.2	91.3	6.7	6.7	3.1		6		91				<0.2		0.7	
						3.8	0.0	51	20.8		8.0		34.6		91.3		6.7		3.0		7		90				<0.2		0.6	
SR3	Sunny	Moderate	10:11	8.4	Surface	1.0	0.2	168	19.3	19.3	8.1	8.1	34.4	34.4	98.7	98.7	7.4	7.4	4.1	4.7	6	6	-	-	822132	807551	-	-	-	-
						1.0	0.2	178	19.3		8.1		34.4		98.7		7.4		4.2		7		-				-		-	
					Middle	4.2	0.2	150	19.2	19.2	8.1	8.1	34.5	34.5	98.1	98.1	7.4		4.4		6		-				-		-	
						4.2	0.2	153	19.2		8.1		34.5		98.1		7.4		4.4		5		-				-		-	
					Bottom	7.4	0.2	144	19.0	19.0	8.1	8.1	34.5	34.5	97.2	97.2	7.3	7.3	5.5		5		-				-		-	
						7.4	0.2	144	19.0		8.1		34.5		97.2		7.3		5.5		4		-				-		-	
SR4A	Fine	Rough	08:36	9.9	Surface	1.0	0.0	74	19.0	19.0	8.0	8.0	33.5	33.5	98.2	98.2	7.5	7.5	2.3	4.5	3	6	-	-	817173	807808	-	-	-	-
						1.0	0.0	75	19.0		8.0		33.5		98.2		7.5		2.3		4		-				-		-	
					Middle	5.0	0.1	68	18.8	18.8	8.0	8.0	34.2	34.2	99.4	99.3	7.6		3.8		6		-				-		-	
						5.0	0.1	69	18.8		8.0		34.2		99.1		7.5		3.8		6		-				-		-	
					Bottom	8.9	0.1	81	18.8	18.8	8.0	8.0	34.3	34.3	97.7	97.8	7.4	7.4	7.4		8		-				-		-	
						8.9	0.2	82	18.8		8.0		34.3		97.9		7.4		7.4		6		-				-		-	
SR5A	Fine	Rough	08:18	4.1	Surface	1.0	0.0	89	18.8	18.8	8.0	8.0	33.3	33.3	96.6	96.6	7.4	7.4	3.2	3.6	10	10	-	-	816608	810686	-	-	-	-
						1.0	0.0	90	18.8		8.0		33.3		96.5		7.4		3.2		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.0	69	18.8	18.8	8.0	8.0	33.3	33.3	100.6	100.8	7.7	7.7	4.0		10		-				-		-	
						3.1	0.0	71	18.8		8.0		33.3		100.9		7.7		4.0		9		-				-		-	
SR6A	Fine	Rough	07:51	4.7	Surface	1.0	0.1	50	18.8	18.8	8.0	8.0	33.3	33.3	97.0	97.1	7.4	7.4	2.5	3.0	6	7	-	-	817961	814762	-	-	-	-
						1.0	0.1	54	18.8		8.0		33.3		97.2		7.4		2.5		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	55	19.4	19.4	8.1	8.1	33.7	33.7	93.3	93.3	7.0	7.0	3.5		7		-				-		-	
						3.7	0.1	58	19.4		8.1		33.7		93.2		7.0		3.5		8		-				-		-	
SR7	Sunny	Moderate	07:48	14.6	Surface	1.0	0.1	62	21.2	21.2	8.0	8.0	34.5	34.5	91.8	91.9	6.7	6.7	3.6	3.7	5	5	-	-	823624	823763	-	-	-	-
						1.0	0.1	62	21.2		8.0		34.5		91.9		6.7		3.5		5		-				-		-	
					Middle	7.3	0.1	97	21.2	21.2	8.0	8.0	34.5	34.5	92.0	92.0	6.7		3.6		6		-				-		-	
						7.3	0.1	101	21.2		8.0		34.5		92.0		6.7		3.7		5		-				-		-	
					Bottom	13.6	0.1	98	21.1	21.1	8.0	8.0	34.6	34.6	92.6	92.7	6.7	6.7	3.9		5		-				-		-	
						13.6	0.1	106	21.1		8.0		34.6		92.7		6.7		3.8		5		-				-		-	
SR8	Sunny	Moderate	09:22	4.2	Surface	1.0	-	-	20.4	20.4	8.0	8.0	34.3	34.3	93.4	93.4	6.9	6.9	4.7	4.9	7	7	-	-	820375	811635	-	-	-	-
						1.0	-	-	20.4		8.0		34.3		93.4		6.9		4.7		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	20.4	20.4	8.0	8.0	34.3	34.3	93.8	93.8	6.9	6.9	5.0		7		-				-		-	
						3.2	-	-	20.4		8.0		34.3		93.8		6.9		5.2		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 07 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Sunny	Rough	15:23	7.5	Surface	1.0	0.2	67	18.8	18.8	8.1	8.1	34.2	34.2	104.2	104.2	7.9	7.9	3.9	4.6	8	9	83	88	815610	804256	<0.2	<0.2	0.5	0.6
						1.0	0.2	72	18.8		8.1		34.2		104.1		7.9		3.9		10		83				<0.2		0.5	
					Middle	3.8	0.2	80	18.8	18.8	8.1	8.1	34.2	34.2	104.1	104.1	7.9		4.1		9		88				<0.2		0.6	
						3.8	0.2	82	18.8		8.1		34.2		104.0		7.9		4.1		9		88				<0.2		0.6	
					Bottom	6.5	0.2	64	18.8	18.8	8.1	8.1	34.2	34.2	102.9	103.0	7.8	7.8	5.9		7		92				<0.2		0.5	
						6.5	0.2	66	18.8		8.1		34.2		103.0		7.8		5.9		8		92				<0.2		0.6	
C2	Sunny	Moderate	14:28	8.5	Surface	1.0	0.8	65	20.9	20.9	8.0	8.0	34.5	34.5	93.3	93.3	6.8	6.8	3.0	5.8	5	5	89	93	825666	806928	<0.2	<0.2	0.6	0.7
						1.0	0.8	76	20.9		8.0		34.5		93.3		6.8		3.0		4		89				<0.2		0.6	
					Middle	4.3	0.6	71	20.9	20.9	8.0	8.0	34.5	34.5	93.1	93.1	6.8		3.1		5		92				<0.2		0.8	
						4.3	0.6	77	20.9		8.0		34.5		93.1		6.8		3.1		4		93				<0.2		0.7	
					Bottom	7.5	0.3	78	20.3	20.3	8.1	8.1	34.5	34.5	93.7	93.7	6.9	6.9	11.3		4		97				<0.2		0.8	
						7.5	0.3	81	20.3		8.1		34.5		93.7		6.9		11.4		5		97				<0.2		0.7	
C3	Sunny	Moderate	16:40	10.8	Surface	1.0	0.5	278	21.3	21.3	8.0	8.0	34.5	34.5	92.4	92.4	6.7	6.7	1.9	2.1	3	3	89	93	822106	817784	<0.2	<0.2	0.5	0.6
						1.0	0.5	304	21.3		8.0		34.5		92.4		6.7		1.9		2		89				<0.2		0.5	
					Middle	5.4	0.4	302	21.3	21.3	8.0	8.0	34.5	34.5	92.4	92.5	6.7		2.0		2		93				<0.2		0.6	
						5.4	0.4	308	21.3		8.0		34.5		92.5		6.7		2.0		3		92				<0.2		0.5	
					Bottom	9.8	0.2	284	21.1	21.1	8.0	8.0	34.5	34.5	93.2	93.2	6.8	6.8	2.4		3		97				<0.2		0.6	
						9.8	0.3	287	21.1		8.0		34.5		93.2		6.8		2.5		2		96				<0.2		0.6	
IM1	Sunny	Rough	15:09	5.5	Surface	1.0	0.1	71	19.0	19.0	8.1	8.1	34.1	34.1	103.1	103.0	7.8	7.8	3.2	3.4	8	8	83	86	817954	807142	<0.2	<0.2	0.9	0.9
						1.0	0.1	82	19.0		8.1		34.1		102.9		7.8		3.2		9		84				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	36	19.0	19.0	8.1	8.1	34.1	34.1	102.7	102.7	7.8	7.8	3.5		6		88				<0.2		0.9	
						4.5	0.1	34	19.0		8.1		34.1		102.7		7.8		3.5		7		88				<0.2		0.8	
IM2	Sunny	Rough	15:01	6.4	Surface	1.0	0.0	78	18.9	18.9	8.1	8.1	34.1	34.1	103.3	103.3	7.9	7.9	2.4	2.8	4	6	83	87	818185	806172	<0.2	<0.2	0.7	0.8
						1.0	0.0	81	18.9		8.1		34.1		103.3		7.9		2.4		5		83				<0.2		0.7	
					Middle	3.2	0.0	74	18.9	18.9	8.1	8.1	34.1	34.1	103.3	103.4	7.8		2.6		5		87				<0.2		0.8	
						3.2	0.0	86	18.9		8.1		34.1		103.4		7.9		2.6		6		88				<0.2		0.8	
					Bottom	5.4	0.0	82	18.8	18.8	8.1	8.1	34.1	34.1	103.1	102.9	7.8	7.8	3.4		6		91				<0.2		0.8	
						5.4	0.0	83	18.8		8.1		34.1		102.7		7.8		3.4		7		92				<0.2		0.9	
IM3	Sunny	Rough	14:55	7.3	Surface	1.0	0.3	49	18.8	18.8	8.1	8.1	34.2	34.2	104.1	104.1	7.9	7.9	2.8	3.0	6	7	84	87	818807	805586	<0.2	<0.2	0.6	0.7
						1.0	0.3	50	18.8		8.1		34.2		104.0		7.9		2.8		7		85				<0.2		0.6	
					Middle	3.7	0.2	53	18.8	18.8	8.0	8.0	34.2	34.2	104.0	104.0	7.9		3.1		7		89				<0.2		0.7	
						3.7	0.3	52	18.8		8.0		34.2		104.0		7.9		3.1		8		88				<0.2		0.8	
					Bottom	6.3	0.2	40	18.8	18.8	8.1	8.1	34.2	34.2	103.3	103.3	7.8	7.8	3.2		7		87				<0.2		0.7	
						6.3	0.2	42	18.8		8.1		34.2		103.3		7.8		3.2		7		88				<0.2		0.8	
IM4	Sunny	Rough	14:47	7.7	Surface	1.0	0.6	66	19.2	19.2	8.0	8.0	34.4	34.4	101.1	101.2	7.6	7.6	4.8	5.8	10	10	84	86	819705	804612	<0.2	<0.2	0.7	0.7
						1.0	0.6	67	19.2		8.0		34.4		101.2		7.6		4.8		11		83				<0.2		0.7	
					Middle	3.9	0.6	62	19.2	19.2	8.0	8.0	34.4	34.4	101.5	101.6	7.6		5.3		11		87				<0.2		0.7	
						3.9	0.6	58	19.2		8.0		34.4		101.6		7.7		5.3		10		86				<0.2		0.7	
					Bottom	6.7	0.5	36	19.2	19.2	8.0	8.0	34.4	34.4	101.7	101.7	7.7	7.7	7.2		10		90				<0.2		0.7	
						6.7	0.6	38	19.2		8.0		34.4		101.7		7.7		7.2		9		88				<0.2		0.8	
IM5	Sunny	Rough	14:42	7.9	Surface	1.0	1.0	44	19.3	19.3	8.0	8.0	34.5	34.5	101.0	101.0	7.6	7.6	4.9	6.7	8	9	84	87	820718	804863	<0.2	<0.2	0.7	0.6
						1.0	1.1	45	19.3		8.0		34.5		101.0		7.6		4.9		8		85				<0.2		0.7	
					Middle	4.0	0.8	42	19.3	19.3	8.0	8.0	34.5	34.5	100.9	100.9	7.6		6.4		10		87				<0.2		0.7	
						4.0	0.8	44	19.3		8.0		34.5		100.9		7.6		6.4		9		86				<0.2		0.5	
					Bottom	6.9	0.7	35	19.3	19.3	8.0	8.0	34.4	34.4	103.5	103.5	7.8	7.8	8.8		10		88				<0.2		0.6	
						6.9	0.7	35	19.3		8.0		34.4		103.5		7.8		8.8		8		89				<0.2		0.6	
IM6	Sunny	Rough	14:34	8.2	Surface	1.0	0.8	23	19.3	19.3	8.0	8.0	34.4	34.4	101.5	101.5	7.6	7.7	1.6	3.1	9	8	84	88	821040	805829	<0.2	<0.2	1.1	1.1
						1.0	0.8	20	19.3		8.0		34.4		101.5		7.6		1.6		8		85				<0.2		1.1	
					Middle	4.1	0.6	24	19.3	19.3	8.0	8.0	34.4	34.4	102.1	102.2	7.7		3.5		9		88				<0.2		1.2	
						4.1	0.7	24	19.3		8.0		34.4		102.2		7.7		3.9		9		88				<0.2		1.1	
					Bottom	7.2	0.5	25	19.3	19.3	8.0	8.0	34.4	34.4	101.5	101.5	7.6	7.6	3.9		6		91				<0.2		1.1	
						7.2	0.6	27	19.3		8.0		34.4		101.5		7.6		3.9		7		91				<0.2		1.1	
IM7	Sunny	Rough	14:26	8.1	Surface	1.0	0.5	306	18.9	18.9	8.1	8.1	34.1	34.1	102.4	102.4	7.8	7.8	1.9	2.6	6	5	83	87	821371	806845	<0.2	<0.2	1.1	1.2
						1.0	0.6	328	18.9		8.1		34.1		102.4		7.8		1.9		5		83				<0.2		1.2	
					Middle	4.1	0.5	29	19.0	19.0	8.1	8.1	34.3	34.3	101.7	101.8	7.7		2.5		4		87				<0.2		1.3	
						4.1	0.5	25	19.0		8.1		34.3		101.9		7.7		2.5		5		88				<0.2		1.1	
					Bottom	7.1	0.4	25	19.1	19.1	8.1	8.1	34.3	34.4	101.3	101.2	7.7	7.7	3.5		4		91				<0.2		1.1	
						7.1	0.4	26	19.1		8.1		34.4		101.1		7.6		3.5		5		92				<0.2		1.1	
IM8	Sunny	Moderate	14:55	7.9	Surface	1.0	0.2	313	19.1	19.1	8.1	8.1	34.5	34.5	99.1	99.1	7.5	7.5	5.0	5.3	6	6	90	93	821814	808147	<0.2	<0.2	0.6	0.7
						1.0	0.2	321	19.1		8.1		34.5		99.1		7.5		5.0		7		89				<0.2		0.7	
					Middle	4.0	0.1	346	19.1	19.1	8.1	8.1	34.5	34.5	98.8	98.8	7.5		4.8		6		93				<0.2		0.6	
						4.0	0.1	327	19.1		8.1		34.5		98.8		7.5		4.8		7		93				<0.2		0.8	
					Bottom	6.9	0.1	328	19.1	19.1	8.1	8.1	34.5	34.5	98.5	98.5	7.4	7.4	5.8		5		97				<0.2		0.7	
						6.9	0.1	348	19.1		8.1		34.5		98.5		7.4		6.0		5		97				<0.2		0.7	

