MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No.43 (For July 2019)

August 2019

Airport Authority Hong Kong

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This Monthly EM&A Report No. 43 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 August 2019

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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 August 2019

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 43 (July 2019)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 43 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 August 2019.

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

Contents

Tables

Figures

Appendices

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	Marine 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
PVD	Prefabricated Vertical Drain
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 43rd Construction Phase Monthly EM&A Report for the Project which summarizes the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 31 July 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	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	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 Marine 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

		
Noise Monitoring Conducted by ET at Tin Sum	Land-Based CWD Theodolite Tracking Survey Conducted by ET on Lung Kwu Chau	Water Spraying by Contractor for Dust Control

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 turbidity, total alkalinity, SS, chromium and nickel 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 dissolved oxygen (DO), some testing results triggered the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the case was 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 3201 and 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

- Site survey and cable laying;
- Excavation works;
- Backfilling and reinstatement works; and
- Site establishment.

Contract 3303 Third Runway and Associated Works

- Site establishment.

Third Runway Concourse and Integrated Airport Centres Works:

Contract 3402 New Integrated Airport Centres Enabling Works

- Sub-structure and superstructure works;
- Structural steel fabrication;
- Paving works; and
- Manhole and pipe construction works.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Drainage works;
- Boring works; and
- Pipe installation.

Contract 3502 Terminal 2 Automated People Mover (APM) Depot Modification Works

- Site clearance; and
- Fitting out works.

Contract 3503 Terminal 2 Foundation and Substructure Works

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

Automated People Mover (APM) Works:

Contract 3602 Existing APM System Modification Works

- Site establishment; and
- Modification works at APM depot.

Airport Support Infrastructure & Logistic Works:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Site establishment;

- Cofferdam installation and construction of box culvert;
- Rising main installation;
- Drilling and grouting works;
- Piling and foundation works
- Demolition works; and
- Site clearance.

Summary Table

The following table summarizes 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. 42.

1.2 Scope of this Report

This is the 43rd Construction Phase Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 to 31 July 2019.

1.3 Project Organisation

The Project's organization 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 3201 DCM (Package 1) (Penta-Ocean-China State-Dong-Ah Joint Venture)	Project Director	Tsugunari Suzuki	9178 9689
	Environmental Officer	Hiu Yeung Tang	6329 3513
Contract 3202 DCM (Package 2) (Samsung-BuildKing Joint Venture)	Project Manager	Ilkwon Nam	9643 3117
Contract 3203 DCM (Package 3) (Sambo E&C Co., Ltd)	Project Manager	Eric Kan	9014 6758
Contract 3204 DCM (Package 4) (CRBC-SAMBO Joint Venture)	Project Manager	Kyung-Sik Yoo	9683 8697
Contract 3205 DCM (Package 5) (Bachy Soletanche - Sambo Joint Venture)	Deputy Project Director	Min Park	9683 0765
	Environmental Officer	Lawrence Chan	5107 5961

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	Nelson Tam	9721 3942
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Wan Cheung Lee	6100 6075
	Environmental Officer	Wilmer Ng	3919 9421
Contract 3303 Third Runway and Associated Works (SAPR Joint Venture)	Project Manager	Steven Meredith	6109 1813
	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.)	Project Manager	Vincent Kwan	9833 1313
	Environmental Officer	Edward Tam	9287 8270
Contract 3502 Terminal 2 APM Depot Modification Works (Build King Construction Ltd.)	Project Manager	David Ng	9010 7871
	Environmental Officer	Chun Pong Chan	9187 7118

Party	Position	Name	Telephone
Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture)	Project Manager	Eric Wu	3973 1718
	Environmental Officer	Stephen Tsang	5508 6361

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	Arthur Wong	9170 3394

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 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 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) 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**. Latest layout of the enhanced silt curtain deployed is presented in **Figure 1.2**.

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	

Parameters	Status
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
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.
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

Parameters	Status
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 summarized as below:

- Eight environmental management meetings for EM&A review with works contracts: 17, 23, 24, 26, 29, and 30 July 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-1 (Serial No. 597337)	2 Oct 2018	Monthly EM&A Report No. 35, Appendix D
	SIBATA LD-3B-2 (Serial No. 296098)	16 Oct 2018	

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 1.2 m above the ground.

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

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix D of the Construction Phase Monthly EM&A Report No. 35, and the calibration certificates of portable direct reading dust meters listed in **Table 2.3** are still valid.

2.4 Summary of Monitoring Results

The air quality monitoring schedule involved in the reporting period is provided in **Appendix B**. Due to malfunction of monitoring equipment, the air quality session on 2 July 2019 was rescheduled to 3 July 2019. Besides, the air quality monitoring session on 31 July 2019 was rescheduled to 2 August 2019 due to Strong Wind Signal No. 3 in force.

The air quality monitoring results in the reporting period are summarized 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	11 – 65	306	500
AR2	9 – 45	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 Sep 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	75 dB(A)(1)

Note:

(1) Reduced to 70dB(A) for school and 65dB(A) during school examination periods for NM4.

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 01287679)	6 Feb 2019	Monthly EM&A Report No. 39, Appendix D
	NTi XL2 (Serial No. A2A-14829-E0)	14 July 2019	**Appendix D**
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	17 Oct 2018	Monthly EM&A Report No. 35, Appendix D
	Castle GA607 (Serial No. 040162)	14 July 2019	**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 1.2 m above the ground for free-field measurements at monitoring stations NM1A, NM4, NM5 and NM6. A correction of +3 dB(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 1 dB(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 still valid.

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 summarized 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)	72 – 73	75
NM4(1)	60 – 63	70(2)
NM5(1)	59 – 62	75
NM6(1)	67 – 70	75

Notes:

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

(2) Reduced to 65 dB(A) during school examination periods at NM4. No school examination took place during 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, aircraft and helicopter noise near 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	
SR6	Tai Ho Bay, Near Tai Ho Stream SSSI	814663	817899	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8[(5)]	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) 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 abovementioned 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 4.5 mg/L		Surface and Middle 4.1 mg/L 5 mg/L for Fish Culture Zone (SR7) only	
		Bottom 3.4 mg/L		Bottom 2.7 mg/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, SR6, SR8
Ebb Tide	
C1	SR4A, SR5A, SR6
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 Sep 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 ProDSS (Serial No. 17H105557)(1)	30 Apr 2019	Monthly EM&A Report No. 41, Appendix D
	YSI ProDSS (Serial No. 16H104233)(1)	30 Apr 2019	
	YSI ProDSS (Serial No. 16H104234)(1)	30 Apr 2019	
	YSI ProDSS (Serial No. 17E100747)	25 Jun 2019	Monthly EM&A Report No. 42, Appendix E
	YSI ProDSS (Serial No. 15M100005)	25 Jun 2019	
	YSI 6920V2 (Serial No. 0001C6A7)	24 July 2019	**Appendix D**
	YSI 6920V2 (Serial No. 00019CB2)	24 July 2019	
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (Serial No. 10N65665)	20 May 2019	Monthly EM&A Report No. 41, 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 4 ºC 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 were 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	2 mg/L
Heavy Metals			
Chromium (Cr)	ICP-MS	USEPA 6020A	0.2 µg/L
Nickel (Ni)	ICP-MS	USEPA 6020A	0.2 µg/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 turbidity, SS, total alkalinity, chromium, and nickel obtained during the reporting period were within their corresponding Action and Limit Level. The detailed monitoring results are presented in **Appendix C**.

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

Table 4.7 to **Table 4.10** present summaries of the DO compliance status at IM and SR stations during mid-ebb and mid-flood tide for the reporting period.

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

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7
02/07/2019																		
04/07/2019																		
06/07/2019																		
09/07/2019																		
11/07/2019		D	D	D											D			
13/07/2019																		
16/07/2019																		
18/07/2019																		
20/07/2019																		
23/07/2019																		
25/07/2019																		
27/07/2019																		
30/07/2019																		
No. of result triggering Action or Limit Level	0	1	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0

Table 4.8: Summary of DO (Bottom) Compliance Status (Mid-Ebb Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7
02/07/2019																		
04/07/2019																		
06/07/2019																		
09/07/2019																		
11/07/2019	D	D	D	D							D				D			D
13/07/2019			D	D											D			
16/07/2019																		
18/07/2019																		
20/07/2019																		
23/07/2019																		
25/07/2019																		
27/07/2019		D	D	D											D			D
30/07/2019																		
No. of result triggering Action or Limit Level	1	2	3	3	1	3	2	0	0	0	1	0	0	1	3	0	0	2

Table 4.9: Summary of DO (Surface and Middle) Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6	SR7
02/07/2019																	
04/07/2019																	
06/07/2019																	
09/07/2019																	
11/07/2019																	
13/07/2019																	
16/07/2019																	
18/07/2019																	
20/07/2019																	
23/07/2019																	
25/07/2019																	
27/07/2019																	
30/07/2019																	
No. of result triggering Action or Limit Level	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

Table 4.10: Summary of DO (Bottom) Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6	SR7
02/07/2019																	
04/07/2019																	
06/07/2019																	
09/07/2019																	
11/07/2019					D	D											
13/07/2019																	
16/07/2019																	
18/07/2019																	
20/07/2019																	
23/07/2019																	
25/07/2019																	
27/07/2019																	
30/07/2019																	
No. of result triggering Action or Limit Level	1	3	3	3	1	1	0	0	0	0	1	0	0	3	0	0	1

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
	Monitoring result triggered the Limit Level at monitoring station located upstream of the Project based on dominant tidal flow
D	Monitoring result triggered the Limit Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action and Limit Levels on three monitoring days. Repeat measurement were conducted on 12, 14 and 28 July 2019 respectively according to the Manual. Some cases occurred at monitoring stations upstream of the Project during respective tide and would unlikely be affected by the Project. Investigation was therefore focused on cases that occurred at monitoring station located downstream of the Project. Details of the Project's marine construction activities and site observations on the concerned monitoring days were collected. The findings are summarized in **Table 4.11**.

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

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
11/07/2019	Marine filling and DCM works	Around 1 km	Localised and enhanced silt curtain deployed	No	No	No
13/07/2019	Marine filling and DCM works	Around 1 km	Localised and enhanced silt curtain deployed	No	No	No
27/07/2019	Marine filling and DCM works	Around 1 km	Localised and enhanced silt curtain deployed	No	No	No

The investigation confirmed that DCM works and marine filling were operating normally with localised and enhanced silt curtain deployed. The localised and enhanced silt curtains were maintained properly and checked by ET regularly.

On 11 and 13 July 2019, it was noted that the DO concentrations recorded at most of the impact and sensitive stations were within their baseline ranges and were also similar to, if not higher than their respective control station. During the same tide, DO Action and Limit Levels were also triggered at adjacent upstream monitoring stations. These suggested the presence of external sources in the upstream areas that might affect the water quality around the Project Area. With no silt plume observed at the monitoring stations and mitigation measures implemented properly, the cases recorded at these impact and sensitive receiver stations were considered not due to the Project.

On 27 July 2019, it was found that the DO concentrations at IM2, IM3, IM4 and SR4A were within their corresponding baseline ranges during baseline monitoring of the Project. For SR7, no Action or Limit Level was triggered at downstream impact stations located closer to the Project Area, namely IM11 and IM12. These suggested the stations were potentially affected by external sources. With no silt plume observed at the monitoring stations and mitigation measures implemented properly, the cases recorded at these impact and sensitive receiver stations were considered not caused by the 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 and Limit Levels, and investigations were conducted accordingly.

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

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

In the meantime, the contractors were reminded to implement and maintain all mitigation measures 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 summarized 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)
June 2019[2][3]	*9,982	*4,684	*339	5,570	150	15,400	354
July 2019[3]	4,641	4,500	665	4,629	200	9,040	399

Notes:

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

(2) 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.

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

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 summarized 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 15-20 m vessel with a flying bridge observation platform about 4 to 5 m 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 minimize 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 (>1-3 km, 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 2-3 km 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 8, 9, 16, 17, 18, 22, 23 and 24 July 2019, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

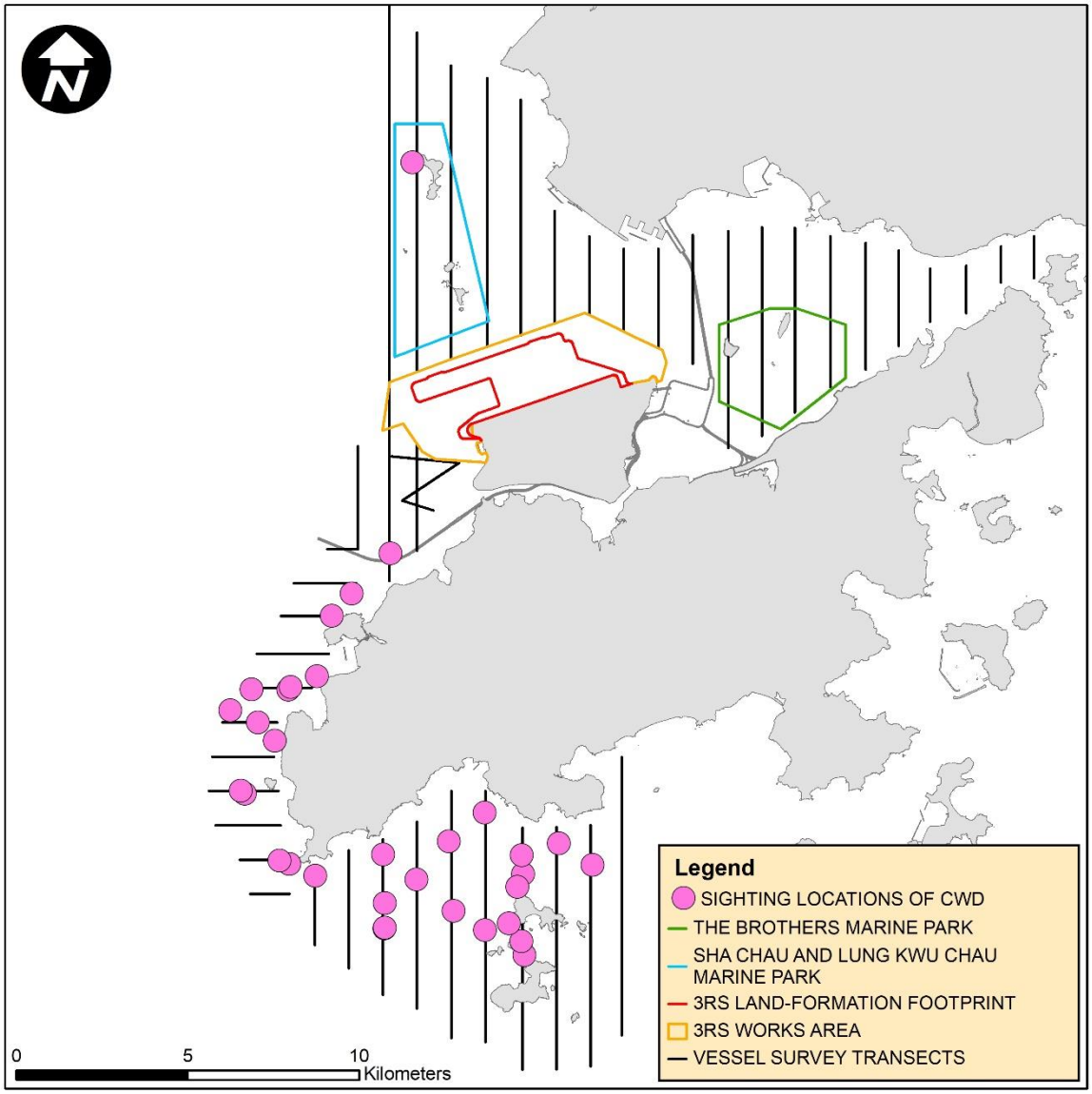
A total of around 444.28 km of survey effort was collected from these surveys, with around 97.2% of the total survey effort being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix D**.

Sighting Distribution

In July 2019, 33 sightings with 137 dolphins were sighted. Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in July 2019 is illustrated in **Figure 6.3**. In NWL, there were two CWD sightings recorded at the northwestern waters of Lung Kwu Chau and southwestern corner of the survey area respectively. In WL, CWD sightings were recorded from Tai O to Fan Lau with more sightings recorded between Tai O and Peaked Hil. In SWL, there were remarkable increase in CWD sightings compared to previous months. Based on field observation, there were plenty of schools of fish appeared in SWL waters during the surveys in that area. This might be a possible reason for the emerging of a large number of CWDs in SWL in this month. CWD sightings in SWL were scattered among the entire survey area from Fan Lau to the Soko Islands and Lo Kei Wan. No sightings of CWD were recorded in NEL or in close vicinity to 3RS Works Area.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Remarks: Please note that there are 33 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map.

Encounter Rate

Two types of dolphin encounter rates were calculated based on the data from July 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 July 2019, a total of around 431.92 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 33 on-effort sightings with 137 dolphins were sighted under such condition. Calculation of the encounter rates in July 2019 are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from May 2019 to July 2019), a total of around 1258.50 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 55 on-effort sightings and a total number of 223 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 July 2019 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rates STG and ANI did not trigger Action Level.

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

	Encounter Rate (STG)	Encounter Rate (ANI)
July 2019	7.64	31.72
Running Quarter from May 2019 to July 2019(1)	4.37	17.72
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 May 2019 to July 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 July 2019, 33 groups with 137 dolphins were sighted, and the average group size of CWDs was 4.2 dolphins per group. The number of sightings with medium group size (i.e. 3-9 dolphins) is dominant. There were three CWD sightings with large group size (i.e. 10 or more dolphins) in July 2019. Amongst these three sightings, two were recorded in SWL and the remaining one was recorded in WL.

Activities and Association with Fishing Boats

Eleven sightings of CWDs were recorded engaging in feeding activities in July 2019 in NWL, WL and particularly SWL survey areas. It should be noted that there were plenty of schools of fish appeared in SWL survey area during the survey time based on field observation. No CWD sightings were observed in association with operating fishing boat in the reporting month.

Mother-calf Pair

In July 2019, there were four sightings of CWD with the presence of mother-and-unspotted juvenile pair.