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Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
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Water Quality Monitoring
Water Quality Monitoring Results on 07 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	14:59	7.3	Surface	1.0	0.3	326	19.0	19.0	8.1	8.1	34.5	34.5	101.1	101.1	7.6	7.6	5.0	4.8	6	7	89	93	822078	808815	<0.2	<0.2	0.8	0.7
						1.0	0.3	328	19.0		8.1		34.5		101.1		7.6		5.0		5		89				<0.2		0.7	
					Middle	3.7	0.2	299	19.0	19.0	8.1	8.1	34.5	34.5	100.9	100.9	7.6		4.4		6		93				<0.2		0.8	
						3.7	0.2	282	19.0		8.1		34.5		100.9		7.6		4.4		7		93				<0.2		0.7	
					Bottom	6.3	0.2	287	18.9	18.9	8.1	8.1	34.5	34.5	100.0	100.0	7.6	7.6	5.1		7		97				<0.2		0.5	
						6.3	0.2	296	18.9		8.1		34.5		100.0		7.6		5.1		8		97				<0.2		0.5	
IM10	Sunny	Moderate	15:09	7.5	Surface	1.0	0.5	293	20.2	20.2	8.1	8.1	34.5	34.5	97.9	97.9	7.2	7.3	3.2	3.8	5	5	89	93	822407	809778	<0.2	<0.2	0.8	0.8
						1.0	0.6	298	20.2		8.1		34.5		97.9		7.2		3.2		6		89				<0.2		0.8	
					Middle	3.8	0.5	296	19.8	19.8	8.1	8.1	34.5	34.5	98.5	98.6	7.3		3.6		5		93				<0.2		0.6	
						3.8	0.5	285	19.8		8.1		34.5		98.6		7.3		3.6		5		93				<0.2		0.7	
					Bottom	6.5	0.5	276	19.3	19.3	8.1	8.1	34.5	34.5	98.9	98.9	7.4	7.4	4.7		4		97				<0.2		0.8	
						6.5	0.5	283	19.2		8.1		34.5		98.8		7.4		4.7		5		97				<0.2		0.8	
IM11	Sunny	Moderate	15:20	8.3	Surface	1.0	0.5	285	20.6	20.6	8.0	8.0	34.5	34.5	94.4	94.4	6.9	7.0	3.2	3.9	3	4	89	93	822046	811465	<0.2	<0.2	0.7	0.7
						1.0	0.6	287	20.6		8.0		34.5		94.4		6.9		3.2		4		89				<0.2		0.6	
					Middle	4.2	0.4	286	20.5	20.5	8.0	8.0	34.5	34.5	94.7	94.8	7.0		3.5		3		93				<0.2		0.7	
						4.2	0.5	277	20.5		8.0		34.5		94.9		7.0		3.5		4		93				<0.2		0.5	
					Bottom	7.3	0.3	256	19.6	19.6	8.0	8.0	34.3	34.3	96.2	96.2	7.2	7.2	5.1		5		97				<0.2		0.8	
						7.3	0.4	269	19.6		8.0		34.3		96.2		7.2		5.1		4		97				<0.2		0.7	
IM12	Sunny	Moderate	15:26	7.8	Surface	1.0	0.4	291	21.0	21.0	8.0	8.0	34.5	34.5	93.0	93.0	6.8	6.8	3.1	3.2	5	5	89	93	821462	812054	<0.2	<0.2	0.9	0.9
						1.0	0.5	297	21.0		8.0		34.5		93.0		6.8		3.1		4		89				<0.2		0.8	
					Middle	3.9	0.4	302	21.0	21.0	8.0	8.0	34.5	34.5	92.9	92.9	6.8		3.2		5		93				<0.2		1.0	
						3.9	0.4	288	21.0		8.0		34.5		92.9		6.8		3.2		6		93				<0.2		0.9	
					Bottom	6.8	0.3	264	21.0	21.0	8.0	8.0	34.5	34.5	92.8	92.9	6.8	6.8	3.3		5		97				<0.2		0.9	
						6.8	0.3	285	21.0		8.0		34.5		92.9		6.8		3.4		5		97				<0.2		0.8	
SR1A	Sunny	Moderate	15:51	5.6	Surface	1.0	-	-	20.2	20.2	8.0	8.0	34.2	34.2	94.4	94.4	7.0	7.0	5.2	5.2	5	5	-	-	819972	812660	-	-	-	-
						1.0	-	-	20.2		8.0		34.2		94.4		7.0		5.2		5		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	-	-	20.2	20.2	8.0	8.0	34.2	34.2	95.0	95.1	7.0	7.0	5.3		5		-				-		-	
						4.6	-	-	20.2		8.0		34.2		95.1		7.0		5.3		6		-				-		-	
SR2	Sunny	Moderate	16:15	5.0	Surface	1.0	0.2	278	20.9	20.9	8.0	8.0	34.6	34.6	92.7	92.7	6.8	6.8	2.8	2.9	6	5	89	91	821440	814148	<0.2	<0.2	0.6	0.7
						1.0	0.3	287	20.9		8.0		34.6		92.7		6.8		2.8		5		89				<0.2		0.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	264	20.9	20.9	8.0	8.0	34.5	34.5	93.3	93.3	6.8	6.8	3.0		5		92				<0.2		0.8	
						4.0	0.2	268	20.9		8.0		34.5		93.3		6.8		3.0		4		93				<0.2		0.8	
SR3	Sunny	Moderate	14:47	8.8	Surface	1.0	0.4	84	19.6	19.6	8.1	8.1	34.4	34.4	98.7	98.7	7.4	7.4	3.5	4.0	4	5	-	-	822150	807552	-	-	-	-
						1.0	0.5	78	19.6		8.1		34.4		98.7		7.4		3.4		4		-				-		-	
					Middle	4.4	0.2	62	19.3	19.3	8.1	8.1	34.4	34.4	98.5	98.5	7.4		3.8		6		-				-		-	
						4.4	0.2	58	19.3		8.1		34.4		98.5		7.4		3.8		5		-				-		-	
					Bottom	7.8	0.2	65	19.0	19.0	8.1	8.1	34.5	34.5	97.6	97.6	7.4	7.4	4.7		5		-				-		-	
						7.8	0.2	64	19.0		8.1		34.5		97.5		7.4		4.7		6		-				-		-	
SR4A	Sunny	Rough	15:36	10.2	Surface	1.0	0.7	243	19.2	19.2	8.0	8.0	33.3	33.3	98.4	98.4	7.5	7.5	2.6	3.3	5	5	-	-	817194	807827	-	-	-	-
						1.0	0.8	258	19.2		8.0		33.3		98.4		7.5		2.6		4		-				-		-	
					Middle	5.1	0.6	254	19.0	19.0	8.1	8.1	33.8	33.8	96.9	96.9	7.4		3.2		6		-				-		-	
						5.1	0.6	268	19.0		8.1		33.8		96.9		7.4		3.2		6		-				-		-	
					Bottom	9.2	0.6	242	19.0	19.0	8.1	8.1	34.3	34.3	97.3	97.4	7.4	7.4	4.2		5		-				-		-	
						9.2	0.7	263	19.0		8.1		34.3		97.4		7.4		4.2		5		-				-		-	
SR5A	Sunny	Rough	15:56	3.7	Surface	1.0	0.4	290	18.9	18.9	8.1	8.1	33.3	33.3	100.4	100.5	7.7	7.7	4.6	5.4	7	7	-	-	816599	810698	-	-	-	-
						1.0	0.4	292	18.9		8.1		33.3		100.5		7.7		4.6		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.3	313	18.8	18.8	8.1	8.1	33.2	33.2	99.5	99.5	7.6	7.6	6.2		7		-				-		-	
						2.7	0.3	317	18.8		8.1		33.2		99.4		7.6		6.2		7		-				-		-	
SR6A	Sunny	Rough	16:31	3.6	Surface	1.0	0.1	101	19.6	19.6	8.1	8.1	33.6	33.6	97.5	97.5	7.3	7.3	4.0	3.6	7	7	-	-	817979	814742	-	-	-	-
						1.0	0.1	107	19.6		8.1		33.6		97.5		7.3		4.0		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.0	117	19.8	19.8	8.1	8.1	34.0	34.0	99.9	99.9	7.5	7.5	3.2		7		-				-		-	
						2.6	0.0	117	19.8		8.1		34.0		99.8		7.5		3.2		6		-				-		-	
SR7	Sunny	Moderate	17:17	14.4	Surface	1.0	0.5	286	21.2	21.2	8.0	8.0	34.5	34.5	91.3	91.3	6.6	6.6	2.6	2.9	4	4	-	-	823619	823759	-	-	-	-
						1.0	0.6	288	21.2		8.0		34.5		91.3		6.6		2.6		4		-				-		-	
					Middle	7.2	0.3	299	21.2	21.2	8.0	8.0	34.5	34.5	91.1	91.1	6.6		2.9		4		-				-		-	
						7.2	0.3	291	21.2		8.0		34.5		91.1		6.6		2.9		4		-				-		-	
					Bottom	13.4	0.0	342	21.2	21.2	8.0	8.0	34.5	34.5	91.3	91.3	6.6	6.6	3.1		3		-				-		-	
						13.4	0.0	358	21.2		8.0		34.5		91.3		6.6		3.2		3		-				-		-	
SR8	Sunny	Moderate	15:34	4.4	Surface	1.0	-	-	20.4	20.4	8.0	8.0	34.4	34.4	94.7	94.7	7.0	7.0	4.4	4.5	7	7	-	-	820398	811601	-	-	-	-
						1.0	-	-	20.4		8.0		34.4		94.7		7.0		4.4		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	-	-	20.4	20.4	8.0	8.0	34.4	34.4	95.1	95.2	7.0	7.0	4.6		6		-				-		-	
						3.4	-	-	20.4		8.0		34.4		95.2		7.0		4.6		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	11:31	8.4	Surface	1.0	0.1	224	19.9	19.9	7.9	7.9	34.9	34.9	99.5	99.5	7.4	7.4	4.4	5.9	10	12	86	88	815628	804246	<0.2	<0.2	0.8	0.8
						1.0	0.1	227	19.9		7.9		34.9		99.5		7.4		4.4		11		85				<0.2		1.0	
					Middle	4.2	0.1	235	19.7	19.7	7.9	7.9	34.9	34.9	97.7	97.7	7.3		6.8		12		89				<0.2		0.7	
						4.2	0.1	235	19.7		7.9		34.9		97.7		7.3		6.8		12		88				<0.2		0.7	
					Bottom	7.4	0.1	231	19.6	19.6	7.9	7.9	34.9	34.9	98.5	98.5	7.3	7.3	6.6		14		91				<0.2		0.7	
						7.4	0.1	244	19.6		7.9		34.9		98.5		7.3		6.6		14		90				<0.2		0.8	
C2	Fine	Moderate	12:42	9.2	Surface	1.0	0.5	147	20.0	20.0	8.0	8.0	34.3	34.3	97.5	97.5	7.2	7.2	3.1	6.2	10	8	84	88	825661	806949	<0.2	<0.2	0.6	0.7
						1.0	0.5	150	20.0		8.0		34.3		97.5		7.2		3.1		11		84				<0.2		0.7	
					Middle	4.6	0.4	146	19.8	19.8	8.0	8.0	34.4	34.4	96.3	96.3	7.2		6.2		8		88				<0.2		0.7	
						4.6	0.4	157	19.8		8.0		34.4		96.3		7.2		6.2		7		88				<0.2		0.7	
					Bottom	8.2	0.3	144	19.8	19.8	8.0	8.0	34.5	34.5	96.7	96.7	7.2	7.2	9.1		7		91				<0.2		0.8	
						8.2	0.3	149	19.8		8.0		34.5		96.7		7.2		9.2		7		91				<0.2		0.8	
C3	Fine	Moderate	10:26	13.1	Surface	1.0	0.2	118	20.7	20.7	8.0	8.0	34.5	34.5	89.6	89.6	6.6	6.6	2.9	3.7	9	8	83	87	822125	817783	<0.2	<0.2	0.7	0.7
						1.0	0.2	129	20.7		8.0		34.5		89.6		6.6		3.0		9		83				<0.2		0.8	
					Middle	6.6	0.2	111	20.6	20.6	8.0	8.0	34.5	34.5	89.3	89.3	6.6		3.4		9		87				<0.2		0.7	
						6.6	0.2	115	20.6		8.0		34.5		89.3		6.6		3.4		8		88				<0.2		0.6	
					Bottom	12.1	0.2	91	20.5	20.5	8.0	8.0	34.5	34.5	89.8	89.9	6.6	6.6	4.7		8		91				<0.2		0.7	
						12.1	0.2	93	20.5		8.0		34.5		89.9		6.6		4.8		7		92				<0.2		0.6	
IM1	Fine	Moderate	11:52	5.4	Surface	1.0	0.1	247	19.2	19.2	8.0	8.0	34.8	34.8	102.5	102.5	7.7	7.7	5.7	17.8	11	9	85	88	817937	807144	<0.2	<0.2	0.8	0.9
						1.0	0.1	270	19.2		8.0		34.8		102.5		7.7		5.7		10		86				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	241	19.1	19.1	8.0	8.0	34.8	34.8	101.3	101.3	7.6	7.6	29.8		8		90				<0.2		0.8	
						4.4	0.1	262	19.1		8.0		34.8		101.3		7.6		29.8		8		90				<0.2		0.9	
IM2	Fine	Moderate	11:59	6.5	Surface	1.0	0.2	180	19.7	19.7	8.0	8.0	34.9	34.9	100.8	100.8	7.5	7.5	3.0	4.1	10	10	86	88	818185	806160	<0.2	<0.2	1.1	1.1
						1.0	0.2	192	19.7		8.0		34.9		100.8		7.5		3.0		9		86				<0.2		1.2	
					Middle	3.3	0.1	161	19.4	19.4	8.0	8.0	34.9	34.9	99.2	99.2	7.4		4.3		9		88				<0.2		1.1	
						3.3	0.1	163	19.4		8.0		34.9		99.2		7.4		4.3		10		89				<0.2		1.1	
					Bottom	5.5	0.1	196	19.3	19.3	8.0	8.0	34.9	34.9	99.4	99.4	7.5	7.5	4.9		12		90				<0.2		1.0	
						5.5	0.1	209	19.3		8.0		34.9		99.4		7.5		4.9		11		90				<0.2		1.0	
IM3	Fine	Moderate	12:05	6.8	Surface	1.0	0.1	116	19.6	19.6	8.0	8.0	34.9	34.9	100.6	100.6	7.5	7.5	3.7	4.9	8	11	85	88	818786	805577	<0.2	<0.2	1.0	1.0
						1.0	0.1	117	19.6		8.0		34.9		100.6		7.5		3.7		9		86				<0.2		1.0	
					Middle	3.4	0.1	127	19.3	19.3	8.0	8.0	34.9	34.9	98.4	98.4	7.4		5.2		11		88				<0.2		1.1	
						3.4	0.1	138	19.3		8.0		34.9		98.4		7.4		5.2		11		87				<0.2		0.9	
					Bottom	5.8	0.1	111	19.3	19.3	8.0	8.0	34.9	34.9	98.8	99.0	7.4	7.4	5.9		12		90				<0.2		0.9	
						5.8	0.1	119	19.3		8.0		34.9		99.1		7.4		5.9		12		91				<0.2		1.0	
IM4	Fine	Moderate	12:16	7.5	Surface	1.0	0.3	174	19.7	19.7	8.0	8.0	34.8	34.8	99.5	99.5	7.4	7.4	6.1	8.1	9	12	86	89	819743	804607	<0.2	<0.2	0.9	1.0
						1.0	0.3	177	19.7		8.0		34.8		99.5		7.4		6.1		10		87				<0.2		1.0	
					Middle	3.8	0.3	180	19.5	19.5	8.0	8.0	34.9	34.9	98.3	98.3	7.3		8.5		12		88				<0.2		1.0	
						3.8	0.3	190	19.5		8.0		34.9		98.3		7.3		8.5		12		89				<0.2		0.9	
					Bottom	6.5	0.3	175	19.5	19.5	8.0	8.0	34.9	34.9	98.4	98.4	7.4	7.4	9.8		13		90				<0.2		1.0	
						6.5	0.3	182	19.5		8.0		34.9		98.4		7.4		9.8		14		91				<0.2		0.9	
IM5	Fine	Moderate	12:24	6.7	Surface	1.0	0.4	203	19.7	19.7	8.0	8.0	34.7	34.7	98.4	98.4	7.3	7.3	5.3	7.1	8	11	86	88	820716	804854	<0.2	<0.2	0.9	0.9
						1.0	0.4	212	19.7		8.0		34.7		98.4		7.3		5.3		8		85				<0.2		0.9	
					Middle	3.4	0.3	211	19.5	19.5	8.0	8.0	34.9	34.9	97.6	97.6	7.3		8.0		12		89				<0.2		1.0	
						3.4	0.3	227	19.5		8.0		34.9		97.6		7.3		8.0		12		88				<0.2		0.9	
					Bottom	5.7	0.3	205	19.4	19.4	8.0	8.0	34.9	34.9	98.3	98.3	7.4	7.4	8.1		14		90				<0.2		0.9	
						5.7	0.3	225	19.4		8.0		34.9		98.3		7.4		8.1		14		91				<0.2		0.9	
IM6	Fine	Moderate	12:32	6.6	Surface	1.0	0.2	214	19.7	19.7	8.0	8.0	34.9	34.9	98.5	98.5	7.3	7.3	4.6	5.5	11	12	85	88	821063	805815	<0.2	<0.2	1.0	1.0
						1.0	0.2	224	19.7		8.0		34.9		98.5		7.3		4.6		11		87				<0.2		1.2	
					Middle	3.3	0.2	206	19.6	19.6	8.0	8.0	34.9	34.9	98.3	98.3	7.3		5.6		12		88				<0.2		1.0	
						3.3	0.2	211	19.6		8.0		34.9		98.3		7.3		5.6		12		89				<0.2		0.9	
					Bottom	5.6	0.2	198	19.5	19.5	8.0	8.0	34.9	34.9	98.2	98.2	7.3	7.3	6.3		12		90				<0.2		0.9	
						5.6	0.2	209	19.5		8.0		34.9		98.2		7.3		6.3		13		91				<0.2		0.8	
IM7	Fine	Moderate	12:39	7.9	Surface	1.0	0.1	140	19.6	19.6	8.0	8.0	34.9	34.9	99.2	99.2	7.4	7.4	4.5	4.9	12	12	86	88	821331	806832	<0.2	<0.2	1.0	1.0
						1.0	0.1	151	19.6		8.0		34.9		99.2		7.4		4.5		13		85				<0.2		0.9	
					Middle	4.0	0.1	156	19.6	19.6	8.0	8.0	34.9	34.9	98.1	98.1	7.3		5.1		12		89				<0.2		1.1	
						4.0	0.1	165	19.6		8.0		34.9		98.1		7.3		5.1		12		88				<0.2		1.0	
					Bottom	6.9	0.0	97	19.4	19.4	8.0	8.0	34.9	34.9	98.7	98.7	7.4	7.4	5.2		11		90				<0.2		1.0	
						6.9	0.0	101	19.4		8.0		34.9		98.7		7.4		5.2		12		91				<0.2		1.0	
IM8	Fine	Moderate	12:14	8.2	Surface	1.0	0.1	164	20.0	20.0	8.0	8.0	34.5	34.5	98.9	98.9	7.3	7.3	3.8	5.7	9	9	84	89	821829	808138	<0.2	<0.2	0.8	0.7
						1.0	0.1	175	20.0		8.0		34.5		98.9		7.3		3.8		10		84				<0.2		0.7	
					Middle	4.1	0.1	93	19.5	19.5	8.0	8.0	34.6	34.6	97.1	97.1	7.3		5.9		9		88				<0.2		0.6	
						4.1	0.1	96	19.5		8.0		34.6		97.1		7.3		5.9		10		92				<0.2		0.7	
					Bottom	7.2	0.1	39	19.3	19.3	8.0	8.0	34.6	34.6	97.1	97.2	7.3	7.3	7.6		8		91				<0.2		0.7	
						7.2	0.1	42	19.3		8.0		34.6		97.2		7.3		7.6		8		92				<0.2		0.7	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	12:08	7.1	Surface	1.0	0.3	103	20.4	20.4	8.0	8.0	34.5	34.5	99.8	99.8	7.4	7.4	2.8	5.0	7	6	85	89	822097	808807	<0.2	<0.2	0.8	0.7
						1.0	0.3	112	20.4		8.0		34.5		99.8		7.4		2.8		7		86				<0.2		0.9	
					Middle	3.6	0.3	81	19.6	19.6	8.0	8.0	34.6	34.6	97.9	97.9	7.3		5.2		7		88				<0.2		0.6	
						3.6	0.3	86	19.6		8.0		34.6		97.9		7.3		5.1		6		89				<0.2		0.7	
					Bottom	6.1	0.3	76	19.4	19.4	8.0	8.0	34.6	34.6	97.3	97.3	7.3	7.3	7.1		4		91				<0.2		0.6	
						6.1	0.3	78	19.4		8.0		34.6		97.3		7.3		7.0		5		92				<0.2		0.6	
IM10	Fine	Moderate	12:01	7.4	Surface	1.0	0.5	116	20.0	20.0	8.0	8.0	34.5	34.5	99.0	99.0	7.3	7.3	3.4	7.4	8	9	83	88	822401	809772	<0.2	<0.2	0.6	0.6
						1.0	0.5	122	20.0		8.0		34.5		99.0		7.3		3.3		10		84				<0.2		0.6	
					Middle	3.7	0.5	114	19.7	19.7	8.0	8.0	34.6	34.6	98.2	98.2	7.3		5.2		8		89				<0.2		0.6	
						3.7	0.5	125	19.7		8.0		34.6		98.2		7.3		5.3		8		90				<0.2		0.7	
					Bottom	6.4	0.3	104	19.4	19.4	8.0	8.0	34.6	34.6	97.2	97.2	7.3	7.3	13.5		9		91				<0.2		0.6	
						6.4	0.3	109	19.4		8.0		34.6		97.2		7.3		13.6		9		91				<0.2		0.6	
IM11	Fine	Moderate	11:47	8.2	Surface	1.0	0.5	136	19.5	19.5	8.0	8.0	34.6	34.6	98.1	98.2	7.3	7.3	8.5	11.0	15	14	83	88	822057	811457	<0.2	<0.2	0.6	0.7
						1.0	0.5	147	19.5		8.0		34.6		98.2		7.3		8.5		14		84				<0.2		0.8	
					Middle	4.1	0.4	140	19.5	19.5	8.0	8.0	34.6	34.6	97.8	97.9	7.3		11.1		14		89				<0.2		0.7	
						4.1	0.5	140	19.5		8.0		34.6		97.9		7.3		11.2		14		89				<0.2		0.6	
					Bottom	7.2	0.2	147	19.5	19.5	8.0	8.0	34.6	34.6	98.6	98.7	7.4	7.4	13.2		12		92				<0.2		0.7	
						7.2	0.2	147	19.5		8.0		34.6		98.7		7.4		13.3		14		92				<0.2		0.5	
IM12	Fine	Moderate	11:41	9.0	Surface	1.0	0.3	101	20.1	20.1	8.0	8.0	34.6	34.6	96.0	96.0	7.1	7.1	5.1	5.6	10	9	83	88	821473	812053	<0.2	<0.2	0.8	0.8
						1.0	0.3	104	20.1		8.0		34.6		95.9		7.1		5.1		10		84				<0.2		0.8	
					Middle	4.5	0.3	112	20.0	20.0	8.0	8.0	34.6	34.6	95.1	95.1	7.1		5.4		10		88				<0.2		0.7	
						4.5	0.4	115	20.0		8.0		34.6		95.0		7.1		5.4		9		88				<0.2		0.7	
					Bottom	8.0	0.2	109	19.9	19.9	8.0	8.0	34.6	34.6	94.6	94.7	7.0	7.0	6.2		8		91				<0.2		0.7	
						8.0	0.2	114	19.9		8.0		34.6		94.7		7.0		6.2		7		91				<0.2		0.8	
SR1A	Fine	Moderate	11:11	4.1	Surface	1.0	-	-	19.8	19.8	8.0	8.0	34.4	34.4	95.5	95.5	7.1	7.1	4.3	4.9	9	8	-	-	819972	812663	-	-	-	-
						1.0	-	-	19.8		8.0		34.4		95.5		7.1		4.2		9		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	-	-	19.9	19.9	8.0	8.0	34.5	34.5	96.0	96.1	7.1	7.2	5.6		8		-				-		-	
						3.1	-	-	19.9		8.0		34.5		96.1		7.2		5.7		6		-				-		-	
SR2	Fine	Moderate	10:49	5.6	Surface	1.0	0.1	54	19.9	19.9	8.0	8.0	34.5	34.5	95.1	95.1	7.1	7.1	4.7	5.1	13	12	84	86	821475	814182	<0.2	<0.2	0.8	0.8
						1.0	0.1	59	19.9		8.0		34.5		95.1		7.1		4.7		13		84				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.1	89	19.9	19.9	8.0	8.0	34.5	34.5	94.7	94.8	7.0	7.1	5.5		10		88				<0.2		0.9	
						4.6	0.1	92	19.9		8.0		34.5		94.8		7.1		5.5		10		88				<0.2		0.8	
SR3	Fine	Moderate	12:19	8.6	Surface	1.0	0.1	153	19.8	19.8	8.0	8.0	34.5	34.5	97.1	97.1	7.2	7.2	4.1	5.6	8	7	-	-	822130	807571	-	-	-	-
						1.0	0.1	168	19.8		8.0		34.5		97.1		7.2		4.2		8		-				-		-	
					Middle	4.3	0.1	158	19.5	19.5	8.0	8.0	34.6	34.6	96.4	96.4	7.2		5.7		6		-				-		-	
						4.3	0.1	162	19.5		8.0		34.6		96.4		7.2		5.7		7		-				-		-	
					Bottom	7.6	0.0	143	19.4	19.4	8.0	8.0	34.6	34.6	96.2	96.2	7.2	7.2	6.9		5		-				-		-	
						7.6	0.0	152	19.4		8.0		34.6		96.2		7.2		7.0		6		-				-		-	
SR4A	Fine	Moderate	11:10	8.7	Surface	1.0	0.3	75	19.4	19.4	7.9	7.9	34.9	34.9	99.7	99.7	7.5	7.5	4.3	5.1	10	11	-	-	817191	807811	-	-	-	-
						1.0	0.3	75	19.4		7.9		34.9		99.7		7.5		4.3		10		-				-		-	
					Middle	4.4	0.3	84	19.2	19.2	7.9	7.9	34.9	34.9	99.0	99.0	7.4		5.4		10		-				-		-	
						4.4	0.3	91	19.2		7.9		34.9		99.0		7.4		5.4		10		-				-		-	
					Bottom	7.7	0.2	65	19.2	19.2	7.9	7.9	34.9	34.9	99.0	99.0	7.4	7.4	5.5		12		-				-		-	
						7.7	0.2	68	19.2		7.9		34.9		99.0		7.4		5.5		12		-				-		-	
SR5A	Fine	Moderate	10:50	4.2	Surface	1.0	0.1	359	19.2	19.2	7.9	7.9	34.6	34.6	99.2	99.2	7.5	7.5	3.0	3.6	5	6	-	-	816579	810710	-	-	-	-
						1.0	0.1	330	19.2		7.9		34.6		99.2		7.5		3.0		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	2	19.1	19.1	7.9	7.9	34.6	34.6	99.7	99.7	7.5	7.5	4.2		7		-				-		-	
						3.2	0.1	2	19.1		7.9		34.6		99.7		7.5		4.2		6		-				-		-	
SR6A	Fine	Moderate	10:22	4.3	Surface	1.0	0.0	137	19.9	19.9	8.1	8.1	34.1	34.1	96.1	96.1	7.2	7.2	3.1	3.2	8	9	-	-	817951	814752	-	-	-	-
						1.0	0.0	150	19.9		8.1		34.1		96.1		7.2		3.1		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	164	19.9	19.9	8.2	8.2	34.1	34.1	98.8	98.8	7.4	7.4	3.2		8		-				-		-	
						3.3	0.0	172	19.9		8.2		34.1		98.8		7.4		3.2		9		-				-		-	
SR7	Fine	Moderate	09:53	15.3	Surface	1.0	0.2	47	20.6	20.6	8.0	8.0	34.6	34.6	88.7	88.7	6.5	6.5	3.5	3.6	7	6	-	-	823659	823726	-	-	-	-
						1.0	0.2	51	20.6		8.0		34.6		88.7		6.5		3.5		6		-				-		-	
					Middle	7.7	0.2	37	20.6	20.6	7.9	7.9	34.6	34.6	88.5	88.5	6.5		3.6		6		-				-		-	
						7.7	0.2	37	20.6		7.9		34.6		88.5		6.5		3.7		6		-				-		-	
					Bottom	14.3	0.2	24	20.6	20.6	7.9	7.9	34.6	34.6	88.8	88.9	6.5	6.5	3.7		4		-				-		-	
						14.3	0.2	26	20.6		7.9		34.6		88.9		6.5		3.8		5		-				-		-	
SR8	Fine	Moderate	11:33	4.2	Surface	1.0	-	-	20.3	20.3	8.0	8.0	34.4	34.4	99.9	100.0	7.4	7.4	5.2	5.2	9	8	-	-	820371	811636	-	-	-	-
						1.0	-	-	20.2		8.0		34.5		100.0		7.4		5.2		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	19.7	19.7	8.0	8.0	34.5	34.5	99.6	99.7	7.4	7.4	5.3		7		-				-		-	
						3.2	-	-	19.7		8.0		34.5		99.8		7.4		5.2		6		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	16:36	8.3	Surface	1.0	0.1	43	19.9	19.9	8.0	8.0	34.9	34.9	99.4	99.4	7.4	7.4	4.5	6.0	10	9	85	88	815632	804262	<0.2	<0.2	0.7	0.7
						1.0	0.1	45	19.9		8.0		34.9		99.4		7.4		4.5		9		86				<0.2		0.7	
					Middle	4.2	0.1	48	19.6	19.6	8.0	8.0	34.9	34.9	97.7	97.7	7.3		5.5		8		88				<0.2		0.7	
						4.2	0.1	44	19.6		8.0		34.9		97.7		7.3		5.5		8		89				<0.2		0.7	
					Bottom	7.3	0.1	18	19.5	19.5	8.0	8.0	34.9	34.9	98.0	98.0	7.3	7.3	7.9		8		91				<0.2		0.7	
						7.3	0.1	19	19.5		8.0		34.9		98.0		7.3		7.9		8		91				<0.2		0.8	
C2	Sunny	Calm	15:35	8.6	Surface	1.0	0.2	16	20.0	20.0	8.0	8.0	34.4	34.4	97.1	97.1	7.2	7.2	3.2	5.4	6	8	84	88	825678	806958	<0.2	<0.2	0.8	0.8
						1.0	0.2	17	20.0		8.0		34.4		97.1		7.2		3.3		8		84				<0.2		0.8	
					Middle	4.3	0.2	15	19.8	19.8	8.0	8.0	34.4	34.4	95.5	95.6	7.1		4.6		8		88				<0.2		0.8	
						4.3	0.2	15	19.8		8.0		34.4		95.6		7.1		4.7		9		89				<0.2		0.9	
					Bottom	7.6	0.4	17	19.8	19.8	8.0	8.0	34.5	34.5	96.0	96.1	7.2	7.2	8.3		9		91				<0.2		0.8	
						7.6	0.4	15	19.8		8.0		34.5		96.1		7.2		8.2		10		91				<0.2		0.8	
C3	Sunny	Calm	18:42	11.8	Surface	1.0	0.1	222	20.7	20.7	8.0	8.0	34.6	34.6	95.8	95.6	7.0	7.0	3.4	4.6	6	6	83	88	822129	817820	<0.2	<0.2	0.8	0.8
						1.0	0.1	243	20.6		8.0		34.6		95.3		7.0		3.4		6		84				<0.2		0.8	
					Middle	5.9	0.1	245	20.3	20.3	8.0	8.0	34.5	34.5	93.5	93.5	6.9		5.2		6		88				<0.2		0.8	
						5.9	0.1	267	20.3		8.0		34.5		93.5		6.9		5.3		6		88				<0.2		0.8	
					Bottom	10.8	0.2	251	20.3	20.3	8.0	8.0	34.5	34.5	93.8	93.9	6.9	6.9	5.1		4		91				<0.2		0.8	
						10.8	0.2	267	20.3		8.0		34.5		93.9		6.9		5.2		5		92				<0.2		0.8	
IM1	Fine	Moderate	16:19	5.2	Surface	1.0	0.1	18	19.4	19.4	8.0	8.0	34.8	34.8	102.9	102.9	7.7	7.7	3.3	4.1	6	7	86	88	817959	807124	<0.2	<0.2	0.8	0.8
						1.0	0.1	18	19.4		8.0		34.8		102.9		7.7		3.3		7		86				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	19	19.2	19.2	8.0	8.0	34.8	34.8	101.8	101.8	7.7	7.7	4.8		6		90				<0.2		0.8	
						4.2	0.1	21	19.2		8.0		34.8		101.8		7.7		4.8		7		90				<0.2		0.9	
IM2	Fine	Moderate	16:13	6.9	Surface	1.0	0.2	35	19.6	19.6	8.0	8.0	34.9	34.9	101.2	101.2	7.5	7.5	3.3	6.6	6	6	86	89	818162	806145	<0.2	<0.2	1.0	0.9
						1.0	0.2	33	19.6		8.0		34.9		101.2		7.5		3.3		7		87				<0.2		1.0	
					Middle	3.5	0.1	34	19.3	19.3	8.0	8.0	34.9	34.9	99.8	99.9	7.5		5.6		6		89				<0.2		0.9	
						3.5	0.1	35	19.3		8.0		34.9		100.0		7.5		5.7		6		88				<0.2		0.9	
					Bottom	5.9	0.1	28	19.3	19.3	8.0	8.0	34.9	34.9	99.2	99.2	7.4	7.4	10.7		7		90				<0.2		0.9	
						5.9	0.1	30	19.3		8.0		34.9		99.2		7.4		10.7		6		91				<0.2		0.9	
IM3	Fine	Moderate	16:08	7.1	Surface	1.0	0.2	34	19.5	19.5	8.0	8.0	34.9	34.9	99.3	99.3	7.4	7.4	5.1	5.1	8	10	86	89	818779	805586	<0.2	<0.2	0.9	0.9
						1.0	0.2	31	19.5		8.0		34.9		99.3		7.4		5.1		8		86				<0.2		1.0	
					Middle	3.6	0.1	31	19.4	19.4	8.0	8.0	34.9	34.9	98.8	98.8	7.4		5.2		9		88				<0.2		0.8	
						3.6	0.1	32	19.4		8.0		34.9		98.8		7.4		5.2		9		89				<0.2		0.9	
					Bottom	6.1	0.0	24	19.4	19.4	8.0	8.0	34.9	34.9	98.7	98.7	7.4	7.4	5.1		11		91				<0.2		1.0	
						6.1	0.0	26	19.4		8.0		34.9		98.7		7.4		5.1		12		91				<0.2		1.0	
IM4	Fine	Moderate	16:00	6.8	Surface	1.0	0.0	19	19.7	19.7	8.0	8.0	34.8	34.8	99.8	99.8	7.4	7.4	5.3	6.1	8	8	86	88	819742	804588	<0.2	<0.2	1.0	1.0
						1.0	0.0	20	19.7		8.0		34.8		99.8		7.4		5.3		8		86				<0.2		1.1	
					Middle	3.4	0.1	21	19.6	19.6	8.0	8.0	34.8	34.8	99.4	99.4	7.4		6.1		8		89				<0.2		1.0	
						3.4	0.1	21	19.6		8.0		34.8		99.4		7.4		6.1		8		88				<0.2		1.0	
					Bottom	5.8	0.1	332	19.5	19.5	8.0	8.0	34.9	34.9	99.3	99.3	7.4	7.4	6.9		9		90				<0.2		0.9	
						5.8	0.1	359	19.5		8.0		34.9		99.3		7.4		6.9		9		90				<0.2		1.0	
IM5	Fine	Moderate	15:54	7.2	Surface	1.0	0.2	25	19.7	19.7	8.0	8.0	34.9	34.9	99.3	99.3	7.4	7.4	5.3	6.5	8	9	86	88	820753	804853	<0.2	<0.2	1.1	1.1
						1.0	0.2	26	19.7		8.0		34.9		99.3		7.4		5.3		8		85				<0.2		1.1	
					Middle	3.6	0.2	26	19.6	19.6	8.0	8.0	34.9	34.9	98.7	98.7	7.4		6.4		8		88				<0.2		1.1	
						3.6	0.2	29	19.6		8.0		34.9		98.7		7.4		6.4		8		89				<0.2		1.0	
					Bottom	6.2	0.1	29	19.5	19.5	8.0	8.0	34.9	34.9	99.0	99.1	7.4	7.4	7.9		10		90				<0.2		1.1	
						6.2	0.1	30	19.5		8.0		34.9		99.1		7.4		7.9		11		90				<0.2		1.1	
IM6	Fine	Moderate	15:48	7.0	Surface	1.0	0.2	24	19.7	19.7	8.0	8.0	34.9	34.9	99.3	99.3	7.4	7.4	5.0	6.3	7	8	86	88	821071	805810	<0.2	<0.2	1.1	1.0
						1.0	0.2	26	19.7		8.0		34.9		99.3		7.4		5.0		8		86				<0.2		1.0	
					Middle	3.5	0.1	22	19.6	19.6	8.0	8.0	34.9	34.9	99.2	99.2	7.4		6.4		8		88				<0.2		1.2	
						3.5	0.1	23	19.6		8.0		34.9		99.2		7.4		6.4		8		89				<0.2		1.0	
					Bottom	6.0	0.1	11	19.5	19.5	8.0	8.0	34.9	34.9	98.8	98.8	7.4	7.4	7.6		8		90				<0.2		0.9	
						6.0	0.1	12	19.5		8.0		34.9		98.8		7.4		7.6		8		88				<0.2		1.0	
IM7	Fine	Moderate	15:40	7.8	Surface	1.0	0.1	290	19.6	19.6	8.0	8.0	34.9	34.9	98.7	98.7	7.4	7.4	4.6	5.0	9	9	86	88	821342	806827	<0.2	<0.2	1.1	1.0
						1.0	0.1	316	19.6		8.0		34.9		98.7		7.4		4.6		9		86				<0.2		1.1	
					Middle	3.9	0.1	351	19.5	19.5	8.0	8.0	34.9	34.9	98.0	98.0	7.3		5.0		10		88				<0.2		1.1	
						3.9	0.1	325	19.5		8.0		34.9		98.0		7.3		5.0		9		88				<0.2		1.0	
					Bottom	6.8	0.2	342	19.4	19.4	8.0	8.0	34.9	34.9	97.4	97.4	7.3	7.3	5.3		9		90				<0.2		0.9	
						6.8	0.2	347	19.4		8.0		34.9		97.4		7.3		5.3		10		91				<0.2		0.9	
IM8	Sunny	Calm	16:06	7.3	Surface	1.0	0.4	290	20.1	20.1	8.0	8.0	34.5	34.5	98.6	98.7	7.3	7.3	3.3	4.9	9	7	85	89	821849	808136	<0.2	<0.2	0.8	0.8
						1.0	0.4	291	20.1		8.0		34.5		98.7		7.3		3.3		9		86				<0.2		0.9	
					Middle	3.7	0.4	289	19.9	19.9	8.0	8.0	34.5	34.5	98.1	98.1	7.3		4.2		6		89				<0.2		0.9	
						3.7	0.4	297	19.9		8.0		34.5		98.1		7.3		4.1		7		89				<0.2		0.7	
					Bottom	6.3	0.1	256	19.4	19.4	8.0	8.0	34.6	34.6	97.4	97.5	7.3	7.3	7.2		5		91				<0.2		0.8	
						6.3	0.1	268	19.4		8.0		34.6		97.5		7.3		7.2		5		92				<0.2		0.7	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 10 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Calm	16:14	7.9	Surface	1.0	0.3	286	20.0	20.0	8.0	8.0	34.5	34.5	98.1	98.1	7.3	7.3	3.7	5.6	12	10	85	89	822096	808829	<0.2	<0.2	0.8	0.8
						1.0	0.3	288	20.0		8.0		34.5		98.1		7.3		3.6		10		85				<0.2		0.8	
					Middle	4.0	0.4	280	19.7	19.7	8.0	8.0	34.6	34.6	97.2	97.3	7.3		5.0		10		90				<0.2		0.7	
						4.0	0.4	283	19.7		8.0		34.6		97.3		7.3		4.9		10		90				<0.2		0.8	
					Bottom	6.9	0.2	297	19.4	19.4	8.0	8.0	34.6	34.6	96.1	96.1	7.2	7.2	8.0		9		91				<0.2		0.8	
						6.9	0.3	285	19.4		8.0		34.6		96.1		7.2		8.1		9		91				<0.2		0.8	
IM10	Sunny	Calm	16:25	8.2	Surface	1.0	0.5	289	19.8	19.8	8.0	8.0	34.6	34.6	98.3	98.3	7.3	7.3	6.5	7.1	5	8	84	88	822400	809793	<0.2	<0.2	1.1	0.9
						1.0	0.5	291	19.8		8.0		34.6		98.2		7.3		6.6		6		84				<0.2		0.9	
					Middle	4.1	0.3	279	19.6	19.6	8.0	8.0	34.6	34.6	96.9	96.9	7.2		7.3		8		88				<0.2		0.8	
						4.1	0.4	283	19.6		8.0		34.6		96.9		7.2		7.2		8		89				<0.2		0.9	
					Bottom	7.2	0.3	277	19.6	19.6	8.0	8.0	34.6	34.6	97.4	97.5	7.3	7.3	7.6		11		91				<0.2		0.8	
						7.2	0.3	279	19.6		8.0		34.6		97.6		7.3		7.6		10		91				<0.2		0.7	
IM11	Sunny	Calm	16:35	7.4	Surface	1.0	0.1	270	19.7	19.7	8.0	8.0	34.6	34.6	98.3	98.3	7.3	7.3	6.7	7.1	7	6	83	88	822073	811436	<0.2	<0.2	0.8	0.8
						1.0	0.1	284	19.7		8.0		34.6		98.3		7.3		6.7		8		84				<0.2		0.8	
					Middle	3.7	0.1	252	19.7	19.7	8.0	8.0	34.6	34.6	97.0	97.0	7.2		7.3		6		88				<0.2		0.8	
						3.7	0.1	266	19.6		8.0		34.6		96.9		7.2		7.3		7		89				<0.2		0.8	
					Bottom	6.4	0.2	285	19.6	19.6	8.0	8.0	34.6	34.6	96.8	96.9	7.2	7.2	7.4		5		91				<0.2		0.7	
						6.4	0.2	295	19.6		8.0		34.6		96.9		7.2		7.4		5		92				<0.2		0.7	
IM12	Sunny	Calm	16:48	7.3	Surface	1.0	0.1	241	19.9	19.9	8.0	8.0	34.6	34.6	95.0	96.9	7.1	7.3	6.2	6.8	8	8	84	88	821446	812054	<0.2	<0.2	0.7	0.8
						1.0	0.1	259	19.8		8.0		34.6		98.7		7.4		6.2		8		85				<0.2		0.9	
					Middle	3.7	0.1	248	19.7	19.7	8.0	8.0	34.6	34.6	98.5	98.5	7.3		6.5		8		88				<0.2		0.7	
						3.7	0.1	267	19.7		8.0		34.6		98.5		7.3		6.5		7		88				<0.2		0.8	
					Bottom	6.3	0.2	250	19.7	19.7	8.0	8.0	34.6	34.6	98.9	99.0	7.4	7.4	7.6		7		91				<0.2		0.8	
						6.3	0.2	225	19.7		8.0		34.6		99.1		7.4		7.6		7		92				<0.2		0.8	
SR1A	Sunny	Calm	17:16	5.0	Surface	1.0	-	-	20.0	20.0	8.0	8.0	34.6	34.6	95.9	95.9	7.1	7.1	4.9	8.4	7	7	-	-	819976	812654	-	-	-	-
						1.0	-	-	20.0		8.0		34.6		95.8		7.1		4.9		7		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	20.0	20.0	8.0	8.0	34.6	34.6	95.5	95.5	7.1	7.1	11.9		8		-				-		-	
						4.0	-	-	20.0		8.0		34.6		95.5		7.1		11.9		7		-				-		-	
SR2	Sunny	Calm	18:31	4.5	Surface	1.0	0.2	228	20.0	20.0	8.0	8.0	34.6	34.6	95.8	95.8	7.1	7.1	5.9	6.4	6	7	83	86	821481	814170	<0.2	<0.2	0.8	0.8
						1.0	0.2	233	20.0		8.0		34.6		95.8		7.1		5.9		7		84				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	215	20.0	20.0	8.0	8.0	34.6	34.6	95.6	95.6	7.1	7.1	6.9		7		88				<0.2		0.7	
						3.5	0.1	226	20.0		8.0		34.6		95.6		7.1		7.0		7		88				<0.2		0.7	
SR3	Sunny	Calm	15:57	7.5	Surface	1.0	0.4	26	20.0	20.0	8.0	8.0	34.3	34.3	97.1	97.1	7.2	7.2	3.2	5.5	6	6	-	-	822167	807589	-	-	-	-
						1.0	0.4	23	20.0		8.0		34.3		97.0		7.2		3.2		6		-				-		-	
					Middle	3.8	0.3	19	19.8	19.8	8.0	8.0	34.4	34.4	95.6	95.6	7.1		4.4		5		-				-		-	
						3.8	0.4	18	19.8		8.0		34.4		95.6		7.1		4.4		6		-				-		-	
					Bottom	6.5	0.3	10	19.8	19.8	8.0	8.0	34.5	34.5	96.0	96.0	7.2	7.2	8.9		6		-				-		-	
						6.5	0.3	11	19.8		8.0		34.5		96.0		7.2		8.9		6		-				-		-	
SR4A	Fine	Moderate	16:57	8.6	Surface	1.0	0.1	233	19.7	19.7	8.0	8.0	34.8	34.8	103.1	103.1	7.7	7.6	2.6	3.9	7	6	-	-	817175	807791	-	-	-	-
						1.0	0.1	234	19.7		8.0		34.8		103.1		7.7		2.6		7		-				-		-	
					Middle	4.3	0.2	285	19.2	19.2	8.0	8.0	34.9	34.9	99.0	99.0	7.4		4.3		6		-				-		-	
						4.3	0.2	282	19.2		8.0		34.9		99.0		7.4		4.3		5		-				-		-	
					Bottom	7.6	0.3	279	19.2	19.2	8.0	8.0	34.9	34.9	99.3	99.3	7.5	7.5	4.9		4		-				-		-	
						7.6	0.3	286	19.2		8.0		34.9		99.3		7.5		4.9		5		-				-		-	
SR5A	Fine	Moderate	17:14	4.3	Surface	1.0	0.2	289	19.5	19.5	8.0	8.0	34.6	34.6	102.8	102.8	7.7	7.7	3.6	3.8	8	7	-	-	816588	810708	-	-	-	-
						1.0	0.2	291	19.5		8.0		34.6		102.8		7.7		3.6		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.1	280	19.1	19.1	8.0	8.0	34.7	34.7	101.0	101.1	7.6	7.6	3.9		6		-				-		-	
						3.3	0.1	282	19.1		8.0		34.7		101.1		7.6		3.9		7		-				-		-	
SR6A	Fine	Moderate	17:40	4.1	Surface	1.0	0.1	255	20.3	20.3	7.9	7.9	34.5	34.5	97.4	97.4	7.2	7.2	4.4	4.7	7	7	-	-	817943	814747	-	-	-	-
						1.0	0.1	268	20.3		7.9		34.5		97.4		7.2		4.4		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	282	20.2	20.2	7.9	7.9	34.6	34.6	98.9	98.9	7.3	7.3	5.0		6		-				-		-	
						3.1	0.1	287	20.2		7.9		34.6		98.9		7.3		5.0		6		-				-		-	
SR7	Sunny	Calm	19:01	14.9	Surface	1.0	0.1	290	20.8	20.8	8.0	8.0	34.5	34.5	91.4	91.4	6.7	6.7	2.0	2.8	4	3	-	-	823624	823740	-	-	-	-
						1.0	0.1	313	20.8		8.0		34.5		91.4		6.7		2.0		4		-				-		-	
					Middle	7.5	0.1	245	20.7	20.7	8.0	8.0	34.5	34.5	89.5	89.5	6.6		3.2		3		-				-		-	
						7.5	0.1	248	20.7		8.0		34.5		89.5		6.6		3.2		4		-				-		-	
					Bottom	13.9	0.1	286	20.6	20.6	8.0	8.0	34.5	34.5	90.3	90.4	6.6	6.6	3.2		2		-				-		-	
						13.9	0.1	294	20.6		8.0		34.5		90.5		6.6		3.3		2		-				-		-	
SR8	Sunny	Calm	17:04	3.9	Surface	1.0	-	-	20.0	19.9	8.0	8.0	34.6	34.6	95.9	97.7	7.1	7.3	4.6	5.4	7	7	-	-	820375	811609	-	-	-	-
						1.0	-	-	19.8		8.0		34.6		99.5		7.4		4.6		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	-	-	19.8	19.8	8.0	8.0	34.6	34.6	99.5	99.1	7.4	7.4	6.1		7		-				-		-	
						2.9	-	-	19.8		8.0		34.6		98.7		7.4		6.1		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 12 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	12:39	8.1	Surface	1.0	0.1	215	19.9	19.8	8.0	8.0	34.0	34.0	99.6	99.4	7.4	7.4	4.6	6.8	13	12	88	89	815600	804253	<0.2	<0.2	0.8	0.8
						1.0	0.1	227	19.8		8.0		34.0		99.2		7.4		4.9		15		89				<0.2		0.8	
					Middle	4.1	0.1	213	19.7	19.7	8.0	8.0	34.6	34.6	97.7	97.7	7.3		7.2		11		89				<0.2		0.7	
						4.1	0.1	219	19.7		8.0		34.6		97.6		7.3		7.4		12		89				<0.2		0.9	
					Bottom	7.1	0.1	245	19.7	19.7	8.0	8.0	34.8	34.8	97.6	97.7	7.3	7.3	8.4		10		90				<0.2		0.8	
						7.1	0.1	249	19.7		8.0		34.8		97.7		7.3		8.4		12		91				<0.2		0.8	
C2	Fine	Moderate	11:33	12.2	Surface	1.0	0.1	10	19.8	19.8	8.0	8.0	33.9	33.9	98.3	98.3	7.4	7.3	6.8	8.5	13	13	88	89	825659	806965	<0.2	<0.2	1.1	1.1
						1.0	0.1	10	19.8		8.0		33.9		98.3		7.3		6.8		14		87				<0.2		1.2	
					Middle	6.1	0.0	117	19.7	19.7	8.0	8.0	34.0	34.0	96.5	96.5	7.2		8.3		13		88				<0.2		1.1	
						6.1	0.0	128	19.7		8.0		34.0		96.5		7.2		8.2		13		89				<0.2		1.1	
					Bottom	11.2	0.1	63	19.7	19.7	8.0	8.0	34.0	34.0	95.9	95.9	7.2	7.2	10.5		12		90				<0.2		1.0	
						11.2	0.1	67	19.7		8.0		34.0		95.9		7.2		10.6		11		90				<0.2		1.1	
C3	Fine	Moderate	13:41	12.1	Surface	1.0	0.3	152	20.2	20.2	8.0	8.0	34.4	34.4	92.7	92.7	6.9	6.8	4.2	7.2	9	9	89	90	822111	817795	<0.2	<0.2	0.7	0.8
						1.0	0.3	163	20.2		8.0		34.4		92.6		6.9		4.3		10		88				<0.2		0.8	
					Middle	6.1	0.3	151	20.2	20.2	8.0	8.0	34.4	34.4	90.9	90.9	6.7		8.4		10		90				<0.2		0.8	
						6.1	0.3	162	20.2		8.0		34.4		90.9		6.7		8.4		9		89				<0.2		0.9	
					Bottom	11.1	0.2	143	20.2	20.2	8.0	8.0	34.5	34.5	90.7	90.8	6.7	6.7	9.1		9		91				<0.2		0.9	
						11.1	0.2	150	20.2		8.0		34.5		90.8		6.7		8.9		8		91				<0.2		0.8	
IM1	Cloudy	Moderate	12:58	4.6	Surface	1.0	0.0	110	19.6	19.6	8.0	8.0	34.2	34.2	102.3	102.2	7.7	7.7	4.4	5.2	10	10	88	89	817958	807137	<0.2	<0.2	0.9	0.8
						1.0	0.0	114	19.6		8.0		34.2		102.0		7.6		4.5		10		89				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	286	19.5	19.5	8.0	8.0	34.4	34.3	100.9	100.9	7.6	7.6	5.9		10		90				<0.2		0.8	
						3.6	0.1	291	19.5		8.0		34.3		100.8		7.6		5.9		9		90				<0.2		0.8	
IM2	Cloudy	Moderate	13:05	6.8	Surface	1.0	0.1	116	19.7	19.7	8.0	8.0	34.2	34.2	98.7	98.7	7.4	7.4	5.7	6.6	14	13	88	89	818144	806146	<0.2	<0.2	0.8	0.9
						1.0	0.2	125	19.7		8.0		34.2		98.7		7.4		5.8		13		88				<0.2		0.8	
					Middle	3.4	0.1	104	19.6	19.6	8.0	8.0	34.3	34.3	98.3	98.3	7.4		7.2		13		89				<0.2		0.9	
						3.4	0.1	107	19.6		8.0		34.3		98.2		7.4		7.0		14		89				<0.2		0.9	
					Bottom	5.8	0.1	174	19.4	19.4	8.0	8.0	34.4	34.4	99.2	99.2	7.4	7.4	6.8		12		90				<0.2		0.8	
						5.8	0.1	190	19.4		8.0		34.4		99.1		7.4		6.8		12		90				<0.2		0.9	
IM3	Cloudy	Moderate	13:10	7.0	Surface	1.0	0.1	201	19.7	19.7	8.0	8.0	34.2	34.2	98.6	98.5	7.4	7.4	6.7	12.6	14	14	89	90	818804	805613	<0.2	<0.2	0.9	0.9
						1.0	0.1	217	19.7		8.0		34.2		98.4		7.4		6.7		14		89				<0.2		0.9	
					Middle	3.5	0.1	180	19.6	19.6	8.0	8.0	34.3	34.3	97.4	97.4	7.3		9.3		14		90				<0.2		0.8	
						3.5	0.1	194	19.6		8.0		34.3		97.4		7.3		9.3		13		90				<0.2		0.8	
					Bottom	6.0	0.1	125	19.6	19.6	8.0	8.0	34.4	34.4	98.5	98.5	7.4	7.4	21.4		13		91				<0.2		0.9	
						6.0	0.1	125	19.6		8.0		34.4		98.5		7.4		21.9		15		90				<0.2		0.9	
IM4	Cloudy	Moderate	13:20	7.7	Surface	1.0	0.1	283	19.7	19.7	8.0	8.0	34.2	34.2	99.5	99.5	7.4	7.4	6.2	10.4	16	16	89	90	819723	804593	<0.2	<0.2	0.8	0.9
						1.0	0.1	283	19.7		8.0		34.2		99.4		7.4		6.3		17		89				<0.2		0.9	
					Middle	3.9	0.0	11	19.6	19.6	8.0	8.0	34.2	34.2	99.0	99.0	7.4		9.4		17		90				<0.2		0.9	
						3.9	0.0	11	19.6		8.0		34.2		99.0		7.4		9.6		16		90				<0.2		0.9	
					Bottom	6.7	0.0	59	19.6	19.6	8.0	8.0	34.3	34.3	99.0	99.1	7.4	7.4	15.5		15		91				<0.2		0.9	
						6.7	0.0	61	19.6		8.0		34.3		99.1		7.4		15.3		13		91				<0.2		0.9	
IM5	Cloudy	Moderate	13:27	7.1	Surface	1.0	0.2	355	19.6	19.6	8.0	8.0	34.2	34.2	99.8	99.8	7.5	7.5	6.9	8.0	15	16	89	90	820723	804874	<0.2	<0.2	0.9	0.9
						1.0	0.2	327	19.6		8.0		34.2		99.8		7.5		7.0		15		89				<0.2		0.8	
					Middle	3.6	0.1	355	19.6	19.6	8.0	8.0	34.2	34.2	99.2	99.2	7.4		8.6		17		90				<0.2		0.9	
						3.6	0.1	327	19.6		8.0		34.2		99.2		7.4		8.6		17		90				<0.2		1.0	
					Bottom	6.1	0.1	11	19.5	19.5	8.0	8.0	34.2	34.2	99.8	99.8	7.5	7.5	8.3		17		91				<0.2		1.0	
						6.1	0.1	11	19.5		8.0		34.2		99.8		7.5		8.3		16		91				<0.2		1.0	
IM6	Cloudy	Moderate	13:41	7.0	Surface	1.0	0.1	285	19.7	19.7	8.0	8.0	34.4	34.4	100.9	100.7	7.5	7.5	3.4	4.0	11	11	89	90	821036	805813	<0.2	<0.2	0.9	0.9
						1.0	0.1	288	19.7		8.0		34.4		100.4		7.5		3.5		11		89				<0.2		0.9	
					Middle	3.5	0.1	272	19.6	19.6	8.0	8.0	34.4	34.4	99.8	99.9	7.5		4.1		12		89				<0.2		1.0	
						3.5	0.1	293	19.6		8.0		34.4		99.9		7.5		4.2		11		89				<0.2		0.8	
					Bottom	6.0	0.1	289	19.6	19.6	8.0	8.0	34.4	34.4	99.7	99.7	7.5	7.5	4.3		10		90				<0.2		0.9	
						6.0	0.1	291	19.6		8.0		34.4		99.7		7.5		4.3		11		91				<0.2		0.9	
IM7	Fine	Moderate	13:50	8.3	Surface	1.0	0.1	262	19.7	19.7	8.1	8.1	34.3	34.3	101.1	101.1	7.6	7.5	3.8	4.1	12	12	88	90	821353	806823	<0.2	<0.2	0.9	0.9
						1.0	0.1	270	19.7		8.1		34.3		101.0		7.5		3.8		13		89				<0.2		1.0	
					Middle	4.2	0.0	254	19.6	19.6	8.1	8.1	34.3	34.3	100.6	100.5	7.5		4.5		11		90				<0.2		0.9	
						4.2	0.0	276	19.6		8.1		34.3		100.4		7.5		4.5		12		90				<0.2		0.8	
					Bottom	7.3	0.0	341	19.5	19.5	8.1	8.1	34.4	34.4	99.7	99.7	7.5	7.5	3.8		10		91				<0.2		0.8	
						7.3	0.0	350	19.5		8.1		34.4		99.7		7.5		3.9		11		91				<0.2		0.9	
IM8	Fine	Moderate	12:03	7.8	Surface	1.0	0.1	63	19.5	19.5	8.0	8.0	33.9	33.9	99.6	99.6	7.5	7.5	7.4	7.9	13	13	88	89	821815	808137	<0.2	<0.2	0.9	1.0
						1.0	0.1	66	19.5		8.0		33.9		99.6		7.5		7.4		13		88				<0.2		0.9	
					Middle	3.9	0.1	57	19.5	19.5	8.0	8.0	34.0	34.0	98.5	98.5	7.4		7.7		12		89				<0.2		1.0	
						3.9	0.1	62	19.5		8.0		34.0		98.5		7.4		7.7		12		89				<0.2		1.0	
					Bottom	6.8	0.1	53	19.5	19.5	8.0	8.0	34.1	34.1	98.1	98.1	7.4	7.4	8.5		12		90				<0.2		1.0	
						6.8	0.1	55	19.5		8.0		34.1		98.1		7.4		8.7		15		90				<0.2		1.0	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 12 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	12:08	7.5	Surface	1.0	0.2	138	19.6	19.6	8.0	8.0	34.1	34.1	99.6	99.6	7.5	7.5	6.0	7.2	10	11	88	89	822108	808787	<0.2	<0.2	0.9	0.8
						1.0	0.2	143	19.6		8.0		34.1		99.6		7.5		6.0		11		88				<0.2		0.8	
					Middle	3.8	0.2	140	19.6	19.6	8.0	8.0	34.1	34.1	98.9	98.9	7.4		6.4		12		89				<0.2		0.8	
						3.8	0.2	149	19.6		8.0		34.1		98.9		7.4		6.4		11		88				<0.2		0.8	
					Bottom	6.5	0.3	105	19.5	19.5	8.0	8.0	34.1	34.1	98.1	98.1	7.4	7.4	9.2		11		90				<0.2		0.8	
						6.5	0.3	105	19.5		8.0		34.1		98.1		7.4		9.4		12		90				<0.2		0.8	
IM10	Fine	Moderate	12:15	7.9	Surface	1.0	0.3	124	19.8	19.8	8.0	8.0	33.9	33.9	99.6	99.6	7.4	7.4	5.0	7.7	11	11	88	89	822407	809810	<0.2	<0.2	0.9	0.9
						1.0	0.3	129	19.8		8.0		33.9		99.6		7.4		4.9		10		89				<0.2		0.9	
					Middle	4.0	0.3	112	19.6	19.6	8.0	8.0	34.1	34.1	98.4	98.4	7.4		7.2		10		89				<0.2		0.8	
						4.0	0.3	114	19.6		8.0		34.1		98.4		7.4		7.2		11		88				<0.2		0.8	
					Bottom	6.9	0.2	105	19.6	19.6	8.0	8.0	34.1	34.1	97.8	97.8	7.3	7.3	11.0		12		90				<0.2		0.9	
						6.9	0.3	105	19.6		8.0		34.1		97.8		7.3		10.9		12		90				<0.2		1.0	
IM11	Fine	Moderate	12:26	7.4	Surface	1.0	0.4	75	19.8	19.8	8.0	8.0	34.2	34.2	98.2	98.2	7.3	7.3	5.5	6.4	13	15	88	89	822071	811452	<0.2	<0.2	0.8	0.9
						1.0	0.5	77	19.8		8.0		34.2		98.2		7.3		5.4		12		89				<0.2		0.8	
					Middle	3.7	0.4	73	19.7	19.7	8.0	8.0	34.2	34.2	97.6	97.6	7.3		5.9		16		88				<0.2		0.8	
						3.7	0.5	79	19.7		8.0		34.2		97.6		7.3		6.0		16		89				<0.2		1.0	
					Bottom	6.4	0.4	86	19.7	19.7	8.0	8.0	34.2	34.2	97.0	97.0	7.3	7.3	7.7		14		90				<0.2		0.9	
						6.4	0.4	87	19.7		8.0		34.2		97.0		7.3		7.8		16		89				<0.2		0.9	
IM12	Fine	Moderate	12:33	9.0	Surface	1.0	0.4	59	19.8	19.8	8.0	8.0	34.2	34.2	99.2	99.2	7.4	7.4	4.1	4.9	13	13	88	89	821466	812063	<0.2	<0.2	0.9	0.9
						1.0	0.5	64	19.8		8.0		34.2		99.2		7.4		4.1		12		88				<0.2		0.9	
					Middle	4.5	0.5	56	19.7	19.7	8.0	8.0	34.2	34.2	97.6	97.6	7.3		5.1		12		89				<0.2		0.9	
						4.5	0.5	56	19.7		8.0		34.2		97.6		7.3		5.1		12		89				<0.2		0.8	
					Bottom	8.0	0.4	53	19.7	19.7	8.0	8.0	34.2	34.2	96.5	96.5	7.2	7.2	5.3		13		91				<0.2		0.9	
						8.0	0.4	55	19.7		8.0		34.2		96.5		7.2		5.5		14		90				<0.2		0.8	
SR1A	Fine	Moderate	13:01	5.0	Surface	1.0	-	-	19.7	19.7	8.0	8.0	34.3	34.3	97.0	97.0	7.2	7.2	5.9	5.9	15	14	-	-	819972	812662	-	-	-	-
						1.0	-	-	19.7		8.0		34.3		97.0		7.2		5.9		14		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	19.7	19.7	8.0	8.0	34.3	34.3	95.8	95.8	7.2	7.2	6.0		13		-				-		-	
						4.0	-	-	19.7		8.0		34.3		95.8		7.2		6.0		14		-				-		-	
SR2	Fine	Moderate	13:20	4.5	Surface	1.0	0.4	74	19.8	19.8	8.0	8.0	34.2	34.2	97.7	97.7	7.3	7.3	4.6	5.2	12	11	89	90	821477	814171	<0.2	<0.2	0.8	0.8
						1.0	0.4	75	19.8		8.0		34.2		97.7		7.3		4.6		11		89				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	66	19.8	19.8	8.0	8.0	34.3	34.3	97.4	97.4	7.3	7.3	5.7		10		90				<0.2		0.9	
						3.5	0.3	71	19.8		8.0		34.3		97.4		7.3		5.7		9		90				<0.2		0.8	
SR3	Fine	Moderate	11:57	9.1	Surface	1.0	0.3	115	19.9	19.9	8.0	8.0	33.7	33.7	97.9	97.9	7.3	7.3	4.1	7.4	12	11	-	-	822167	807571	-	-	-	-
						1.0	0.3	124	19.9		8.0		33.7		97.9		7.3		4.1		12		-				-		-	
					Middle	4.6	0.3	130	19.6	19.6	8.0	8.0	33.8	33.8	97.1	97.2	7.3		7.6		10		-				-		-	
						4.6	0.3	141	19.6		8.0		33.8		97.2		7.3		7.5		11		-				-		-	
					Bottom	8.1	0.3	129	19.6	19.6	8.0	8.0	33.9	33.9	97.4	97.4	7.3	7.3	10.7		11		-				-		-	
						8.1	0.3	141	19.6		8.0		33.9		97.4		7.3		10.7		11		-				-		-	
SR4A	Cloudy	Calm	12:09	8.4	Surface	1.0	0.2	76	19.6	19.6	8.0	8.0	34.2	34.2	102.0	101.8	7.6	7.6	3.7	4.0	13	13	-	-	817209	807798	-	-	-	-
						1.0	0.3	80	19.6		8.0		34.2		101.6		7.6		3.7		14		-				-		-	
					Middle	4.2	0.2	76	19.6	19.6	8.0	8.0	34.2	34.2	100.8	100.8	7.6		3.9		14		-				-		-	
						4.2	0.2	81	19.6		8.0		34.2		100.8		7.6		3.9		13		-				-		-	
					Bottom	7.4	0.2	56	19.5	19.5	8.0	8.0	34.3	34.3	100.8	100.8	7.6	7.6	4.4		13		-				-		-	
						7.4	0.2	57	19.5		8.0		34.3		100.8		7.6		4.4		13		-				-		-	
SR5A	Cloudy	Calm	11:50	3.8	Surface	1.0	0.1	9	19.8	19.8	8.0	8.0	34.6	34.6	101.8	101.8	7.6	7.6	6.0	6.1	14	13	-	-	816610	810694	-	-	-	-
						1.0	0.1	9	19.8		8.0		34.6		101.7		7.6		6.0		15		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	11	19.8	19.8	8.0	8.0	34.6	34.6	100.8	101.0	7.5	7.5	6.3		12		-				-		-	
						2.8	0.1	11	19.8		8.0		34.6		101.1		7.5		6.0		12		-				-		-	
SR6A	Cloudy	Calm	11:21	3.6	Surface	1.0	0.0	14	20.2	20.2	8.1	8.1	34.8	34.8	100.5	100.4	7.4	7.4	3.1	2.8	9	9	-	-	817986	814732	-	-	-	-
						1.0	0.0	14	20.2		8.1		34.8		100.2		7.4		3.1		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.0	34	20.1	20.1	8.1	8.1	34.8	34.8	100.0	100.0	7.4	7.4	2.4		9		-				-		-	
						2.6	0.0	37	20.1		8.1		34.8		100.0		7.4		2.6		10		-				-		-	
SR7	Fine	Moderate	14:11	15.6	Surface	1.0	0.4	34	20.4	20.4	8.0	8.0	34.5	34.5	88.0	88.0	6.5	6.5	4.5	5.4	12	11	-	-	823615	823748	-	-	-	-
						1.0	0.4	36	20.4		8.0		34.5		88.0		6.5		4.5		11		-				-		-	
					Middle	7.8	0.4	40	20.4	20.4	8.0	8.0	34.5	34.5	88.0	88.0	6.5		5.2		11		-				-		-	
						7.8	0.4	43	20.4		8.0		34.5		88.0		6.5		5.1		12		-				-		-	
					Bottom	14.6	0.3	34	20.4	20.4	8.0	8.0	34.5	34.5	88.1	88.1	6.5	6.5	6.4		10		-				-		-	
						14.6	0.3	35	20.4		8.0		34.5		88.1		6.5		6.5		11		-				-		-	
SR8	Fine	Moderate	12:41	4.7	Surface	1.0	-	-	19.8	19.8	8.0	8.0	34.2	34.2	98.9	98.9	7.4	7.4	5.4	5.8	12	12	-	-	820378	811599	-	-	-	-
						1.0	-	-	19.8		8.0		34.2		98.9		7.4		5.3		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	19.7	19.7	8.0	8.0	34.2	34.2	98.3	98.3	7.3	7.3	6.3		12		-				-		-	
						3.7	-	-	19.7		8.0		34.2		98.3		7.3		6.3		12		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 12 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	17:39	8.2	Surface	1.0	0.7	42	19.6	19.6	8.0	8.0	34.2	34.2	100.7	100.7	7.5	7.5	5.0	5.8	12	14	88	89	815623	804239	<0.2	<0.2	1.1	1.1
						1.0	0.7	45	19.6		8.0		34.2		100.7		7.6		5.0		12		89							
					Middle	4.1	0.7	49	19.5	19.5	8.0	8.0	34.3	34.3	99.3	99.3	7.5		6.4		14		89							
						4.1	0.8	51	19.5		8.1		34.3		99.3		7.5		6.4		14		90							
					Bottom	7.2	0.6	32	19.5	19.5	8.1	8.1	34.3	34.3	100.4	100.4	7.5	7.5	6.1		16		90							
						7.2	0.6	32	19.5		8.1		34.3		100.4		7.5		6.0		18		90							
C2	Cloudy	Moderate	19:14	11.9	Surface	1.0	0.4	325	19.8	19.8	8.0	8.0	33.9	33.9	97.9	97.9	7.3	7.3	7.1	10.1	15	15	87	89	825702	806936	<0.2	<0.2	1.0	1.1
						1.0	0.4	354	19.8		8.0		33.9		97.8		7.3		7.1		17		88							
					Middle	6.0	0.4	16	19.7	19.7	8.0	8.0	34.0	34.0	96.3	96.3	7.2		10.8		15		89							
						6.0	0.4	17	19.7		8.0		34.0		96.3		7.2		10.8		16		88							
					Bottom	10.9	0.4	22	19.7	19.7	8.0	8.0	34.0	34.0	95.3	95.3	7.1	7.1	12.3		13		90							
						10.9	0.4	24	19.7		8.0		34.0		95.3		7.1		12.3		14		90							
C3	Fine	Moderate	17:05	10.7	Surface	1.0	0.7	254	20.3	20.3	8.2	8.2	33.5	33.5	89.0	89.0	6.6	6.6	5.7	9.1	13	12	89	90	822130	817788	<0.2	<0.2	0.7	0.8
						1.0	0.7	272	20.3		8.2		33.5		89.0		6.6		5.8		12		90							
					Middle	5.4	0.6	276	20.3	20.3	8.2	8.2	33.5	33.5	89.1	89.1	6.6		8.6		12		90							
						5.4	0.7	277	20.3		8.2		33.5		89.1		6.6		8.7		12		90							
					Bottom	9.7	0.5	280	20.2	20.2	8.2	8.2	33.5	33.5	89.4	89.4	6.6	6.6	12.8		10		91							
						9.7	0.6	307	20.2		8.2		33.5		89.4		6.6		12.9		11		92							
IM1	Cloudy	Moderate	17:20	5.3	Surface	1.0	0.1	7	19.5	19.5	8.1	8.1	34.2	34.2	101.8	101.5	7.6	7.6	4.1	4.2	9	10	88	89	817958	807153	<0.2	<0.2	0.9	0.9
						1.0	0.1	7	19.5		8.1		34.3		101.2		7.6		4.2		10		88							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-							
					Bottom	4.3	0.2	11	19.6	19.6	8.1	8.1	34.5	34.5	100.4	100.5	7.5	7.5	4.2		11		89				<0.2		0.8	
						4.3	0.2	11	19.6		8.1		34.5		100.6		7.5		4.3		10		89				<0.2		0.8	
IM2	Cloudy	Moderate	17:13	7.2	Surface	1.0	0.3	15	19.6	19.6	7.9	7.9	34.2	34.2	99.0	99.1	7.4	7.4	7.8	8.8	16	16	88	89	818159	806162	<0.2	<0.2	1.0	1.1
						1.0	0.3	16	19.6		7.9		34.3		99.2		7.4		8.0		16		89				<0.2		1.0	
					Middle	3.6	0.2	19	19.5	19.5	7.9	7.9	34.3	34.3	98.5	98.7	7.4		8.5		15		89				<0.2		1.1	
						3.6	0.2	20	19.5		7.9		34.3		98.8		7.4		8.5		17		90				<0.2		1.1	
					Bottom	6.2	0.2	345	19.5	19.5	7.9	7.9	34.3	34.3	99.3	99.3	7.4	7.4	10.1		17		90				<0.2		1.1	
						6.2	0.2	317	19.5		7.9		34.3		99.2		7.4		9.9		16		90				<0.2		1.1	
IM3	Cloudy	Moderate	17:06	7.5	Surface	1.0	0.4	359	19.6	19.6	7.9	7.9	34.2	34.2	99.1	98.9	7.4	7.4	6.4	7.6	17	17	88	90	818787	805578	<0.2	<0.2	0.9	0.8
						1.0	0.4	332	19.6		7.9		34.2		98.7		7.4		6.7		16		89				<0.2		0.8	
					Middle	3.8	0.3	354	19.5	19.5	7.9	7.9	34.2	34.2	98.5	98.5	7.4		7.8		17		90				<0.2		0.9	
						3.8	0.4	326	19.5		7.9		34.2		98.5		7.4		7.8		16		90				<0.2		0.8	
					Bottom	6.5	0.4	346	19.5	19.5	7.9	7.9	34.2	34.2	99.3	99.4	7.4	7.5	8.5		17		91				<0.2		0.8	
						6.5	0.4	359	19.5		7.9		34.2		99.4		7.5		8.4		18		91				<0.2		0.8	
IM4	Cloudy	Moderate	16:56	6.6	Surface	1.0	0.6	352	19.7	19.7	8.0	8.0	34.2	34.2	99.5	99.5	7.4	7.4	8.1	14.6	15	17	88	90	819748	804602	<0.2	<0.2	0.9	0.8
						1.0	0.7	357	19.7		8.0		34.2		99.5		7.4		8.4		17		89				<0.2		0.8	
					Middle	3.3	0.5	346	19.6	19.6	8.0	8.0	34.2	34.2	99.0	99.1	7.4		17.1		16		89				<0.2		0.8	
						3.3	0.5	353	19.6		8.0		34.2		99.2		7.4		16.8		18		90				<0.2		0.8	
					Bottom	5.6	0.4	336	19.5	19.5	7.9	7.9	34.2	34.2	98.5	98.6	7.4	7.4	18.6		17		91				<0.2		0.8	
						5.6	0.5	309	19.5		7.9		34.2		98.6		7.4		18.3		19		91				<0.2		0.9	
IM5	Cloudy	Moderate	16:48	6.9	Surface	1.0	0.7	23	19.5	19.5	8.0	8.0	34.1	34.1	99.3	99.4	7.5	7.5	12.6	16.6	18	19	89	90	820724	804843	<0.2	<0.2	0.8	0.9
						1.0	0.8	23	19.5		8.0		34.1		99.5		7.5		12.9		19		89				<0.2		0.9	
					Middle	3.5	0.7	19	19.5	19.5	8.0	8.0	34.2	34.2	99.1	99.1	7.4		17.9		20		89				<0.2		0.9	
						3.5	0.7	19	19.5		8.0		34.2		99.1		7.4		17.7		20		90				<0.2		0.8	
					Bottom	5.9	0.5	25	19.5	19.5	8.0	8.0	34.2	34.2	99.8	99.8	7.5	7.5	19.1		20		90				<0.2		0.8	
						5.9	0.6	26	19.5		8.0		34.2		99.7		7.5		19.1		19		91				<0.2		0.9	
IM6	Cloudy	Moderate	16:41	7.3	Surface	1.0	0.4	132	19.5	19.5	8.0	8.0	34.3	34.3	100.2	100.3	7.5	7.5	6.7	6.3	18	18	89	90	821078	805812	<0.2	<0.2	0.8	0.8
						1.0	0.4	134	19.5		8.0		34.3		100.3		7.5		6.7		19		89				<0.2		0.9	
					Middle	3.7	0.4	142	19.5	19.5	8.0	8.0	34.3	34.3	100.4	100.3	7.5		6.5		19		90				<0.2		0.8	
						3.7	0.4	146	19.5		8.0		34.3		100.2		7.5		6.3		19		90				<0.2		0.9	
					Bottom	6.3	0.3	130	19.6	19.6	8.0	8.0	34.3	34.3	99.6	99.7	7.5	7.5	5.7		16		91				<0.2		0.8	
						6.3	0.3	136	19.6		8.0		34.3		99.8		7.5		5.7		17		91				<0.2		0.8	
IM7	Cloudy	Moderate	16:33	8.4	Surface	1.0	0.1	98	19.7	19.7	8.0	8.0	34.3	34.3	102.2	102.1	7.6	7.6	3.1	4.1	12	12	89	90	821325	806842	<0.2	<0.2	0.8	0.8
						1.0	0.1	105	19.7		8.0		34.3		101.9		7.6		3.1		12		90				<0.2		0.8	
					Middle	4.2	0.1	76	19.6	19.6	8.0	8.0	34.3	34.3	101.1	101.1	7.6		4.3		10		90				<0.2		0.8	
						4.2	0.1	77	19.6		8.0		34.3		101.1		7.6		4.3		12		90				<0.2		0.8	
					Bottom	7.4	0.1	72	19.6	19.5	8.0	8.0	34.3	34.3	101.0	101.0	7.6	7.6	4.8		12		91				<0.2		0.8	
						7.4	0.1	73	19.5		8.0		34.3		100.9		7.6		4.9		11		91				<0.2		0.9	
IM8	Cloudy	Moderate	18:43	7.4	Surface	1.0	0.2	68	19.5	19.5	8.0	8.0	34.0	34.0	98.9	98.9	7.4	7.4	10.2	10.1	15	17	89	89	821833	808155	<0.2	<0.2	0.9	0.9
						1.0	0.2	71	19.5		8.0		34.0		98.8		7.4		10.1		16		88				<0.2		1.0	
					Middle	3.7	0.3	54	19.5	19.5	8.0	8.0	34.1	34.1	98.3	98.3	7.4		10.1		16		88				<0.2		0.9	
						3.7	0.3	57	19.5		8.0		34.1		98.3		7.4		10.1		18		89				<0.2		0.9	
					Bottom	6.4	0.0	121	19.5	19.5	8.0	8.0	34.1	34.1	97.9	97.9	7.4	7.4	10.1		18		89				<0.2		1.0	