6.4.2 Photo Identification

In July 2019, a total number of 63 different CWD individuals were identified for totally 86 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	16-Jul-19	6	WL	WLMM040	17-Jul-19	6	SWL
	18-Jul-19	1	SWL	WLMM043	16-Jul-19	1	WL
		3	SWL	WLMM046	18-Jul-19	3	SWL
NLMM037	24-Jul-19	1	NWL	WLMM049	16-Jul-19	3	WL
NLMM049	23-Jul-19	6	WL	WLMM052	16-Jul-19	5	WL
NLMM061	17-Jul-19	9	SWL	WLMM056	17-Jul-19	2	SWL
NLMM063	24-Jul-19	1	NWL	WLMM063	17-Jul-19	10	SWL
SLMM003	16-Jul-19	6	WL	WLMM065	17-Jul-19	9	SWL
SLMM007	16-Jul-19	6	WL	WLMM067	17-Jul-19	2	SWL
SLMM012	17-Jul-19	2	SWL	WLMM069	17-Jul-19	4	SWL
	18-Jul-19	1	SWL		18-Jul-19	3	SWL
SLMM014	18-Jul-19	4	SWL	WLMM078	18-Jul-19	4	SWL
SLMM022	23-Jul-19	7	WL	WLMM079	18-Jul-19	1	SWL
SLMM028	18-Jul-19	4	SWL			3	SWL
SLMM029	17-Jul-19	3	SWL		23-Jul-19	7	WL
	18-Jul-19	1	SWL	WLMM081	16-Jul-19	4	WL
SLMM031	17-Jul-19	1	SWL	WLMM082	16-Jul-19	4	WL
SLMM037	17-Jul-19	5	SWL		23-Jul-19	3	WL
	18-Jul-19	1	SWL	WLMM083	16-Jul-19	1	WL
		3	SWL	WLMM085	17-Jul-19	4	SWL
SLMM049	17-Jul-19	4	SWL	WLMM086	17-Jul-19	11	SWL
	18-Jul-19	1	SWL	WLMM094	16-Jul-19	5	WL
		3	SWL	WLMM095	23-Jul-19	1	WL
SLMM050	23-Jul-19	5	WL	WLMM102	23-Jul-19	1	WL
SLMM052	17-Jul-19	2	SWL	WLMM104	18-Jul-19	2	SWL
		5	SWL		23-Jul-19	6	WL
	18-Jul-19	1	SWL	WLMM109	23-Jul-19	5	WL
		3	SWL	WLMM115	22-Jul-19	1	NWL
SLMM053	18-Jul-19	4	SWL		23-Jul-19	1	WL
SLMM062	17-Jul-19	4	SWL			3	WL
	18-Jul-19	3	SWL	WLMM120	17-Jul-19	10	SWL
SLMM064	17-Jul-19	4	SWL	WLMM122	16-Jul-19	1	WL
SLMM068	17-Jul-19	2	SWL	WLMM131	17-Jul-19	2	SWL
SLMM069	17-Jul-19	4	SWL			7	SWL
SLMM070	17-Jul-19	4	SWL			10	SWL
	18-Jul-19	3	SWL	WLMM132	17-Jul-19	4	SWL
SLMM071	18-Jul-19	1	SWL		18-Jul-19	3	SWL
WLMM004	17-Jul-19	4	SWL	WLMM136	16-Jul-19	5	WL
WLMM006	18-Jul-19	4	SWL	WLMM137	16-Jul-19	5	WL
WLMM008	17-Jul-19	3	SWL	WLMM139	16-Jul-19	4	WL
WLMM027	17-Jul-19	6	SWL	WLMM140	16-Jul-19	4	WL
WLMM029	18-Jul-19	4	SWL	WLMM141	16-Jul-19	5	WL
WLMM039	16-Jul-19	5	WL	WLMM142	23-Jul-19	5	WL

6.4.3 Land-based Theodolite Tracking Survey

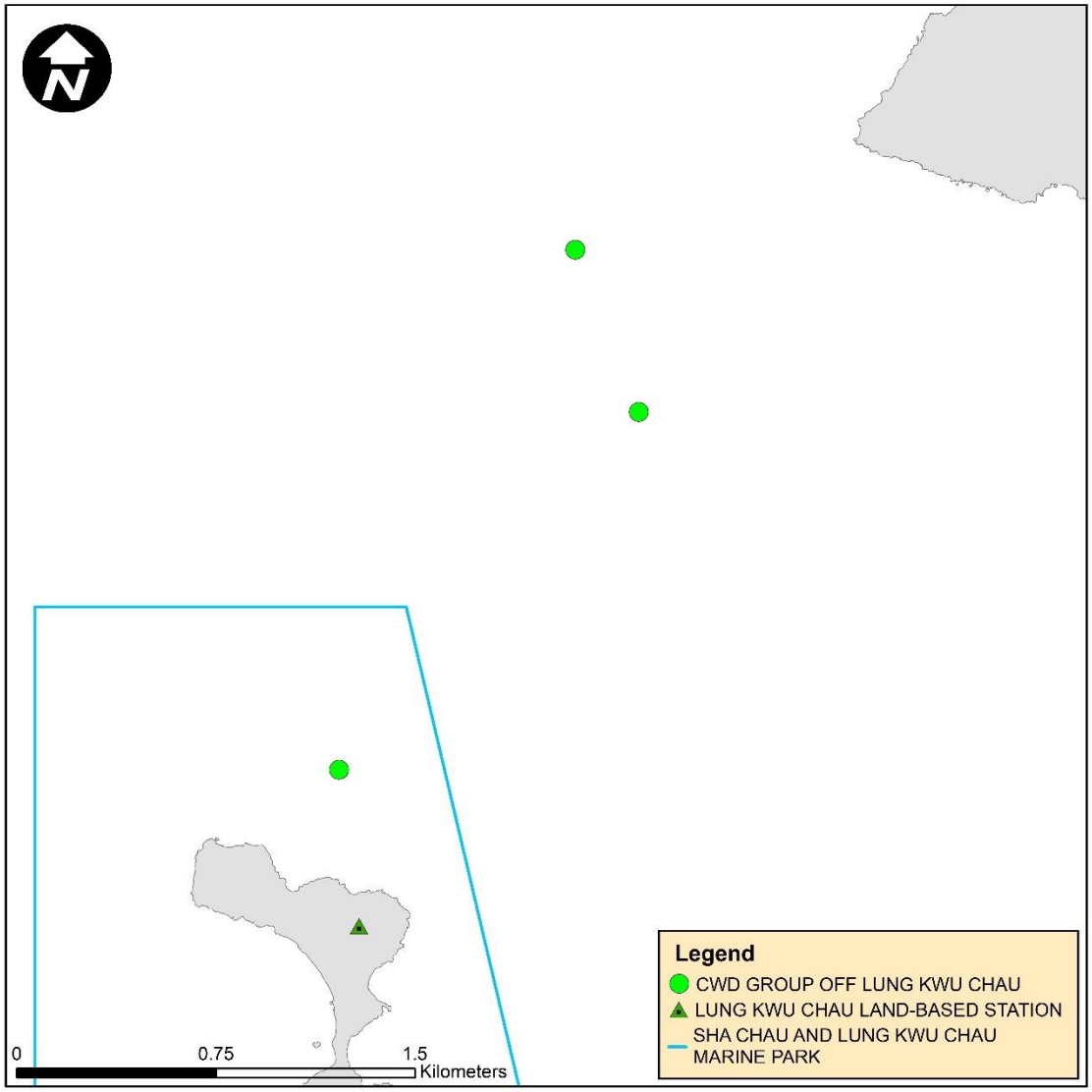
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 16 and 25 July 2019 and at SC on 26 July 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 July 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 16 July 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 specialized 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, 7 to 12 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 677 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. As for DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection. On 8 July 2019, a dolphin carcass was found within the works area and subsequent inspection and collection of the dolphin carcass was carried out by AFCD.

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 organized 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 summarized 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**.

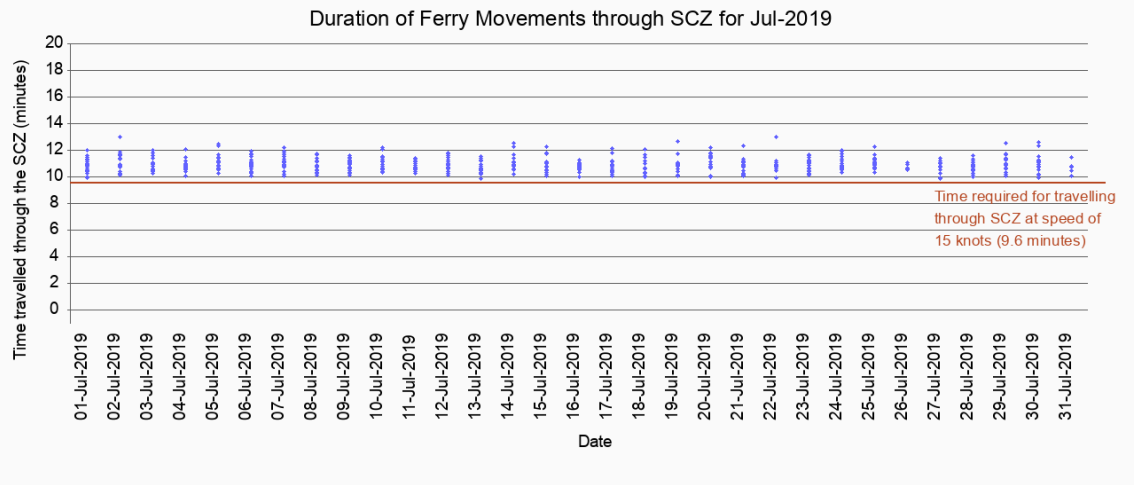
7.2 Audit of SkyPier High Speed Ferries

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 summarized in **Table 7.1**. The daily movements of all SkyPier HSFs in this reporting period (i.e., 33 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, 640 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in July 2019 and the data are presented in **Appendix G**. The time spent by the SkyPier HSFs travelling through the SCZ in July 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 July 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 total of one ferry was recorded with minor route deviation on 26 July 2019. Notice was sent to the ferry operator and the case is under investigation by ET.

As reported in the Construction Phase Monthly EM&A Report No. 42, two ferries were recorded with minor route deviation cases on 10 and 17 June 2019. ET's investigation found that all the deviations were due to giving way to vessels in order to avoid collision.

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

Requirements in the SkyPier Plan	1 to 31 July 2019
Total number of ferry movements recorded and audited	640
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 10.3 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)	33-83 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 by contractors' Environmental Officers. Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, no skippers were trained by ET and eight skippers were trained by contractors' Environmental Officers. In total, 1163 skippers were trained from August 2016 to July 2019.
- The Marine Surveillance System (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. The ET checked the relevant records by the contractors and conducted competence checking 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 summarized 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 3201 and 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

- Site survey and cable laying;
- Excavation works;
- Backfilling and reinstatement works; and
- Site establishment.

Contract 3303 Third Runway and Associated Works

- Site establishment.

Third Runway Concourse and Integrated Airport Centres Works:

Contract 3402 New Integrated Airport Centres Enabling Works

- Sub-structure and superstructure works;

- Structural steel fabrication;
- Paving works; and
- Manhole and pipe construction works.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Drainage works;
- Boring works; and
- Pipe installation.

Contract 3502 Terminal 2 Automated People Mover (APM) Depot Modification Works

- Site clearance; and
- Fitting out works.

Contract 3503 Terminal 2 Foundation and Substructure Works

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

Automated People Mover (APM) Works:

Contract 3602 Existing APM System Modification Works

- Site establishment; and
- Modification works at APM depot.

Airport Support Infrastructure & Logistic Works:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Site establishment;
- Cofferdam installation and construction of 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 turbidity, total alkalinity, SS, chromium, and nickel obtained during the reporting period were within the corresponding Action and Limit Levels stipulated in the EM&A programme. Relevant investigation and follow-up actions will be conducted according to the EM&A programme if the corresponding Action and Limit Levels are triggered. For DO, some testing results triggered the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the case was 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.

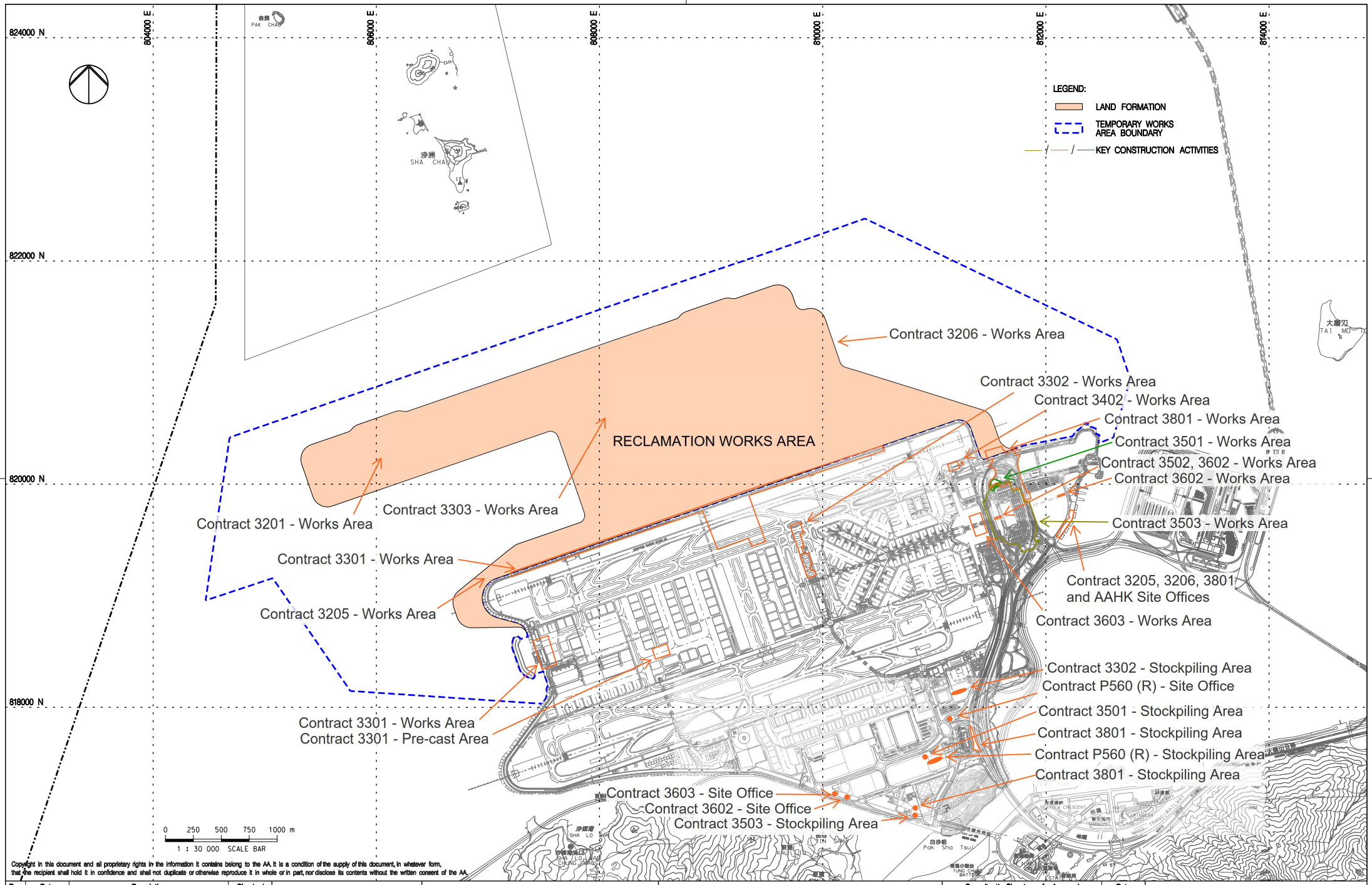
Weekly site inspections of the construction works were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. Bi-weekly site inspections were also conducted by the IEC. Site inspection findings were recorded in the site inspection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

On the implementation of the SkyPier Plan, the daily movements of all SkyPier HSFs in July 2019 were in the range of 33 to 83 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 640 HSF movements under the SkyPier Plan were recorded in the reporting period. The average speeds of all HSFs travelling through the SCZ ranged from 10.3 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 July 2019 was recorded in the HSF monitoring and is under investigation by the ET. 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
B	04APR19	GENERAL REVISION	JL

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
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Approver	EC	04APR19

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

Drawing No.: FIGURE 1.1

Scale at A3: 1 : 30000

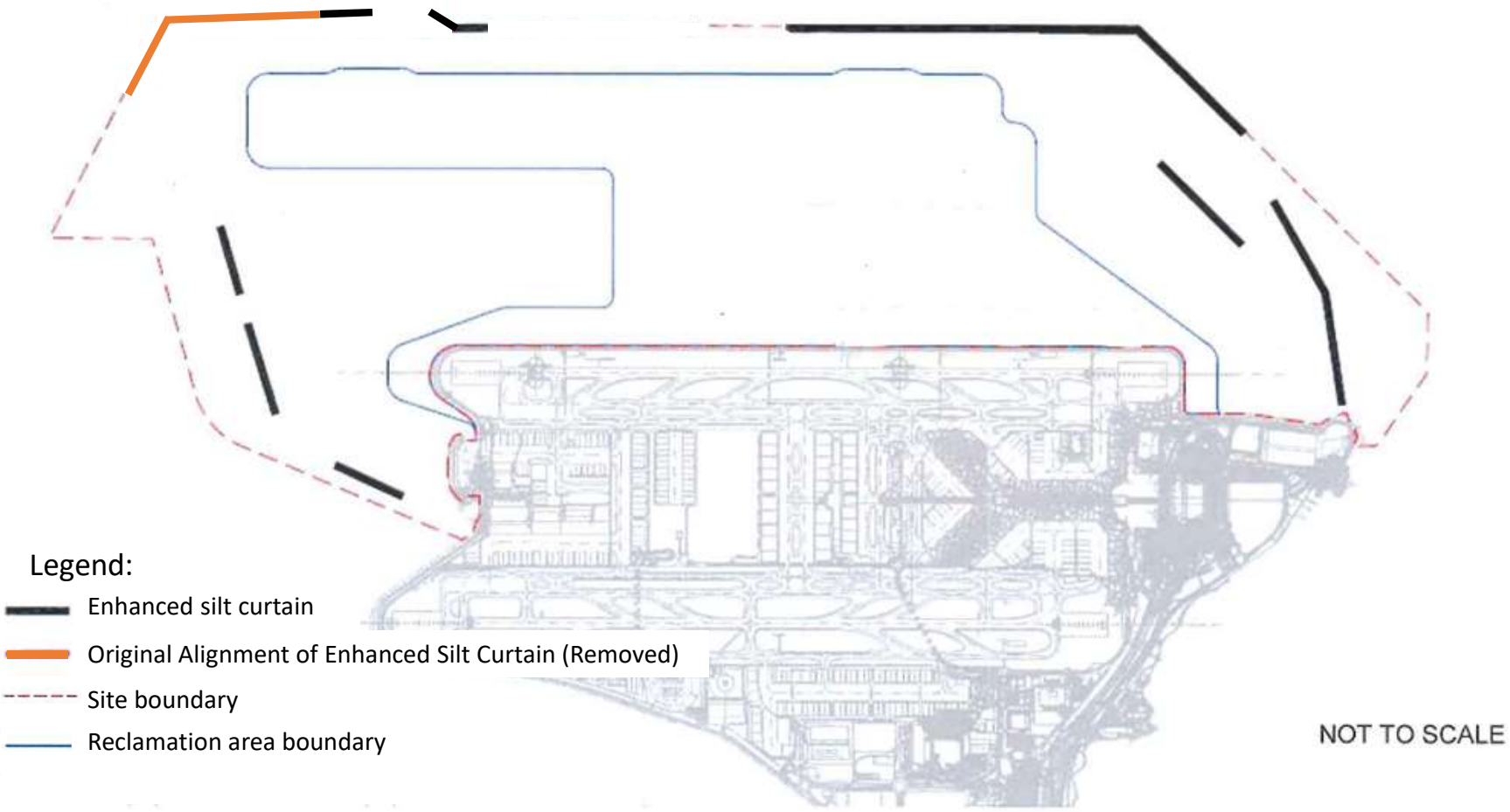
Rev.: B

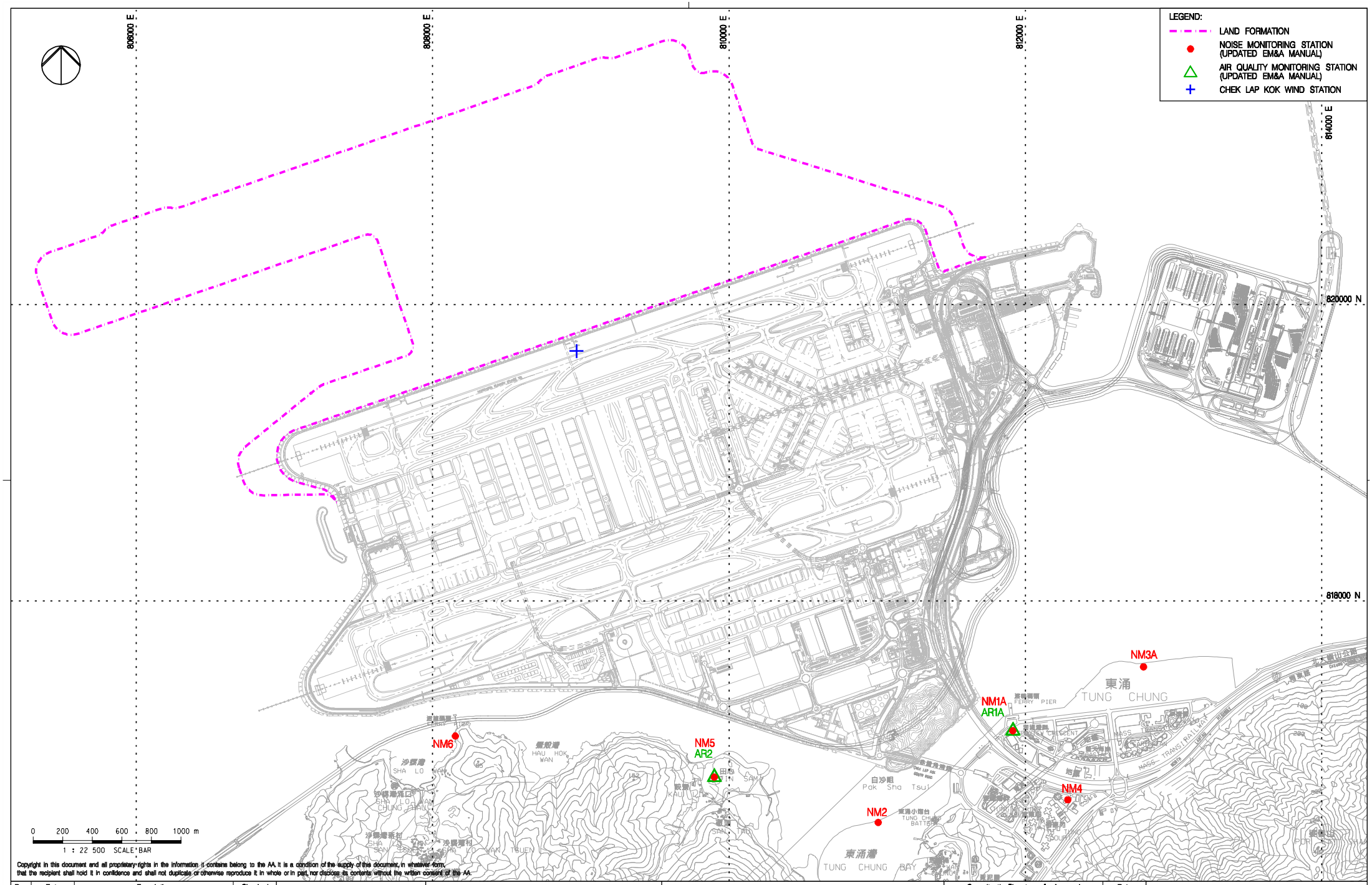
Filename: J:\355482\REPORT\ENV\EMA\190404\FIG 1.1.dgn

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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A	06JAN16	FIRST ISSUE	RO
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C	11FEB16	GENERAL REVISION	RO
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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

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Design	TK	29OCT18
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Approver	EC	29OCT18

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

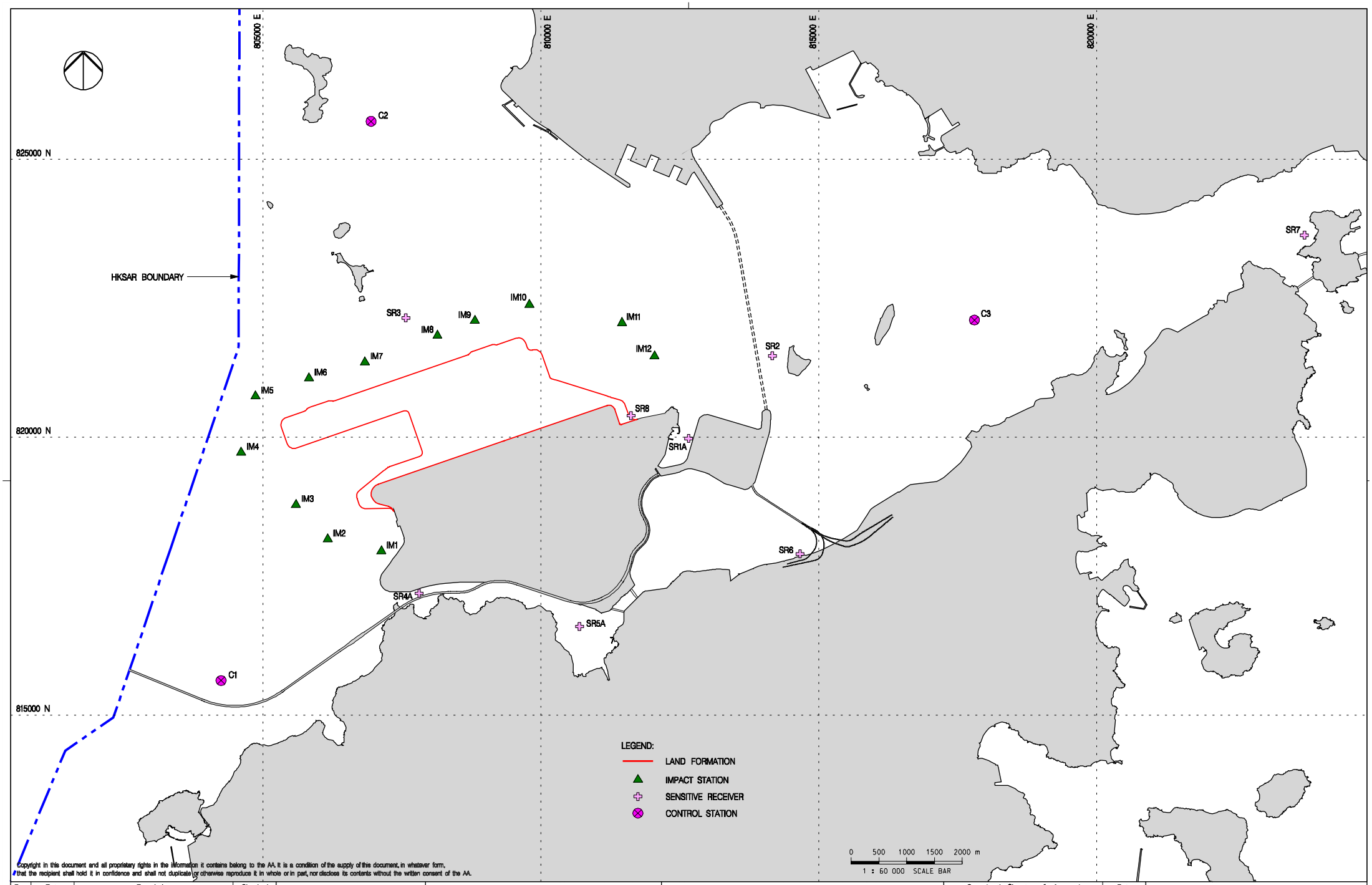
Drawing No.

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	25MAY17	FIRST ISSUE	HY
B	07AUG17	GENERAL REVISION	JL
C	25MAY18	GENERAL REVISION	SH
D	29OCT18	GENERAL REVISION	SH
E	23JAN19	GENERAL REVISION	SH

香港國際機場 HONG KONG INTERNATIONAL AIRPORT

MOTT MACDONALD

Title

WATER QUALITY MONITORING STATIONS

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Checkers	DC / TK	23JAN19
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EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

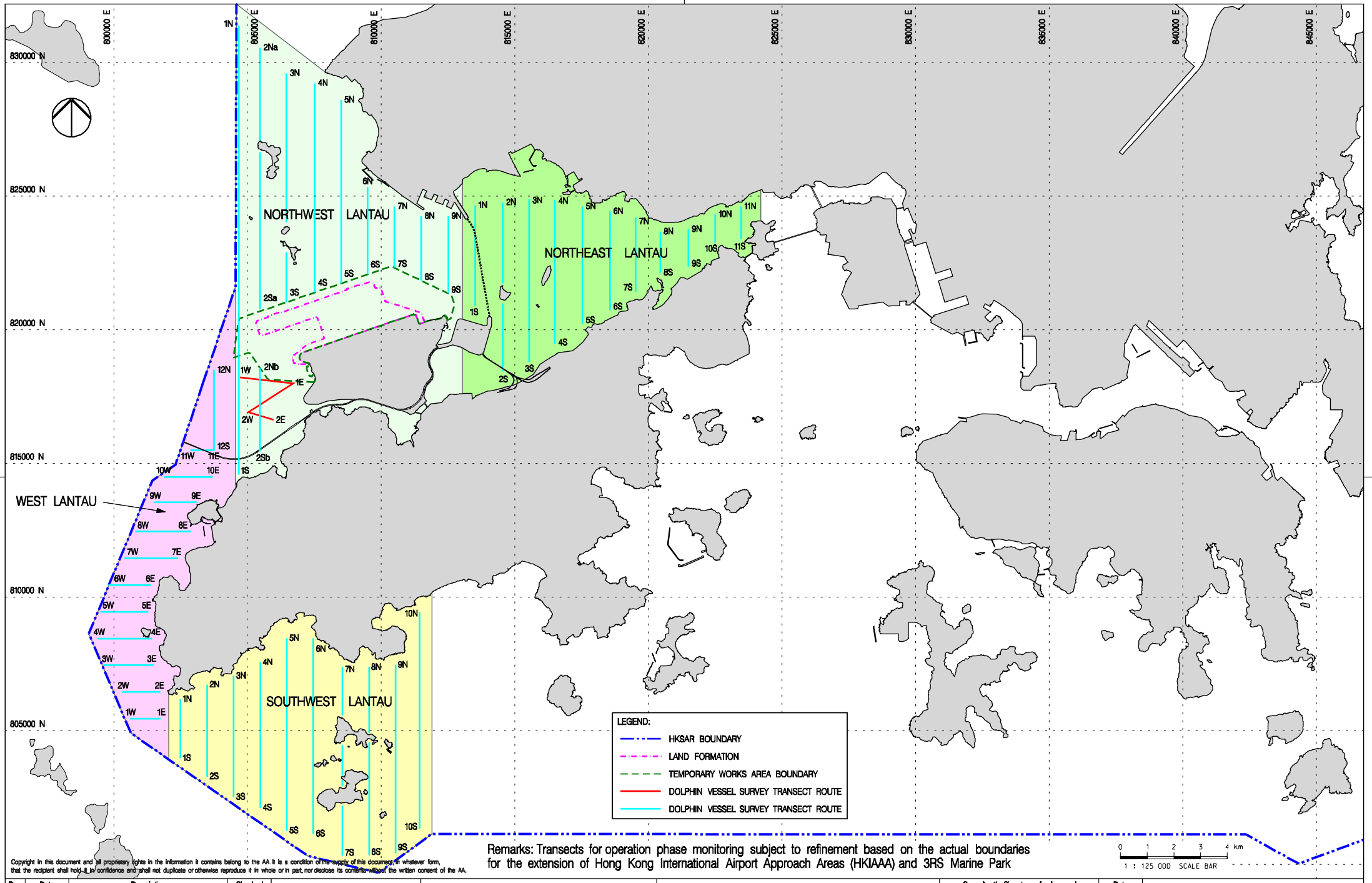
Drawing No.

FIGURE 4.1

Scale at A3 1 : 60000

Rev. E

Filename: J:\355482\REPORT\ENV\EMA\190123\FIG 2.2.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

0 1 2 3 4 km
1 : 125 000 SCALE BAR

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

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Design	JC	04APR19
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EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

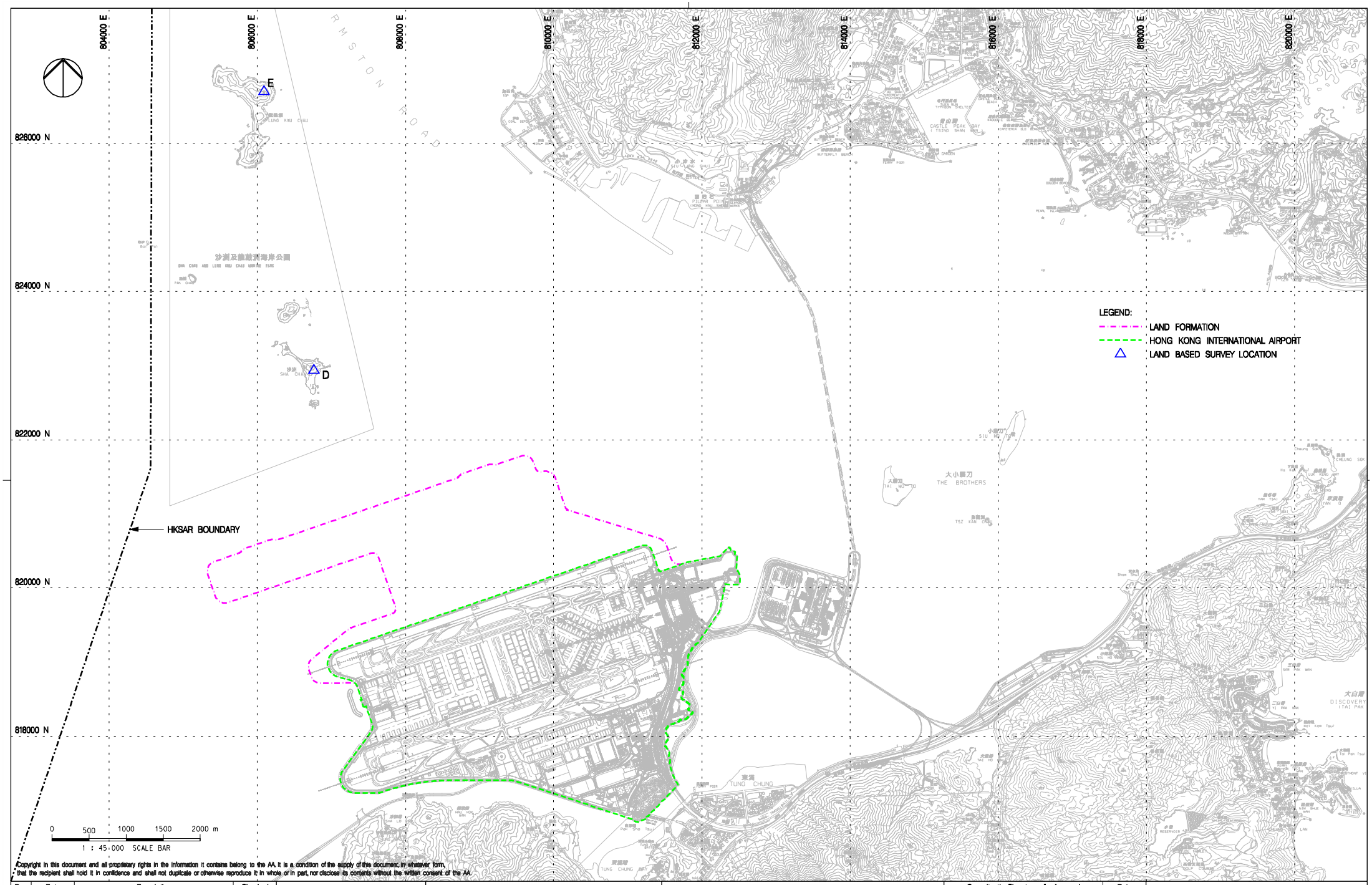
Drawing No.

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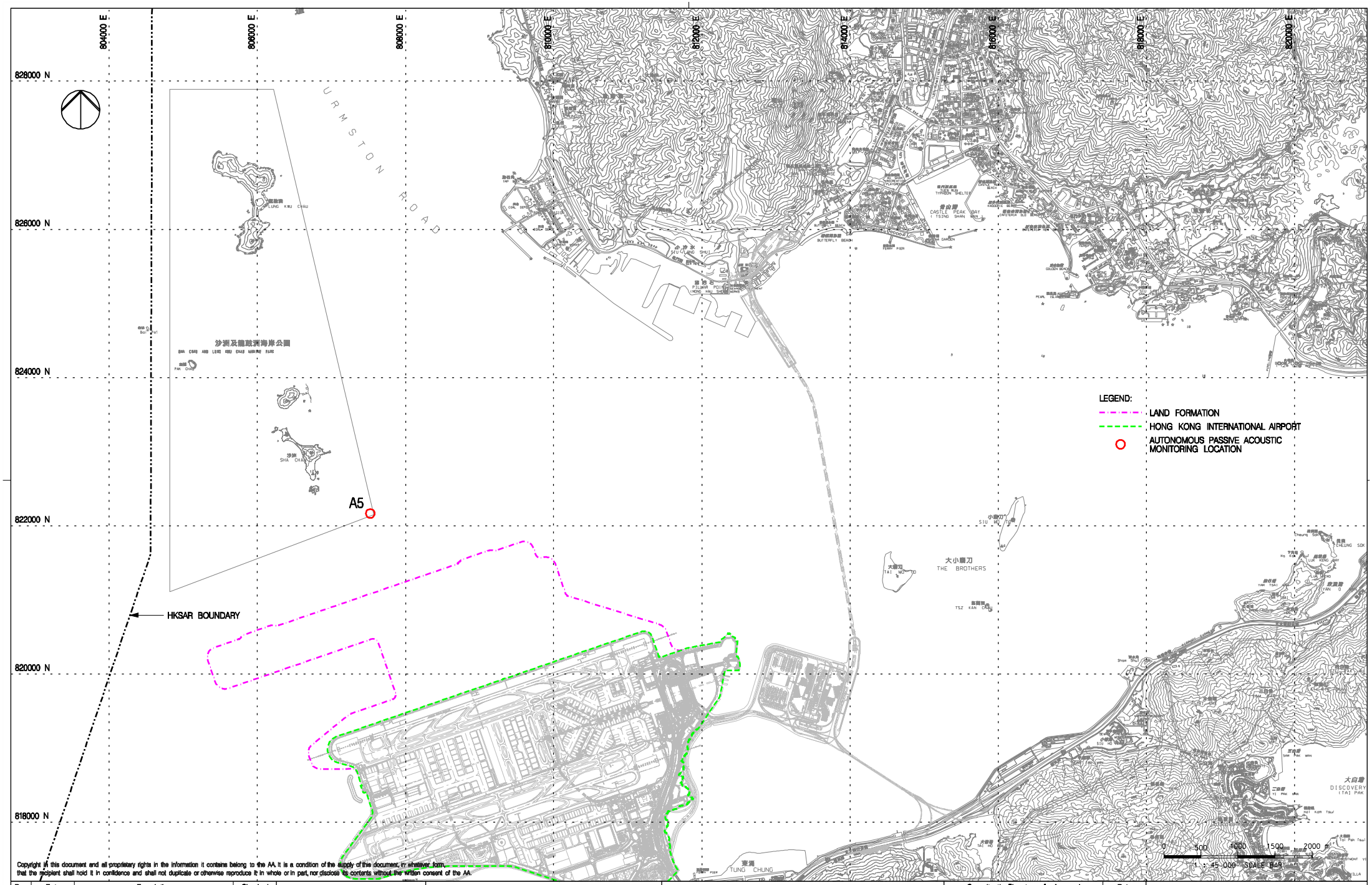
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM

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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Checkers	JC / TK	29OCT18
Approver	EC	29OCT18

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

Jul-19

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 Site Inspection AR1A NM1A, NM4, NM6 WQ General & Regular DCM mid-ebb: 12:41 mid-flood: 05:39	3 Site Inspection AR2* NM5	4 Site Inspection WQ General & Regular DCM mid-ebb: 14:09 mid-flood: 07:05	5 Site Inspection	6 WQ General & Regular DCM mid-ebb: 15:44 mid-flood: 08:41
7	8 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	9 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 18:31 mid-flood: 12:01	10 Site Inspection	11 Site Inspection WQ General & Regular DCM mid-ebb: 08:47 mid-flood: 15:01	12 Site Inspection	13 AR1A, AR2 WQ General & Regular DCM mid-ebb: 10:42 mid-flood: 17:45
14	15	16 Site Inspection CWD Survey (Land-based, Vessel) WQ General & Regular DCM mid-ebb: 12:48 mid-flood: 05:45	17 Site Inspection CWD Survey (Vessel)	18 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 14:04 mid-flood: 07:01	19 Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6	20 WQ General & Regular DCM mid-ebb: 15:12 mid-flood: 08:17
21	22 CWD Survey (Vessel)	23 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 16:53 mid-flood: 10:26	24 Site Inspection CWD Survey (Vessel)	25 Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6 WQ General & Regular DCM mid-ebb: 18:30 mid-flood: 12:41	26 Site Inspection CWD Survey (Land-based)	27 WQ General & Regular DCM mid-ebb: 09:08 mid-flood: 15:45
28	29	30 Site Inspection WQ General & Regular DCM mid-ebb: 11:37 mid-flood: 18:49	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

*Air quality moniotring at AR2 was rescheduled from 2 July 2019 to 3 July 2019 due to malfunction of monitoring equipment.