						6.4	0.0	132	19.5		8.0		34.1		97.9		7.4		10.0		17		90				<0.2		0.9	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 12 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Cloudy	Moderate	18:37	7.5	Surface	1.0	0.3	43	19.7	19.7	8.0	8.0	33.9	33.9	98.5	98.5	7.4	7.4	4.5	8.5	12	12	89	89	822112	808818	<0.2	<0.2	1.0	1.0
						1.0	0.3	43	19.7		8.0		33.9		98.5		7.4		4.5		13		88				<0.2		0.9	
					Middle	3.8	0.3	39	19.6	19.6	8.0	8.0	34.1	34.1	98.1	98.1	7.4		9.2		11		89				<0.2		1.0	
						3.8	0.3	41	19.6		8.0		34.1		98.1		7.4		9.3		12		89				<0.2		1.0	
					Bottom	6.5	0.1	32	19.5	19.5	8.0	8.0	34.1	34.1	97.8	97.8	7.3	7.3	11.8		11		90				<0.2		1.0	
						6.5	0.1	32	19.5		8.0		34.1		97.8		7.3		11.7		11		90				<0.2		1.0	
IM10	Cloudy	Moderate	18:30	7.8	Surface	1.0	0.6	302	19.7	19.7	8.0	8.0	34.2	34.2	97.2	97.2	7.3	7.3	6.3	7.6	13	13	89	90	822392	809807	<0.2	<0.2	0.9	0.9
						1.0	0.6	331	19.7		8.0		34.2		97.2		7.3		6.3		13		88				<0.2		0.9	
					Middle	3.9	0.6	314	19.6	19.6	8.0	8.0	34.2	34.2	96.8	96.8	7.2		7.5		13		90				<0.2		0.9	
						3.9	0.6	334	19.6		8.0		34.2		96.8		7.2		7.5		14		90				<0.2		0.9	
					Bottom	6.8	0.6	311	19.6	19.6	8.0	8.0	34.2	34.2	96.2	96.2	7.2	7.2	8.9		13		90				<0.2		0.9	
						6.8	0.6	339	19.6		8.0		34.2		96.2		7.2		8.9		14		90				<0.2		1.0	
IM11	Cloudy	Moderate	18:19	8.1	Surface	1.0	0.6	274	19.6	19.6	8.0	8.0	34.2	34.2	97.4	97.4	7.3	7.3	5.7	6.5	14	12	89	90	822060	811458	<0.2	<0.2	1.0	1.0
						1.0	0.6	277	19.6		8.0		34.2		97.4		7.3		5.7		13		88				<0.2		1.0	
					Middle	4.1	0.4	266	19.6	19.6	8.0	8.0	34.2	34.2	96.6	96.6	7.2		6.2		13		89				<0.2		0.9	
						4.1	0.5	274	19.6		8.0		34.2		96.6		7.2		6.2		12		90				<0.2		1.0	
					Bottom	7.1	0.4	302	19.6	19.6	8.0	8.0	34.2	34.2	96.2	96.2	7.2	7.2	7.6		11		90				<0.2		0.9	
						7.1	0.4	302	19.6		8.0		34.2		96.2		7.2		7.7		11		91				<0.2		0.9	
IM12	Cloudy	Moderate	18:13	8.9	Surface	1.0	0.6	265	19.7	19.7	8.0	8.0	34.2	34.2	97.7	97.7	7.3	7.3	4.7	6.2	10	9	88	89	821477	812035	<0.2	<0.2	1.0	0.9
						1.0	0.6	281	19.7		8.0		34.2		97.7		7.3		4.7		10		89				<0.2		0.9	
					Middle	4.5	0.5	268	19.7	19.7	8.0	8.0	34.2	34.2	97.2	97.2	7.3		6.2		9		88				<0.2		1.0	
						4.5	0.6	290	19.7		8.0		34.2		97.2		7.3		6.1		10		89				<0.2		0.9	
					Bottom	7.9	0.4	253	19.7	19.7	8.0	8.0	34.2	34.2	96.8	96.8	7.2	7.2	7.8		8		89				<0.2		0.9	
						7.9	0.4	263	19.7		8.0		34.2		96.8		7.2		7.7		9		90				<0.2		0.9	
SR1A	Cloudy	Moderate	17:54	5.2	Surface	1.0	-	-	19.6	19.6	8.0	8.0	34.4	34.4	93.8	93.8	7.0	7.0	5.4	5.5	10	12	-	-	819980	812665	-	-	-	-
						1.0	-	-	19.6		8.0		34.4		93.8		7.0		5.5		11		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	0	19.6	19.6	8.0	8.0	34.4	34.4	93.6	93.6	7.0	7.0	5.4		13		-				-		-	
						4.2	-	0	19.6		8.0		34.4		93.6		7.0		5.7		14		-				-		-	
SR2	Cloudy	Moderate	17:24	4.9	Surface	1.0	0.2	332	19.7	19.7	8.2	8.2	33.3	33.3	96.1	96.1	7.2	7.2	6.4	7.4	13	13	90	90	821468	814161	<0.2	<0.2	0.9	0.9
						1.0	0.2	347	19.7		8.2		33.3		96.1		7.2		6.5		14		89				<0.2		0.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.2	341	19.7	19.7	8.2	8.2	33.3	33.3	95.6	95.6	7.2	7.2	8.4		12		90				<0.2		0.9	
						3.9	0.2	314	19.7		8.2		33.3		95.6		7.2		8.3		11		90				<0.2		0.9	
SR3	Cloudy	Moderate	18:48	8.7	Surface	1.0	0.1	342	19.7	19.7	8.0	8.0	33.8	33.8	97.6	97.6	7.3	7.4	7.0	9.9	12	13	-	-	822145	807590	-	-	-	-
						1.0	0.1	315	19.7		8.0		33.8		97.6		7.3		7.0		13		-				-		-	
					Middle	4.4	0.3	36	19.5	19.5	8.0	8.0	33.9	33.9	97.9	97.9	7.4		10.2		12		-				-		-	
						4.4	0.3	37	19.5		8.0		33.9		97.9		7.4		10.3		13		-				-		-	
					Bottom	7.7	0.3	43	19.5	19.5	8.0	8.0	34.0	34.0	98.3	98.3	7.4	7.4	12.3		13		-				-		-	
						7.7	0.3	44	19.5		8.0		34.0		98.3		7.4		12.4		13		-				-		-	
SR4A	Cloudy	Calm	18:01	8.5	Surface	1.0	0.4	278	19.4	19.4	8.1	8.1	34.2	34.2	100.4	100.2	7.5	7.5	6.1	6.4	13	12	-	-	817179	807813	-	-	-	-
						1.0	0.4	281	19.4		8.1		34.2		99.9		7.5		5.9		13		-				-		-	
					Middle	4.3	0.4	280	19.4	19.4	8.1	8.1	34.2	34.2	99.6	99.4	7.5		6.4		11		-				-		-	
						4.3	0.4	283	19.4		8.1		34.2		99.2		7.5		6.5		12		-				-		-	
					Bottom	7.5	0.4	262	19.4	19.4	8.2	8.2	34.2	34.2	99.9	99.9	7.5	7.5	6.2		12		-				-		-	
						7.5	0.4	266	19.4		8.2		34.2		99.8		7.5		7.1		12		-				-		-	
SR5A	Cloudy	Calm	18:17	3.8	Surface	1.0	0.0	212	19.5	19.5	8.0	8.0	34.7	34.7	97.6	97.5	7.3	7.3	5.3	6.8	15	15	-	-	816616	810685	-	-	-	-
						1.0	0.0	222	19.5		8.0		34.7		97.4		7.3		5.5		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.0	208	19.5	19.5	8.1	8.1	34.7	34.7	97.4	97.4	7.3	7.3	7.9		16		-				-		-	
						2.8	0.0	219	19.5		8.1		34.7		97.4		7.3		8.6		14		-				-		-	
SR6A	Cloudy	Calm	18:49	3.4	Surface	1.0	0.1	236	20.0	20.0	8.0	8.0	34.9	34.9	96.6	96.6	7.2	7.2	2.3	2.4	10	12	-	-	817962	814715	-	-	-	-
						1.0	0.1	254	20.0		8.0		34.9		96.6		7.2		2.3		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.4	0.1	231	19.9	19.9	8.1	8.1	34.9	34.9	96.5	96.8	7.2	7.2	2.5		13		-				-		-	
						2.4	0.1	250	19.9		8.1		34.9		97.1		7.2		2.5		14		-				-		-	
SR7	Fine	Moderate	16:33	15.2	Surface	1.0	0.2	206	20.3	20.3	8.1	8.1	33.5	33.5	89.1	89.1	6.6	6.7	5.2	8.2	11	13	-	-	823640	823750	-	-	-	-
						1.0	0.2	186	20.3		8.1		33.5		89.1		6.6		5.2		12		-				-		-	
					Middle	7.6	0.2	215	20.2	20.2	8.1	8.1	33.5	33.5	89.5	89.5	6.7		8.5		12		-				-		-	
						7.6	0.2	197	20.2		8.1		33.5		89.5		6.7		8.6		12		-				-		-	
					Bottom	14.2	0.3	201	20.2	20.2	8.1	8.1	33.5	33.5	89.7	89.7	6.7	6.7	10.6		13		-				-		-	
						14.2	0.3	211	20.2		8.1		33.5		89.7		6.7		10.8		15		-				-		-	
SR8	Cloudy	Moderate	18:06	4.8	Surface	1.0	-	-	20.1	20.1	8.0	8.0	34.1	34.1	98.9	98.9	7.3	7.3	5.2	5.1	11	11	-	-	820399	811605	-	-	-	-
						1.0	-	-	20.1		8.0		34.1		98.9		7.3		5.1		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	19.7	19.7	8.0	8.0	34.2	34.2	97.7	97.7	7.3	7.3	5.2		10		-				-		-	
						3.8	-	-	19.7		8.0		34.2		97.7		7.3		5.2		11		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Sunny	Moderate	13:46	9.1	Surface	1.0	0.3	144	20.0	20.0	8.0	8.0	33.1	33.1	99.3	99.4	7.4	7.4	6.1	9.5	10	13	84	89	815631	804229	<0.2	<0.2	0.9	1.0
						1.0	0.3	147	20.0		8.0		33.1		99.4		7.4		6.1		10		85				<0.2		0.9	
					Middle	4.6	0.2	134	19.9	19.9	8.0	8.0	33.3	33.3	97.9	97.9	7.3		7.6		14		90				<0.2		0.8	
						4.6	0.2	137	19.9		8.0		33.3		97.8		7.3		7.6		13		89				<0.2		0.9	
					Bottom	8.1	0.0	141	19.8	19.8	8.0	8.0	33.8	33.8	96.9	97.0	7.3	7.3	14.5		15		93				<0.2		1.1	
						8.1	0.0	142	19.8		8.0		33.8		97.0		7.3		14.8		14		93				<0.2		1.1	
C2	Fine	Moderate	12:47	11.3	Surface	1.0	0.3	200	20.0	20.0	8.0	8.0	31.3	31.3	94.9	94.9	7.2	7.2	6.0	10.9	16	14	86	89	825679	806926	<0.2	<0.2	1.4	1.2
						1.0	0.3	209	20.0		8.0		31.4		94.8		7.2		6.0		14		86				<0.2		1.4	
					Middle	5.7	0.2	181	19.9	19.9	8.0	8.0	31.7	31.7	94.2	94.2	7.1		6.6		13		89				<0.2		1.2	
						5.7	0.2	198	19.9		8.0		31.7		94.2		7.1		6.7		13		90				<0.2		1.2	
					Bottom	10.3	0.2	152	19.8	19.8	8.0	8.0	32.2	32.1	94.1	94.1	7.1	7.1	19.8		13		90				<0.2		1.1	
						10.3	0.2	148	19.8		8.0		32.1		94.1		7.1		20.0		12		90				<0.2		1.0	
C3	Fine	Moderate	14:45	11.4	Surface	1.0	0.1	41	20.2	20.2	8.0	8.0	33.3	33.3	90.2	90.1	6.7	6.7	5.1	6.5	6	8	86	88	822107	817783	<0.2	<0.2	1.3	1.2
						1.0	0.1	46	20.2		8.0		33.3		90.0		6.7		5.2		7		86				<0.2		1.3	
					Middle	5.7	0.2	48	20.1	20.1	8.0	8.0	33.3	33.3	89.7	89.7	6.7		7.0		8		88				<0.2		1.3	
						5.7	0.2	50	20.1		8.0		33.3		89.7		6.7		7.1		9		89				<0.2		1.3	
					Bottom	10.4	0.1	53	20.1	20.1	8.0	8.0	33.3	33.3	91.1	91.2	6.8	6.8	7.5		8		90				<0.2		0.9	
						10.4	0.1	58	20.1		8.0		33.3		91.2		6.8		7.5		9		90				<0.2		0.9	
IM1	Sunny	Moderate	13:31	5.4	Surface	1.0	0.2	116	20.1	20.1	8.0	8.0	34.0	34.0	99.5	99.4	7.4	7.4	6.7	8.6	12	12	87	90	817964	807147	<0.2	<0.2	1.3	1.3
						1.0	0.2	132	20.1		8.0		34.0		99.3		7.4		6.7		13		87				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	129	19.7	19.7	8.0	8.0	34.1	34.1	96.8	97.0	7.2	7.3	10.3		10		92				<0.2		1.3	
						4.4	0.1	131	19.7		8.0		34.1		97.1		7.3		10.5		11		93				<0.2		1.3	
IM2	Sunny	Moderate	13:26	7.8	Surface	1.0	0.2	114	20.2	20.2	8.0	8.0	33.4	33.4	99.4	99.4	7.4	7.4	6.4	12.3	8	10	86	90	818161	806164	<0.2	<0.2	1.3	1.3
						1.0	0.2	125	20.2		8.0		33.4		99.3		7.4		6.5		9		87				<0.2		1.3	
					Middle	3.9	0.2	109	19.8	19.8	8.0	8.0	33.8	33.8	96.9	96.9	7.3		11.9		9		90				<0.2		1.2	
						3.9	0.2	117	19.8		8.0		33.8		96.9		7.3		12.5		10		90				<0.2		1.3	
					Bottom	6.8	0.2	113	19.7	19.7	8.0	8.0	33.8	33.8	96.7	96.7	7.2	7.2	18.0		11		94				<0.2		1.2	
						6.8	0.2	114	19.7		8.0		33.8		96.7		7.2		18.3		10		94				<0.2		1.3	
IM3	Sunny	Moderate	13:21	8.1	Surface	1.0	0.3	202	20.0	20.0	8.0	8.0	33.5	33.5	99.1	99.1	7.4	7.4	7.4	12.6	13	13	85	89	818773	805577	<0.2	<0.2	1.5	1.5
						1.0	0.4	214	20.0		8.0		33.5		99.1		7.4		7.5		12		86				<0.2		1.6	
					Middle	4.1	0.3	213	19.8	19.8	8.0	8.0	33.8	33.8	97.8	97.8	7.3		11.4		13		89				<0.2		1.5	
						4.1	0.3	222	19.8		8.0		33.8		97.8		7.3		11.5		14		89				<0.2		1.4	
					Bottom	7.1	0.2	206	19.8	19.8	8.0	8.0	33.9	33.9	97.7	97.7	7.3	7.3	18.6		14		94				<0.2		1.5	
						7.1	0.2	198	19.8		8.0		33.9		97.7		7.3		19.0		14		93				<0.2		1.5	
IM4	Sunny	Moderate	13:13	8.4	Surface	1.0	0.6	216	19.7	19.7	8.0	8.0	33.7	33.7	97.0	96.9	7.3	7.3	12.4	14.3	12	12	84	89	819715	804586	<0.2	<0.2	1.4	1.3
						1.0	0.6	209	19.7		8.0		33.7		96.8		7.3		12.2		11		85				<0.2		1.3	
					Middle	4.2	0.5	213	19.7	19.7	8.0	8.0	33.8	33.8	96.3	96.4	7.2		13.5		12		89				<0.2		1.3	
						4.2	0.5	215	19.7		8.0		33.8		96.5		7.2		13.9		11		89				<0.2		1.2	
					Bottom	7.4	0.4	214	19.7	19.7	8.0	8.0	33.9	33.9	97.0	97.0	7.3	7.3	16.7		11		94				<0.2		1.1	
						7.4	0.4	219	19.7		8.0		33.9		97.0		7.3		16.8		12		93				<0.2		1.2	
IM5	Sunny	Moderate	13:01	7.6	Surface	1.0	0.7	222	19.9	19.9	8.0	8.0	33.7	33.7	97.7	97.6	7.3	7.3	14.2	17.7	18	20	86	90	820733	804864	<0.2	<0.2	1.3	1.1
						1.0	0.7	223	19.9		8.0		33.7		97.5		7.3		14.3		17		87				<0.2		1.2	
					Middle	3.8	0.6	206	19.8	19.8	8.0	8.0	33.8	33.8	96.8	96.8	7.2		18.2		21		90				<0.2		1.1	
						3.8	0.6	198	19.8		8.0		33.8		96.8		7.2		18.1		21		91				<0.2		0.9	
					Bottom	6.6	0.5	205	19.8	19.8	8.0	8.0	33.8	33.8	96.5	96.5	7.2	7.2	20.7		22		91				<0.2		1.2	
						6.6	0.5	199	19.8		8.0		33.8		96.5		7.2		20.5		20		92				<0.2		1.1	
IM6	Sunny	Moderate	12:53	8.0	Surface	1.0	0.3	202	19.9	19.9	8.0	8.0	34.1	34.1	98.3	98.4	7.3	7.4	8.3	8.6	16	17	84	90	821047	805850	<0.2	<0.2	1.1	1.2
						1.0	0.3	205	19.9		8.0		34.1		98.4		7.3		8.1		16		85				<0.2		1.2	
					Middle	4.0	0.2	197	19.9	19.9	8.0	8.0	34.1	34.1	98.7	98.8	7.4		8.9		17		90				<0.2		1.1	
						4.0	0.2	186	19.9		8.0		34.1		98.8		7.4		8.7		16		92				<0.2		1.2	
					Bottom	7.0	0.2	203	19.9	19.9	8.0	8.0	34.1	34.1	97.7	97.9	7.3	7.3	8.8		17		92				<0.2		1.2	
						7.0	0.2	211	19.9		8.0		34.1		98.0		7.3		8.7		17		94				<0.2		1.1	
IM7	Sunny	Moderate	12:45	9.4	Surface	1.0	0.1	201	20.0	20.0	8.0	8.0	33.6	33.6	97.5	97.5	7.3	7.3	8.2	9.4	21	18	85	90	821340	806833	<0.2	<0.2	1.2	1.2
						1.0	0.1	225	20.0		8.0		33.6		97.4		7.3		8.2		19		86				<0.2		1.2	
					Middle	4.7	0.3	182	20.0	20.0	8.0	8.0	33.5	33.5	97.1	97.0	7.2		7.6		19		89				<0.2		1.1	
						4.7	0.3	189	20.0		8.0		33.5		96.9		7.2		7.7		18		90				<0.2		1.1	
					Bottom	8.4	0.3	194	19.8	19.8	8.0	8.0	33.9	33.9	97.0	97.0	7.2	7.2	12.3		16		94				<0.2		1.2	
						8.4	0.3	195	19.8		8.0		33.9		96.9		7.2		12.2		17		93				<0.2		1.2	
IM8	Fine	Moderate	13:14	7.5	Surface	1.0	0.2	189	19.9	20.0	8.0	8.0	31.9	31.9	94.6	94.7	7.1	7.2	7.0	10.1	10	10	86	88	821840	808116	<0.2	<0.2	1.2	1.1
						1.0	0.2	192	20.0		8.0		31.9		94.7		7.1		7.1		10		86				<0.2		1.1	
					Middle	3.8	0.2	193	19.8	19.8	8.0	8.0	32.3	32.3	95.1	95.2	7.2		9.4		11		88				<0.2		1.1	
						3.8	0.3	195	19.8		8.0		32.4		95.3		7.2		10.3		10		89				<0.2		1.0	
					Bottom	6.5	0.2	180	19.7	19.7	8.0	8.0	32.7	32.7	96.3	96.4	7.3	7.3	13.3		11		90				<0.2		1.1	
						6.5	0.2	185	19.7		8.0		32.7		96.5		7.3		13.3		10		90				<0.2		1.1	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	13:19	7.2	Surface	1.0	0.2	167	20.0	20.0	8.0	8.0	32.0	32.0	95.0	95.0	7.2	7.2	8.7	11.3	10	11	85	88	822085	808805	<0.2	<0.2	1.0	1.0
						1.0	0.2	168	20.0		8.0		32.0		94.9		7.2		8.8		9		86				<0.2		0.9	
					Middle	3.6	0.2	179	19.8	19.8	8.0	8.0	32.1	32.1	94.3	94.4	7.1		10.8		12		88				<0.2		0.9	
						3.6	0.2	184	19.8		8.0		32.1		94.4		7.1		10.9		12		87				<0.2		1.0	
					Bottom	6.2	0.0	142	19.8	19.8	8.0	8.0	32.3	32.3	96.4	96.5	7.3	7.3	14.1		11		89				<0.2		1.0	
						6.2	0.0	144	19.8		8.0		32.3		96.5		7.3		14.5		11		91				<0.2		1.0	
IM10	Fine	Moderate	13:26	6.8	Surface	1.0	0.2	183	19.8	19.8	8.0	8.0	32.9	32.9	95.3	95.3	7.2	7.2	11.7	12.5	7	8	86	88	822393	809808	<0.2	<0.2	0.9	1.0
						1.0	0.2	168	19.8		8.0		32.9		95.3		7.2		11.8		7		86				<0.2		1.0	
					Middle	3.4	0.3	169	19.7	19.7	8.1	8.1	32.9	32.9	95.3	95.3	7.2		12.6		8		89				<0.2		1.0	
						3.4	0.3	158	19.7		8.1		32.9		95.3		7.2		12.8		8		88				<0.2		1.0	
					Bottom	5.8	0.3	163	19.8	19.8	8.1	8.1	32.9	32.9	95.6	95.7	7.2	7.2	13.0		8		90				<0.2		1.1	
						5.8	0.3	168	19.8		8.1		32.9		95.7		7.2		13.1		7		90				<0.2		1.2	
IM11	Fine	Moderate	13:36	7.9	Surface	1.0	0.2	172	19.9	19.9	8.0	8.0	32.7	32.7	95.1	95.1	7.2	7.2	8.5	10.7	7	8	86	88	822033	811474	<0.2	<0.2	1.0	0.9
						1.0	0.2	175	19.8		8.0		32.7		95.1		7.2		8.7		8		87				<0.2		0.8	
					Middle	4.0	0.2	287	19.8	19.8	8.0	8.0	32.7	32.7	94.9	94.9	7.1		10.4		8		88				<0.2		0.9	
						4.0	0.2	175	19.8		8.0		32.7		94.9		7.1		10.5		9		87				<0.2		0.9	
					Bottom	6.9	0.1	143	19.8	19.8	8.1	8.1	32.7	32.7	95.0	95.0	7.2	7.2	13.2		9		89				<0.2		0.9	
						6.9	0.1	144	19.8		8.1		32.7		95.0		7.2		12.7		8		91				<0.2		0.9	
IM12	Fine	Moderate	13:42	8.4	Surface	1.0	0.2	132	19.8	19.8	8.1	8.1	32.8	32.8	95.7	95.7	7.2	7.2	7.7	9.2	10	10	86	88	821475	812066	<0.2	<0.2	1.0	1.0
						1.0	0.3	134	19.8		8.1		32.8		95.6		7.2		7.8		10		86				<0.2		1.0	
					Middle	4.2	0.2	125	19.8	19.8	8.1	8.1	32.8	32.8	95.8	95.8	7.2		9.3		11		87				<0.2		1.0	
						4.2	0.2	129	19.8		8.1		32.8		95.8		7.2		9.7		11		88				<0.2		1.0	
					Bottom	7.4	0.2	158	19.8	19.8	8.1	8.1	32.8	32.8	96.6	96.7	7.3	7.3	10.4		10		90				<0.2		1.0	
						7.4	0.2	179	19.8		8.1		32.8		96.8		7.3		10.4		9		90				<0.2		0.9	
SR1A	Fine	Moderate	14:09	5.5	Surface	1.0	-	-	19.8	19.8	8.0	8.0	33.2	33.2	95.3	95.3	7.2	7.2	5.9	6.0	8	8	-	-	819980	812661	-	-	-	-
						1.0	-	-	19.8		8.0		33.2		95.3		7.2		6.0		7		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	-	19.8	19.8	8.0	8.0	33.1	33.1	95.5	95.5	7.2	7.2	6.1		9		-				-		-	
						4.5	-	-	19.8		8.0		33.1		95.5		7.2		6.1		8		-				-		-	
SR2	Fine	Moderate	14:25	4.3	Surface	1.0	0.3	120	20.0	20.0	8.0	8.0	32.8	32.8	95.9	95.9	7.2	7.2	7.0	9.1	9	10	86	89	821454	814148	<0.2	<0.2	0.9	0.9
						1.0	0.4	122	19.9		8.0		32.8		95.9		7.2		7.2		10		88				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.3	126	19.9	19.9	8.0	8.0	32.8	32.8	95.7	95.7	7.2	7.2	11.1		9		91				<0.2		1.0	
						3.3	0.3	127	19.9		8.0		32.8		95.7		7.2		11.1		10		91				<0.2		0.8	
SR3	Fine	Moderate	13:09	8.3	Surface	1.0	0.0	160	20.0	20.0	8.0	8.0	31.8	31.8	95.7	95.7	7.2	7.2	5.6	10.2	11	10	-	-	822154	807561	-	-	-	-
						1.0	0.0	169	20.0		8.0		31.8		95.7		7.2		5.6		10		-				-		-	
					Middle	4.2	0.2	155	19.8	19.8	8.0	8.0	32.7	32.7	95.9	95.9	7.2		13.4		11		-				-		-	
						4.2	0.2	156	19.8		8.0		32.7		95.9		7.2		13.0		11		-				-		-	
					Bottom	7.3	0.3	159	19.7	19.7	8.0	8.0	33.0	33.0	96.2	96.3	7.2	7.2	11.8		8		-				-		-	
						7.3	0.3	164	19.7		8.0		33.0		96.3		7.2		11.6		8		-				-		-	
SR4A	Sunny	Calm	13:57	8.6	Surface	1.0	0.6	68	19.9	19.9	8.1	8.1	33.9	33.9	98.9	99.0	7.4	7.4	8.5	12.6	15	15	-	-	817175	807830	-	-	-	-
						1.0	0.7	69	19.9		8.1		33.9		99.1		7.4		8.6		16		-				-		-	
					Middle	4.3	0.5	72	19.8	19.8	8.1	8.1	33.9	33.9	97.8	97.8	7.3		10.6		14		-				-		-	
						4.3	0.5	77	19.8		8.1		33.9		97.8		7.3		10.9		16		-				-		-	
					Bottom	7.6	0.4	84	19.8	19.8	8.1	8.1	33.9	33.9	97.4	97.4	7.3	7.3	18.2		14		-				-		-	
						7.6	0.4	87	19.8		8.1		33.9		97.4		7.3		18.8		15		-				-		-	
SR5A	Sunny	Calm	14:10	5.0	Surface	1.0	0.1	344	20.0	20.0	8.0	8.0	34.3	34.3	97.6	97.5	7.3	7.3	5.3	5.8	14	13	-	-	816606	810692	-	-	-	-
						1.0	0.1	316	20.0		8.0		34.3		97.3		7.2		5.3		15		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	16	19.9	19.9	8.0	8.0	34.3	34.3	97.5	97.4	7.3	7.3	6.2		11		-				-		-	
						4.0	0.1	17	19.9		8.0		34.3		97.3		7.2		6.2		12		-				-		-	
SR6A	Sunny	Calm	14:43	4.3	Surface	1.0	0.0	21	20.1	20.1	8.1	8.1	34.2	34.2	100.0	100.0	7.4	7.4	2.8	4.8	10	9	-	-	817972	814754	-	-	-	-
						1.0	0.0	22	20.1		8.1		34.2		99.9		7.4		2.9		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	28	20.0	20.0	8.1	8.1	34.2	34.2	99.2	99.2	7.4	7.4	6.6		8		-				-		-	
						3.3	0.0	28	20.0		8.1		34.2		99.1		7.4		6.7		7		-				-		-	
SR7	Fine	Moderate	15:15	16.4	Surface	1.0	0.1	189	20.3	20.3	8.0	8.0	33.2	33.2	90.6	90.5	6.7	6.7	3.6	5.0	5	5	-	-	823617	823754	-	-	-	-
						1.0	0.1	191	20.3		8.0		33.2		90.4		6.7		3.7		5		-				-		-	
					Middle	8.2	0.1	82	20.2	20.2	8.0	8.0	33.3	33.3	88.8	88.8	6.6		5.1		6		-				-		-	
						8.2	0.1	84	20.2		8.0		33.3		88.8		6.6		5.2		5		-				-		-	
					Bottom	15.4	0.1	105	20.1	20.1	8.0	8.0	33.3	33.3	89.2	89.3	6.7	6.7	6.3		4		-				-		-	
						15.4	0.1	109	20.1		8.0		33.3		89.3		6.7		6.4		5		-				-		-	
SR8	Fine	Moderate	13:49	5.1	Surface	1.0	-	-	20.1	20.1	8.0	8.0	32.7	32.7	96.8	96.8	7.3	7.3	12.7	10.9	19	19	-	-	820408	811601	-	-	-	-
						1.0	-	-	20.0		8.0		32.7		96.7		7.3		12.2		17		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	19.7	19.7	8.0	8.0	32.8	32.8	95.2	95.2	7.2	7.2	9.2		21		-				-		-	
						4.1	-	-	19.7		8.0		32.8		95.2		7.2		9.4		19		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Sunny	Moderate	09:48	8.5	Surface	1.0	0.5	46	19.7	19.7	8.0	8.0	33.4	33.4	98.1	98.1	7.4	7.4	10.2	15.2	18	23	86	90	815604	804239	<0.2	<0.2	1.1	1.1
						1.0	0.5	0	19.7		8.0		33.4		98.1		7.4		10.0		16		87				<0.2		1.1	
					Middle	4.3	0.4	41	19.7	19.7	8.0	8.0	33.5	33.5	97.3	97.3	7.3		14.0		21		90				<0.2		1.1	
						4.3	0.5	42	19.7		8.0		33.5		97.3		7.3		14.1		19		90				<0.2		1.2	
					Bottom	7.5	0.4	31	19.7	19.7	8.1	8.1	33.8	33.8	96.6	96.6	7.2	7.2	21.4		33		93				<0.2		1.0	
						7.5	0.4	32	19.7		8.1		33.8		96.6		7.2		21.5		30		93				<0.2		1.1	
C2	Fine	Moderate	10:27	11.0	Surface	1.0	0.4	339	20.0	20.0	8.0	8.0	31.3	31.4	95.2	95.2	7.2	7.2	6.0	9.9	8	7	86	88	825680	806923	<0.2	<0.2	1.5	1.5
						1.0	0.4	350	20.0		8.0		31.4		95.1		7.2		6.0		9		86				<0.2		1.4	
					Middle	5.5	0.4	7	19.9	19.9	8.0	8.0	31.7	31.8	94.9	95.0	7.2		6.8		6		87				<0.2		1.6	
						5.5	0.4	7	19.8		8.0		31.9		95.0		7.2		6.7		6		88				<0.2		1.6	
					Bottom	10.0	0.3	29	19.8	19.8	8.0	8.0	32.2	32.2	96.3	96.4	7.3	7.3	16.9		6		90				<0.2		1.2	
						10.0	0.4	30	19.8		8.0		32.2		96.5		7.3		16.9		7		90				<0.2		1.5	
C3	Fine	Moderate	08:24	10.6	Surface	1.0	0.3	273	19.9	19.9	8.0	8.0	32.7	32.7	94.7	94.7	7.1	7.1	5.7	10.4	7	8	86	88	822088	817798	<0.2	<0.2	1.5	1.6
						1.0	0.3	295	19.9		8.0		32.7		94.7		7.1		5.8		8		85				<0.2		1.7	
					Middle	5.3	0.0	274	19.8	19.8	8.0	8.0	32.8	32.8	95.0	95.0	7.1		6.5		8		88				<0.2		1.5	
						5.3	0.0	292	19.8		8.0		32.8		95.0		7.2		6.5		9		89				<0.2		1.5	
					Bottom	9.6	0.3	289	19.7	19.7	8.0	8.0	32.9	32.9	95.7	95.8	7.2	7.2	19.1		9		91				<0.2		1.5	
						9.6	0.3	290	19.7		8.0		32.9		95.8		7.2		19.1		8		91				<0.2		1.6	
IM1	Sunny	Moderate	10:10	5.3	Surface	1.0	0.2	352	19.8	19.8	8.1	8.1	34.2	34.2	97.2	97.2	7.3	7.3	5.5	7.1	12	13	88	91	817926	807118	<0.2	<0.2	1.5	1.4
						1.0	0.2	359	19.8		8.1		34.2		97.1		7.2		5.5		13		87				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	359	19.8	19.8	8.2	8.2	34.2	34.2	95.7	95.7	7.2	7.2	8.7		14		94				<0.2		1.3	
						4.3	0.2	330	19.8		8.2		34.2		95.7		7.2		8.7		13		94				<0.2		1.3	
IM2	Sunny	Moderate	10:18	7.3	Surface	1.0	0.4	9	19.9	19.9	8.0	8.0	33.6	33.6	99.5	99.5	7.4	7.4	7.2	15.5	17	19	88	91	818183	806152	<0.2	<0.2	1.3	1.3
						1.0	0.4	9	19.9		8.0		33.6		99.4		7.4		7.2		17		88				<0.2		1.3	
					Middle	3.7	0.3	6	19.8	19.8	8.0	8.0	33.9	33.9	97.8	97.8	7.3		17.3		18		92				<0.2		1.3	
						3.7	0.3	6	19.8		8.0		33.9		97.8		7.3		17.0		16		92				<0.2		1.4	
					Bottom	6.3	0.2	354	19.7	19.7	8.1	8.1	34.0	34.0	97.0	97.1	7.3	7.3	22.1		22		94				<0.2		1.3	
						6.3	0.2	326	19.7		8.1		34.0		97.1		7.3		22.2		24		93				<0.2		1.4	
IM3	Sunny	Moderate	10:25	7.7	Surface	1.0	0.3	358	19.9	19.9	7.9	7.9	33.5	33.5	98.8	98.8	7.4	7.4	8.6	12.2	18	19	89	92	818794	805578	<0.2	<0.2	1.5	1.4
						1.0	0.3	358	19.9		7.9		33.5		98.8		7.4		8.6		16		88				<0.2		1.4	
					Middle	3.9	0.3	347	19.7	19.7	7.9	7.9	33.8	33.8	97.2	97.2	7.3		12.0		19		91				<0.2		1.3	
						3.9	0.3	319	19.7		7.9		33.8		97.1		7.3		12.2		20		92				<0.2		1.4	
					Bottom	6.7	0.2	327	19.7	19.7	7.9	7.9	34.0	34.0	97.0	97.0	7.3	7.3	15.9		19		94				<0.2		1.3	
						6.7	0.2	335	19.7		7.9		34.0		97.0		7.3		16.0		19		95				<0.2		1.3	
IM4	Sunny	Moderate	10:35	8.0	Surface	1.0	0.5	354	19.8	19.8	8.0	8.0	33.6	33.6	97.9	97.9	7.3	7.3	13.6	16.3	18	18	88	91	819701	804599	<0.2	<0.2	1.3	1.4
						1.0	0.5	326	19.8		8.0		33.6		97.9		7.3		13.9		18		88				<0.2		1.3	
					Middle	4.0	0.4	353	19.7	19.7	8.0	8.0	33.6	33.6	96.3	96.3	7.2		14.3		18		92				<0.2		1.4	
						4.0	0.5	325	19.7		8.0		33.6		96.2		7.2		14.7		18		91				<0.2		1.3	
					Bottom	7.0	0.4	353	19.7	19.7	7.9	7.9	33.7	33.7	96.3	96.4	7.2	7.2	20.9		19		94				<0.2		1.4	
						7.0	0.4	358	19.7		7.9		33.7		96.5		7.2		20.4		16		95				<0.2		1.4	
IM5	Sunny	Moderate	10:42	7.3	Surface	1.0	0.7	15	20.0	20.0	8.0	8.0	33.6	33.6	98.3	98.3	7.3	7.3	9.7	13.9	23	21	88	92	820755	804885	<0.2	<0.2	1.3	1.3
						1.0	0.7	15	20.0		8.0		33.6		98.2		7.3		9.8		22		89				<0.2		1.3	
					Middle	3.7	0.6	21	19.9	19.9	8.0	8.0	33.7	33.7	97.0	97.0	7.3		13.2		23		94				<0.2		1.3	
						3.7	0.7	21	19.9		8.0		33.7		97.0		7.3		13.2		23		93				<0.2		1.4	
					Bottom	6.3	0.5	18	19.8	19.8	8.0	8.0	33.8	33.8	97.2	97.2	7.3	7.3	18.6		17		95				<0.2		1.4	
						6.3	0.5	18	19.8		8.0		33.8		97.2		7.3		18.6		17		95				<0.2		1.3	
IM6	Sunny	Moderate	10:50	7.2	Surface	1.0	0.2	128	19.8	19.8	8.0	8.0	34.1	34.1	98.0	98.0	7.3	7.3	6.3	7.5	14	14	89	92	821043	805833	<0.2	<0.2	1.4	1.4
						1.0	0.2	133	19.8		8.0		34.1		98.0		7.3		6.2		14		88				<0.2		1.3	
					Middle	3.6	0.2	131	19.8	19.8	8.0	8.0	34.1	34.1	97.6	97.6	7.3		7.7		14		92				<0.2		1.4	
						3.6	0.2	140	19.8		8.0		34.1		97.6		7.3		7.7		14		93				<0.2		1.4	
					Bottom	6.2	0.2	137	19.8	19.8	8.0	8.0	34.1	34.1	96.8	96.8	7.2	7.2	8.6		15		94				<0.2		1.4	
						6.2	0.2	146	19.8		8.0		34.1		96.7		7.2		8.6		13		94				<0.2		1.4	
IM7	Sunny	Moderate	10:57	7.5	Surface	1.0	0.2	37	20.0	20.0	8.0	8.0	33.6	33.6	97.7	97.8	7.3	7.3	10.9	16.0	12	11	88	92	821327	806842	<0.2	<0.2	1.4	1.2
						1.0	0.2	40	20.0		8.0		33.6		97.8		7.3		10.8		11		88				<0.2		1.2	
					Middle	3.8	0.2	42	19.8	19.8	8.0	8.0	33.9	33.9	97.3	97.3	7.3		24.5		12		92				<0.2		1.2	
						3.8	0.2	44	19.8		8.0		33.9		97.3		7.3		24.7		10		93				<0.2		1.2	
					Bottom	6.5	0.3	64	19.8	19.8	8.0	8.0	34.0	34.0	97.8	97.8	7.3	7.3	12.3		10		94				<0.2		1.3	
						6.5	0.3	67	19.8		8.0		34.0		97.7		7.3		12.7		9		95				<0.2		1.1	
IM8	Fine	Moderate	10:04	7.7	Surface	1.0	0.2	100	19.9	19.9	8.0	8.0	31.9	31.9	94.3	94.3	7.1	7.1	8.2	9.7	13	13	86	89	821843	808161	<0.2	<0.2	1.1	1.1
						1.0	0.2	102	19.9		8.0		31.9		94.3		7.1		8.2		14		87				<0.2		1.2	
					Middle	3.9	0.1	84	19.8	19.8	8.0	8.0	32.0	32.0	94.3	94.3	7.1		10.0		12		89				<0.2		1.2	
						3.9	0.1	84	19.8		8.0		32.1		94.3		7.1		10.2		12		89				<0.2		1.2	
					Bottom	6.7	0.2	69	19.8	19.8	8.0	8.0	32.1	32.1	95.2	95.3	7.2	7.2	10.8		12		91				<0.2		1.1	
						6.7	0.2	75	19.8		8.0		32.1		95.4		7.2		10.7		13		90				<0.2		1.0	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	09:59	7.8	Surface	1.0	0.1	111	19.7	19.7	8.0	8.0	32.4	32.4	96.1	96.1	7.3	7.3	10.9	11.9	15	15	86	88	822093	808789	<0.2	<0.2	1.2	1.2
						1.0	0.2	112	19.7		8.0		32.4		96.1		7.3		11.0		14		86				<0.2		1.2	
					Middle	3.9	0.0	215	19.7	19.7	8.0	8.0	32.4	32.4	96.3	96.4	7.3		11.3		16		88				<0.2		1.2	
						3.9	0.0	232	19.7		8.0		32.4		96.5		7.3		11.1		16		89				<0.2		1.2	
					Bottom	6.8	0.0	185	19.7	19.7	8.0	8.0	32.4	32.4	97.5	97.6	7.4	7.4	13.5		16		91				<0.2		1.1	
						6.8	0.0	200	19.7		8.0		32.4		97.6		7.4		13.5		15		90				<0.2		1.2	
IM10	Fine	Moderate	09:52	7.4	Surface	1.0	0.4	311	19.8	19.8	8.0	8.0	32.5	32.5	95.9	95.9	7.2	7.2	8.3	10.1	13	11	86	88	822408	809790	<0.2	<0.2	1.2	1.2
						1.0	0.4	331	19.8		8.0		32.5		95.9		7.2		8.4		12		86				<0.2		1.3	
					Middle	3.7	0.4	303	19.7	19.7	8.0	8.0	32.5	32.5	95.8	95.9	7.2		10.2		11		88				<0.2		1.2	
						3.7	0.5	306	19.7		8.0		32.5		95.9		7.2		10.2		10		89				<0.2		1.2	
					Bottom	6.4	0.4	268	19.7	19.7	8.0	8.0	32.5	32.5	96.4	96.4	7.3	7.3	11.7		10		90				<0.2		1.2	
						6.4	0.5	269	19.7		8.0		32.5		96.4		7.3		11.8		11		91				<0.2		1.3	
IM11	Fine	Moderate	09:43	7.5	Surface	1.0	0.3	287	19.8	19.8	8.0	8.0	32.6	32.6	95.8	95.8	7.2	7.2	7.9	7.9	12	11	86	88	822078	811480	<0.2	<0.2	1.4	1.4
						1.0	0.3	311	19.8		8.0		32.6		95.8		7.2		7.9		13		86				<0.2		1.5	
					Middle	3.8	0.3	295	19.8	19.8	8.0	8.0	32.6	32.6	95.9	96.0	7.2		7.4		10		88				<0.2		1.4	
						3.8	0.3	303	19.8		8.0		32.6		96.0		7.2		7.9		11		87				<0.2		1.4	
					Bottom	6.5	0.2	306	19.8	19.8	8.0	8.0	32.6	32.6	96.8	96.9	7.3	7.3	8.6		11		90				<0.2		1.3	
						6.5	0.2	319	19.8		8.0		32.6		96.9		7.3		7.9		11		90				<0.2		1.4	
IM12	Fine	Moderate	09:38	7.6	Surface	1.0	0.6	275	19.7	19.7	8.0	8.0	32.8	32.8	95.2	95.2	7.2	7.2	13.6	12.5	14	16	86	88	821458	812055	<0.2	<0.2	1.5	1.5
						1.0	0.6	290	19.7		8.0		32.8		95.2		7.2		13.6		15		87				<0.2		1.6	
					Middle	3.8	0.5	273	19.7	19.7	8.0	8.0	32.8	32.8	95.0	95.0	7.2		12.4		14		89				<0.2		1.4	
						3.8	0.5	282	19.7		8.0		32.8		95.0		7.2		12.4		15		87				<0.2		1.5	
					Bottom	6.6	0.5	277	19.7	19.7	8.0	8.0	32.8	32.8	96.8	96.8	7.3	7.3	11.6		17		90				<0.2		1.4	
						6.6	0.5	282	19.7		8.0		32.8		96.7		7.3		11.6		18		91				<0.2		1.5	
SR1A	Fine	Moderate	09:10	4.2	Surface	1.0	-	-	19.6	19.6	8.0	8.0	33.1	33.1	93.0	93.0	7.0	7.0	7.5	7.8	12	10	-	-	819974	812665	-	-	-	-
						1.0	-	-	19.6		8.0		33.1		93.0		7.0		7.6		11		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	19.6	19.6	8.0	8.0	33.1	33.1	93.5	93.5	7.0	7.1	7.9		8		-				-		-	
						3.2	-	-	19.6		8.0		33.1		93.5		7.1		8.0		8		-				-		-	
SR2	Fine	Moderate	08:43	4.5	Surface	1.0	0.1	131	19.7	19.7	8.0	8.0	32.8	32.8	95.3	95.3	7.2	7.2	15.8	17.7	21	21	86	88	821453	814189	<0.2	<0.2	1.1	1.2
						1.0	0.1	135	19.7		8.0		32.8		95.3		7.2		15.7		23		86				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	131	19.6	19.6	8.0	8.0	32.8	32.8	96.0	96.1	7.2	7.3	19.6		19		89				<0.2		1.1	
						3.5	0.1	141	19.6		8.0		32.8		96.2		7.3		19.6		19		90				<0.2		1.2	
SR3	Fine	Moderate	10:09	8.4	Surface	1.0	0.1	340	20.0	20.0	8.0	8.0	31.7	31.7	95.2	95.2	7.2	7.2	6.6	10.3	6	7	-	-	822159	807582	-	-	-	-
						1.0	0.1	313	20.0		8.0		31.7		95.2		7.2		6.7		8		-				-		-	
					Middle	4.2	0.3	36	19.8	19.8	8.0	8.0	32.1	32.1	95.1	95.1	7.2		8.1		7		-				-		-	
						4.2	0.3	39	19.8		8.0		32.2		95.1		7.2		8.7		8		-				-		-	
					Bottom	7.4	0.3	51	19.7	19.7	8.0	8.0	32.6	32.6	95.2	95.2	7.2	7.2	15.9		6		-				-		-	
						7.4	0.3	54	19.7		8.0		32.6		95.2		7.2		15.9		7		-				-		-	
SR4A	Sunny	Calm	09:24	8.4	Surface	1.0	0.1	82	19.7	19.7	8.0	8.0	34.3	34.3	96.8	96.8	7.2	7.2	5.4	6.5	12	14	-	-	817183	807811	-	-	-	-
						1.0	0.2	89	19.7		8.0		34.3		96.8		7.2		5.5		12		-				-		-	
					Middle	4.2	0.2	69	19.7	19.7	8.0	8.0	34.3	34.3	96.2	96.2	7.2		6.4		13		-				-		-	
						4.2	0.2	75	19.7		8.0		34.3		96.1		7.2		6.5		12		-				-		-	
					Bottom	7.4	0.1	75	19.7	19.7	8.1	8.1	34.3	34.3	95.1	95.1	7.1	7.1	7.7		16		-				-		-	
						7.4	0.2	79	19.7		8.1		34.3		95.1		7.1		7.7		17		-				-		-	
SR5A	Sunny	Calm	09:05	5.5	Surface	1.0	0.1	263	19.7	19.7	8.1	8.1	34.4	34.4	95.9	95.9	7.2	7.2	5.2	7.0	14	15	-	-	816603	810672	-	-	-	-
						1.0	0.1	285	19.7		8.1		34.4		95.9		7.2		5.2		16		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	306	19.6	19.6	8.1	8.1	34.4	34.4	95.8	95.8	7.2	7.2	8.8		14		-				-		-	
						4.5	0.1	336	19.6		8.1		34.4		95.7		7.2		8.9		16		-				-		-	
SR6A	Sunny	Calm	08:36	4.2	Surface	1.0	0.1	223	19.7	19.7	8.0	8.0	34.4	34.4	94.1	94.1	7.0	7.0	4.5	6.3	10	11	-	-	817966	814757	-	-	-	-
						1.0	0.1	239	19.7		8.0		34.4		94.1		7.0		4.5		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	228	19.7	19.7	8.0	8.0	34.5	34.5	94.0	94.1	7.0	7.0	8.0		11		-				-		-	
						3.2	0.1	238	19.7		8.0		34.5		94.2		7.0		8.1		11		-				-		-	
SR7	Fine	Moderate	07:55	16.0	Surface	1.0	0.2	334	19.8	19.8	8.0	8.0	33.0	33.0	94.1	94.1	7.1	7.1	9.5	9.4	9	9	-	-	823637	823737	-	-	-	-
						1.0	0.3	347	19.8		8.0		33.0		94.1		7.1		9.2		8		-				-		-	
					Middle	8.0	0.2	337	19.8	19.8	8.0	8.0	33.0	33.0	94.0	94.0	7.1		9.4		10		-				-		-	
						8.0	0.2	355	19.8		8.0		33.0		94.0		7.1		9.4		9		-				-		-	
					Bottom	15.0	0.2	323	19.8	19.8	8.0	8.0	32.9	32.9	94.4	94.4	7.1	7.1	9.3		10		-				-		-	
						15.0	0.2	343	19.8		8.0		32.9		94.4		7.1		9.4		9		-				-		-	
SR8	Fine	Moderate	09:29	4.6	Surface	1.0	-	-	19.9	19.9	8.0	8.0	32.6	32.6	95.9	95.9	7.2	7.2	9.8	13.0	18	16	-	-	820381	811613	-	-	-	-
						1.0	-	-	19.9		8.0		32.7		95.8		7.2		9.7		16		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	19.7	19.7	8.0	8.0	32.9	32.9	95.2	95.2	7.2	7.2	15.7		16		-				-		-	
						3.6	-	-	19.7		8.0		32.9		95.2		7.2		17.0		14		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	16:28	8.2	Surface	1.0	0.3	121	20.2	20.2	8.0	8.0	32.1	32.1	96.0	96.0	7.2	7.2	10.0	12.7	12	13	86	88	815627	804270	<0.2	<0.2	2.2	1.9
						1.0	0.3	113	20.2		8.0		32.1		96.0		7.2		10.0		13		85				<0.2		2.3	
					Middle	4.1	0.3	128	20.1	20.1	8.1	8.1	32.5	32.5	95.3	95.3	7.1		15.1		12		88				<0.2		1.8	
						4.1	0.3	129	20.1		8.1		32.5		95.3		7.1		15.1		12		88				<0.2		1.7	
					Bottom	7.2	0.2	137	20.0	20.0	8.1	8.1	33.2	33.2	95.2	95.2	7.1	7.1	13.0		13		90				<0.2		1.8	
						7.2	0.2	145	20.0		8.1		33.2		95.2		7.1		13.0		13		90				<0.2		1.8	
C2	Fine	Moderate	15:12	10.9	Surface	1.0	0.1	142	20.2	20.2	8.1	8.1	29.6	29.6	90.3	90.3	6.9	6.9	6.9	9.6	7	6	89	92	825670	806926	<0.2	<0.2	1.8	1.9
						1.0	0.1	154	20.2		8.1		29.6		90.2		6.9		7.1		6		88				<0.2		1.8	
					Middle	5.5	0.3	144	20.2	20.2	8.1	8.1	30.0	30.0	89.9	89.9	6.8		8.4		6		92				<0.2		1.9	
						5.5	0.3	157	20.2		8.1		30.0		89.8		6.8		8.5		6		93				<0.2		1.8	
					Bottom	9.9	0.3	142	20.2	20.2	8.1	8.1	30.9	30.9	89.2	89.3	6.7	6.7	13.3		6		94				<0.2		2.0	
						9.9	0.3	134	20.2		8.1		30.9		89.3		6.7		13.3		6		94				<0.2		1.9	
C3	Fine	Moderate	17:21	12.0	Surface	1.0	0.2	122	20.2	20.2	8.2	8.2	32.0	32.0	90.5	90.4	6.8	6.8	5.3	8.9	8	7	86	90	822090	817804	<0.2	<0.2	2.5	2.5
						1.0	0.2	142	20.2		8.2		32.1		90.3		6.8		5.9		9		87				<0.2		2.5	
					Middle	6.0	0.2	134	20.1	20.1	8.2	8.2	32.3	32.3	89.3	89.3	6.7		10.6		6		90				<0.2		2.6	
						6.0	0.2	141	20.1		8.2		32.3		89.3		6.7		10.7		5		90				<0.2		2.5	
					Bottom	11.0	0.2	141	20.1	20.1	8.2	8.2	32.3	32.2	90.3	90.5	6.8	6.8	10.2		6		93				<0.2		2.6	
						11.0	0.2	144	20.1		8.2		32.2		90.7		6.8		10.6		5		93				<0.2		2.5	
IM1	Fine	Moderate	16:05	4.8	Surface	1.0	0.1	109	20.4	20.4	8.1	8.1	33.2	33.2	95.0	95.0	7.1	7.1	6.8	7.3	13	13	86	89	817934	807116	<0.2	<0.2	1.4	1.5
						1.0	0.1	118	20.4		8.1		33.2		95.0		7.1		6.8		15		87				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	187	20.3	20.3	8.1	8.1	33.3	33.3	96.0	96.0	7.1	7.1	7.8		12		90				<0.2		1.6	
						3.8	0.2	169	20.3		8.1		33.3		96.0		7.1		7.8		13		91				<0.2		1.4	
IM2	Fine	Moderate	15:59	6.9	Surface	1.0	0.2	208	20.1	20.1	8.0	8.0	32.7	32.7	95.1	95.1	7.1	7.1	10.0	11.8	14	15	86	89	818155	806144	<0.2	<0.2	1.6	1.5
						1.0	0.2	209	20.1		8.0		32.7		95.1		7.1		10.0		12		86				<0.2		1.4	
					Middle	3.5	0.2	196	20.1	20.1	8.0	8.0	32.9	32.9	95.2	95.2	7.1		13.4		13		88				<0.2		1.6	
						3.5	0.2	196	20.1		8.0		32.9		95.2		7.1		13.4		15		89				<0.2		1.5	
					Bottom	5.9	0.2	193	20.1	20.1	8.1	8.1	33.1	33.1	95.3	95.3	7.1	7.1	12.1		16		90				<0.2		1.4	
						5.9	0.2	188	20.1		8.1		33.1		95.3		7.1		12.1		18		92				<0.2		1.6	
IM3	Fine	Moderate	15:52	7.0	Surface	1.0	0.3	198	20.3	20.3	8.0	8.0	32.1	32.1	94.5	94.5	7.1	7.1	8.3	11.6	10	9	85	88	818780	805605	<0.2	<0.2	1.5	1.5
						1.0	0.3	184	20.3		8.0		32.1		94.5		7.1		8.3		10		86				<0.2		1.5	
					Middle	3.5	0.3	182	20.1	20.1	8.0	8.0	33.0	33.0	94.3	94.3	7.0		14.6		10		89				<0.2		1.5	
						3.5	0.3	193	20.1		8.0		33.0		94.3		7.0		14.6		8		89				<0.2		1.5	
					Bottom	6.0	0.2	199	20.1	20.1	8.1	8.1	33.1	33.1	95.2	95.2	7.1	7.1	12.0		8		90				<0.2		1.5	
						6.0	0.3	193	20.1		8.1		33.1		95.2		7.1		12.0		7		90				<0.2		1.7	
IM4	Fine	Moderate	15:42	7.4	Surface	1.0	0.4	183	20.2	20.2	8.0	8.0	31.9	31.9	94.9	94.9	7.1	7.1	7.2	8.2	8	8	86	89	819737	804616	<0.2	<0.2	1.6	1.6
						1.0	0.5	183	20.2		8.0		31.9		94.9		7.1		7.2		6		85				<0.2		1.6	
					Middle	3.7	0.4	172	20.1	20.1	8.1	8.1	32.3	32.3	94.6	94.6	7.1		8.9		7		88				<0.2		1.6	
						3.7	0.4	175	20.1		8.1		32.3		94.6		7.1		8.9		7		89				<0.2		1.5	
					Bottom	6.4	0.4	184	20.1	20.1	8.1	8.1	32.9	32.9	96.1	96.1	7.2	7.2	8.6		9		91				<0.2		1.6	
						6.4	0.4	195	20.1		8.1		32.9		96.1		7.2		8.6		8		92				<0.2		1.6	
IM5	Fine	Moderate	15:32	6.9	Surface	1.0	0.7	202	20.3	20.3	7.9	7.9	32.9	32.9	97.4	97.4	7.3	7.3	6.9	6.4	14	15	87	88	820756	804866	<0.2	<0.2	1.7	1.7
						1.0	0.7	211	20.3		7.9		32.9		97.4		7.3		6.9		15		86				<0.2		1.6	
					Middle	3.5	0.6	210	20.3	20.3	7.9	7.9	32.9	32.9	97.6	97.6	7.3		7.6		16		88				<0.2		1.6	
						3.5	0.6	208	20.3		7.9		32.9		97.6		7.3		7.6		14		89				<0.2		1.6	
					Bottom	5.9	0.4	209	20.3	20.3	7.9	7.9	32.9	32.9	98.9	98.9	7.4	7.4	4.7		16		90				<0.2		1.8	
						5.9	0.4	201	20.3		7.9		32.9		98.9		7.4		4.7		14		90				<0.2		1.7	
IM6	Fine	Moderate	15:25	6.6	Surface	1.0	0.3	204	20.2	20.2	8.0	8.0	32.3	32.3	95.2	95.2	7.1	7.1	16.8	17.4	23	18	86	88	821040	805840	<0.2	<0.2	1.6	1.6
						1.0	0.3	218	20.2		8.0		32.3		95.2		7.1		16.8		21		86				<0.2		1.5	
					Middle	3.3	0.3	214	20.1	20.1	8.1	8.1	32.7	32.7	95.4	95.4	7.1		17.3		19		88				<0.2		1.7	
						3.3	0.3	197	20.1		8.1		32.7		95.4		7.1		17.3		17		89				<0.2		1.6	
					Bottom	5.6	0.3	195	20.1	20.1	8.2	8.2	32.9	32.9	96.7	96.7	7.2	7.2	18.2		13		90				<0.2		1.5	
						5.6	0.3	188	20.1		8.2		32.9		96.7		7.2		18.2		14		91				<0.2		1.6	
IM7	Fine	Moderate	15:15	7.4	Surface	1.0	0.1	195	20.3	20.3	8.0	8.0	31.1	31.1	93.6	93.6	7.0	7.0	5.9	7.5	13	13	86	88	821343	806832	<0.2	<0.2	1.5	1.6
						1.0	0.1	197	20.3		8.0		31.1		93.6		7.0		5.9		14		85				<0.2		1.6	
					Middle	3.7	0.3	184	20.3	20.3	8.0	8.0	31.1	31.1	93.6	93.6	7.0		8.4		13		89				<0.2		1.6	
						3.7	0.3	190	20.3		8.0		31.1		93.5		7.0		8.2		12		88				<0.2		1.7	
					Bottom	6.4	0.2	196	20.3	20.3	8.0	8.0	31.1	31.1	93.3	93.3	7.0	7.0	8.2		11		91				<0.2		1.6	
						6.4	0.2	183	20.3		8.0		31.1		93.3		7.0		8.2		12		91				<0.2		1.5	
IM8	Fine	Moderate	15:47	7.1	Surface	1.0	0.1	187	20.3	20.3	8.1	8.1	30.0	30.0	92.0	92.0	7.0	7.0	5.8	7.2	8	6	88	92	821812	808158	<0.2	<0.2	2.0	2.1
						1.0	0.1	188	20.3		8.1		30.0		92.0		7.0		5.9		7		88				<0.2		2.1	
					Middle	3.6	0.0	195	20.2	20.2	8.1	8.1	30.1	30.1	92.0	92.1	7.0		7.8		6		92				<0.2		2.2	
						3.6	0.0	199	20.2		8.1		30.1		92.1		7.0		7.9		6		93				<0.2		2.0	
					Bottom	6.1	0.1	184	20.2	20.2	8.1	8.1	30.1	30.1	92.8	92.9	7.0	7.1	7.8		6		94				<0.2		1.9	
						6.1	0.1	175	20.2		8.1		30.1		93.0		7.1		7.7		5		95				<0.2		2.1	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	15:52	6.7	Surface	1.0	0.2	183	20.3	20.3	8.1	8.1	30.3	30.3	92.4	92.4	7.0	7.0	8.5	11.6	8	7	88	92	822114	808832	<0.2	<0.2	2.0	2.0
						1.0	0.2	172	20.3		8.1		30.3		92.4		7.0		8.9		8		88				<0.2		1.8	
					Middle	3.4	0.1	178	20.2	20.2	8.1	8.1	30.3	30.3	92.3	92.4	7.0		12.1		9		93				<0.2		2.0	
						3.4	0.1	184	20.2		8.1		30.3		92.4		7.0		12.5		8		91				<0.2		2.1	
					Bottom	5.7	0.1	182	20.2	20.2	8.1	8.1	30.3	30.3	93.2	93.3	7.1	7.1	14.0		5		94				<0.2		2.1	
						5.7	0.1	184	20.2		8.1		30.3		93.3		7.1		14.0		5		95				<0.2		2.1	
IM10	Fine	Moderate	15:59	7.5	Surface	1.0	0.3	173	20.2	20.2	8.2	8.2	30.3	30.3	92.6	92.6	7.0	7.0	10.3	13.7	15	13	88	92	822382	809806	<0.2	<0.2	2.4	2.2
						1.0	0.4	184	20.2		8.2		30.3		92.6		7.0		10.7		16		89				<0.2		2.3	
					Middle	3.8	0.5	188	20.1	20.1	8.2	8.2	30.4	30.4	92.4	92.4	7.0		13.7		12		94				<0.2		2.2	
						3.8	0.5	172	20.1		8.2		30.5		92.4		7.0		14.1		13		93				<0.2		2.3	
					Bottom	6.5	0.3	183	20.1	20.1	8.1	8.1	30.6	30.6	93.2	93.3	7.1	7.1	17.3		11		95				<0.2		2.1	
						6.5	0.3	179	20.1		8.1		30.6		93.3		7.1		16.4		10		95				<0.2		2.0	
IM11	Fine	Moderate	16:10	8.5	Surface	1.0	0.2	173	20.2	20.2	8.2	8.2	30.6	30.6	93.2	93.2	7.1	7.1	7.3	8.2	9	10	88	91	822037	811445	<0.2	<0.2	2.4	2.4
						1.0	0.3	176	20.2		8.2		30.6		93.2		7.1		7.3		10		88				<0.2		2.6	
					Middle	4.3	0.3	183	20.2	20.2	8.2	8.2	30.8	30.8	93.1	93.1	7.0		7.1		10		92				<0.2		2.4	
						4.3	0.3	172	20.1		8.2		30.8		93.1		7.0		7.1		9		92				<0.2		2.3	
					Bottom	7.5	0.2	176	20.1	20.1	8.2	8.2	30.9	30.9	93.5	93.6	7.1	7.1	10.2		11		94				<0.2		2.3	
						7.5	0.2	175	20.1		8.2		30.9		93.6		7.1		10.4		12		93				<0.2		2.3	
IM12	Fine	Moderate	16:17	8.2	Surface	1.0	0.3	170	20.2	20.2	8.2	8.2	31.1	31.2	93.1	93.1	7.0	7.0	6.9	10.0	7	7	89	92	821459	812037	<0.2	<0.2	2.9	2.8
						1.0	0.3	164	20.2		8.2		31.3		93.0		7.0		7.4		7		88				<0.2		2.7	
					Middle	4.1	0.3	164	20.1	20.1	8.2	8.2	31.8	31.8	92.6	92.6	7.0		9.0		7		91				<0.2		2.8	
						4.1	0.3	165	20.1		8.2		31.8		92.6		7.0		8.9		8		92				<0.2		2.8	
					Bottom	7.2	0.2	157	20.0	20.0	8.2	8.2	32.0	32.0	92.8	92.9	7.0	7.0	14.0		8		94				<0.2		2.6	
						7.2	0.2	167	20.0		8.2		32.0		92.9		7.0		13.7		7		95				<0.2		2.7	
SR1A	Fine	Moderate	16:49	5.4	Surface	1.0	-	-	20.1	20.1	8.2	8.2	31.6	31.6	92.5	92.5	7.0	7.0	10.6	11.2	9	8	-	-	819971	812660	-	-	-	-
						1.0	-	-	20.1		8.2		31.6		92.4		7.0		10.8		8		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	20.1	20.1	8.2	8.2	31.7	31.7	92.2	92.3	7.0	7.0	11.8		6		-				-		-	
						4.4	-	-	20.1		8.2		31.7		92.3		7.0		11.8		7		-				-		-	
SR2	Fine	Moderate	16:57	4.4	Surface	1.0	0.3	126	20.1	20.1	8.2	8.2	31.7	31.7	93.5	93.5	7.0	7.0	11.1	12.4	13	10	89	91	821445	814161	<0.2	<0.2	1.6	1.5
						1.0	0.3	133	20.1		8.2		31.7		93.5		7.0		11.4		12		87				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.3	135	20.2	20.3	8.2	8.2	31.6	31.6	94.4	94.5	7.1	7.1	14.0		7		94				<0.2		1.5	
						3.4	0.3	158	20.3		8.2		31.6		94.5		7.1		13.2		8		94				<0.2		1.6	
SR3	Fine	Moderate	15:41	8.1	Surface	1.0	0.1	187	20.3	20.3	8.1	8.1	29.9	29.9	91.5	91.5	6.9	6.9	5.7	7.0	5	6	-	-	822153	807550	-	-	-	-
						1.0	0.1	190	20.3		8.1		29.9		91.4		6.9		5.9		6		-				-		-	
					Middle	4.1	0.1	164	20.2	20.2	8.1	8.1	30.0	30.0	90.8	90.8	6.9		6.7		7		-				-		-	
						4.1	0.1	167	20.2		8.1		30.0		90.7		6.9		6.7		6		-				-		-	
					Bottom	7.1	0.2	131	20.2	20.2	8.1	8.1	30.0	30.0	90.8	90.8	6.9	6.9	8.8		6		-				-		-	
						7.1	0.2	133	20.2		8.1		30.0		90.8		6.9		8.6		7		-				-		-	
SR4A	Fine	Moderate	16:46	8.5	Surface	1.0	0.3	89	20.5	20.5	8.1	8.1	33.2	33.2	95.6	95.6	7.1	7.1	7.9	10.7	12	13	-	-	817191	807832	-	-	-	-
						1.0	0.4	97	20.5		8.1		33.2		95.6		7.1		7.9		12		-				-		-	
					Middle	4.3	0.2	70	20.3	20.3	8.1	8.1	33.2	33.2	95.4	95.4	7.1		10.4		12		-				-		-	
						4.3	0.3	71	20.3		8.1		33.2		95.4		7.1		10.4		12		-				-		-	
					Bottom	7.5	0.2	55	20.3	20.3	8.1	8.1	33.2	33.2	95.2	95.2	7.1	7.1	13.8		14		-				-		-	
						7.5	0.2	57	20.3		8.1		33.2		95.2		7.1		13.8		13		-				-		-	
SR5A	Fine	Moderate	17:02	4.2	Surface	1.0	0.1	65	20.3	20.3	7.9	7.9	33.4	33.4	93.4	93.4	6.9	6.9	17.8	19.2	16	16	-	-	816574	810711	-	-	-	-
						1.0	0.1	70	20.3		7.9		33.4		93.4		6.9		17.8		16		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	112	20.3	20.3	7.9	7.9	33.4	33.4	93.9	93.9	7.0	7.0	20.5		15		-				-		-	
						3.2	0.1	115	20.3		7.9		33.4		93.9		7.0		20.5		17		-				-		-	
SR6A	Fine	Moderate	17:34	4.6	Surface	1.0	0.0	131	20.6	20.6	8.1	8.1	33.1	33.1	96.0	96.0	7.1	7.1	4.8	5.2	7	7	-	-	817953	814742	-	-	-	-
						1.0	0.0	138	20.6		8.1		33.1		96.0		7.1		4.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.0	79	20.4	20.4	8.2	8.2	33.3	33.3	96.5	96.5	7.2	7.2	5.6		7		-				-		-	
						3.6	0.0	84	20.4		8.2		33.3		96.5		7.2		5.6		8		-				-		-	
SR7	Fine	Moderate	17:51	18.2	Surface	1.0	0.1	331	20.2	20.2	8.2	8.2	32.5	32.5	88.3	88.3	6.6	6.6	4.4	5.9	6	6	-	-	823654	823765	-	-	-	-
						1.0	0.1	305	20.2		8.2		32.5		88.3		6.6		4.6		5		-				-		-	
					Middle	9.1	0.1	116	20.1	20.1	8.2	8.2	32.6	32.6	87.9	87.9	6.6		6.5		6		-				-		-	
						9.1	0.1	122	20.1		8.2		32.6		87.9		6.6		6.6		5		-				-		-	
					Bottom	17.2	0.1	154	20.2	20.2	8.2	8.2	32.6	32.6	88.7	88.8	6.6	6.6	6.7		7		-				-		-	
						17.2	0.1	166	20.2		8.2		32.6		88.8		6.6		6.9		6		-				-		-	
SR8	Fine	Moderate	16:25	4.8	Surface	1.0	-	-	20.4	20.4	8.2	8.2	30.7	30.7	93.8	93.8	7.1	7.1	9.5	10.1	10	11	-	-	820395	811633	-	-	-	-
						1.0	-	-	20.4		8.2		30.8		93.7		7.1		9.6		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	20.1	20.2	8.2	8.2	31.4	31.4	93.3	93.4	7.0	7.0	10.5		10		-				-		-	
						3.8	-	-	20.2		8.2		31.3		93.4		7.0		10.7		11		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	11:42	8.2	Surface	1.0	0.6	6	20.1	20.1	7.9	7.9	32.6	32.6	95.8	95.8	7.2	7.2	18.7	18.3	11	11	86	88	815612	804243	<0.2	<0.2	1.3	1.5
						1.0	0.6	6	20.1		7.9		32.6		95.8		7.2		18.8		12		85				<0.2		1.4	
					Middle	4.1	0.6	356	20.0	20.0	8.0	8.0	33.0	33.0	95.3	95.3	7.1		19.1		12		88				<0.2		1.4	
						4.1	0.6	356	20.0		8.0		33.0		95.3		7.1		19.1		11		87				<0.2		1.6	
					Bottom	7.2	0.4	348	20.0	20.0	8.0	8.0	33.0	33.0	96.0	96.0	7.2	7.2	17.1		10		89				<0.2		1.6	
						7.2	0.4	357	20.0		8.0		33.0		96.0		7.2		17.1		10		91				<0.2		1.4	
C2	Fine	Moderate	12:25	10.8	Surface	1.0	0.1	53	20.3	20.3	8.1	8.1	29.6	29.6	90.9	90.9	6.9	6.9	6.9	8.9	9	8	86	89	825691	806939	<0.2	<0.2	1.6	1.6
						1.0	0.1	54	20.3		8.1		29.7		90.8		6.9		7.1		10		87				<0.2		1.7	
					Middle	5.4	0.2	57	20.2	20.2	8.1	8.1	29.9	29.9	90.7	90.7	6.9		8.5		8		90				<0.2		1.7	
						5.4	0.2	61	20.2		8.1		30.0		90.7		6.9		8.6		8		90				<0.2		1.7	
					Bottom	9.8	0.2	56	20.2	20.2	8.1	8.1	30.8	30.7	91.6	91.8	6.9	7.0	11.4		6		91				<0.2		1.5	
						9.8	0.2	56	20.2		8.1		30.7		91.9		7.0		11.0		7		91				<0.2		1.6	
C3	Fine	Moderate	10:34	10.4	Surface	1.0	0.2	210	20.0	20.0	8.2	8.2	31.4	31.4	92.6	92.6	7.0	7.0	9.1	10.3	11	12	84	89	822108	817809	<0.2	<0.2	2.2	2.1
						1.0	0.2	219	20.0		8.2		31.4		92.6		7.0		9.0		12		85				<0.2		2.2	
					Middle	5.2	0.1	211	20.0	20.0	8.2	8.2	31.6	31.6	92.7	92.7	7.0		11.5		11		90				<0.2		2.1	
						5.2	0.1	230	20.0		8.2		31.6		92.7		7.0		11.3		12		89				<0.2		1.9	
					Bottom	9.4	0.0	242	20.0	20.0	8.2	8.2	31.6	31.6	93.2	93.3	7.0	7.1	10.5		12		93				<0.2		2.2	
						9.4	0.0	262	20.0		8.2		31.6		93.4		7.1		10.1		11		93				<0.2		2.1	
IM1	Fine	Moderate	12:06	4.2	Surface	1.0	0.4	352	20.2	20.2	8.1	8.1	33.3	33.3	95.6	95.6	7.1	7.1	11.0	12.3	10	10	86	88	817955	807115	<0.2	<0.2	1.4	1.4
						1.0	0.4	324	20.2		8.1		33.3		95.6		7.1		11.0		9		86				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	316	20.3	20.3	8.1	8.1	33.3	33.3	98.7	98.8	7.3	7.4	13.5		10		90				<0.2		1.4	
						3.2	0.3	321	20.3		8.1		33.3		98.9		7.4		13.5		11		90				<0.2		1.4	
IM2	Fine	Moderate	12:13	7.1	Surface	1.0	0.3	22	20.3	20.3	8.0	8.0	33.2	33.2	93.1	93.1	6.9	6.9	8.6	14.8	28	22	85	88	818176	806170	<0.2	<0.2	2.4	2.3
						1.0	0.3	24	20.3		8.0		33.2		93.1		6.9		8.6		10		86				<0.2		2.4	
					Middle	3.6	0.3	354	20.2	20.2	8.0	8.0	33.2	33.2	93.1	93.1	6.9		19.3		10		88				<0.2		2.2	
						3.6	0.3	326	20.2		8.0		33.2		93.1		6.9		19.3		27		89				<0.2		2.2	
					Bottom	6.1	0.3	353	20.2	20.2	8.1	8.1	33.2	33.2	92.8	92.8	6.9	6.9	16.4		28		90				<0.2		2.3	
						6.1	0.3	325	20.2		8.1		33.2		92.8		6.9		16.4		28		91				<0.2		2.3	
IM3	Fine	Moderate	12:19	7.3	Surface	1.0	0.3	22	20.1	20.1	8.0	8.0	32.9	32.9	95.3	95.3	7.1	7.2	8.8	9.5	15	19	86	88	818776	805605	<0.2	<0.2	2.3	2.2
						1.0	0.3	23	20.1		8.0		32.9		95.3		7.1		8.8		29		86				<0.2		2.2	
					Middle	3.7	0.2	21	20.1	20.1	8.1	8.1	33.1	33.1	95.7	95.7	7.2		10.6		31		88				<0.2		2.2	
						3.7	0.2	21	20.1		8.1		33.1		95.7		7.2		10.6		14		88				<0.2		2.3	
					Bottom	6.3	0.2	22	20.1	20.1	8.1	8.1	33.2	33.2	95.1	95.1	7.1	7.1	9.2		12		90				<0.2		1.9	
						6.3	0.2	23	20.1		8.1		33.2		95.1		7.1		9.2		13		90				<0.2		2.1	
IM4	Fine	Moderate	12:27	7.5	Surface	1.0	0.4	45	20.2	20.2	8.1	8.1	32.9	32.9	96.1	96.1	7.2	7.2	8.1	9.3	9	14	86	88	819723	804592	<0.2	<0.2	2.0	2.0
						1.0	0.4	47	20.2		8.1		32.9		96.1		7.2		8.1		15		85				<0.2		1.9	
					Middle	3.8	0.4	39	20.1	20.1	8.1	8.1	33.1	33.1	96.6	96.6	7.2		9.0		15		87				<0.2		2.1	
						3.8	0.4	41	20.1		8.1		33.1		96.6		7.2		9.0		14		89				<0.2		1.9	
					Bottom	6.5	0.3	20	20.1	20.1	8.2	8.2	33.1	33.1	97.7	97.7	7.3	7.3	10.9		17		90				<0.2		1.9	
						6.5	0.3	20	20.1		8.2		33.1		97.7		7.3		10.9		16		90				<0.2		2.0	
IM5	Fine	Moderate	12:34	7.6	Surface	1.0	0.4	75	20.1	20.1	8.1	8.1	33.2	33.2	96.4	96.5	7.2	7.2	8.0	8.3	13	13	86	88	820721	804867	<0.2	<0.2	2.1	2.1
						1.0	0.4	75	20.1		8.1		33.2		96.5		7.2		8.0		13		87				<0.2		2.0	
					Middle	3.8	0.3	78	20.1	20.1	8.1	8.1	33.2	33.2	97.0	97.0	7.2		8.4		14		88				<0.2		2.0	
						3.8	0.3	84	20.1		8.1		33.2		97.0		7.2		8.4		13		87				<0.2		2.2	
					Bottom	6.6	0.3	83	20.1	20.1	8.2	8.2	33.2	33.2	98.0	98.0	7.3	7.3	8.5		11		91				<0.2		2.2	
						6.6	0.3	88	20.1		8.2		33.2		98.0		7.3		8.5		12		90				<0.2		2.2	
IM6	Fine	Moderate	12:42	7.3	Surface	1.0	0.1	152	20.2	20.2	8.0	8.0	32.2	32.2	95.1	95.1	7.1	7.2	13.2	14.5	16	15	85	88	821039	805807	<0.2	<0.2	2.1	2.1
						1.0	0.1	161	20.2		8.0		32.2		95.1		7.1		13.2		14		86				<0.2		2.2	
					Middle	3.7	0.1	152	20.2	20.2	8.1	8.1	32.4	32.4	96.4	96.4	7.2		14.8		16		89				<0.2		2.1	
						3.7	0.1	158	20.2		8.1		32.4		96.4		7.2		14.8		15		88				<0.2		2.1	
					Bottom	6.3	0.1	148	20.1	20.1	8.1	8.1	32.7	32.7	96.6	96.6	7.2	7.2	15.4		14		91				<0.2		2.1	
						6.3	0.1	161	20.1		8.1		32.7		96.6		7.2		15.4		16		90				<0.2		2.1	
IM7	Fine	Moderate	12:49	7.0	Surface	1.0	0.0	316	20.3	20.3	8.0	8.0	31.1	31.1	94.1	94.1	7.1	7.1	7.0	7.5	29	26	86	89	821338	806854	<0.2	<0.2	2.3	2.3
						1.0	0.0	333	20.3		8.0		31.1		94.1		7.1		7.0		16		86				<0.2		2.4	
					Middle	3.5	0.0	300	20.3	20.3	8.1	8.1	31.1	31.1	94.7	94.7	7.1		7.2		14		89				<0.2		2.3	
						3.5	0.0	321	20.3		8.1		31.1		94.7		7.1		7.2		31		89				<0.2		2.4	
					Bottom	6.0	0.0	298	20.3	20.3	8.1	8.1	31.1	31.1	95.8	95.8	7.2	7.2	8.3		32		90				<0.2		2.2	
						6.0	0.0	324	20.3		8.1		31.1		95.8		7.2		8.3		32		91				<0.2		2.4	
IM8	Fine	Moderate	12:00	7.2	Surface	1.0	0.1	13	20.2	20.2	8.1	8.1	30.0	30.0	91.4	91.4	6.9	6.9	8.0	9.6	10	10	84	89	821853	808121	<0.2	<0.2	2.3	2.1
						1.0	0.1	13	20.2		8.1		30.0		91.4		6.9		8.1		10		85				<0.2		2.3	
					Middle	3.6	0.2	20	20.2	20.2	8.1	8.1	30.0	30.0	91.3	91.3	6.9		8.9		10		90				<0.2		2.0	
						3.6	0.2	21	20.2		8.1		30.0		91.3		6.9		9.1		11		91				<0.2		1.8	
					Bottom	6.2	0.1	7	20.2	20.2	8.1	8.1	30.0	30.0	91.9	92.0	7.0	7.0	11.8		11		92				<0.2		2.1	
						6.2	0.2	7	20.2		8.1		30.0		92.0		7.0		11.7		10		94				<0.2		2.0	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 17 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	11:56	6.8	Surface	1.0	0.4	299	20.2	20.2	8.1	8.1	30.0	30.0	91.5	91.5	6.9	6.9	7.1	8.8	9	9	85	89	822087	808804	<0.2	<0.2	2.1	2.0