Tentative Monitoring Schedule of Next Reporting Period

Aug-19

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Site Inspection WQ General & Regular DCM mid-ebb: 13:11 mid-flood: 20:18	**2** Site Inspection AR1A, AR2* NM1A, NM4, NM5, NM6	**3** WQ General & Regular DCM mid-ebb: 14:43 mid-flood: 07:49
4	**5**	**6** Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM4, NM5, NM6 WQ General & Regular DCM mid-ebb: 17:07 mid-flood: 10:37	**7** Site Inspection CWD Survey (Vessel)	**8** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 06:59 mid-flood: 13:21	**9** Site Inspection CWD Survey (Vessel)	**10** WQ General & Regular DCM mid-ebb: 09:26 mid-flood: 16:50
11	**12** CWD Survey (Vessel) AR1A, AR2 NM1A, NM4, NM5, NM6	**13** Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 11:53 mid-flood: 04:48	**14** Site Inspection	**15** Site Inspection CWD Survey (Land-based) WQ General & Regular DCM mid-ebb: 13:08 mid-flood: 06:12	**16** Site Inspection CWD Survey (Vessel)	**17** AR1A, AR2 WQ General & Regular DCM mid-ebb: 14:15 mid-flood: 07:29
18	**19** CWD Survey (Vessel)	**20** Site Inspection CWD Survey (Land-based) WQ General & Regular DCM mid-ebb: 15:42 mid-flood: 09:25	**21** Site Inspection CWD Survey (Vessel)	**22** Site Inspection WQ General & Regular DCM mid-ebb: 16:53 mid-flood: 11:03	**23** Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6	**24** WQ General & Regular DCM mid-ebb: 06:57 mid-flood: 13:46
25	**26**	**27** Site Inspection WQ General & Regular DCM mid-ebb: 10:23 mid-flood: 17:49	**28** Site Inspection	**29** Site Inspection AR1A, AR2 NM1A, NM4, NM5, NM6 WQ General & Regular DCM mid-ebb: 12:07 mid-flood: 19:11	**30** Site Inspection	**31** WQ General & Regular DCM mid-ebb: 13:41 mid-flood: 20:25

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

*Air quality monitoring at AR1A and AR2 was rescheduled from 31 July 2019 to 2 August 2019 due to Strong Wind Signal No. 3 in force.

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

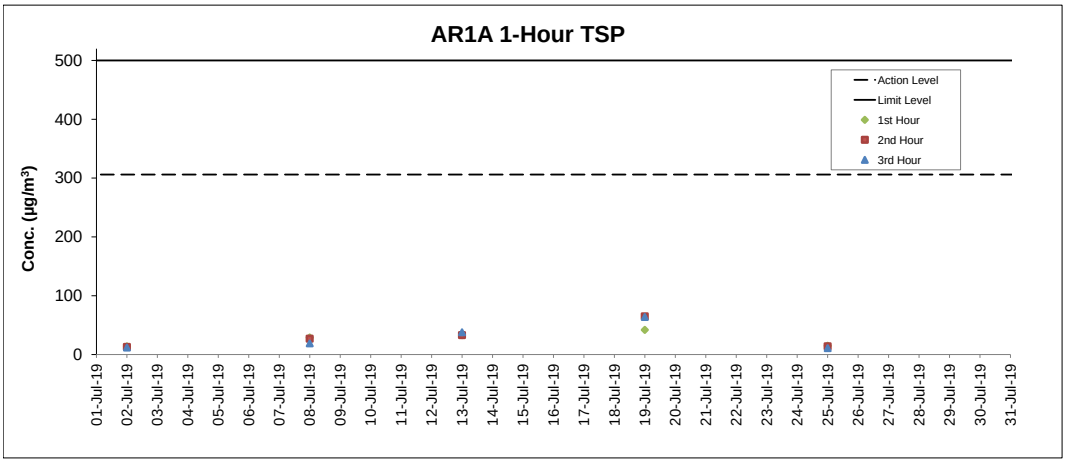
Station: AR1A- Man Tung Road Park

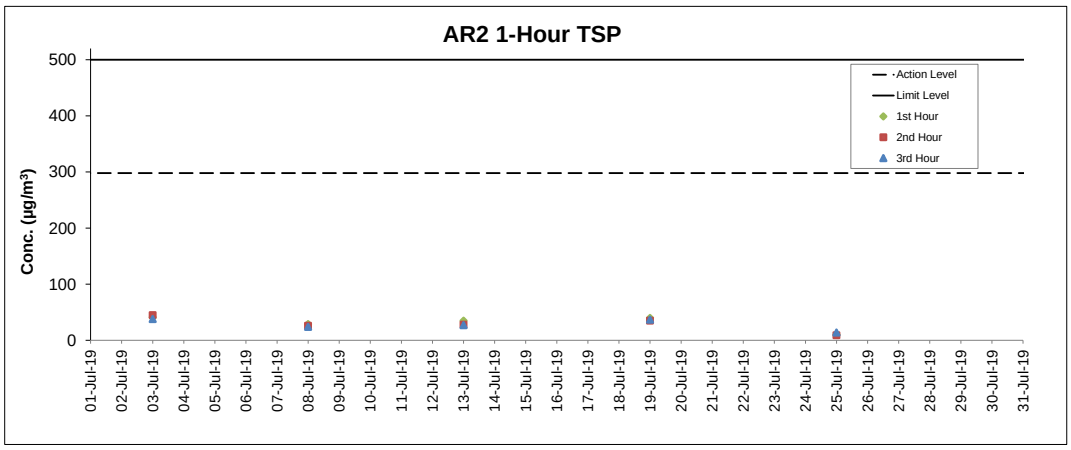
Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
02-Jul-19	9:04	Sunny	6.1	69	14	306	500
02-Jul-19	14:11	Cloudy	7.8	103	13	306	500
02-Jul-19	15:11	Cloudy	7.4	114	12	306	500
08-Jul-19	13:59	Sunny	7.3	201	29	306	500
08-Jul-19	14:59	Sunny	6.7	200	27	306	500
08-Jul-19	15:59	Sunny	7.2	189	19	306	500
13-Jul-19	14:30	Fine	6.4	205	33	306	500
13-Jul-19	15:30	Fine	7.3	199	33	306	500
13-Jul-19	16:30	Fine	7.2	201	38	306	500
19-Jul-19	14:10	Cloudy	10.8	258	42	306	500
19-Jul-19	15:10	Cloudy	9.7	216	65	306	500
19-Jul-19	16:10	Cloudy	16.6	226	64	306	500
25-Jul-19	9:05	Sunny	3.5	306	15	306	500
25-Jul-19	10:05	Sunny	4.7	258	14	306	500
25-Jul-19	11:05	Sunny	4.7	219	11	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)
03-Jul-19	9:36	Cloudy	3.8	84	41	298	500
03-Jul-19	10:36	Cloudy	7.2	98	45	298	500
03-Jul-19	11:36	Cloudy	5.7	84	38	298	500
08-Jul-19	9:39	Sunny	6.1	218	29	298	500
08-Jul-19	10:39	Sunny	5.8	215	26	298	500
08-Jul-19	11:39	Sunny	7.2	185	24	298	500
13-Jul-19	9:47	Fine	6.1	194	35	298	500
13-Jul-19	10:47	Fine	7.5	192	28	298	500
13-Jul-19	11:47	Fine	6.4	199	27	298	500
19-Jul-19	9:48	Cloudy	3.1	251	40	298	500
19-Jul-19	10:48	Cloudy	5.1	236	35	298	500
19-Jul-19	11:48	Cloudy	4.3	268	37	298	500
25-Jul-19	13:53	Sunny	7.7	233	10	298	500
25-Jul-19	14:53	Sunny	7.3	237	9	298	500
25-Jul-19	15:53	Sunny	6.9	221	14	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.
4. The air monitoring at AR1A and AR2 were rescheduled from 31 July 2019 to 2 August 2019 due to Strong Wind Signal No.3.

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)
02-Jul-19	Cloudy	13:35	74.3	57.6	73
02-Jul-19	Cloudy	13:40	75.0	62.5	
02-Jul-19	Cloudy	13:45	73.4	66.8	
02-Jul-19	Cloudy	13:50	72.1	56.9	
02-Jul-19	Cloudy	13:55	71.4	56.0	
02-Jul-19	Cloudy	14:00	73.3	54.6	
08-Jul-19	Sunny	15:05	69.2	54.1	71
08-Jul-19	Sunny	15:10	72.8	54.8	
08-Jul-19	Sunny	15:15	71.7	53.2	
08-Jul-19	Sunny	15:20	72.5	53.8	
08-Jul-19	Sunny	15:25	71.0	52.8	
08-Jul-19	Sunny	15:30	71.4	53.8	
19-Jul-19	Cloudy	15:23	71.8	52.8	71
19-Jul-19	Cloudy	15:28	71.5	53.5	
19-Jul-19	Cloudy	15:33	70.8	52.8	
19-Jul-19	Cloudy	15:38	71.9	54.4	
19-Jul-19	Cloudy	15:43	70.6	53.8	
19-Jul-19	Cloudy	15:48	71.7	54.8	
25-Jul-19	Sunny	9:16	73.0	54.5	71
25-Jul-19	Sunny	9:21	72.4	54.5	
25-Jul-19	Sunny	9:26	72.7	54.7	
25-Jul-19	Sunny	9:31	71.8	54.2	
25-Jul-19	Sunny	9:36	72.5	54.6	
25-Jul-19	Sunny	9:41	73.1	54.6	

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)
02-Jul-19	Cloudy	14:35	66.5	59.6	60
02-Jul-19	Cloudy	14:40	67.4	60.5	
02-Jul-19	Cloudy	14:45	67.0	60.5	
02-Jul-19	Cloudy	14:50	66.3	58.8	
02-Jul-19	Cloudy	14:55	64.5	59.3	
02-Jul-19	Cloudy	15:00	66.3	59.2	
08-Jul-19	Sunny	17:01	70.0	59.2	60
08-Jul-19	Sunny	17:06	68.8	60.7	
08-Jul-19	Sunny	17:11	69.6	60.0	
08-Jul-19	Sunny	17:16	66.4	59.3	
08-Jul-19	Sunny	17:21	63.1	58.5	
08-Jul-19	Sunny	17:26	63.1	58.2	
19-Jul-19	Cloudy	14:26	62.2	59.0	63
19-Jul-19	Cloudy	14:31	62.4	58.7	
19-Jul-19	Cloudy	14:36	61.5	58.0	
19-Jul-19	Cloudy	14:41	62.4	58.7	
19-Jul-19	Cloudy	14:46	61.5	58.0	
19-Jul-19	Cloudy	14:51	61.8	58.6	
25-Jul-19	Sunny	10:32	61.4	57.2	63
25-Jul-19	Sunny	10:37	61.7	57.4	
25-Jul-19	Sunny	10:42	62.5	58.0	
25-Jul-19	Sunny	10:47	60.4	58.1	
25-Jul-19	Sunny	10:52	61.0	57.9	
25-Jul-19	Sunny	10:57	63.5	57.6	

Remarks:

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

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)
03-Jul-19	Cloudy	10:07	57.9	48.1	59
03-Jul-19	Cloudy	10:12	63.7	47.3	
03-Jul-19	Cloudy	10:17	56.5	47.6	
03-Jul-19	Cloudy	10:22	58.0	47.4	
03-Jul-19	Cloudy	10:27	58.3	47.4	
03-Jul-19	Cloudy	10:32	56.7	47.5	
08-Jul-19	Sunny	9:43	58.8	55.3	59
08-Jul-19	Sunny	9:48	58.5	54.7	
08-Jul-19	Sunny	9:53	59.0	56.9	
08-Jul-19	Sunny	9:58	57.0	51.9	
08-Jul-19	Sunny	10:03	51.0	50.2	
08-Jul-19	Sunny	10:08	64.8	44.5	
19-Jul-19	Fine	11:38	55.7	48.7	59
19-Jul-19	Fine	11:43	64.5	49.9	
19-Jul-19	Fine	11:48	60.4	48.6	
19-Jul-19	Fine	11:53	55.0	47.8	
19-Jul-19	Fine	11:58	55.6	48.5	
19-Jul-19	Fine	12:03	54.8	48.5	
25-Jul-19	Cloudy	13:53	48.2	42.9	62
25-Jul-19	Cloudy	13:58	48.6	42.6	
25-Jul-19	Cloudy	14:03	61.1	42.6	
25-Jul-19	Cloudy	14:08	49.4	42.4	
25-Jul-19	Cloudy	14:13	55.8	41.7	
25-Jul-19	Cloudy	14:18	50.1	43.1	

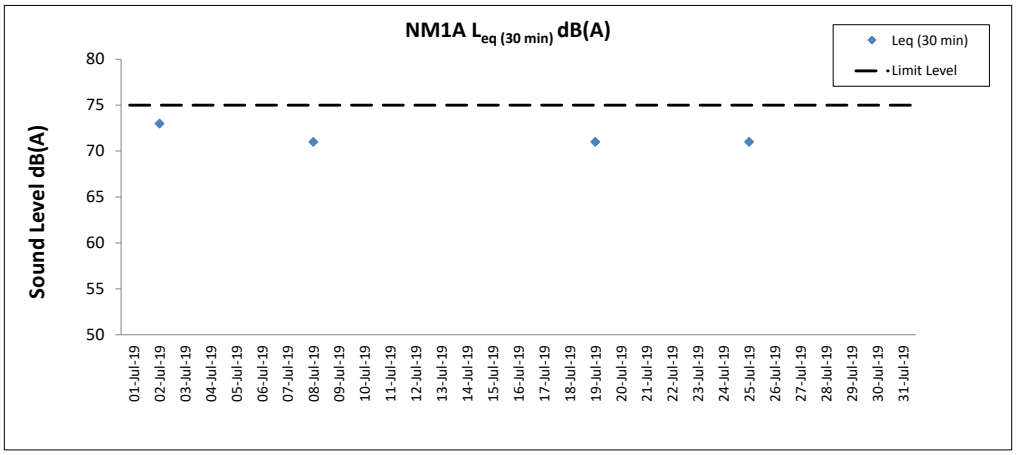
Remarks:
+3dB (A) correction was applied to free-field measurement.

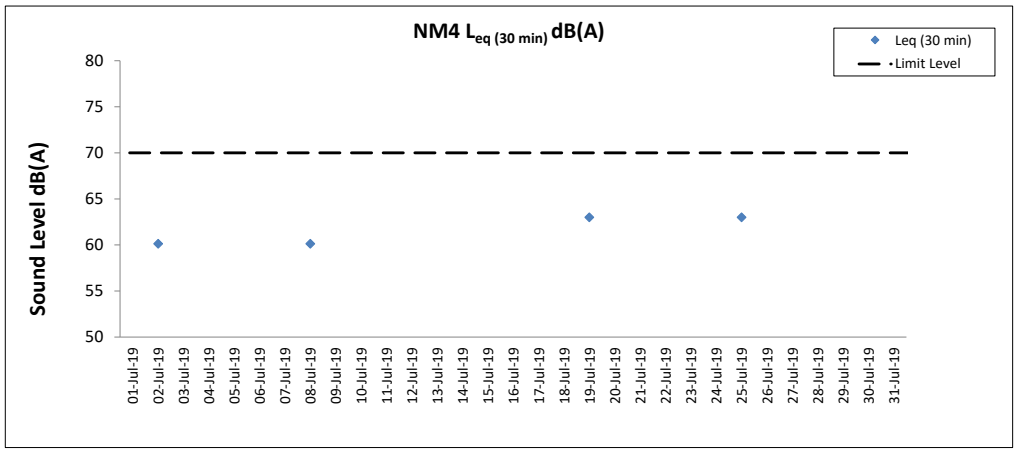
Noise Measurement Results

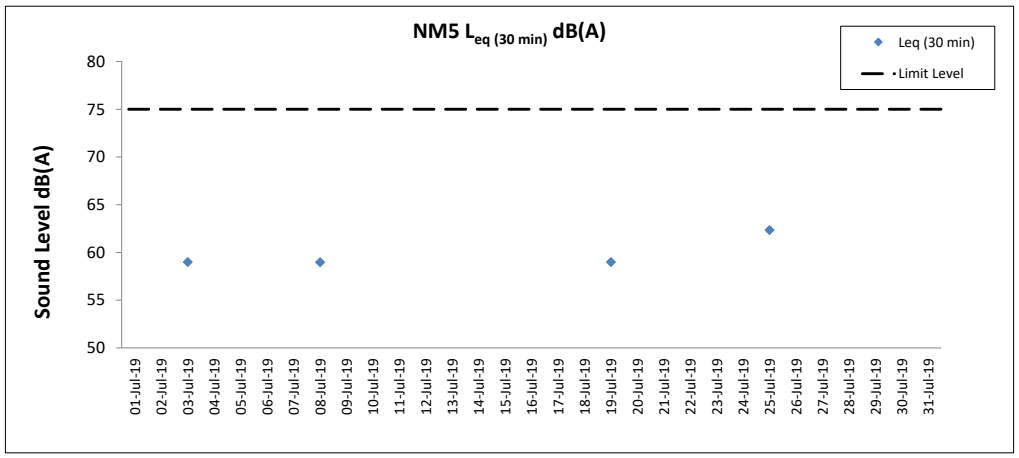
Station: NM6- House No.1 Sha Lo Wan

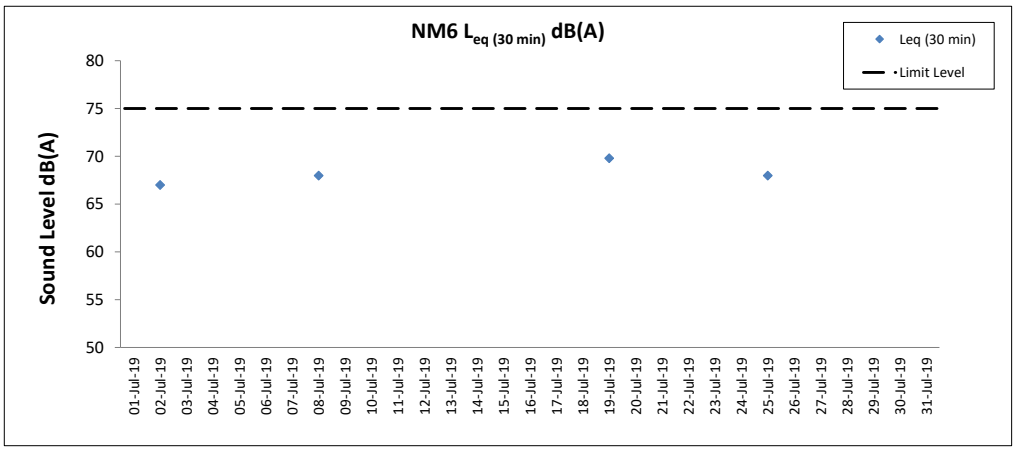
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
02-Jul-19	Cloudy	17:41	64.9	50.0	67
02-Jul-19	Cloudy	17:46	66.5	47.9	
02-Jul-19	Cloudy	17:51	65.5	58.7	
02-Jul-19	Cloudy	17:56	67.2	58.5	
02-Jul-19	Cloudy	18:01	70.6	50.8	
02-Jul-19	Cloudy	18:06	68.5	48.8	
08-Jul-19	Sunny	15:44	68.4	52.7	68
08-Jul-19	Sunny	15:49	68.6	55.1	
08-Jul-19	Sunny	15:54	70.4	54.9	
08-Jul-19	Sunny	15:59	70.5	53.9	
08-Jul-19	Sunny	16:04	65.9	51.7	
08-Jul-19	Sunny	16:09	75.5	53.5	
19-Jul-19	Cloudy	9:48	72.2	48.1	70
19-Jul-19	Cloudy	9:53	68.4	46.6	
19-Jul-19	Cloudy	9:58	74.3	48.4	
19-Jul-19	Cloudy	10:03	75.2	49.1	
19-Jul-19	Cloudy	10:08	77.2	49.6	
19-Jul-19	Cloudy	10:13	76.3	50.2	
25-Jul-19	Cloudy	15:26	74.5	57.1	68
25-Jul-19	Cloudy	15:31	67.7	52.7	
25-Jul-19	Cloudy	15:36	73.2	56.3	
25-Jul-19	Cloudy	15:41	73.0	52.2	
25-Jul-19	Cloudy	15:46	71.9	52.8	
25-Jul-19	Cloudy	15:51	68.6	52.9	

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









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 02 July 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	Rough	12:09	7.2	Surface	1.0	0.5	228	28.1	28.1	7.9	7.9	19.4	19.4	87.2	87.1	6.1	5.3	3.4	7.1	7	8	83	88	815605	804225	<0.2	<0.2	1.4	1.4
						1.0	0.6	231	28.1		7.9		19.4		87.0		6.1		3.4		7		84				<0.2		1.3	
					Middle	3.6	0.5	213	27.4	27.4	7.8	7.8	23.9	23.8	62.8	63.1	4.4		6.5		8		88				<0.2		1.4	
						3.6	0.5	215	27.3		7.8		23.8		63.3		4.4		6.5		8		88				<0.2		1.5	
					Bottom	6.2	0.3	206	27.2	27.2	7.7	7.7	25.0	25.0	57.4	57.5	4.0	4.0	11.5		8		91				<0.2		1.4	
						6.2	0.3	226	27.2		7.7		25.0		57.6		4.0		11.5		9		91				<0.2		1.4	
C2	Cloudy	Moderate	11:16	10.7	Surface	1.0	0.2	193	28.9	28.9	8.0	8.0	17.3	17.3	90.1	90.1	6.3	5.7	3.2	5.0	7	8	84	87	825678	806952	<0.2	<0.2	1.3	1.3
						1.0	0.3	210	28.9		8.0		17.3		90.0		6.3		3.2		7		84				<0.2		1.3	
					Middle	5.4	0.3	170	28.3	28.3	8.0	8.0	20.0	20.0	73.8	73.7	5.1		4.6		6		88				<0.2		1.3	
						5.4	0.3	173	28.3		8.0		20.0		73.6		5.1		4.7		8		89				<0.2		1.4	
					Bottom	9.7	0.3	159	27.7	27.7	7.9	7.9	23.7	23.7	59.6	59.7	4.1	4.1	7.1		10		89				<0.2		1.4	
						9.7	0.3	166	27.7		7.9		23.7		59.8		4.1		7.2		11		89				<0.2		1.3	
C3	Cloudy	Moderate	12:53	12.5	Surface	1.0	0.5	98	28.0	28.0	8.1	8.1	23.3	23.4	85.3	85.2	5.9	5.4	4.2	5.2	8	9	86	88	822128	817799	<0.2	<0.2	1.2	1.1
						1.0	0.6	98	28.0		8.1		23.4		85.1		5.8		4.3		8		86				<0.2		1.1	
					Middle	6.3	0.3	86	27.4	27.4	8.0	8.0	25.3	25.3	71.4	71.4	4.9		4.8		8		87				<0.2		1.0	
						6.3	0.3	91	27.4		8.0		25.3		71.4		4.9		4.7		9		88				<0.2		1.1	
					Bottom	11.5	0.2	80	26.9	26.9	8.0	8.0	27.3	27.3	59.6	59.9	4.1	4.1	6.6		10		89				<0.2		1.0	
						11.5	0.2	80	26.9		8.0		27.2		60.2		4.1		6.6		9		90				<0.2		1.0	
IM1	Cloudy	Moderate	11:41	4.3	Surface	1.0	0.2	221	27.9	27.9	7.9	7.9	19.7	19.7	87.1	87.0	6.1	6.1	3.5	4.6	6	6	84	88	817941	807138	<0.2	<0.2	1.1	1.0
						1.0	0.2	223	27.9		7.9		19.7		86.9		6.1		3.5		5		84				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	201	27.5	27.5	7.8	7.8	22.9	22.9	65.9	66.1	4.6	4.6	5.7		6		91				<0.2		0.9	
						3.3	0.2	220	27.5		7.8		22.9		66.3		4.6		5.7		5		92				<0.2		1.0	
IM2	Cloudy	Moderate	11:34	7.7	Surface	1.0	0.3	216	28.4	28.4	8.0	8.0	18.6	18.6	102.4	102.3	7.2	6.0	3.5	6.5	5	6	83	87	818185	806153	<0.2	<0.2	1.0	1.0
						1.0	0.3	227	28.4		8.0		18.6		102.2		7.2		3.5		6		83				<0.2		1.1	
					Middle	3.9	0.3	199	27.5	27.5	7.8	7.8	22.6	22.6	66.9	66.9	4.7		5.6		6		84				<0.2		1.0	
						3.9	0.3	215	27.5		7.8		22.6		66.9		4.7		5.8		5		87				<0.2		1.0	
					Bottom	6.7	0.3	174	27.3	27.3	7.7	7.7	24.2	24.3	62.0	62.1	4.3	4.3	10.3		6		91				<0.2		0.9	
						6.7	0.3	178	27.3		7.7		24.4		62.2		4.3		10.3		6		92				<0.2		0.9	
IM3	Cloudy	Moderate	11:28	8.1	Surface	1.0	0.5	209	28.0	28.0	7.9	7.9	20.4	20.4	90.3	90.2	6.3	6.0	4.1	7.2	7	7	83	87	818788	805614	<0.2	<0.2	0.9	0.9
						1.0	0.5	220	28.0		7.9		20.4		90.0		6.3		4.2		6		84				<0.2		0.9	
					Middle	4.1	0.5	193	27.8	27.8	7.9	7.9	21.0	21.0	82.4	82.3	5.8		4.5		7		87				<0.2		0.9	
						4.1	0.5	207	27.8		7.9		21.0		82.2		5.7		4.4		6		87				<0.2		1.0	
					Bottom	7.1	0.5	187	27.4	27.4	7.7	7.7	23.7	23.7	63.0	63.1	4.4	4.4	12.9		7		91				<0.2		1.0	
						7.1	0.5	187	27.4		7.7		23.7		63.2		4.4		13.0		7		92				<0.2		0.9	
IM4	Cloudy	Moderate	11:20	8.8	Surface	1.0	0.4	196	28.4	28.4	8.0	8.0	18.5	18.5	103.6	103.5	7.3	6.5	2.7	6.6	5	5	83	88	819706	804599	<0.2	<0.2	1.0	1.0
						1.0	0.5	204	28.4		8.0		18.5		103.4		7.3		2.7		4		84				<0.2		1.1	
					Middle	4.4	0.4	178	27.7	27.7	8.0	8.0	21.3	21.4	83.4	82.3	5.8		7.0		6		88				<0.2		1.0	
						4.4	0.4	194	27.6		8.0		21.4		81.1		5.7		7.0		5		88				<0.2		1.0	
					Bottom	7.8	0.4	181	27.2	27.3	7.7	7.7	24.7	24.6	62.8	63.1	4.3	4.4	10.1		5		91				<0.2		1.0	
						7.8	0.4	188	27.3		7.7		24.5		63.4		4.4		10.0		6		92				<0.2		1.0	
IM5	Cloudy	Moderate	11:14	8.2	Surface	1.0	0.4	235	28.3	28.3	8.0	8.0	18.9	18.9	99.8	99.6	7.0	6.6	3.0	4.8	5	5	83	88	820726	804860	<0.2	<0.2	0.9	1.0
						1.0	0.4	246	28.3		8.0		18.9		99.4		7.0		3.0		5		84				<0.2		1.0	
					Middle	4.1	0.4	221	28.1	28.1	8.0	8.0	20.0	20.0	89.0	88.8	6.2		2.9		6		88				<0.2		0.9	
						4.1	0.4	234	28.1		8.0		20.0		88.5		6.2		2.9		5		88				<0.2		1.0	
					Bottom	7.2	0.3	230	27.1	27.1	7.7	7.7	25.0	25.0	56.6	56.8	3.9	3.9	8.7		6		91				<0.2		1.0	
						7.2	0.3	244	27.1		7.7		25.0		56.9		3.9		8.7		5		92				<0.2		0.9	
IM6	Rainy	Rough	11:08	7.9	Surface	1.0	0.6	257	28.1	28.1	7.9	7.9	20.3	20.3	92.2	91.9	6.4	5.9	4.0	5.8	6	6	83	88	821083	805847	<0.2	<0.2	0.8	0.8
						1.0	0.6	262	28.1		7.9		20.3		91.5		6.4		4.0		6		84				<0.2		0.8	
					Middle	4.0	0.6	251	27.7	27.7	7.9	7.9	20.8	20.8	77.5	77.1	5.4		4.9		6		88				<0.2		0.8	
						4.0	0.6	266	27.6		7.9		20.9		76.7		5.4		5.0		6		88				<0.2		0.9	
					Bottom	6.9	0.4	232	27.2	27.2	7.7	7.7	24.4	24.4	59.6	59.7	4.1	4.1	8.4		6		92				<0.2		0.8	
						6.9	0.4	237	27.2		7.7		24.5		59.7		4.1		8.4		6		92				<0.2		0.9	
IM7	Rainy	Rough	11:01	8.4	Surface	1.0	0.3	246	28.1	28.1	7.9	7.9	20.2	20.2	91.2	91.1	6.4	5.6	3.9	4.9	6	6	83	87	821348	806838	<0.2	<0.2	1.0	1.1
						1.0	0.4	250	28.1		7.9		20.2		90.9		6.4		4.0		6		84				<0.2		1.0	
					Middle	4.2	0.2	200	27.6	27.6	7.8	7.8	21.9	22.0	69.5	69.4	4.9		4.8		6		87				<0.2		1.0	
						4.2	0.2	211	27.6		7.8		22.1		69.3		4.8		4.9		6		87				<0.2		1.2	
					Bottom	7.4	0.1	211	27.4	27.4	7.8	7.8	23.0	23.0	62.8	62.7	4.4	4.4	5.8		6		91				<0.2		1.1	
						7.4	0.1	218	27.4		7.8		23.0		62.5		4.4		5.9		6		92				<0.2		1.1	
IM8	Cloudy	Moderate	11:37	8.0	Surface	1.0	0.1	97	28.7	28.7	8.1	8.1	19.5	19.5	95.4	95.4	6.6	5.6	3.2	5.9	7	7	85	87	821839	808157	<0.2	<0.2	0.8	0.8
						1.0	0.1	104	28.7		8.1		19.5		95.3		6.6		3.3		7		85				<0.2		0.8	
					Middle	4.0	0.2	156	28.0	28.0	7.9	7.9	22.3	22.3	65.1	65.1	4.5		3.9		8		87				<0.2		0.8	
						4.0	0.2	163	28.0		7.9		22.3		65.0		4.5		3.8		6		88				<0.2		0.8	
					Bottom	7.0	0.1	151	27.9	27.9	8.0	8.0	22.9	22.9	64.4	64.5	4.4	4.5	10.3		8		89				<0.2		0.9	
						7.0	0.1	151	27.9		8.0		22.9		64.6		4.5		10.7		7		90				<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 02 July 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	11:42	7.3	Surface	1.0	0.1	7	28.4	28.4	8.0	8.0	20.6	20.6	79.2	79.2	5.5	5.1	4.3	4.6	7	8	85	88	822115	808828	<0.2	<0.2	0.8	0.8
						1.0	0.1	7	28.4		8.0		20.7		79.2		5.5		4.3		7		85				<0.2		0.8	
					Middle	3.7	0.2	122	28.0	28.0	7.9	7.9	22.3	22.3	66.0	66.0	4.6		4.5		9		88				<0.2		0.7	
						3.7	0.2	130	28.0		7.9		22.3		65.9		4.6		4.7		9		89				<0.2		0.8	
					Bottom	6.3	0.2	133	27.9	27.9	7.9	7.9	22.9	22.9	68.2	68.4	4.7	4.7	5.0		8		89				<0.2		0.9	
						6.3	0.2	141	27.9		7.9		22.9		68.5		4.7		5.0		9		89				<0.2		0.8	
IM10	Cloudy	Moderate	11:48	7.2	Surface	1.0	0.4	95	28.5	28.5	8.1	8.1	20.3	20.3	87.7	87.8	6.1	5.3	3.7	5.4	8	8	86	88	822402	809801	<0.2	<0.2	0.9	0.9
						1.0	0.4	99	28.4		8.1		20.4		87.8		6.1		3.8		8		86				<0.2		0.9	
					Middle	3.6	0.3	97	27.9	27.9	7.9	7.9	22.7	22.7	63.3	63.4	4.4		5.0		9		88				<0.2		0.9	
						3.6	0.4	101	27.9		7.9		22.7		63.4		4.4		4.9		9		88				<0.2		0.9	
					Bottom	6.2	0.3	112	27.7	27.7	8.0	8.0	23.7	23.7	62.4	62.6	4.3	4.3	7.5		8		90				<0.2		0.9	
						6.2	0.3	121	27.7		8.0		23.7		62.7		4.3		7.6		8		90				<0.2		0.8	
IM11	Cloudy	Moderate	12:00	9.4	Surface	1.0	0.8	106	28.6	28.6	8.1	8.1	20.3	20.3	95.7	95.8	6.6	5.4	3.4	6.3	9	8	87	88	822063	811478	<0.2	<0.2	0.7	0.7
						1.0	0.8	111	28.6		8.1		20.3		95.9		6.6		3.3		8		87				<0.2		0.7	
					Middle	4.7	0.8	116	28.0	28.0	7.9	7.9	22.5	22.5	59.9	59.9	4.1		5.6		8		88				<0.2		0.7	
						4.7	0.9	124	27.9		7.9		22.6		59.9		4.1		5.5		9		89				<0.2		0.8	
					Bottom	8.4	0.5	108	27.8	27.8	8.0	8.0	23.5	23.5	58.1	58.3	4.0	4.0	10.1		8		89				<0.2		0.8	
						8.4	0.5	111	27.8		8.0		23.5		58.4		4.0		9.8		8		90				<0.2		0.7	
IM12	Cloudy	Moderate	12:06	8.6	Surface	1.0	0.6	101	28.8	28.8	8.1	8.1	20.2	20.2	94.6	94.5	6.5	5.7	2.7	7.5	8	8	85	88	821467	812052	<0.2	<0.2	0.7	0.7
						1.0	0.6	105	28.8		8.1		20.2		94.4		6.5		2.8		8		86				<0.2		0.7	
					Middle	4.3	0.5	112	28.1	28.1	8.0	8.0	21.8	21.8	70.5	70.5	4.9		4.2		7		88				<0.2		0.7	
						4.3	0.5	122	28.1		8.0		21.8		70.4		4.9		4.2		8		88				<0.2		0.7	
					Bottom	7.6	0.4	104	27.8	27.8	7.9	7.9	23.2	23.2	61.0	61.1	4.2	4.2	15.8		7		90				<0.2		0.7	
						7.6	0.4	110	27.8		7.9		23.2		61.2		4.2		15.1		8		90				<0.2		0.8	
SR1A	Cloudy	Calm	12:24	4.4	Surface	1.0	-	-	28.9	28.9	8.2	8.2	20.1	20.2	114.5	114.6	7.9	7.9	3.8	3.8	9	9	-	-	819975	812655	-	-	-	-
						1.0	-	-	28.9		8.2		20.2		114.7		7.9		3.8		8		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	-	-	28.5	28.6	8.2	8.2	20.9	20.9	100.2	100.4	6.9	6.9	3.9		8		-				-		-	
						3.4	-	-	28.6		8.2		20.9		100.5		6.9		3.9		9		-				-		-	
SR2	Cloudy	Moderate	12:33	4.5	Surface	1.0	0.7	99	28.6	28.6	8.0	8.0	20.8	20.8	88.3	88.2	6.1	6.1	3.5	4.8	8	8	86	87	821470	814164	<0.2	<0.2	0.8	0.7