						1.0	0.5	302	20.2		8.1		30.0		91.5		6.9		7.2		10		86				<0.2		2.1	
					Middle	3.4	0.5	307	20.2	20.2	8.1	8.1	30.1	30.1	91.5	91.5	6.9		9.6		9		89				<0.2		1.9	
						3.4	0.5	319	20.2		8.1		30.1		91.5		6.9		9.7		9		90				<0.2		2.0	
					Bottom	5.8	0.4	281	20.2	20.2	8.1	8.1	30.1	30.1	92.1	92.2	7.0	7.0	9.5		10		93				<0.2		2.0	
						5.8	0.4	307	20.2		8.1		30.1		92.2		7.0		9.7		9		93				<0.2		2.0	
IM10	Fine	Moderate	11:49	6.8	Surface	1.0	0.4	268	20.2	20.2	8.1	8.1	30.1	30.1	91.1	91.1	6.9	6.9	7.6	8.0	11	10	85	90	822394	809778	<0.2	<0.2	2.2	2.0
						1.0	0.5	283	20.2		8.1		30.1		91.1		6.9		7.6		10		86				<0.2		2.2	
					Middle	3.4	0.2	283	20.2	20.2	8.1	8.1	30.1	30.1	91.2	91.2	6.9		7.7		10		89				<0.2		1.8	
						3.4	0.2	289	20.2		8.1		30.1		91.2		6.9		7.7		9		90				<0.2		1.9	
					Bottom	5.8	0.4	268	20.2	20.2	8.1	8.1	30.1	30.1	91.5	91.6	7.0	7.0	9.1		8		94				<0.2		1.8	
						5.8	0.4	268	20.2		8.1		30.1		91.6		7.0		8.4		12		93				<0.2		1.9	
IM11	Fine	Moderate	11:40	7.4	Surface	1.0	0.4	309	20.2	20.2	8.1	8.1	30.0	30.0	91.9	92.0	7.0	7.0	10.2	10.3	12	16	84	89	822080	811453	<0.2	<0.2	2.1	2.0
						1.0	0.4	337	20.2		8.1		30.0		92.0		7.0		10.1		13		85				<0.2		2.1	
					Middle	3.7	0.5	308	20.2	20.2	8.1	8.1	30.0	30.0	92.4	92.5	7.0		9.6		18		89				<0.2		2.0	
						3.7	0.5	330	20.2		8.1		30.0		92.5		7.0		9.6		17		89				<0.2		2.0	
					Bottom	6.4	0.5	325	20.1	20.1	8.1	8.1	30.0	30.0	93.6	93.7	7.1	7.1	10.8		18		94				<0.2		2.0	
						6.4	0.5	341	20.1		8.1		30.0		93.7		7.1		11.7		18		93				<0.2		2.0	
IM12	Fine	Moderate	11:35	7.3	Surface	1.0	0.3	259	20.1	20.1	8.1	8.1	30.3	30.3	92.2	92.2	7.0	7.0	10.8	12.3	12	12	86	90	821472	812038	<0.2	<0.2	2.2	2.1
						1.0	0.3	263	20.1		8.2		30.4		92.2		7.0		11.0		14		87				<0.2		2.0	
					Middle	3.7	0.2	287	20.0	20.0	8.2	8.2	31.0	31.1	92.9	93.0	7.0		13.0		12		90				<0.2		2.0	
						3.7	0.2	295	20.0		8.2		31.1		93.0		7.0		13.0		11		91				<0.2		2.1	
					Bottom	6.3	0.2	293	20.0	20.0	8.2	8.2	31.5	31.5	93.4	93.4	7.1	7.1	13.0		12		91				<0.2		2.1	
						6.3	0.2	304	20.0		8.2		31.5		93.4		7.1		13.0		12		92				<0.2		2.2	
SR1A	Fine	Moderate	11:02	4.3	Surface	1.0	-	-	20.0	20.1	8.2	8.1	32.0	31.3	91.9	91.9	6.9	7.0	9.0	8.7	9	10	-	-	819982	812656	-	-	-	-
						1.0	-	-	20.1		8.1		30.6		91.8		7.0		8.2		10		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-			-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	20.0	20.0	8.1	8.1	30.9	31.0	91.8	92.0	7.0	7.0	9.3		11		-				-		-	
						3.3	-	-	20.0		8.1		31.1		92.1		7.0		8.4		10		-				-		-	
SR2	Fine	Moderate	10:54	4.4	Surface	1.0	0.0	341	20.0	20.0	8.2	8.2	31.0	31.0	92.8	92.8	7.0	7.0	8.3	9.4	10	11	86	90	821474	814169	<0.2	<0.2	1.9	2.1
						1.0	0.0	357	20.0		8.2		31.0		92.8		7.0		8.6		11		87				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	292	20.0	20.0	8.2	8.2	31.4	31.4	93.8	93.9	7.1	7.1	10.5		11		92				<0.2		2.1	
						3.4	0.1	310	20.0		8.2		31.4		94.0		7.1		10.3		11		93				<0.2		2.1	
SR3	Fine	Moderate	12:05	8.0	Surface	1.0	0.4	249	20.2	20.2	8.1	8.1	30.0	30.0	90.9	90.9	6.9	6.9	8.5	11.7	10	10	-	-	822168	807577	-	-	-	-
						1.0	0.4	265	20.2		8.1		30.0		90.9		6.9		8.6		11		-				-		-	
					Middle	4.0	0.4	253	20.2	20.2	8.1	8.1	30.1	30.1	90.7	90.7	6.9		11.5		10		-				-		-	
						4.0	0.4	274	20.2		8.1		30.1		90.7		6.9		11.7		10		-				-		-	
					Bottom	7.0	0.4	259	20.2	20.2	8.1	8.1	30.1	30.1	91.4	91.5	6.9	7.0	14.9		10		-				-		-	
						7.0	0.4	271	20.2		8.1		30.1		91.5		7.0		15.0		11		-				-		-	
SR4A	Fine	Moderate	11:15	8.6	Surface	1.0	0.8	8	20.2	20.2	8.1	8.1	33.4	33.4	93.9	93.9	7.0	7.0	18.1	18.0	31	26	-	-	817194	807799	-	-	-	-
						1.0	0.8	8	20.2		8.1		33.4		93.9		7.0		18.1		27		-				-		-	
					Middle	4.3	0.7	8	20.2	20.2	8.1	8.1	33.4	33.4	93.8	93.8	7.0		17.1		23		-				-		-	
						4.3	0.8	8	20.2		8.1		33.4		93.8		7.0		17.1		24		-				-		-	
					Bottom	7.6	0.6	8	20.2	20.2	8.1	8.1	33.4	33.4	93.9	93.9	7.0	7.0	18.7		24		-				-		-	
						7.6	0.6	8	20.2		8.1		33.4		93.9		7.0		18.7		24		-				-		-	
SR5A	Fine	Moderate	11:00	4.5	Surface	1.0	0.4	63	20.1	20.1	8.2	8.2	33.4	33.4	95.3	95.3	7.1	7.1	11.7	15.6	30	30	-	-	816573	810689	-	-	-	-
						1.0	0.4	67	20.1		8.2		33.4		95.3		7.1		11.7		32		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	57	20.1	20.1	8.2	8.2	33.4	33.4	96.2	96.2	7.2	7.2	19.5		28		-				-		-	
						3.5	0.4	62	20.1		8.2		33.4		96.2		7.2		19.5		30		-				-		-	
SR6A	Fine	Moderate	10:34	4.0	Surface	1.0	0.1	295	20.2	20.2	8.0	8.0	33.5	33.5	92.3	92.3	6.9	6.9	3.2	3.6	5	5	-	-	817965	814720	-	-	-	-
						1.0	0.1	302	20.2		8.0		33.5		92.3		6.9		3.2		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	320	20.2	20.2	8.0	8.0	33.6	33.6	93.8	93.8	7.0	7.0	3.9		5		-				-		-	
						3.0	0.1	327	20.2		8.0		33.6		93.8		7.0		3.9		6		-				-		-	
SR7	Fine	Moderate	10:02	15.0	Surface	1.0	0.3	218	20.0	20.0	8.1	8.1	32.0	32.0	91.3	91.3	6.9	6.9	7.4	8.7	13	14	-	-	823619	823749	-	-	-	-
						1.0	0.3	230	20.0		8.1		32.0		91.3		6.9		7.5		14		-				-		-	
					Middle	7.5	0.2	222	20.0	20.0	8.1	8.1	32.0	32.0	90.9	90.9	6.8		9.3		14		-				-		-	
						7.5	0.2	237	20.0		8.1		32.0		90.9		6.8		9.3		13		-				-		-	
					Bottom	14.0	0.2	312	20.0	20.0	8.1	8.1	32.0	32.0	90.9	90.9	6.8	6.8	9.4		14		-				-		-	
						14.0	0.2	333	20.0		8.1		32.0		90.9		6.8		9.3		13		-				-		-	
SR8	Fine	Moderate	11:26	4.5	Surface	1.0	-	-	20.1	20.1	8.2	8.2	31.0	31.0	92.7	92.7	7.0	7.0	8.2	10.2	8	8	-	-	820385	811609	-	-	-	-
						1.0	-	-	20.1		8.2		31.0		92.7		7.0		8.4		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	-	-	20.1	20.1	8.2	8.2	31.1	31.1	93.5	93.6	7.1	7.1	11.6		7		-				-		-	
						3.5	-	-	20.1		8.2		31.1		93.7		7.1		12.7		8		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 19 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	05:43	7.3	Surface	1.0	0.2	221	20.6	20.6	7.9	7.9	31.8	31.8	95.6	95.8	7.1	7.1	4.7	6.3	15	13	86	88	815627	804231	<0.2	<0.2	2.7	2.5
						1.0	0.2	227	20.6		7.9		31.8		95.9		7.2		4.8		16		86				<0.2		2.6	
					Middle	3.7	0.3	191	20.5	20.5	7.9	7.9	32.0	32.0	94.5	94.5	7.1		6.0		12		88				<0.2		2.4	
						3.7	0.3	205	20.5		7.9		32.0		94.5		7.1		6.1		11		88				<0.2		2.3	
					Bottom	6.3	0.2	235	20.3	20.3	8.0	8.0	32.5	32.5	92.7	92.8	6.9	6.9	8.1		11		91				<0.2		2.4	
						6.3	0.2	254	20.3		8.0		32.5		92.8		6.9		8.1		11		91				<0.2		2.4	
C2	Cloudy	Moderate	07:12	11.1	Surface	1.0	0.9	150	20.9	20.9	8.1	8.1	28.3	28.3	90.8	90.8	6.9	6.8	3.7	6.2	8	8	83	87	825681	806935	<0.2	<0.2	2.4	2.7
						1.0	0.9	160	20.9		8.1		28.3		90.8		6.9		3.7		9		84				<0.2		2.2	
					Middle	5.6	0.4	168	20.6	20.6	8.1	8.1	29.9	29.9	88.4	88.4	6.7		6.5		8		87				<0.2		2.8	
						5.6	0.4	168	20.6		8.1		29.9		88.4		6.7		7.0		8		88				<0.2		2.8	
					Bottom	10.1	0.3	174	20.5	20.5	8.1	8.1	29.9	29.9	88.3	88.3	6.7	6.7	7.9		8		89				<0.2		3.0	
						10.1	0.3	177	20.5		8.1		29.9		88.3		6.7		8.2		8		89				<0.2		2.8	
C3	Cloudy	Moderate	05:15	11.4	Surface	1.0	0.2	190	20.5	20.5	8.1	8.1	31.3	31.3	90.3	90.3	6.8	6.8	5.4	6.1	10	10	87	88	822121	817806	<0.2	<0.2	2.1	2.1
						1.0	0.2	204	20.5		8.1		31.3		90.2		6.8		5.5		9		87				<0.2		2.2	
					Middle	5.7	0.2	37	20.5	20.5	8.1	8.1	31.4	31.4	90.0	90.0	6.7		6.3		11		87				<0.2		2.1	
						5.7	0.2	40	20.5		8.1		31.4		90.0		6.7		6.4		10		87				<0.2		2.1	
					Bottom	10.4	0.1	156	20.5	20.5	8.1	8.1	31.4	31.4	89.9	90.0	6.7	6.8	6.5		11		89				<0.2		2.0	
						10.4	0.1	158	20.5		8.1		31.4		90.1		6.8		6.8		10		90				<0.2		2.1	
IM1	Cloudy	Moderate	06:08	4.1	Surface	1.0	0.1	99	20.6	20.6	7.9	7.9	31.9	31.9	93.4	93.5	7.0	7.0	4.8	6.3	12	11	87	89	817925	807129	<0.2	<0.2	1.9	1.8
						1.0	0.1	101	20.6		7.9		31.9		93.6		7.0		4.9		11		88				<0.2		1.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	174	20.4	20.4	8.0	8.0	32.4	32.4	92.6	92.6	6.9	6.9	7.7		11		89				<0.2		1.6	
						3.1	0.1	177	20.4		8.0		32.4		92.6		6.9		7.7		10		90				<0.2		1.6	
IM2	Cloudy	Moderate	06:15	6.7	Surface	1.0	0.6	188	20.6	20.5	7.9	7.9	32.5	32.5	93.5	93.5	7.0	7.0	8.3	9.5	14	14	84	86	818170	806185	<0.2	<0.2	1.9	1.8
						1.0	0.6	194	20.5		7.9		32.5		93.4		7.0		8.4		16		84				<0.2		2.1	
					Middle	3.4	0.2	201	20.4	20.4	7.9	7.9	32.6	32.6	92.7	92.8	6.9		9.3		14		86				<0.2		1.6	
						3.4	0.2	221	20.4		7.9		32.6		92.8		6.9		9.3		13		86				<0.2		1.7	
					Bottom	5.7	0.0	142	20.4	20.4	7.9	7.9	32.6	32.6	92.8	92.8	6.9	6.9	10.6		13		88				<0.2		1.9	
						5.7	0.0	146	20.4		7.9		32.6		92.8		6.9		11.0		14		88				<0.2		1.8	
IM3	Cloudy	Moderate	06:22	7.0	Surface	1.0	0.3	201	20.8	20.8	7.9	7.9	31.8	31.8	95.6	95.5	7.1	7.1	4.8	8.3	15	13	84	86	818778	805582	<0.2	<0.2	2.0	1.9
						1.0	0.3	219	20.8		7.9		31.8		95.4		7.1		4.8		13		84				<0.2		1.8	
					Middle	3.5	0.3	237	20.6	20.6	7.9	7.9	31.9	31.9	93.6	93.6	7.0		7.8		13		86				<0.2		1.8	
						3.5	0.4	244	20.6		7.9		31.9		93.5		7.0		8.0		12		86				<0.2		1.8	
					Bottom	6.0	0.1	229	20.5	20.5	7.9	7.9	32.2	32.2	92.5	92.5	6.9	6.9	12.4		11		87				<0.2		1.9	
						6.0	0.1	231	20.5		7.9		32.2		92.4		6.9		11.9		12		87				<0.2		1.9	
IM4	Cloudy	Moderate	06:30	7.2	Surface	1.0	0.9	174	20.7	20.7	7.9	7.9	31.8	31.8	95.1	95.0	7.1	7.1	4.4	5.7	15	13	84	86	819716	804618	<0.2	<0.2	1.8	1.8
						1.0	0.9	182	20.7		7.9		31.8		94.9		7.1		4.4		12		84				<0.2		1.9	
					Middle	3.6	0.4	185	20.5	20.5	7.9	7.9	32.0	32.0	93.6	93.6	7.0		5.6		13		86				<0.2		1.9	
						3.6	0.4	202	20.5		7.9		32.0		93.6		7.0		5.6		13		86				<0.2		2.0	
					Bottom	6.2	0.1	294	20.5	20.5	7.9	7.9	32.1	32.1	93.4	93.4	7.0	7.0	7.0		12		87				<0.2		1.6	
						6.2	0.1	296	20.5		7.9		32.1		93.3		7.0		7.1		11		86				<0.2		1.6	
IM5	Cloudy	Moderate	06:38	6.4	Surface	1.0	0.7	167	20.8	20.8	7.9	7.9	30.7	30.7	94.4	94.4	7.1	7.1	4.1	5.6	12	11	84	85	820721	804878	<0.2	<0.2	2.5	2.4
						1.0	0.7	182	20.8		7.9		30.7		94.4		7.1		4.1		11		83				<0.2		2.5	
					Middle	3.2	0.6	196	20.6	20.6	7.9	7.9	31.8	31.8	94.3	94.3	7.0		5.8		11		85				<0.2		2.4	
						3.2	0.6	202	20.6		7.9		31.8		94.2		7.0		5.8		10		84				<0.2		2.4	
					Bottom	5.4	0.4	215	20.6	20.6	7.9	7.9	31.9	31.9	93.8	93.9	7.0	7.0	6.7		11		87				<0.2		2.4	
						5.4	0.4	233	20.6		7.9		31.9		94.0		7.0		6.8		10		87				<0.2		2.3	
IM6	Cloudy	Moderate	06:46	6.6	Surface	1.0	0.2	250	20.8	20.8	7.9	7.9	30.1	30.1	94.7	94.8	7.1	7.1	3.5	4.4	12	12	83	85	821056	805823	<0.2	<0.2	2.0	1.8
						1.0	0.2	261	20.8		7.9		30.2		94.8		7.1		3.5		11		84				<0.2		1.8	
					Middle	3.3	0.3	261	20.8	20.8	7.9	7.9	30.6	30.6	94.9	94.9	7.1		4.0		12		86				<0.2		1.8	
						3.3	0.3	273	20.8		7.9		30.6		94.9		7.1		4.0		11		86				<0.2		1.8	
					Bottom	5.6	0.1	250	20.7	20.7	7.9	7.9	31.9	31.9	94.6	94.7	7.0	7.1	5.6		14		86				<0.2		1.8	
						5.6	0.1	253	20.7		7.9		31.9		94.8		7.1		5.7		13		87				<0.2		1.6	
IM7	Cloudy	Moderate	06:56	7.8	Surface	1.0	0.5	281	20.9	20.9	7.8	7.8	30.1	30.1	93.3	93.2	7.0	7.0	3.4	4.4	12	15	84	85	821364	806853	<0.2	<0.2	1.5	1.9
						1.0	0.5	304	20.9		7.8		30.1		93.1		7.0		3.5		13		83				<0.2		1.6	
					Middle	3.9	0.4	270	20.8	20.8	7.8	7.8	30.1	30.1	92.9	93.0	7.0		4.5		15		85				<0.2		2.2	
						3.9	0.4	272	20.8		7.8		30.1		93.0		7.0		4.5		15		85				<0.2		2.1	
					Bottom	6.8	0.2	232	20.7	20.7	7.8	7.8	30.1	30.1	93.3	93.4	7.0	7.0	5.1		16		87				<0.2		2.0	
						6.8	0.2	237	20.7		7.8		30.1		93.4		7.0		5.1		19		86				<0.2		1.9	
IM8	Cloudy	Moderate	06:46	6.8	Surface	1.0	0.2	183	20.8	20.8	8.1	8.1	28.6	28.6	91.8	91.8	7.0	7.0	4.2	7.6	13	10	84	87	821808	808161	<0.2	<0.2	2.2	2.5
						1.0	0.3	200	20.8		8.1		28.6		91.7		7.0		4.5		12		84				<0.2		2.2	
					Middle	3.4	0.1	191	20.6	20.6	8.1	8.1	29.0	29.0	90.6	90.6	6.9		8.4		9		87				<0.2		2.4	
						3.4	0.1	207	20.6		8.1		29.0		90.6		6.9		8.4		9		87				<0.2		2.5	
					Bottom	5.8	0.1	321	20.6	20.6	8.1	8.1	29.1	29.1	90.5	90.5	6.9	6.9	10.0		7		89				<0.2		2.8	
						5.8	0.1	330	20.6		8.1		29.1		90.5		6.9		9.8		8		90				<0.2		2.8	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 19 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Cloudy	Moderate	06:41	7.3	Surface	1.0	0.3	160	20.7	20.7	8.1	8.1	28.4	28.4	92.4	92.4	7.0	7.0	3.9	7.8	8	7	82	86	822082	808830	<0.2	<0.2	2.4	2.5
						1.0	0.3	173	20.7		8.1		28.4		92.4		7.0		3.8		7		83				<0.2		2.4	
					Middle	3.7	0.2	135	20.6	20.6	8.1	8.1	28.9	29.0	91.1	91.1	6.9		7.7		7		86				<0.2		2.4	
						3.7	0.2	144	20.6		8.1		29.0		91.1		6.9		8.5		8		86				<0.2		2.6	
					Bottom	6.3	0.3	40	20.6	20.6	8.1	8.1	29.1	29.1	91.7	91.8	7.0	7.0	11.6		6		90				<0.2		2.6	
						6.3	0.3	43	20.6		8.1		29.1		91.8		7.0		11.3		7		91				<0.2		2.4	
IM10	Cloudy	Moderate	06:35	7.5	Surface	1.0	0.5	123	20.7	20.7	8.1	8.1	28.7	28.7	92.0	91.9	7.0	7.0	4.4	7.0	8	8	87	88	822372	809806	<0.2	<0.2	2.7	2.6
						1.0	0.5	132	20.7		8.1		28.7		91.8		7.0		4.7		9		87				<0.2		2.8	
					Middle	3.8	0.5	110	20.6	20.6	8.1	8.1	29.1	29.1	91.0	91.0	6.9		7.8		8		87				<0.2		2.2	
						3.8	0.5	110	20.6		8.1		29.2		91.0		6.9		7.9		8		87				<0.2		2.2	
					Bottom	6.5	0.4	94	20.6	20.6	8.1	8.1	29.3	29.3	91.5	91.6	6.9	6.9	8.6		6		90				<0.2		2.9	
						6.5	0.4	101	20.6		8.1		29.3		91.6		6.9		8.5		6		90				<0.2		2.8	
IM11	Cloudy	Moderate	06:26	6.9	Surface	1.0	0.6	116	20.6	20.6	8.1	8.1	29.3	29.3	92.0	92.0	7.0	7.0	4.3	5.6	8	9	87	88	822066	811469	<0.2	<0.2	2.8	2.3
						1.0	0.6	125	20.6		8.1		29.3		91.9		7.0		4.4		7		87				<0.2		2.8	
					Middle	3.5	0.5	109	20.6	20.6	8.1	8.1	30.1	30.1	91.1	91.1	6.9		5.9		9		87				<0.2		2.1	
						3.5	0.5	116	20.6		8.1		30.2		91.1		6.9		6.0		8		87				<0.2		2.2	
					Bottom	5.9	0.2	129	20.6	20.6	8.1	8.1	30.4	30.4	91.3	91.4	6.9	6.9	6.5		11		89				<0.2		2.0	
						5.9	0.2	139	20.6		8.1		30.4		91.4		6.9		6.6		10		90				<0.2		2.1	
IM12	Cloudy	Moderate	06:20	7.6	Surface	1.0	0.5	113	20.6	20.6	8.1	8.1	29.0	29.0	92.5	92.5	7.0	7.0	3.5	4.4	9	7	88	89	821457	812029	<0.2	<0.2	2.3	2.3
						1.0	0.6	118	20.6		8.1		29.0		92.4		7.0		3.5		8		87				<0.2		2.3	
					Middle	3.8	0.3	125	20.6	20.6	8.1	8.1	30.5	30.5	91.5	91.6	6.9		4.3		6		88				<0.2		2.1	
						3.8	0.3	134	20.6		8.1		30.5		91.6		6.9		4.3		7		88				<0.2		2.2	
					Bottom	6.6	0.4	120	20.5	20.5	8.1	8.1	30.7	30.7	91.6	91.7	6.9	6.9	5.3		6		90				<0.2		2.4	
						6.6	0.4	120	20.5		8.1		30.7		91.7		6.9		5.3		7		90				<0.2		2.4	
SR1A	Cloudy	Calm	05:51	4.6	Surface	1.0	-	-	20.5	20.5	8.1	8.1	31.0	31.0	91.7	91.7	6.9	6.9	6.4	6.5	11	12	-	-	819972	812660	-	-	-	-
						1.0	-	-	20.5		8.1		31.1		91.6		6.9		6.5		12		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	20.5	20.5	8.1	8.1	31.1	31.1	92.0	92.1	6.9	6.9	6.5		13		-				-		-	
						3.6	-	-	20.5		8.1		31.1		92.2		6.9		6.6		12		-				-		-	
SR2	Cloudy	Moderate	05:35	4.2	Surface	1.0	0.4	90	20.5	20.5	8.1	8.1	30.8	30.8	92.0	92.0	6.9	6.9	6.6	7.7	10	10	88	89	821457	814168	<0.2	<0.2	2.4	2.3
						1.0	0.4	94	20.5		8.1		30.8		92.0		6.9		6.6		9		88				<0.2		2.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.4	100	20.5	20.5	8.1	8.1	30.8	30.8	93.2	93.5	7.0	7.1	8.7		11		89				<0.2		2.0	
						3.2	0.4	101	20.5		8.1		30.8		93.8		7.1		9.0		10		89				<0.2		2.1	
SR3	Cloudy	Moderate	06:51	8.5	Surface	1.0	0.4	187	20.9	20.9	8.1	8.1	28.8	28.8	91.7	91.7	6.9	6.9	3.4	7.5	8	8	-	-	822151	807564	-	-	-	-
						1.0	0.4	190	20.9		8.1		28.8		91.6		6.9		3.5		7		-				-		-	
					Middle	4.3	0.2	234	20.7	20.7	8.1	8.1	29.3	29.3	90.1	90.1	6.8		8.4		7		-				-		-	
						4.3	0.2	241	20.7		8.1		29.4		90.1		6.8		8.6		8		-				-		-	
					Bottom	7.5	0.1	320	20.7	20.7	8.1	8.1	29.4	29.4	89.7	89.6	6.8	6.8	10.7		8		-				-		-	
						7.5	0.1	336	20.7		8.1		29.4		89.5		6.8		10.7		7		-				-		-	
SR4A	Cloudy	Calm	05:16	8.5	Surface	1.0	0.2	243	20.8	20.8	7.9	7.9	32.1	32.1	92.3	92.3	6.8	6.8	10.8	13.1	26	22	-	-	817165	807818	-	-	-	-
						1.0	0.2	245	20.8		7.9		32.1		92.2		6.8		10.6		25		-				-		-	
					Middle	4.3	0.1	62	20.8	20.8	7.9	7.9	32.1	32.1	91.9	91.9	6.8		12.5		21		-				-		-	
						4.3	0.1	63	20.8		7.9		32.1		91.9		6.8		12.8		21		-				-		-	
					Bottom	7.5	0.0	85	20.8	20.8	7.9	7.9	32.1	32.1	91.5	91.6	6.8	6.8	15.6		19		-				-		-	
						7.5	0.0	86	20.8		7.9		32.1		91.6		6.8		16.2		17		-				-		-	
SR5A	Cloudy	Calm	05:01	3.2	Surface	1.0	0.0	307	20.8	20.8	8.0	8.0	32.4	32.4	92.6	92.6	6.9	6.9	8.9	10.4	23	21	-	-	816585	810697	-	-	-	-
						1.0	0.0	313	20.8		8.0		32.4		92.6		6.9		9.1		24		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.0	68	20.8	20.8	8.0	8.0	32.4	32.4	93.2	93.3	6.9	6.9	11.5		20		-				-		-	
						2.2	0.0	68	20.8		8.0		32.4		93.3		6.9		12.1		18		-				-		-	
SR6A	Cloudy	Calm	04:29	3.9	Surface	1.0	0.1	219	20.8	20.8	8.0	8.0	32.6	32.6	90.4	90.4	6.7	6.7	6.0	7.5	8	9	-	-	817948	814755	-	-	-	-
						1.0	0.1	227	20.8		8.0		32.6		90.3		6.7		6.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	0.1	178	20.8	20.8	8.0	8.0	32.6	32.6	89.9	90.0	6.7	6.7	8.7		8		-				-		-	
						2.9	0.1	187	20.8		8.0		32.6		90.0		6.7		9.0		10		-				-		-	
SR7	Cloudy	Moderate	04:30	15.2	Surface	1.0	0.3	72	20.4	20.4	8.1	8.1	31.8	31.8	90.3	90.3	6.8	6.8	3.2	3.3	10	9	-	-	823634	823743	-	-	-	-
						1.0	0.3	78	20.4		8.1		31.8		90.3		6.8		3.2		9		-				-		-	
					Middle	7.6	0.1	19	20.4	20.4	8.0	8.0	31.8	31.8	90.0	90.0	6.7		3.3		8		-				-		-	
						7.6	0.1	20	20.4		8.0		31.8		90.0		6.7		3.2		8		-				-		-	
					Bottom	14.2	0.2	24	20.4	20.4	8.0	8.0	31.8	31.8	90.3	90.4	6.8	6.8	3.5		8		-				-		-	
						14.2	0.2	24	20.4		8.0		31.8		90.4		6.8		3.5		9		-				-		-	
SR8	Cloudy	Calm	06:12	4.9	Surface	1.0	-	-	20.6	20.6	8.1	8.1	30.8	30.8	92.9	92.9	7.0	7.0	6.1	6.6	10	11	-	-	820406	811616	-	-	-	-
						1.0	-	-	20.6		8.1		30.8		92.9		7.0		6.1		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	20.6	20.6	8.1	8.1	30.8	30.8	91.0	91.1	6.8	6.8	7.1		10		-				-		-	
						3.9	-	-	20.6		8.1		30.8		91.2		6.8		7.1		11		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 19 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Foggy	Rough	13:45	7.6	Surface	1.0	0.5	354	20.4	20.4	7.9	7.9	32.3	32.3	94.6	94.7	7.1	7.1	6.0	9.7	18	18	87	89	815624	804233	<0.2	<0.2	2.3	1.9
						1.0	0.5	359	20.4		7.9		32.3		94.7		7.1		6.0		20		86				<0.2		2.1	
					Middle	3.8	0.5	348	20.3	20.3	7.9	7.9	32.4	32.4	93.9	93.9	7.0		9.9		18		89				<0.2		1.5	
						3.8	0.5	2	20.4		7.9		32.4		93.9		7.0		10.2		18		88				<0.2		1.6	
					Bottom	6.6	0.4	349	20.2	20.2	8.0	8.0	32.9	32.9	93.9	94.0	7.0	7.0	12.9		17		91				<0.2		2.0	
						6.6	0.4	359	20.2		8.0		32.9		94.0		7.0		13.2		18		91				<0.2		2.1	
C2	Cloudy	Moderate	12:05	11.4	Surface	1.0	0.1	341	20.8	20.8	8.1	8.1	28.7	28.7	89.3	89.2	6.8	6.7	3.7	5.1	8	7	83	86	825669	806963	<0.2	<0.2	2.8	2.7
						1.0	0.1	347	20.8		8.1		28.8		89.1		6.7		3.8		7		84				<0.2		2.7	
					Middle	5.7	0.2	12	20.7	20.7	8.1	8.1	29.8	29.8	88.2	88.2	6.7		4.7		7		86				<0.2		2.7	
						5.7	0.2	12	20.6		8.1		29.8		88.2		6.7		4.8		7		86				<0.2		2.8	
					Bottom	10.4	0.2	44	20.5	20.6	8.1	8.1	29.9	29.9	88.0	88.1	6.6	6.7	6.7		7		88				<0.2		2.6	
						10.4	0.2	47	20.6		8.1		29.9		88.1		6.7		6.6		6		88				<0.2		2.4	
C3	Foggy	Moderate	14:13	11.8	Surface	1.0	0.3	235	20.5	20.5	8.1	8.1	31.6	31.6	89.8	89.7	6.7	6.6	2.6	6.5	10	8	83	86	822117	817810	<0.2	<0.2	2.4	2.3
						1.0	0.3	258	20.5		8.1		31.7		89.6		6.7		2.6		9		84				<0.2		2.2	
					Middle	5.9	0.2	245	20.4	20.4	8.1	8.1	32.0	32.0	87.4	87.4	6.5		6.8		9		86				<0.2		2.3	
						5.9	0.2	253	20.4		8.1		32.0		87.4		6.5		7.1		8		86				<0.2		2.3	
					Bottom	10.8	0.1	250	20.4	20.4	8.1	8.1	32.1	32.1	87.3	87.4	6.5	6.5	9.7		6		89				<0.2		2.2	
						10.8	0.1	263	20.4		8.1		32.1		87.4		6.5		10.1		6		89				<0.2		2.4	
IM1	Foggy	Moderate	13:22	4.3	Surface	1.0	0.3	359	20.7	20.7	7.9	7.9	32.2	32.2	93.9	94.0	7.0	7.0	6.0	7.2	14	14	86	88	817926	807134	<0.2	<0.2	2.3	2.0
						1.0	0.4	330	20.7		7.9		32.2		94.0		7.0		6.0		14		86				<0.2		2.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	337	20.5	20.5	7.9	7.9	32.5	32.5	93.8	93.9	7.0	7.0	8.4		12		89				<0.2		1.8	
						3.3	0.2	310	20.5		7.9		32.5		93.9		7.0		8.3		13		89				<0.2		1.7	
IM2	Foggy	Moderate	13:14	6.5	Surface	1.0	0.3	22	20.8	20.8	7.9	7.9	31.9	31.9	94.4	94.4	7.0	7.0	7.2	9.1	14	15	84	86	818144	806175	<0.2	<0.2	1.8	1.7
						1.0	0.4	23	20.8		7.9		31.9		94.4		7.0		7.3		16		84				<0.2		1.7	
					Middle	3.3	0.3	11	20.4	20.4	7.9	7.9	32.3	32.3	93.7	93.6	7.0		8.4		14		87				<0.2		1.8	
						3.3	0.3	11	20.4		7.9		32.3		93.5		7.0		8.4		16		86				<0.2		1.8	
					Bottom	5.5	0.2	359	20.4	20.4	7.9	7.9	32.4	32.4	93.5	93.6	7.0	7.0	11.6		16		87				<0.2		1.5	
						5.5	0.2	330	20.4		7.9		32.4		93.6		7.0		11.7		14		88				<0.2		1.5	
IM3	Foggy	Moderate	13:05	6.4	Surface	1.0	0.2	11	20.8	20.8	7.9	7.9	31.8	31.8	93.6	93.6	7.0	7.0	9.9	10.8	13	14	85	86	818768	805614	<0.2	<0.2	1.8	1.8
						1.0	0.2	11	20.8		7.9		31.8		93.6		7.0		10.2		13		84				<0.2		1.7	
					Middle	3.2	0.2	14	20.6	20.6	7.9	7.9	31.9	31.9	93.5	93.5	7.0		11.0		13		86				<0.2		1.7	
						3.2	0.2	15	20.6		7.9		31.9		93.4		7.0		10.8		15		86				<0.2		1.8	
					Bottom	5.4	0.2	26	20.5	20.5	7.9	7.9	32.1	32.1	92.9	92.9	6.9	6.9	11.3		17		88				<0.2		2.0	
						5.4	0.2	28	20.5		7.9		32.1		92.9		6.9		11.4		15		87				<0.2		1.8	
IM4	Cloudy	Moderate	12:54	7.2	Surface	1.0	0.3	72	20.7	20.7	7.9	7.9	31.8	31.8	94.8	94.9	7.1	7.1	4.7	8.7	10	13	84	86	819709	804619	<0.2	<0.2	1.8	1.8
						1.0	0.3	75	20.7		7.9		31.8		95.0		7.1		4.8		10		84				<0.2		1.8	
					Middle	3.6	0.3	58	20.5	20.5	7.9	7.9	31.9	31.9	93.9	93.9	7.0		10.1		11		87				<0.2		1.9	
						3.6	0.3	61	20.5		7.9		31.9		93.9		7.0		10.6		10		87				<0.2		1.7	
					Bottom	6.2	0.4	41	20.5	20.5	7.9	7.9	32.0	32.0	93.6	93.6	7.0	7.0	10.9		18		88				<0.2		1.8	
						6.2	0.4	43	20.5		7.9		32.0		93.6		7.0		11.0		17		88				<0.2		1.7	
IM5	Cloudy	Moderate	12:44	6.6	Surface	1.0	0.2	83	20.6	20.6	7.9	7.9	31.9	31.9	95.8	95.8	7.1	7.1	8.0	8.3	20	21	84	86	820755	804878	<0.2	<0.2	1.5	1.6
						1.0	0.2	83	20.6		7.9		31.9		95.7		7.1		8.1		21		84				<0.2		1.7	
					Middle	3.3	0.2	69	20.6	20.6	7.9	7.9	31.9	31.9	95.4	95.5	7.1		8.5		20		87				<0.2		1.4	
						3.3	0.2	70	20.6		7.9		31.9		95.5		7.1		8.6		21		86				<0.2		1.6	
					Bottom	5.6	0.2	85	20.6	20.6	7.9	7.9	31.9	31.9	96.1	96.0	7.2	7.2	8.4		20		88				<0.2		1.6	
						5.6	0.2	87	20.6		7.9		31.9		95.9		7.1		8.3		22		88				<0.2		1.6	
IM6	Cloudy	Moderate	12:35	6.5	Surface	1.0	0.1	151	20.8	20.8	7.9	7.9	31.5	31.5	95.0	95.2	7.1	7.1	5.0	5.4	14	15	84	86	821081	805845	<0.2	<0.2	1.6	1.6
						1.0	0.1	156	20.8		7.9		31.5		95.4		7.1		5.0		14		85				<0.2		1.7	
					Middle	3.3	0.1	270	20.6	20.6	7.8	7.8	31.5	31.5	94.3	94.4	7.0		6.3		15		87				<0.2		1.6	
						3.3	0.1	273	20.6		7.8		31.5		94.5		7.1		6.3		14		86				<0.2		1.5	
					Bottom	5.5	0.1	288	20.7	20.7	7.9	7.9	31.7	31.7	95.3	95.3	7.1	7.1	5.0		14		88				<0.2		1.4	
						5.5	0.1	302	20.7		7.9		31.7		95.3		7.1		5.0		16		88				<0.2		1.5	
IM7	Cloudy	Moderate	12:27	8.1	Surface	1.0	0.1	330	20.9	20.9	7.8	7.8	30.1	30.1	93.9	93.8	7.0	7.0	3.5	4.4	12	13	84	85	821369	806840	<0.2	<0.2	1.6	1.7
						1.0	0.1	345	20.9		7.8		30.1		93.6		7.0		3.5		13		83				<0.2		1.7	
					Middle	4.1	0.0	311	20.8	20.8	7.8	7.8	30.0	30.0	92.7	92.8	7.0		4.4		13		85				<0.2		1.6	
						4.1	0.0	321	20.8		7.8		30.0		92.8		7.0		4.4		12		86				<0.2		1.7	
					Bottom	7.1	0.0	335	20.7	20.7	7.8	7.8	30.0	30.0	91.7	91.7	6.9	6.9	5.2		13		87				<0.2		1.6	
						7.1	0.0	308	20.7		7.8		30.0		91.6		6.9		5.2		12		87				<0.2		1.7	
IM8	Cloudy	Moderate	12:30	7.2	Surface	1.0	0.2	64	20.7	20.7	8.1	8.1	28.8	28.8	92.2	92.2	7.0	7.0	5.2	7.1	12	11	84	87	821847	808132	<0.2	<0.2	1.7	1.9
						1.0	0.2	64	20.7		8.1		28.8		92.1		7.0		5.4		13		84				<0.2		2.0	
					Middle	3.6	0.2	69	20.6	20.6	8.1	8.1	29.0	29.0	91.7	91.7	7.0		7.2		10		87				<0.2		1.9	
						3.6	0.2	72	20.6		8.1		29.0		91.7		7.0		7.4		10		87				<0.2		1.9	
					Bottom	6.2	0.1	72	20.6	20.6	8.1	8.1	29.0	29.0	92.4	92.5	7.0	7.0	8.6		10		88				<0.2		1.9	
						6.2	0.1	74	20.6		8.1		29.0		92.5		7.0		8.7		11		89				<0.2		1.8	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 19 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Cloudy	Moderate	12:36	7.0	Surface	1.0	0.4	279	20.7	20.7	8.1	8.1	28.8	28.8	92.2	92.2	7.0	7.0	4.6	5.9	9	9	84	87	822098	808834	<0.2	<0.2	2.6	2.6
						1.0	0.4	299	20.7		8.1		28.8		92.2		7.0		4.7		10		83				<0.2		2.6	
					Middle	3.5	0.3	273	20.7	20.7	8.1	8.1	28.8	28.8	92.0	92.1	7.0		5.2		9		87				<0.2		2.6	
						3.5	0.4	295	20.7		8.1		28.8		92.1		7.0		5.2		8		87				<0.2		2.6	
					Bottom	6.0	0.3	280	20.6	20.6	8.1	8.1	29.0	29.0	91.6	91.7	6.9	7.0	7.5		8		89				<0.2		2.5	
						6.0	0.3	300	20.6		8.1		29.0		91.7		7.0		8.4		8		89				<0.2		2.4	
IM10	Cloudy	Moderate	12:43	7.2	Surface	1.0	0.4	268	20.8	20.8	8.1	8.1	29.1	29.1	93.5	93.5	7.1	7.1	4.1	6.4	8	9	83	86	822386	809809	<0.2	<0.2	2.8	2.9
						1.0	0.4	288	20.8		8.1		29.1		93.5		7.1		4.2		7		83				<0.2		3.0	
					Middle	3.6	0.3	277	20.8	20.8	8.1	8.1	29.2	29.2	93.3	93.3	7.0		4.9		8		86				<0.2		3.0	
						3.6	0.3	279	20.7		8.1		29.3		93.2		7.0		5.3		9		86				<0.2		2.9	
					Bottom	6.2	0.3	293	20.6	20.6	8.1	8.1	30.2	30.2	93.1	93.2	7.0	7.0	9.8		10		89				<0.2		2.8	
						6.2	0.3	295	20.6		8.1		30.2		93.3		7.0		9.9		11		89				<0.2		2.8	
IM11	Cloudy	Moderate	12:54	7.3	Surface	1.0	0.2	306	21.0	21.0	8.1	8.1	29.4	29.4	94.0	94.0	7.1	7.1	2.8	4.1	10	8	84	87	822046	811465	<0.2	<0.2	2.6	2.5
						1.0	0.2	333	21.0		8.1		29.4		94.0		7.1		2.8		8		84				<0.2		2.5	
					Middle	3.7	0.3	294	20.6	20.6	8.1	8.1	30.5	30.5	92.6	92.6	7.0		3.9		7		86				<0.2		2.5	
						3.7	0.3	312	20.6		8.1		30.5		92.5		7.0		4.1		8		87				<0.2		2.4	
					Bottom	6.3	0.3	321	20.5	20.5	8.1	8.1	30.8	30.8	92.7	92.8	7.0	7.0	5.5		8		89				<0.2		2.5	
						6.3	0.3	338	20.5		8.1		30.8		92.8		7.0		5.4		7		89				<0.2		2.5	
IM12	Cloudy	Moderate	13:01	7.9	Surface	1.0	0.2	292	20.7	20.7	8.1	8.1	30.5	30.5	94.2	94.2	7.1	7.1	3.3	5.8	7	7	83	87	821477	812044	<0.2	<0.2	2.7	2.7
						1.0	0.2	320	20.7		8.1		30.5		94.2		7.1		3.4		8		84				<0.2		2.6	
					Middle	4.0	0.1	289	20.6	20.6	8.1	8.1	30.8	30.9	93.0	93.0	7.0		4.5		6		87				<0.2		2.8	
						4.0	0.1	311	20.6		8.1		30.9		92.9		7.0		5.0		6		87				<0.2		2.6	
					Bottom	6.9	0.2	297	20.6	20.6	8.1	8.1	31.2	31.2	92.9	93.0	7.0	7.0	9.3		7		89				<0.2		2.6	
						6.9	0.2	306	20.6		8.1		31.2		93.0		7.0		9.4		7		90				<0.2		2.6	
SR1A	Foggy	Calm	13:23	4.6	Surface	1.0	-	-	20.7	20.7	8.1	8.1	31.1	31.1	93.7	93.6	7.0	7.0	6.3	6.3	11	12	-	-	819979	812654	-	-	-	-
						1.0	-	-	20.7		8.1		31.1		93.5		7.0		6.4		12		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	20.7	20.7	8.1	8.1	31.1	31.1	94.0	94.1	7.0	7.0	6.2		12		-				-		-	
						3.6	-	-	20.7		8.1		31.1		94.2		7.0		6.2		11		-				-		-	
SR2	Foggy	Moderate	13:49	4.8	Surface	1.0	0.1	260	20.6	20.6	8.1	8.1	31.1	31.1	92.3	92.4	6.9	6.9	7.2	7.6	14	15	83	86	821484	814170	<0.2	<0.2	2.9	2.8
						1.0	0.1	271	20.6		8.1		31.1		92.4		6.9		7.3		16		83				<0.2		2.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	307	20.6	20.6	8.1	8.1	31.1	31.1	93.9	94.0	7.0	7.1	7.9		15		89				<0.2		2.7	
						3.8	0.1	318	20.6		8.1		31.1		94.1		7.1		7.9		15		89				<0.2		2.8	
SR3	Cloudy	Moderate	12:24	8.4	Surface	1.0	0.2	276	21.0	21.0	8.1	8.1	28.4	28.4	92.8	92.8	7.0	6.9	3.1	5.5	7	7	-	-	822146	807553	-	-	-	-
						1.0	0.2	290	21.0		8.1		28.4		92.7		7.0		3.1		8		-				-		-	
					Middle	4.2	0.3	259	20.7	20.7	8.1	8.1	29.3	29.3	90.6	90.6	6.8		5.7		8		-				-		-	
						4.2	0.3	261	20.7		8.1		29.3		90.6		6.8		5.9		7		-				-		-	
					Bottom	7.4	0.2	239	20.7	20.7	8.1	8.1	29.4	29.4	90.9	91.0	6.9	6.9	7.5		7		-				-		-	
						7.4	0.2	244	20.7		8.1		29.4		91.0		6.9		7.5		6		-				-		-	
SR4A	Foggy	Calm	14:06	8.9	Surface	1.0	0.5	9	20.8	20.8	7.9	7.9	32.2	32.2	92.3	92.3	6.8	6.9	5.7	7.1	15	16	-	-	817174	807797	-	-	-	-
						1.0	0.5	9	20.8		7.9		32.2		92.3		6.8		5.7		17		-				-		-	
					Middle	4.5	0.4	2	20.7	20.7	8.0	8.0	32.3	32.3	92.5	92.5	6.9		6.9		15		-				-		-	
						4.5	0.4	2	20.7		8.0		32.3		92.4		6.9		7.0		17		-				-		-	
					Bottom	7.9	0.4	7	20.5	20.5	8.0	8.0	32.6	32.6	92.1	92.1	6.9	6.9	8.6		15		-				-		-	
						7.9	0.4	7	20.5		8.0		32.6		92.0		6.8		8.7		16		-				-		-	
SR5A	Foggy	Calm	14:23	3.3	Surface	1.0	0.4	350	20.9	20.9	7.9	7.9	32.5	32.5	93.5	93.5	6.9	6.9	8.4	8.6	18	20	-	-	816615	810696	-	-	-	-
						1.0	0.4	322	20.9		7.9		32.5		93.5		6.9		8.5		20		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.3	0.4	332	20.9	20.9	8.0	8.0	32.5	32.5	94.0	94.0	6.9	6.9	8.8		20		-				-		-	
						2.3	0.4	335	20.9		8.0		32.5		93.9		6.9		8.8		23		-				-		-	
SR6A	Foggy	Calm	14:59	4.1	Surface	1.0	0.2	240	20.9	20.9	8.0	8.0	32.5	32.5	92.9	92.9	6.9	6.9	7.5	8.8	17	21	-	-	817971	814735	-	-	-	-
						1.0	0.2	253	20.9		8.0		32.5		92.8		6.9		7.5		19		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	290	20.9	20.9	8.0	8.0	32.5	32.5	93.1	93.0	6.9	6.9	10.0		25		-				-		-	
						3.1	0.1	297	20.9		8.0		32.5		92.9		6.9		10.1		22		-				-		-	
SR7	Foggy	Moderate	14:45	15.8	Surface	1.0	0.3	168	20.4	20.4	8.1	8.1	32.1	32.1	87.6	87.6	6.5	6.5	3.1	3.3	8	9	-	-	823639	823732	-	-	-	-
						1.0	0.3	183	20.4		8.1		32.1		87.6		6.5		3.2		9		-				-		-	
					Middle	7.9	0.1	218	20.4	20.4	8.1	8.1	32.2	32.2	87.4	87.4	6.5		3.1		10		-				-		-	
						7.9	0.2	221	20.4		8.1		32.2		87.4		6.5		3.2		9		-				-		-	
					Bottom	14.8	0.1	245	20.4	20.4	8.1	8.1	32.3	32.3	88.4	88.6	6.6	6.6	3.6		10		-				-		-	
						14.8	0.1	247	20.4		8.1		32.3		88.8		6.6		3.5		9		-				-		-	
SR8	Foggy	Calm	13:10	4.7	Surface	1.0	-	-	20.8	20.8	8.1	8.1	30.6	30.6	94.5	94.5	7.1	7.1	5.7	6.6	7	7	-	-	820386	811607	-	-	-	-
						1.0	-	-	20.8		8.1		30.6		94.5		7.1		6.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	20.7	20.7	8.1	8.1	30.8	30.8	94.5	94.6	7.1	7.1	7.2		6		-				-		-	
						3.7	-	-	20.7		8.1		30.8		94.7		7.1		7.2		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	08:27	7.9	Surface	1.0	0.5	224	19.9	19.9	8.0	8.0	33.3	33.4	97.0	96.9	7.3	7.2	1.7	2.5	10	9	88	89	815596	804251	<0.2	<0.2	1.2	1.2
						1.0	0.5	244	19.9		8.0		33.4		96.7		7.2		1.8		10		88				<0.2		1.0	
					Middle	4.0	0.4	210	20.0	20.0	8.1	8.1	34.1	34.1	96.3	96.2	7.2		2.7		9		88				<0.2		1.2	
						4.0	0.4	227	20.0		8.1		34.1		96.1		7.2		2.8		8		88				<0.2		1.2	
					Bottom	6.9	0.3	212	20.0	20.0	8.1	8.1	34.2	34.2	95.7	95.7	7.1	7.1	3.0		7		91				<0.2		1.2	
						6.9	0.3	222	20.0		8.1		34.2		95.6		7.1		2.9		7		91				<0.2		1.3	
C2	Fine	Rough	09:40	7.3	Surface	1.0	0.5	160	20.4	20.4	8.1	8.1	31.3	31.3	91.3	91.3	6.9	6.9	2.5	5.1	6	6	83	88	825658	806962	<0.2	<0.2	1.6	1.5
						1.0	0.5	175	20.4		8.1		31.3		91.3		6.9		2.5		6		84				<0.2		1.6	
					Middle	3.7	0.5	155	20.4	20.4	8.1	8.1	31.4	31.4	90.0	90.0	6.8		2.8		6		87				<0.2		1.5	
						3.7	0.5	170	20.4		8.1		31.4		90.0		6.8		2.8		6		87				<0.2		1.4	
					Bottom	6.3	0.4	158	20.4	20.4	8.1	8.1	31.6	31.6	89.4	89.6	6.7	6.7	10.0		5		92				<0.2		1.5	
						6.3	0.4	167	20.4		8.1		31.6		89.7		6.7		10.0		5		92				<0.2		1.4	
C3	Fine	Rough	07:24	11.2	Surface	1.0	0.4	74	20.2	20.2	8.1	8.1	32.1	32.0	86.8	86.8	6.5	6.5	2.6	3.4	6	8	83	87	822128	817811	<0.2	<0.2	1.5	1.4
						1.0	0.5	77	20.2		8.1		32.0		86.8		6.5		2.6		6		83				<0.2		1.4	
					Middle	5.6	0.3	76	20.2	20.2	8.1	8.1	32.3	32.3	86.3	86.3	6.5		2.0		8		88				<0.2		1.5	
						5.6	0.3	76	20.2		8.1		32.3		86.3		6.5		1.9		7		88				<0.2		1.5	
					Bottom	10.2	0.3	67	20.3	20.3	8.1	8.1	32.5	32.5	84.3	84.3	6.3	6.3	5.5		9		91				<0.2		1.4	
						10.2	0.3	70	20.3		8.1		32.5		84.3		6.3		5.6		9		91				<0.2		1.3	
IM1	Cloudy	Moderate	08:51	4.5	Surface	1.0	0.1	195	20.2	20.2	8.0	8.0	33.7	33.7	95.1	95.1	7.1	7.1	4.5	5.3	6	7	84	87	817953	807112	<0.2	<0.2	1.4	1.3
						1.0	0.1	209	20.2		8.0		33.7		95.1		7.1		4.6		6		84				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	226	20.2	20.2	8.1	8.1	33.8	33.8	93.9	93.8	7.0	7.0	6.3		8		89				<0.2		1.3	
						3.5	0.1	241	20.2		8.1		33.8		93.6		7.0		5.8		7		89				<0.2		1.2	
IM2	Cloudy	Moderate	09:10	6.5	Surface	1.0	0.1	145	20.2	20.2	7.8	7.8	33.3	33.3	95.5	95.5	7.1	7.1	4.8	6.1	11	9	86	88	818139	806179	<0.2	<0.2	1.1	1.1
						1.0	0.1	155	20.2		7.8		33.3		95.4		7.1		5.0		11		86				<0.2		1.2	
					Middle	3.3	0.1	139	20.2	20.2	7.8	7.8	33.7	33.7	94.9	94.9	7.1		6.2		9		87				<0.2		1.2	
						3.3	0.1	143	20.2		7.8		33.7		94.9		7.1		6.3		9		88				<0.2		1.1	
					Bottom	5.5	0.1	22	20.2	20.2	7.9	7.9	34.1	34.1	95.2	95.2	7.1	7.1	6.9		8		89				<0.2		1.0	
						5.5	0.1	24	20.2		7.9		34.1		95.2		7.1		7.1		8		89				<0.2		1.1	
IM3	Cloudy	Moderate	09:19	6.3	Surface	1.0	0.1	72	20.0	20.0	8.0	8.0	33.1	33.1	95.4	95.4	7.1	7.1	14.3	16.4	12	15	86	88	818779	805571	<0.2	<0.2	1.3	1.2
						1.0	0.1	74	20.0		8.0		33.1		95.4		7.1		14.4		12		86				<0.2		1.1	
					Middle	3.2	0.1	75	20.0	20.0	8.0	8.0	33.1	33.1	95.1	95.1	7.1		16.9		15		88				<0.2		1.2	
						3.2	0.1	78	20.0		8.0		33.1		95.1		7.1		16.9		14		88				<0.2		1.1	
					Bottom	5.3	0.1	36	20.0	20.0	8.0	8.0	33.1	33.1	94.9	94.9	7.1	7.1	18.1		18		90				<0.2		1.1	
						5.3	0.1	38	20.0		8.0		33.1		94.8		7.1		17.8		18		90				<0.2		1.2	
IM4	Cloudy	Moderate	09:29	7.0	Surface	1.0	0.6	199	20.1	20.1	7.8	7.8	32.5	32.5	94.7	94.7	7.1	7.1	5.7	6.6	16	14	85	87	819741	804601	<0.2	<0.2	1.4	1.4
						1.0	0.7	201	20.1		7.8		32.5		94.7		7.1		5.9		17		85				<0.2		1.4	
					Middle	3.5	0.6	192	20.1	20.1	7.8	7.8	32.5	32.5	94.6	94.7	7.1		6.6		13		87				<0.2		1.4	
						3.5	0.6	199	20.1		7.8		32.5		94.8		7.1		6.9		14		88				<0.2		1.3	
					Bottom	6.0	0.4	198	20.1	20.1	7.8	7.8	32.5	32.5	94.7	94.5	7.1	7.1	7.3		13		88				<0.2		1.4	
						6.0	0.5	205	20.1		7.8		32.5		94.3		7.1		7.1		13		89				<0.2		1.4	
IM5	Cloudy	Moderate	09:42	6.4	Surface	1.0	0.6	222	20.2	20.2	7.8	7.8	32.4	32.4	94.8	94.8	7.1	7.1	4.1	4.6	11	12	85	88	820733	804868	<0.2	<0.2	1.6	1.6
						1.0	0.6	232	20.2		7.8		32.4		94.8		7.1		4.1		11		86				<0.2		1.5	
					Middle	3.2	0.5	217	20.2	20.2	7.8	7.8	32.4	32.4	94.7	95.0	7.1		4.7		12		87				<0.2		1.6	
						3.2	0.5	227	20.2		7.8		32.4		95.2		7.1		4.8		12		88				<0.2		1.6	
					Bottom	5.4	0.4	212	20.1	20.1	7.8	7.8	32.5	32.5	94.3	94.3	7.1	7.1	4.9		12		90				<0.2		1.6	
						5.4	0.4	213	20.1		7.8		32.5		94.3		7.1		5.0		12		90				<0.2		1.6	
IM6	Cloudy	Moderate	09:56	6.6	Surface	1.0	0.6	238	20.2	20.2	7.8	7.8	32.3	32.3	94.5	94.6	7.1	7.1	4.1	5.4	6	7	84	86	821067	805847	<0.2	<0.2	1.8	1.6
						1.0	0.6	240	20.2		7.8		32.3		94.6		7.1		4.1		7		85				<0.2		1.7	
					Middle	3.3	0.4	240	20.1	20.1	7.8	7.8	32.5	32.5	93.5	93.6	7.0		6.0		7		86				<0.2		1.4	
						3.3	0.5	258	20.1		7.8		32.5		93.7		7.0		6.0		7		87				<0.2		1.6	
					Bottom	5.6	0.4	238	20.1	20.1	7.8	7.8	32.6	32.6	93.4	93.5	7.0	7.0	6.2		8		87				<0.2		1.5	
						5.6	0.4	260	20.1		7.8		32.6		93.6		7.0		6.1		8		87				<0.2		1.6	
IM7	Cloudy	Moderate	10:06	7.5	Surface	1.0	0.5	237	20.4	20.4	7.8	7.8	32.3	32.3	94.7	94.7	7.1	7.1	2.8	3.9	8	9	86	87	821358	806847	<0.2	<0.2	1.5	1.5
						1.0	0.5	243	20.4		7.8		32.3		94.7		7.1		2.8		8		86				<0.2		1.5	
					Middle	3.8	0.4	239	20.3	20.3	7.8	7.8	32.4	32.4	93.9	94.0	7.0		4.0		8		85				<0.2		1.6	
						3.8	0.4	260	20.3		7.8		32.4		94.0		7.0		4.2		9		86				<0.2		1.6	
					Bottom	6.5	0.3	253	20.2	20.2	7.9	7.9	32.5	32.5	93.5	93.6	7.0	7.0	4.7		9		88				<0.2		1.5	
						6.5	0.3	256	20.2		7.9		32.5		93.7		7.0		4.6		10		88				<0.2		1.5	
IM8	Fine	Rough	09:11	7.1	Surface	1.0	0.7	101	20.1	20.1	8.1	8.1	31.0	31.0	93.0	93.0	7.0	7.0	4.0	5.5	11	9	83	87	821829	808160	<0.2	<0.2	1.5	1.6
						1.0	0.7	101	20.1		8.1		31.0		93.0		7.0		4.0		11		83				<0.2		1.6	
					Middle	3.6	0.6	163	20.1	20.1	8.1	8.1	31.1	31.1	92.9	92.9	7.0		4.3		9		88				<0.2		1.7	
						3.6	0.6	172	20.1		8.1		31.1		92.9		7.0		4.3		8		88				<0.2		1.6	
					Bottom	6.1	0.3	104	20.0	20.0	8.2	8.2	31.7	31.7	92.1	92.1	7.0	7.0	8.3		7		91				<0.2		1.7	
						6.1	0.3	112	20.0		8.2		31.7		92.1		7.0		8.3		8		91				<0.2		1.5	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Rough	09:06	6.9	Surface	1.0	0.2	172	20.2	20.2	8.1	8.1	30.9	30.9	93.2	93.2	7.0	7.0	3.4	5.8	8	8	83	88	822078	808813	<0.2	<0.2	1.4	1.6
						1.0	0.2	173	20.2		8.1		30.9		93.2		7.0		3.4		9		84				<0.2		1.5	
					Middle	3.5	0.1	162	20.1	20.1	8.1	8.1	31.2	31.2	92.5	92.5	7.0		6.5		8		87				<0.2		1.6	
						3.5	0.1	168	20.1		8.1		31.2		92.5		7.0		6.4		7		87				<0.2		1.6	
					Bottom	5.9	0.0	213	20.0	20.0	8.1	8.1	31.4	31.4	92.4	92.5	7.0	7.0	7.4		6		92				<0.2		1.6	
						5.9	0.0	226	20.0		8.1		31.4		92.5		7.0		7.4		7		92				<0.2		1.7	
IM10	Fine	Rough	08:59	7.3	Surface	1.0	0.2	132	20.1	20.1	8.1	8.1	31.2	31.2	91.2	91.2	6.9	6.9	7.1	7.7	8	9	84	88	822394	809812	<0.2	<0.2	1.5	1.5
						1.0	0.2	132	20.1		8.1		31.2		91.2		6.9		7.2		8		84				<0.2		1.5	
					Middle	3.7	0.2	106	20.1	20.1	8.1	8.1	31.3	31.3	91.3	91.3	6.9		7.8		9		88				<0.2		1.6	
						3.7	0.2	112	20.1		8.1		31.3		91.3		6.9		7.7		8		88				<0.2		1.5	
					Bottom	6.3	0.1	105	20.1	20.1	8.1	8.1	31.3	31.3	91.8	91.9	6.9	6.9	8.3		10		91				<0.2		1.5	
						6.3	0.1	114	20.1		8.1		31.3		91.9		6.9		8.3		11		91				<0.2		1.5	
IM11	Fine	Rough	08:48	7.2	Surface	1.0	0.4	151	20.2	20.2	8.1	8.1	31.1	31.1	90.8	90.8	6.8	6.8	4.3	6.3	9	8	83	88	822039	811455	<0.2	<0.2	1.5	1.5
						1.0	0.5	152	20.2		8.1		31.1		90.7		6.8		4.3		9		84				<0.2		1.5	
					Middle	3.6	0.3	142	20.3	20.3	8.1	8.1	31.3	31.3	89.1	89.1	6.7		5.9		8		88				<0.2		1.5	
						3.6	0.3	148	20.3		8.1		31.3		89.1		6.7		6.0		8		88				<0.2		1.5	
					Bottom	6.2	0.2	125	20.3	20.3	8.1	8.1	31.4	31.4	88.4	88.4	6.7	6.7	8.7		7		92				<0.2		1.4	
						6.2	0.2	128	20.3		8.1		31.4		88.4		6.7		8.6		6		92				<0.2		1.6	
IM12	Fine	Rough	08:41	7.7	Surface	1.0	0.5	102	20.2	20.2	8.1	8.1	31.2	31.2	90.2	90.2	6.8	6.8	6.7	8.3	10	9	84	88	821459	812057	<0.2	<0.2	1.5	1.5
						1.0	0.5	111	20.2		8.1		31.2		90.2		6.8		6.8		10		84				<0.2		1.5	
					Middle	3.9	0.4	102	20.2	20.2	8.1	8.1	31.2	31.2	89.5	89.5	6.7		8.2		8		88				<0.2		1.5	
						3.9	0.5	105	20.2		8.1		31.2		89.5		6.7		8.2		9		88				<0.2		1.4	
					Bottom	6.7	0.3	103	20.2	20.2	8.1	8.1	31.2	31.2	89.7	89.7	6.8	6.8	9.8		9		91				<0.2		1.4	
						6.7	0.3	107	20.2		8.1		31.2		89.7		6.8		9.9		8		91				<0.2		1.5	
SR1A	Fine	Rough	08:06	4.2	Surface	1.0	-	-	20.3	20.3	8.1	8.1	31.3	31.3	87.9	87.9	6.6	6.6	3.5	3.7	7	8	-	-	819983	812661	-	-	-	-
						1.0	-	-	20.3		8.1		31.3		87.8		6.6		3.6		8		-				-		-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.1	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	-	-	20.4	20.4	8.1	8.1	31.4	31.4	88.4	88.5	6.6	6.7	3.7		8		-				-		-	
						3.2	-	-	20.3		8.1		31.4		88.6		6.7		3.8		8		-				-		-	
SR2	Fine	Rough	07:49	4.4	Surface	1.0	0.3	105	20.2	20.2	8.1	8.1	31.8	31.8	86.4	86.4	6.5	6.5	3.7	4.0	9	10	83	87	821470	814164	<0.2	<0.2	1.3	1.3
						1.0	0.3	114	20.2		8.1		31.8		86.4		6.5		3.7		9		84				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.3	101	20.3	20.3	8.1	8.1	31.9	31.9	85.7	85.7	6.4	6.4	4.3		12		91				<0.2		1.3	
						3.4	0.3	105	20.3		8.1		31.9		85.7		6.4		4.4		11		91				<0.2		1.4	
SR3	Fine	Rough	09:19	8.3	Surface	1.0	0.4	182	20.2	20.2	8.1	8.1	30.9	30.9	92.8	92.8	7.0	7.0	2.8	4.6	6	8	-	-	822152	807583	-	-	-	-
						1.0	0.4	183	20.2		8.1		30.9		92.8		7.0		2.8		4		-				-		-	
					Middle	4.2	0.2	167	20.1	20.1	8.1	8.1	31.0	31.0	92.3	92.3	7.0		3.8		7		-				-		-	
						4.2	0.2	182	20.1		8.1		31.0		92.3		7.0		3.8		7		-				-		-	
					Bottom	7.3	0.1	199	20.0	20.0	8.1	8.1	31.4	31.4	92.2	92.3	7.0	7.0	7.2		10		-				-		-	
						7.3	0.1	218	20.0		8.1		31.4		92.3		7.0		7.3		11		-				-		-	
SR4A	Cloudy	Calm	08:05	8.5	Surface	1.0	0.1	255	20.1	20.1	7.9	7.9	33.2	33.2	95.1	95.2	7.1	7.1	3.5	5.0	8	9	-	-	817208	807787	-	-	-	-
						1.0	0.1	259	20.1		7.9		33.2		95.2		7.1		3.6		9		-				-		-	
					Middle	4.3	0.1	310	20.3	20.3	8.0	8.0	33.9	33.9	94.9	94.8	7.0		5.1		10		-				-		-	
						4.3	0.1	334	20.3		8.0		33.9		94.7		7.0		5.3		9		-				-		-	
					Bottom	7.5	0.0	341	20.3	20.3	8.0	8.0	33.9	33.9	95.0	94.9	7.0	7.0	6.3		10		-				-		-	
						7.5	0.0	346	20.3		8.0		33.9		94.7		7.0		6.4		10		-				-		-	
SR5A	Cloudy	Calm	07:48	4.9	Surface	1.0	0.1	344	20.4	20.4	7.9	7.9	32.5	32.5	91.9	91.9	6.9	6.9	7.2	8.2	20	19	-	-	816591	810672	-	-	-	-
						1.0	0.1	316	20.4		7.9		32.5		91.8		6.8		7.5		20		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.0	117	20.3	20.3	8.0	8.0	32.8	32.8	92.0	92.3	6.9	6.9	9.1		18		-				-		-	
						3.9	0.0	126	20.3		8.0		32.8		92.5		6.9		8.9		17		-				-		-	
SR6A	Cloudy	Calm	07:19	4.5	Surface	1.0	0.1	81	20.6	20.6	7.9	7.9	32.5	32.5	88.9	88.9	6.6	6.6	3.1	3.6	11	13	-	-	817973	814740	-	-	-	-
						1.0	0.1	82	20.6		7.9		32.5		88.9		6.6		3.1		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.0	113	20.5	20.5	7.9	7.9	32.7	32.7	89.7	89.9	6.7	6.7	4.0		13		-				-		-	
						3.5	0.0	119	20.5		7.9		32.7		90.0		6.7		4.1		14		-				-		-	
SR7	Fine	Rough	06:52	16.1	Surface	1.0	0.3	52	20.3	20.3	8.0	8.0	32.6	32.6	84.1	84.1	6.3	6.3	1.7	2.1	9	9	-	-	823624	823758	-	-	-	-
						1.0	0.3	53	20.3		8.0		32.6		84.1		6.3		1.7		10		-				-		-	
					Middle	8.1	0.1	31	20.3	20.3	8.0	8.0	32.6	32.6	83.7	83.7	6.2		2.2		10		-				-		-	
						8.1	0.1	31	20.3		8.0		32.7		83.7		6.2		2.1		10		-				-		-	
					Bottom	15.1	0.2	344	20.3	20.3	8.0	8.0	32.7	32.7	83.4	83.4	6.2	6.2	2.3		9		-				-		-	
						15.1	0.2	353	20.3		8.0		32.7		83.4		6.2		2.3		8		-				-		-	
SR8	Fine	Rough	08:33	3.6	Surface	1.0	-	-	20.2	20.2	8.1	8.1	31.0	31.0	90.9	90.9	6.9	6.9	6.0	6.1	10	10	-	-	820382	811604	-	-	-	-
						1.0	-	-	20.2		8.1		31.0		90.9		6.9		6.0		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	-	-	20.2	20.2	8.1	8.1	31.1	31.1	91.6	91.7	6.9	6.9	6.4		9		-				-		-	
						2.6	-	-	20.2		8.1		31.1		91.8		6.9		6.3		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	14:52	7.6	Surface	1.0	0.1	320	20.5	20.5	7.9	7.9	33.4	33.4	97.6	97.7	7.2	7.2	2.4	6.2	9	9	86	88	815613	804253	<0.2	<0.2	1.0	1.1
						1.0	0.1	338	20.5		7.9		33.4		97.7		7.2		2.4		8		87				<0.2		1.1	
					Middle	3.8	0.1	344	20.3	20.3	7.9	7.9	33.9	33.9	96.4	96.5	7.1		6.0		9		88				<0.2		1.1	
						3.8	0.1	7	20.3		7.9		33.9		96.6		7.2		6.1		9		88				<0.2		1.1	
					Bottom	6.6	0.2	341	20.3	20.3	7.9	7.9	34.0	34.0	96.2	96.2	7.1	7.1	10.5		9		90				<0.2		1.0	
						6.6	0.2	341	20.3		7.9		34.0		96.1		7.1		9.6		10		91				<0.2		1.1	
C2	Cloudy	Rough	13:46	8.7	Surface	1.0	0.2	215	20.4	20.4	8.1	8.1	31.3	31.3	91.1	91.1	6.8	6.8	2.5	6.3	5	8	83	88	825673	806931	<0.2	<0.2	1.6	1.6
						1.0	0.3	235	20.4		8.1		31.3		91.1		6.8		2.5		7		84				<0.2		1.6	
					Middle	4.4	0.3	304	20.4	20.4	8.1	8.1	31.4	31.4	89.7	89.6	6.7		2.7		8		90				<0.2		1.6	
						4.4	0.3	329	20.4		8.1		31.4		89.5		6.7		2.8		8		90				<0.2		1.5	
					Bottom	7.7	0.3	329	20.4	20.4	8.1	8.1	31.7	31.7	86.7	86.7	6.5	6.5	13.6		10		91				<0.2		1.6	
						7.7	0.3	303	20.4		8.1		31.7		86.7		6.5		13.6		9		91				<0.2		1.5	
C3	Cloudy	Rough	15:36	10.6	Surface	1.0	0.5	265	20.6	20.6	8.1	8.1	31.8	31.8	88.8	88.8	6.6	6.5	2.8	4.4	7	10	83	87	822095	817823	<0.2	<0.2	1.4	1.4
						1.0	0.6	284	20.6		8.1		31.8		88.7		6.6		2.8		7		84				<0.2		1.4	
					Middle	5.3	0.4	271	20.3	20.3	8.1	8.1	32.1	32.1	85.7	85.7	6.4		3.6		11		87				<0.2		1.4	
						5.3	0.4	280	20.3		8.1		32.1		85.7		6.4		3.6		11		87				<0.2		1.3	
					Bottom	9.6	0.3	264	20.4	20.4	8.1	8.1	32.2	32.3	84.9	84.7	6.3	6.3	6.9		10		91				<0.2		1.4	
						9.6	0.3	273	20.4		8.1		32.4		84.5		6.3		6.9		11		92				<0.2		1.3	
IM1	Cloudy	Moderate	14:28	4.7	Surface	1.0	0.4	348	20.4	20.4	7.9	7.9	33.5	33.6	95.6	95.5	7.1	7.1	5.8	6.9	7	7	84	85	817958	807124	<0.2	<0.2	1.1	1.2
						1.0	0.4	320	20.3		7.9		33.6		95.4		7.1		5.8		7		85				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	351	20.3	20.3	7.9	7.9	33.8	33.8	94.9	95.2	7.0	7.1	8.1		7		86				<0.2		1.2	
						3.7	0.3	359	20.3		7.9		33.8		95.4		7.1		7.8		7		86				<0.2		1.1	
IM2	Cloudy	Moderate	14:22	6.5	Surface	1.0	0.3	328	20.3	20.3	7.9	7.9	33.0	33.0	96.8	96.7	7.2	7.2	5.2	6.3	9	8	86	86	818144	806177	<0.2	<0.2	1.2	1.4
						1.0	0.3	354	20.3		7.9		33.0		96.6		7.2		5.2		8		86				<0.2		1.3	
					Middle	3.3	0.4	320	20.2	20.2	7.9	7.9	33.3	33.3	95.7	95.8	7.1		5.5		9		85				<0.2		1.3	
						3.3	0.4	328	20.2		7.9		33.3		95.8		7.1		5.5		9		85				<0.2		1.3	
					Bottom	5.5	0.3	334	20.2	20.2	7.9	7.9	33.7	33.7	96.0	96.0	7.1	7.1	8.2		7		88				<0.2		1.6	
						5.5	0.3	348	20.2		7.9		33.7		95.9		7.1		8.4		8		88				<0.2		1.7	
IM3	Cloudy	Moderate	14:13	6.4	Surface	1.0	0.5	333	20.4	20.4	7.9	7.9	33.1	33.1	96.0	96.1	7.1	7.1	3.6	4.6	8	8	85	86	818778	805593	<0.2	<0.2	1.5	1.5
						1.0	0.6	350	20.4		7.9		33.1		96.1		7.1		3.6		8		86				<0.2		1.3	
					Middle	3.2	0.5	321	20.3	20.3	7.9	7.9	33.1	33.1	95.7	95.8	7.1		4.7		7		86				<0.2		1.3	
						3.2	0.6	333	20.3		7.9		33.1		95.8		7.1		4.8		8		86				<0.2		1.4	
					Bottom	5.4	0.4	351	20.2	20.2	7.9	7.9	33.1	33.1	95.3	95.1	7.1	7.1	5.5		7		87				<0.2		1.7	
						5.4	0.4	341	20.2		7.9		33.1		94.9		7.1		5.4		7		87				<0.2		1.6	
IM4	Cloudy	Moderate	14:04	6.8	Surface	1.0	0.4	26	20.3	20.3	7.8	7.8	32.4	32.4	94.6	94.7	7.1	7.1	4.3	4.6	9	8	84	87	819736	804585	<0.2	<0.2	1.8	1.8
						1.0	0.4	25	20.3		7.8		32.4		94.7		7.1		4.3		8		85				<0.2		1.7	
					Middle	3.4	0.6	26	20.3	20.3	7.8	7.8	32.4	32.4	94.9	95.0	7.1		4.5		8		87				<0.2		1.7	
						3.4	0.6	23	20.3		7.8		32.4		95.0		7.1		4.5		7		88				<0.2		2.0	
					Bottom	5.8	0.4	23	20.2	20.2	7.8	7.8	32.4	32.4	94.6	94.6	7.1	7.1	4.9		7		89				<0.2		1.8	
						5.8	0.4	23	20.2		7.8		32.4		94.6		7.1		4.9		7		89				<0.2		1.8	
IM5	Cloudy	Moderate	13:55	6.7	Surface	1.0	0.2	22	20.2	20.2	7.8	7.8	32.4	32.4	94.7	94.6	7.1	7.1	4.5	4.6	10	9	85	87	820755	804850	<0.2	<0.2	1.7	1.9
						1.0	0.3	23	20.2		7.8		32.4		94.4		7.1		4.4		10		86				<0.2		1.7	
					Middle	3.4	0.2	37	20.2	20.2	7.8	7.8	32.4	32.4	94.1	94.2	7.0		4.4		10		86				<0.2		2.0	
						3.4	0.3	38	20.2		7.8		32.4		94.2		7.1		4.5		10		87				<0.2		2.0	
					Bottom	5.7	0.3	39	20.2	20.2	7.8	7.8	32.4	32.4	93.8	93.8	7.0	7.0	4.7		8		88				<0.2		2.0	
						5.7	0.4	36	20.2		7.8		32.4		93.8		7.0		4.9		8		88				<0.2		2.0	
IM6	Cloudy	Moderate	13:47	7.0	Surface	1.0	0.2	23	20.3	20.3	7.8	7.8	32.4	32.4	94.1	94.2	7.0	7.1	3.6	4.2	8	7	85	86	821040	805846	<0.2	<0.2	1.6	1.8
						1.0	0.3	21	20.3		7.8		32.4		94.2		7.0		3.7		8		85				<0.2		1.7	
					Middle	3.5	0.1	25	20.2	20.2	7.9	7.9	32.4	32.4	94.3	94.3	7.1		4.3		6		85				<0.2		1.5	
						3.5	0.1	27	20.2		7.9		32.4		94.2		7.1		4.4		7		86				<0.2		1.8	
					Bottom	6.0	0.1	28	20.2	20.2	7.9	7.9	32.4	32.4	94.4	94.4	7.1	7.1	4.6		6		88				<0.2		2.0	
						6.0	0.1	29	20.2		7.9		32.4		94.4		7.1		4.6		6		88				<0.2		2.2	
IM7	Cloudy	Moderate	13:35	7.4	Surface	1.0	0.2	318	20.4	20.4	7.9	7.9	32.3	32.3	94.3	94.4	7.0	7.0	1.9	3.6	6	7	86	86	821332	806842	<0.2	<0.2	1.5	1.5
						1.0	0.2	320	20.4		7.9		32.3		94.4		7.1		2.0		7		85				<0.2		1.5	
					Middle	3.7	0.1	255	20.3	20.3	7.9	7.9	32.3	32.3	93.8	93.8	7.0		3.1		7		85				<0.2		1.6	
						3.7	0.1	272	20.3		7.9		32.3		93.8		7.0		3.4		7		86				<0.2		1.6	
					Bottom	6.4	0.2	324	20.2	20.2	7.9	7.9	32.5	32.5	93.4	93.4	7.0	7.0	5.7		8		88				<0.2		1.5	
						6.4	0.2	346	20.2		7.9		32.5		93.4		7.0		5.7		8		88				<0.2		1.4	
IM8	Cloudy	Rough	14:08	6.1	Surface	1.0	0.2	243	20.3	20.3	8.1	8.1	31.0	31.0	93.3	93.3	7.0	7.0	7.6	5.3	3	5	85	88	821853	808125	<0.2	<0.2	1.6	1.6
						1.0	0.2	246	20.3		8.1		31.0		93.3		7.0		7.6		4		86				<0.2		1.6	
					Middle	3.1	0.3	251	20.2	20.2	8.1	8.1	31.0	31.0	93.1	93.1	7.0		3.7		4		87				<0.2		1.5	
						3.1	0.3	253	20.2		8.1		31.0		93.1		7.0		3.7		5		88				<0.2		1.6	
					Bottom	5.1	0.3	260	20.2	20.2	8.1	8.1	31.0	31.0	93.4	93.5	7.1	7.1	4.7		5		91				<0.2		1.5	