						1.0	0.7	103	28.5		8.0		20.9		88.1		6.1		3.7		9		86				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.4	118	28.1	28.2	8.0	8.0	22.5	22.5	75.3	75.6	5.2	5.2	6.1		8		88				<0.2		0.7	
						3.5	0.4	125	28.2		8.0		22.5		75.8		5.2		6.1		7		88				<0.2		0.7	
SR3	Cloudy	Moderate	11:32	9.5	Surface	1.0	0.1	115	28.9	28.9	8.1	8.1	19.1	19.1	104.8	104.8	7.3	5.7	2.6	5.1	7	7	-	-	822148	807562	-	-	-	-
						1.0	0.1	116	28.9		8.1		19.1		104.7		7.3		2.7		6		-				-		-	
					Middle	4.8	0.2	170	27.7	27.7	7.9	7.9	23.7	23.7	60.1	60.2	4.1		5.3		6		-				-		-	
						4.8	0.2	177	27.7		7.9		23.7		60.3		4.2		5.3		7		-				-		-	
					Bottom	8.5	0.1	181	27.6	27.6	8.0	8.0	24.1	24.1	65.6	65.9	4.5	4.6	7.3		6		-				-		-	
						8.5	0.1	193	27.6		8.0		24.1		66.1		4.6		7.2		7		-				-		-	
SR4A	Cloudy	Moderate	12:38	9.8	Surface	1.0	0.0	192	28.2	28.2	7.9	7.9	18.7	18.7	95.3	95.1	6.7	5.5	3.6	7.3	6	6	-	-	817191	807802	-	-	-	-
						1.0	0.0	200	28.2		7.9		18.7		94.9		6.7		3.6		7		-				-		-	
					Middle	4.9	0.1	126	27.4	27.4	7.7	7.7	22.8	22.8	61.4	61.4	4.3		7.5		6		-				-		-	
						4.9	0.1	134	27.4		7.7		22.8		61.3		4.3		7.5		6		-				-		-	
					Bottom	8.8	0.1	109	27.3	27.3	7.7	7.7	24.3	24.3	57.2	57.3	4.0	4.0	10.7		6		-				-		-	
						8.8	0.1	118	27.3		7.7		24.3		57.3		4.0		10.7		6		-				-		-	
SR5A	Cloudy	Calm	12:54	3.7	Surface	1.0	0.1	68	28.8	28.8	8.2	8.2	19.6	19.6	133.6	133.8	9.3	9.3	5.7	6.4	7	7	-	-	816576	810675	-	-	-	-
						1.0	0.1	68	28.8		8.2		19.5		134.0		9.3		5.7		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.0	40	28.4	28.4	8.1	8.1	20.2	20.2	114.4	114.6	7.9	8.0	7.2		7		-				-		-	
						2.7	0.0	41	28.4		8.1		20.2		114.8		8.0		7.1		8		-				-		-	
SR6	Cloudy	Calm	13:28	3.2	Surface	1.0	0.2	79	28.4	28.4	8.1	8.1	20.3	20.3	113.7	113.4	7.9	7.9	4.4	10.1	8	8	-	-	817908	814659	-	-	-	-
						1.0	0.2	79	28.4		8.1		20.3		113.1		7.9		4.4		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.1	213	27.7	27.7	7.8	7.8	22.3	22.3	76.7	78.7	5.3	5.5	15.9		9		-				-		-	
						2.2	0.1	213	27.7		7.8		22.3		80.6		5.6		15.9		8		-				-		-	
SR7	Cloudy	Moderate	13:18	15.9	Surface	1.0	0.8	54	28.0	28.0	8.1	8.1	23.0	23.1	92.2	92.5	6.4	5.8	2.8	3.9	8	7	-	-	823632	823725	-	-	-	-
						1.0	0.8	54	28.0		8.1		23.1		92.7		6.4		2.8		7		-				-		-	
					Middle	8.0	0.6	39	27.4	27.4	8.0	8.0	25.1	25.1	75.5	75.6	5.2		4.5		7		-				-		-	
						8.0	0.6	41	27.4		8.1		25.1		75.6		5.2		4.4		7		-				-		-	
					Bottom	14.9	0.5	16	27.4	27.4	8.1	8.1	25.2	25.2	78.8	79.5	5.4	5.5	4.5		7		-				-		-	
						14.9	0.5	17	27.4		8.1		25.2		80.2		5.5		4.5		7		-				-		-	
SR8	Cloudy	Calm	12:15	4.6	Surface	1.0	-	-	28.8	28.8	8.2	8.2	19.9	19.9	104.6	104.6	7.2	7.2	4.3	5.0	8	9	-	-	820371	811622	-	-	-	-
						1.0	-	-	28.8		8.2		19.9		104.6		7.2		4.3		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	-	-	28.9	28.9	8.2	8.2	20.0	20.0	100.5	100.4	6.9	6.9	5.7		9		-				-		-	
						3.6	-	-	28.9		8.2		20.0		100.3		6.9		5.8		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 02 July 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	04:54	7.5	Surface	1.0	0.0	351	28.3	28.3	7.9	7.9	16.6	16.6	93.9	93.8	6.7	6.0	3.4	5.6	5	6	83	88	815641	804267	<0.2	<0.2	0.9	0.8
						1.0	0.0	6	28.3		7.9		16.6		93.7		6.7		3.4		6		84				<0.2		0.7	
					Middle	3.8	0.1	93	27.8	27.8	7.8	7.8	20.4	20.4	75.9	75.9	5.3		5.5		6		88				<0.2		0.7	
						3.8	0.1	94	27.8		7.8		20.4		75.8		5.3		5.5		5		89				<0.2		0.7	
					Bottom	6.5	0.2	210	27.3	27.3	7.8	7.8	24.2	24.2	66.5	66.8	4.6	4.6	7.7		5		91				<0.2		1.0	
						6.5	0.2	226	27.3		7.8		24.2		67.0		4.6		7.8		6		92				<0.2		0.9	
C2	Fine	Moderate	07:22	12.5	Surface	1.0	0.7	52	28.8	28.8	8.0	8.0	16.8	16.7	82.8	82.7	5.8	5.1	2.5	9.1	5	5	87	89	825663	806962	<0.2	<0.2	0.9	1.1
						1.0	0.8	53	28.8		8.0		16.7		82.5		5.8		2.4		5		87				<0.2		0.8	
					Middle	6.3	0.7	38	28.1	28.1	7.9	7.9	21.4	21.4	63.0	63.0	4.4		7.2		5		88				<0.2		1.4	
						6.3	0.7	34	28.1		7.9		21.4		63.0		4.4		7.2		4		89				<0.2		1.3	
					Bottom	11.5	0.6	46	27.8	27.9	7.9	7.9	24.0	24.0	62.2	62.6	4.3	4.3	17.4		5		90				<0.2		1.1	
						11.5	0.7	48	28.0		7.9		24.0		62.9		4.3		17.7		5		90				<0.2		1.3	
C3	Fine	Moderate	05:01	11.3	Surface	1.0	0.2	281	27.4	27.4	8.0	8.0	25.3	25.3	79.7	79.6	5.5	4.8	1.5	2.4	6	6	84	87	822125	817785	<0.2	<0.2	0.9	0.9
						1.0	0.2	307	27.4		8.0		25.3		79.5		5.5		1.5		5		85				<0.2		0.9	
					Middle	5.7	0.5	243	26.4	26.4	8.0	8.0	29.2	29.2	60.6	60.6	4.2		2.8		5		88				<0.2		1.0	
						5.7	0.5	254	26.4		8.0		29.2		60.6		4.1		2.8		6		88				<0.2		1.1	
					Bottom	10.3	0.1	237	26.3	26.3	8.0	8.0	29.6	29.5	66.9	67.4	4.6	4.6	3.0		6		90				<0.2		0.8	
						10.3	0.1	241	26.3		8.0		29.5		67.9		4.6		3.0		5		89				<0.2		0.9	
IM1	Fine	Moderate	05:20	5.8	Surface	1.0	0.0	29	28.1	28.1	7.8	7.8	17.3	17.3	89.3	89.2	6.3	6.3	3.6	3.5	5	5	83	85	817937	807123	<0.2	<0.2	1.3	1.4
						1.0	0.0	33	28.0		7.8		17.3		89.0		6.3		3.6		5		83				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.2	67	27.8	27.8	7.8	7.8	18.8	18.8	82.0	82.1	5.8	5.8	3.4		5		87				<0.2		1.4	
						4.8	0.2	66	27.8		7.8		18.8		82.1		5.8		3.4		6		88				<0.2		1.4	
IM2	Fine	Moderate	05:26	7.9	Surface	1.0	0.1	46	27.8	27.8	7.9	7.9	20.8	20.7	79.7	79.8	5.6	5.3	3.8	4.5	5	6	79	86	818163	806183	<0.2	<0.2	1.2	1.2
						1.0	0.1	49	27.8		7.9		20.7		79.8		5.6		3.8		6		83				<0.2		1.2	
					Middle	4.0	0.2	49	27.6	27.6	7.8	7.8	21.9	21.9	70.2	70.1	4.9		4.8		6		87				<0.2		1.1	
						4.0	0.2	51	27.6		7.8		21.9		69.9		4.9		4.8		6		87				<0.2		1.2	
					Bottom	6.9	0.3	57	27.3	27.3	7.7	7.7	24.5	24.5	58.0	58.1	4.0	4.0	4.8		5		91				<0.2		1.2	
						6.9	0.3	66	27.3		7.7		24.5		58.1		4.0		4.9		6		91				<0.2		1.2	
IM3	Fine	Moderate	05:33	7.5	Surface	1.0	0.0	44	28.1	28.1	8.0	8.0	20.0	20.0	91.4	91.4	6.4	5.7	3.1	4.8	5	5	83	87	818763	805581	<0.2	<0.2	1.3	1.3
						1.0	0.0	47	28.1		8.0		20.0		91.3		6.4		3.1		5		83				<0.2		1.2	
					Middle	3.8	0.2	57	27.6	27.6	7.8	7.8	22.8	22.8	71.9	72.0	5.0		5.2		5		87				<0.2		1.3	
						3.8	0.2	61	27.6		7.8		22.8		72.0		5.0		5.2		5		87				<0.2		1.2	
					Bottom	6.5	0.1	45	27.5	27.5	7.8	7.8	23.0	23.0	67.7	67.8	4.7	4.7	6.1		5		91				<0.2		1.2	
						6.5	0.1	45	27.5		7.8		23.0		67.9		4.7		6.1		6		91				<0.2		1.3	
IM4	Fine	Moderate	05:42	7.4	Surface	1.0	0.3	51	28.1	28.1	7.9	7.9	20.4	20.4	88.8	88.7	6.2	5.2	3.8	6.2	6	7	83	87	819738	804625	<0.2	<0.2	1.4	1.3
						1.0	0.3	53	28.1		7.9		20.4		88.6		6.2		3.8		7		84				<0.2		1.4	
					Middle	3.7	0.3	60	27.4	27.4	7.8	7.8	23.9	23.9	61.4	61.4	4.3		6.2		6		87				<0.2		1.3	
						3.7	0.3	59	27.4		7.8		23.9		61.3		4.2		6.2		6		87				<0.2		1.2	
					Bottom	6.4	0.3	61	27.2	27.2	7.7	7.7	24.8	24.8	55.5	55.6	3.8	3.8	8.4		8		91				<0.2		1.2	
						6.4	0.3	62	27.2		7.7		24.8		55.6		3.8		8.5		7		91				<0.2		1.3	
IM5	Fine	Moderate	05:51	8.2	Surface	1.0	0.2	43	28.1	28.1	7.9	7.9	19.3	19.3	89.5	89.6	6.3	6.3	3.6	4.6	7	6	83	88	820711	804881	<0.2	<0.2	1.4	1.4
						1.0	0.2	41	28.1		7.9		19.4		89.6		6.3		3.6		6		84				<0.2		1.4	
					Middle	4.1	0.2	43	28.1	28.1	7.9	7.9	19.7	19.7	88.6	88.4	6.2		3.6		6		88				<0.2		1.4	
						4.1	0.2	41	28.1		7.9		19.7		88.2		6.2		3.6		5		88				<0.2		1.4	
					Bottom	7.2	0.3	71	27.3	27.3	7.7	7.7	24.2	24.3	57.0	56.9	4.0	4.0	6.7		6		91				<0.2		1.3	
						7.2	0.3	76	27.3		7.7		24.3		56.7		3.9		6.7		6		92				<0.2		1.4	
IM6	Fine	Moderate	06:00	8.2	Surface	1.0	0.2	43	28.2	28.2	7.9	7.9	19.7	19.7	95.4	95.3	6.7	5.5	4.1	7.0	6	6	80	86	821062	805836	<0.2	<0.2	1.5	1.5
						1.0	0.2	40	28.2		7.9		19.7		95.2		6.7		4.1		7		80				<0.2		1.4	
					Middle	4.1	0.2	79	27.4	27.4	7.7	7.7	23.4	23.4	61.0	61.1	4.2		7.8		6		87				<0.2		1.5	
						4.1	0.2	81	27.4		7.7		23.4		61.1		4.2		7.8		7		87				<0.2		1.6	
					Bottom	7.2	0.2	40	27.3	27.3	7.7	7.7	23.9	23.9	61.8	61.9	4.3	4.3	9.1		6		91				<0.2		1.4	
						7.2	0.2	41	27.3		7.7		23.9		62.0		4.3		9.1		6		92				<0.2		1.6	
IM7	Fine	Moderate	06:08	8.5	Surface	1.0	0.4	26	27.9	27.9	7.9	7.9	19.8	20.0	89.4	85.3	6.3	5.4	4.2	4.9	6	6	81	86	821343	806831	<0.2	<0.2	1.4	1.4
						1.0	0.4	25	27.8		7.9		20.2		81.2		5.7		4.3		5		82				<0.2		1.4	
					Middle	4.3	0.2	25	27.5	27.5	7.8	7.8	22.1	22.2	67.7	67.8	4.7		4.9		5		83				<0.2		1.4	
						4.3	0.2	27	27.5		7.8		22.2		67.8		4.7		4.8		6		84				<0.2		1.3	
					Bottom	7.5	0.1	30	27.5	27.5	7.8	7.8	22.5	22.5	68.7	68.9	4.8	4.8	5.5		7		91				<0.2		1.4	
						7.5	0.1	36	27.5		7.8		22.5		69.1		4.8		5.6		6		92				<0.2		1.4	
IM8	Fine	Moderate	06:41	8.4	Surface	1.0	0.3	321	28.5	28.5	8.0	8.0	19.5	19.4	80.8	80.8	5.6	4.9	4.2	6.2	6	6	85	87	821837	808153	<0.2	<0.2	1.3	1.3
						1.0	0.3	322	28.5		8.0		19.4		80.8		5.6		4.1		6		85				<0.2		1.4	
					Middle	4.2	0.3	309	28.0	28.0	7.9	7.9	22.2	22.2	59.5	59.6	4.1		7.1		5		87				<0.2		1.3	
						4.2	0.3	315	28.0		7.9		22.3		59.7		4.1		7.1		6		88				<0.2		1.3	
					Bottom	7.4	0.2	278	28.0	28.0	7.9	7.9	22.6	22.6	62.0	62.1	4.3	4.3	7.5		6		89				<0.2		1.3	
						7.4	0.2	281	28.0		7.9		22.6		62.2		4.3		7.4		7		89				<0.2		1.3	

DA: Depth-Averaged

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

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

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Water Quality Monitoring
Water Quality Monitoring Results on 02 July 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	Fine	Moderate	06:34	8.1	Surface	1.0	0.5	299	29.0	29.0	8.1	8.1	17.9	17.9	96.9	96.9	6.8	5.6	2.5	7.2	6	6	85	88	822102	808821	<0.2	<0.2	1.3	1.3
						1.0	0.5	302	29.0		8.1		17.9		96.9		6.8		2.5		6		85				<0.2		1.4	
					Middle	4.1	0.5	302	28.0	28.0	7.9	7.9	22.0	22.0	62.2	62.3	4.3		8.0		6		89				<0.2		1.3	
						4.1	0.6	304	28.0		7.9		22.0		62.3		4.3		8.3		6		89				<0.2		1.3	
					Bottom	7.1	0.4	251	28.0	28.0	7.9	7.9	23.0	23.0	63.7	64.0	4.4	4.4	11.0		6		90				<0.2		1.4	
						7.1	0.4	257	28.0		7.9		23.0		64.2		4.4		10.9		6		90				<0.2		1.3	
IM10	Fine	Moderate	06:25	8.5	Surface	1.0	0.7	286	29.0	29.0	8.1	8.1	17.5	17.5	97.4	97.2	6.8	5.5	2.2	9.9	5	5	86	88	822400	809802	<0.2	<0.2	1.4	1.4
						1.0	0.7	282	29.0		8.1		17.5		97.0		6.8		2.4		5		86				<0.2		1.4	
					Middle	4.3	0.7	283	28.1	28.1	7.9	7.9	22.0	22.0	59.8	59.7	4.1		8.2		4		88				<0.2		1.4	
						4.3	0.8	283	28.1		7.9		22.0		59.6		4.1		8.4		5		88				<0.2		1.4	
					Bottom	7.5	0.4	235	27.9	27.9	7.9	7.9	23.3	23.3	59.2	59.3	4.1	4.1	19.1		5		89				<0.2		1.4	
						7.5	0.4	224	27.9		7.9		23.3		59.3		4.1		19.4		4		90				<0.2		1.4	
IM11	Fine	Moderate	06:11	9.7	Surface	1.0	0.6	265	28.8	28.8	8.1	8.1	18.2	18.2	91.8	91.8	6.4	5.6	3.1	5.1	7	6	86	88	822060	811441	<0.2	<0.2	1.4	1.4
						1.0	0.6	252	28.8		8.1		18.2		91.7		6.4		3.1		6		87				<0.2		1.4	
					Middle	4.9	0.5	254	27.9	27.9	8.0	8.0	22.6	22.6	69.8	69.7	4.8		5.5		6		88				<0.2		1.5	
						4.9	0.5	235	27.9		8.0		22.6		69.5		4.8		5.6		5		88				<0.2		1.5	
					Bottom	8.7	0.2	210	27.4	27.4	8.0	8.0	25.0	24.9	66.0	66.6	4.6	4.6	6.8		4		90				<0.2		1.4	
						8.7	0.2	213	27.4		8.0		24.8		67.2		4.6		6.7		6		90				<0.2		1.4	
IM12	Fine	Moderate	06:04	9.3	Surface	1.0	0.4	252	28.3	28.3	8.1	8.1	21.7	21.7	90.0	90.0	6.2	5.4	3.1	4.7	8	8	84	88	821463	812027	<0.2	<0.2	1.0	1.1
						1.0	0.5	250	28.2		8.1		21.8		89.9		6.2		3.1		7		85				<0.2		1.1	
					Middle	4.7	0.4	240	27.5	27.5	8.0	8.0	24.3	24.5	66.3	66.4	4.6		4.9		8		88				<0.2		1.3	
						4.7	0.4	241	27.4		8.0		24.7		66.5		4.6		5.3		7		89				<0.2		1.1	
					Bottom	8.3	0.3	191	27.4	27.4	8.0	8.0	24.8	24.7	72.5	73.2	5.0	5.1	5.8		7		90				<0.2		1.1	
						8.3	0.3	195	27.4		8.0		24.7		73.9		5.1		5.8		8		90				<0.2		1.1	
SR1A	Fine	Moderate	05:38	4.7	Surface	1.0	-	-	28.4	28.4	8.1	8.1	20.9	20.9	90.3	90.3	6.3	6.3	4.2	4.5	8	8	-	-	819979	812666	-	-	-	-
						1.0	-	-	28.3		8.1		20.9		90.2		6.3		4.3		7		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	28.0	28.0	8.1	8.1	23.1	23.1	75.6	75.8	5.2	5.2	4.9		8		-				-		-	
						3.7	-	-	28.0		8.1		23.1		76.0		5.2		4.7		8		-				-		-	
SR2	Fine	Moderate	05:26	5.2	Surface	1.0	0.5	276	28.1	28.1	8.1	8.1	21.3	21.3	86.4	86.4	6.0	6.0	4.3	5.9	7	7	85	87	821448	814177	<0.2	<0.2	1.0	1.1
						1.0	0.5	280	28.1		8.1		21.3		86.3		6.0		4.4		6		85				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	242	28.0	28.1	8.0	8.0	23.1	23.1	75.7	76.0	5.2	5.2	7.1		8		88				<0.2		1.2	
						4.2	0.0	251	28.1		8.0		23.1		76.2		5.2		7.7		8		88				<0.2		1.1	
SR3	Fine	Moderate	06:47	9.6	Surface	1.0	0.2	87	28.6	28.6	8.0	8.0	19.7	19.7	81.4	81.4	5.7	5.1	4.5	6.8	7	6	-	-	822168	807582	-	-	-	-
						1.0	0.3	88	28.6		8.0		19.7		81.3		5.7		4.4		7		-				-		-	
					Middle	4.8	0.2	23	28.2	28.2	7.9	7.9	21.4	21.4	65.3	65.4	4.5		6.6		6		-				-		-	
						4.8	0.2	30	28.2		7.9		21.4		65.4		4.5		6.4		6		-				-		-	
					Bottom	8.6	0.2	21	27.8	27.9	7.9	7.9	23.8	23.8	63.3	63.9	4.4	4.4	9.6		6		-				-		-	
						8.6	0.2	23	27.9		7.9		23.8		64.5		4.4		9.3		6		-				-		-	
SR4A	Fine	Moderate	04:20	9.5	Surface	1.0	0.3	203	27.9	27.9	7.8	7.8	17.8	17.8	80.3	80.2	5.7	5.3	4.2	9.5	6	6	-	-	817204	807786	-	-	-	-
						1.0	0.3	211	27.9		7.8		17.8		80.0		5.7		4.3		6		-				-		-	
					Middle	4.8	0.2	286	27.6	27.6	7.7	7.7	20.4	20.5	69.6	69.4	4.9		9.2		5		-				-		-	
						4.8	0.2	287	27.6		7.7		20.5		69.2		4.9		9.2		6		-				-		-	
					Bottom	8.5	0.1	275	27.5	27.5	7.7	7.7	21.8	21.8	67.2	67.3	4.7	4.7	15.0		6		-				-		-	
						8.5	0.1	278	27.5		7.7		21.8		67.3		4.7		15.1		7		-				-		-	
SR5A	Fine	Moderate	04:05	5.2	Surface	1.0	0.1	250	28.6	28.6	8.1	8.1	19.3	19.3	112.4	112.3	7.8	7.8	4.1	6.4	6	7	-	-	816608	810694	-	-	-	-
						1.0	0.1	222	28.6		8.1		19.3		112.1		7.8		4.1		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	213	27.8	27.8	7.7	7.7	22.8	22.8	64.6	64.6	4.5	4.5	8.7		7		-				-		-	
						4.2	0.1	217	27.8		7.7		22.8		64.5		4.5		8.7		6		-				-		-	
SR6	Fine	Moderate	03:55	4.7	Surface	1.0	0.1	272	27.8	27.8	7.8	7.8	20.9	20.9	83.2	83.0	5.8	5.8	3.8	4.6	6	6	-	-	817905	814641	-	-	-	-
						1.0	0.1	276	27.8		7.8		20.9		82.7		5.8		3.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	245	27.4	27.4	7.7	7.7	22.8	22.8	63.0	63.1	4.4	4.4	5.4		6		-				-		-	
						3.7	0.1	244	27.4		7.7		22.8		63.2		4.4		5.4		6		-				-		-	
SR7	Fine	Moderate	04:30	16.2	Surface	1.0	0.0	212	26.8	26.8	7.9	7.9	27.6	27.6	77.1	77.1	5.3	5.1	2.4	3.0	5	5	-	-	823651	823748	-	-	-	-
						1.0	0.0	238	26.8		7.9		27.5		77.0		5.3		2.3		4		-				-		-	
					Middle	8.1	0.2	192	26.3	26.3	7.9	7.9	29.4	29.4	70.2	70.1	4.8		3.5		4		-				-		-	
						8.1	0.2	194	26.3		7.9		29.4		70.0		4.8		3.3		4		-				-		-	
					Bottom	15.2	0.1	206	26.3	26.3	7.9	7.9	29.4	29.4	53.0	53.1	3.6	3.6	3.2		5		-				-		-	
						15.2	0.1	207	26.3		7.9		29.4		53.2		3.6		3.2		5		-				-		-	
SR8	Fine	Calm	05:49	4.9	Surface	1.0	-	-	28.6	28.6	8.1	8.1	20.4	20.4	94.0	93.8	6.5	6.5	3.7	4.1	8	8	-	-	820404	811599	-	-	-	-
						1.0	-	-	28.5		8.1		20.4		93.5		6.5		3.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	28.1	28.1	8.1	8.1	22.8	22.8	77.1	79.0	5.3	5.5	4.5		8		-				-		-	
						3.9	-	-	28.1		8.1		22.7		80.8		5.6		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 04 July 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	Rough	13:27	9.2	Surface	1.0	0.4	219	28.1	28.1	7.8	7.8	17.7	17.7	87.4	87.3	6.2	5.9	4.4	13.2	5	5	85	88	815606	804268	<0.2	<0.2	1.4	1.4
						1.0	0.4	227	28.1		7.8		17.7		87.2		6.2		4.5		5		86				<0.2		1.4	
					Middle	4.6	0.3	183	27.5	27.5	7.8	7.8	20.0	20.0	78.7	78.7	5.6		15.1		4		88				<0.2		1.5	
						4.6	0.3	191	27.5		7.8		20.0		78.7		5.6		15.1		4		89				<0.2		1.3	
					Bottom	8.2	0.5	189	27.5	27.5	7.8	7.8	20.1	20.1	79.4	79.5	5.6	5.6	20.0		4		90				<0.2		1.5	
						8.2	0.5	199	27.5		7.8		20.1		79.5		5.6		20.1		5		90				<0.2		1.4	
C2	Rainy	Moderate	12:26	11.8	Surface	1.0	0.4	150	28.3	28.3	7.9	7.9	18.0	18.0	78.2	78.2	5.5	5.3	5.2	5.2	9	8	82	86	825702	806943	<0.2	<0.2	1.5	1.5
						1.0	0.4	152	28.3		7.9		18.0		78.1		5.5		5.2		8		84				<0.2		1.5	
					Middle	5.9	0.6	160	28.1	28.1	7.9	7.9	19.3	19.3	72.1	72.1	5.1		5.4		8		87				<0.2		1.4	
						5.9	0.6	162	28.1		7.9		19.3		72.1		5.1		5.4		8		88				<0.2		1.5	
					Bottom	10.8	0.4	142	28.1	28.1	7.9	7.9	19.5	19.5	73.5	73.6	5.2	5.2	5.1		8		86				<0.2		1.5	
						10.8	0.4	151	28.1		7.9		19.5		73.7		5.2		5.1		9		88				<0.2		1.4	
C3	Rainy	Moderate	14:12	11.9	Surface	1.0	0.4	95	28.0	28.0	7.9	7.9	21.4	21.4	71.7	71.6	5.0	5.0	5.5	7.2	8	9	84	88	822107	817818	<0.2	<0.2	1.1	1.2
						1.0	0.4	95	27.9		7.9		21.4		71.5		5.0		5.4		9		86				<0.2		1.1	
					Middle	6.0	0.2	61	27.8	27.8	7.9	7.9	21.7	21.7	70.3	70.3	4.9		6.8		8		89				<0.2		1.2	
						6.0	0.3	66	27.7		7.9		21.7		70.2		4.9		7.1		9		90				<0.2		1.2	
					Bottom	10.9	0.2	119	27.3	27.3	7.9	7.9	25.0	25.0	63.9	64.0	4.4	4.4	9.4		9		90				<0.2		1.3	
						10.9	0.2	130	27.3		7.9		25.0		64.1		4.4		9.1		8		91				<0.2		1.2	
IM1	Cloudy	Rough	13:07	5.8	Surface	1.0	0.1	150	28.0	28.0	7.8	7.8	17.4	17.4	89.1	89.1	6.3	6.3	4.5	5.2	6	7	85	87	817945	807131	<0.2	<0.2	1.5	1.5
						1.0	0.1	156	28.0		7.8		17.4		89.0		6.3		4.5		7		86				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.3	167	27.7	27.8	7.8	7.8	18.2	18.2	87.4	87.5	6.2	6.2	5.8		7		88				<0.2		1.5	
						4.8	0.3	167	27.8		7.8		18.1		87.6		6.2		5.8		7		89				<0.2		1.5	
IM2	Cloudy	Rough	13:01	7.5	Surface	1.0	0.2	174	27.8	27.8	7.8	7.8	18.1	18.1	85.9	85.8	6.1	5.9	6.4	12.7	8	8	85	88	818141	806169	<0.2	<0.2	1.6	1.5
						1.0	0.2	178	27.7		7.8		18.1		85.6		6.1		6.7		9		85				<0.2		1.6	
					Middle	3.8	0.1	159	27.5	27.5	7.8	7.8	19.7	19.7	80.4	80.4	5.7		14.4		9		88				<0.2		1.5	
						3.8	0.2	171	27.5		7.8		19.7		80.4		5.7		14.2		8		89				<0.2		1.4	
					Bottom	6.5	0.2	154	27.5	27.5	7.8	7.8	19.7	19.7	81.1	81.3	5.7	5.8	17.1		7		90				<0.2		1.4	
						6.5	0.2	162	27.5		7.8		19.7		81.4		5.8		17.2		7		90				<0.2		1.4	
IM3	Cloudy	Rough	12:54	7.9	Surface	1.0	0.1	197	27.9	27.9	7.8	7.8	18.5	18.5	84.6	84.5	6.0	5.8	7.4	13.6	8	8	85	88	818765	805600	<0.2	<0.2	1.5	1.4
						1.0	0.1	199	27.9		7.8		18.5		84.4		6.0		8.2		8		85				<0.2		1.4	
					Middle	4.0	0.4	138	27.5	27.5	7.8	7.8	20.1	20.1	78.3	78.3	5.5		14.2		7		88				<0.2		1.5	
						4.0	0.4	141	27.5		7.8		20.2		78.2		5.5		14.8		8		89				<0.2		1.4	
					Bottom	6.9	0.4	156	27.5	27.5	7.8	7.8	20.4	20.4	78.5	78.6	5.5	5.5	18.3		7		90				<0.2		1.4	
						6.9	0.4	156	27.5		7.8		20.4		78.6		5.5		18.7		7		90				<0.2		1.4	
IM4	Cloudy	Rough	12:45	8.4	Surface	1.0	0.6	179	28.5	28.5	7.8	7.8	15.8	15.8	89.1	89.0	6.3	6.2	4.8	6.5	8	8	85	89	819729	804591	<0.2	<0.2	1.4	1.4
						1.0	0.6	183	28.4		7.8		15.8		88.8		6.3		4.9		8		86				<0.2		1.4	
					Middle	4.2	0.6	197	28.0	28.0	7.8	7.8	18.7	18.8	86.0	86.0	6.1		5.3		9		89				<0.2		1.4	
						4.2	0.6	209	27.9		7.8		18.8		85.9		6.1		5.3		9		90				<0.2		1.5	
					Bottom	7.4	0.4	195	27.4	27.4	7.8	7.8	20.7	20.7	78.8	78.9	5.6	5.6	9.4		8		91				<0.2		1.4	
						7.4	0.4	210	27.4		7.8		20.7		79.0		5.6		9.6		8		91				<0.2		1.4	
IM5	Cloudy	Rough	12:39	8.0	Surface	1.0	0.4	213	27.9	27.9	7.8	7.8	18.7	18.7	85.1	85.1	6.0	5.8	5.0	7.7	8	8	86	89	820720	804885	<0.2	<0.2	1.5	1.4
						1.0	0.4	231	27.9		7.8		18.8		85.0		6.0		5.1		7		86				<0.2		1.5	
					Middle	4.0	0.4	203	27.5	27.5	7.8	7.8	19.9	20.0	78.4	78.2	5.5		5.7		7		88				<0.2		1.4	
						4.0	0.4	219	27.5		7.8		20.0		78.0		5.5		5.8		8		89				<0.2		1.3	
					Bottom	7.0	0.3	206	27.4	27.4	7.8	7.8	20.7	20.7	77.8	78.1	5.5	5.5	12.4		8		91				<0.2		1.3	
						7.0	0.4	220	27.4		7.8		20.7		78.3		5.5		12.1		7		91				<0.2		1.3	
IM6	Cloudy	Rough	12:32	8.1	Surface	1.0	0.3	236	27.7	27.7	7.8	7.8	19.1	19.1	84.8	84.7	6.0	5.9	6.9	9.9	8	8	86	88	821072	805840	<0.2	<0.2	1.4	1.4
						1.0	0.3	247	27.7		7.8		19.1		84.6		6.0		6.9		8		85				<0.2		1.4	
					Middle	4.1	0.3	246	27.6	27.6	7.8	7.8	19.4	19.5	81.5	81.5	5.8		7.5		9		88				<0.2		1.4	
						4.1	0.3	250	27.6		7.8		19.6		81.5		5.8		7.6		8		88				<0.2		1.3	
					Bottom	7.1	0.2	246	27.4	27.4	7.8	7.8	20.6	20.6	77.4	77.6	5.5	5.5	15.1		8		90				<0.2		1.3	
						7.1	0.2	260	27.4		7.8		20.6		77.8		5.5		15.4		9		90				<0.2		1.4	
IM7	Cloudy	Rough	12:24	9.6	Surface	1.0	0.2	159	28.0	28.0	7.8	7.8	17.6	17.6	85.9	85.6	6.1	6.0	5.9	8.5	7	8	87	89	821372	806833	<0.2	<0.2	1.3	1.3
						1.0	0.2	174	27.9		7.8		17.6		85.3		6.1		6.2		8		87				<0.2		1.3	
					Middle	4.8	0.1	154	27.5	27.5	7.8	7.8	19.4	19.4	81.7	81.8	5.8		9.4		8		89				<0.2		1.4	
						4.8	0.1	155	27.5		7.8		19.5		81.8		5.8		9.7		8		89				<0.2		1.4	
					Bottom	8.6	0.0	164	27.5	27.5	7.8	7.8	19.6	19.6	83.4	83.6	5.9	5.9	9.9		7		90				<0.2		1.3	
						8.6	0.0	179	27.5		7.8		19.6		83.7		5.9		9.9		8		90				<0.2		1.3	
IM8	Rainy	Moderate	12:47	8.0	Surface	1.0	0.1	189	28.3	28.3	7.9	7.9	18.2	18.2	82.3	82.3	5.8	5.4	5.4	7.8	6	6	84	87	821834	808136	<0.2	<0.2	1.3	1.4
						1.0	0.1	201	28.3		7.9		18.2		82.2		5.8		5.6		6		85				<0.2		1.3	
					Middle	4.0	0.2	159	28.1	28.1	7.9	7.9	19.2	19.1	71.7	71.7	5.0		9.1		6		89				<0.2		1.5	
						4.0	0.2	165	28.1		7.9		19.1		71.6		5.0		9.1		6		87				<0.2		1.3	
					Bottom	7.0	0.2	177	27.9	28.0	7.9	7.9	20.8	20.8	70.8	70.9	4.9	5.0	8.8		6		90				<0.2		1.5	
						7.0	0.2	194	28.0		7.9		20.8		70.9		5.0		8.8		7		89				<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 04 July 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	Rainy	Moderate	12:53	7.7	Surface	1.0	0.4	95	28.3	28.3	7.9	7.9	18.6	18.6	80.9	80.9	5.7	5.5	5.5	9.4	7	7	82	87	822107	808808	<0.2	<0.2	1.5	1.4
						1.0	0.4	95	28.3		7.9		18.6		80.8		5.7		5.6		7		84				<0.2		1.4	
					Middle	3.9	0.5	110	28.1	28.1	7.9	7.9	18.7	18.7	75.3	75.2	5.3		9.2		7		87				<0.2		1.4	
						3.9	0.5	119	28.1		7.9		18.7		75.1		5.3		9.8		6		88				<0.2		1.4	
					Bottom	6.7	0.4	112	28.0	28.0	7.9	7.9	20.6	20.6	71.9	71.9	5.0	5.0	13.5		7		90				<0.2		1.4	
						6.7	0.4	118	28.0		7.9		20.6		71.9		5.0		13.0		6		89				<0.2		1.4	
IM10	Cloudy	Moderate	12:58	7.8	Surface	1.0	1.0	107	28.4	28.4	7.9	7.9	18.1	18.1	82.2	82.2	5.8	5.6	6.3	9.4	6	7	85	88	822403	809817	<0.2	<0.2	1.4	1.4
						1.0	1.0	117	28.4		7.9		18.1		82.2		5.8		6.5		7		86				<0.2		1.4	
					Middle	3.9	0.8	111	28.1	28.1	7.9	7.9	18.8	18.8	75.4	75.3	5.3		8.7		7		89				<0.2		1.4	
						3.9	0.9	114	28.1		7.9		18.8		75.1		5.3		8.7		7		88				<0.2		1.4	
					Bottom	6.8	0.6	104	28.0	28.0	7.9	7.9	19.8	19.8	74.7	74.8	5.2	5.2	13.1		7		90				<0.2		1.4	
						6.8	0.6	109	28.0		7.9		19.8		74.8		5.2		13.1		7		89				<0.2		1.5	
IM11	Cloudy	Moderate	13:06	7.6	Surface	1.0	1.1	109	28.4	28.4	7.9	7.9	18.2	18.2	83.8	83.8	5.9	5.9	9.4	10.3	8	7	84	87	822072	811450	<0.2	<0.2	1.3	1.4
						1.0	1.1	110	28.4		7.9		18.2		83.8		5.9		9.4		8		86				<0.2		1.3	
					Middle	3.8	0.8	108	28.4	28.4	7.9	7.9	18.2	18.2	84.2	84.1	5.9		9.8		7		87				<0.2		1.4	
						3.8	0.8	117	28.4		7.9		18.2		84.0		5.9		9.8		8		88				<0.2		1.4	
					Bottom	6.6	0.5	106	28.1	28.1	7.9	7.9	19.6	19.6	77.3	77.4	5.4	5.4	11.8		6		89				<0.2		1.3	
						6.6	0.5	112	28.1		7.9		19.6		77.4		5.4		11.8		7		89				<0.2		1.4	
IM12	Cloudy	Moderate	13:13	8.3	Surface	1.0	0.8	107	28.4	28.4	7.9	7.9	18.5	18.5	81.3	81.3	5.7	5.6	5.4	8.9	6	8	84	88	821442	812032	<0.2	<0.2	1.4	1.4
						1.0	0.8	107	28.4		7.9		18.5		81.2		5.7		5.4		7		85				<0.2		1.4	
					Middle	4.2	0.7	100	28.3	28.3	7.9	7.9	18.9	18.9	78.5	78.5	5.5		6.3		8		89				<0.2		1.5	
						4.2	0.7	108	28.3		7.9		18.9		78.5		5.5		6.3		8		88				<0.2		1.4	
					Bottom	7.3	0.4	95	28.1	28.1	7.9	7.9	19.8	19.8	74.6	74.6	5.2	5.2	15.0		9		90				<0.2		1.4	
						7.3	0.5	98	28.0		7.9		19.8		74.6		5.2		15.0		8		89				<0.2		1.4	
SR1A	Cloudy	Moderate	13:44	4.9	Surface	1.0	-	-	28.2	28.2	8.0	8.0	19.8	19.8	83.1	83.0	5.8	5.8	5.1	6.3	7	8	-	-	819977	812656	-	-	-	-
						1.0	-	-	28.2		8.0		19.9		82.9		5.8		5.1		7		-				-		-	
					Middle	2.5	-	-	-	-		-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-				-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	28.1	28.1	7.9	7.9	20.2	20.2	83.2	83.3	5.8	5.8	7.4		8		-				-		-	
						3.9	-	-	28.1		7.9		20.2		83.4		5.8		7.4		8		-				-		-	