						5.1	0.3	262	20.2		8.1		31.0		93.5		7.1		4.8		6		91				<0.2		1.6	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 21 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Cloudy	Rough	14:12	7.2	Surface	1.0	0.3	241	20.2	20.2	8.1	8.1	31.1	31.1	93.2	93.2	7.0	7.0	4.6	5.3	6	6	84	88	822112	808792	<0.2	<0.2	1.7	1.6
						1.0	0.3	255	20.2		8.1		31.1		93.2		7.0		4.6		5		84				<0.2		1.6	
					Middle	3.6	0.3	269	20.2	20.2	8.1	8.1	31.1	31.1	93.1	93.1	7.0		5.2		6		90				<0.2		1.6	
						3.6	0.3	285	20.2		8.1		31.1		93.1		7.0		5.1		5		89				<0.2		1.6	
					Bottom	6.2	0.3	274	20.1	20.1	8.1	8.1	31.2	31.2	92.7	92.7	7.0	7.0	6.2		6		91				<0.2		1.7	
						6.2	0.3	295	20.1		8.1		31.2		92.7		7.0		6.1		6		92				<0.2		1.6	
IM10	Cloudy	Rough	14:18	7.5	Surface	1.0	0.1	356	20.4	20.4	8.1	8.1	31.0	31.0	93.5	93.5	7.0	7.0	2.7	4.6	5	5	84	89	822401	809776	<0.2	<0.2	1.6	1.7
						1.0	0.1	328	20.4		8.1		31.0		93.5		7.0		2.7		4		84				<0.2		1.6	
					Middle	3.8	0.2	344	20.2	20.2	8.1	8.1	31.2	31.2	92.7	92.7	7.0		4.4		4		90				<0.2		1.7	
						3.8	0.2	316	20.2		8.1		31.2		92.7		7.0		4.4		5		89				<0.2		1.6	
					Bottom	6.5	0.2	303	20.1	20.1	8.1	8.1	31.2	31.2	92.4	92.4	7.0	7.0	6.7		6		92				<0.2		1.7	
						6.5	0.2	319	20.1		8.1		31.2		92.4		7.0		6.8		6		92				<0.2		1.7	
IM11	Cloudy	Rough	14:28	7.4	Surface	1.0	0.5	300	20.3	20.3	8.1	8.1	31.0	31.0	93.2	93.2	7.0	7.0	3.8	4.5	6	6	85	89	822065	811477	<0.2	<0.2	1.9	1.8
						1.0	0.5	306	20.2		8.1		31.0		93.1		7.0		3.8		6		86				<0.2		1.7	
					Middle	3.7	0.3	324	20.2	20.2	8.1	8.1	31.1	31.1	92.4	92.4	7.0		4.7		6		90				<0.2		1.9	
						3.7	0.3	353	20.2		8.1		31.1		92.4		7.0		4.7		5		90				<0.2		1.8	
					Bottom	6.4	0.6	329	20.2	20.2	8.1	8.1	31.1	31.1	92.5	92.5	7.0	7.0	5.2		6		91				<0.2		1.7	
						6.4	0.6	330	20.2		8.1		31.1		92.5		7.0		5.2		5		92				<0.2		1.7	
IM12	Cloudy	Rough	14:34	7.6	Surface	1.0	0.5	294	20.2	20.2	8.1	8.1	31.1	31.1	92.4	92.4	7.0	7.0	8.5	9.8	8	11	83	88	821466	812063	<0.2	<0.2	1.9	1.8
						1.0	0.5	313	20.2		8.1		31.1		92.4		7.0		8.4		9		84				<0.2		1.8	
					Middle	3.8	0.5	286	20.2	20.2	8.1	8.1	31.1	31.1	92.2	92.2	7.0		9.7		12		90				<0.2		1.8	
						3.8	0.6	309	20.2		8.1		31.1		92.2		7.0		9.7		12		90				<0.2		1.8	
					Bottom	6.6	0.4	307	20.2	20.2	8.1	8.1	31.1	31.1	92.2	92.3	7.0	7.0	11.2		12		91				<0.2		1.7	
						6.6	0.4	323	20.2		8.1		31.1		92.3		7.0		11.2		12		92				<0.2		1.9	
SR1A	Cloudy	Rough	14:55	3.5	Surface	1.0	-	-	20.5	20.5	8.1	8.1	31.2	31.2	92.4	92.4	6.9	6.9	6.7	7.8	9	9	-	-	819970	812654	-	-	-	-
						1.0	-	-	20.5		8.1		31.2		92.4		6.9		6.7		9		-				-		-	
					Middle	1.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.5	-	-	20.4	20.4	8.1	8.1	31.2	31.2	93.4	93.5	7.0	7.0	8.9		9		-				-		-	
						2.5	-	-	20.4		8.1		31.2		93.5		7.0		9.0		10		-				-		-	
SR2	Cloudy	Rough	15:16	4.8	Surface	1.0	0.6	328	20.4	20.4	8.1	8.1	31.3	31.3	92.1	92.1	6.9	6.9	4.9	5.2	5	5	80	87	821444	814169	<0.2	<0.2	1.6	1.6
						1.0	0.6	335	20.4		8.1		31.3		92.0		6.9		4.9		5		84				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	312	20.4	20.4	8.1	8.1	31.3	31.3	92.6	92.7	7.0	7.0	5.5		6		91				<0.2		1.6	
						3.8	0.5	319	20.4		8.1		31.3		92.8		7.0		5.5		5		92				<0.2		1.6	
SR3	Cloudy	Rough	14:03	8.0	Surface	1.0	0.2	180	20.2	20.2	8.1	8.1	31.0	31.0	91.9	91.9	6.9	7.0	4.0	6.6	6	6	-	-	822162	807554	-	-	-	-
						1.0	0.2	197	20.2		8.1		31.0		91.9		6.9		4.0		6		-				-		-	
					Middle	4.0	0.2	216	20.1	20.1	8.1	8.1	31.3	31.3	92.1	92.1	7.0		7.0		6		-				-		-	
						4.0	0.2	226	20.0		8.1		31.3		92.1		7.0		7.0		7		-				-		-	
					Bottom	7.0	0.2	226	20.0	20.0	8.1	8.1	31.3	31.3	92.1	92.1	7.0	7.0	8.9		6		-				-		-	
						7.0	0.2	201	20.0		8.1		31.3		92.1		7.0		8.9		7		-				-		-	
SR4A	Cloudy	Calm	15:16	8.0	Surface	1.0	0.4	58	20.6	20.6	8.0	8.0	32.6	32.6	93.3	93.3	6.9	6.9	8.3	10.6	13	15	-	-	817171	807833	-	-	-	-
						1.0	0.4	61	20.6		8.0		32.6		93.2		6.9		8.5		14		-				-		-	
					Middle	4.0	0.5	64	20.4	20.4	8.0	8.0	32.8	32.8	92.7	92.8	6.9		10.8		15		-				-		-	
						4.0	0.5	64	20.4		8.0		32.8		92.9		6.9		10.5		16		-				-		-	
					Bottom	7.0	0.3	50	20.3	20.3	8.0	8.0	32.9	32.9	92.5	92.6	6.9	6.9	13.6		16		-				-		-	
						7.0	0.3	52	20.3		8.0		32.9		92.6		6.9		12.1		16		-				-		-	
SR5A	Cloudy	Calm	15:34	4.1	Surface	1.0	0.1	238	20.7	20.7	7.8	7.8	32.4	32.4	93.0	93.1	6.9	6.9	2.8	3.4	5	7	-	-	816578	810710	-	-	-	-
						1.0	0.1	240	20.7		7.8		32.4		93.1		6.9		2.9		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.2	277	20.7	20.7	7.8	7.8	32.4	32.4	94.7	94.7	7.0	7.0	4.1		8		-				-		-	
						3.1	0.3	254	20.7		7.8		32.4		94.7		7.0		3.9		8		-				-		-	
SR6A	Cloudy	Calm	15:57	4.5	Surface	1.0	0.0	207	20.9	20.9	7.8	7.8	32.6	32.6	93.8	93.8	6.9	6.9	2.1	2.7	8	8	-	-	817958	814754	-	-	-	-
						1.0	0.0	227	20.9		7.8		32.6		93.7		6.9		2.2		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.0	122	20.5	20.5	7.8	7.8	32.8	32.8	91.5	91.5	6.8	6.8	3.2		6		-				-		-	
						3.5	0.0	126	20.5		7.8		32.8		91.4		6.8		3.1		7		-				-		-	
SR7	Cloudy	Rough	16:05	16.8	Surface	1.0	0.0	204	20.5	20.5	8.1	8.1	32.3	32.3	87.4	87.4	6.5	6.5	1.9	2.0	5	5	-	-	823641	823731	-	-	-	-
						1.0	0.0	233	20.4		8.1		32.4		87.3		6.5		1.9		4		-				-		-	
					Middle	8.4	0.0	209	20.3	20.3	8.1	8.1	32.5	32.5	85.6	85.7	6.4		2.1		5		-				-		-	
						8.4	0.0	192	20.3		8.1		32.5		85.7		6.4		2.2		5		-				-		-	
					Bottom	15.8	0.1	245	20.3	20.3	8.1	8.1	32.6	32.6	87.0	87.1	6.5	6.5	2.0		5		-				-		-	
						15.8	0.1	251	20.3		8.1		32.6		87.2		6.5		2.0		6		-				-		-	
SR8	Cloudy	Rough	14:41	4.1	Surface	1.0	-	-	21.0	21.0	8.1	8.1	31.0	31.0	92.9	92.8	6.9	6.9	6.5	6.3	9	10	-	-	820408	811621	-	-	-	-
						1.0	-	-	20.9		8.1		31.0		92.7		6.9		6.5		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	-	-	20.3	20.3	8.1	8.1	31.1	31.1	90.7	90.8	6.8	6.8	6.1		10		-				-		-	
						3.1	-	-	20.3		8.1		31.1		90.8		6.8		6.1		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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	11:13	8.0	Surface	1.0	0.1	276	20.3	20.3	7.8	7.8	33.2	33.2	97.7	97.7	7.3	7.3	9.4	10.0	19	18	85	89	815637	804229	<0.2	<0.2	1.0	0.9
						1.0	0.1	280	20.3		7.8		33.2		97.7		7.3		9.4		19		85				<0.2		0.8	
					Middle	4.0	0.0	291	20.2	20.2	7.8	7.8	33.2	33.2	96.9	97.0	7.2		9.8		18		89				<0.2		0.8	
						4.0	0.0	296	20.2		7.8		33.2		97.0		7.2		9.5		17		89				<0.2		1.0	
					Bottom	7.0	0.0	55	20.2	20.2	7.8	7.8	33.2	33.2	97.5	97.4	7.3	7.3	10.9		18		93				<0.2		0.9	
						7.0	0.0	55	20.2		7.8		33.2		97.3		7.3		10.8		18		92				<0.2		0.9	
C2	Fine	Moderate	12:26	11.8	Surface	1.0	0.5	66	20.6	20.6	7.9	7.9	31.6	31.6	90.2	90.3	6.7	6.7	4.5	7.4	9	9	85	88	825661	806952	<0.2	<0.2	1.8	1.7
						1.0	0.6	72	20.6		7.9		31.6		90.3		6.7		4.5		10		86				<0.2		1.8	
					Middle	5.9	0.4	55	20.5	20.5	8.0	8.0	31.9	31.9	90.2	90.2	6.7		7.9		10		88				<0.2		1.6	
						5.9	0.4	60	20.5		8.0		31.9		90.1		6.7		8.2		9		89				<0.2		1.7	
					Bottom	10.8	0.3	9	20.5	20.5	7.9	7.9	32.1	32.1	91.0	91.1	6.8	6.8	9.8		8		90				<0.2		1.7	
						10.8	0.3	9	20.5		7.9		32.1		91.2		6.8		9.7		9		91				<0.2		1.7	
C3	Fine	Moderate	10:37	11.4	Surface	1.0	0.1	173	20.5	20.5	8.0	8.0	33.2	33.2	86.8	86.8	6.4	6.4	3.3	8.3	7	7	88	90	822110	817788	<0.2	<0.2	1.7	1.7
						1.0	0.1	186	20.5		8.0		33.2		86.7		6.4		3.3		6		86				<0.2		1.8	
					Middle	5.7	0.1	120	20.5	20.5	7.9	7.9	33.5	33.5	85.0	85.1	6.3		7.9		6		89				<0.2		1.6	
						5.7	0.1	127	20.5		7.9		33.5		85.1		6.3		7.5		7		90				<0.2		1.5	
					Bottom	10.4	0.2	137	20.5	20.5	7.9	7.9	33.5	33.5	86.7	86.9	6.4	6.4	14.2		8		92				<0.2		1.7	
						10.4	0.2	146	20.5		7.9		33.5		87.0		6.4		13.7		9		93				<0.2		1.8	
IM1	Fine	Calm	11:25	4.4	Surface	1.0	0.0	206	20.3	20.3	7.7	7.7	33.1	33.0	96.6	96.7	7.2	7.2	5.4	5.5	15	15	85	89	817971	807142	<0.2	<0.2	1.1	1.0
						1.0	0.0	218	20.3		7.7		33.0		96.8		7.2		5.4		16		86				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	204	20.3	20.3	7.7	7.7	33.1	33.1	96.8	97.0	7.2	7.2	5.6		13		91				<0.2		1.0	
						3.4	0.0	216	20.3		7.7		33.1		97.1		7.2		5.6		14		92				<0.2		0.9	
IM2	Fine	Moderate	11:33	6.6	Surface	1.0	0.1	334	20.3	20.3	7.7	7.7	33.1	33.1	96.8	96.8	7.2	7.2	9.1	11.5	16	17	83	89	818151	806185	<0.2	<0.2	0.9	1.0
						1.0	0.1	340	20.3		7.7		33.1		96.7		7.2		9.2		15		84				<0.2		0.9	
					Middle	3.3	0.0	37	20.3	20.3	7.7	7.7	33.1	33.1	96.3	96.3	7.2		10.9		16		89				<0.2		1.0	
						3.3	0.0	39	20.3		7.7		33.1		96.3		7.2		10.6		17		91				<0.2		1.1	
					Bottom	5.6	0.0	39	20.3	20.3	7.7	7.7	33.1	33.1	96.4	96.5	7.2	7.2	14.6		20		92				<0.2		1.0	
						5.6	0.0	41	20.3		7.7		33.1		96.5		7.2		14.6		18		93				<0.2		1.0	
IM3	Fine	Moderate	11:40	6.3	Surface	1.0	0.1	178	20.3	20.3	7.7	7.7	33.1	33.1	96.8	96.7	7.2	7.2	13.2	13.9	19	17	85	89	818788	805612	<0.2	<0.2	1.1	1.1
						1.0	0.1	195	20.3		7.7		33.1		96.6		7.2		13.4		17		87				<0.2		1.1	
					Middle	3.2	0.1	215	20.3	20.3	7.7	7.7	33.1	33.1	96.1	96.1	7.2		13.4		8		89				<0.2		1.0	
						3.2	0.1	218	20.3		7.7		33.1		96.1		7.2		13.2		9		90				<0.2		1.1	
					Bottom	5.3	0.1	212	20.3	20.3	7.7	7.7	33.1	33.1	97.2	97.1	7.2	7.2	15.1		24		90				<0.2		0.9	
						5.3	0.1	221	20.3		7.7		33.1		96.9		7.2		14.9		25		91				<0.2		1.1	
IM4	Fine	Moderate	11:47	7.0	Surface	1.0	0.1	131	20.3	20.3	7.7	7.7	33.1	33.1	97.2	97.2	7.2	7.2	9.5	11.3	21	20	84	88	819722	804591	<0.2	<0.2	1.0	1.1
						1.0	0.1	139	20.3		7.7		33.1		97.2		7.2		9.5		20		84				<0.2		1.1	
					Middle	3.5	0.2	216	20.3	20.3	7.7	7.7	33.1	33.1	97.0	97.2	7.2		10.9		19		88				<0.2		1.2	
						3.5	0.2	218	20.3		7.7		33.1		97.3		7.2		10.9		21		88				<0.2		1.1	
					Bottom	6.0	0.2	229	20.3	20.3	7.7	7.7	33.1	33.1	96.6	96.8	7.2	7.2	13.5		19		93				<0.2		0.9	
						6.0	0.2	231	20.3		7.7		33.1		97.0		7.2		13.5		21		93				<0.2		1.1	
IM5	Fine	Moderate	11:56	6.5	Surface	1.0	0.3	73	20.3	20.3	7.7	7.7	32.9	32.9	96.2	96.2	7.2	7.2	9.5	10.4	19	20	85	89	820745	804868	<0.2	<0.2	1.2	1.1
						1.0	0.3	75	20.3		7.7		32.9		96.2		7.2		9.8		20		85				<0.2		1.2	
					Middle	3.3	0.3	79	20.3	20.3	7.7	7.7	32.9	32.9	96.1	96.3	7.2		10.9		21		88				<0.2		1.0	
						3.3	0.3	83	20.3		7.7		32.9		96.4		7.2		10.8		19		89				<0.2		1.0	
					Bottom	5.5	0.3	70	20.3	20.3	7.7	7.7	33.0	33.0	96.8	96.9	7.2	7.2	10.7		20		92				<0.2		1.0	
						5.5	0.3	75	20.3		7.7		33.0		97.0		7.2		10.6		22		92				<0.2		1.1	
IM6	Fine	Moderate	12:05	6.6	Surface	1.0	0.1	114	20.4	20.4	7.7	7.7	33.0	33.0	96.1	96.0	7.1	7.2	4.5	5.2	15	13	85	89	821067	805807	<0.2	<0.2	1.2	1.2
						1.0	0.1	118	20.4		7.7		33.0		95.9		7.1		4.5		14		86				<0.2		1.3	
					Middle	3.3	0.1	104	20.4	20.4	7.7	7.7	33.0	33.0	96.6	96.7	7.2		5.2		13		89				<0.2		1.3	
						3.3	0.1	112	20.4		7.7		33.0		96.7		7.2		5.2		13		90				<0.2		1.3	
					Bottom	5.6	0.1	7	20.4	20.4	7.7	7.7	33.1	33.1	97.1	97.3	7.2	7.2	5.9		11		93				<0.2		1.0	
						5.6	0.1	7	20.4		7.7		33.1		97.4		7.2		6.0		12		93				<0.2		1.1	
IM7	Fine	Moderate	12:18	7.8	Surface	1.0	0.1	29	20.6	20.6	7.6	7.6	32.2	32.2	95.6	95.6	7.1	7.2	5.7	5.2	12	11	84	89	821331	806817	<0.2	<0.2	1.6	1.7
						1.0	0.1	31	20.6		7.6		32.2		95.6		7.1		5.9		11		85				<0.2		1.7	
					Middle	3.9	0.1	28	20.4	20.4	7.6	7.6	32.7	32.7	96.4	96.3	7.2		4.3		10		88				<0.2		1.7	
						3.9	0.1	29	20.4		7.6		32.7		96.2		7.2		4.5		11		89				<0.2		1.7	
					Bottom	6.8	0.1	34	20.4	20.4	7.6	7.6	33.0	33.0	96.4	96.4	7.2	7.2	5.5		11		92				<0.2		1.6	
						6.8	0.1	35	20.4		7.6		33.0		96.3		7.2		5.5		11		93				<0.2		1.6	
IM8	Fine	Moderate	12:03	6.6	Surface	1.0	0.2	96	20.5	20.5	8.0	8.0	31.9	31.9	91.7	91.7	6.8	6.9	6.9	8.5	10	10	88	89	821831	808134	<0.2	<0.2	1.7	1.7
						1.0	0.2	105	20.5		8.0		31.9		91.7		6.8		6.8		11		87				<0.2		1.6	
					Middle	3.3	0.2	98	20.4	20.4	8.0	8.0	32.3	32.4	93.1	93.2	6.9		8.8		10		89				<0.2		1.7	
						3.3	0.2	107	20.4		8.0		32.4		93.2		6.9		8.9		10		89				<0.2		1.7	
					Bottom	5.6	0.2	95	20.4	20.4	8.0	8.0	32.7	32.7	94.3	94.4	7.0	7.0	9.8		9		91				<0.2		1.7	
						5.6	0.2	96	20.4		8.0		32.7		94.4		7.0		9.9		10		91				<0.2		1.8	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	11:59	7.6	Surface	1.0	0.2	155	20.5	20.5	8.0	8.0	31.8	31.8	91.8	91.8	6.9	6.9	6.4	9.9	9	9	87	89	822104	808828	<0.2	<0.2	1.5	1.7
						1.0	0.2	155	20.5		8.0		31.8		91.8		6.9		7.1		8		87				<0.2		1.6	
					Middle	3.8	0.2	144	20.5	20.5	8.0	8.0	32.2	32.2	92.4	92.5	6.9		10.9		10		88				<0.2		1.7	
						3.8	0.2	154	20.5		8.0		32.2		92.5		6.9		10.8		9		90				<0.2		1.8	
					Bottom	6.6	0.1	129	20.4	20.4	8.0	8.0	32.7	32.7	93.6	93.7	7.0	7.0	11.8		10		90				<0.2		1.6	
						6.6	0.1	131	20.4		8.0		32.7		93.7		7.0		12.2		9		91				<0.2		1.7	
IM10	Fine	Moderate	11:55	7.6	Surface	1.0	0.2	122	20.5	20.5	7.9	7.9	31.7	31.7	91.2	91.2	6.8	6.8	5.1	8.3	13	13	86	89	822393	809807	<0.2	<0.2	1.6	1.7
						1.0	0.2	123	20.5		8.0		31.7		91.2		6.8		5.2		13		87				<0.2		1.6	
					Middle	3.8	0.2	132	20.4	20.4	8.0	8.0	32.3	32.3	91.7	91.7	6.8		10.3		14		89				<0.2		1.7	
						3.8	0.2	138	20.4		8.0		32.3		91.7		6.8		10.2		14		88				<0.2		1.7	
					Bottom	6.6	0.2	138	20.4	20.4	8.0	8.0	32.8	32.8	92.2	92.3	6.9	6.9	9.4		12		90				<0.2		1.7	
						6.6	0.2	150	20.4		8.0		32.8		92.3		6.9		9.3		11		92				<0.2		1.6	
IM11	Fine	Moderate	11:42	7.5	Surface	1.0	0.3	70	20.4	20.4	8.0	8.0	32.9	32.9	90.4	90.4	6.7	6.7	7.6	7.8	12	11	86	89	822043	811455	<0.2	<0.2	1.6	1.6
						1.0	0.3	75	20.4		8.0		32.9		90.4		6.7		7.7		11		87				<0.2		1.6	
					Middle	3.8	0.3	81	20.4	20.4	8.0	8.0	32.9	32.9	90.7	90.7	6.7		8.0		11		89				<0.2		1.6	
						3.8	0.3	81	20.4		8.0		32.9		90.7		6.7		8.1		12		88				<0.2		1.7	
					Bottom	6.5	0.2	89	20.4	20.4	8.0	8.0	32.9	32.9	91.9	92.1	6.8	6.9	7.7		10		91				<0.2		1.8	
						6.5	0.2	94	20.4		8.0		32.9		92.2		6.9		7.9		11		91				<0.2		1.5	
IM12	Fine	Moderate	11:37	8.0	Surface	1.0	0.3	74	20.4	20.4	8.0	8.0	32.9	32.9	90.8	90.9	6.8	6.8	7.7	8.4	12	12	86	89	821468	812024	<0.2	<0.2	1.6	1.6
						1.0	0.3	81	20.4		8.0		32.9		90.9		6.8		7.8		10		87				<0.2		1.7	
					Middle	4.0	0.3	81	20.4	20.4	8.0	8.0	32.9	32.9	91.3	91.4	6.8		8.5		12		88				<0.2		1.6	
						4.0	0.3	82	20.4		8.0		32.9		91.4		6.8		8.5		12		90				<0.2		1.7	
					Bottom	7.0	0.3	84	20.4	20.4	8.0	8.0	32.9	32.9	93.8	94.2	7.0	7.0	9.0		12		91				<0.2		1.7	
						7.0	0.3	85	20.4		8.0		32.9		94.5		7.0		8.9		12		93				<0.2		1.5	
SR1A	Fine	Moderate	11:12	5.0	Surface	1.0	-	-	20.5	20.5	8.0	8.0	32.9	32.9	90.5	90.7	6.7	6.7	5.8	5.9	11	12	-	-	819981	812666	-	-	-	-
						1.0	-	-	20.5		8.0		32.9		90.8		6.7		5.8		12		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	20.5	20.5	8.0	8.0	32.9	32.9	92.4	92.8	6.9	6.9	6.1		13		-				-		-	
						4.0	-	-	20.5		8.0		32.9		93.1		6.9		6.1		12		-				-		-	
SR2	Fine	Moderate	10:57	4.0	Surface	1.0	0.2	104	20.4	20.4	8.0	8.0	33.0	33.0	92.6	92.7	6.9	6.9	6.6	6.6	10	9	86	88	821440	814177	<0.2	<0.2	1.7	1.6
						1.0	0.2	104	20.4		8.0		33.0		92.8		6.9		6.6		9		88				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	90	20.4	20.4	8.0	8.0	33.0	33.0	94.5	94.5	7.0	7.0	6.5		9		88				<0.2		1.6	
						3.0	0.1	97	20.4		8.0		33.0		94.5		7.0		6.5		8		90				<0.2		1.5	
SR3	Fine	Moderate	12:09	8.8	Surface	1.0	0.4	106	20.6	20.6	8.0	8.0	31.8	31.8	91.9	92.0	6.9	6.9	4.9	9.6	13	13	-	-	822158	807584	-	-	-	-
						1.0	0.5	112	20.6		8.0		31.8		92.0		6.9		4.9		14		-				-		-	
					Middle	4.4	0.4	111	20.4	20.4	8.0	8.0	32.2	32.2	93.0	93.1	6.9		6.3		14		-				-		-	
						4.4	0.4	115	20.4		8.0		32.2		93.1		6.9		6.3		14		-				-		-	
					Bottom	7.8	0.4	102	20.3	20.3	8.0	8.0	32.9	32.9	95.0	95.1	7.1	7.1	17.1		11		-				-		-	
						7.8	0.4	106	20.3		8.0		32.9		95.2		7.1		18.2		12		-				-		-	
SR4A	Fine	Calm	11:01	8.9	Surface	1.0	0.1	293	20.3	20.3	7.7	7.7	33.0	33.0	96.3	96.4	7.2	7.2	5.7	7.1	13	13	-	-	817197	807805	-	-	-	-
						1.0	0.1	311	20.3		7.7		33.0		96.4		7.2		6.0		12		-				-		-	
					Middle	4.5	0.1	333	20.3	20.3	7.7	7.7	33.0	33.0	96.5	96.4	7.2		7.0		12		-				-		-	
						4.5	0.1	335	20.3		7.7		33.0		96.2		7.2		7.1		12		-				-		-	
					Bottom	7.9	0.1	345	20.3	20.3	7.7	7.7	33.0	33.0	96.0	96.0	7.2	7.2	8.3		14		-				-		-	
						7.9	0.1	317	20.3		7.7		33.1		96.0		7.1		8.2		15		-				-		-	
SR5A	Fine	Calm	10:42	4.6	Surface	1.0	0.1	285	20.6	20.6	7.7	7.7	33.0	33.0	94.3	94.3	7.0	7.0	4.5	4.4	15	14	-	-	816601	810697	-	-	-	-
						1.0	0.1	310	20.6		7.7		33.0		94.2		7.0		4.5		14		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	0	20.6	20.5	7.6	7.6	33.0	33.1	95.2	95.7	7.1	7.1	4.4		13		-				-		-	
						3.6	0.1	0	20.5		7.6		33.1		96.1		7.1		4.3		14		-				-		-	
SR6A	Fine	Calm	10:16	4.5	Surface	1.0	0.1	250	20.4	20.4	7.8	7.8	33.1	33.1	89.0	89.0	6.6	6.6	2.8	3.2	14	13	-	-	817983	814729	-	-	-	-
						1.0	0.1	256	20.4		7.8		33.1		89.0		6.6		2.6		15		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	79	20.5	20.5	7.8	7.8	33.3	33.3	89.4	89.5	6.6	6.6	3.8		11		-				-		-	
						3.5	0.1	82	20.5		7.8		33.3		89.6		6.6		3.7		11		-				-		-	
SR7	Fine	Moderate	10:11	16.6	Surface	1.0	0.1	343	20.5	20.5	7.9	7.9	33.5	33.5	84.0	84.0	6.2	6.2	3.8	4.5	9	8	-	-	823617	823740	-	-	-	-
						1.0	0.1	345	20.5		7.9		33.5		84.0		6.2		3.9		9		-				-		-	
					Middle	8.3	0.1	356	20.5	20.5	7.9	7.9	33.5	33.5	83.6	83.6	6.2		4.5		8		-				-		-	
						8.3	0.1	357	20.5		7.9		33.5		83.6		6.2		4.5		7		-				-		-	
					Bottom	15.6	0.2	46	20.5	20.5	7.8	7.8	33.6	33.6	84.1	84.2	6.2	6.2	5.3		7		-				-		-	
						15.6	0.2	50	20.5		7.8		33.6		84.3		6.2		5.2		8		-				-		-	
SR8	Fine	Moderate	11:30	5.1	Surface	1.0	-	-	20.7	20.7	8.0	8.0	32.9	32.9	91.0	91.0	6.7	6.7	5.9	6.7	18	17	-	-	820388	811613	-	-	-	-
						1.0	-	-	20.7		8.0		32.9		90.9		6.7		6.0		17		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	20.5	20.5	8.0	8.0	33.1	33.1	92.5	92.8	6.9	6.9	7.4		16		-				-		-	
						4.1	-	-	20.4		8.0		33.1		93.0		6.9		7.5		18		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	16:30	8.3	Surface	1.0	0.3	6	20.3	20.3	7.7	7.7	32.9	32.9	98.1	98.1	7.3	7.3	3.7	5.8	13	13	85	89	815619	804265	<0.2	<0.2	1.2	1.1
						1.0	0.4	6	20.3		7.7		32.9		98.1		7.3		3.8		14		86				<0.2		1.0	
					Middle	4.2	0.4	29	20.2	20.2	7.7	7.7	33.5	33.5	97.6	97.5	7.3		5.9		13		89				<0.2		1.0	
						4.2	0.4	30	20.2		7.7		33.5		97.4		7.3		6.1		13		89				<0.2		1.1	
					Bottom	7.3	0.3	20	20.2	20.2	7.7	7.7	33.8	33.8	97.0	97.1	7.2	7.2	7.6		13		92				<0.2		1.1	
						7.3	0.3	20	20.2		7.7		33.8		97.1		7.2		7.5		14		92				<0.2		1.3	
C2	Fine	Moderate	15:25	11.9	Surface	1.0	0.3	320	20.6	20.6	7.9	7.9	31.6	31.6	91.0	91.0	6.8	6.8	4.6	9.0	14	12	87	89	825690	806942	<0.2	<0.2	1.7	1.7
						1.0	0.4	329	20.6		7.9		31.6		91.0		6.8		4.7		13		86				<0.2		1.8	
					Middle	6.0	0.3	28	20.6	20.6	8.0	8.0	31.6	31.7	90.9	90.9	6.8		7.3		12		89				<0.2		1.7	
						6.0	0.3	30	20.6		8.0		31.7		90.9		6.8		7.3		11		90				<0.2		1.7	
					Bottom	10.9	0.3	341	20.5	20.5	8.0	8.0	31.8	31.8	91.1	91.2	6.8	6.8	15.3		10		90				<0.2		1.7	
						10.9	0.4	314	20.5		8.0		31.8		91.2		6.8		14.5		12		92				<0.2		1.6	
C3	Fine	Moderate	17:07	11.7	Surface	1.0	0.4	288	20.9	20.9	8.0	8.0	33.2	33.2	88.6	88.6	6.5	6.5	3.6	4.7	10	10	86	89	822106	817800	<0.2	<0.2	1.7	1.7
						1.0	0.5	307	20.9		8.0		33.2		88.5		6.5		3.6		10		88				<0.2		1.7	
					Middle	5.9	0.5	271	20.6	20.6	8.0	8.0	33.3	33.3	86.4	86.4	6.4		4.8		9		90				<0.2		1.6	
						5.9	0.5	281	20.6		8.0		33.4		86.4		6.4		4.8		10		88				<0.2		1.6	
					Bottom	10.7	0.5	280	20.5	20.5	8.0	8.0	33.5	33.5	88.3	88.7	6.5	6.6	5.8		10		90				<0.2		1.9	
						10.7	0.5	280	20.5		8.0		33.5		89.0		6.6		5.9		11		91				<0.2		1.8	
IM1	Fine	Calm	16:11	4.8	Surface	1.0	0.2	10	20.5	20.5	7.7	7.7	33.1	33.1	95.5	95.7	7.1	7.1	5.4	6.6	16	15	87	91	817930	807155	<0.2	<0.2	1.2	1.1
						1.0	0.2	10	20.5		7.7		33.1		95.8		7.1		5.7		14		88				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	331	20.4	20.4	7.7	7.7	33.2	33.2	95.6	95.7	7.1	7.1	7.8		15		93				<0.2		1.0	
						3.8	0.2	305	20.4		7.7		33.2		95.8		7.1		7.6		14		94				<0.2		1.0	
IM2	Fine	Moderate	16:04	6.8	Surface	1.0	0.1	341	20.4	20.4	7.7	7.7	33.1	33.1	98.0	98.0	7.3	7.3	5.1	6.1	17	17	87	91	818155	806174	<0.2	<0.2	1.2	1.1
						1.0	0.1	341	20.4		7.7		33.1		97.9		7.3		5.2		17		87				<0.2		1.1	
					Middle	3.4	0.1	352	20.4	20.4	7.7	7.7	33.1	33.1	96.7	96.7	7.2		6.2		17		91				<0.2		1.0	
						3.4	0.1	324	20.4		7.7		33.1		96.7		7.2		6.2		17		92				<0.2		1.1	
					Bottom	5.8	0.1	14	20.3	20.3	7.7	7.7	33.1	33.1	97.0	97.1	7.2	7.2	7.0		15		93				<0.2		1.2	
						5.8	0.1	15	20.3		7.7		33.1		97.2		7.2		7.0		17		94				<0.2		1.0	
IM3	Fine	Moderate	15:56	7.1	Surface	1.0	0.1	315	20.4	20.4	7.7	7.7	33.1	33.1	98.5	98.4	7.3	7.3	6.3	6.6	17	18	88	91	818797	805575	<0.2	<0.2	1.2	1.2
						1.0	0.1	325	20.4		7.7		33.1		98.3		7.3		6.3		19		87				<0.2		1.1	
					Middle	3.6	0.1	21	20.3	20.3	7.7	7.7	33.1	33.1	98.0	98.0	7.3		6.5		17		92				<0.2		1.2	
						3.6	0.1	21	20.3		7.7		33.1		97.9		7.3		6.5		17		92				<0.2		1.1	
					Bottom	6.1	0.2	46	20.3	20.3	7.7	7.7	33.1	33.1	97.7	97.8	7.3	7.3	7.0		17		93				<0.2		1.1	
						6.1	0.2	50	20.3		7.7		33.1		97.8		7.3		7.0		18		93				<0.2		1.2	
IM4	Fine	Moderate	15:48	7.8	Surface	1.0	0.1	222	20.3	20.3	7.7	7.7	33.1	33.1	97.8	97.8	7.3	7.3	7.5	8.0	20	19	87	91	819745	804614	<0.2	<0.2	1.2	1.3
						1.0	0.1	228	20.3		7.7		33.1		97.7		7.3		7.5		18		88				<0.2		1.3	
					Middle	3.9	0.0	286	20.3	20.3	7.7	7.7	33.1	33.1	98.1	98.2	7.3		8.0		19		93				<0.2		1.1	
						3.9	0.0	302	20.3		7.7		33.1		98.3		7.3		8.1		17		92				<0.2		1.3	
					Bottom	6.8	0.1	111	20.3	20.3	7.7	7.7	33.1	33.1	98.1	98.0	7.3	7.3	8.4		18		94				<0.2		1.3	
						6.8	0.1	112	20.3		7.7		33.1		97.9		7.3		8.5		19		94				<0.2		1.3	
IM5	Fine	Moderate	15:40	7.0	Surface	1.0	0.0	246	20.4	20.4	7.6	7.6	33.0	33.0	96.9	96.8	7.2	7.2	9.3	10.2	17	19	87	91	820725	804852	<0.2	<0.2	1.4	1.3
						1.0	0.0	248	20.4		7.6		33.0		96.7		7.2		9.4		18		87				<0.2		1.2	
					Middle	3.5	0.0	18	20.3	20.3	7.6	7.6	33.0	33.0	97.0	97.1	7.2		9.7		18		92				<0.2		1.2	
						3.5	0.0	19	20.3		7.6		33.0		97.1		7.2		9.6		18		90				<0.2		1.2	
					Bottom	6.0	0.0	312	20.3	20.3	7.6	7.6	33.0	33.0	97.8	97.8	7.3	7.3	11.7		20		93				<0.2		1.3	
						6.0	0.0	333	20.3		7.6		33.0		97.7		7.3		11.7		21		94				<0.2		1.2	
IM6	Fine	Moderate	15:33	7.0	Surface	1.0	0.1	336	20.4	20.4	7.6	7.6	32.9	32.9	96.2	96.2	7.2	7.2	6.2	6.4	16	16	88	91	821081	805811	<0.2	<0.2	1.3	1.4
						1.0	0.1	309	20.4		7.6		32.9		96.2		7.2		6.3		15		87				<0.2		1.4	
					Middle	3.5	0.1	49	20.4	20.4	7.6	7.6	33.0	33.0	96.6	96.6	7.2		6.9		15		90				<0.2		1.4	
						3.5	0.1	53	20.4		7.6		33.0		96.5		7.2		6.9		16		91				<0.2		1.5	
					Bottom	6.0	0.1	10	20.4	20.4	7.6	7.6	33.0	33.0	96.4	96.4	7.2	7.2	6.1		16		93				<0.2		1.5	
						6.0	0.1	10	20.4		7.6		33.0		96.4		7.2		6.1		16		94				<0.2		1.5	
IM7	Fine	Moderate	15:25	8.1	Surface	1.0	0.1	342	20.6	20.6	7.6	7.6	32.3	32.3	95.8	95.8	7.1	7.1	3.1	4.6	15	14	87	90	821361	806858	<0.2	<0.2	2.0	1.9
						1.0	0.1	347	20.6		7.6		32.3		95.8		7.1		3.1		13		87				<0.2		2.0	
					Middle	4.1	0.1	8	20.4	20.4	7.6	7.6	32.8	32.8	95.7	95.8	7.1		4.8		13		91				<0.2		2.0	
						4.1	0.1	8	20.4		7.6		32.8		95.8		7.1		4.9		15		91				<0.2		2.0	
					Bottom	7.1	0.1	9	20.4	20.4	7.6	7.6	33.0	33.0	96.0	96.1	7.1	7.1	5.7		14		93				<0.2		1.8	
						7.1	0.1	9	20.4		7.6		33.0		96.1		7.1		5.7		15		93				<0.2		1.7	
IM8	Fine	Moderate	15:39	7.4	Surface	1.0	0.1	213	20.5	20.5	8.0	8.0	32.4	32.4	94.1	94.2	7.0	7.0	7.0	9.5	17	15	88	90	821838	808131	<0.2	<0.2	1.8	1.7
						1.0	0.1	216	20.4		8.0		32.5		94.2		7.0		7.7		15		87				<0.2		1.6	
					Middle	3.7	0.1	300	20.3	20.3	8.0	8.0	33.0	33.0	94.2	94.2	7.0		10.3		15		89				<0.2		1.8	
						3.7	0.1	327	20.3		8.0		33.0		94.2		7.0		10.4		17		90				<0.2		1.7	
					Bottom	6.4	0.1	14	20.3	20.3	8.0	8.0	33.0	33.0	94.5	94.6	7.0	7.1	11.0		12		92				<0.2		1.8	
						6.4	0.1	14	20.3		8.0		33.0		94.7		7.1		10.8		13		93				<0.2		1.7	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 24 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	15:45	7.6	Surface	1.0	0.1	236	20.5	20.5	8.0	8.0	32.1	32.1	93.0	93.1	6.9	6.9	7.9	10.6	17	14	86	89	822086	808797	<0.2	<0.2	1.5	1.7
						1.0	0.1	255	20.5		8.0		32.2		93.1		6.9		8.5		15		87				<0.2		1.5	
					Middle	3.8	0.1	312	20.5	20.5	8.0	8.0	32.4	32.4	93.2	93.3	6.9		11.0		14		88				<0.2		1.8	
						3.8	0.1	315	20.5		8.0		32.4		93.3		7.0		10.7		13		90				<0.2		1.8	
					Bottom	6.6	0.1	10	20.3	20.3	8.0	8.0	32.9	32.9	93.9	93.9	7.0	7.0	12.9		12		90				<0.2		1.8	
						6.6	0.1	10	20.3		8.0		32.9		93.9		7.0		12.9		13		91				<0.2		1.8	
IM10	Fine	Moderate	15:51	7.4	Surface	1.0	0.5	288	20.6	20.7	8.0	8.0	31.9	31.9	92.1	92.1	6.9	6.9	6.3	6.8	16	12	86	88	822391	809806	<0.2	<0.2	1.8	1.6
						1.0	0.5	313	20.7		8.0		31.9		92.1		6.9		6.2		16		87				<0.2		1.6	
					Middle	3.7	0.5	303	20.5	20.5	8.0	8.0	32.4	32.4	91.6	91.6	6.8	6.9	7.8		11		88				<0.2		1.6	
						3.7	0.5	329	20.5		8.0		32.4		91.6		6.8		7.7		12		87				<0.2		1.7	
					Bottom	6.4	0.5	298	20.5	20.5	8.0	8.0	32.9	32.9	92.7	92.8	6.9	6.9	6.5		9		89				<0.2		1.5	
						6.4	0.6	306	20.5		8.0		32.9		92.9		6.9		6.5		8		90				<0.2		1.4	
IM11	Fine	Moderate	16:00	8.6	Surface	1.0	0.5	294	20.5	20.5	8.0	8.0	32.9	32.9	92.0	92.0	6.8	6.8	5.5	5.7	17	16	86	89	822034	811479	<0.2	<0.2	1.3	1.4
						1.0	0.6	314	20.5		8.0		32.9		91.9		6.8		5.5		19		87				<0.2		1.3	
					Middle	4.3	0.5	283	20.5	20.5	8.0	8.0	32.9	32.9	91.9	92.0	6.8		5.4		14		89				<0.2		1.4	
						4.3	0.5	290	20.5		8.0		32.9		92.0		6.8		5.5		16		90				<0.2		1.4	
					Bottom	7.6	0.4	296	20.5	20.5	8.0	8.0	33.0	32.9	93.1	93.2	6.9	6.9	6.0		15		92				<0.2		1.4	
						7.6	0.5	309	20.5		8.0		32.9		93.3		6.9		6.0		16		92				<0.2		1.3	
IM12	Fine	Moderate	16:06	8.7	Surface	1.0	0.1	243	20.5	20.5	8.0	8.0	32.9	32.9	90.7	90.7	6.7	6.7	5.7	5.8	14	15	87	89	821457	812057	<0.2	<0.2	1.4	1.5
						1.0	0.1	262	20.5		8.0		32.9		90.7		6.7		5.6		14		86				<0.2		1.5	
					Middle	4.4	0.1	301	20.5	20.5	8.0	8.0	32.9	32.9	90.9	91.0	6.7		5.5		14		89				<0.2		1.4	
						4.4	0.1	303	20.5		8.0		32.9		91.0		6.8		5.6		15		89				<0.2		1.3	
					Bottom	7.7	0.1	342	20.5	20.5	8.0	8.0	33.0	33.0	92.4	92.5	6.9	6.9	6.2		16		90				<0.2		1.6	
						7.7	0.1	315	20.5		8.0		33.0		92.6		6.9		6.1		18		91				<0.2		1.5	
SR1A	Fine	Moderate	16:27	5.1	Surface	1.0	-	-	20.6	20.6	8.0	8.0	32.9	32.9	91.3	91.4	6.8	6.8	5.9	6.0	13	15	-	-	819971	812666	-	-	-	-
						1.0	-	-	20.6		8.0		32.9		91.4		6.8		5.9		12		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	20.6	20.6	8.0	8.0	32.9	32.9	92.7	92.8	6.9	6.9	6.2		17		-				-		-	
						4.1	-	-	20.6		8.0		32.9		92.9		6.9		6.2		18		-				-		-	
SR2	Fine	Moderate	16:47	4.8	Surface	1.0	0.6	311	20.6	20.6	8.0	8.0	33.0	33.0	91.5	91.6	6.8	6.8	5.0	5.4	15	15	86	89	821477	814179	<0.2	<0.2	1.4	1.5
						1.0	0.6	316	20.6		8.0		33.0		91.7		6.8		5.1		14		88				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	326	20.6	20.6	8.0	8.0	33.0	33.0	92.7	93.0	6.9	6.9	5.8		14		90				<0.2		1.5	
						3.8	0.4	354	20.6		8.0		33.0		93.2		6.9		5.7		16		90				<0.2		1.5	
SR3	Fine	Moderate	15:34	8.2	Surface	1.0	0.1	88	20.5	20.5	8.0	8.0	32.1	32.1	93.4	93.5	7.0	7.0	5.4	8.3	14	11	-	-	822148	807571	-	-	-	-
						1.0	0.1	94	20.5		8.0		32.1		93.5		7.0		5.4		13		-				-		-	
					Middle	4.1	0.1	296	20.5	20.5	8.0	8.0	32.3	32.3	93.9	94.0	7.0		7.2		11		-				-		-	
						4.1	0.1	305	20.4		8.0		32.4		94.0		7.0		7.9		10		-				-		-	
					Bottom	7.2	0.1	283	20.3	20.3	8.0	8.0	32.8	32.8	94.2	94.2	7.0	7.0	11.7		10		-				-		-	
						7.2	0.1	284	20.3		8.0		32.8		94.2		7.0		12.2		10		-				-		-	
SR4A	Fine	Moderate	16:51	9.0	Surface	1.0	0.1	231	20.5	20.5	7.7	7.7	33.1	33.1	97.5	97.5	7.2	7.2	4.6	5.9	13	14	-	-	817195	807791	-	-	-	-
						1.0	0.1	245	20.5		7.7		33.1		97.4		7.2		4.7		13		-				-		-	
					Middle	4.5	0.1	244	20.4	20.4	7.7	7.7	33.1	33.1	96.9	96.8	7.2		5.7		13		-				-		-	
						4.5	0.1	244	20.4		7.7		33.1		96.7		7.2		5.7		14		-				-		-	
					Bottom	8.0	0.1	248	20.3	20.3	7.7	7.7	33.1	33.1	96.9	97.1	7.2	7.2	7.3		14		-				-		-	
						8.0	0.1	255	20.3		7.7		33.1		97.3		7.2		7.5		15		-				-		-	
SR5A	Fine	Calm	17:08	5.1	Surface	1.0	0.2	236	20.8	20.8	7.7	7.7	33.0	33.0	96.0	95.9	7.1	7.1	4.6	4.8	17	15	-	-	816587	810704	-	-	-	-
						1.0	0.2	254	20.8		7.7		33.0		95.8		7.1		4.7		17		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.2	231	20.7	20.7	7.7	7.7	33.0	33.0	95.6	95.7	7.1	7.1	5.0		12		-				-		-	
						4.1	0.2	231	20.7		7.7		33.0		95.7		7.1		5.0		13		-				-		-	
SR6A	Fine	Calm	17:32	4.1	Surface	1.0	0.1	344	20.9	20.9	7.7	7.7	33.0	33.0	93.0	92.9	6.9	6.9	3.1	3.3	10	11	-	-	817945	814749	-	-	-	-
						1.0	0.1	316	20.9		7.7		33.0		92.8		6.8		3.2		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.0	14	20.8	20.8	7.7	7.7	32.9	32.9	94.9	95.0	7.0	7.0	3.5		10		-				-		-	
						3.1	0.0	15	20.8		7.7		32.9		95.1		7.0		3.4		11		-				-		-	
SR7	Fine	Moderate	17:32	16.5	Surface	1.0	0.1	204	20.6	20.6	7.9	7.9	33.5	33.5	84.3	84.3	6.2	6.2	2.8	3.5	12	11	-	-	823634	823760	-	-	-	-
						1.0	0.1	218	20.6		7.9		33.5		84.2		6.2		2.8		11		-				-		-	
					Middle	8.3	0.2	217	20.5	20.5	7.9	7.9	33.6	33.6	84.0	84.1	6.2		3.1		10		-				-		-	
						8.3	0.2	233	20.5		7.9		33.6		84.1		6.2		3.1		11		-				-		-	
					Bottom	15.5	0.1	150	20.5	20.5	8.0	8.0	33.6	33.6	85.2	85.4	6.3	6.3	4.6		9		-				-		-	
						15.5	0.1	164	20.5		8.0		33.6		85.6		6.3		4.4		10		-				-		-	
SR8	Fine	Moderate	16:15	5.7	Surface	1.0	-	-	20.8	20.8	8.0	8.0	32.9	32.9	93.8	93.8	6.9	6.9	7.2	7.3	16	15	-	-	820411	811624	-	-	-	-
						1.0	-	-	20.8		8.0		32.9		93.8		6.9		7.2		15		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	-	-	20.5	20.5	8.0	8.0	33.0	33.0	93.7	93.9	7.0	7.0	7.5		14		-				-		-	
						4.7	-	-	20.4		8.0		33.0		94.1		7.0		7.5		16		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 26 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Foggy	Moderate	12:38	9.0	Surface	1.0	0.2	51	20.8	20.8	8.0	8.0	31.1	31.1	98.9	98.9	7.4	7.3	6.0	8.6	10	9	85	90	815619	804238	<0.2	<0.2	2.1	2.1
						1.0	0.3	55	20.8		8.0		31.1		98.9		7.4		6.0		11		86				<0.2		2.1	
					Middle	4.5	0.2	67	20.5	20.5	8.0	8.0	31.3	31.3	95.5	95.5	7.2		6.7		9		91				<0.2		2.1	
						4.5	0.2	67	20.5		8.0		31.3		95.5		7.2		6.7		10		90				<0.2		2.1	
					Bottom	8.0	0.1	305	20.4	20.4	8.0	8.0	32.3	32.3	94.3	94.3	7.0	7.0	13.1		8		94				<0.2		2.1	
						8.0	0.1	309	20.4		8.0		32.3		94.3		7.0		13.1		8		94				<0.2		2.1	
C2	Fine	Rough	11:36	11.2	Surface	1.0	0.5	87	21.1	21.1	7.6	7.6	30.5	30.5	95.2	95.3	7.1	7.2	2.3	3.6	8	8	83	88	825668	806922	<0.2	<0.2	2.3	2.3
						1.0	0.5	87	21.1		7.6		30.5		95.4		7.1		2.3		7		84				<0.2		2.3	
					Middle	5.6	0.3	92	21.0	21.0	7.7	7.7	31.0	31.0	96.1	96.3	7.2		3.6		8		88				<0.2		2.3	
						5.6	0.3	94	21.0		7.7		31.0		96.4		7.2		3.7		8		88				<0.2		2.3	
					Bottom	10.2	0.0	203	20.9	20.9	7.7	7.7	31.8	31.7	96.5	96.5	7.2	7.2	4.9		9		91				<0.2		2.3	
						10.2	0.0	222	20.9		7.7		31.7		96.4		7.2		4.8		9		92				<0.2		2.2	
C3	Fine	Rough	13:23	11.3	Surface	1.0	0.2	151	21.0	21.0	7.7	7.7	32.6	32.6	93.3	93.3	6.9	6.9	2.1	2.4	8	7	83	87	822114	817793	<0.2	<0.2	2.0	1.9
						1.0	0.2	152	21.0		7.7		32.6		93.3		6.9		2.1		8		83				<0.2		2.0	
					Middle	5.7	0.3	89	21.0	21.0	7.7	7.7	32.7	32.7	92.8	92.8	6.8		2.7		8		87				<0.2		1.8	
						5.7	0.3	92	21.0		7.7		32.7		92.8		6.8		2.7		8		87				<0.2		1.8	
					Bottom	10.3	0.3	66	20.8	20.8	7.7	7.7	33.1	33.1	90.3	90.4	6.7	6.7	2.5		6		91				<0.2		2.0	
						10.3	0.3	68	20.8		7.7		33.1		90.4		6.7		2.5		6		91				<0.2		1.9	
IM1	Foggy	Moderate	12:19	5.4	Surface	1.0	0.1	88	21.1	21.1	8.0	8.0	31.2	31.2	100.3	100.3	7.4	7.4	6.5	7.4	8	9	87	91	817928	807124	<0.2	<0.2	1.6	1.7
						1.0	0.1	88	21.1		8.0		31.2		100.3		7.4		6.5		7		88				<0.2		1.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	214	20.9	20.9	8.0	8.0	31.9	31.9	97.8	97.8	7.2	7.2	8.3		9		93				<0.2		1.7	
						4.4	0.1	221	20.9		8.0		31.9		97.8		7.2		8.3		10		94				<0.2		1.6	
IM2	Foggy	Moderate	12:12	6.9	Surface	1.0	0.2	28	21.0	21.0	8.0	8.0	31.2	31.2	98.1	98.1	7.3	7.2	6.9	8.0	10	11	86	91	818163	806183	<0.2	<0.2	1.6	1.6
						1.0	0.2	29	21.0		8.0		31.2		98.1		7.3		6.9		10		87				<0.2		1.6	
					Middle	3.5	0.2	119	20.7	20.7	8.0	8.0	31.7	31.7	95.8	95.8	7.1		8.5		11		91				<0.2		1.6	
						3.5	0.2	119	20.7		8.0		31.7		95.7		7.1		8.5		12		91				<0.2		1.6	
					Bottom	5.9	0.0	30	20.7	20.7	8.0	8.0	32.1	32.1	95.3	95.3	7.1	7.1	8.5		13		94				<0.2		1.7	
						5.9	0.0	30	20.7		8.0		32.1		95.3		7.1		8.5		12		95				<0.2		1.6	
IM3	Foggy	Moderate	12:05	7.3	Surface	1.0	0.1	157	20.9	20.9	8.0	8.0	31.4	31.4	96.9	96.8	7.2	7.2	7.5	9.7	10	10	86	90	818774	805593	<0.2	<0.2	1.5	1.6
						1.0	0.1	166	20.9		8.0		31.4		96.7		7.2		7.5		10		87				<0.2		1.5	
					Middle	3.7	0.0	273	20.7	20.7	8.0	8.0	31.7	31.7	94.9	94.9	7.1		9.9		10		90				<0.2		1.6	
						3.7	0.0	273	20.7		8.0		31.7		94.9		7.1		10.0		10		90				<0.2		1.6	
					Bottom	6.3	0.2	262	20.5	20.5	8.0	8.0	32.3	32.3	93.8	93.8	7.0	7.0	11.7		9		95				<0.2		1.5	
						6.3	0.2	278	20.5		8.0		32.3		93.8		7.0		11.6		8		94				<0.2		1.6	
IM4	Foggy	Moderate	11:56	7.6	Surface	1.0	0.1	198	21.0	21.0	8.0	8.0	30.9	30.9	98.2	98.2	7.3	7.2	7.2	10.1	8	8	85	90	819727	804627	<0.2	<0.2	1.6	1.7
						1.0	0.1	209	21.0		8.0		30.9		98.2		7.3		7.3		9		86				<0.2		1.7	
					Middle	3.8	0.0	84	20.7	20.7	8.0	8.0	31.7	31.7	95.6	95.6	7.1		9.4		8		90				<0.2		1.8	
						3.8	0.0	89	20.7		8.0		31.7		95.6		7.1		9.5		8		90				<0.2		1.7	
					Bottom	6.6	0.2	240	20.6	20.6	8.0	8.0	31.9	31.9	94.1	94.2	7.0	7.0	13.6		8		94				<0.2		1.8	
						6.6	0.2	251	20.6		8.0		31.9		94.2		7.0		13.4		8		94				<0.2		1.8	
IM5	Foggy	Moderate	11:49	7.4	Surface	1.0	0.4	55	20.8	20.8	8.0	8.0	31.7	31.7	96.2	96.2	7.2	7.1	9.6	12.1	9	12	87	90	820741	804886	<0.2	<0.2	1.4	1.5
						1.0	0.4	56	20.8		8.0		31.7		96.1		7.1		9.5		10		88				<0.2		1.5	
					Middle	3.7	0.3	44	20.7	20.7	8.0	8.0	31.8	31.8	94.2	94.2	7.0		10.7		11		91				<0.2		1.5	
						3.7	0.3	44	20.7		8.0		31.8		94.2		7.0		10.8		13		91				<0.2		1.5	
					Bottom	6.4	0.2	50	20.6	20.6	8.0	8.0	32.0	32.0	93.3	93.3	7.0	7.0	15.8		13		92				<0.2		1.6	
						6.4	0.2	53	20.6		8.0		32.0		93.3		7.0		16.2		14		92				<0.2		1.6	
IM6	Foggy	Moderate	11:41	7.8	Surface	1.0	0.0	316	20.9	20.9	8.0	8.0	31.6	31.6	94.8	94.8	7.0	7.0	6.6	8.5	10	11	85	90	821064	805837	<0.2	<0.2	1.7	1.6
						1.0	0.0	327	20.9		8.0		31.6		94.8		7.0		6.6		9		86				<0.2		1.7	
					Middle	3.9	0.0	289	20.7	20.7	8.0	8.0	32.0	32.0	94.1	94.1	7.0		9.7		10		91				<0.2		1.5	
						3.9	0.0	296	20.7		8.0		32.0		94.1		7.0		9.8		11		93				<0.2		1.7	
					Bottom	6.8	0.0	300	20.7	20.7	8.0	8.0	32.1	32.1	94.0	94.0	7.0	7.0	9.0		12		93				<0.2		1.6	
						6.8	0.0	317	20.7		8.0		32.1		94.0		7.0		9.1		11		94				<0.2		1.6	
IM7	Foggy	Moderate	11:36	9.0	Surface	1.0	0.1	5	21.1	21.1	8.0	8.0	30.7	30.6	94.9	94.9	7.1	7.1	4.3	9.0	8	9	86	90	821372	806835	<0.2	<0.2	2.0	2.0
						1.0	0.1	5	21.1		8.0		30.6		94.9		7.1		4.3		8		87				<0.2		2.0	
					Middle	4.5	0.1	48	20.7	20.7	8.0	8.0	31.8	31.8	93.8	93.8	7.0		9.1		8		90				<0.2		1.9	
						4.5	0.1	52	20.7		8.0		31.8		93.8		7.0		9.2		9		90				<0.2		1.9	
					Bottom	8.0	0.1	47	20.7	20.7	8.0	8.0	32.0	32.0	93.4	93.4	7.0	7.0	13.6		10		94				<0.2		2.0	
						8.0	0.1	47	20.7		8.0		32.0		93.4		7.0		13.5		9		94				<0.2		1.9	
IM8	Fine	Rough	12:03	7.2	Surface	1.0	0.2	90	21.2	21.2	7.6	7.6	30.6	30.6	98.0	97.9	7.3	7.3	2.3	4.9	6	8	83	88	821849	808140	<0.2	<0.2	2.2	2.1
						1.0	0.2	96	21.2		7.6		30.6		97.8		7.3		2.4		6		84				<0.2		2.1	
					Middle	3.6	0.1	73	20.9	20.9	7.6	7.6	31.6	31.6	96.8	96.8	7.2		5.9		8		88				<0.2		2.1	
						3.6	0.1	79	20.9		7.6		31.6		96.8		7.2		5.9		8		88				<0.2		2.1	
					Bottom	6.2	0.1	85	20.7	20.7	7.6	7.6	32.3	32.3	96.9	96.9	7.2	7.2	6.4		10		91				<0.2		2.2	
						6.2	0.1	87	20.7		7.6		32.3		96.8		7.2		6.3		12		91				<0.2		2.1	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 26 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Rough	12:10	7.1	Surface	1.0	0.3	119	21.2	21.2	7.6	7.6	30.7	30.7	97.7	97.6	7.3	7.2	3.0	4.5	7	9	83	88	822115	808799	<0.2	<0.2	2.1	2.0
						1.0	0.3	123	21.2		7.6		30.7		97.4		7.2		3.0		6		84				<0.2		2.1	
					Middle	3.6	0.2	119	20.8	20.8	7.7	7.7	31.7	31.7	96.0	96.1	7.1	7.2	4.6		8		88				<0.2		1.9	
						3.6	0.2	122	20.8		7.7		31.7		96.1		7.1		4.6		9		89				<0.2		1.7	
					Bottom	6.1	0.2	113	20.7	20.7	7.7	7.7	32.2	32.2	96.7	96.8	7.2	7.2	6.0		11		91				<0.2		1.9	
						6.1	0.2	115	20.7		7.7		32.2		96.9		7.2		6.0		12		91				<0.2		2.0	
IM10	Fine	Rough	12:17	6.7	Surface	1.0	0.4	116	21.1	21.1	7.6	7.6	31.2	31.2	95.9	95.8	7.1	7.1	2.7	4.9	9	10	80	87	822408	809807	<0.2	<0.2	2.0	1.9
						1.0	0.4	117	21.1		7.6		31.2		95.7		7.1		2.8		9		84				<0.2		2.0	
					Middle	3.4	0.2	106	20.8	20.8	7.7	7.7	32.0	32.0	95.3	95.2	7.1	7.1	5.2		9		88				<0.2		1.7	
						3.4	0.2	109	20.8		7.7		32.0		95.1		7.1		5.2		10		88				<0.2		1.8	
					Bottom	5.7	0.2	112	20.7	20.7	7.7	7.7	32.1	32.1	95.8	95.7	7.1	7.1	6.8		12		92				<0.2		2.0	
						5.7	0.2	121	20.7		7.7		32.1		95.6		7.1		6.8		11		92				<0.2		2.1	
IM11	Fine	Rough	12:27	6.5	Surface	1.0	0.4	109	21.2	21.2	7.7	7.7	31.2	31.2	96.6	96.5	7.2	7.1	2.1	3.4	11	8	83	87	822060	811480	<0.2	<0.2	2.0	2.0
						1.0	0.4	116	21.2		7.7		31.2		96.4		7.1		2.1		10		84				<0.2		2.0	
					Middle	3.3	0.4	105	21.0	21.0	7.7	7.7	32.0	32.0	96.6	96.7	7.1	7.1	3.5		7		87				<0.2		1.9	
						3.3	0.4	109	21.0		7.7		32.0		96.7		7.1		3.5		7		88				<0.2		1.9	
					Bottom	5.5	0.3	87	20.9	20.9	7.8	7.8	32.4	32.4	95.8	95.7	7.1	7.1	4.6		8		91				<0.2		1.9	
						5.5	0.3	94	20.9		7.8		32.4		95.6		7.1		4.6		7		91				<0.2		2.0	
IM12	Fine	Rough	12:33	7.0	Surface	1.0	0.3	97	21.1	21.1	7.7	7.7	32.3	32.3	95.7	95.8	7.1	7.1	2.0	2.5	9	8	83	88	821443	812058	<0.2	<0.2	1.6	1.7
						1.0	0.4	100	21.1		7.7		32.3		95.8		7.1		2.0		9		84				<0.2		1.6	
					Middle	3.5	0.4	80	20.9	20.9	7.7	7.7	32.3	32.3	95.1	95.2	7.0	7.1	2.5		8		88				<0.2		1.7	
						3.5	0.4	86	20.9		7.7		32.3		95.2		7.0		2.5		8		88				<0.2		1.8	
					Bottom	6.0	0.2	95	20.9	20.9	7.7	7.7	32.3	32.3	96.0	96.2	7.1	7.1	3.1		6		92				<0.2		1.8	
						6.0	0.2	96	20.9		7.7		32.3		96.3		7.1		3.1		7		92				<0.2		1.8	
SR1A	Fine	Rough	12:50	3.2	Surface	1.0	-	-	21.2	21.2	7.7	7.7	32.3	32.3	97.3	97.3	7.2	7.2	2.6	3.3	9	7	-	-	819982	812655	-	-	-	-
						1.0	-	-	21.2		7.7		32.3		97.3		7.2		2.6		8		-				-		-	
					Middle	1.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	-	-	21.0	21.0	7.7	7.7	32.4	32.4	97.3	97.3	7.2	7.2	3.9		6		-				-		-	
						2.2	-	-	21.0		7.7		32.4		97.3		7.2		3.9		6		-				-		-	
SR2	Fine	Rough	13:03	3.6	Surface	1.0	0.3	99	21.0	21.0	7.7	7.7	32.3	32.3	97.6	97.6	7.2	7.2	2.7	3.2	8	8	83	88	821449	814186	<0.2	<0.2	1.7	1.8
						1.0	0.4	107	21.0		7.7		32.3		97.6		7.2		2.8		9		83				<0.2		1.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.2	73	21.0	21.0	7.7	7.7	32.4	32.4	97.8	97.8	7.2	7.2	3.6		8		92				<0.2		1.8	
						2.6	0.3	75	21.0		7.7		32.4		97.8		7.2		3.7		8		92				<0.2		1.8	
SR3	Fine	Rough	11:57	6.5	Surface	1.0	0.4	81	21.2	21.2	7.6	7.6	30.2	30.2	95.9	95.9	7.1	7.1	1.5	6.3	6	9	-	-	822131	807574	-	-	-	-
						1.0	0.4	84	21.2		7.6		30.2		95.9		7.1		1.5		6		-				-		-	
					Middle	3.3	0.4	95	21.0	21.0	7.6	7.6	31.2	31.2	95.2	95.1	7.1	7.1	5.9		6		-				-		-	
						3.3	0.4	101	21.0		7.6		31.2		95.0		7.1		5.9		7		-				-		-	
					Bottom	5.5	0.2	75	20.9	20.9	7.7	7.7	32.0	32.0	94.6	94.6	7.0	7.0	11.6		13		-				-		-	
						5.5	0.3	80	20.9		7.7		32.0		94.6		7.0		11.5		14		-				-		-	
SR4A	Foggy	Calm	13:00	8.6	Surface	1.0	0.2	37	21.0	21.0	8.0	8.0	31.2	31.2	100.1	100.1	7.4	7.3	6.1	8.9	11	9	-	-	817203	807825	-	-	-	-
						1.0	0.2	39	21.0		8.0		31.2		100.0		7.4		6.2		10		-				-		-	
					Middle	4.3	0.2	16	20.8	20.8	8.0	8.0	31.5	31.5	96.6	96.6	7.2		9.6		9		-				-		-	
						4.3	0.2	16	20.8		8.0		31.5		96.6		7.2		9.6		8		-				-		-	
					Bottom	7.6	0.1	9	20.7	20.7	8.0	8.0	32.0	32.0	95.2	95.2	7.1	7.1	10.9		9		-				-		-	
						7.6	0.1	9	20.7		8.0		32.0		95.2		7.1		10.8		9		-				-		-	
SR5A	Foggy	Calm	13:14	4.7	Surface	1.0	0.2	314	21.0	21.0	8.0	8.0	32.4	32.4	95.7	95.7	7.1	7.1	7.1	7.3	9	10	-	-	816610	810692	-	-	-	-
						1.0	0.2	319	21.0		8.0		32.4		95.7		7.1		7.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	283	21.1	21.1	8.0	8.0	32.5	32.5	96.0	96.1	7.1	7.1	7.6		11		-				-		-	
						3.7	0.1	298	21.1		8.0		32.5		96.1		7.1		7.5		10		-				-		-	
SR6A	Foggy	Calm	13:39	4.4	Surface	1.0	0.1	275	21.3	21.3	8.0	8.0	32.2	32.2	99.7	99.7	7.3	7.3	3.8	4.6	8	8	-	-	817950	814743	-	-	-	-
						1.0	0.1	286	21.3		8.0		32.2		99.6		7.3		3.9		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	204	21.1	21.1	8.0	8.0	32.4	32.4	96.0	95.9	7.1	7.1	5.0		7		-				-		-	
						3.4	0.1	221	21.1		8.0		32.4		95.8		7.1		5.6		7		-				-		-	
SR7	Fine	Rough	13:49	15.1	Surface	1.0	0.0	342	20.9	20.9	7.7	7.7	33.1	33.1	91.3	91.2	6.7	6.7	1.6	1.8	10	8	-	-	823630	823721	-	-	-	-
						1.0	0.0	315	20.9		7.7		33.1		91.1		6.7		1.5		10		-				-		-	
					Middle	7.6	0.2	31	20.8	20.8	7.7	7.7	33.2	33.2	89.6	89.6	6.6		1.8		7		-				-		-	
						7.6	0.2	34	20.8		7.7		33.2		89.5		6.6		1.8		6		-				-		-	
					Bottom	14.1	0.4	59	20.8	20.8	7.7	7.7	33.3	33.3	90.8	90.7	6.7	6.7	2.0		6		-				-		-	
						14.1	0.4	59	20.8		7.7		33.3		90.6		6.7		1.9		7		-				-		-	
SR8	Fine	Rough	12:41	4.3	Surface	1.0	-	-	21.2	21.2	7.7	7.7	31.9	31.9	97.5	97.5	7.2	7.2	4.3	4.4	7	8	-	-	820374	811633	-	-	-	-
						1.0	-	-	21.2		7.7		31.9		97.4		7.2		4.3		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	20.9	20.9	7.7	7.7	32.3	32.3	97.2	97.2	7.2	7.2	4.5		9		-				-		-	
						3.3	-	-	20.9		7.7		32.3		97.2		7.2		4.4		8		-				-		-	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 26 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	07:26	9.0	Surface	1.0	0.1	324	20.7	20.7	8.0	8.0	31.1	31.1	96.0	96.0	7.2	7.2	9.0	11.1	12	11	87	91	815620	804234	<0.2	<0.2	1.6	1.7
						1.0	0.1	341	20.7		8.0		31.1		95.9		7.2		9.0		14		88				<0.2		1.6	
					Middle	4.5	0.1	344	20.6	20.6	8.0	8.0	31.4	31.4	95.4	95.4	7.1		10.4		10		91				<0.2		1.7	
						4.5	0.1	344	20.6		8.0		31.4		95.4		7.1		10.6		11		90				<0.2		1.7	
					Bottom	8.0	0.2	349	20.6	20.6	8.0	8.0	32.1	32.1	94.4	94.4	7.0	7.0	13.7		10		94				<0.2		1.7	
						8.0	0.2	3	20.6		8.0		32.1		94.4		7.0		13.8		10		94				<0.2		1.6	
C2	Sunny	Rough	08:57	7.2	Surface	1.0	0.2	210	21.1	21.1	7.7	7.7	30.3	30.3	93.9	94.0	7.0	7.0	1.9	2.7	7	8	83	87	825659	806926	<0.2	<0.2	2.0	2.0
						1.0	0.2	228	21.1		7.7		30.3		94.0		7.0		1.9		8		83				<0.2		2.1	
					Middle	3.6	0.3	309	20.9	20.9	7.7	7.7	30.6	30.6	93.4	93.3	7.0		3.0		8		87				<0.2		2.0	
						3.6	0.3	331	20.9		7.7		30.5		93.2		7.0		2.9		7		87				<0.2		2.0	
					Bottom	6.2	0.3	331	20.9	20.9	7.7	7.7	30.8	30.8	95.2	95.3	7.1	7.1	3.4		10		92				<0.2		1.8	
						6.2	0.3	333	20.9		7.7		30.8		95.3		7.1		3.3		10		92				<0.2		1.9	
C3	Sunny	Rough	07:07	9.7	Surface	1.0	0.5	263	20.9	20.9	7.6	7.6	32.5	32.5	96.4	96.5	7.1	7.1	3.5	11.1	5	22	83	87	822100	817802	<0.2	<0.2	1.4	1.4
						1.0	0.6	284	20.9		7.6		32.5		96.6		7.1		3.6		5		83				<0.2		1.4	
					Middle	4.9	0.4	277	20.8	20.8	7.6	7.6	31.6	31.6	94.8	94.7	7.0		14.1		20		87				<0.2		1.4	
						4.9	0.4	283	20.8		7.6		31.5		94.6		7.0		14.2		19		88				<0.2		1.4	
					Bottom	8.7	0.3	263	20.8	20.8	7.6	7.6	33.0	33.0	90.8	91.0	6.7	6.7	15.6		40		91				<0.2		1.4	
						8.7	0.3	280	20.8		7.6		33.0		91.1		6.7		15.6		41		91				<0.2		1.2	
IM1	Fine	Moderate	07:44	5.3	Surface	1.0	0.0	340	20.8	20.8	8.0	8.0	31.5	31.5	97.6	97.6	7.3	7.3	9.5	9.8	10	10	89	92	817939	807155	<0.2	<0.2	1.8	1.8
						1.0	0.0	347	20.8		8.0		31.5		97.6		7.3		9.5		11		88				<0.2		1.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	351	20.6	20.6	8.0	8.0	32.1	32.1	95.2	95.2	7.1	7.1	10.0		10		95				<0.2		1.8	
						4.3	0.2	323	20.6		8.0		32.1		95.2		7.1		10.1		10		95				<0.2		1.8	
IM2	Fine	Moderate	07:51	7.6	Surface	1.0	0.3	317	20.8	20.8	8.0	8.0	31.4	31.4	96.7	96.7	7.2	7.2	8.2	10.8	15	13	89	92	818157	806176	<0.2	<0.2	1.8	1.9
						1.0	0.3	323	20.8		8.0		31.4		96.7		7.2		8.2		14		89				<0.2		2.0	
					Middle	3.8	0.4	333	20.6	20.6	8.0	8.0	32.0	32.0	94.8	94.8	7.1		12.0		13		93				<0.2		1.9	
						3.8	0.4	357	20.6		8.0		32.0		94.8		7.1		12.0		13		93				<0.2		2.0	
					Bottom	6.6	0.3	317	20.5	20.5	8.0	8.0	32.3	32.3	94.1	94.1	7.0	7.0	12.2		10		94				<0.2		1.8	
						6.6	0.3	337	20.5		8.0		32.3		94.1		7.0		12.0		11		94				<0.2		1.8	
IM3	Fine	Moderate	07:57	7.8	Surface	1.0	0.5	334	20.8	20.8	8.0	8.0	31.4	31.4	97.1	97.1	7.2	7.2	9.1	12.8	11	12	90	92	818797	805586	<0.2	<0.2	1.6	1.6
						1.0	0.6	346	20.8		8.0		31.4		97.1		7.2		9.0		11		89				<0.2		1.7	
					Middle	3.9	0.5	326	20.7	20.7	8.0	8.0	31.8	31.8	94.7	94.7	7.1		13.9		12		92				<0.2		1.6	
						3.9	0.6	334	20.7		8.0		31.8		94.7		7.1		13.9		13		92				<0.2		1.5	
					Bottom	6.8	0.4	350	20.5	20.5	8.0	8.0	32.2	32.2	93.5	93.5	7.0	7.0	15.9		12		95				<0.2		1.6	
						6.8	0.4	340	20.5		8.0		32.2		93.5		7.0		15.0		12		95				<0.2		1.6	
IM4	Fine	Moderate	08:05	8.2	Surface	1.0	0.4	345	20.7	20.7	8.0	8.0	31.6	31.6	96.1	96.1	7.2	7.2	11.1	13.5	13	15	89	92	819732	804584	<0.2	<0.2	1.6	1.5
						1.0	0.5	355	20.7		8.0		31.6		96.0		7.2		11.2		13		89				<0.2		1.5	
					Middle	4.1	0.6	355	20.7	20.7	8.0	8.0	31.7	31.7	95.3	95.3	7.1		17.0		14		93				<0.2		1.5	
						4.1	0.7	332	20.7		8.0		31.7		95.3		7.1		15.1		15		92				<0.2		1.5	
					Bottom	7.2	0.4	19	20.7	20.7	8.0	8.0	31.7	31.7	94.9	94.9	7.1	7.1	13.3		17		95				<0.2		1.4	
						7.2	0.4	20	20.7		8.0		31.7		94.9		7.1		13.1		16		95				<0.2		1.5	
IM5	Fine	Moderate	08:11	7.3	Surface	1.0	0.2	272	20.8	20.8	8.0	8.0	31.7	31.7	95.1	95.1	7.1	7.1	11.7	15.0	19	17	89	93	820753	804884	<0.2	<0.2	2.8	2.4
						1.0	0.3	285	20.8		8.0		31.7		95.1		7.1		11.6		18		90				<0.2		2.6	
					Middle	3.7	0.3	300	20.7	20.7	8.0	8.0	31.9	31.9	93.3	93.3	7.0		14.2		17		94				<0.2		2.5	
						3.7	0.3	315	20.7		8.0		31.9		93.3		7.0		14.3		18		94				<0.2		2.7	
					Bottom	6.3	0.4	332	20.6	20.6	8.0	8.0	32.0	32.0	93.1	93.1	6.9	6.9	19.1		16		95				<0.2		2.0	
						6.3	0.4	336	20.6		8.0		32.0		93.1		6.9		19.3		16		96				<0.2		1.9	
IM6	Fine	Moderate	08:19	7.4	Surface	1.0	0.2	212	20.8	20.8	8.0	8.0	31.8	31.8	94.3	94.3	7.0	7.0	8.1	8.8	14	14	89	93	821055	805845	<0.2	<0.2	1.5	1.5
						1.0	0.3	225	20.8		8.0		31.8		94.3		7.0		8.1		15		89				<0.2		1.6	
					Middle	3.7	0.1	256	20.8	20.8	8.0	8.0	31.9	31.9	94.2	94.2	7.0		8.3		14		93				<0.2		1.5	
						3.7	0.1	269	20.8		8.0		31.9		94.2		7.0		8.3		14		94				<0.2		1.6	
					Bottom	6.4	0.1	289	20.7	20.7	8.0	8.0	32.0	32.0	94.3	94.3	7.0	7.0	9.9		12		95				<0.2		1.5	
						6.4	0.1	305	20.7		8.0		32.0		94.3		7.0		9.9		13		95				<0.2		1.5	
IM7	Fine	Moderate	08:26	8.8	Surface	1.0	0.2	226	21.1	21.1	8.0	8.0	30.7	30.7	94.9	94.9	7.1	7.1	4.5	9.1	11	8	89	93	821368	806844	<0.2	<0.2	1.8	2.0
						1.0	0.2	227	21.1		8.0		30.7		94.9		7.1		4.4		10		89				<0.2		1.9	
					Middle	4.4	0.1	259	20.7	20.7	8.0	8.0	32.0	32.0	93.7	93.7	7.0		10.4		7		93				<0.2		2.0	
						4.4	0.1	266	20.7		8.0		32.0		93.7		7.0		10.3		7		94				<0.2		1.9	
					Bottom	7.8	0.1	321	20.6	20.6	8.0	8.0	32.1	32.1	93.5	93.5	7.0	7.0	12.6		6		95				<0.2		2.0	
						7.8	0.1	325	20.6		8.0		32.1		93.5		7.0		12.7		5		95				<0.2		2.1	
IM8	Sunny	Rough	08:31	7.2	Surface	1.0	0.1	235	21.1	21.1	7.6	7.6	30.2	30.2	95.7	95.7	7.1	7.2	2.7	8.3	8	10	84	88	821829	808142	<0.2	<0.2	2.0	2.0
						1.0	0.2	237	21.1		7.6		30.2		95.7		7.1		2.7		8		84				<0.2		2.0	
					Middle	3.6	0.3	250	20.8	20.8	7.7	7.7	31.5	31.5	96.5	96.6	7.2		5.6		9		88				<0.2		1.9	
						3.6	0.3	270	20.8		7.7		31.5		96.6		7.2		5.7		10		88				<0.2		2.0	
					Bottom	6.2	0.3	262	20.7	20.7	7.7	7.7	32.3	32.3	97.3	97.4	7.2	7.2	16.4		14		91				<0.2		1.9	
						6.2	0.3	272	20.7		7.7		32.3		97.4		7.2		16.5		13		91				<0.2		1.9	

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**

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

Water Quality Monitoring

Water Quality Monitoring Results on 26 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Rough	08:26	7.9	Surface	1.0	0.3	241	21.0	21.0	7.6	7.6	30.3	30.3	93.7	93.6	7.0	7.0	4.3	4.8	8	10	83	88	822076	808801	<0.2	<0.2	2.1	1.9
						1.0	0.3	249	21.0		7.6		30.3		93.5		7.0		4.3		8		85				<0.2		1.9	
					Middle	4.0	0.3	243	20.9	20.9	7.7	7.7	30.9	30.9	93.0	92.9	6.9		5.4		10		88				<0.2		1.8	
						4.0	0.3	249	20.9		7.7		30.9		92.7		6.9		5.4		11		88				<0.2		1.8	
					Bottom	6.9	0.3	271	20.9	20.9	7.7	7.7	31.1	31.1	93.3	93.4	7.0	7.0	4.7		12		91				<0.2		1.8	
						6.9	0.3	290	20.9		7.7		31.1		93.4		7.0		4.8		12		92				<0.2		1.8	
IM10	Sunny	Rough	08:17	7.7	Surface	1.0	0.1	358	20.9	20.9	7.7	7.7	31.8	31.8	95.0	95.0	7.0	7.0	4.0	6.0	8	11	83	88	822379	809777	<0.2	<0.2	1.7	1.6
						1.0	0.1	329	20.9		7.7		31.8		94.9		7.0		4.0		9		83				<0.2		1.6	
					Middle	3.9	0.3	346	20.9	20.9	7.7	7.7	32.0	32.0	93.7	93.8	7.0		6.2		12		87				<0.2		1.6	
						3.9	0.3	318	20.9		7.7		32.0		93.9		7.0		6.2		12		88				<0.2		1.7	
					Bottom	6.7	0.2	304	20.8	20.8	7.7	7.7	32.1	32.1	94.7	94.7	7.0	7.0	7.7		13		92				<0.2		1.6	
						6.7	0.2	305	20.8		7.7		32.1		94.6		7.0		7.8		12		92				<0.2		1.6	
IM11	Sunny	Rough	08:06	7.1	Surface	1.0	0.5	299	20.9	20.9	7.7	7.7	32.3	32.3	95.4	95.4	7.1	7.1	5.7	8.9	12	14	83	88	822041	811464	<0.2	<0.2	1.4	1.4
						1.0	0.5	320	20.9		7.7		32.3		95.3		7.1		5.8		13		84				<0.2		1.4	
					Middle	3.6	0.3	329	20.8	20.8	7.7	7.7	32.4	32.4	95.0	95.0	7.0		7.5		13		88				<0.2		1.4	
						3.6	0.3	352	20.8		7.7		32.4		95.0		7.0		7.6		14		88				<0.2		1.5	
					Bottom	6.1	0.5	312	20.8	20.8	7.7	7.7	32.4	32.4	94.6	94.6	7.0	7.0	13.4		15		91				<0.2		1.4	
						6.1	0.5	340	20.8		7.7		32.4		94.6		7.0		13.5		15		92				<0.2		1.4	
IM12	Sunny	Rough	08:00	8.8	Surface	1.0	0.5	290	20.8	20.8	7.7	7.7	32.2	32.2	94.5	94.5	7.0	7.0	6.2	9.1	12	10	84	88	821480	812040	<0.2	<0.2	1.5	1.5
						1.0	0.6	297	20.8		7.7		32.2		94.4		7.0		6.2		12		84				<0.2		1.5	
					Middle	4.4	0.5	282	20.8	20.8	7.7	7.7	32.2	32.2	93.9	93.8	7.0		7.5		12		87				<0.2		1.5	
						4.4	0.6	285	20.8		7.7		32.2		93.7		6.9		7.5		11		88				<0.2		1.4	
					Bottom	7.8	0.4	307	20.8	20.8	7.7	7.7	32.3	32.3	95.3	95.4	7.1	7.1	13.4		6		91				<0.2		1.5	
						7.8	0.4	308	20.8		7.7		32.3		95.4		7.1		13.7		6		92				<0.2		1.4	
SR1A	Sunny	Rough	07:39	5.1	Surface	1.0	-	-	20.9	20.9	7.7	7.7	32.4	32.4	94.8	94.8	7.0	7.0	6.2	7.4	10	13	-	-	819979	812664	-	-	-	-
						1.0	-	-	20.9		7.7		32.4		94.8		7.0		6.2		10		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	20.8	20.8	7.7	7.7	32.4	32.4	94.3	94.3	7.0	7.0	8.5		15		-				-		-	
						4.1	-	-	20.8		7.7		32.4		94.3		7.0		8.5		15		-				-		-	
SR2	Sunny	Rough	07:28	4.1	Surface	1.0	0.6	318	20.9	20.9	7.7	7.7	32.4	32.4	96.4	96.4	7.1	7.1	6.6	6.9	12	13	83	88	821443	814177	<0.2	<0.2	1.5	1.4
						1.0	0.6	338	20.9		7.7		32.4		96.3		7.1		6.6		12		84				<0.2		1.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.4	324	20.8	20.8	7.7	7.7	32.4	32.4	99.8	99.9	7.4	7.4	7.2		13		91				<0.2		1.4	
						3.1	0.4	350	20.8		7.7		32.4		100.0		7.4		7.3		14		92				<0.2		1.3	
SR3	Sunny	Rough	08:37	7.3	Surface	1.0	0.2	180	21.1	21.1	7.7	7.7	30.3	30.3	96.0	96.0	7.2	7.2	2.7	9.0	6	8	-	-	822150	807555	-	-	-	-
						1.0	0.2	195	21.1		7.7		30.3		96.0		7.2		2.8		6		-				-		-	
					Middle	3.7	0.1	216	20.9	20.9	7.7	7.7	31.4	31.4	95.1	95.2	7.1		5.7		7		-				-		-	
						3.7	0.2	234	20.9		7.7		31.4		95.3		7.1		5.8		7		-				-		-	
					Bottom	6.3	0.2	295	20.7	20.7	7.8	7.8	32.0	32.0	95.9	95.9	7.1	7.1	18.3		11		-				-		-	
						6.3	0.2	304	20.7		7.8		32.0		95.8		7.1		18.4		10		-				-		-	
SR4A	Fine	Calm	07:04	9.4	Surface	1.0	0.4	257	20.6	20.6	8.0	8.0	32.2	32.2	95.2	95.2	7.1	7.1	10.9	12.6	9	13	-	-	817171	807796	-	-	-	-
						1.0	0.4	255	20.6		8.0		32.2		95.2		7.1		10.9		10		-				-		-	
					Middle	4.7	0.5	266	20.5	20.5	8.0	8.0	32.2	32.2	94.7	94.7	7.1		12.9		15		-				-		-	
						4.7	0.5	259	20.5		8.0		32.2		94.7		7.1		13.0		14		-				-		-	
					Bottom	8.4	0.3	254	20.5	20.5	8.0	8.0	32.2	32.2	94.6	94.6	7.0	7.0	14.1		16		-				-		-	
						8.4	0.4	238	20.5		8.0		32.2		94.6		7.0		13.9		15		-				-		-	
SR5A	Fine	Calm	06:48	5.0	Surface	1.0	0.1	237	20.8	20.8	8.0	8.0	32.5	32.5	91.9	91.9	6.8	6.8	6.7	7.4	11	9	-	-	816606	810718	-	-	-	-
						1.0	0.1	241	20.8		8.0		32.5		91.9		6.8		6.6		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.2	278	20.8	20.8	8.0	8.0	32.5	32.5	91.9	91.9	6.8	6.8	8.1		8		-				-		-	
						4.0	0.2	277	20.8		8.0		32.5		91.9		6.8		8.2		8		-				-		-	
SR6A	Fine	Calm	06:20	4.5	Surface	1.0	0.0	205	20.7	20.7	8.0	8.0	32.4	32.4	93.0	93.0	6.9	6.9	5.2	5.6	7	6	-	-	817946	814733	-	-	-	-
						1.0	0.0	213	20.7		8.0		32.4		93.0		6.9		5.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.0	223	20.7	20.7	7.9	7.9	32.6	32.6	89.9	89.9	6.7	6.7	6.0		6		-				-		-	
						3.5	0.0	232	20.7		7.9		32.6		89.9		6.7		6.0		5		-				-		-	
SR7	Sunny	Rough	06:39	14.5	Surface	1.0	0.0	111	20.8	20.8	7.6	7.6	33.1	33.1	88.6	88.6	6.5	6.5	3.1	3.7	7	8	-	-	823619	823723	-	-	-	-
						1.0	0.0	114	20.8		7.6		33.1		88.6		6.5		3.2		7		-				-		-	
					Middle	7.3	0.0	263	20.8	20.8	7.6	7.6	33.2	33.2	87.8	87.8	6.5		3.6		7		-				-		-	
						7.3	0.0	270	20.8		7.6		33.2		87.8		6.5		3.7		8		-				-		-	
					Bottom	13.5	0.1	241	20.7	20.7	7.6	7.6	33.3	33.3	87.1	87.2	6.4	6.4	4.3		11		-				-		-	
						13.5	0.1	245	20.7		7.6		33.3		87.2		6.4		4.3		10		-				-		-	
SR8	Sunny	Rough	07:48	5.3	Surface	1.0	-	-	20.9	20.8	7.7	7.7	32.4	32.4	94.7	94.7	7.0	7.0	7.5	8.0	14	13	-	-	820392	811608	-	-	-	-
						1.0	-	-	20.8		7.7		32.4		94.7		7.0		7.7		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	20.8	20.8	7.7	7.7	32.4	32.4	94.2	94.1	7.0	7.0	8.4		13		-				-		-	
						4.3	-	-	20.8		7.7		32.4		94.0		7.0		8.4		12		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	14:10	8.2	Surface	1.0	0.1	138	19.9	19.9	8.0	8.0	32.0	32.0	97.9	97.9	7.4	7.4	11.4	17.5	12	12	86	89	815619	804257	<0.2	<0.2	1.1	1.0
						1.0	0.1	155	19.9		8.0		32.0		97.8		7.4		11.5		12		90				<0.2		1.0	
					Middle	4.1	0.1	124	19.9	19.9	8.0	8.0	32.1	32.1	97.7	97.7	7.4		19.0		12		88				<0.2		1.1	
						4.1	0.1	141	19.9		8.0		32.1		97.7		7.4		18.4		12		89				<0.2		1.0	
					Bottom	7.2	0.0	119	19.9	19.9	8.0	8.0	32.1	32.1	97.8	97.8	7.4	7.4	22.5		12		90				<0.2		1.0	
						7.2	0.0	112	19.9		8.0		32.1		97.8		7.4		22.4		11		90				<0.2		1.0	
C2	Sunny	Moderate	12:51	11.4	Surface	1.0	0.2	151	20.5	20.5	8.0	8.0	31.0	31.0	93.4	93.4	7.0	6.9	4.2	5.6	6	7	80	83	825700	806953	<0.2	<0.2	1.7	1.8
						1.0	0.3	142	20.5		8.0		31.0		93.3		7.0		4.2		6		79				<0.2		1.5	
					Middle	5.7	0.4	132	20.5	20.5	8.0	8.0	31.3	31.3	90.6	90.6	6.8		5.3		7		83				<0.2		1.8	
						5.7	0.4	132	20.5		8.0		31.3		90.6		6.8		5.3		6		83				<0.2		1.8	
					Bottom	10.4	0.5	148	20.5	20.5	8.0	8.0	31.4	31.4	90.4	90.4	6.8	6.8	7.4		6		88				<0.2		2.0	
						10.4	0.5	152	20.5		8.0		31.4		90.4		6.8		7.4		8		87				<0.2		1.8	
C3	Sunny	Moderate	14:28	12.6	Surface	1.0	0.3	72	20.6	20.6	7.9	7.9	33.1	33.1	88.3	88.3	6.5	6.5	2.7	3.6	4	6	80	84	822106	817785	<0.2	<0.2	1.1	1.0
						1.0	0.3	72	20.6		7.9		33.1		88.2		6.5		2.7		5		80				<0.2		1.0	
					Middle	6.3	0.1	88	20.5	20.5	7.9	7.9	33.1	33.1	87.6	87.6	6.5		3.7		7		84				<0.2		1.1	
						6.3	0.1	98	20.5		7.9		33.1		87.6		6.5		3.6		6		84				<0.2		1.0	
					Bottom	11.6	0.2	103	20.4	20.4	8.0	8.0	33.2	33.2	87.1	87.1	6.5	6.5	4.4		7		87				<0.2		1.0	
						11.6	0.2	110	20.4		8.0		33.2		87.1		6.5		4.5		6		88				<0.2		1.0	
IM1	Fine	Moderate	13:48	5.4	Surface	1.0	0.0	121	19.9	19.9	7.9	7.9	31.7	31.7	97.6	97.7	7.4	7.4	9.8	10.3	10	11	86	88	817932	807127	<0.2	<0.2	1.3	1.3
						1.0	0.0	125	19.9		7.9		31.7		97.8		7.4		10.0		10		85				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.0	233	19.9	19.9	7.9	7.9	31.7	31.7	98.5	98.6	7.4	7.5	10.7		11		90				<0.2		1.3	
						4.4	0.0	253	19.9		7.9		31.7		98.6		7.5		10.7		11		90				<0.2		1.2	
IM2	Fine	Moderate	13:41	7.0	Surface	1.0	0.1	136	20.0	20.0	8.0	8.0	31.7	31.7	97.1	97.1	7.3	7.3	15.8	20.0	21	26	86	88	818164	806164	<0.2	<0.2	1.3	1.4
						1.0	0.1	138	20.0		8.0		31.7		97.1		7.3		15.8		22		87				<0.2		1.3	
					Middle	3.5	0.1	122	19.9	19.9	8.0	8.0	31.8	31.8	97.2	97.3	7.3		17.8		27		88				<0.2		1.4	
						3.5	0.1	124	19.9		8.0		31.8		97.3		7.3		17.6		26		87				<0.2		1.3	
					Bottom	6.0	0.1	127	19.9	19.9	7.9	7.9	31.8	31.8	97.4	97.4	7.4	7.4	26.3		30		90				<0.2		1.6	
						6.0	0.1	128	19.9		7.9		31.8		97.4		7.4		26.3		30		90				<0.2		1.4	
IM3	Fine	Moderate	13:34	7.4	Surface	1.0	0.3	139	20.0	20.0	8.0	8.0	31.5	31.5	96.1	96.1	7.3	7.3	15.9	17.8	19	19	86	88	818784	805580	<0.2	<0.2	1.6	1.5
						1.0	0.3	142	20.0		8.0		31.5		96.1		7.3		16.0		20		86				<0.2		1.5	
					Middle	3.7	0.2	140	20.0	20.0	7.9	7.9	31.5	31.5	96.0	96.0	7.3		15.2		19		88				<0.2		1.5	
						3.7	0.2	145	20.0		7.9		31.5		96.0		7.3		17.2		19		89				<0.2		1.3	
					Bottom	6.4	0.2	112	19.9	19.9	7.9	7.9	31.5	31.5	97.1	97.2	7.3	7.4	21.4		19		90				<0.2		1.4	
						6.4	0.2	113	19.9		7.9		31.5		97.3		7.4		21.4		18		91				<0.2		1.4	
IM4	Fine	Moderate	13:26	6.7	Surface	1.0	0.4	133	20.0	20.0	8.0	8.0	31.3	31.4	96.0	96.0	7.3	7.3	15.2	16.1	21	21	86	89	819746	804618	<0.2	<0.2	1.6	1.5
						1.0	0.4	113	19.9		8.0		31.4		96.0		7.3		15.0		20		87				<0.2		1.5	
					Middle	3.4	0.4	151	19.9	19.9	8.0	8.0	31.5	31.5	96.4	96.4	7.3		13.3		20		89				<0.2		1.5	
						3.4	0.4	142	19.9		8.0		31.5		96.4		7.3		13.3		21		90				<0.2		1.5	
					Bottom	5.7	0.4	157	19.9	19.9	8.0	8.0	31.6	31.6	96.5	96.6	7.3	7.3	19.8		21		90				<0.2		1.4	
						5.7	0.4	148	19.9		8.0		31.6		96.6		7.3		20.0		20		91				<0.2		1.5	
IM5	Fine	Moderate	13:18	7.0	Surface	1.0	0.4	217	20.0	20.0	7.9	7.9	31.2	31.2	95.1	95.1	7.2	7.2	16.1	17.6	21	21	86	89	820750	804863	<0.2	<0.2	1.7	1.6
						1.0	0.4	214	20.0		7.9		31.2		95.1		7.2		16.5		21		88				<0.2		1.6	
					Middle	3.5	0.4	201	20.0	20.0	7.9	7.9	31.2	31.2	95.3	95.4	7.2		16.1		20		89				<0.2		1.5	
						3.5	0.4	198	20.0		7.9		31.2		95.4		7.2		16.6		21		90				<0.2		1.5	
					Bottom	6.0	0.3	185	20.0	20.0	7.9	7.9	31.2	31.2	96.8	96.9	7.3	7.3	20.2		20		90				<0.2		1.5	
						6.0	0.3	187	20.0		7.9		31.2		97.0		7.3		20.2		21		91				<0.2		1.5	
IM6	Fine	Moderate	13:11	7.5	Surface	1.0	0.1	197	19.9	19.9	7.9	7.9	31.4	31.4	96.6	96.6	7.3	7.3	9.5	11.1	12	11	85	88	821040	805838	<0.2	<0.2	1.7	1.7
						1.0	0.1	181	19.9		7.9		31.4		96.6		7.3		9.9		11		86				<0.2		1.7	
					Middle	3.8	0.2	190	19.9	19.9	7.9	7.9	31.5	31.5	96.8	96.8	7.3		11.7		12		88				<0.2		1.7	
						3.8	0.2	193	19.9		7.9		31.5		96.8		7.3		11.8		11		89				<0.2		1.7	
					Bottom	6.5	0.1	199	19.9	19.9	7.9	7.9	31.5	31.5	97.9	98.0	7.4	7.4	11.8		11		90				<0.2		1.6	
						6.5	0.2	207	19.9		7.9		31.5		98.0		7.4		11.9		10		90				<0.2		1.6	
IM7	Fine	Moderate	13:02	7.5	Surface	1.0	0.0	188	20.1	20.1	8.0	8.0	31.1	31.1	95.3	95.4	7.2	7.2	7.6	8.5	8	10	86	88	821365	806835	<0.2	<0.2	1.9	1.9
						1.0	0.0	189	20.1		8.0		31.1		95.4		7.2		7.7		8		86				<0.2		1.9	
					Middle	3.8	0.2	191	20.1	20.1	8.0	8.0	31.4	31.4	95.4	95.4	7.2		8.8		11		89				<0.2		2.0	
						3.8	0.2	195	20.1		8.0		31.4		95.4		7.2		8.9		10		88				<0.2		1.9	
					Bottom	6.5	0.2	200	20.1	20.1	8.0	8.0	31.4	31.4	95.2	95.2	7.2	7.2	9.2		11		90				<0.2		1.8	
						6.5	0.3	206	20.1		8.0		31.4		95.2		7.2		9.0		10		91				<0.2		1.8	
IM8	Sunny	Moderate	13:17	7.7	Surface	1.0	0.2	188	20.4	20.4	8.0	8.0	31.6	31.6	92.1	92.1	6.9	6.9	7.5	8.6	9	10	81	84	821843	808141	<0.2	<0.2	1.7	1.7
						1.0	0.2	188	20.4		8.0		31.6		92.1		6.9		7.5		9		80				<0.2		1.6	
					Middle	3.9	0.2	181	20.4	20.4	8.0	8.0	31.6	31.6	92.4	92.4	6.9		8.5		11		84				<0.2		1.6	
						3.9	0.2	189	20.3		8.0		31.6		92.4		6.9		8.6		10		84				<0.2		1.8	
					Bottom	6.7	0.1	174	20.2	20.2	8.0	8.0	32.0	32.0	94.0	94.0	7.1	7.1	9.8		10		87				<0.2		1.8	
						6.7	0.1	175	20.2		8.0		32.0		94.0		7.1		9.8		11		88				<0.2		1.9	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	13:23	7.8	Surface	1.0	0.2	156	20.2	20.2	8.0	8.0	31.8	31.8	93.1	93.1	7.0	7.0	12.2	11.7	14	15	80	84	822110	808805	<0.2	<0.2	1.4	1.5
						1.0	0.2	158	20.2		8.0		31.8		93.1		7.0		12.3		13		80				<0.2		1.5	
					Middle	3.9	0.3	179	20.2	20.2	8.0	8.0	31.8	31.8	93.3	93.3	7.0		11.8		14		83				<0.2		1.5	
						3.9	0.3	181	20.2		8.0		31.8		93.3		7.0		11.8		15		84				<0.2		1.4	
					Bottom	6.8	0.1	155	20.2	20.2	8.0	8.0	31.9	31.9	94.0	94.0	7.1	7.1	11.0		18		88				<0.2		1.4	
						6.8	0.1	156	20.2		8.0		31.9		94.0		7.1		11.0		18		88				<0.2		1.5	
IM10	Sunny	Moderate	13:31	7.5	Surface	1.0	0.1	142	20.3	20.3	8.0	8.0	32.2	32.2	92.5	92.5	6.9	6.9	6.6	10.7	9	10	80	84	822376	809784	<0.2	<0.2	1.4	1.4
						1.0	0.1	144	20.3		8.0		32.2		92.5		6.9		6.6		9		79				<0.2		1.4	
					Middle	3.8	0.2	171	20.2	20.2	8.0	8.0	32.2	32.2	92.0	92.0	6.9		9.0		10		84				<0.2		1.4	
						3.8	0.2	181	20.2		8.0		32.2		92.0		6.9		8.9		10		84				<0.2		1.4	
					Bottom	6.5	0.2	186	20.2	20.2	8.0	8.0	32.2	32.2	91.8	91.8	6.9	6.9	16.7		10		88				<0.2		1.4	
						6.5	0.2	173	20.2		8.0		32.2		91.8		6.9		16.5		11		88				<0.2		1.3	
IM11	Sunny	Moderate	13:44	7.8	Surface	1.0	0.1	138	20.2	20.2	8.0	8.0	32.2	32.2	92.2	92.2	6.9	6.9	9.1	9.2	9	10	80	84	822051	811458	<0.2	<0.2	1.5	1.5
						1.0	0.1	144	20.2		8.0		32.2		92.2		6.9		8.9		10		80				<0.2		1.4	
					Middle	3.9	0.1	172	20.2	20.2	8.0	8.0	32.2	32.2	92.0	92.0	6.9		8.1		10		84				<0.2		1.5	
						3.9	0.1	162	20.2		8.0		32.2		92.0		6.9		8.1		9		84				<0.2		1.4	
					Bottom	6.8	0.1	183	20.2	20.2	8.0	8.0	32.2	32.2	91.9	91.9	6.9	6.9	10.5		10		88				<0.2		1.4	
						6.8	0.1	174	20.2		8.0		32.2		91.9		6.9		10.4		10		88				<0.2		1.5	
IM12	Sunny	Moderate	13:51	8.7	Surface	1.0	0.2	154	20.3	20.3	8.0	8.0	32.2	32.2	92.5	92.5	6.9	6.9	7.5	7.8	10	11	79	84	821478	812056	<0.2	<0.2	1.3	1.3
						1.0	0.2	145	20.3		8.0		32.2		92.5		6.9		7.5		10		80				<0.2		1.3	
					Middle	4.4	0.2	131	20.3	20.3	8.0	8.0	32.2	32.2	92.5	92.5	6.9		7.4		10		83				<0.2		1.2	
						4.4	0.2	139	20.3		8.0		32.2		92.5		6.9		7.4		11		84				<0.2		1.3	
					Bottom	7.7	0.2	147	20.2	20.2	8.0	8.0	32.2	32.2	92.5	92.5	6.9	6.9	8.5		13		87				<0.2		1.3	
						7.7	0.2	146	20.2		8.0		32.2		92.5		6.9		8.7		13		88				<0.2		1.4	
SR1A	Sunny	Moderate	13:54	5.4	Surface	1.0	-	-	20.3	20.3	7.9	7.9	32.4	32.4	90.8	90.8	6.8	6.8	7.3	8.2	10	9	-	-	819971	812666	-	-	-	-
						1.0	-	-	20.3		7.9		32.4		90.8		6.8		7.3		10		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	20.3	20.3	7.9	7.9	32.4	32.4	90.5	90.5	6.8	6.8	9.2		8		-				-		-	
						4.4	-	-	20.3		7.9		32.4		90.5		6.8		9.2		8		-				-		-	
SR2	Sunny	Moderate	14:08	5.2	Surface	1.0	0.2	72	20.3	20.3	7.9	7.9	32.4	32.4	90.6	90.6	6.8	6.8	7.8	8.1	10	11	80	82	821481	814164	<0.2	<0.2	1.2	1.2
						1.0	0.2	77	20.3		7.9		32.4		90.6		6.8		7.9		11		80				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	73	20.3	20.3	7.9	7.9	32.4	32.4	90.5	90.5	6.8	6.8	8.3		12		83				<0.2		1.1	
						4.2	0.1	79	20.3		7.9		32.4		90.5		6.8		8.3		12		83				<0.2		1.1	
SR3	Sunny	Moderate	13:11	8.8	Surface	1.0	0.3	197	20.4	20.4	8.0	8.0	31.4	31.4	91.6	91.6	6.9	6.9	5.9	6.7	6	8	-	-	822149	807547	-	-	-	-
						1.0	0.3	184	20.4		8.0		31.4		91.6		6.9		6.0		7		-				-		-	
					Middle	4.4	0.4	170	20.4	20.4	8.0	8.0	31.4	31.4	91.3	91.3	6.9		6.1		7		-				-		-	
						4.4	0.4	172	20.4		8.0		31.4		91.3		6.8		6.3		8		-				-		-	
					Bottom	7.8	0.5	166	20.4	20.4	8.0	8.0	31.5	31.5	91.0	91.0	6.8	6.8	8.0		9		-				-		-	
						7.8	0.5	169	20.4		8.0		31.5		91.0		6.8		8.1		9		-				-		-	
SR4A	Fine	Moderate	14:33	8.5	Surface	1.0	0.4	78	19.9	19.9	7.9	7.9	31.6	31.6	96.5	96.5	7.3	7.3	12.1	12.4	10	13	-	-	817195	807812	-	-	-	-
						1.0	0.4	81	19.9		7.9		31.6		96.5		7.3		12.2		11		-				-		-	
					Middle	4.3	0.3	84	19.9	19.9	7.9	7.9	31.6	31.6	96.8	96.9	7.3		12.6		12		-				-		-	
						4.3	0.3	87	19.9		7.9		31.6		96.9		7.3		12.6		11		-				-		-	
					Bottom	7.5	0.3	50	19.9	19.9	7.9	7.9	31.5	31.5	98.0	98.1	7.4	7.4	12.6		15		-				-		-	
						7.5	0.3	52	19.9		7.9		31.5		98.1		7.4		12.3		17		-				-		-	
SR5A	Fine	Moderate	14:49	4.4	Surface	1.0	0.1	52	20.1	20.1	7.9	7.9	30.9	30.9	95.1	95.2	7.2	7.2	6.8	7.1	7	7	-	-	816583	810705	-	-	-	-
						1.0	0.1	52	20.1		7.9		30.9		95.3		7.2		6.9		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	49	20.1	20.1	7.8	7.8	30.9	30.9	96.4	96.5	7.3	7.3	7.3		7		-				-		-	
						3.4	0.2	51	20.1		7.8		30.9		96.6		7.3		7.4		7		-				-		-	
SR6A	Fine	Moderate	15:23	4.2	Surface	1.0	0.0	81	20.4	20.4	7.8	7.8	31.2	31.2	92.7	92.7	7.0	7.0	5.2		7		-				-		-	
						1.0	0.0	89	20.4		7.8		31.2		92.7		7.0		5.2		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-	5.2	-	6	-	-	817959	814738	-	-	-	-
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	32	20.4	20.4	7.8	7.8	31.2	31.2	93.5	93.6	7.0	7.0	5.1		6		-				-		-	
						3.2	0.1	33	20.4		7.8		31.2		93.7		7.0		5.2		6		-				-		-	
SR7	Sunny	Moderate	14:57	14.7	Surface	1.0	0.6	73	20.5	20.5	7.9	7.9	33.3	33.3	87.6	87.6	6.5	6.5	3.2	3.6	4	5	-	-	823645	823729	-	-	-	-
						1.0	0.7	78	20.5		7.9		33.3		87.6		6.5		3.3		6		-				-		-	
					Middle	7.4	0.1	65	20.4	20.4	7.9	7.9	33.4	33.4	87.3	87.4	6.5		3.2		4		-				-		-	
						7.4	0.1	67	20.4		7.9		33.4		87.4		6.5		3.2		6		-				-		-	
					Bottom	13.7	0.1	306	20.3	20.3	8.0	8.0	33.4	33.4	87.1	87.1	6.5	6.5	4.2		4		-				-		-	
						13.7	0.1	333	20.3		8.0		33.4		87.1		6.5		4.4		4		-				-		-	
SR8	Sunny	Moderate	13:52	4.8	Surface	1.0	-	-	20.3	20.3	7.9	7.9	32.4	32.4	90.9	90.9	6.8	6.8	7.0	8.4	8	10	-	-	820386	811644	-	-	-	-
						1.0	-	-	20.3		7.9		32.4		90.9		6.8		7.0		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	20.3	20.3	8.0	8.0	32.4	32.4	90.9	90.9	6.8	6.8	9.8		12		-				-		-	
						3.8	-	-	20.3		8.0		32.4		90.9		6.8		9.8		12		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	09:36	8.4	Surface	1.0	0.3	51	19.8	19.8	8.0	8.0	31.5	31.5	97.8	97.8	7.4	7.4	11.5	15.5	16	15	86	88	815601	804261	<0.2	<0.2	1.2	1.1
						1.0	0.3	54	19.8		8.0		31.5		97.7		7.4		11.9		16		85				<0.2		1.3	
					Middle	4.2	0.3	48	19.8	19.8	8.0	8.0	31.9	31.9	97.4	97.5	7.4		14.0		14		88				<0.2		1.1	
						4.2	0.3	52	19.8		8.0		31.9		97.5		7.4		13.8		13		89				<0.2		1.1	
					Bottom	7.4	0.3	41	19.8	19.8	8.0	8.0	32.1	32.1	97.5	97.5	7.4	7.4	21.0		14		90				<0.2		1.0	
						7.4	0.3	42	19.8		8.0		32.1		97.5		7.4		21.0		14		91				<0.2		1.1	
C2	Sunny	Moderate	10:10	11.3	Surface	1.0	0.3	316	20.5	20.5	8.0	8.0	31.0	31.0	93.4	93.4	7.0	6.9	4.4	5.9	5	7	82	85	825680	806947	<0.2	<0.2	1.8	1.8
						1.0	0.3	317	20.5		8.0		31.0		93.4		7.0		4.3		4		81				<0.2		1.8	
					Middle	5.7	0.3	330	20.5	20.5	8.0	8.0	31.3	31.3	90.7	90.7	6.8		5.4		8		85				<0.2		1.8	
						5.7	0.3	353	20.5		8.0		31.3		90.7		6.8		5.5		7		85				<0.2		1.9	
					Bottom	10.3	0.3	342	20.5	20.5	8.0	8.0	31.4	31.4	90.7	90.7	6.8	6.8	8.0		7		90				<0.2		1.9	
						10.3	0.3	315	20.5		8.0		31.4		90.7		6.8		8.0		8		89				<0.2		1.8	
C3	Fine	Moderate	08:18	10.6	Surface	1.0	0.5	283	20.4	20.4	8.0	8.0	32.5	32.5	90.7	90.7	6.8	6.8	6.0	9.4	14	12	80	84	822088	817821	<0.2	<0.2	1.2	1.3
						1.0	0.6	287	20.4		8.0		32.5		90.7		6.8		6.1		13		80				<0.2		1.3	
					Middle	5.3	0.5	288	20.4	20.4	8.0	8.0	32.5	32.5	90.4	90.5	6.7		8.9		12		84				<0.2		1.4	
						5.3	0.5	299	20.4		8.0		32.5		90.5		6.7		8.8		11		84				<0.2		1.2	
					Bottom	9.6	0.3	284	20.4	20.4	8.0	8.0	32.5	32.5	90.4	90.4	6.7	6.7	13.4		10		88				<0.2		1.2	
						9.6	0.4	290	20.4		8.0		32.5		90.4		6.7		13.3		10		88				<0.2		1.2	
IM1	Fine	Moderate	09:54	4.8	Surface	1.0	0.2	4	19.9	19.9	7.9	7.9	31.6	31.6	96.6	96.7	7.3	7.3	8.5	9.0	13	13	86	87	817947	807116	<0.2	<0.2	1.5	1.4
						1.0	0.2	4	19.9		7.9		31.6		96.7		7.3		8.6		12		86				<0.2		1.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	18	19.9	19.9	7.9	7.9	31.8	31.7	97.0	97.0	7.3	7.3	9.6		13		88				<0.2		1.4	
						3.8	0.2	19	19.9		7.9		31.7		97.0		7.3		9.4		14		89				<0.2		1.3	
IM2	Fine	Moderate	10:01	6.9	Surface	1.0	0.2	2	20.0	20.0	7.9	7.9	31.2	31.2	94.7	94.7	7.2	7.2	18.9	22.0	28	33	86	88	818141	806170	<0.2	<0.2	1.6	1.6
						1.0	0.2	2	20.0		7.9		31.2		94.7		7.2		18.9		29		85				<0.2		1.6	
					Middle	3.5	0.2	25	20.0	20.0	7.9	7.9	31.2	31.2	94.8	94.8	7.2		23.5		34		88				<0.2		1.5	
						3.5	0.2	25	20.0		7.9		31.2		94.8		7.2		23.7		34		89				<0.2		1.6	
					Bottom	5.9	0.2	9	20.0	20.0	7.9	7.9	31.3	31.3	95.0	95.1	7.2	7.2	23.8		36		90				<0.2		1.7	
						5.9	0.2	9	20.0		7.9		31.3		95.1		7.2		23.1		38		91				<0.2		1.7	
IM3	Fine	Moderate	10:09	6.5	Surface	1.0	0.3	353	20.0	20.0	7.9	7.9	31.2	31.2	94.9	94.9	7.2	7.2	19.8	21.3	25	26	86	89	818770	805570	<0.2	<0.2	1.7	1.8
						1.0	0.3	325	20.0		7.9		31.2		94.9		7.2		19.2		24		86				<0.2		1.7	
					Middle	3.3	0.3	356	20.0	20.0	7.9	7.9	31.2	31.2	94.8	94.9	7.2		21.1		26		88				<0.2		1.6	
						3.3	0.3	328	20.0		7.9		31.2		94.9		7.2		21.1		26		89				<0.2		1.7	
					Bottom	5.5	0.2	348	20.0	20.0	7.9	7.9	31.2	31.2	95.3	95.4	7.2	7.2	23.3		27		91				<0.2		1.9	
						5.5	0.3	320	20.0		7.9		31.2		95.4		7.2		23.3		26		91				<0.2		2.0	
IM4	Fine	Moderate	10:16	7.8	Surface	1.0	0.4	0	20.0	20.0	7.9	7.9	31.2	31.2	95.2	95.2	7.2	7.2	16.2	17.7	20	22	86	88	819717	804609	<0.2	<0.2	1.6	1.8
						1.0	0.5	0	20.0		7.9		31.2		95.2		7.2		16.4		20		87				<0.2		1.6	
					Middle	3.9	0.4	353	20.0	20.0	7.9	7.9	31.2	31.2	95.5	95.5	7.2		16.9		22		88				<0.2		1.8	
						3.9	0.4	325	20.0		7.9		31.2		95.5		7.2		17.0		21		87				<0.2		1.9	
					Bottom	6.8	0.4	354	20.0	20.0	7.9	7.9	31.2	31.2	96.0	96.2	7.3	7.3	19.1		23		90				<0.2		1.9	
						6.8	0.4	326	20.0		7.9		31.2		96.3		7.3		20.7		23		90				<0.2		1.9	
IM5	Fine	Moderate	10:22	7.2	Surface	1.0	0.7	15	20.0	20.0	7.9	7.9	31.2	31.2	95.1	95.2	7.2	7.2	17.0	19.5	20	21	86	88	820753	804888	<0.2	<0.2	1.9	2.0
						1.0	0.7	15	20.0		7.9		31.2		95.2		7.2		16.7		20		87				<0.2		1.9	
					Middle	3.6	0.6	12	20.0	20.0	7.9	7.9	31.3	31.3	95.1	95.1	7.2		19.9		20		88				<0.2		2.1	
						3.6	0.6	12	20.0		7.9		31.3		95.1		7.2		19.8		22		89				<0.2		2.0	
					Bottom	6.2	0.5	13	20.0	20.0	7.9	7.9	31.3	31.3	95.6	95.6	7.2	7.2	21.8		23		90				<0.2		2.0	
						6.2	0.6	14	20.0		7.9		31.3		95.6		7.2		21.9		22		90				<0.2		2.0	
IM6	Fine	Moderate	10:29	6.6	Surface	1.0	0.1	50	20.0	20.0	8.0	8.0	31.3	31.3	96.3	96.3	7.3	7.3	8.0	9.2	13	15	86	88	821069	805844	<0.2	<0.2	2.0	2.0
						1.0	0.1	52	20.0		8.0		31.3		96.3		7.3		8.1		14		86				<0.2		1.9	
					Middle	3.3	0.1	76	20.0	20.0	7.9	7.9	31.4	31.4	96.3	96.3	7.3		8.8		15		89				<0.2		1.8	
						3.3	0.1	77	20.0		7.9		31.4		96.3		7.3		8.9		15		88				<0.2		2.0	
					Bottom	5.6	0.1	0	20.0	20.0	7.9	7.9	31.4	31.4	97.0	97.1	7.3	7.3	10.5		16		90				<0.2		1.9	
						5.6	0.1	0	20.0		7.9		31.4		97.1		7.3		10.7		16		91				<0.2		2.1	
IM7	Fine	Moderate	10:36	7.2	Surface	1.0	0.1	29	20.1	20.1	8.0	8.0	31.1	31.1	95.5	95.5	7.2	7.2	7.7	9.8	13	12	86	88	821343	806812	<0.2	<0.2	1.7	1.8
						1.0	0.1	30	20.1		8.0		31.1		95.5		7.2		7.7		12		86				<0.2		1.7	
					Middle	3.6	0.1	58	20.0	20.0	8.0	8.0	31.4	31.4	95.9	96.0	7.2		9.3		13		88				<0.2		1.7	
						3.6	0.1	58	20.0		8.0		31.4		96.0		7.2		10.0		12		89				<0.2		1.8	
					Bottom	6.2	0.1	54	20.0	20.0	8.0	7.9	31.5	31.5	96.1	96.2	7.3	7.3	12.1		12		90				<0.2		1.9	
						6.2	0.1	55	20.0		7.9		31.5		96.2		7.3		12.0		11		90				<0.2		1.8	
IM8	Fine	Moderate	09:36	7.3	Surface	1.0	0.1	237	20.3	20.3	8.0	8.0	31.6	31.6	92.4	92.5	6.9	7.0	14.0	11.3	21	23	80	85	821830	808160	<0.2	<0.2	1.6	1.6
						1.0	0.1	237	20.3		8.0		31.7		92.5		6.9		14.0		20		81				<0.2		1.5	
					Middle	3.7	0.1	164	20.3	20.3	8.0	8.0	31.7	31.7	93.2	93.2	7.0		12.8		23		85				<0.2		1.5	
						3.7	0.1	164	20.3		8.0		31.7		93.2		7.0		12.9		22		85				<0.2		1.6	
					Bottom	6.3	0.1	217	20.2	20.2	8.0	8.0	31.8	31.8	94.3	94.4	7.1	7.1	7.1		25		89				<0.2		1.6	
						6.3	0.1	227	20.2		8.0		31.8		94.4		7.1		7.1		26		89				<0.2		1.7	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 28 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Fine	Moderate	09:30	7.5	Surface	1.0	0.2	277	20.2	20.2	8.0	8.0	32.0	32.0	94.5	94.5	7.1	7.1	10.1	11.4	15	18	81	85	822084	808829	<0.2	<0.2	1.7	1.6
						1.0	0.2	277	20.2		8.0		32.0		94.5		7.1		10.0		15		81				<0.2		1.7	
					Middle	3.8	0.3	257	20.2	20.2	8.0	8.0	32.0	32.0	94.5	94.5	7.1		10.5		18		85				<0.2		1.6	
						3.8	0.3	278	20.2		8.0		32.0		94.4		7.1		10.6		17		84				<0.2		1.6	
					Bottom	6.5	0.2	269	20.2	20.2	8.0	8.0	32.0	32.0	94.4	94.5	7.1	7.1	13.6		21		89				<0.2		1.5	
						6.5	0.2	272	20.2		8.0		32.0		94.5		7.1		13.5		20		89				<0.2		1.6	
IM10	Fine	Moderate	09:24	7.9	Surface	1.0	0.3	302	20.2	20.2	8.0	8.0	31.9	31.9	93.4	93.4	7.0	7.0	9.7	10.3	15	14	81	85	822386	809800	<0.2	<0.2	1.4	1.5
						1.0	0.4	313	20.2		8.0		31.9		93.4		7.0		9.5		14		82				<0.2		1.5	
					Middle	4.0	0.3	294	20.2	20.2	8.0	8.0	31.9	31.9	93.4	93.4	7.0		9.9		14		85				<0.2		1.4	
						4.0	0.4	311	20.2		8.0		31.9		93.4		7.0		9.8		15		84				<0.2		1.4	
					Bottom	6.9	0.3	290	20.2	20.2	8.0	8.0	32.0	32.0	93.7	93.7	7.0	7.0	11.3		14		89				<0.2		1.6	
						6.9	0.3	308	20.2		8.0		32.0		93.7		7.0		11.7		14		89				<0.2		1.5	
IM11	Fine	Moderate	09:13	7.1	Surface	1.0	0.5	278	20.2	20.2	8.0	8.0	32.2	32.2	93.5	93.5	7.0	7.0	9.3	12.0	13	14	81	85	822061	811451	<0.2	<0.2	1.2	1.3
						1.0	0.6	284	20.2		8.0		32.2		93.5		7.0		9.4		14		81				<0.2		1.3	
					Middle	3.6	0.4	283	20.2	20.2	8.0	8.0	32.2	32.2	93.5	93.5	7.0		10.3		14		84				<0.2		1.3	
						3.6	0.5	306	20.2		8.0		32.2		93.5		7.0		10.4		13		85				<0.2		1.3	
					Bottom	6.1	0.4	286	20.2	20.2	8.0	8.0	32.2	32.2	94.0	94.1	7.1	7.1	16.1		14		88				<0.2		1.3	
						6.1	0.4	310	20.2		8.0		32.2		94.1		7.1		16.9		15		88				<0.2		1.3	
IM12	Fine	Moderate	09:07	8.9	Surface	1.0	0.5	274	20.1	20.1	8.0	8.0	32.2	32.2	93.0	93.0	7.0	7.0	11.4	15.2	18	20	81	85	821454	812026	<0.2	<0.2	1.6	1.5
						1.0	0.5	298	20.1		8.0		32.2		93.0		7.0		11.7		18		80				<0.2		1.5	
					Middle	4.5	0.4	276	20.1	20.1	8.0	8.0	32.2	32.2	93.1	93.1	7.0		14.1		20		85				<0.2		1.5	
						4.5	0.5	289	20.1		8.0		32.2		93.1		7.0		13.6		19		85				<0.2		1.4	
					Bottom	7.9	0.5	274	20.1	20.1	8.0	8.0	32.2	32.2	93.5	93.5	7.0	7.0	20.2		22		90				<0.2		1.4	
						7.9	0.5	285	20.1		8.0		32.2		93.5		7.0		20.2		20		89				<0.2		1.4	
SR1A	Fine	Moderate	08:52	5.5	Surface	1.0	-	-	20.2	20.2	8.0	8.0	32.0	32.0	91.2	91.2	6.8	6.8	4.2	5.8	6	7	-	-	819973	812659	-	-	-	-
						1.0	-	-	20.2		8.0		32.0		91.2		6.8		4.2		7		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	-	20.3	20.3	8.0	8.0	32.0	32.0	90.8	90.9	6.8	6.8	7.6		8		-				-		-	
						4.5	-	-	20.3		8.0		32.0		90.9		6.8		7.4		8		-				-		-	
SR2	Fine	Moderate	08:40	5.3	Surface	1.0	0.1	23	20.2	20.2	8.0	8.0	32.2	32.2	92.3	92.3	6.9	6.9	12.4	14.9	16	17	80	83	821459	814180	<0.2	<0.2	1.7	1.7
						1.0	0.1	23	20.2		8.0		32.2		92.3		6.9		12.4		16		81				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	332	20.1	20.1	8.0	8.0	32.2	32.2	92.9	92.9	7.0	7.0	17.3		17		85				<0.2		1.6	
						4.3	0.1	354	20.1		8.0		32.2		92.9		7.0		17.5		18		85				<0.2		1.8	
SR3	Fine	Moderate	09:41	8.6	Surface	1.0	0.0	116	20.5	20.5	8.0	8.0	31.4	31.4	91.8	91.8	6.9	6.9	6.1	6.4	14	14	-	-	822127	807565	-	-	-	-
						1.0	0.0	123	20.5		8.0		31.4		91.8		6.9		6.1		15		-				-		-	
					Middle	4.3	0.0	70	20.5	20.5	8.0	8.0	31.4	31.4	91.6	91.6	6.9		6.8		14		-				-		-	
						4.3	0.0	71	20.5		8.0		31.4		91.6		6.9		6.7		13		-				-		-	
					Bottom	7.6	0.0	353	20.5	20.5	8.0	8.0	31.4	31.4	91.9	92.0	6.9	6.9	6.4		14		-				-		-	
						7.6	0.0	325	20.5		8.0		31.4		92.0		6.9		6.3		12		-				-		-	
SR4A	Fine	Moderate	09:14	8.0	Surface	1.0	0.0	132	20.1	20.1	7.9	7.9	30.8	30.8	93.9	93.9	7.1	7.1	8.9	9.8	13	14	-	-	817200	807807	-	-	-	-
						1.0	0.0	139	20.1		7.9		30.8		93.9		7.1		9.1		13		-				-		-	
					Middle	4.0	0.1	41	20.1	20.1	7.9	7.9	30.9	30.9	94.3	94.4	7.1		9.5		14		-				-		-	
						4.0	0.1	43	20.1		7.9		30.9		94.4		7.2		9.6		15		-				-		-	
					Bottom	7.0	0.2	73	19.9	19.9	7.9	7.9	31.4	31.4	95.1	95.1	7.2	7.2	11.0		15		-				-		-	
						7.0	0.2	76	19.9		7.9		31.4		95.1		7.2		11.0		14		-				-		-	
SR5A	Fine	Moderate	08:58	4.4	Surface	1.0	0.1	284	20.1	20.1	7.9	7.9	30.9	30.9	93.3	93.3	7.1	7.1	6.1	6.6	10	11	-	-	816570	810711	-	-	-	-
						1.0	0.1	295	20.1		7.9		30.9		93.3		7.1		6.3		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	300	20.1	20.2	7.8	7.8	30.9	30.9	93.3	93.3	7.1	7.1	6.9		11		-				-		-	
						3.4	0.0	326	20.2		7.8		30.9		93.3		7.1		6.9		12		-				-		-	
SR6A	Fine	Moderate	08:30	4.0	Surface	1.0	0.1	203	20.3	20.3	7.8	7.8	31.1	31.1	89.9	89.9	6.8	6.8	9.4	9.1	9	10	-	-	817970	814743	-	-	-	-
						1.0	0.1	208	20.3		7.8		31.1		89.9		6.8		9.6		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	206	20.3	20.3	7.8	7.8	31.1	31.1	90.3	90.3	6.8	6.8	8.6		12		-				-		-	
						3.0	0.1	224	20.3		7.8		31.1		90.3		6.8		8.8		11		-				-		-	
SR7	Fine	Moderate	07:47	14.9	Surface	1.0	0.2	5	20.4	20.4	8.0	8.0	32.7	32.7	88.3	88.3	6.6	6.6	5.3	5.5	13	14	-	-	823627	823762	-	-	-	-
						1.0	0.2	5	20.4		8.0		32.7		88.3		6.6		5.3		14		-				-		-	
					Middle	7.5	0.2	308	20.4	20.4	8.0	8.0	32.7	32.7	88.2	88.2	6.6		6.2		13		-				-		-	
						7.5	0.2	332	20.4		8.0		32.7		88.2		6.6		6.3		13		-				-		-	
					Bottom	13.9	0.2	292	20.4	20.4	8.0	8.0	32.8	32.8	88.2	88.2	6.6	6.6	5.0		14		-				-		-	
						13.9	0.2	311	20.4		8.0		32.8		88.2		6.6		5.0		14		-				-		-	
SR8	Fine	Moderate	09:00	5.2	Surface	1.0	-	-	20.1	20.1	8.0	8.0	32.1	32.1	94.0	94.0	7.1	7.1	7.5	9.1	13	15	-	-	820371	811643	-	-	-	-
						1.0	-	-	20.1		8.0		32.1		94.0		7.1		7.4		14		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	20.1	20.1	8.0	8.0	32.1	32.1	93.9	94.0	7.1	7.1	10.8		16		-				-		-	
						4.2	-	-	20.1		8.0		32.1		94.0		7.1		10.7		16		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 31 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Cloudy	Rough	16:05	8.2	Surface	1.0	0.3	121	20.1	20.1	7.8	7.8	31.8	31.8	97.8	97.9	7.4	7.4	7.6	9.9	8	7	83	88	815604	804235	<0.2	<0.2	1.1	1.1
						1.0	0.3	133	20.1		7.8		31.9		97.9		7.4		8.2		8		84				<0.2		1.1	
					Middle	4.1	0.3	129	20.1	20.1	7.8	7.8	32.2	32.2	97.0	97.0	7.3		10.6		6		88				<0.2		1.2	
						4.1	0.3	131	20.1		7.8		32.2		96.9		7.3		10.4		7		88				<0.2		1.1	
					Bottom	7.2	0.2	119	20.1	20.1	7.8	7.8	32.2	32.2	96.2	96.4	7.2	7.3	11.0		7		91				<0.2		1.1	
						7.2	0.2	120	20.1		7.8		32.2		96.6		7.3		11.3		7		91				<0.2		1.0	
C2	Foggy	Moderate	15:03	11.2	Surface	1.0	0.1	136	20.6	20.6	7.9	7.9	30.2	30.2	90.3	90.3	6.8	6.8	3.2	4.9	6	6	86	88	825695	806921	<0.2	<0.2	2.0	1.9
						1.0	0.1	141	20.5		7.9		30.3		90.2		6.8		3.3		5		86				<0.2		1.9	
					Middle	5.6	0.3	153	20.5	20.5	8.0	8.0	30.8	30.8	89.4	89.4	6.7		4.0		6		88				<0.2		2.0	
						5.6	0.3	157	20.5		8.0		30.8		89.4		6.7		4.0		5		88				<0.2		1.9	
					Bottom	10.2	0.3	140	20.5	20.5	8.0	8.0	30.9	30.9	89.3	89.4	6.7	6.7	7.6		5		90				<0.2		1.8	
						10.2	0.3	153	20.5		8.0		30.9		89.4		6.7		7.3		6		90				<0.2		1.7	
C3	Cloudy	Moderate	16:55	11.0	Surface	1.0	0.2	117	20.3	20.3	8.0	8.0	32.7	32.7	87.6	87.6	6.5	6.5	3.6	4.5	6	6	85	88	822089	817809	<0.2	<0.2	1.9	1.9
						1.0	0.2	122	20.3		8.0		32.7		87.5		6.5		3.7		6		86				<0.2		1.7	
					Middle	5.5	0.2	135	20.3	20.3	8.0	8.0	32.8	32.8	87.8	87.9	6.5		4.8		6		88				<0.2		1.9	
						5.5	0.2	138	20.3		8.0		32.8		87.9		6.6		4.8		6		87				<0.2		2.1	
					Bottom	10.0	0.2	139	20.3	20.3	8.0	8.0	32.8	32.8	89.2	89.3	6.7	6.7	4.9		6		90				<0.2		1.9	
						10.0	0.2	148	20.3		8.0		32.8		89.3		6.7		4.9		7		91				<0.2		2.0	
IM1	Cloudy	Moderate	15:41	4.5	Surface	1.0	0.1	111	20.1	20.1	7.8	7.8	32.1	32.1	97.9	97.9	7.4	7.4	3.5		8		83				<0.2		1.0	
						1.0	0.1	120	20.1		7.8		32.1		97.9		7.4		3.6		8		84				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.2	123	20.1	20.1	7.8	7.8	32.1	32.1	97.4	97.4	7.3	7.3	3.5		8	8	88	86	817955	807111	<0.2	<0.2	0.9	0.9
						3.5	0.2	132	20.1		7.8		32.1		97.3		7.3		3.3		8		88				<0.2		0.8	
IM2	Cloudy	Rough	15:34	6.7	Surface	1.0	0.2	126	20.0	20.0	7.8	7.8	31.7	31.7	96.6	96.7	7.3	7.3	5.4	6.7	9	9	83	88	818170	806183	<0.2	<0.2	1.0	1.0
						1.0	0.2	135	20.0		7.8		31.7		96.7		7.3		5.7		9		84				<0.2		1.0	
					Middle	3.4	0.2	114	20.0	20.0	7.8	7.8	32.0	32.0	96.6	96.6	7.3		7.0		10		88				<0.2		1.0	
						3.4	0.2	121	20.0		7.8		32.0		96.6		7.3		7.0		9		89				<0.2		0.9	
					Bottom	5.7	0.2	120	20.1	20.1	7.8	7.8	32.0	32.0	96.6	96.6	7.3	7.3	7.5		10		91				<0.2		1.0	
						5.7	0.2	131	20.1		7.8		32.0		96.5		7.3		7.6		9		92				<0.2		1.0	
IM3	Cloudy	Rough	15:27	6.8	Surface	1.0	0.3	158	20.1	20.1	7.8	7.8	31.6	31.6	96.1	96.0	7.2	7.3	6.7	9.2	13	13	83	87	818799	805590	<0.2	<0.2	1.4	1.4
						1.0	0.4	162	20.1		7.8		31.6		95.8		7.2		6.8		12		83				<0.2		1.4	
					Middle	3.4	0.3	145	20.1	20.1	7.8	7.8	31.7	31.7	96.7	97.0	7.3		7.3		13		88				<0.2		1.4	
						3.4	0.4	137	20.1		7.8		31.7		97.2		7.3		7.2		13		88				<0.2		1.3	
					Bottom	5.8	0.2	133	20.2	20.2	7.8	7.8	31.8	31.8	96.1	96.0	7.2	7.2	13.5		13		91				<0.2		1.2	
						5.8	0.2	133	20.2		7.8		31.8		95.9		7.2		13.4		12		91				<0.2		1.4	
IM4	Cloudy	Rough	15:18	7.8	Surface	1.0	0.4	154	20.1	20.1	7.8	7.8	31.5	31.5	96.7	96.7	7.3	7.3	7.7	8.1	11	12	83	88	819702	804597	<0.2	<0.2	1.3	1.4
						1.0	0.5	153	20.1		7.8		31.5		96.7		7.3		7.8		10		84				<0.2		1.4	
					Middle	3.9	0.4	152	20.1	20.1	7.8	7.8	31.6	31.6	96.3	96.2	7.3		8.1		12		88				<0.2		1.4	
						3.9	0.4	132	20.1		7.8		31.6		96.1		7.2		8.3		13		88				<0.2		1.4	
					Bottom	6.8	0.4	144	20.1	20.1	7.8	7.8	31.6	31.6	96.3	96.3	7.3	7.3	8.3		12		91				<0.2		1.3	
						6.8	0.4	157	20.1		7.8		31.6		96.3		7.3		8.2		13		91				<0.2		1.3	
IM5	Cloudy	Rough	15:10	6.5	Surface	1.0	0.7	198	20.1	20.1	7.8	7.8	31.5	31.5	96.6	96.7	7.3	7.3	5.7	6.5	11	10	83	87	820719	804849	<0.2	<0.2	1.7	1.2
						1.0	0.7	185	20.1		7.8		31.6		96.8		7.3		5.9		10		84				<0.2		1.6	
					Middle	3.3	0.6	172	20.1	20.1	7.8	7.8	31.6	31.6	97.0	97.1	7.3		6.4		10		87				<0.2		0.9	
						3.3	0.6	185	20.1		7.8		31.6		97.1		7.3		6.5		10		88				<0.2		0.8	
					Bottom	5.5	0.4	178	20.1	20.1	7.8	7.8	31.7	31.7	96.8	96.8	7.3	7.3	7.2		9		91				<0.2		1.1	
						5.5	0.5	181	20.1		7.8		31.7		96.8		7.3		7.2		9		91				<0.2		1.1	
IM6	Cloudy	Rough	15:02	6.8	Surface	1.0	0.3	201	20.1	20.1	7.8	7.8	32.0	32.0	96.6	96.6	7.3	7.3	4.8	5.9	8	9	83	88	821047	805810	<0.2	<0.2	1.0	1.0
						1.0	0.3	214	20.1		7.8		32.0		96.6		7.3		4.8		9		84				<0.2		1.0	
					Middle	3.4	0.3	196	20.1	20.1	7.8	7.8	32.0	32.0	96.4	96.5	7.2		5.1		9		88				<0.2		1.0	
						3.4	0.3	198	20.1		7.8		32.0		96.5		7.3		5.2		9		88				<0.2		1.0	
					Bottom	5.8	0.3	193	20.1	20.1	7.8	7.8	32.0	32.0	96.3	96.2	7.2	7.2	7.4		9		91				<0.2		1.1	
						5.8	0.3	201	20.1		7.8		32.0		96.0		7.2		7.9		9		91				<0.2		1.1	
IM7	Cloudy	Moderate	14:55	7.8	Surface	1.0	0.2	206	20.4	20.4	7.7	7.7	30.7	30.7	95.2	95.3	7.2	7.2	2.4	4.6	5	5	83	88	821358	806832	<0.2	<0.2	1.0	1.0
						1.0	0.2	211	20.4		7.7		30.8		95.4		7.2		2.7		5		84				<0.2		1.0	
					Middle	3.9	0.3	182	20.3	20.3	7.7	7.7	31.1	31.1	95.5	95.5	7.2		3.8		6		88				<0.2		1.0	
						3.9	0.3	194	20.3		7.7		31.1		95.5		7.2		4.0		5		88				<0.2		1.0	
					Bottom	6.8	0.2	195	20.2	20.2	7.7	7.7	31.8	31.8	95.4	95.3	7.2	7.2	7.2		5		91				<0.2		1.0	
						6.8	0.2	186	20.2		7.7		31.8		95.2		7.2		7.3		6		91				<0.2		1.1	
IM8	Cloudy	Moderate	15:36	7.1	Surface	1.0	0.1	199	20.5	20.5	7.9	7.9	30.5	30.5	92.0	92.1	6.9	7.0	5.0	5.5	5	3	87	89	821841	808129	<0.2	<0.2	1.7	1.7
						1.0	0.1	189	20.5		7.9		30.5		92.1		6.9		5.1		4		86				<0.2		1.6	
					Middle	3.6	0.0	172	20.5	20.5	7.9	7.9	30.5	30.5	92.4	92.5	7.0		5.5		3		89				<0.2		1.6	
						3.6	0.0	186	20.5		7.9		30.6		92.5		7.0		5.6		2		88				<0.2		1.7	
					Bottom	6.1	0.1	194	20.4	20.4	7.9	7.9	30.6	30.6	95.5	95.6	7.2	7.2	6.0		3		90				<0.2		1.7	
						6.1	0.1	178	20.4		7.9		30.6		95.7		7.2		5.9		3		91				<0.2		1.7	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 31 December 19 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
IM9	Cloudy	Calm	15:41	6.8	Surface	1.0	0.2	188	20.4	20.4	8.0	8.0	30.9	30.9	92.4	92.5	7.0	7.0	12.6	11.7	10	10	85	88	822104	808819	<0.2	<0.2	1.8	1.8
						1.0	0.2	177	20.4		8.0		30.9		92.5		7.0		12.8		9		86				<0.2		1.8	
					Middle	3.4	0.1	175	20.4	20.4	8.0	8.0	31.0	31.0	93.3	93.4	7.0		14.4		11		88				<0.2		1.6	
						3.4	0.1	178	20.4		8.0		31.0		93.4		7.0		13.9		10		89				<0.2		1.7	
					Bottom	5.8	0.1	184	20.3	20.3	8.0	8.0	31.6	31.6	96.0	96.1	7.2	7.2	8.2		11		90				<0.2		1.9	
						5.8	0.1	168	20.3		8.0		31.6		96.2		7.2		8.1		10		90				<0.2		1.8	
IM10	Cloudy	Moderate	15:47	7.3	Surface	1.0	0.3	182	20.2	20.2	8.0	8.0	31.8	31.8	93.2	93.2	7.0	7.0	9.2	10.6	10	10	86	89	822361	809785	<0.2	<0.2	1.8	1.8
						1.0	0.4	185	20.2		8.0		31.8		93.2		7.0		9.3		10		87				<0.2		1.7	
					Middle	3.7	0.5	193	20.2	20.2	8.0	8.0	31.8	31.8	93.4	93.5	7.0		10.7		11		89				<0.2		1.8	
						3.7	0.5	182	20.2		8.0		31.8		93.5		7.0		11.0		10		88				<0.2		1.9	
					Bottom	6.3	0.3	163	20.2	20.2	8.0	8.0	31.8	31.8	96.0	96.5	7.2	7.3	11.9		10		91				<0.2		1.9	
						6.3	0.3	158	20.2		8.0		31.8		97.0		7.3		11.4		9		92				<0.2		1.7	
IM11	Cloudy	Moderate	15:59	7.9	Surface	1.0	0.3	163	20.3	20.3	8.0	8.0	31.7	31.7	92.7	92.8	7.0	7.0	8.3	10.4	8	8	86	88	822049	811479	<0.2	<0.2	1.7	1.9
						1.0	0.3	165	20.3		8.0		31.7		92.8		7.0		8.5		8		86				<0.2		1.8	
					Middle	4.0	0.3	173	20.3	20.3	8.0	8.0	31.8	31.8	93.5	93.6	7.0		10.8		8		88				<0.2		1.9	
						4.0	0.3	165	20.3		8.0		31.8		93.7		7.0		11.1		8		87				<0.2		1.9	
					Bottom	6.9	0.2	163	20.2	20.2	8.0	8.0	31.8	31.8	96.2	96.3	7.2	7.2	11.8		8		90				<0.2		1.9	
						6.9	0.2	154	20.2		8.0		31.8		96.4		7.2		11.8		8		90				<0.2		1.9	
IM12	Cloudy	Moderate	16:05	8.4	Surface	1.0	0.3	152	20.2	20.2	8.0	8.0	31.9	31.9	94.0	94.1	7.1	7.2	7.8	9.1	8	9	86	88	821436	812051	<0.2	<0.2	1.7	1.7
						1.0	0.3	158	20.2		8.0		31.9		94.1		7.1		7.9		10		87				<0.2		1.7	
					Middle	4.2	0.3	168	20.2	20.2	8.0	8.0	31.9	31.9	95.7	95.8	7.2		9.2		10		89				<0.2		1.7	
						4.2	0.3	153	20.2		8.0		31.9		95.9		7.2		9.3		9		88				<0.2		1.6	
					Bottom	7.4	0.2	155	20.2	20.2	8.0	8.0	31.8	31.8	97.1	97.2	7.3	7.3	10.1		9		90				<0.2		1.6	
						7.4	0.2	161	20.2		8.0		31.8		97.3		7.3		10.1		10		90				<0.2		1.8	
SR1A	Cloudy	Moderate	16:20	5.4	Surface	1.0	-	-	20.3	20.3	8.0	8.0	32.0	32.0	93.7	93.8	7.0	7.0	6.7	6.8	9	9	-	-	819982	812654	-	-	-	-
						1.0	-	-	20.3		8.0		32.0		93.9		7.0		6.8		8		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	20.2	20.2	8.0	8.0	32.0	32.0	96.2	96.4	7.2	7.2	6.8		9		-				-		-	
						4.4	-	-	20.2		8.0		32.0		96.5		7.2		6.8		8		-				-		-	
SR2	Cloudy	Calm	16:31	4.8	Surface	1.0	0.2	128	20.2	20.2	8.0	8.0	31.9	31.9	95.9	96.3	7.2	7.3	6.1	6.1	7	7	86	88	821481	814163	<0.2	<0.2	1.9	1.8
						1.0	0.3	130	20.2		8.0		31.9		96.7		7.3		6.2		7		87				<0.2		1.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	142	20.2	20.2	8.0	8.0	32.0	32.0	98.4	98.6	7.4	7.4	6.1		7		89				<0.2		1.8	
						3.8	0.3	134	20.2		8.0		32.0		98.7		7.4		6.0		6		90				<0.2		1.9	
SR3	Cloudy	Moderate	15:31	8.2	Surface	1.0	0.1	189	20.5	20.5	8.0	8.0	30.5	30.5	92.5	92.6	7.0	7.1	5.2	8.4	5	6	-	-	822131	807551	-	-	-	-
						1.0	0.1	196	20.5		8.0		30.5		92.6		7.0		5.4		5		-				-		-	
					Middle	4.1	0.1	170	20.3	20.3	8.0	8.0	31.0	31.0	94.2	94.3	7.1		8.2		7		-				-		-	
						4.1	0.1	171	20.3		8.0		31.1		94.3		7.1		8.5		6		-				-		-	
					Bottom	7.2	0.2	137	20.2	20.2	8.0	8.0	31.6	31.6	95.6	95.7	7.2	7.2	11.5		6		-				-		-	
						7.2	0.2	144	20.2		8.0		31.6		95.7		7.2		11.6		7		-				-		-	
SR4A	Cloudy	Moderate	16:31	9.1	Surface	1.0	0.3	85	20.1	20.1	7.8	7.8	32.1	32.1	96.9	97.0	7.3	7.3	6.6	6.7	10	12	-	-	817175	807829	-	-	-	-
						1.0	0.4	93	20.1		7.8		32.1		97.0		7.3		6.8		11		-				-		-	
					Middle	4.6	0.2	66	20.1	20.1	7.8	7.8	32.1	32.1	97.2	97.3	7.3		6.8		12		-				-		-	
						4.6	0.3	71	20.1		7.8		32.1		97.4		7.3		6.8		13		-				-		-	
					Bottom	8.1	0.2	69	20.1	20.1	7.8	7.8	32.2	32.2	96.9	96.9	7.3	7.3	6.6		13		-				-		-	
						8.1	0.2	72	20.1		7.8		32.2		96.9		7.3		6.6		13		-				-		-	
SR5A	Cloudy	Calm	16:46	4.7	Surface	1.0	0.1	64	20.3	20.3	7.8	7.8	32.2	32.2	95.0	95.0	7.1	7.1	5.8	6.2	12	11	-	-	816573	810717	-	-	-	-
						1.0	0.1	67	20.3		7.8		32.2		94.9		7.1		5.8		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	115	20.3	20.3	7.8	7.8	32.2	32.2	95.2	95.3	7.1	7.1	6.6		11		-				-		-	
						3.7	0.1	119	20.3		7.8		32.2		95.3		7.1		6.6		10		-				-		-	
SR6A	Cloudy	Calm	17:08	4.0	Surface	1.0	0.0	145	20.2	20.2	7.8	7.8	32.0	32.0	96.2	96.2	7.2	7.2	2.3	2.4	9	7	-	-	817947	814744	-	-	-	-
						1.0	0.0	156	20.2		7.8		32.0		96.2		7.2		2.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.0	76	20.2	20.2	7.8	7.8	32.0	32.0	97.0	96.9	7.3	7.3	2.5		6		-				-		-	
						3.0	0.0	77	20.2		7.8		32.0		96.8		7.3		2.5		6		-				-		-	
SR7	Cloudy	Moderate	17:24	16.4	Surface	1.0	0.1	132	20.3	20.3	8.0	8.0	32.7	32.7	86.8	86.8	6.5	6.5	3.1	4.5	4	5	-	-	823616	823721	-	-	-	-
						1.0	0.1	154	20.3		8.0		32.7		86.7		6.5		3.2		4		-				-		-	
					Middle	8.2	0.1	121	20.3	20.3	8.0	8.0	32.9	32.9	86.6	86.7	6.5		4.9		4		-				-		-	
						8.2	0.1	123	20.3		8.0		32.9		86.7		6.5		5.0		4		-				-		-	
					Bottom	15.4	0.1	165	20.3	20.3	8.0	8.0	33.0	33.0	88.7	88.8	6.6	6.6	5.3		6		-				-		-	
						15.4	0.1	171	20.3		8.0		33.0		88.8		6.6		5.4		5		-				-		-	
SR8	Cloudy	Moderate	16:12	5.6	Surface	1.0	-	-	20.3	20.3	8.0	8.0	31.8	31.8	95.7	95.9	7.2	7.2	7.7	9.5	10	11	-	-	820392	811617	-	-	-	-
						1.0	-	-	20.3		8.0		31.9		96.0		7.2		7.8		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	-	-	20.2	20.2	8.0	8.0	32.0	32.0	97.7	97.9	7.3	7.4	11.4		12		-				-		-	
						4.6	-	-	20.2		8.0		32.0		98.0		7.4		11.2		12		-				-		-	

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**

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 31 December 19 during Mid-Flood Tide

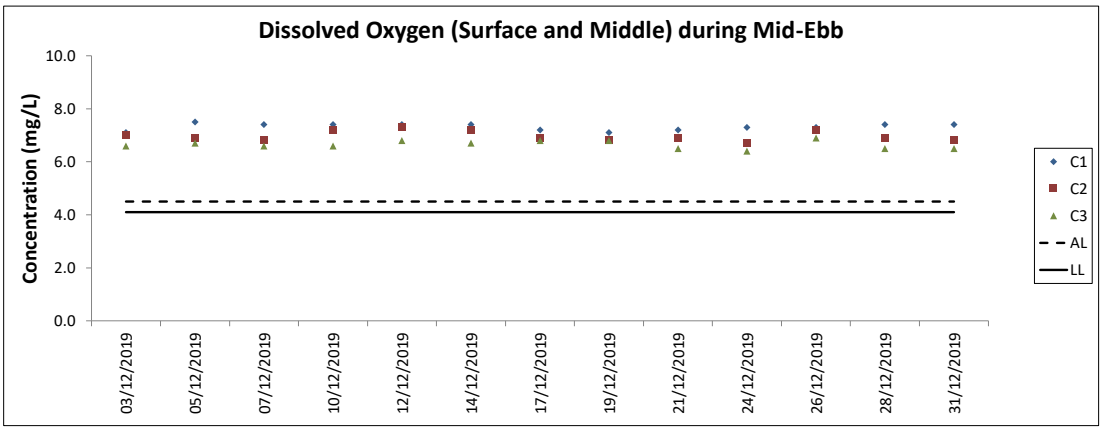
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
C1	Rainy	Rough	11:29	8.2	Surface	1.0	0.3	35	20.0	20.0	7.8	7.8	32.0	32.0	96.7	96.8	7.3	7.3	6.7	9.2	8	8	83	87	815611	804244	<0.2	<0.2	0.8	1.2
						1.0	0.3	36	20.0		7.8		32.1		96.8		7.3		7.2		8		84				<0.2		0.9	
					Middle	4.1	0.2	39	20.0	20.0	7.8	7.8	32.3	32.3	96.0	96.1	7.2		9.9		8		87				<0.2		1.1	
						4.1	0.3	42	20.0		7.8		32.3		96.1		7.2		9.6		8		88				<0.2		1.0	
					Bottom	7.2	0.3	28	20.0	20.0	7.8	7.8	32.5	32.5	95.8	95.9	7.2	7.2	10.9		8		91				<0.2		1.7	
						7.2	0.3	30	20.0		7.8		32.5		95.9		7.2		10.6		8		91				<0.2		1.6	
C2	Rainy	Moderate	11:44	11.3	Surface	1.0	0.3	318	20.5	20.5	7.9	7.9	30.4	30.4	90.5	90.5	6.8	6.8	3.5	5.1	4	4	85	88	825683	806931	<0.2	<0.2	1.5	1.8
						1.0	0.3	318	20.5		7.9		30.4		90.4		6.8		3.5		3		86				<0.2		1.7	
					Middle	5.7	0.3	339	20.5	20.5	7.9	7.9	30.8	30.8	90.3	90.3	6.8		5.4		3		88				<0.2		1.8	
						5.7	0.3	347	20.5		7.9		30.8		90.3		6.8		5.6		4		87				<0.2		1.7	
					Bottom	10.3	0.3	327	20.5	20.5	7.9	7.9	30.9	30.9	90.8	90.9	6.8	6.8	6.3		4		89				<0.2		1.8	
						10.3	0.3	336	20.5		7.9		30.9		90.9		6.8		6.2		4		91				<0.2		2.0	
C3	Foggy	Moderate	10:08	11.0	Surface	1.0	0.5	280	20.4	20.4	8.0	8.0	31.8	31.8	91.6	91.6	6.9	6.9	4.4	9.7	5	5	86	88	822127	817815	<0.2	<0.2	1.8	1.9
						1.0	0.5	303	20.4		8.0		31.8		91.5		6.9		4.6		5		85				<0.2		2.0	
					Middle	5.5	0.4	283	20.3	20.3	8.0	8.0	32.1	32.1	90.7	90.8	6.8		9.9		6		88				<0.2		1.8	
						5.5	0.4	308	20.3		8.0		32.1		90.8		6.8		10.1		5		88				<0.2		1.9	
					Bottom	10.0	0.3	285	20.3	20.3	8.0	8.0	32.1	32.1	91.2	91.2	6.8	6.8	14.6		5		90				<0.2		1.7	
						10.0	0.3	291	20.3		8.0		32.1		91.2		6.8		14.6		6		91				<0.2		1.9	
IM1	Rainy	Moderate	11:47	4.4	Surface	1.0	0.1	353	20.2	20.2	7.8	7.8	32.2	32.2	94.7	94.8	7.1	7.1	5.6	6.5	8	9	83	87	817936	807142	<0.2	<0.2	1.9	1.9
						1.0	0.1	325	20.2		7.8		32.2		94.9		7.1		5.9		9		84				<0.2		2.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	346	20.1	20.1	7.8	7.8	32.2	32.2	95.7	95.9	7.2	7.2	7.2		9		91				<0.2		1.9	
						3.4	0.2	318	20.2		7.8		32.2		96.0		7.2		7.2		9		91				<0.2		1.9	
IM2	Rainy	Rough	11:55	6.6	Surface	1.0	0.2	34	20.1	20.1	7.8	7.8	32.0	32.0	96.3	96.5	7.2	7.2	6.2	9.1	10	10	84	88	818151	806164	<0.2	<0.2	1.8	2.0
						1.0	0.2	35	20.1		7.8		32.0		96.6		7.3		6.3		9		84				<0.2		1.9	
					Middle	3.3	0.2	5	20.1	20.1	7.7	7.7	32.0	32.0	96.2	96.3	7.2		9.0		11		88				<0.2		2.0	
						3.3	0.2	5	20.1		7.8		32.0		96.3		7.2		9.5		10		88				<0.2		2.0	
					Bottom	5.6	0.2	359	20.1	20.1	7.8	7.8	32.0	32.0	95.9	95.8	7.2	7.2	11.9		10		91				<0.2		2.1	
						5.6	0.2	330	20.1		7.8		32.0		95.6		7.2		11.9		10		92				<0.2		2.0	
IM3	Rainy	Rough	12:02	6.7	Surface	1.0	0.3	4	20.1	20.1	7.8	7.8	31.3	31.3	96.9	96.9	7.3	7.3	4.4	5.7	8	9	83	87	818796	805570	<0.2	<0.2	2.1	1.4
						1.0	0.3	4	20.1		7.8		31.3		96.8		7.3		4.5		9		84				<0.2		2.0	
					Middle	3.4	0.2	348	20.2	20.2	7.8	7.8	31.8	31.8	95.6	95.5	7.2		6.1		8		87				<0.2		1.0	
						3.4	0.2	320	20.2		7.8		31.8		95.3		7.2		6.2		9		88				<0.2		1.0	
					Bottom	5.7	0.2	335	20.2	20.2	7.8	7.8	31.9	31.9	95.7	95.7	7.2	7.2	6.6		9		91				<0.2		1.0	
						5.7	0.2	347	20.2		7.8		31.9		95.7		7.2		6.6		9		91				<0.2		1.0	
IM4	Rainy	Rough	12:10	7.6	Surface	1.0	0.4	359	20.1	20.1	7.8	7.8	31.3	31.3	96.5	96.5	7.3	7.3	4.7	6.0	7	8	83	88	819708	804591	<0.2	<0.2	1.0	0.9
						1.0	0.5	330	20.1		7.8		31.3		96.4		7.3		4.8		7		84				<0.2		0.9	
					Middle	3.8	0.4	353	20.1	20.1	7.8	7.8	31.7	31.7	95.5	95.5	7.2		6.1		8		88				<0.2		0.9	
						3.8	0.4	325	20.1		7.8		31.7		95.4		7.2		6.2		9		88				<0.2		1.0	
					Bottom	6.6	0.4	0	20.1	20.1	7.8	7.8	31.7	31.7	96.0	96.1	7.2	7.2	7.0		9		91				<0.2		0.9	
						6.6	0.4	0	20.1		7.8		31.7		96.2		7.2		7.0		8		92				<0.2		0.9	
IM5	Rainy	Rough	12:17	6.4	Surface	1.0	0.6	17	20.1	20.1	7.7	7.7	31.4	31.5	96.4	96.4	7.3	7.3	6.7	7.9	13	12	83	87	820729	804870	<0.2	<0.2	0.9	0.9
						1.0	0.6	17	20.1		7.7		31.5		96.4		7.3		7.3		12		84				<0.2		0.9	
					Middle	3.2	0.5	20	20.1	20.1	7.8	7.8	31.8	31.8	95.7	95.8	7.2		8.0		13		87				<0.2		1.0	
						3.2	0.5	20	20.1		7.8		31.8		95.8		7.2		7.9		12		87				<0.2		1.0	
					Bottom	5.4	0.4	16	20.1	20.1	7.8	7.8	31.9	31.9	95.8	96.0	7.2	7.2	8.7		12		90				<0.2		0.9	
						5.4	0.4	17	20.1		7.8		31.9		96.2		7.2		8.7		12		91				<0.2		0.9	
IM6	Rainy	Rough	12:23	6.7	Surface	1.0	0.1	256	20.1	20.1	7.8	7.8	32.0	32.0	96.9	96.9	7.3	7.3	5.7	6.8	10	12	84	88	821071	805806	<0.2	<0.2	1.0	1.0
						1.0	0.1	259	20.1		7.8		32.0		96.8		7.3		5.9		11		84				<0.2		1.0	
					Middle	3.4	0.1	237	20.1	20.1	7.8	7.8	32.0	32.0	96.5	96.6	7.3		6.3		11		87				<0.2		0.9	
						3.4	0.1	260	20.1		7.8		32.0		96.6		7.3		6.6		12		88				<0.2		1.0	
					Bottom	5.7	0.0	219	20.1	20.1	7.8	7.8	32.0	32.0	96.9	97.0	7.3	7.3	8.3		13		91				<0.2		1.1	
						5.7	0.0	228	20.1		7.8		32.0		97.0		7.3		7.7		12		92				<0.2		1.0	
IM7	Rainy	Rough	12:33	7.9	Surface	1.0	0.1	23	20.5	20.5	7.7	7.7	30.6	30.6	94.3	94.6	7.1	7.2	1.7	4.0	7	7	84	88	821369	806840	<0.2	<0.2	1.0	1.0
						1.0	0.1	23	20.5		7.7		30.6		94.8		7.1		1.8		6		85				<0.2		1.0	
					Middle	4.0	0.2	68	20.3	20.3	7.8	7.8	31.3	31.3	96.2	96.2	7.2		4.1		7		87				<0.2		0.9	
						4.0	0.2	68	20.3		7.8		31.3		96.2		7.2		4.2		6		88				<0.2		0.9	
					Bottom	6.9	0.2	83	20.2	20.2	7.8	7.8	31.9	31.9	95.8	95.7	7.2	7.2	6.0		7		91				<0.2		1.0	
						6.9	0.3	84	20.2		7.8		31.9		95.5		7.2		5.9		7		92				<0.2		0.9	
IM8	Rainy	Moderate	11:19	7.6	Surface	1.0	0.0	252	20.5	20.5	7.9	7.9	30.5	30.5	92.0	92.0	6.9	7.0	7.8	10.7	9	8	87	89	821849	808162	<0.2	<0.2	0.8	0.9
						1.0	0.0	257	20.5		7.9		30.5		92.0		6.9		7.7		8		86				<0.2		0.9	
					Middle	3.8	0.1	29	20.5	20.5	7.9	7.9	30.6	30.6	92.6	92.7	7.0		10.6		9		88				<0.2		1.0	
						3.8	0.1	29	20.5		7.9		30.6		92.7		7.0		10.8		8		89				<0.2		0.9	
					Bottom	6.6	0.1	81	20.5	20.5	7.9	7.9	30.7	30.6	94.5	94.7	7.1	7.1	13.6		8		90				<0.2		0.9	
						6.6	0.1	85	20.5		7.9		30.6		94.8		7.1		13.7		7		91				<0.2		0.9	

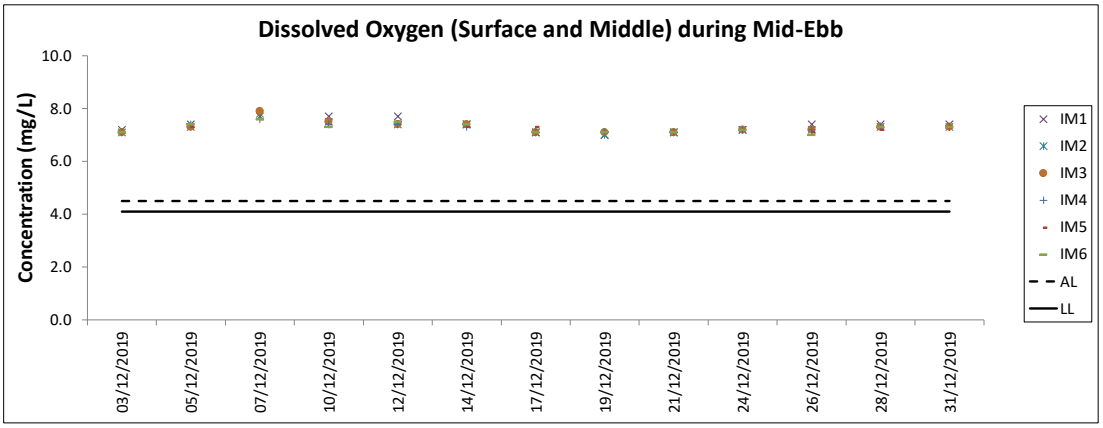
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**

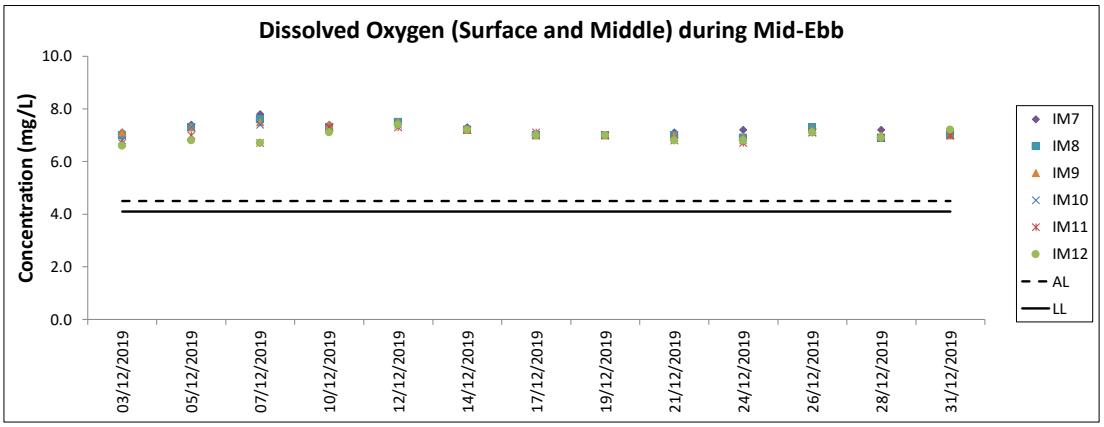
Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 31 December 19 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C) Value	Water Temperature (°C) Average	pH Value	pH Average	Salinity (ppt) Value	Salinity (ppt) Average	DO Saturation (%) Value	DO Saturation (%) Average	Dissolved Oxygen Value	Dissolved Oxygen DA	Turbidity(NTU) Value	Turbidity(NTU) DA	Suspended Solids (mg/L) Value	Suspended Solids (mg/L) DA	Total Alkalinity (ppm) Value	Total Alkalinity (ppm) DA	Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L) Value	Chromium (µg/L) DA	Nickel (µg/L) Value	Nickel (µg/L) DA
IM9	Rainy	Moderate	11:14	7.4	Surface	1.0	0.1	273	20.4	20.4	8.0	8.0	30.9	30.9	92.8	92.8	7.0	7.0	5.5	6.9	7	8	86	88	822100	808802	<0.2	<0.2	0.9	0.9
						1.0	0.2	280	20.4		8.0		30.9		92.8		7.0		5.7		7		86				<0.2		1.0	
					Middle	3.7	0.1	312	20.3	20.3	8.0	8.0	31.4	31.4	93.1	93.2	7.0		7.5		8		89				<0.2		0.9	
						3.7	0.2	340	20.3		8.0		31.4		93.2		7.0		7.3		8		88				<0.2		0.9	
					Bottom	6.4	0.1	300	20.3	20.3	8.0	8.0	31.5	31.5	94.9	95.1	7.1	7.2	7.7		10		90				<0.2		0.9	
						6.4	0.1	316	20.3		8.0		31.5		95.3		7.2		7.6		10		90				<0.2		0.9	
IM10	Rainy	Moderate	11:08	7.4	Surface	1.0	0.0	358	20.2	20.2	8.0	8.0	31.5	31.5	92.0	92.0	6.9	7.0	8.5	8.2	9	10	86	88	822379	809795	<0.2	<0.2	1.8	1.9
						1.0	0.0	329	20.2		8.0		31.5		92.0		6.9		8.5		9		85				<0.2		2.0	
					Middle	3.7	0.0	298	20.2	20.2	8.0	8.0	31.5	31.5	92.4	92.4	7.0		8.4		10		88				<0.2		1.9	
						3.7	0.0	317	20.2		8.0		31.5		92.4		7.0		8.3		10		87				<0.2		1.9	
					Bottom	6.4	0.1	262	20.2	20.2	8.0	8.0	31.5	31.5	93.5	93.7	7.0	7.1	7.7		10		90				<0.2		2.0	
						6.4	0.1	266	20.2		8.0		31.5		93.8		7.1		7.7		11		91				<0.2		1.9	
IM11	Rainy	Moderate	10:58	8.4	Surface	1.0	0.4	301	20.2	20.2	8.0	8.0	31.6	31.6	93.2	93.2	7.0	7.1	7.3	9.5	10	11	86	89	822071	811441	<0.2	<0.2	1.8	1.9
						1.0	0.4	316	20.2		8.0		31.6		93.2		7.0		7.4		9		86				<0.2		1.7	
					Middle	4.2	0.4	307	20.2	20.2	8.0	8.0	31.8	31.8	93.9	94.0	7.1		9.8		11		89				<0.2		1.9	
						4.2	0.4	326	20.2		8.0		31.8		94.1		7.1		9.8		12		88				<0.2		2.0	
					Bottom	7.4	0.3	307	20.2	20.2	8.0	8.0	31.8	31.8	94.9	95.0	7.1	7.1	11.2		11		91				<0.2		2.0	
						7.4	0.4	327	20.2		8.0		31.8		95.0		7.1		11.3		12		92				<0.2		2.0	
IM12	Rainy	Moderate	10:52	7.7	Surface	1.0	0.5	280	20.2	20.2	8.0	8.0	31.8	31.8	92.4	92.4	6.9	6.9	10.4	11.5	13	12	86	88	821464	812046	<0.2	<0.2	2.0	1.8
						1.0	0.5	300	20.2		8.0		31.8		92.4		6.9		10.5		14		86				<0.2		2.0	
					Middle	3.9	0.4	292	20.2	20.2	8.0	8.0	31.9	31.9	92.2	92.2	6.9		11.2		12		88				<0.2		1.7	
						3.9	0.4	309	20.2		8.0		31.9		92.2		6.9		11.1		11		87				<0.2		1.8	
					Bottom	6.7	0.4	291	20.2	20.2	8.0	8.0	32.0	32.0	93.0	93.0	7.0	7.0	13.1		10		90				<0.2		1.8	
						6.7	0.5	318	20.2		8.0		32.0		93.0		7.0		13.0		9		91				<0.2		1.7	
SR1A	Foggy	Moderate	10:37	4.9	Surface	1.0	-	-	20.3	20.3	8.0	8.0	32.0	32.0	92.8	93.0	7.0	7.0	6.5	7.3	8	8	-	-	819979	812661	-	-	-	-
						1.0	-	-	20.3		8.0		32.0		93.1		7.0		6.8		8		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	20.3	20.3	8.0	8.0	32.0	32.0	94.4	94.5	7.1	7.1	8.0		7		-				-		-	
						3.9	-	-	20.3		8.0		32.0		94.6		7.1		8.0		8		-				-		-	
SR2	Foggy	Moderate	10:26	4.1	Surface	1.0	0.3	124	20.3	20.3	8.0	8.0	31.5	31.5	94.4	94.4	7.1	7.1	7.5	8.3	7	8	86	88	821483	814181	<0.2	<0.2	1.8	1.8
						1.0	0.4	128	20.3		8.0		31.5		94.4		7.1		7.5		6		86				<0.2		1.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.3	122	20.0	20.0	8.0	8.0	31.7	31.8	96.1	96.3	7.3	7.3	9.1		9		89				<0.2		1.7	
						3.1	0.3	132	20.0		8.0		31.8		96.5		7.3		9.0		9		90				<0.2		1.7	
SR3	Rainy	Moderate	11:25	8.6	Surface	1.0	0.2	350	20.5	20.5	7.9	7.9	30.4	30.4	91.7	91.7	6.9	7.0	3.9	5.8	6	5	-	-	822146	807566	-	-	-	-
						1.0	0.2	322	20.5		7.9		30.4		91.7		6.9		4.0		6		-				-		-	
					Middle	4.3	0.3	357	20.5	20.5	7.9	7.9	30.5	30.5	92.5	92.6	7.0		5.6		6		-				-		-	
						4.3	0.3	357	20.5		7.9		30.5		92.7		7.0		5.7		5		-				-		-	
					Bottom	7.6	0.3	318	20.5	20.5	7.9	7.9	30.5	30.5	94.5	94.6	7.1	7.1	7.7		4		-				-		-	
						7.6	0.3	342	20.5		7.9		30.5		94.7		7.1		7.9		4		-				-		-	
SR4A	Rainy	Moderate	11:07	9.0	Surface	1.0	0.2	80	20.2	20.2	7.7	7.7	32.1	32.1	94.3	94.8	7.1	7.1	3.9	4.1	8	9	-	-	817199	807826	-	-	-	-
						1.0	0.2	84	20.2		7.7		32.1		95.3		7.1		3.9		8		-				-		-	
					Middle	4.5	0.1	58	20.2	20.2	7.7	7.7	32.1	32.1	94.7	94.7	7.1		4.0		9		-				-		-	
						4.5	0.1	61	20.2		7.7		32.1		94.6		7.1		3.9		9		-				-		-	
					Bottom	8.0	0.1	72	20.2	20.2	7.7	7.7	32.1	32.1	94.8	94.8	7.1	7.1	4.4		8		-				-		-	
						8.0	0.1	73	20.2		7.7		32.1		94.8		7.1		4.5		9		-				-		-	
SR5A	Cloudy	Calm	10:50	4.8	Surface	1.0	0.1	257	20.3	20.3	7.7	7.7	32.3	32.3	93.5	93.5	7.0	7.0	7.7	9.1	9	10	-	-	816610	810678	-	-	-	-
						1.0	0.1	275	20.3		7.7		32.3		93.4		7.0		8.0		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	255	20.3	20.3	7.7	7.7	32.3	32.3	94.0	94.2	7.0	7.1	10.3		11		-				-		-	
						3.8	0.1	265	20.3		7.7		32.3		94.3		7.1		10.4		11		-				-		-	
SR6A	Cloudy	Calm	10:24	3.6	Surface	1.0	0.1	212	20.4	20.4	7.7	7.7	32.2	32.2	93.1	93.3	7.0	7.0	2.2	2.3	6	6	-	-	817953	814760	-	-	-	-
						1.0	0.1	221	20.4		7.7		32.3		93.5		7.0		2.2		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.1	213	20.3	20.3	7.7	7.7	32.3	32.3	94.5	95.0	7.1	7.1	2.5		6		-				-		-	
						2.6	0.1	220	20.3		7.7		32.3		95.4		7.1		2.2		6		-				-		-	
SR7	Foggy	Moderate	09:41	16.8	Surface	1.0	0.3	358	20.3	20.3	8.0	8.0	32.2	32.2	89.5	89.5	6.7	6.7	4.0	4.8	6	8	-	-	823642	823721	-	-	-	-
						1.0	0.3	329	20.3		8.0		32.2		89.5		6.7		4.1		5		-				-		-	
					Middle	8.4	0.2	354	20.3	20.3	8.0	8.0	32.4	32.4	88.8	88.8	6.6		4.9		8		-				-		-	
						8.4	0.2	326	20.3		8.0		32.4		88.8		6.6		5.0		8		-				-		-	
					Bottom	15.8	0.1	341	20.3	20.3	8.0	8.0	32.4	32.4	89.7	89.8	6.7	6.7	5.5		9		-				-		-	
						15.8	0.1	348	20.3		8.0		32.4		89.9		6.7		5.5		10		-				-		-	
SR8	Rainy	Moderate	10:45	5.0	Surface	1.0	-	-	20.2	20.2	8.0	8.0	31.6	31.6	93.1	93.1	7.0	7.0	9.1	9.9	6	7	-	-	820381	811626	-	-	-	-
						1.0	-	-	20.2		8.0		31.6		93.1		7.0		9.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	20.2	20.2	8.0	8.0	31.6	31.6	93.4	93.5	7.0	7.0	10.7		8		-				-		-	
						4.0	-	-	20.2		8.0		31.6		93.6		7.0		10.7		8		-				-		-	

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**


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
C1
C2
C3
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
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8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
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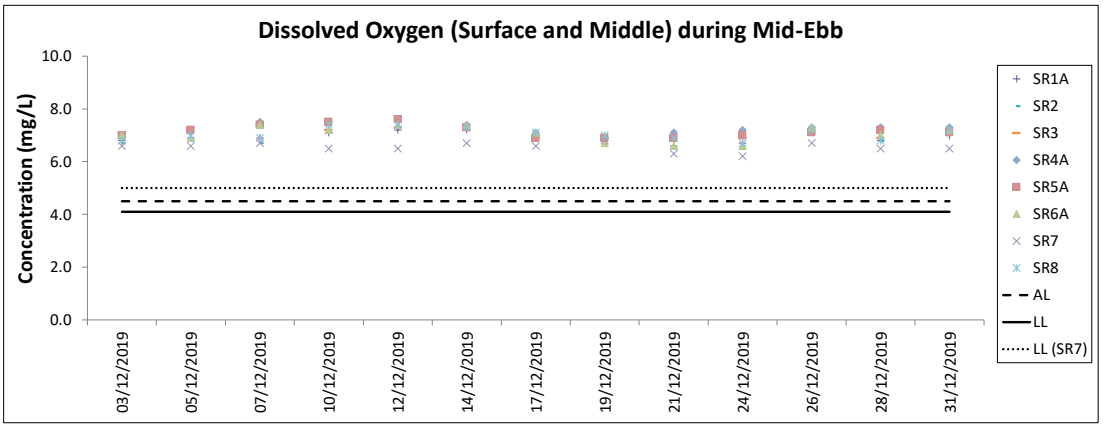
28/12/2019
31/12/2019
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
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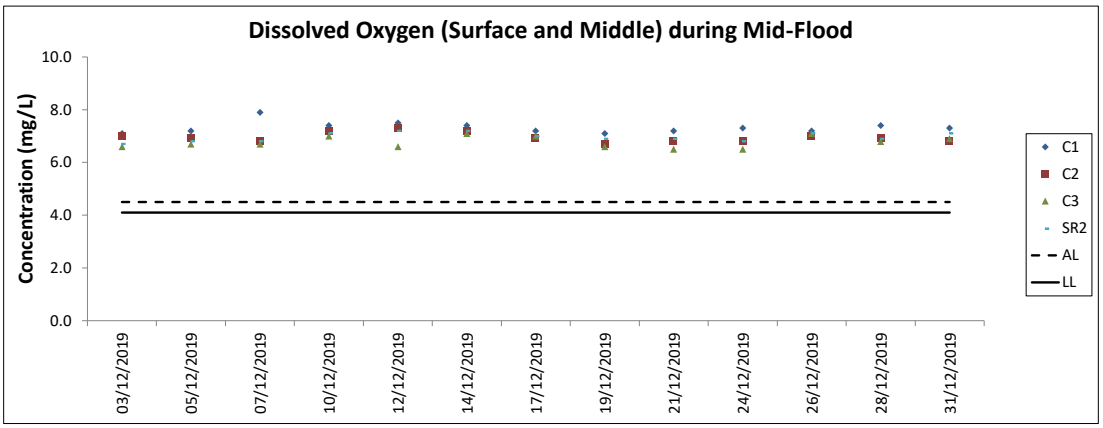
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
SR1A
SR2
SR3
SR4A
SR5A
SR6A
SR7
SR8
AL
LL
LL (SR7)


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
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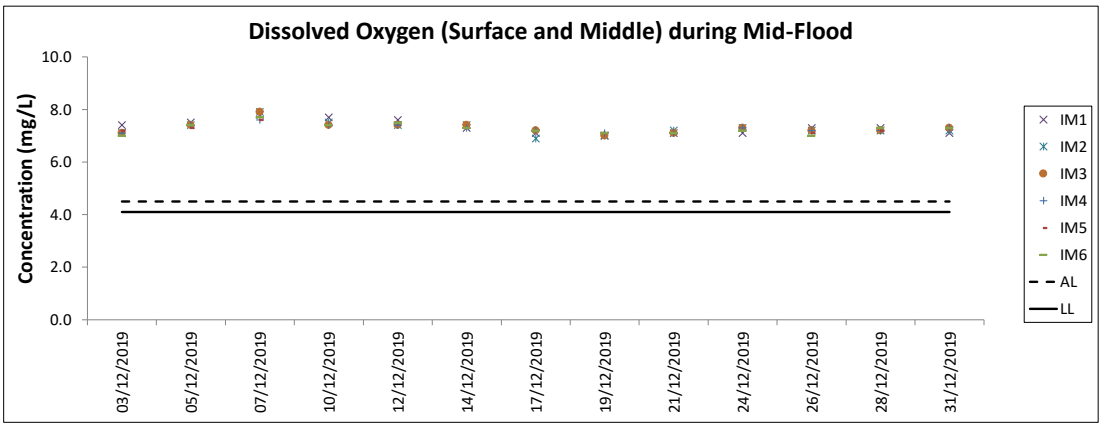
31/12/2019
C1
C2
C3
SR2
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
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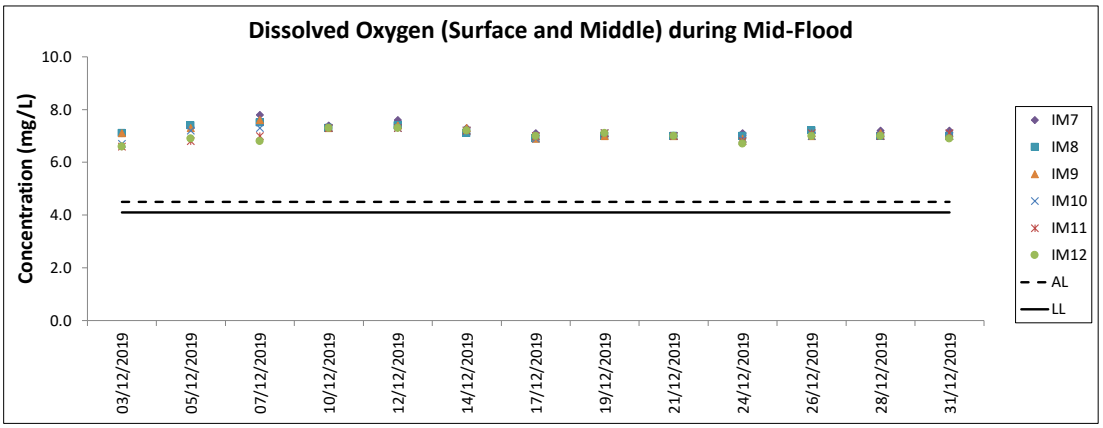
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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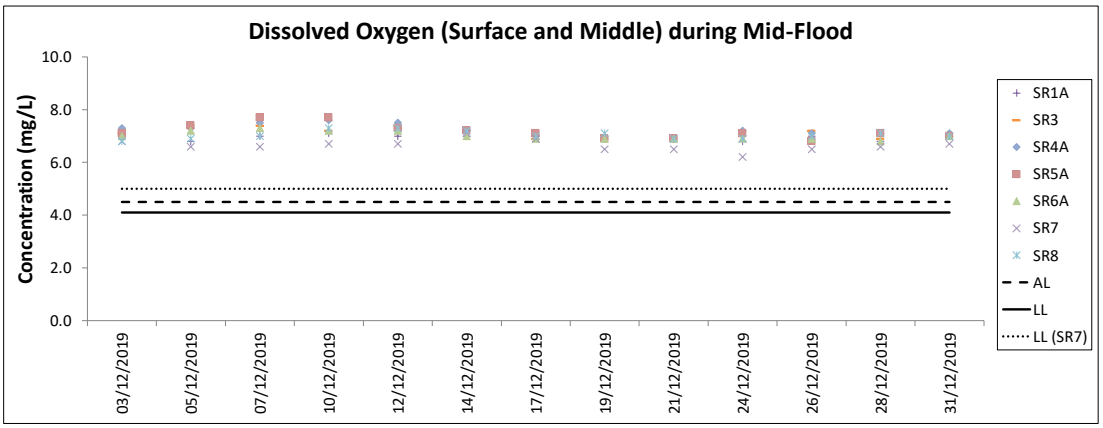
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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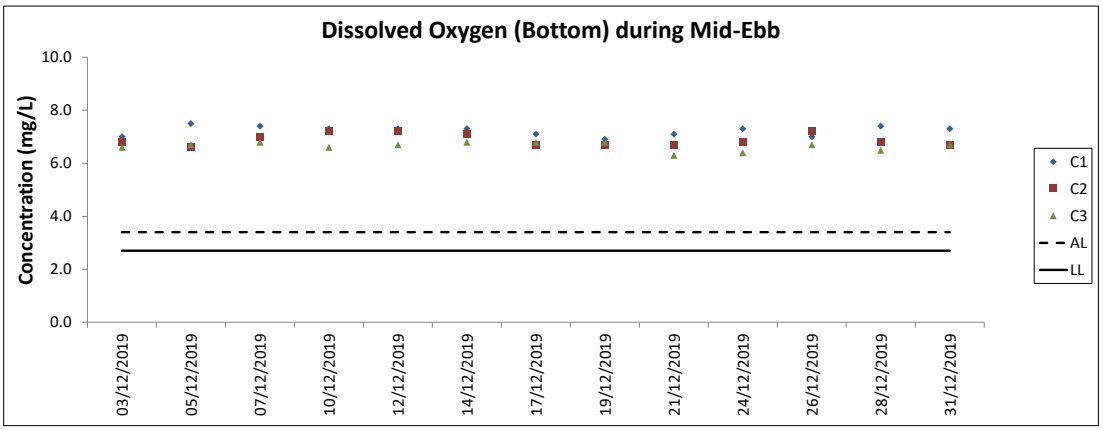
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
SR1A
SR3
SR4A
SR5A
SR6A
SR7
SR8
AL
LL
LL (SR7)


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
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6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
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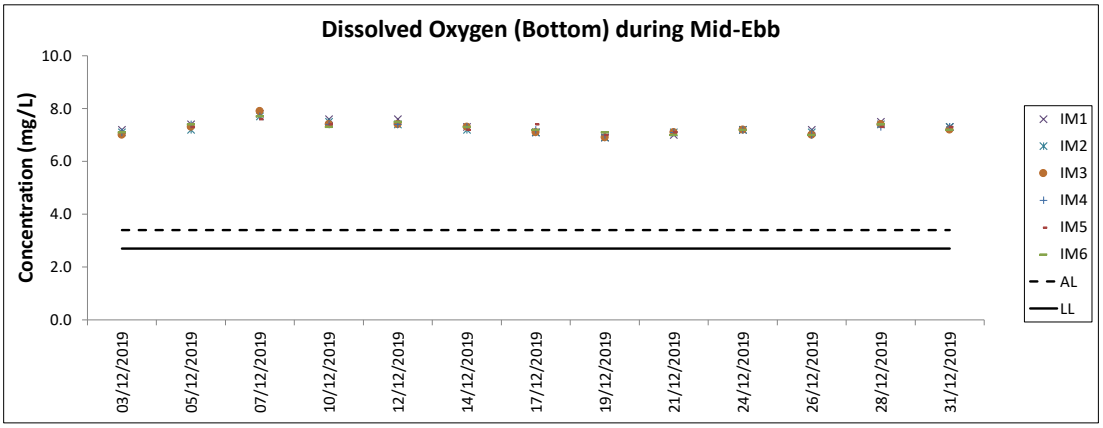
C1
C2
C3
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
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8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
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19/12/2019
21/12/2019
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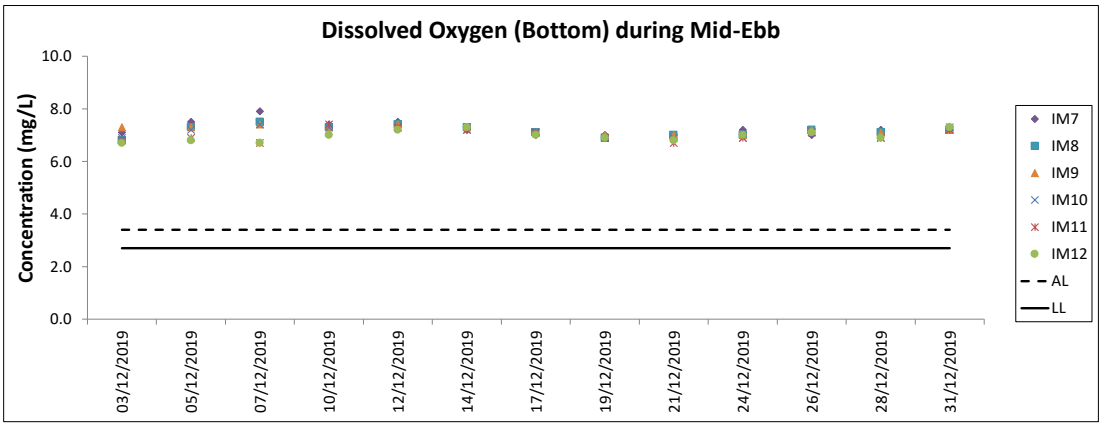
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
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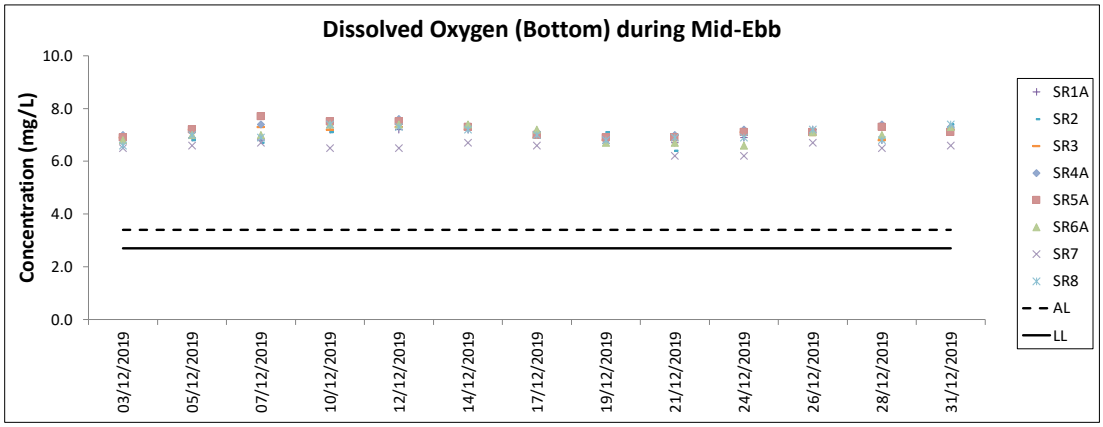
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
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8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
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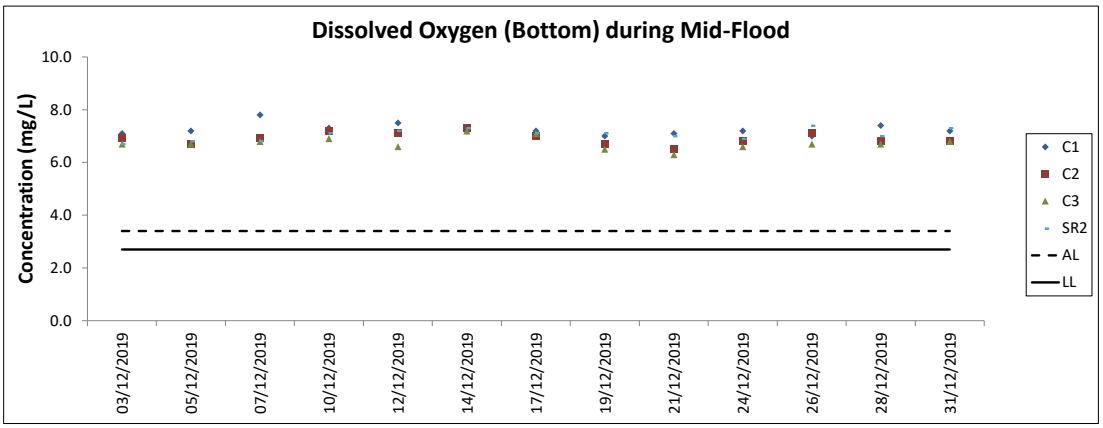
31/12/2019
SR1A
SR2
SR3
SR4A
SR5A
SR6A
SR7
SR8
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
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6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
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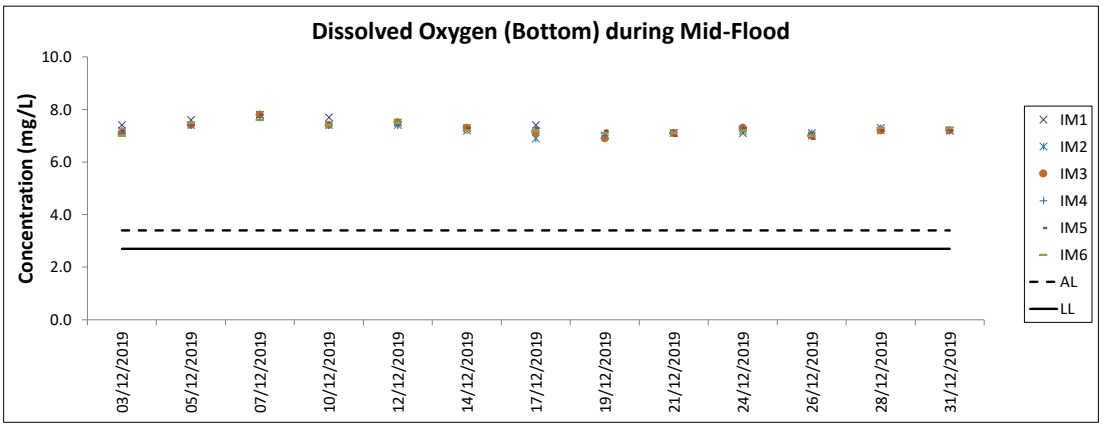
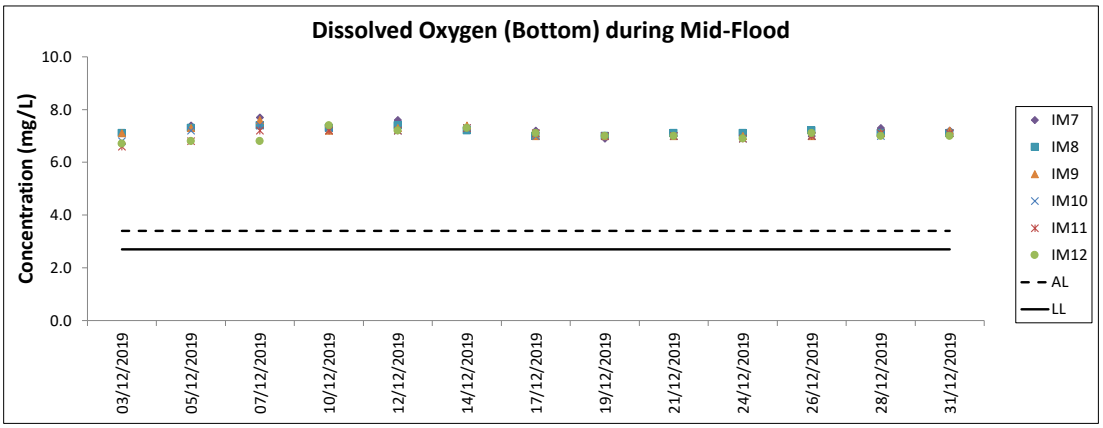
31/12/2019
C1
C2
C3
SR2
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
19/12/2019
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
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31/12/2019
IM7
IM8
IM9
IM10
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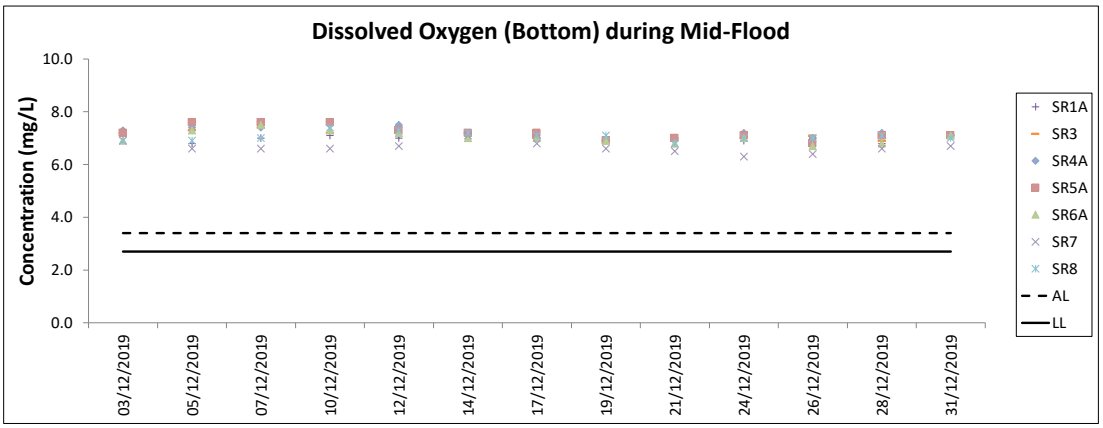
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
10.0
8.0
6.0
4.0
2.0
0.0
03/12/2019
05/12/2019
07/12/2019
10/12/2019
12/12/2019
14/12/2019
17/12/2019
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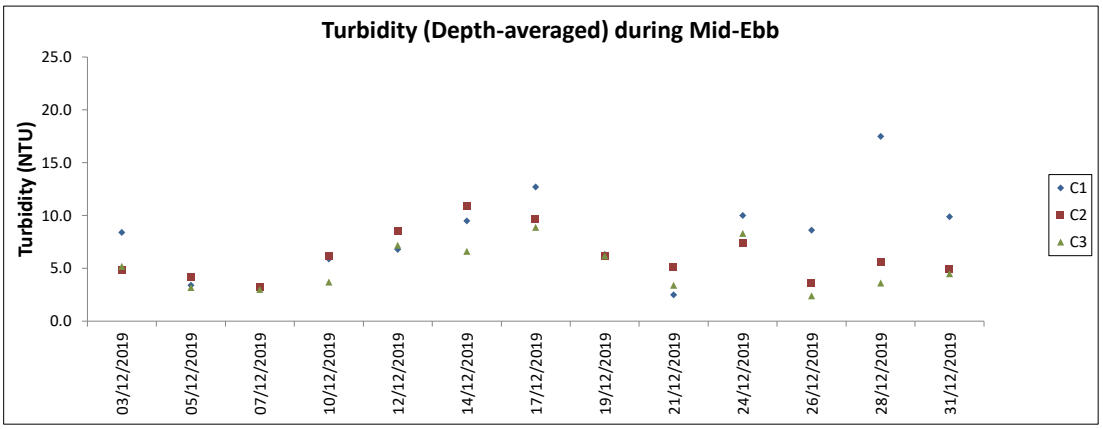
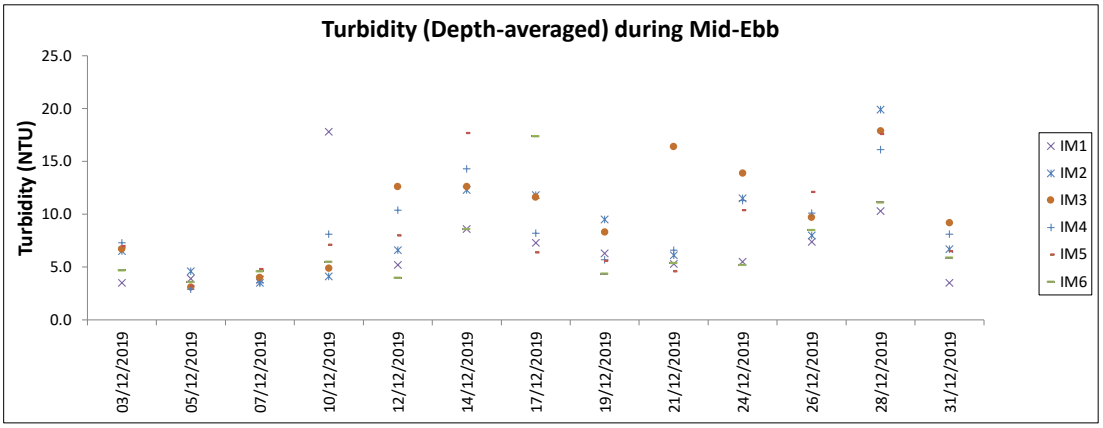
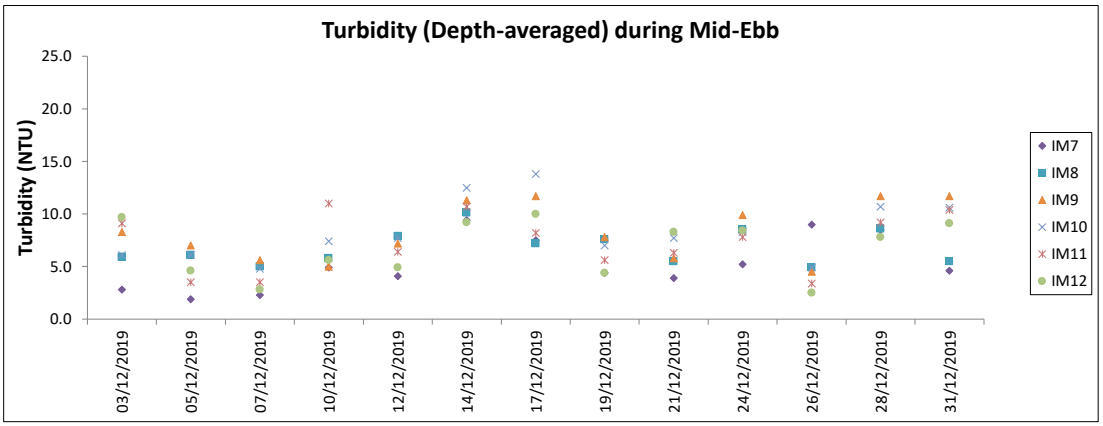
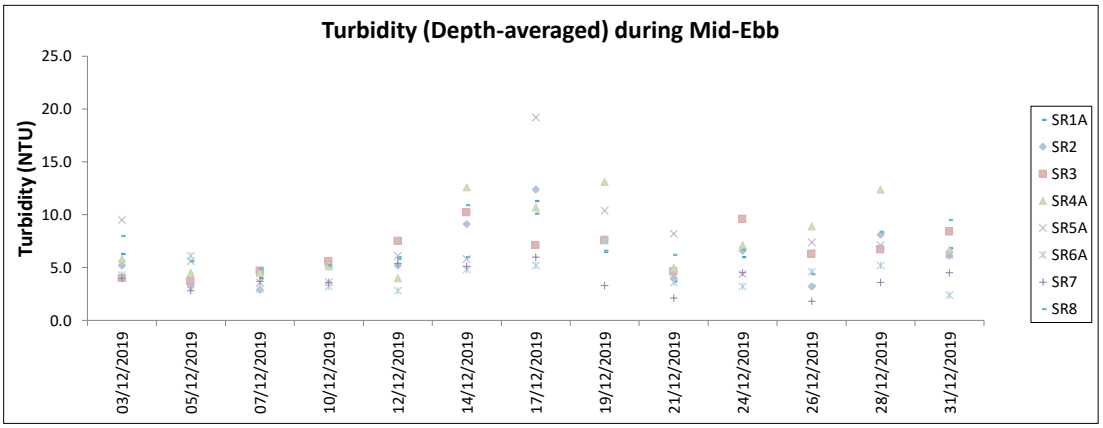
21/12/2019
24/12/2019
26/12/2019
28/12/2019
31/12/2019
SR1A
SR3
SR4A
SR5A
SR6A
SR7
SR8
AL
LL

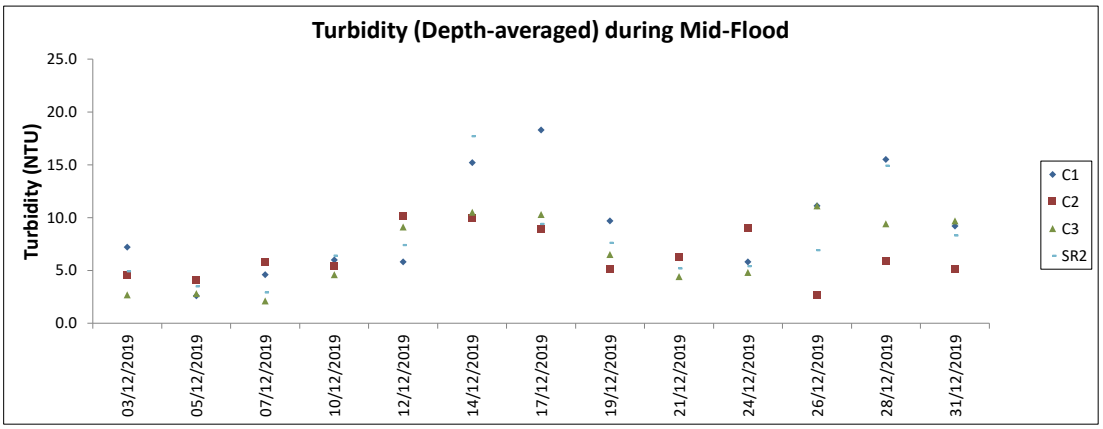


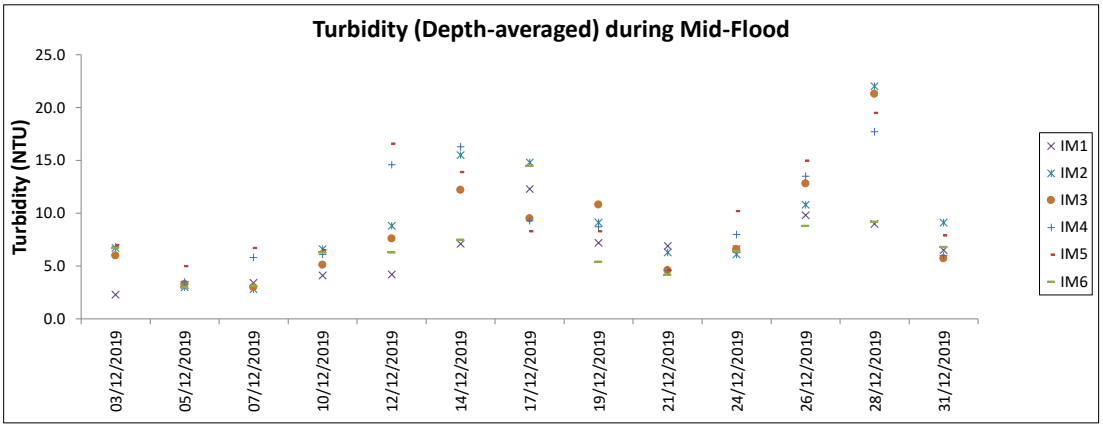


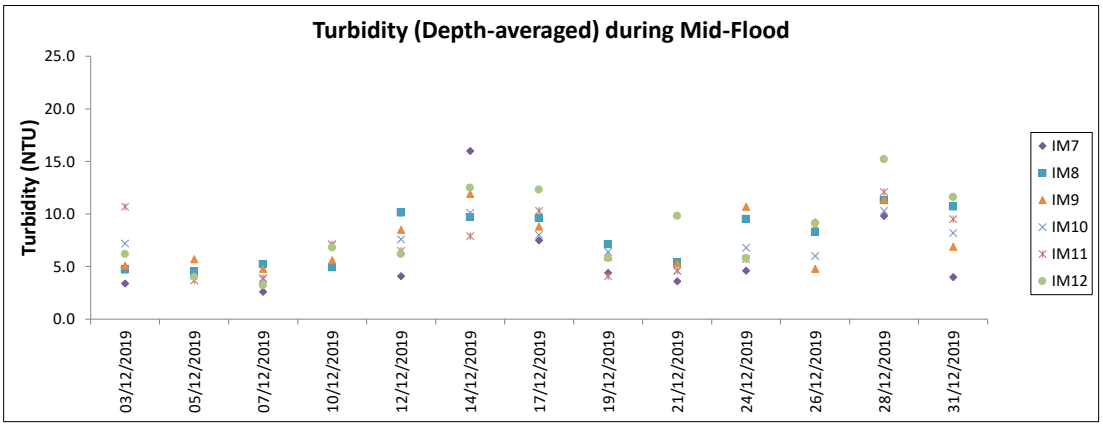


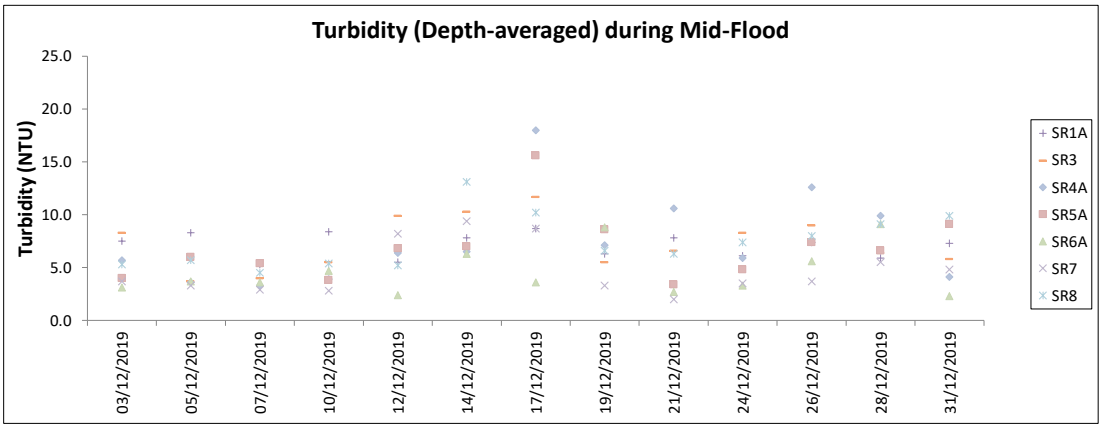


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

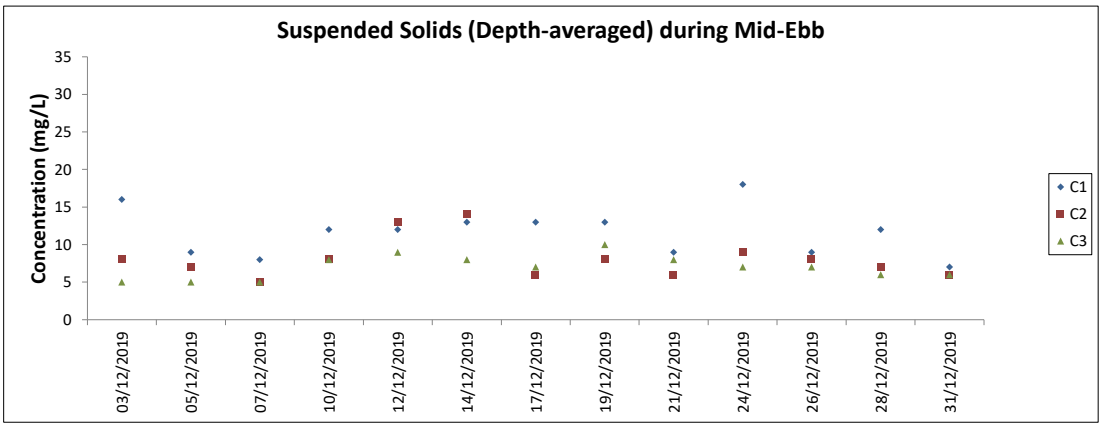


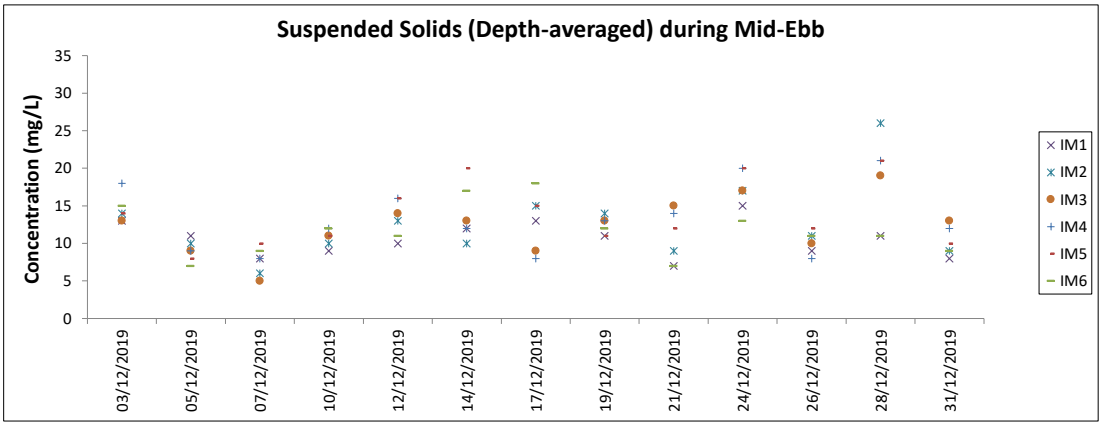


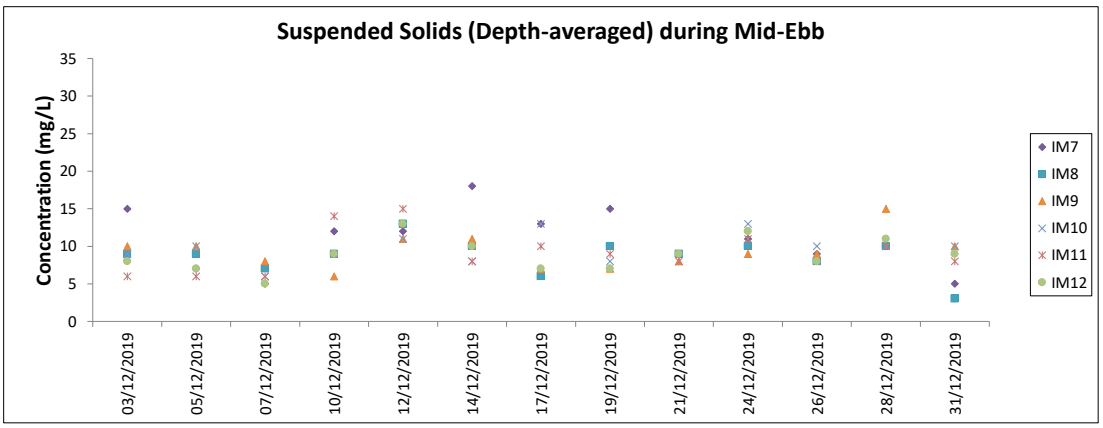


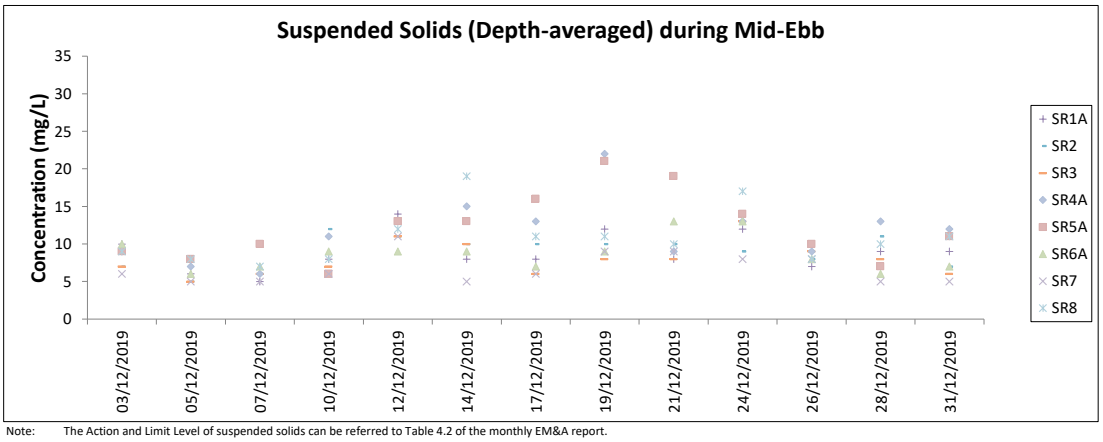


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

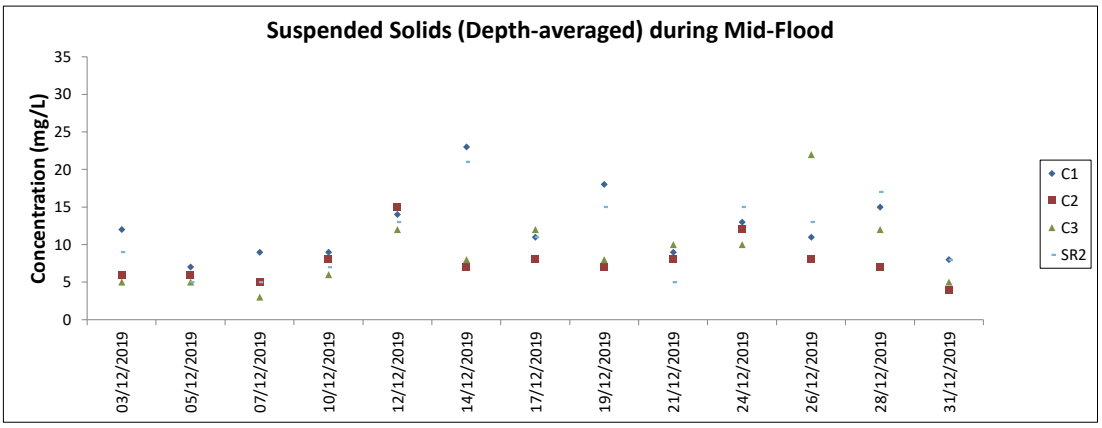


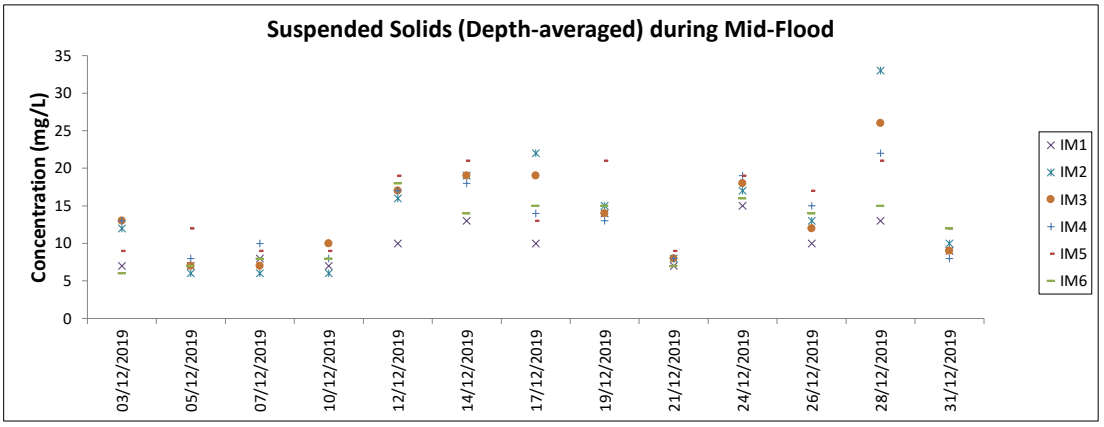


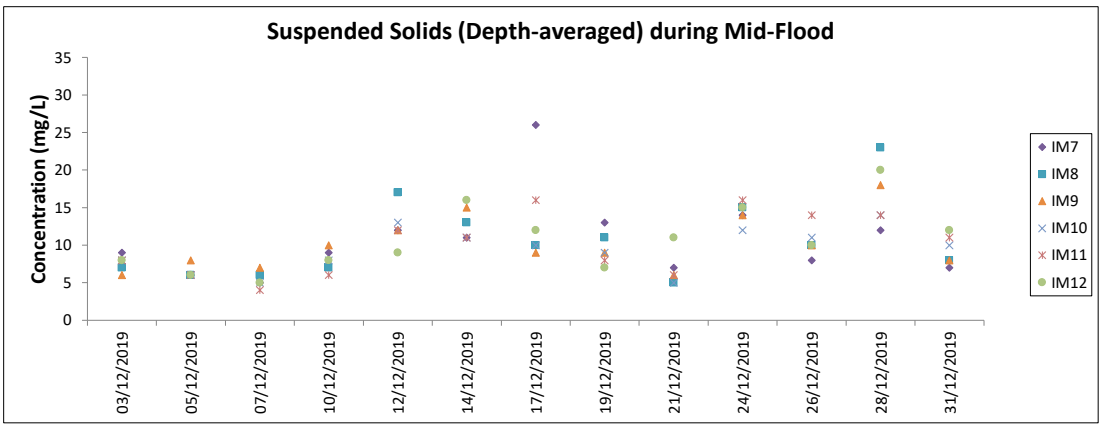


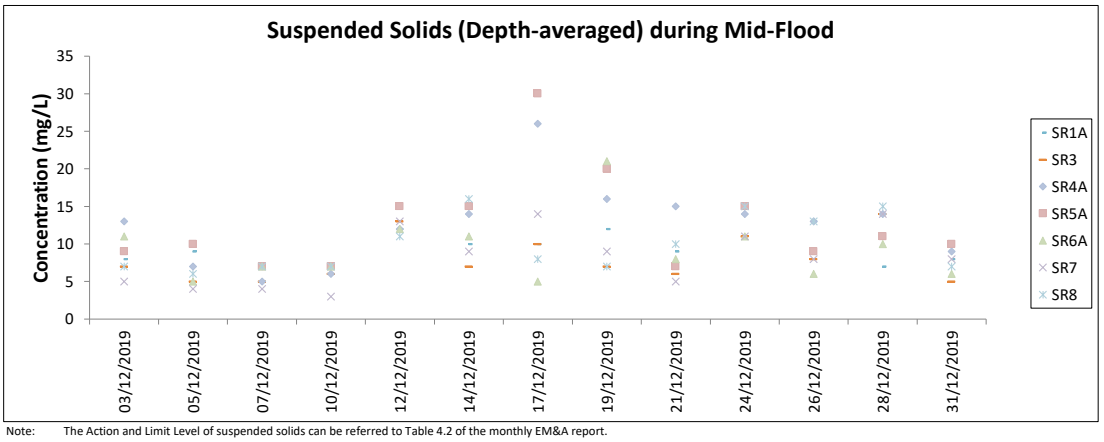


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

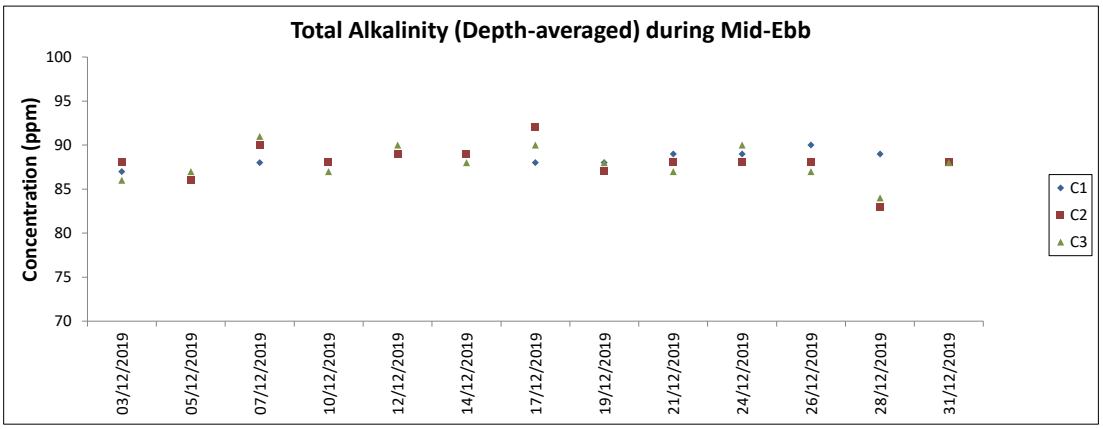


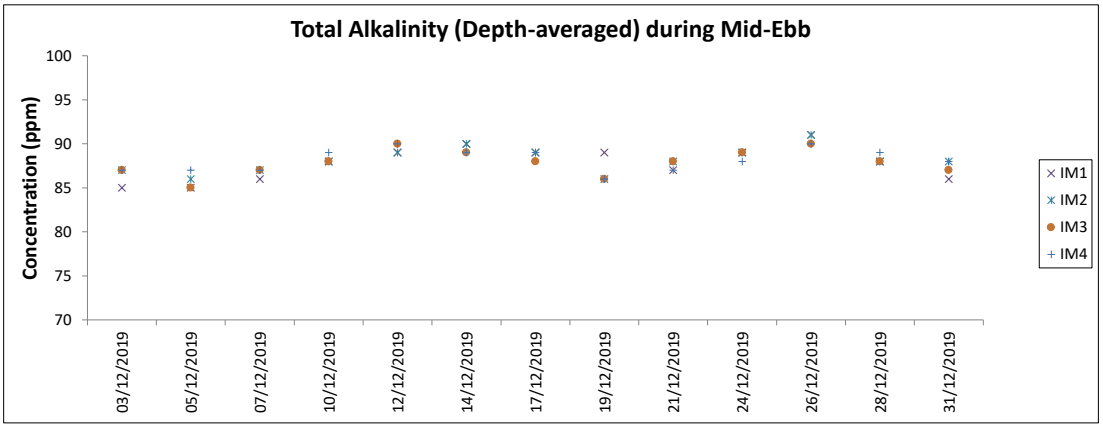


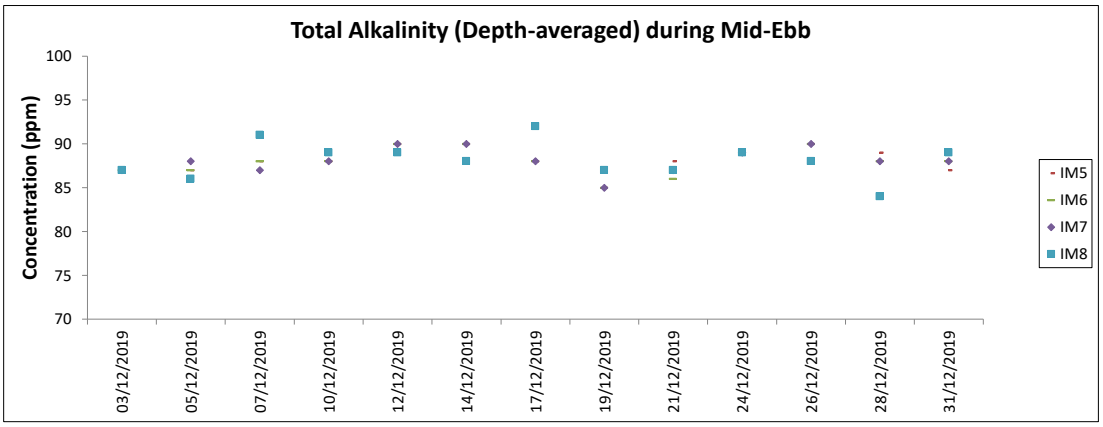


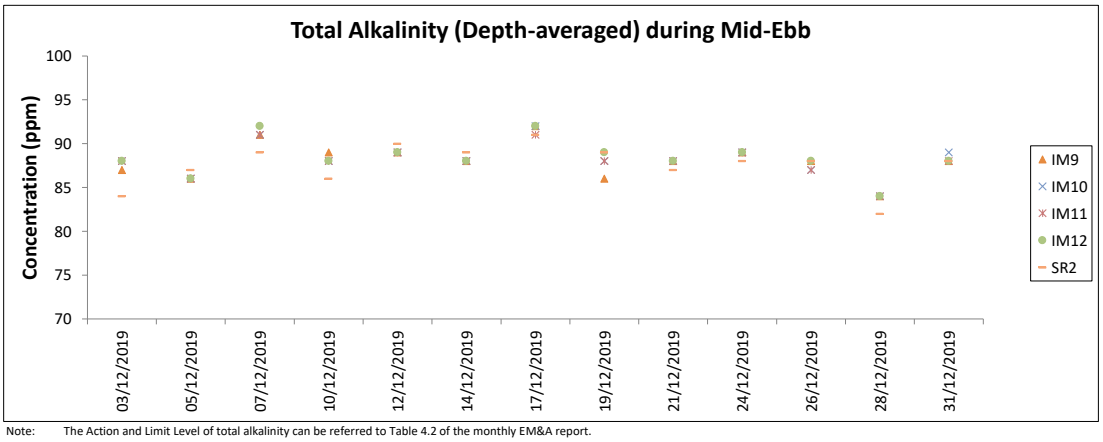


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

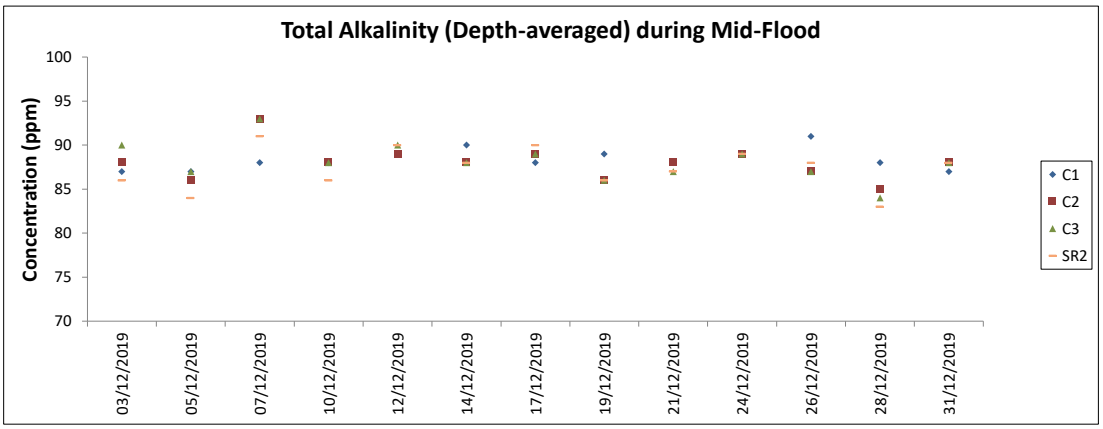


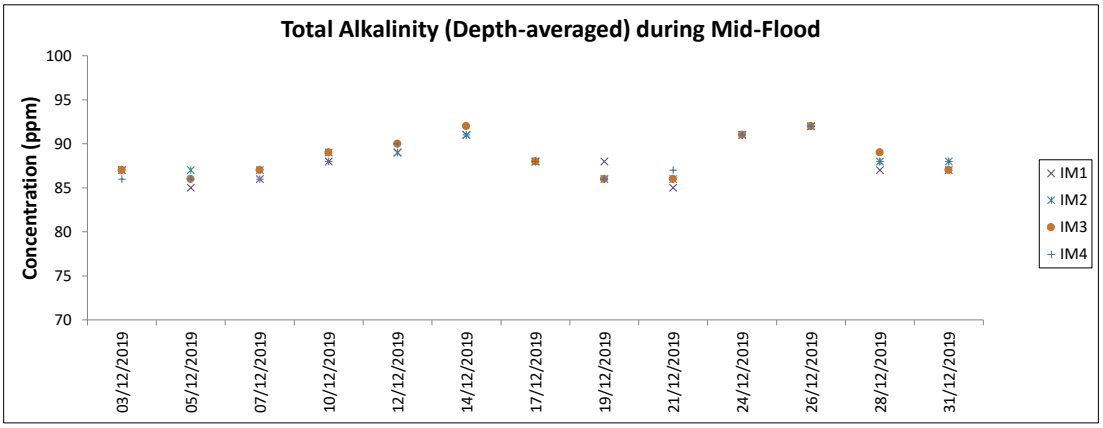


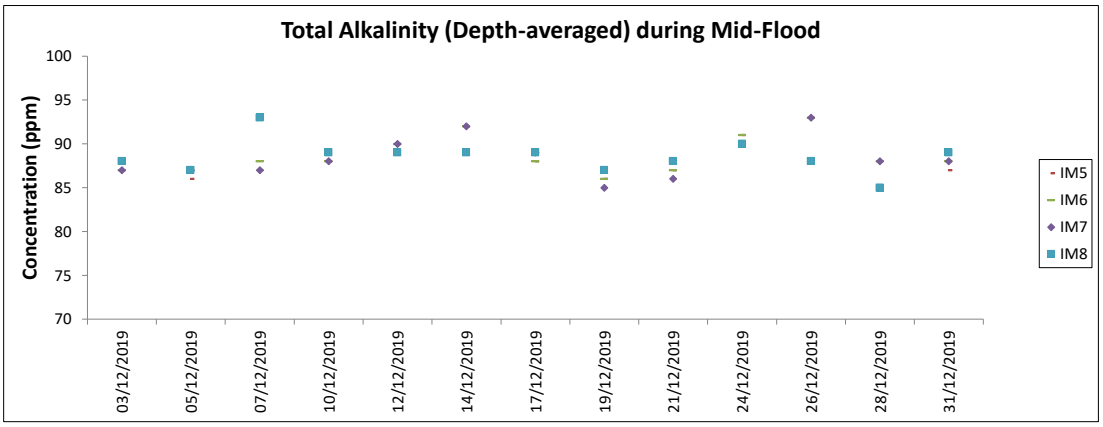


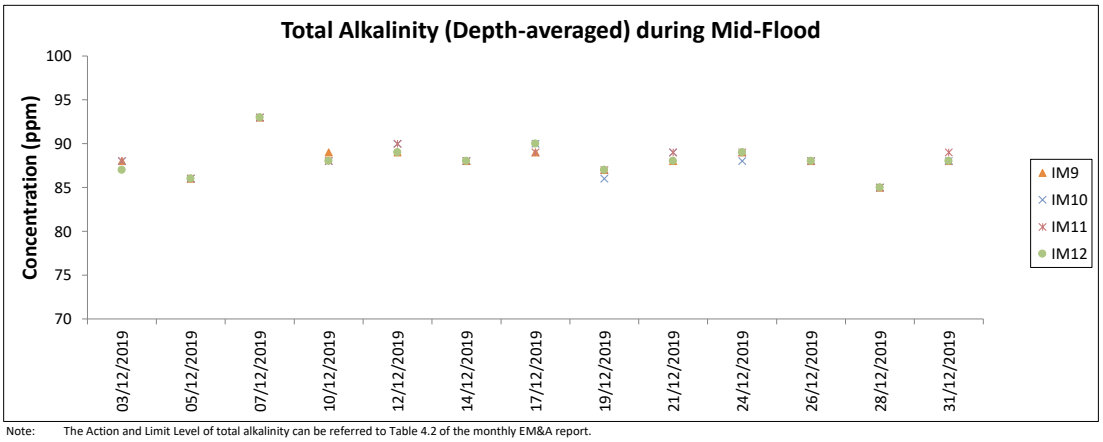


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

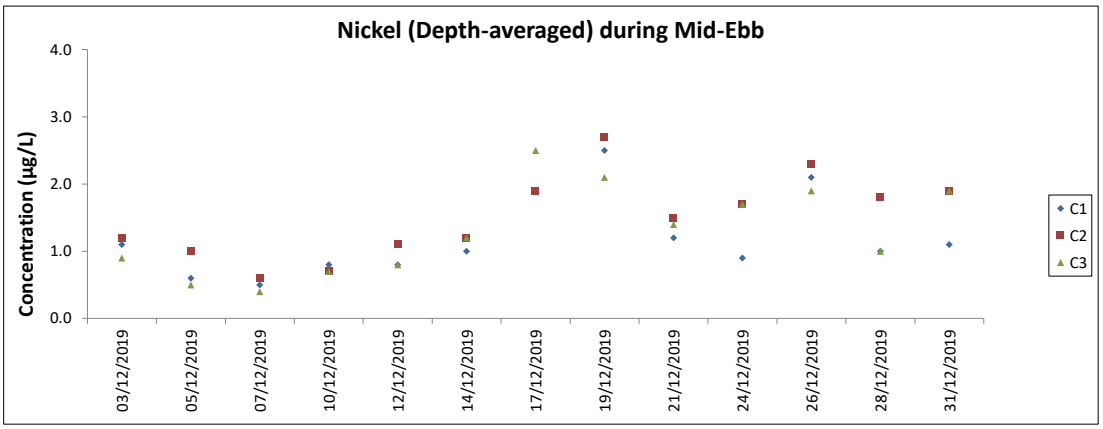


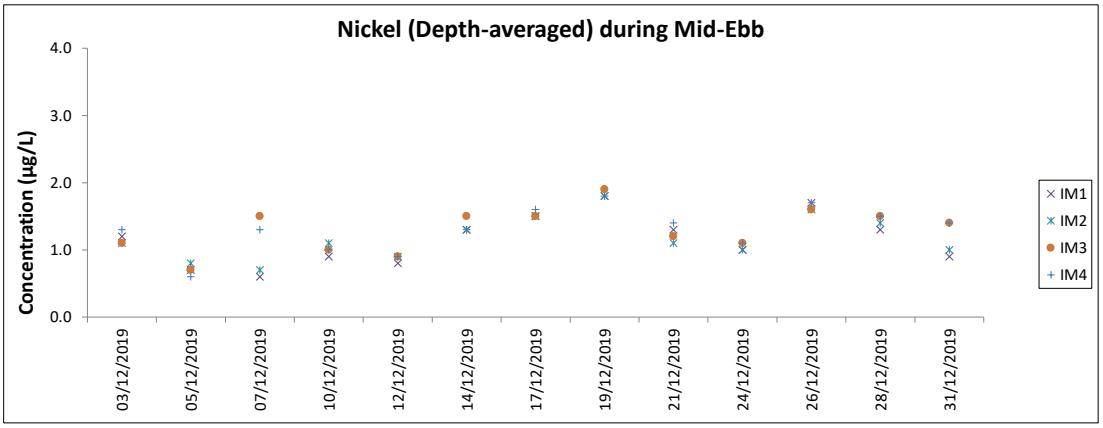


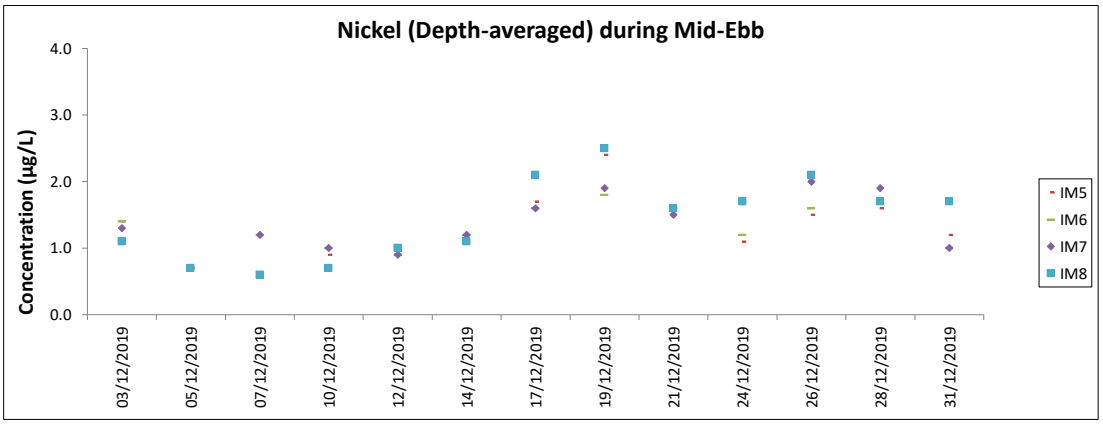


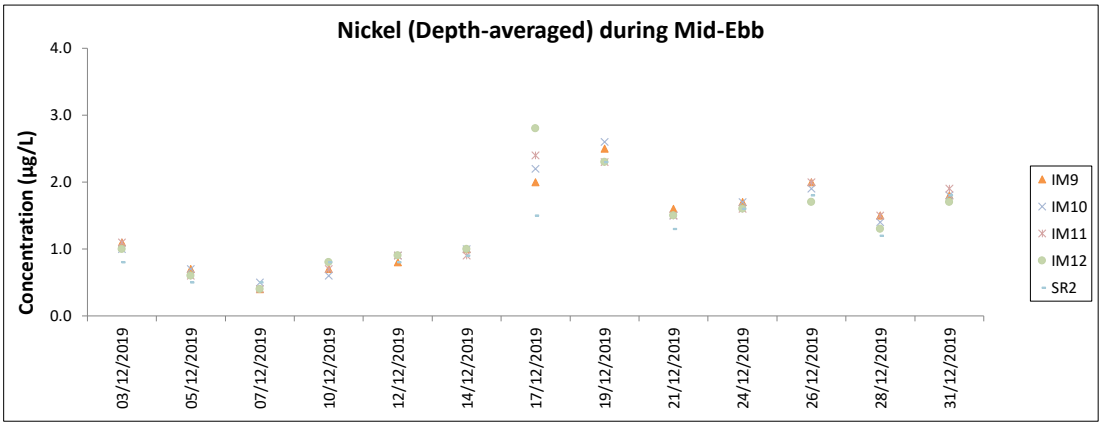


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

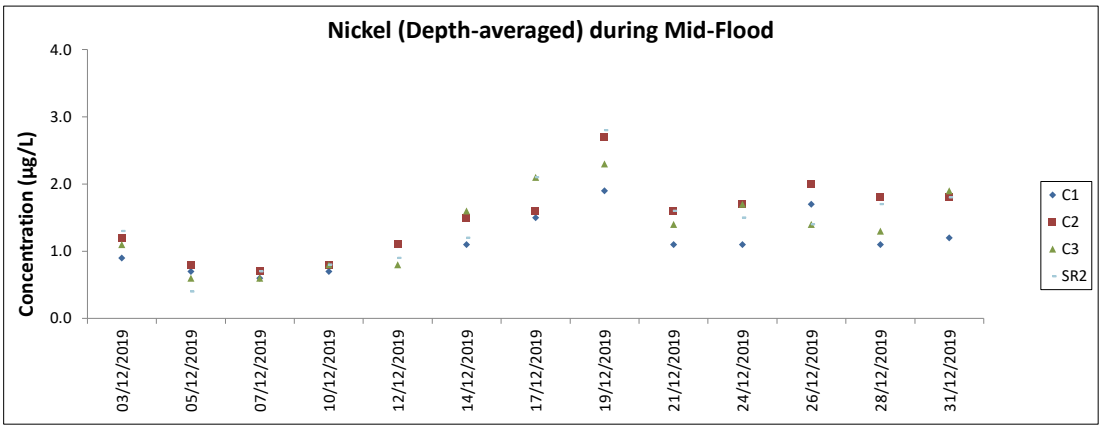


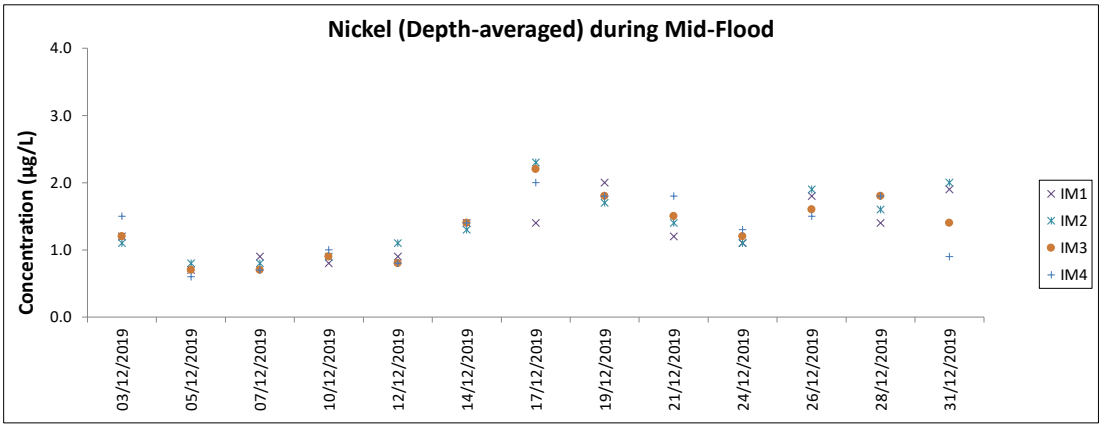


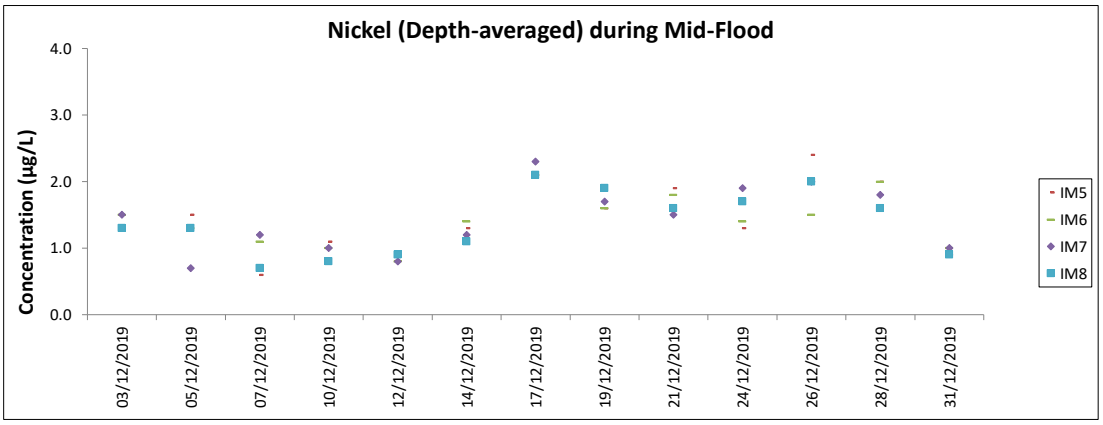


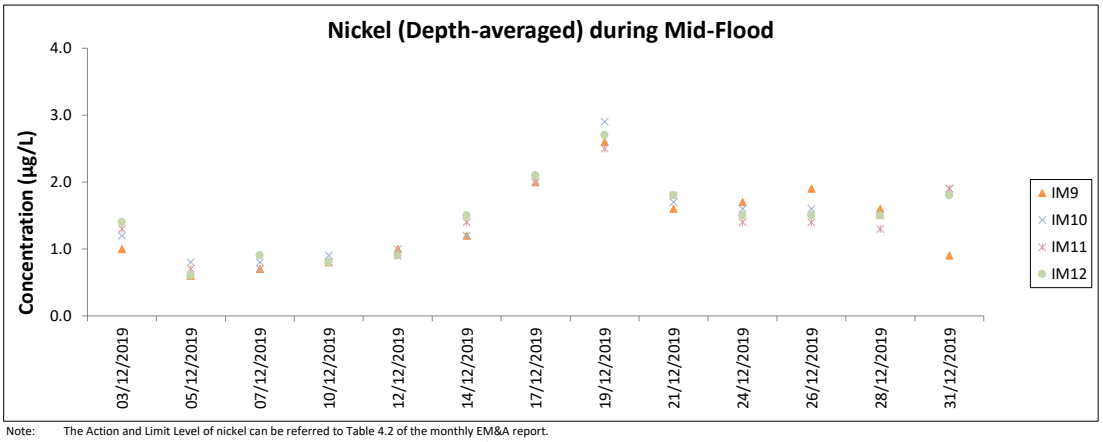


Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.









Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.
Major site activities carried out during the reporting period are summarized in Section 1.4 of the monthly EM&A report.
Weather conditions during monitoring are presented in the data tables above.
QA/ QC requirements as stipulated in the EM&A Manual were carried out during measurement.

Chinese White Dolphin Monitoring Result

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
2-Oct-19	SWL	2	21.630	AUTUMN	32166	3RS ET	P
2-Oct-19	SWL	3	32.292	AUTUMN	32166	3RS ET	P
2-Oct-19	SWL	2	4.878	AUTUMN	32166	3RS ET	S
2-Oct-19	SWL	3	11.810	AUTUMN	32166	3RS ET	S
3-Oct-19	AW	2	3.470	AUTUMN	32166	3RS ET	P
3-Oct-19	WL	2	17.515	AUTUMN	32166	3RS ET	P
3-Oct-19	WL	2	9.401	AUTUMN	32166	3RS ET	S
4-Oct-19	SWL	2	49.551	AUTUMN	32166	3RS ET	P
4-Oct-19	SWL	3	2.100	AUTUMN	32166	3RS ET	P
4-Oct-19	SWL	2	16.128	AUTUMN	32166	3RS ET	S
4-Oct-19	SWL	3	1.100	AUTUMN	32166	3RS ET	S
10-Oct-19	NWL	2	40.510	AUTUMN	32166	3RS ET	P
10-Oct-19	NWL	3	21.930	AUTUMN	32166	3RS ET	P
10-Oct-19	NWL	2	10.970	AUTUMN	32166	3RS ET	S
10-Oct-19	NWL	3	0.900	AUTUMN	32166	3RS ET	S
11-Oct-19	AW	2	4.930	AUTUMN	32166	3RS ET	P
11-Oct-19	WL	2	19.410	AUTUMN	32166	3RS ET	P
11-Oct-19	WL	2	10.760	AUTUMN	32166	3RS ET	S
16-Oct-19	NEL	2	15.140	AUTUMN	32166	3RS ET	P
16-Oct-19	NEL	3	22.770	AUTUMN	32166	3RS ET	P
16-Oct-19	NEL	2	5.040	AUTUMN	32166	3RS ET	S
16-Oct-19	NEL	3	5.350	AUTUMN	32166	3RS ET	S
17-Oct-19	NEL	2	37.340	AUTUMN	32166	3RS ET	P
17-Oct-19	NEL	2	10.060	AUTUMN	32166	3RS ET	S
22-Oct-19	NWL	2	41.400	AUTUMN	32166	3RS ET	P
22-Oct-19	NWL	3	21.600	AUTUMN	32166	3RS ET	P
22-Oct-19	NWL	2	8.700	AUTUMN	32166	3RS ET	S
22-Oct-19	NWL	3	3.300	AUTUMN	32166	3RS ET	S
7-Nov-19	NEL	2	5.760	AUTUMN	32166	3RS ET	P
7-Nov-19	NEL	3	27.790	AUTUMN	32166	3RS ET	P
7-Nov-19	NEL	4	3.700	AUTUMN	32166	3RS ET	P
7-Nov-19	NEL	2	2.990	AUTUMN	32166	3RS ET	S
7-Nov-19	NEL	3	7.460	AUTUMN	32166	3RS ET	S
8-Nov-19	NEL	2	11.100	AUTUMN	32166	3RS ET	P
8-Nov-19	NEL	3	25.840	AUTUMN	32166	3RS ET	P
8-Nov-19	NEL	2	6.500	AUTUMN	32166	3RS ET	S
8-Nov-19	NEL	3	4.160	AUTUMN	32166	3RS ET	S
11-Nov-19	NWL	2	56.549	AUTUMN	32166	3RS ET	P
11-Nov-19	NWL	3	2.200	AUTUMN	32166	3RS ET	P
11-Nov-19	NWL	4	2.900	AUTUMN	32166	3RS ET	P
11-Nov-19	NWL	2	11.051	AUTUMN	32166	3RS ET	S
11-Nov-19	NWL	4	0.900	AUTUMN	32166	3RS ET	S
12-Nov-19	AW	3	4.760	AUTUMN	32166	3RS ET	P
12-Nov-19	WL	2	3.570	AUTUMN	32166	3RS ET	P
12-Nov-19	WL	3	14.600	AUTUMN	32166	3RS ET	P
12-Nov-19	WL	4	2.600	AUTUMN	32166	3RS ET	P
12-Nov-19	WL	2	2.990	AUTUMN	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
12-Nov-19	WL	3	5.730	AUTUMN	32166	3RS ET	S
12-Nov-19	WL	4	1.300	AUTUMN	32166	3RS ET	S
13-Nov-19	NWL	2	57.200	AUTUMN	32166	3RS ET	P
13-Nov-19	NWL	3	6.000	AUTUMN	32166	3RS ET	P
13-Nov-19	NWL	2	11.800	AUTUMN	32166	3RS ET	S
21-Nov-19	SWL	2	5.700	AUTUMN	32166	3RS ET	P
21-Nov-19	SWL	3	48.558	AUTUMN	32166	3RS ET	P
21-Nov-19	SWL	2	1.300	AUTUMN	32166	3RS ET	S
21-Nov-19	SWL	3	14.822	AUTUMN	32166	3RS ET	S
22-Nov-19	AW	1	2.900	AUTUMN	32166	3RS ET	P
22-Nov-19	AW	2	2.070	AUTUMN	32166	3RS ET	P
22-Nov-19	WL	2	6.843	AUTUMN	32166	3RS ET	P
22-Nov-19	WL	3	12.828	AUTUMN	32166	3RS ET	P
22-Nov-19	WL	2	1.987	AUTUMN	32166	3RS ET	S
22-Nov-19	WL	3	7.842	AUTUMN	32166	3RS ET	S
29-Nov-19	SWL	2	22.710	AUTUMN	32166	3RS ET	P
29-Nov-19	SWL	3	28.090	AUTUMN	32166	3RS ET	P
29-Nov-19	SWL	4	3.600	AUTUMN	32166	3RS ET	P
29-Nov-19	SWL	2	9.890	AUTUMN	32166	3RS ET	S
29-Nov-19	SWL	3	6.210	AUTUMN	32166	3RS ET	S
9-Dec-19	AW	3	4.860	WINTER	32166	3RS ET	P
9-Dec-19	WL	3	21.298	WINTER	32166	3RS ET	P
9-Dec-19	WL	4	2.800	WINTER	32166	3RS ET	P
9-Dec-19	WL	3	9.102	WINTER	32166	3RS ET	S
9-Dec-19	WL	4	0.900	WINTER	32166	3RS ET	S
10-Dec-19	SWL	2	30.840	WINTER	32166	3RS ET	P
10-Dec-19	SWL	3	23.200	WINTER	32166	3RS ET	P
10-Dec-19	SWL	2	7.990	WINTER	32166	3RS ET	S
10-Dec-19	SWL	3	8.100	WINTER	32166	3RS ET	S
13-Dec-19	NEL	2	1.500	WINTER	32166	3RS ET	P
13-Dec-19	NEL	3	35.350	WINTER	32166	3RS ET	P
13-Dec-19	NEL	4	0.400	WINTER	32166	3RS ET	P
13-Dec-19	NEL	3	10.350	WINTER	32166	3RS ET	S
16-Dec-19	NWL	2	37.711	WINTER	32166	3RS ET	P
16-Dec-19	NWL	3	25.070	WINTER	32166	3RS ET	P
16-Dec-19	NWL	2	8.660	WINTER	32166	3RS ET	S
16-Dec-19	NWL	3	2.860	WINTER	32166	3RS ET	S
17-Dec-19	SWL	2	46.934	WINTER	32166	3RS ET	P
17-Dec-19	SWL	3	8.050	WINTER	32166	3RS ET	P
17-Dec-19	SWL	2	12.746	WINTER	32166	3RS ET	S
17-Dec-19	SWL	3	3.170	WINTER	32166	3RS ET	S
18-Dec-19	AW	1	4.530	WINTER	32166	3RS ET	P
18-Dec-19	WL	1	10.510	WINTER	32166	3RS ET	P
18-Dec-19	WL	2	6.930	WINTER	32166	3RS ET	P
18-Dec-19	WL	1	4.850	WINTER	32166	3RS ET	S
18-Dec-19	WL	2	4.940	WINTER	32166	3RS ET	S
19-Dec-19	NEL	1	2.700	WINTER	32166	3RS ET	P
19-Dec-19	NEL	2	15.000	WINTER	32166	3RS ET	P
19-Dec-19	NEL	3	18.090	WINTER	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
19-Dec-19	NEL	4	1.670	WINTER	32166	3RS ET	P
19-Dec-19	NEL	1	1.300	WINTER	32166	3RS ET	S
19-Dec-19	NEL	2	2.700	WINTER	32166	3RS ET	S
19-Dec-19	NEL	3	6.240	WINTER	32166	3RS ET	S
23-Dec-19	NWL	2	1.830	WINTER	32166	3RS ET	P
23-Dec-19	NWL	3	45.110	WINTER	32166	3RS ET	P
23-Dec-19	NWL	4	17.460	WINTER	32166	3RS ET	P
23-Dec-19	NWL	3	7.300	WINTER	32166	3RS ET	S
23-Dec-19	NWL	4	4.600	WINTER	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
2-Oct-19	1	1101	FP	2	SWL	3	1	ON	3RS ET	22.1476	113.9274	AUTUMN	NONE	P
2-Oct-19	2	1114	FP	1	SWL	3	25	ON	3RS ET	22.1706	113.9277	AUTUMN	NONE	P
2-Oct-19	3	1131	CWD	1	SWL	2	36	ON	3RS ET	22.2055	113.9269	AUTUMN	NONE	P
3-Oct-19	1	0937	CWD	7	AW	2	165	ON	3RS ET	22.2983	113.8853	AUTUMN	NONE	P
3-Oct-19	2	1026	CWD	4	WL	2	485	ON	3RS ET	22.2924	113.8612	AUTUMN	NONE	P
3-Oct-19	3	1110	CWD	2	WL	2	155	ON	3RS ET	22.2605	113.8479	AUTUMN	NONE	P
3-Oct-19	4	1122	CWD	1	WL	2	127	ON	3RS ET	22.2603	113.8411	AUTUMN	NONE	P
3-Oct-19	5	1146	CWD	3	WL	2	181	ON	3RS ET	22.2416	113.8434	AUTUMN	NONE	P
3-Oct-19	6	1157	CWD	4	WL	2	207	ON	3RS ET	22.2416	113.8344	AUTUMN	NONE	P
3-Oct-19	7	1220	CWD	7	WL	2	382	ON	3RS ET	22.2282	113.8378	AUTUMN	NONE	S
3-Oct-19	8	1308	CWD	14	WL	2	265	ON	3RS ET	22.1960	113.8365	AUTUMN	NONE	P
4-Oct-19	1	1103	FP	16	SWL	2	112	ON	3RS ET	22.1428	113.9283	AUTUMN	NONE	S
4-Oct-19	2	1154	FP	2	SWL	2	114	ON	3RS ET	22.1899	113.9181	AUTUMN	NONE	P
4-Oct-19	3	1233	FP	3	SWL	2	65	ON	3RS ET	22.1542	113.9067	AUTUMN	NONE	S
4-Oct-19	4	1242	FP	2	SWL	2	19	ON	3RS ET	22.1568	113.8996	AUTUMN	NONE	S
4-Oct-19	5	1321	CWD	1	SWL	2	296	ON	3RS ET	22.2063	113.8972	AUTUMN	NONE	P
4-Oct-19	6	1356	FP	2	SWL	2	270	ON	3RS ET	22.1486	113.8921	AUTUMN	NONE	S
4-Oct-19	7	1411	FP	1	SWL	2	223	ON	3RS ET	22.1727	113.8882	AUTUMN	NONE	P
10-Oct-19	1	1047	CWD	2	NWL	3	16	ON	3RS ET	22.2709	113.8702	AUTUMN	NONE	P
10-Oct-19	2	1107	CWD	1	NWL	2	100	ON	3RS ET	22.2970	113.8779	AUTUMN	NONE	P
10-Oct-19	3	1205	CWD	4	NWL	2	112	ON	3RS ET	22.3769	113.8775	AUTUMN	NONE	P
11-Oct-19	1	1050	CWD	2	WL	2	214	ON	3RS ET	22.2503	113.8411	AUTUMN	NONE	P
11-Oct-19	2	1114	CWD	1	WL	2	26	ON	3RS ET	22.2414	113.8408	AUTUMN	NONE	P
11-Nov-19	1	1051	CWD	3	NWL	2	142	ON	3RS ET	22.2844	113.8702	AUTUMN	NONE	P
11-Nov-19	2	1155	CWD	1	NWL	2	112	ON	3RS ET	22.3605	113.8777	AUTUMN	NONE	P
11-Nov-19	3	1339	CWD	2	NWL	2	55	ON	3RS ET	22.3884	113.8980	AUTUMN	NONE	P
12-Nov-19	1	1039	CWD	3	WL	3	20	ON	3RS ET	22.2617	113.8548	AUTUMN	NONE	S
21-Nov-19	1	1113	FP	1	SWL	3	55	ON	3RS ET	22.1514	113.9361	AUTUMN	NONE	P
21-Nov-19	2	1151	CWD	1	SWL	3	23	ON	3RS ET	22.2056	113.9194	AUTUMN	NONE	S
21-Nov-19	3	1223	FP	1	SWL	3	151	ON	3RS ET	22.1518	113.9175	AUTUMN	NONE	P
21-Nov-19	4	1503	CWD	4	SWL	3	50	ON	3RS ET	22.1965	113.8686	AUTUMN	NONE	P
22-Nov-19	1	1020	CWD	1	WL	2	39	ON	3RS ET	22.2694	113.8571	AUTUMN	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
22-Nov-19	2	1100	CWD	4	WL	3	484	ON	3RS ET	22.2498	113.8460	AUTUMN	NONE	P
22-Nov-19	3	1127	CWD	1	WL	3	988	ON	3RS ET	22.2446	113.8493	AUTUMN	NONE	S
22-Nov-19	4	1145	CWD	3	WL	3	175	ON	3RS ET	22.2377	113.8275	AUTUMN	NONE	S
22-Nov-19	5	1216	CWD	1	WL	3	112	ON	3RS ET	22.2258	113.8375	AUTUMN	NONE	S
22-Nov-19	6	1329	CWD	2	SWL	2	N/A	OFF	3RS ET	22.1948	113.8524	AUTUMN	NONE	N/A
29-Nov-19	1	1321	FP	3	SWL	3	294	ON	3RS ET	22.1638	113.8972	AUTUMN	NONE	P
9-Dec-19	1	1101	CWD	2	WL	3	438	ON	3RS ET	22.2569	113.8371	WINTER	NONE	S
10-Dec-19	1	1114	FP	2	SWL	3	76	ON	3RS ET	22.1592	113.9281	WINTER	NONE	P
10-Dec-19	2	1450	CWD	1	SWL	2	216	ON	3RS ET	22.1958	113.8589	WINTER	GILLNETTER	P
10-Dec-19	3	1526	CWD	3	SWL	2	182	ON	3RS ET	22.1885	113.8492	WINTER	NONE	P
16-Dec-19	1	1033	CWD	1	NWL	3	107	ON	3RS ET	22.3041	113.8700	WINTER	NONE	P
16-Dec-19	2	1213	CWD	2	NWL	2	219	ON	3RS ET	22.3934	113.8876	WINTER	NONE	P
16-Dec-19	3	1227	CWD	3	NWL	2	301	ON	3RS ET	22.3882	113.8871	WINTER	NONE	P
17-Dec-19	1	1132	FP	1	SWL	2	187	ON	3RS ET	22.1704	113.8785	WINTER	NONE	P
17-Dec-19	2	1336	FP	2	SWL	2	199	ON	3RS ET	22.1451	113.9083	WINTER	NONE	P
17-Dec-19	3	1435	FP	2	SWL	2	472	ON	3RS ET	22.1677	113.9269	WINTER	NONE	P
18-Dec-19	1	0954	CWD	2	WL	1	4	ON	3RS ET	22.3045	113.8613	WINTER	NONE	P
18-Dec-19	2	1036	CWD	5	WL	2	107	ON	3RS ET	22.2605	113.8468	WINTER	NONE	P
18-Dec-19	3	1104	CWD	8	WL	1	18	ON	3RS ET	22.2538	113.8347	WINTER	NONE	S
18-Dec-19	4	1153	CWD	1	WL	2	40	ON	3RS ET	22.2232	113.8349	WINTER	NONE	P
18-Dec-19	5	1212	CWD	2	WL	2	5	ON	3RS ET	22.2182	113.8196	WINTER	NONE	S

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 429.821 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 11 on-effort sightings and total number of 30 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in December 2019 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in December 2019

$$STG = \frac{11}{429.821}\ x\ 100 = 2.56$$

Encounter Rate by Number of Dolphins (ANI) in December 2019

$$ANI = \frac{30}{429.821}\ x\ 100 = 6.98$$

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

A total of 1319.606 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 37 on-effort sightings and total number of 108 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)

$$STG = \frac{37}{1319.606}\ x\ 100 = 2.80$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{108}{1319.606}\ x\ 100 = 8.18$$

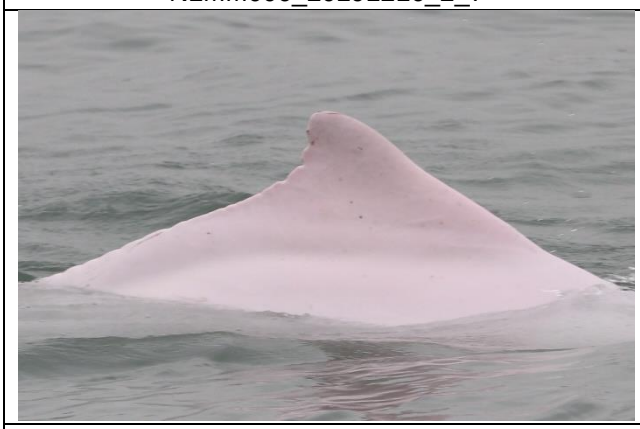
CWD Small Vessel Line-transect Survey **Photo Identification**

SLMM010_20191210_2_5

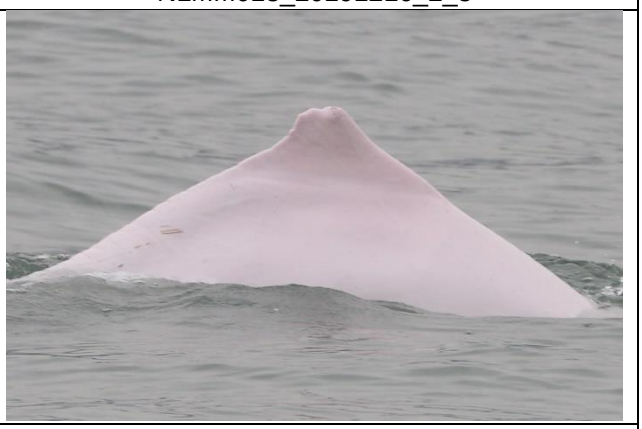
WLMM003_20191210_3_2

NLMM006_20191216_2_7

NLMM013_20191216_2_3



NLMM004_20191216_3_4



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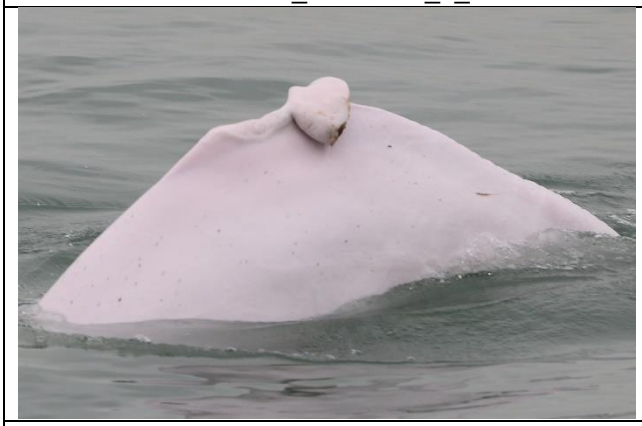

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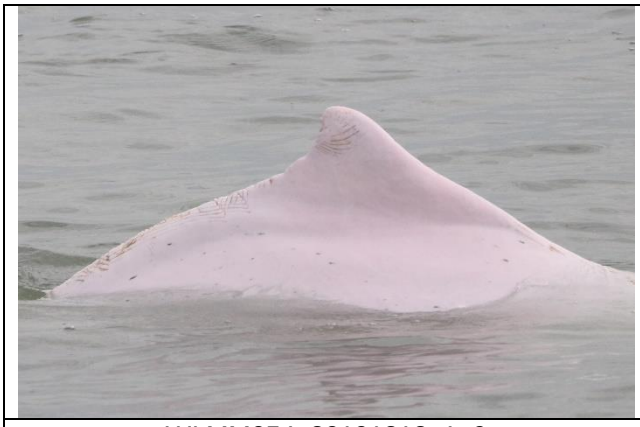	
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	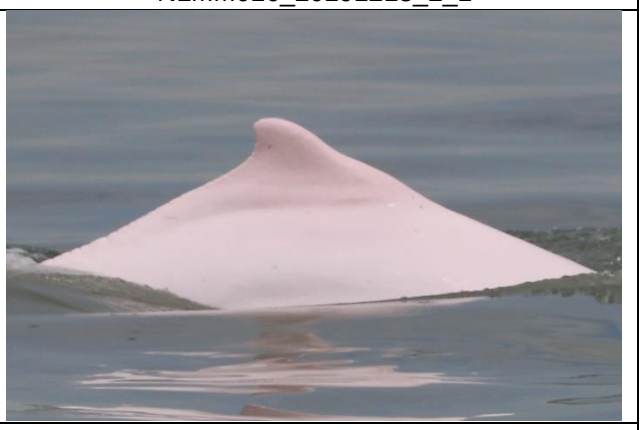
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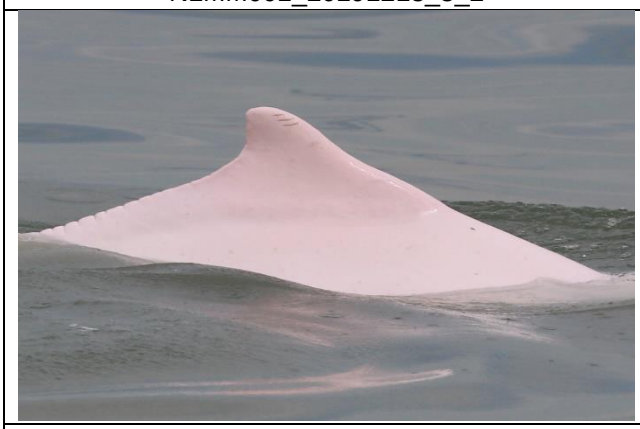	
SLMM044_20191218_3_5	SLMM050_20191218_3_5
	
WLMM065_20191218_3_3	WLMM067_20191218_3_12

	
SLMM014_20191218_4_1	WLMM007_20191218_5_3
	
WLMM008_20191218_5_4	

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
11/Dec/19	Lung Kwu Chau	9:10	15:10	6:00	2-3	3	1	1
18/Dec/19	Lung Kwu Chau	9:00	15:00	6:00	1-2	2	2	1-5
30/Dec/19	Sha Chau	9:02	15:02	6:00	2-3	4	0	0

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

Appendix D. Calibration Certificate

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. : AI120101
Date of Issue : 24 December 2019

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	16H104234
Date of Received	:	Dec 23, 2019
Date of Calibration	:	Dec 23, 2019
Date of Next Calibration[a]	:	Mar 22, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.07	0.07	Satisfactory
7.42	7.48	0.06	Satisfactory
10.01	10.20	0.19	Satisfactory

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

(2) Temperature

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

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

[a] *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted 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 referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120101
Date of Issue : 24 December 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.55	0.10	Satisfactory
4.27	4.30	0.03	Satisfactory
6.41	6.55	0.14	Satisfactory
8.20	8.31	0.11	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	154.1	4.90	Satisfactory
0.01	1412	1388	-1.70	Satisfactory
0.1	12890	12817	-0.57	Satisfactory
0.5	58670	59446	1.32	Satisfactory
1.0	111900	110937	-0.86	Satisfactory

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

(5) Salinity

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

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.10	--	Satisfactory
10	10.08	0.8	Satisfactory
20	20.11	0.5	Satisfactory
100	100.37	0.4	Satisfactory
800	798.42	-0.2	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment	:	YSI ProDSS (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	17E100747
Date of Received	:	Dec 23, 2019
Date of Calibration	:	Dec 23, 2019
Date of Next Calibration[a]	:	Mar 22, 2020

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.05	0.05	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.18	0.17	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	15.1	0.1	Satisfactory
30.0	30.1	0.1	Satisfactory
49.0	49.2	0.2	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

[a] *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted 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 referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

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Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.52	0.07	Satisfactory
4.27	4.22	-0.05	Satisfactory
6.41	6.56	0.15	Satisfactory
8.20	8.30	0.10	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	154.3	5.04	Satisfactory
0.01	1412	1459	3.33	Satisfactory
0.1	12890	12914	0.19	Satisfactory
0.5	58670	57886	-1.34	Satisfactory
1.0	111900	110832	-0.95	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.89	-1.10	Satisfactory
20	20.14	0.70	Satisfactory
30	30.33	1.10	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.09	--	Satisfactory
10	10.03	0.3	Satisfactory
20	20.16	0.8	Satisfactory
100	100.28	0.3	Satisfactory
800	798.47	-0.2	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120100
Date of Issue : 24 December 2019

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

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

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.17	0.16	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15.0	14.9	-0.1	Satisfactory
30.0	30.0	0.0	Satisfactory
49.0	49.0	0.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

(a) *The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted 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 referenced to YSI product specifications.*

LEE Chun-ning, Desmond
Senior Chemist

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AI120100
Date of Issue : 24 December 2019

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.45	0.58	0.13	Satisfactory
4.27	4.33	0.06	Satisfactory
6.41	6.51	0.10	Satisfactory
8.20	8.29	0.09	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	150.2	2.25	Satisfactory
0.01	1412	1369	-3.05	Satisfactory
0.1	12890	12928	0.29	Satisfactory
0.5	58670	58921	0.43	Satisfactory
1.0	111900	111994	0.08	Satisfactory

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

(5) Salinity

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

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading[f] (NTU)	Tolerance[g] (%)	Results
0	0.12	--	Satisfactory
10	9.98	-0.2	Satisfactory
20	19.88	-0.6	Satisfactory
100	100.33	0.3	Satisfactory
800	797.84	-0.3	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

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CALIBRATION REPORT

Test Report No. : AI120046
Date of Issue : 12 December 2019

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 – SAMPLE INFORMATION

Description of Samples	:	Titrette® bottle-top burette, 50mL
Brand Name	:	BRAND
Model Number	:	1224B90
Serial Number	:	10N64701
Date of Received	:	Dec 05, 2019
Date of Calibration	:	Dec 09, 2019
Date of Next Calibration[a]	:	Mar 08, 2020

PART C – CALIBRATION REQUESTED

Parameter	Reference Method
Accuracy Test	In-house Method (Gravimetric Method)

~ Continued On Next Page ~

Remark(s): -
(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.

LEE Chun-ning Desmond
Senior Chemist

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CALIBRATION REPORT

Test Report No. : AI120046
Date of Issue : 12 September 2019

PART D – RESULT[(b),(c)]

Water temperature: 22.0°C
Environmental conditions of the calibration:
Relative humidity: 51%
Z-Factor: 1.0026
Nominal volume: 3.0ml

Trial	Range: (1-4)	Range: (16-19)	Range: (23-26)	Range: (34-37)	Range: (42-45)
1	2.9864	2.9869	2.9850	2.9643	2.9811
2	3.0017	2.9854	2.9854	2.9834	2.9817
3	2.9916	2.9877	2.9911	2.9945	2.9848
4	2.9897	2.9948	2.9916	2.9838	2.9774
5	2.9963	2.9910	2.9906	2.9857	2.9857
6	2.9932	2.9928	2.9831	2.9807	2.9861
7	2.9875	2.9897	2.9907	2.9843	2.9973
8	2.9865	2.9933	3.0012	2.9722	2.9823
9	2.9891	2.9787	2.9931	2.9924	2.9789
10	2.9853	2.9864	2.9933	2.9837	2.9869
Average (g)	2.9907	2.9887	2.9905	2.9825	2.9842
Standard deviation	0.0051	0.0047	0.0052	0.0088	0.0056
Converted volume (mL)	2.9984	2.9964	2.9982	2.9902	2.9919
Error (%)	-0.0518	-0.1206	-0.0591	-0.3268	-0.2694
RSD (%)	0.1717	0.1581	0.1729	0.2949	0.1861

Acceptance Criteria [(d)]

Accuracy (%Error)	< ±1%	< ±1%	< ±1%	< ±1%	< ±1%
Precision (%RSD)	< 1%	< 1%	< 1%	< 1%	< 1%

~ END OF REPORT ~

Remark(s): -
(b) The results relate only to the tested sample 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) The "acceptance criteria" is applicable for similar equipment used by QPT or quoted from relevant international standards.

Appendix E. Status of Environmental Permits and Licences

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

Contract No.	Description	Location	Permit/ Reference No.	Status
P560 (R)	Notification of Construction Work under APCO	Site Office	397151	Receipt acknowledged by EPD on 15 Jan 2016
		Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016
	Discharge License under WPCO	Stockpiling Area	WT00024250-2016	Valid from 25 Apr 2016 to 30 Apr 2021
	Registration as Chemical Waste Producer	Stockpiling Area	WPN 5213-951-L2902-02	Registration was updated on 3 Oct 2016
	Bill Account for disposal		A/C 7023982	Approval granted from EPD on 14 Dec 2015
3205	Notification of Construction Work under APCO	Works area of 3205	409041	Receipt acknowledged by EPD on 19 Oct 2016
	Registration as Chemical Waste Producer	Works Area of 3205	WPN 5213-951-B2502-01	Registration was updated on 25 Sep 2017
		Works Area of 3205	WPN 5111-421-B2509-01	Registration was updated on 25 Sep 2017
	Construction Noise Permit (General Works)	Works Area of 3205	GW-RS0927-19	Superseded by GW-RS1094-19 on 10 Dec 2019
			GW-RS1094-19	Valid until 9 Jun 2020
	Discharge License under WPCO	Works area of 3205	WT00028370-2017	Valid from 21 Jun 2017 to 30 Jun 2022
	Bill Account for disposal	Works area of 3205	A/C 7026295	Approval granted from EPD on 9 Nov 2016
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016
	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951-Z4035-01	Completion of Registration on 18 Nov 2016
		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-RS1059-19	Valid until 10 May 2020
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016

Contract No.	Description	Location	Permit/ Reference No.	Status
3301	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 (Cable ducting works)	GW-RS0858-19	Valid until 24 Mar 2020
		Works area of 3301	GW-RS0865-19	Valid until 11 Apr 2020
3302	Notification of Construction Work under APCO	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018
		Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Staging 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
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0595-19	Valid until 6 Jan 2020
	Construction Noise Permit (Percussive Piling)	Works area of 3302	PP-RS0011-19	Valid until 31 Jan 2020
3303	Notification of Construction Work under APCO	Works area of 3303	445611	Receipt acknowledged by EPD on 27 May 2019
	Registration as Chemical Waste Producer	Works area of 3303	5213-951-S4174-01	Completion of Registration on 17 Jun 2019
	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-RS0764-19	Valid until 28 Feb 2020
		Works area of 3303 (Reclamation area)	GW-RS1058-19	Superseded by GW-RS1083-19 on 10 Dec 2019
			GW-RS1083-19	Valid until 9 Jun 2020
3402	Notification of Construction Work under APCO	Works area of 3402	440808	Receipt acknowledged by EPD on 31 Dec 2018
		Stockpiling area of 3402	441960	Receipt acknowledged by EPD on 8 Feb 2019
	Registration as Chemical Waste Producer	Works area of 3402	WPN 5213-951-W1172-05	Registration was updated on 25 Feb 2019
	Discharge License under WPCO	Works area of 3402	WT00033685-2019	Valid from 20 Jun 2019 to 30 Jun 2024
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0720-19	Valid until 14 Jan 2020
3501	Notification of Construction Work under APCO	Works area of 3501	434640	Receipt acknowledged by EPD on 13 Jun 2018
	Registration as Chemical Waste Producer	Works area of 3501	WPN 5213-951-B2520-02	Completion of Registration on 25 Jul 2017
	Discharge License under WPCO	Works area of 3501	WT00031400-2018	Valid from 30 Aug 2018 to 31 Aug 2023
	Bill Account for disposal	Works area of 3501	A/C 7028144	Approval granted from EPD on 23 Jun 2017
	Construction Noise Permit (General Works)	Works area of 3501	GW-RS0796-19	Valid from 5 Sep 2019 to 2 Mar 2020
3502	Notification of Construction Work under APCO	Works area of 3502	437766	Receipt acknowledged by EPD on 26 Sep 2018
	Registration as Chemical Waste Producer	Works area of 3502	WPN 5213-951-B2520-01	Completion of Registration on 3 Jul 2017
	Bill Account for disposal	Works area of 3502	A/C 7028050	Approval granted from EPD on 21 Jun 2017
3503	Notification of Construction Work under APCO	Works area of 3503	435180	Receipt acknowledged by EPD on 29 Jun 2018
		Stockpiling area of 3503	439777	Receipt acknowledged by EPD on 26 Nov 2018
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951-L2845-02	Completion of Registration on 8 Jan 2018
	Discharge License under WPCO	Works area of 3503	WT00031258-2018	Valid from 7 Jun 2018 to 30 Jun 2023
		Stockpiling area of 3503	WT00031826-2018	Valid from 18 Sep 2018 to 30 Sep 2023
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise Permit (General Works)	Works area of 3503	GW-RS0961-19	Valid until 29 Apr 2020
		Stockpiling area of 3503	GW-RS1012-19	Valid until 13 May 2020
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		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
	Construction Noise Permit (General Works)	Works area of 3602	GW-RS0888-19	Valid until 31 Mar 2020
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3603	WPN 5296-951-S4069-01	Completion of Registration on 22 Jan 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0909-19	Valid until 23 Apr 2020
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
	Bill Account for disposal	Works area of 3721	A/C 705234	Approval granted from EPD on 25 Sep 2019
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
	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
	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 and stockpiling area of 3801	GW-RS0782-19	Valid until 1 Mar 2020
		Works area of 3801	GW-RS0857-19	Superseded by GW-RS1126-19 on 27 Dec 2019
		(Drill and grouting works)	GW-RS1126-19	Valid until 26 Mar 2019

Appendix F. Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecution

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 Prosecution

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	17	1	1

Appendix G. Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 31 December 2019)

Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 31 December 2019)

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
1-Dec	8:25	3A061	YFT	Arrival	11.2	-	-
1-Dec	9:56	3A081	ZUI	Arrival	12	-	-
1-Dec	10:15	8S212	XZM	Arrival	11.7	-	-
1-Dec	10:37	3A181	ZUI	Departure	12.7	-	-
1-Dec	11:05	8S121	XZM	Departure	12.6	-	-
1-Dec	12:38	8S215	XZM	Arrival	12.2	-	-
1-Dec	13:57	3A082	ZUI	Arrival	12.7	-	-
1-Dec	14:13	3A182	ZUI	Departure	12.8	-	-
1-Dec	14:56	3A065	YFT	Arrival	11.7	-	-
1-Dec	16:18	3A167	YFT	Departure	12.1	-	-
1-Dec	16:57	3A083	ZUI	Arrival	13.2	-	-
1-Dec	17:03	3A067	YFT	Arrival	12.3	-	-
1-Dec	17:22	3A183	ZUI	Departure	12.2	-	-
1-Dec	18:13	8S126	XZM	Departure	11.6	-	-
1-Dec	20:39	3A084	ZUI	Arrival	12.7	-	-
1-Dec	20:56	3A185	ZUI	Departure	12.8	-	-
1-Dec	20:57	8S2113	XZM	Arrival	11.9	-	-
2-Dec	8:27	3A061	YFT	Arrival	11.8	-	-
2-Dec	9:56	3A081	ZUI	Arrival	0 **	-	-
2-Dec	10:23	3A181	ZUI	Departure	0 **	-	-
2-Dec	10:26	8S212	XZM	Arrival	12	-	-
2-Dec	11:09	8S121	XZM	Departure	12.3	-	-
2-Dec	12:46	8S215	XZM	Arrival	12.6	-	-
2-Dec	13:50	3A082	ZUI	Arrival	0 **	-	-
2-Dec	14:10	3A182	ZUI	Departure	0 **	-	-
2-Dec	14:56	3A065	YFT	Arrival	12.1	-	-
2-Dec	16:25	3A167	YFT	Departure	12.7	-	-
2-Dec	16:57	3A083	ZUI	Arrival	12.4	-	-
2-Dec	17:04	3A067	YFT	Arrival	11.9	-	-
2-Dec	17:31	3A183	ZUI	Departure	12.9	-	-
2-Dec	18:15	8S126	XZM	Departure	13	-	-
2-Dec	20:36	3A084	ZUI	Arrival	12.7	-	-
2-Dec	20:59	3A185	ZUI	Departure	13.5	-	-
2-Dec	21:17	8S2113	XZM	Arrival	12.9	-	-
3-Dec	8:21	3A061	YFT	Arrival	12.6	-	-
3-Dec	9:55	3A081	ZUI	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
3-Dec	10:22	8S212	XZM	Arrival	12.1	-	-
3-Dec	10:22	3A181	ZUI	Departure	13.2	-	-
3-Dec	11:04	8S121	XZM	Departure	11.7	-	-
3-Dec	12:33	8S215	XZM	Arrival	12.9	-	-
3-Dec	14:00	3A082	ZUI	Arrival	12.5	-	-
3-Dec	14:12	3A182	ZUI	Departure	13.6	-	-
3-Dec	14:56	3A065	YFT	Arrival	10.9	-	-
3-Dec	16:18	3A167	YFT	Departure	12.6	-	-
3-Dec	16:56	3A067	YFT	Arrival	12.2	-	-
3-Dec	17:02	3A083	ZUI	Arrival	12.4	-	-
3-Dec	17:24	3A183	ZUI	Departure	13	-	-
3-Dec	18:00	8S126	XZM	Departure	12.7	-	-
3-Dec	20:37	3A084	ZUI	Arrival	13.1	-	-
3-Dec	20:47	8S2113	XZM	Arrival	11.5	-	-
3-Dec	20:54	3A185	ZUI	Departure	13.4	-	-
4-Dec	8:24	3A061	YFT	Arrival	12.4	-	-
4-Dec	9:55	3A081	ZUI	Arrival	12.9	-	-
4-Dec	10:15	8S212	XZM	Arrival	11.5	-	-
4-Dec	10:24	3A181	ZUI	Departure	13	-	-
4-Dec	11:03	8S121	XZM	Departure	12.9	-	-
4-Dec	12:36	8S215	XZM	Arrival	12.3	-	-
4-Dec	13:55	3A082	ZUI	Arrival	12.5	-	-
4-Dec	14:15	3A182	ZUI	Departure	13.4	-	-
4-Dec	14:56	3A065	YFT	Arrival	12.4	-	-
4-Dec	16:18	3A167	YFT	Departure	13.3	-	-
4-Dec	16:57	3A083	ZUI	Arrival	12.6	-	-
4-Dec	16:57	3A067	YFT	Arrival	12.1	-	-
4-Dec	17:13	3A183	ZUI	Departure	13	-	-
4-Dec	18:18	8S126	XZM	Departure	11.9	-	-
4-Dec	20:35	3A084	ZUI	Arrival	13.1	-	-
4-Dec	20:57	3A185	ZUI	Departure	13.6	-	-
4-Dec	21:01	8S2113	XZM	Arrival	11.8	-	-
5-Dec	8:25	3A061	YFT	Arrival	12.5	-	-
5-Dec	10:01	3A081	ZUI	Arrival	13	-	-
5-Dec	10:21	8S212	XZM	Arrival	11.9	-	-
5-Dec	10:28	3A181	ZUI	Departure	13.2	-	-
5-Dec	11:00	8S121	XZM	Departure	13	-	-
5-Dec	12:41	8S215	XZM	Arrival	11.5	-	-
5-Dec	13:56	3A082	ZUI	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
5-Dec	14:08	3A182	ZUI	Departure	13.5	-	-
5-Dec	14:52	3A065	YFT	Arrival	12.3	-	-
5-Dec	16:12	3A167	YFT	Departure	12.9	-	-
5-Dec	16:56	3A067	YFT	Arrival	12.7	-	-
5-Dec	17:03	3A083	ZUI	Arrival	12.8	-	-
5-Dec	17:18	3A183	ZUI	Departure	13.4	-	-
5-Dec	18:03	8S126	XZM	Departure	12.1	-	-
5-Dec	20:35	3A084	ZUI	Arrival	13.1	-	-
5-Dec	20:50	8S2113	XZM	Arrival	11.4	-	-
5-Dec	20:57	3A185	ZUI	Departure	13.1	-	-
6-Dec	8:27	3A061	YFT	Arrival	12.5	-	-
6-Dec	10:00	3A081	ZUI	Arrival	13.4	-	-
6-Dec	10:14	8S212	XZM	Arrival	11.2	-	-
6-Dec	10:31	3A181	ZUI	Departure	12.8	-	-
6-Dec	11:09	8S121	XZM	Departure	12.3	-	-
6-Dec	12:37	8S215	XZM	Arrival	11.6	-	-
6-Dec	13:58	3A082	ZUI	Arrival	12.3	-	-
6-Dec	14:12	3A182	ZUI	Departure	13.3	-	-
6-Dec	14:59	3A065	YFT	Arrival	11.7	-	-
6-Dec	16:18	3A167	YFT	Departure	11.8	-	-
6-Dec	16:58	3A083	ZUI	Arrival	12	-	-
6-Dec	17:01	3A067	YFT	Arrival	11	-	-
6-Dec	17:16	3A183	ZUI	Departure	13.2	-	-
6-Dec	18:10	8S126	XZM	Departure	13.2	-	-
6-Dec	20:35	3A084	ZUI	Arrival	13.1	-	-
6-Dec	20:49	8S2113	XZM	Arrival	12.7	-	-
6-Dec	20:58	3A185	ZUI	Departure	13.2	-	-
7-Dec	8:26	3A061	YFT	Arrival	12.6	-	-
7-Dec	9:58	3A081	ZUI	Arrival	12.4	-	-
7-Dec	10:19	8S212	XZM	Arrival	12.1	-	-
7-Dec	10:30	3A181	ZUI	Departure	13	-	-
7-Dec	11:05	8S121	XZM	Departure	12.2	-	-
7-Dec	12:45	8S215	XZM	Arrival	11.3	-	-
7-Dec	13:56	3A082	ZUI	Arrival	12.2	-	-
7-Dec	14:16	3A182	ZUI	Departure	13.7	-	-
7-Dec	14:57	3A065	YFT	Arrival	12	-	-
7-Dec	16:11	3A167	YFT	Departure	12.4	-	-
7-Dec	16:54	3A067	YFT	Arrival	10.8	-	-
7-Dec	16:56	3A083	ZUI	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
7-Dec	17:14	3A183	ZUI	Departure	12.6	-	-
7-Dec	18:05	8S126	XZM	Departure	13.3	-	-
7-Dec	20:34	3A084	ZUI	Arrival	12.8	-	-
7-Dec	20:45	8S2113	XZM	Arrival	13	-	-
7-Dec	20:58	3A185	ZUI	Departure	13	-	-
8-Dec	8:23	3A061	YFT	Arrival	12	-	-
8-Dec	9:56	3A081	ZUI	Arrival	12.5	-	-
8-Dec	10:19	8S212	XZM	Arrival	12.5	-	-
8-Dec	10:27	3A181	ZUI	Departure	12.6	-	-
8-Dec	11:06	8S121	XZM	Departure	12.2	-	-
8-Dec	12:35	8S215	XZM	Arrival	12.5	-	-
8-Dec	13:57	3A082	ZUI	Arrival	12.8	-	-
8-Dec	14:11	3A164	YFT	Departure	12.3	-	-
8-Dec	14:13	3A182	ZUI	Departure	13.1	-	-
8-Dec	14:50	3A065	YFT	Arrival	13	-	-
8-Dec	15:31	3A165	YFT	Departure	13.6	-	-
8-Dec	16:57	3A067	YFT	Arrival	12.3	-	-
8-Dec	17:03	3A083	ZUI	Arrival	12.5	-	-
8-Dec	17:26	3A183	ZUI	Departure	13.2	-	-
8-Dec	18:14	8S126	XZM	Departure	12.2	-	-
8-Dec	20:34	3A084	ZUI	Arrival	12.6	-	-
8-Dec	20:53	3A185	ZUI	Departure	13	-	-
8-Dec	20:57	8S2113	XZM	Arrival	13.3	-	-
9-Dec	8:23	3A061	YFT	Arrival	12.2	-	-
9-Dec	9:56	3A081	ZUI	Arrival	12.8	-	-
9-Dec	10:14	8S212	XZM	Arrival	12.5	-	-
9-Dec	10:26	3A181	ZUI	Departure	12.6	-	-
9-Dec	11:04	8S121	XZM	Departure	12.6	-	-
9-Dec	12:34	8S215	XZM	Arrival	11.6	-	-
9-Dec	13:55	3A082	ZUI	Arrival	12.9	-	-
9-Dec	14:15	3A182	ZUI	Departure	13	-	-
9-Dec	14:16	3A164	YFT	Departure	12.1	-	-
9-Dec	14:52	3A065	YFT	Arrival	12.8	<= 5	< 1min
9-Dec	15:32	3A165	YFT	Departure	13	-	-
9-Dec	16:57	3A083	ZUI	Arrival	12.5	-	-
9-Dec	16:58	3A067	YFT	Arrival	11.9	-	-
9-Dec	17:15	3A183	ZUI	Departure	12.9	-	-
9-Dec	18:09	8S126	XZM	Departure	12.5	-	-
9-Dec	20:34	3A084	ZUI	Arrival	12.9	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
9-Dec	20:56	3A185	ZUI	Departure	13.4	-	-
9-Dec	21:02	8S2113	XZM	Arrival	12.7	-	-
10-Dec	8:20	3A061	YFT	Arrival	12.3	-	-
10-Dec	9:55	3A081	ZUI	Arrival	12.9	-	-
10-Dec	10:17	8S212	XZM	Arrival	11.9	-	-
10-Dec	10:25	3A181	ZUI	Departure	13.3	-	-
10-Dec	11:02	8S121	XZM	Departure	13	-	-
10-Dec	12:40	8S215	XZM	Arrival	12.3	-	-
10-Dec	13:54	3A082	ZUI	Arrival	12.8	-	-
10-Dec	14:15	3A164	YFT	Departure	11.8	-	-
10-Dec	14:19	3A182	ZUI	Departure	12.8	-	-
10-Dec	14:55	3A065	YFT	Arrival	11.8	-	-
10-Dec	16:19	3A167	YFT	Departure	12.6	-	-
10-Dec	16:59	3A083	ZUI	Arrival	12.7	-	-
10-Dec	17:10	3A067	YFT	Arrival	11.9	-	-
10-Dec	17:19	3A183	ZUI	Departure	12.5	-	-
10-Dec	18:09	8S126	XZM	Departure	11.8	-	-
10-Dec	20:32	3A084	ZUI	Arrival	12.4	-	-
10-Dec	20:55	3A185	ZUI	Departure	12.8	-	-
10-Dec	20:55	8S2113	XZM	Arrival	11.7	-	-
11-Dec	9:58	3A081	ZUI	Arrival	12.9	-	-
11-Dec	10:08	8S212	XZM	Arrival	12.4	-	-
11-Dec	10:25	3A181	ZUI	Departure	12.4	-	-
11-Dec	10:28	3A062	YFT	Arrival	12.5	-	-
11-Dec	10:59	8S121	XZM	Departure	12.4	-	-
11-Dec	12:13	3A063	YFT	Arrival	12.3	-	-
11-Dec	12:48	8S215	XZM	Arrival	12.7	-	-
11-Dec	13:55	3A082	ZUI	Arrival	13	-	-
11-Dec	14:19	3A182	ZUI	Departure	11.9	-	-
11-Dec	14:55	3A065	YFT	Arrival	12.7	-	-
11-Dec	16:11	3A167	YFT	Departure	13.2	-	-
11-Dec	16:52	3A067	YFT	Arrival	12.6	-	-
11-Dec	17:02	3A083	ZUI	Arrival	12.3	-	-
11-Dec	17:20	3A183	ZUI	Departure	13.3	-	-
11-Dec	18:04	8S126	XZM	Departure	13.1	-	-
11-Dec	20:38	3A084	ZUI	Arrival	13.3	-	-
11-Dec	20:53	3A185	ZUI	Departure	13	-	-
11-Dec	20:53	8S2113	XZM	Arrival	12	-	-
12-Dec	9:54	3A081	ZUI	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
12-Dec	10:09	8S212	XZM	Arrival	12.2	-	-
12-Dec	10:21	3A062	YFT	Arrival	12.1	-	-
12-Dec	10:25	3A181	ZUI	Departure	12.6	-	-
12-Dec	11:03	8S121	XZM	Departure	12.5	-	-
12-Dec	11:59	3A063	YFT	Arrival	12.2	-	-
12-Dec	12:33	8S215	XZM	Arrival	11.9	-	-
12-Dec	13:53	3A082	ZUI	Arrival	13.5	-	-
12-Dec	14:16	3A182	ZUI	Departure	12	-	-
12-Dec	14:52	3A065	YFT	Arrival	13	-	-
12-Dec	16:15	3A167	YFT	Departure	13.2	-	-
12-Dec	16:58	3A083	ZUI	Arrival	12.6	-	-
12-Dec	17:13	3A067	YFT	Arrival	12.6	-	-
12-Dec	17:21	3A183	ZUI	Departure	13.3	-	-
12-Dec	18:10	8S126	XZM	Departure	12.1	-	-
12-Dec	20:33	3A084	ZUI	Arrival	12.4	-	-
12-Dec	20:51	8S2113	XZM	Arrival	11.2	-	-
12-Dec	21:00	3A185	ZUI	Departure	13.3	-	-
13-Dec	10:00	3A081	ZUI	Arrival	12.6	-	-
13-Dec	10:17	8S212	XZM	Arrival	12.3	-	-
13-Dec	10:27	3A181	ZUI	Departure	13.4	-	-
13-Dec	10:29	3A062	YFT	Arrival	11.5	-	-
13-Dec	11:12	8S121	XZM	Departure	11.8	-	-
13-Dec	12:42	8S215	XZM	Arrival	13.3	-	-
13-Dec	14:07	3A082	ZUI	Arrival	13.1	-	-
13-Dec	14:27	3A182	ZUI	Departure	12.5	-	-
13-Dec	14:55	3A065	YFT	Arrival	12.1	-	-
13-Dec	16:18	3A167	YFT	Departure	11.4	-	-
13-Dec	16:56	3A067	YFT	Arrival	12.2	-	-
13-Dec	17:10	3A083	ZUI	Arrival	13	-	-
13-Dec	17:25	3A183	ZUI	Departure	13.6	-	-
13-Dec	18:09	8S126	XZM	Departure	12.8	<= 5	< 1min
13-Dec	20:39	3A084	ZUI	Arrival	12.6	-	-
13-Dec	20:54	3A185	ZUI	Departure	13.4	-	-
13-Dec	21:05	8S2113	XZM	Arrival	12	-	-
14-Dec	8:27	3A061	YFT	Arrival	11.8	-	-
14-Dec	9:55	3A081	ZUI	Arrival	12.3	-	-
14-Dec	10:23	8S212	XZM	Arrival	12.2	-	-
14-Dec	10:24	3A181	ZUI	Departure	13	-	-
14-Dec	11:08	8S121	XZM	Departure	10.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
14-Dec	12:43	8S215	XZM	Arrival	12.7	-	-
14-Dec	13:53	3A082	ZUI	Arrival	13.3	-	-
14-Dec	14:09	3A182	ZUI	Departure	12.6	-	-
14-Dec	14:52	3A065	YFT	Arrival	12.7	-	-
14-Dec	16:19	3A167	YFT	Departure	12.6	-	-
14-Dec	16:53	3A083	ZUI	Arrival	13.1	-	-
14-Dec	16:54	3A067	YFT	Arrival	12	-	-
14-Dec	17:23	3A183	ZUI	Departure	12.6	-	-
14-Dec	18:18	8S126	XZM	Departure	13.3	-	-
14-Dec	20:35	3A084	ZUI	Arrival	12.3	-	-
14-Dec	20:55	8S2113	XZM	Arrival	12.4	-	-
14-Dec	20:55	3A185	ZUI	Departure	13.5	-	-
15-Dec	8:22	3A061	YFT	Arrival	12	-	-
15-Dec	10:01	3A081	ZUI	Arrival	12.1	-	-
15-Dec	10:20	8S212	XZM	Arrival	12.2	-	-
15-Dec	10:28	3A181	ZUI	Departure	13.5	-	-
15-Dec	11:12	8S121	XZM	Departure	12.8	-	-
15-Dec	12:47	8S215	XZM	Arrival	11.8	-	-
15-Dec	13:52	3A082	ZUI	Arrival	13.2	-	-
15-Dec	14:09	3A182	ZUI	Departure	13.2	-	-
15-Dec	14:52	3A065	YFT	Arrival	11.6	-	-
15-Dec	16:23	3A167	YFT	Departure	12	-	-
15-Dec	16:54	3A083	ZUI	Arrival	13.1	-	-
15-Dec	16:55	3A067	YFT	Arrival	12.7	-	-
15-Dec	17:13	3A183	ZUI	Departure	12.8	-	-
15-Dec	18:14	8S126	XZM	Departure	11.5	-	-
15-Dec	20:36	3A084	ZUI	Arrival	12.5	-	-
15-Dec	20:54	8S2113	XZM	Arrival	12.3	-	-
15-Dec	20:57	3A185	ZUI	Departure	13.6	-	-
16-Dec	8:24	3A061	YFT	Arrival	11.7	-	-
16-Dec	9:57	3A081	ZUI	Arrival	12.6	-	-
16-Dec	10:25	8S212	XZM	Arrival	10.8	-	-
16-Dec	10:28	3A181	ZUI	Departure	13.3	-	-
16-Dec	11:14	8S121	XZM	Departure	12.5	-	-
16-Dec	12:39	8S215	XZM	Arrival	12.5	-	-
16-Dec	13:51	3A082	ZUI	Arrival	13	-	-
16-Dec	14:19	3A182	ZUI	Departure	12.8	-	-
16-Dec	14:56	3A065	YFT	Arrival	12.8	-	-
16-Dec	16:19	3A167	YFT	Departure	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
16-Dec	16:57	3A067	YFT	Arrival	12.9	-	-
16-Dec	17:04	3A083	ZUI	Arrival	13.2	-	-
16-Dec	17:23	3A183	ZUI	Departure	12.5	-	-
16-Dec	18:22	8S126	XZM	Departure	13.5	-	-
16-Dec	20:32	3A084	ZUI	Arrival	12.9	-	-
16-Dec	20:58	3A185	ZUI	Departure	13.7	-	-
16-Dec	20:58	8S2113	XZM	Arrival	13.5	-	-
17-Dec	8:25	3A061	YFT	Arrival	11.3	-	-
17-Dec	9:57	3A081	ZUI	Arrival	12.2	-	-
17-Dec	10:20	8S212	XZM	Arrival	12.1	-	-
17-Dec	10:27	3A181	ZUI	Departure	12.9	-	-
17-Dec	11:09	8S121	XZM	Departure	12.7	-	-
17-Dec	12:38	8S215	XZM	Arrival	11.6	-	-
17-Dec	14:01	3A082	ZUI	Arrival	12.6	-	-
17-Dec	14:13	3A182	ZUI	Departure	12.4	-	-
17-Dec	14:53	3A065	YFT	Arrival	12.6	-	-
17-Dec	16:21	3A167	YFT	Departure	12.9	-	-
17-Dec	16:57	3A067	YFT	Arrival	12.9	-	-
17-Dec	16:57	3A083	ZUI	Arrival	13.3	-	-
17-Dec	17:15	3A183	ZUI	Departure	12.5	-	-
17-Dec	18:12	8S126	XZM	Departure	11.9	-	-
17-Dec	20:34	3A084	ZUI	Arrival	13.3	-	-
17-Dec	20:59	8S2113	XZM	Arrival	11.9	-	-
17-Dec	21:00	3A185	ZUI	Departure	13.2	-	-
18-Dec	8:22	3A061	YFT	Arrival	12	-	-
18-Dec	10:15	3A081	ZUI	Arrival	12.6	-	-
18-Dec	10:36	8S212	XZM	Arrival	12.2	-	-
18-Dec	10:47	3A181	ZUI	Departure	13.4	-	-
18-Dec	11:20	8S121	XZM	Departure	12.5	-	-
18-Dec	12:42	8S215	XZM	Arrival	11.8	-	-
18-Dec	13:55	3A082	ZUI	Arrival	12.6	-	-
18-Dec	14:12	3A182	ZUI	Departure	13.4	-	-
18-Dec	14:55	3A065	YFT	Arrival	12	-	-
18-Dec	16:27	3A167	YFT	Departure	12.3	-	-
18-Dec	16:50	3A067	YFT	Arrival	13	-	-
18-Dec	17:00	3A083	ZUI	Arrival	12.6	-	-
18-Dec	17:18	3A183	ZUI	Departure	13.2	-	-
18-Dec	18:09	8S126	XZM	Departure	13.2	-	-
18-Dec	20:35	3A084	ZUI	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
18-Dec	20:59	3A185	ZUI	Departure	13	-	-
18-Dec	20:59	8S2113	XZM	Arrival	12.6	-	-
19-Dec	8:30	3A061	YFT	Arrival	12.4	-	-
19-Dec	9:59	3A081	ZUI	Arrival	12.8	-	-
19-Dec	10:17	8S212	XZM	Arrival	12.8	-	-
19-Dec	10:34	3A181	ZUI	Departure	12.3	-	-
19-Dec	11:09	8S121	XZM	Departure	13.5	-	-
19-Dec	12:44	8S215	XZM	Arrival	11	-	-
19-Dec	14:00	3A082	ZUI	Arrival	12.6	-	-
19-Dec	14:15	3A182	ZUI	Departure	12.7	-	-
19-Dec	15:00	3A065	YFT	Arrival	11.5	-	-
19-Dec	16:19	3A167	YFT	Departure	12.2	-	-
19-Dec	17:00	3A067	YFT	Arrival	12.5	-	-
19-Dec	17:02	3A083	ZUI	Arrival	13.1	-	-
19-Dec	17:18	3A183	ZUI	Departure	13.1	-	-
19-Dec	18:18	8S126	XZM	Departure	11.8	-	-
19-Dec	20:33	3A084	ZUI	Arrival	12.7	-	-
19-Dec	20:58	3A185	ZUI	Departure	13.4	-	-
19-Dec	21:13	8S2113	XZM	Arrival	11.9	-	-
20-Dec	8:30	3A061	YFT	Arrival	12.6	-	-
20-Dec	10:01	3A081	ZUI	Arrival	12.7	-	-
20-Dec	10:18	8S212	XZM	Arrival	11.9	-	-
20-Dec	10:35	3A181	ZUI	Departure	12.2	-	-
20-Dec	11:16	8S121	XZM	Departure	12.1	-	-
20-Dec	12:44	8S215	XZM	Arrival	11.7	-	-
20-Dec	13:54	3A082	ZUI	Arrival	12.7	-	-
20-Dec	14:15	3A182	ZUI	Departure	12.9	-	-
20-Dec	14:58	3A065	YFT	Arrival	12.5	-	-
20-Dec	16:29	3A167	YFT	Departure	13.2	-	-
20-Dec	16:31	3A067	YFT	Arrival	11.2	-	-
20-Dec	16:57	3A083	ZUI	Arrival	12.4	-	-
20-Dec	17:21	3A183	ZUI	Departure	13.3	-	-
20-Dec	18:10	8S126	XZM	Departure	13.1	-	-
20-Dec	20:52	3A084	ZUI	Arrival	13.1	-	-
20-Dec	20:57	8S2113	XZM	Arrival	13.1	-	-
20-Dec	21:04	3A185	ZUI	Departure	13	-	-
21-Dec	8:25	3A061	YFT	Arrival	12	-	-
21-Dec	10:01	3A081	ZUI	Arrival	13	-	-
21-Dec	10:09	8S212	XZM	Arrival	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
21-Dec	10:33	3A181	ZUI	Departure	12.5	-	-
21-Dec	11:03	8S121	XZM	Departure	13.2	-	-
21-Dec	12:34	8S215	XZM	Arrival	11.8	-	-
21-Dec	13:56	3A082	ZUI	Arrival	12.6	-	-
21-Dec	14:12	3A182	ZUI	Departure	13.3	-	-
21-Dec	14:56	3A065	YFT	Arrival	12.1	-	-
21-Dec	16:22	3A167	YFT	Departure	13	-	-
21-Dec	16:53	3A083	ZUI	Arrival	12.7	-	-
21-Dec	16:57	3A067	YFT	Arrival	11.9	-	-
21-Dec	17:23	3A183	ZUI	Departure	12.8	-	-
21-Dec	18:14	8S126	XZM	Departure	11.2	-	-
21-Dec	20:34	3A084	ZUI	Arrival	12.9	-	-
21-Dec	20:54	8S2113	XZM	Arrival	12.4	-	-
21-Dec	21:03	3A185	ZUI	Departure	13.4	-	-
22-Dec	8:24	3A061	YFT	Arrival	12.9	-	-
22-Dec	9:53	3A081	ZUI	Arrival	13.1	-	-
22-Dec	10:17	8S212	XZM	Arrival	0 **	-	-
22-Dec	10:24	3A181	ZUI	Departure	12.7	-	-
22-Dec	11:01	8S121	XZM	Departure	11.9	-	-
22-Dec	12:37	8S215	XZM	Arrival	11.2	-	-
22-Dec	13:54	3A082	ZUI	Arrival	12.6	-	-
22-Dec	14:11	3A182	ZUI	Departure	13.4	-	-
22-Dec	14:52	3A065	YFT	Arrival	12	-	-
22-Dec	16:23	3A167	YFT	Departure	13.5	-	-
22-Dec	16:58	3A067	YFT	Arrival	12.5	-	-
22-Dec	17:02	3A083	ZUI	Arrival	12.6	-	-
22-Dec	17:16	3A183	ZUI	Departure	12.2	-	-
22-Dec	18:04	8S126	XZM	Departure	11.5	-	-
22-Dec	20:33	3A084	ZUI	Arrival	12.9	-	-
22-Dec	20:48	8S2113	XZM	Arrival	12.5	-	-
22-Dec	20:55	3A185	ZUI	Departure	12.8	-	-
23-Dec	8:28	3A061	YFT	Arrival	12.3	-	-
23-Dec	9:56	3A081	ZUI	Arrival	13.3	-	-
23-Dec	9:59	8S212	XZM	Arrival	12.8	-	-
23-Dec	10:26	3A181	ZUI	Departure	13.2	-	-
23-Dec	11:08	8S121	XZM	Departure	12.7	-	-
23-Dec	12:35	8S215	XZM	Arrival	12.1	-	-
23-Dec	13:57	3A082	ZUI	Arrival	12.9	-	-
23-Dec	14:12	3A182	ZUI	Departure	12.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
23-Dec	14:55	3A065	YFT	Arrival	12.2	-	-
23-Dec	16:14	3A167	YFT	Departure	13.3	-	-
23-Dec	16:51	3A067	YFT	Arrival	12.5	-	-
23-Dec	16:54	3A083	ZUI	Arrival	12.5	-	-
23-Dec	17:21	3A183	ZUI	Departure	13.2	-	-
23-Dec	18:05	8S126	XZM	Departure	11.6	-	-
23-Dec	20:39	3A084	ZUI	Arrival	13.2	-	-
23-Dec	20:55	8S2113	XZM	Arrival	11.6	-	-
23-Dec	20:56	3A185	ZUI	Departure	12.7	-	-
24-Dec	8:26	3A061	YFT	Arrival	11.5	-	-
24-Dec	9:58	3A081	ZUI	Arrival	12.9	-	-
24-Dec	10:21	8S212	XZM	Arrival	12	-	-
24-Dec	10:29	3A181	ZUI	Departure	13.1	-	-
24-Dec	11:07	8S121	XZM	Departure	12.8	-	-
24-Dec	12:36	8S215	XZM	Arrival	12.7	-	-
24-Dec	13:54	3A082	ZUI	Arrival	13.1	-	-
24-Dec	14:12	3A182	ZUI	Departure	12.7	-	-
24-Dec	14:54	3A065	YFT	Arrival	12.1	-	-
24-Dec	16:15	3A167	YFT	Departure	12.6	-	-
24-Dec	16:52	3A067	YFT	Arrival	12.1	-	-
24-Dec	16:55	3A083	ZUI	Arrival	12.6	-	-
24-Dec	17:20	3A183	ZUI	Departure	13.6	-	-
24-Dec	18:07	8S126	XZM	Departure	11.8	-	-
24-Dec	20:32	3A084	ZUI	Arrival	13	-	-
24-Dec	20:48	8S2113	XZM	Arrival	12.2	-	-
24-Dec	20:56	3A185	ZUI	Departure	13	-	-
25-Dec	8:27	3A061	YFT	Arrival	11.2	-	-
25-Dec	9:56	3A081	ZUI	Arrival	12.7	-	-
25-Dec	10:18	8S212	XZM	Arrival	13	-	-
25-Dec	10:31	3A181	ZUI	Departure	13.2	-	-
25-Dec	11:16	8S121	XZM	Departure	13.3	-	-
25-Dec	12:40	8S215	XZM	Arrival	12.2	-	-
25-Dec	13:53	3A082	ZUI	Arrival	13.4	-	-
25-Dec	14:15	3A182	ZUI	Departure	11.9	-	-
25-Dec	15:01	3A065	YFT	Arrival	12.2	-	-
25-Dec	16:22	3A167	YFT	Departure	13.5	-	-
25-Dec	16:55	3A067	YFT	Arrival	11.5	-	-
25-Dec	17:08	3A083	ZUI	Arrival	12.9	-	-
25-Dec	17:26	3A183	ZUI	Departure	13.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
25-Dec	18:19	8S126	XZM	Departure	12.7	-	-
25-Dec	20:34	3A084	ZUI	Arrival	12.8	-	-
25-Dec	20:54	8S2113	XZM	Arrival	13.8	-	-
25-Dec	21:01	3A185	ZUI	Departure	12.5	-	-
26-Dec	8:28	3A061	YFT	Arrival	12.3	-	-
26-Dec	9:58	3A081	ZUI	Arrival	13	-	-
26-Dec	10:07	8S212	XZM	Arrival	11.4	-	-
26-Dec	10:26	3A181	ZUI	Departure	12.7	-	-
26-Dec	11:07	8S121	XZM	Departure	12.3	-	-
26-Dec	12:38	8S215	XZM	Arrival	12.4	-	-
26-Dec	13:54	3A082	ZUI	Arrival	13.2	-	-
26-Dec	14:08	3A182	ZUI	Departure	12.3	-	-
26-Dec	14:55	3A065	YFT	Arrival	11.7	-	-
26-Dec	16:18	3A167	YFT	Departure	11.5	-	-
26-Dec	16:53	3A067	YFT	Arrival	12.5	-	-
26-Dec	16:55	3A083	ZUI	Arrival	13	-	-
26-Dec	17:11	3A183	ZUI	Departure	12.9	-	-
26-Dec	18:11	8S126	XZM	Departure	13.1	-	-
26-Dec	20:38	3A084	ZUI	Arrival	12.7	-	-
26-Dec	20:54	3A185	ZUI	Departure	13	-	-
26-Dec	20:54	8S2113	XZM	Arrival	12.2	-	-
27-Dec	8:21	3A061	YFT	Arrival	11.9	-	-
27-Dec	9:56	3A081	ZUI	Arrival	12.3	-	-
27-Dec	10:18	8S212	XZM	Arrival	12.4	-	-
27-Dec	10:26	3A181	ZUI	Departure	13.6	-	-
27-Dec	11:12	8S121	XZM	Departure	12.4	-	-
27-Dec	12:46	8S215	XZM	Arrival	12.9	-	-
27-Dec	13:54	3A082	ZUI	Arrival	13.3	-	-
27-Dec	14:11	3A182	ZUI	Departure	12.7	-	-
27-Dec	14:59	3A065	YFT	Arrival	12.1	-	-
27-Dec	16:18	3A167	YFT	Departure	11.9	-	-
27-Dec	16:54	3A083	ZUI	Arrival	13.2	-	-
27-Dec	16:56	3A067	YFT	Arrival	12.5	-	-
27-Dec	17:19	3A183	ZUI	Departure	13.5	-	-
27-Dec	18:06	8S126	XZM	Departure	13.2	-	-
27-Dec	20:35	3A084	ZUI	Arrival	12.2	-	-
27-Dec	20:46	8S2113	XZM	Arrival	12.7	-	-
27-Dec	20:51	3A185	ZUI	Departure	13.4	-	-
28-Dec	8:22	3A061	YFT	Arrival	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
28-Dec	9:55	3A081	ZUI	Arrival	12.4	-	-
28-Dec	10:21	8S212	XZM	Arrival	11.3	-	-
28-Dec	10:28	3A181	ZUI	Departure	13.3	-	-
28-Dec	11:07	8S121	XZM	Departure	12	-	-
28-Dec	12:34	8S215	XZM	Arrival	12.4	-	-
28-Dec	13:53	3A082	ZUI	Arrival	12.9	-	-
28-Dec	14:27	3A182	ZUI	Departure	12.6	-	-
28-Dec	14:57	3A065	YFT	Arrival	13	-	-
28-Dec	16:19	3A167	YFT	Departure	13.4	-	-
28-Dec	16:50	3A067	YFT	Arrival	12.9	-	-
28-Dec	17:06	3A083	ZUI	Arrival	12.4	-	-
28-Dec	17:17	3A183	ZUI	Departure	12.9	-	-
28-Dec	18:04	8S126	XZM	Departure	11.8	-	-
28-Dec	20:37	3A084	ZUI	Arrival	12.7	-	-
28-Dec	20:52	3A185	ZUI	Departure	13.7	-	-
28-Dec	20:56	8S2113	XZM	Arrival	11.4	-	-
29-Dec	8:27	3A061	YFT	Arrival	11.1	-	-
29-Dec	10:02	3A081	ZUI	Arrival	12.3	-	-
29-Dec	10:17	8S212	XZM	Arrival	12.5	-	-
29-Dec	10:32	3A181	ZUI	Departure	13.2	-	-
29-Dec	11:07	8S121	XZM	Departure	12.6	-	-
29-Dec	12:45	8S215	XZM	Arrival	12	-	-
29-Dec	13:53	3A082	ZUI	Arrival	12.9	-	-
29-Dec	14:07	3A182	ZUI	Departure	12.7	-	-
29-Dec	14:55	3A065	YFT	Arrival	12.8	-	-
29-Dec	16:31	3A167	YFT	Departure	12.9	-	-
29-Dec	16:54	3A083	ZUI	Arrival	13.1	-	-
29-Dec	16:59	3A067	YFT	Arrival	12.8	-	-
29-Dec	17:18	3A183	ZUI	Departure	12.9	-	-
29-Dec	18:08	8S126	XZM	Departure	13.1	-	-
29-Dec	20:37	3A084	ZUI	Arrival	12.2	-	-
29-Dec	20:49	8S2113	XZM	Arrival	12.7	-	-
29-Dec	20:55	3A185	ZUI	Departure	13.7	-	-
30-Dec	8:25	3A061	YFT	Arrival	11.8	-	-
30-Dec	9:59	3A081	ZUI	Arrival	11.8	-	-
30-Dec	10:16	8S212	XZM	Arrival	12.7	-	-
30-Dec	10:31	3A181	ZUI	Departure	12.8	-	-
30-Dec	10:59	8S121	XZM	Departure	0 **	-	-
30-Dec	12:47	8S215	XZM	Arrival	12.4	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [XZM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
30-Dec	13:53	3A082	ZUI	Arrival	12.5	-	-
30-Dec	14:15	3A182	ZUI	Departure	12.7	-	-
30-Dec	14:54	3A065	YFT	Arrival	12.4	-	-
30-Dec	16:32	3A167	YFT	Departure	12.5	-	-
30-Dec	16:50	3A067	YFT	Arrival	13	-	-
30-Dec	16:54	3A083	ZUI	Arrival	13.3	-	-
30-Dec	17:28	3A183	ZUI	Departure	12.7	-	-
30-Dec	18:09	8S126	XZM	Departure	10.4	-	-
30-Dec	20:37	3A084	ZUI	Arrival	12.7	-	-
30-Dec	20:47	8S2113	XZM	Arrival	11.3	-	-
30-Dec	20:53	3A185	ZUI	Departure	13	-	-
31-Dec	8:24	3A061	YFT	Arrival	12.3	-	-
31-Dec	9:54	3A081	ZUI	Arrival	12.2 **	-	-
31-Dec	10:14	8S212	XZM	Arrival	12.5	-	-
31-Dec	10:16	3A181	ZUI	Departure	12.8	-	-
31-Dec	11:06	8S121	XZM	Departure	13	-	-
31-Dec	12:33	8S215	XZM	Arrival	12.3	-	-
31-Dec	13:58	3A082	ZUI	Arrival	12.7	-	-
31-Dec	14:11	3A182	ZUI	Departure	12.7	-	-
31-Dec	14:56	3A065	YFT	Arrival	12	-	-
31-Dec	16:29	3A167	YFT	Departure	12.3	-	-
31-Dec	16:49	3A067	YFT	Arrival	12.8	-	-
31-Dec	16:55	3A083	ZUI	Arrival	12.9	-	-
31-Dec	17:24	3A183	ZUI	Departure	12.9	-	-
31-Dec	18:01	8S126	XZM	Departure	12.8	-	-
31-Dec	20:35	3A084	ZUI	Arrival	12.6	-	-
31-Dec	20:49	8S2113	XZM	Arrival	12.4	-	-
31-Dec	20:55	3A185	ZUI	Departure	12.9	-	-

** Insufficient or no AIS data for speed calculation.

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in December 2019, instantaneous speeding (i.e. a sudden change in speed at over 15 knots for a short period of time) within the SCZ was recorded from 2 HSF movements of which the durations of all instantaneous speeding cases were less than 1 minute. The AIS data and ferry operators' responses showed the cases were due to local strong water. The captains had reduced speed and maintained the speed at less than 15 knots after the incidents.