SR2	Rainy	Moderate	13:55	4.6	Surface	1.0	0.7	120	28.2	28.2	7.9	7.9	19.1	19.1	78.5	78.5	5.5	5.5	7.1	8.2	6	6	83	87	821451	814189	<0.2	<0.2	1.4	1.4
						1.0	0.7	124	28.2		7.9		19.1		78.4		5.5		7.1		6		85				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.4	146	28.1	28.1	7.9	7.9	19.7	19.7	78.9	79.0	5.5	5.5	9.3		7		90				<0.2		1.4	
						3.6	0.5	153	28.1		7.9		19.7		79.1		5.5		9.4		6		88				<0.2		1.4	
SR3	Cloudy	Moderate	12:42	8.6	Surface	1.0	0.0	119	28.4	28.4	7.9	7.9	17.9	17.9	82.0	82.1	5.8	5.5	5.2	7.0	7	7	-	-	822156	807549	-	-	-	-
						1.0	0.0	126	28.4		7.9		17.9		82.1		5.8		5.2		7		-				-		-	
					Middle	4.3	0.3	178	28.1	28.1	7.9	7.9	19.0	19.0	74.6	74.6	5.2		8.2		7		-				-		-	
						4.3	0.3	190	28.1		7.9		19.0		74.5		5.2		8.2		7		-				-		-	
					Bottom	7.6	0.3	180	27.9	27.9	7.9	7.9	20.4	20.4	72.5	72.5	5.1	5.1	7.5		6		-				-		-	
						7.6	0.3	189	27.9		7.9		20.4		72.5		5.1		7.5		7		-				-		-	
SR4A	Cloudy	Moderate	14:00	9.4	Surface	1.0	0.2	134	28.1	28.1	7.8	7.8	17.6	17.6	87.4	87.4	6.2	6.0	5.6	9.5	7	7	-	-	817201	807792	-	-	-	-
						1.0	0.2	140	28.1		7.8		17.6		87.4		6.2		5.9		7		-				-		-	
					Middle	4.7	0.1	81	27.5	27.5	7.8	7.8	18.6	18.6	81.8	81.8	5.8		11.2		7		-				-		-	
						4.7	0.1	86	27.5		7.8		18.6		81.8		5.8		11.0		6		-				-		-	
					Bottom	8.4	0.2	62	27.5	27.6	7.8	7.8	18.8	18.7	83.9	84.3	6.0	6.0	11.7		6		-				-		-	
						8.4	0.2	67	27.6		7.8		18.7		84.7		6.0		11.6		6		-				-		-	
SR5A	Rainy	Calm	14:15	4.9	Surface	1.0	0.1	109	27.9	27.9	7.8	7.8	18.3	18.3	86.1	86.1	6.1	6.1	6.8	7.1	11	11	-	-	816598	810685	-	-	-	-
						1.0	0.1	112	27.9		7.8		18.3		86.1		6.1		6.9		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	45	27.9	27.9	7.8	7.8	18.5	18.5	86.5	86.6	6.1	6.1	7.4		10		-				-		-	
						3.9	0.1	46	27.9		7.8		18.5		86.6		6.1		7.3		11		-				-		-	
SR6	Cloudy	Calm	14:47	5.2	Surface	1.0	0.1	74	27.5	27.5	7.7	7.7	19.7	19.7	73.5	73.4	5.2	5.2	10.2	8.5	13	14	-	-	817917	814656	-	-	-	-
						1.0	0.1	74	27.4		7.7		19.7		73.3		5.2		10.2		14		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	166	27.4	27.4	7.7	7.7	21.2	21.2	73.9	74.0	5.2	5.2	7.0		15		-				-		-	
						4.2	0.0	178	27.4		7.8		21.2		74.1		5.2		6.8		14		-				-		-	
SR7	Rainy	Moderate	14:35	17.1	Surface	1.0	0.7	59	28.2	28.2	7.9	7.9	20.6	20.7	76.6	76.6	5.3	5.3	3.9	4.2	6	6	-	-	823620	823747	-	-	-	-
						1.0	0.7	61	28.2		7.9		20.7		76.6		5.3		3.8		5		-				-		-	
					Middle	8.6	0.5	28	28.1	28.1	7.9	7.9	21.0	21.0	75.6	75.6	5.3		4.3		6		-				-		-	
						8.6	0.5	30	28.1		7.9		21.1		75.6		5.3		4.3		6		-				-		-	
					Bottom	16.1	0.4	14	28.1	28.1	7.9	7.9	21.0	21.0	76.2	76.3	5.3	5.3	4.5		5		-				-		-	
						16.1	0.4	14	28.1		7.9		21.0		76.3		5.3		4.6		6		-				-		-	
SR8	Cloudy	Moderate	13:25	5.3	Surface	1.0	-	-	28.3	28.3	8.0	8.0	19.8	19.8	84.5	84.5	5.9	5.9	5.3	5.7	7	7	-	-	820408	811640	-	-	-	-
						1.0	-	-	28.3		8.0		19.8		84.5		5.9		5.3		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	28.2	28.2	8.0	8.0	20.3	20.3	81.6	81.6	5.7	5.7	6.1		6		-				-		-	
						4.3	-	-	28.2		8.0		20.3		81.6		5.7		6.2		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 04 July 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	07:12	9.5	Surface	1.0	0.1	355	27.6	27.6	7.8	7.8	17.4	17.4	79.7	79.7	5.7	5.3	4.9	7.1	7	7	87	89	815628	804226	<0.2	<0.2	1.2	1.1
						1.0	0.1	7	27.6		7.8		17.4		79.6		5.7		5.0		6		88				<0.2		1.1	
					Middle	4.8	0.1	306	27.2	27.2	7.8	7.8	22.6	22.5	68.2	68.1	4.8		6.4		7		89				<0.2		1.1	
						4.8	0.1	329	27.2		7.8		22.5		67.9		4.8		6.4		7		89				<0.2		1.1	
					Bottom	8.5	0.1	268	26.7	26.8	7.7	7.7	28.0	28.0	48.5	49.0	3.3	3.4	10.0		7		90				<0.2		1.1	
						8.5	0.1	286	26.8		7.7		28.0		49.5		3.4		9.7		7		90				<0.2		1.1	
C2	Cloudy	Moderate	07:59	11.6	Surface	1.0	0.6	93	28.4	28.4	7.9	7.9	17.2	17.2	81.4	81.4	5.8	5.2	8.0	9.4	8	9	84	87	825700	806922	<0.2	<0.2	1.4	1.5
						1.0	0.6	100	28.4		7.9		17.2		81.3		5.7		8.0		9		84				<0.2		1.4	
					Middle	5.8	0.4	102	27.9	27.9	7.9	7.9	20.7	20.6	65.2	65.5	4.6		12.5		8		87				<0.2		1.6	
						5.8	0.5	103	27.9		7.9		20.6		65.7		4.6		12.7		8		88				<0.2		1.6	
					Bottom	10.6	0.4	151	27.5	27.5	7.9	7.9	24.0	24.1	60.3	60.3	4.2	4.2	7.7		10		90				<0.2		1.6	
						10.6	0.4	159	27.5		7.9		24.1		60.2		4.2		7.7		11		90				<0.2		1.5	
C3	Cloudy	Moderate	06:28	11.3	Surface	1.0	0.2	240	27.2	27.2	8.0	8.0	25.1	25.1	64.5	64.5	4.5	4.2	3.5	5.7	6	7	86	88	822127	817779	<0.2	<0.2	2.2	2.1
						1.0	0.2	240	27.2		8.0		25.1		64.4		4.5		3.5		7		85				<0.2		2.1	
					Middle	5.7	0.3	243	26.7	26.7	7.9	7.9	27.2	27.2	54.7	54.7	3.8		5.5		6		87				<0.2		2.2	
						5.7	0.3	253	26.7		7.9		27.2		54.7		3.8		5.5		7		88				<0.2		2.1	
					Bottom	10.3	0.1	234	26.7	26.7	7.9	7.9	27.4	27.4	53.5	53.5	3.7	3.7	8.1		6		89				<0.2		2.1	
						10.3	0.1	240	26.7		7.9		27.4		53.5		3.7		8.2		7		90				<0.2		1.9	
IM1	Cloudy	Moderate	07:30	5.5	Surface	1.0	0.3	43	27.8	27.8	7.8	7.8	17.1	17.1	86.3	86.3	6.2	6.2	5.1	5.9	6	6	86	87	817925	807150	<0.2	<0.2	1.5	1.5
						1.0	0.3	42	27.8		7.8		17.1		86.3		6.2		5.2		6		86				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.2	63	27.6	27.6	7.8	7.8	17.7	17.7	84.3	84.4	6.0	6.0	6.7		5		88				<0.2		1.4	
						4.5	0.2	68	27.6		7.8		17.6		84.4		6.0		6.5		6		88				<0.2		1.5	
IM2	Cloudy	Moderate	07:36	8.2	Surface	1.0	0.1	28	27.8	27.8	7.8	7.8	17.6	17.6	84.6	84.5	6.0	5.9	5.4	7.0	6	7	86	88	818175	806188	<0.2	<0.2	1.6	1.6
						1.0	0.1	29	27.8		7.8		17.6		84.3		6.0		5.5		6		86				<0.2		1.6	
					Middle	4.1	0.1	67	27.6	27.6	7.8	7.8	18.2	18.2	82.1	82.0	5.8		6.1		6		88				<0.2		1.7	
						4.1	0.1	63	27.6		7.8		18.2		81.8		5.8		6.4		7		89				<0.2		1.5	
					Bottom	7.2	0.1	65	27.5	27.5	7.8	7.8	19.9	19.9	82.1	82.3	5.8	5.8	9.5		8		90				<0.2		1.5	
						7.2	0.1	70	27.5		7.8		19.9		82.4		5.8		9.3		7		90				<0.2		1.5	
IM3	Cloudy	Moderate	07:42	8.0	Surface	1.0	0.1	37	27.9	27.9	7.8	7.8	17.9	17.9	84.3	84.3	6.0	5.9	5.2	6.5	7	8	86	88	818792	805612	<0.2	<0.2	1.6	1.6
						1.0	0.1	38	27.9		7.8		17.9		84.2		6.0		5.3		7		86				<0.2		1.6	
					Middle	4.0	0.1	68	27.5	27.5	7.8	7.8	19.2	19.3	81.9	81.9	5.8		6.8		8		89				<0.2		1.7	
						4.0	0.1	70	27.5		7.8		19.3		81.9		5.8		7.0		7		89				<0.2		1.6	
					Bottom	7.0	0.1	58	27.5	27.5	7.8	7.8	19.9	19.8	82.5	82.6	5.8	5.9	7.5		8		90				<0.2		1.6	
						7.0	0.1	60	27.5		7.8		19.7		82.6		5.9		7.3		8		90				<0.2		1.6	
IM4	Cloudy	Moderate	07:50	8.5	Surface	1.0	0.1	33	27.8	27.8	7.8	7.8	18.7	18.7	81.8	81.7	5.8	5.6	5.4	7.9	6	6	87	89	819714	804600	<0.2	<0.2	1.6	1.6
						1.0	0.1	35	27.8		7.8		18.8		81.5		5.8		5.5		6		87				<0.2		1.6	
					Middle	4.3	0.2	49	27.5	27.5	7.8	7.8	20.2	20.2	77.3	77.2	5.5		7.6		5		90				<0.2		1.6	
						4.3	0.2	48	27.5		7.8		20.3		77.1		5.4		7.8		6		89				<0.2		1.5	
					Bottom	7.5	0.2	51	27.4	27.4	7.8	7.8	20.7	20.7	77.4	77.7	5.5	5.5	10.5		5		90				<0.2		1.6	
						7.5	0.2	53	27.4		7.8		20.7		78.0		5.5		10.5		6		90				<0.2		1.5	
IM5	Cloudy	Moderate	07:59	8.3	Surface	1.0	0.1	28	27.7	27.7	7.8	7.8	18.3	18.3	82.6	82.5	5.9	5.7	6.2	10.0	6	8	87	89	820754	804860	<0.2	<0.2	1.5	1.5
						1.0	0.1	24	27.7		7.8		18.3		82.3		5.8		6.3		6		88				<0.2		1.6	
					Middle	4.2	0.2	23	27.6	27.6	7.8	7.8	19.9	19.9	78.7	78.6	5.6		8.2		8		90				<0.2		1.5	
						4.2	0.2	25	27.6		7.8		19.9		78.5		5.5		8.3		9		90				<0.2		1.4	
					Bottom	7.3	0.2	21	27.4	27.4	7.8	7.8	20.8	20.8	76.0	76.1	5.4	5.4	15.9		8		90				<0.2		1.5	
						7.3	0.2	22	27.4		7.8		20.8		76.1		5.4		15.5		9		91				<0.2		1.5	
IM6	Cloudy	Moderate	08:06	7.8	Surface	1.0	0.2	28	27.6	27.6	7.8	7.8	18.9	19.0	82.2	81.9	5.8	5.7	7.3	10.4	6	6	85	88	821071	805843	<0.2	<0.2	1.5	1.5
						1.0	0.2	26	27.6		7.8		19.0		81.6		5.8		7.7		6		86				<0.2		1.5	
					Middle	3.9	0.3	17	27.5	27.5	7.8	7.8	19.9	19.9	79.8	79.8	5.6		11.3		6		89				<0.2		1.6	
						3.9	0.3	18	27.5		7.8		19.9		79.8		5.6		11.7		6		89				<0.2		1.5	
					Bottom	6.8	0.3	18	27.5	27.5	7.8	7.8	20.0	19.9	81.6	81.7	5.8	5.8	12.4		7		90				<0.2		1.4	
						6.8	0.3	20	27.5		7.8		19.9		81.8		5.8		12.5		7		90				<0.2		1.5	
IM7	Cloudy	Moderate	08:16	9.2	Surface	1.0	0.1	16	27.6	27.6	7.8	7.8	19.1	19.1	83.0	82.8	5.9	5.8	7.3	9.5	9	9	86	88	821364	806858	<0.2	<0.2	1.6	1.6
						1.0	0.1	18	27.5		7.8		19.1		82.6		5.9		7.7		8		86				<0.2		1.6	
					Middle	4.6	0.1	19	27.5	27.5	7.8	7.8	19.6	19.6	80.9	80.9	5.7		10.4		9		88				<0.2		1.6	
						4.6	0.1	20	27.5		7.8		19.6		80.9		5.7		10.4		8		88				<0.2		1.6	
					Bottom	8.2	0.2	15	27.5	27.5	7.8	7.8	19.7	19.7	82.6	82.8	5.9	5.9	10.6		10		90				<0.2		1.6	
						8.2	0.2	16	27.5		7.8		19.6		82.9		5.9		10.6		9		90				<0.2		1.6	
IM8	Cloudy	Moderate	07:38	7.3	Surface	1.0	0.5	358	28.1	28.1	7.9	7.9	18.2	18.2	81.5	81.5	5.8	5.8	9.2	11.6	11	11	85	88	821843	808155	<0.2	<0.2	1.8	1.8
						1.0	0.5	346	28.1		7.9		18.2		81.4		5.8		9.6		12		85				<0.2		1.8	
					Middle	3.7	0.4	346	28.1	28.1	7.9	7.9	18.5	18.5	81.9	82.0	5.8		12.0		11		89				<0.2		1.7	
						3.7	0.4	341	28.1		7.9		18.5		82.0		5.8		12.2		12		88				<0.2		1.7	
					Bottom	6.3	0.3	356	28.0	28.0	7.9	7.9	18.6	18.6	82.7	82.7	5.8	5.8	13.2		11		90				<0.2		1.9	
						6.3	0.3	341	28.0		7.9		18.6		82.7		5.8		13.2		11		90				<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 04 July 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	07:32	7.6	Surface	1.0	0.7	326	28.1	28.1	7.9	7.9	18.1	18.1	82.7	82.7	5.8	5.8	10.8	9.5	12	14	86	88	822083	808793	<0.2	<0.2	1.5	1.5
						1.0	0.7	337	28.1		7.9		18.2		82.6		5.8		10.9		14		85				<0.2		1.4	
					Middle	3.8	0.6	311	28.0	28.0	7.9	7.9	18.5	18.5	82.6	82.7	5.8		8.7		13		89				<0.2		1.4	
						3.8	0.6	313	28.0		8.0		18.5		82.7		5.8		8.7		13		90				<0.2		1.6	
					Bottom	6.6	0.4	294	28.0	28.0	8.0	8.0	18.8	18.8	86.1	86.2	6.1	6.1	9.1		16		90				<0.2		1.6	
						6.6	0.4	288	28.0		8.0		18.8		86.3		6.1		9.1		15		90				<0.2		1.6	
IM10	Cloudy	Moderate	07:22	7.6	Surface	1.0	0.8	282	28.1	28.1	8.0	8.0	18.5	18.6	82.1	82.0	5.8	5.7	6.3	9.2	5	6	85	88	822386	809792	<0.2	<0.2	2.0	2.0
						1.0	0.8	283	28.1		8.0		18.6		81.8		5.8		6.8		5		86				<0.2		1.9	
					Middle	3.8	0.5	290	28.0	28.0	8.0	7.9	19.5	19.5	78.1	77.9	5.5		9.9		6		88				<0.2		2.0	
						3.8	0.6	294	28.0		7.9		19.5		77.6		5.5		9.9		7		87				<0.2		2.1	
					Bottom	6.6	0.3	273	27.9	27.9	8.0	8.0	21.0	21.0	72.7	72.7	5.1	5.1	11.2		7		89				<0.2		2.0	
						6.6	0.3	275	27.9		8.0		21.0		72.7		5.1		11.0		6		90				<0.2		2.0	
IM11	Cloudy	Moderate	07:10	7.5	Surface	1.0	0.5	264	28.1	28.1	7.9	7.9	18.8	18.8	76.5	76.5	5.4	5.3	5.1	5.0	7	7	86	89	822063	811437	<0.2	<0.2	1.9	2.0
						1.0	0.6	270	28.1		7.9		18.8		76.4		5.4		5.0		6		87				<0.2		1.9	
					Middle	3.8	0.3	268	28.0	28.0	8.0	8.0	20.6	20.6	74.5	74.5	5.2		5.0		6		88				<0.2		1.9	
						3.8	0.3	253	28.0		8.0		20.7		74.4		5.2		5.0		7		89				<0.2		2.0	
					Bottom	6.5	0.1	259	28.0	28.0	8.0	8.0	21.4	21.4	73.8	73.9	5.1	5.1	4.8		7		90				<0.2		2.0	
						6.5	0.2	242	27.9		8.0		21.4		73.9		5.1		4.9		7		91				<0.2		2.0	
IM12	Cloudy	Moderate	07:04	8.7	Surface	1.0	0.3	247	28.1	28.1	8.0	8.0	20.7	20.8	75.8	75.7	5.3	5.0	4.5	6.4	6	6	85	88	821458	812036	<0.2	<0.2	1.9	1.9
						1.0	0.3	253	28.1		8.0		20.8		75.6		5.3		4.7		5		86				<0.2		1.8	
					Middle	4.4	0.2	243	27.8	27.8	7.9	7.9	21.9	22.0	67.5	67.4	4.7		6.9		6		87				<0.2		1.7	
						4.4	0.2	246	27.8		7.9		22.0		67.3		4.7		7.0		6		89				<0.2		1.9	
					Bottom	7.7	0.3	235	27.7	27.7	7.9	7.9	22.5	22.5	66.7	66.7	4.6	4.6	7.7		5		91				<0.2		1.9	
						7.7	0.3	238	27.7		7.9		22.5		66.7		4.6		7.6		6		90				<0.2		1.9	
SR1A	Cloudy	Moderate	06:50	4.9	Surface	1.0	-	-	27.9	27.9	8.0	8.0	20.8	20.9	73.8	73.8	5.2	5.2	4.3	4.2	6	7	-	-	819974	812658	-	-	-	-
						1.0	-	-	27.9		8.0		20.9		73.7		5.1		4.4		7		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	27.9	27.9	8.0	8.0	21.1	21.1	73.5	73.6	5.1	5.1	3.9		7		-				-		-	
						3.9	-	-	27.9		8.0		21.1		73.6		5.1		4.0		7		-				-		-	
SR2	Cloudy	Moderate	06:50	4.5	Surface	1.0	0.2	230	27.9	27.9	8.0	8.0	20.8	20.8	73.9	73.9	5.2	5.2	4.7	4.1	7	8	85	88	821442	814154	<0.2	<0.2	2.0	2.0
						1.0	0.2	232	27.9		8.0		20.8		73.9		5.2		4.7		8		86				<0.2		2.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.2	207	27.9	27.9	8.0	8.0	21.1	21.1	73.7	73.7	5.1	5.1	3.6		8		90				<0.2		2.0	
						3.5	0.3	232	27.9		8.0		21.1		73.7		5.1		3.6		9		89				<0.2		2.0	
SR3	Cloudy	Moderate	07:43	8.1	Surface	1.0	0.3	46	28.2	28.2	7.9	7.9	17.8	17.8	80.8	80.8	5.7	5.6	7.8	9.3	9	11	-	-	822129	807571	-	-	-	-
						1.0	0.3	52	28.2		7.9		17.8		80.7		5.7		7.8		10		-				-		-	
					Middle	4.1	0.2	55	28.1	28.1	7.9	7.9	18.4	18.5	76.1	76.0	5.4		8.8		12		-				-		-	
						4.1	0.2	59	28.1		7.9		18.5		75.9		5.4		9.0		11		-				-		-	
					Bottom	7.1	0.2	58	28.1	28.1	7.9	7.9	19.1	19.1	74.5	74.5	5.2	5.2	11.3		11		-				-		-	
						7.1	0.2	63	28.1		7.9		19.1		74.5		5.2		11.4		12		-				-		-	
SR4A	Rainy	Calm	06:51	9.2	Surface	1.0	0.5	284	27.6	27.6	7.7	7.7	17.0	17.0	82.5	82.5	5.9	5.9	8.6	11.0	11	11	-	-	817211	807821	-	-	-	-
						1.0	0.5	290	27.6		7.7		17.0		82.4		5.9		8.8		11		-				-		-	
					Middle	4.6	0.4	278	27.5	27.5	7.7	7.7	17.8	17.8	81.3	81.3	5.8		11.9		11		-				-		-	
						4.6	0.5	279	27.5		7.7		17.9		81.3		5.8		12.2		11		-				-		-	
					Bottom	8.2	0.4	278	27.5	27.5	7.7	7.7	17.9	17.9	82.0	82.1	5.9	5.9	12.5		11		-				-		-	
						8.2	0.4	282	27.5		7.7		17.9		82.1		5.9		12.0		12		-				-		-	
SR5A	Rainy	Calm	06:33	5.2	Surface	1.0	0.1	256	27.4	27.4	7.8	7.8	20.3	20.3	79.5	79.5	5.6	5.6	6.7	7.8	10	10	-	-	816598	810709	-	-	-	-
						1.0	0.1	263	27.4		7.8		20.3		79.4		5.6		6.8		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	226	27.4	27.4	7.8	7.8	20.6	20.6	80.0	80.4	5.7	5.7	9.1		10		-				-		-	
						4.2	0.1	228	27.4		7.8		20.5		80.7		5.7		8.8		10		-				-		-	
SR6	Rainy	Calm	06:06	5.7	Surface	1.0	0.1	233	27.6	27.6	7.7	7.7	19.6	19.6	78.5	78.4	5.6	5.6	4.6	5.1	6	7	-	-	817884	814653	-	-	-	-
						1.0	0.1	236	27.6		7.7		19.6		78.2		5.5		4.7		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	249	27.4	27.4	7.7	7.7	20.3	20.2	77.0	77.2	5.4	5.5	5.6		7		-				-		-	
						4.7	0.0	260	27.4		7.7		20.2		77.3		5.5		5.7		8		-				-		-	
SR7	Cloudy	Moderate	05:58	16.3	Surface	1.0	0.1	210	27.2	27.2	7.9	7.9	25.0	25.0	78.8	78.8	5.4	5.1	2.6	4.7	3	3	-	-	823631	823765	-	-	-	-
						1.0	0.1	217	27.2		7.9		25.0		78.8		5.4		2.5		2		-				-		-	
					Middle	8.2	0.2	206	27.0	27.0	7.9	7.9	26.2	26.2	68.8	68.8	4.7		4.1		4		-				-		-	
						8.2	0.2	203	27.0		7.9		26.2		68.8		4.7		4.0		4		-				-		-	
					Bottom	15.3	0.0	204	26.7	26.7	7.9	7.9	27.4	27.4	55.6	55.6	3.8	3.8	7.6		3		-				-		-	
						15.3	0.0	206	26.7		7.9		27.4		55.6		3.8		7.6		4		-				-		-	
SR8	Cloudy	Moderate	07:04	5.0	Surface	1.0	-	-	27.9	27.9	7.9	7.9	21.3	21.3	74.7	74.6	5.2	5.2	5.3	6.0	4	4	-	-	820411	811640	-	-	-	-
						1.0	-	-	27.9		7.9		21.4		74.4		5.2		5.5		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	27.8	27.8	7.9	7.9	21.8	21.8	70.0	70.1	4.9	4.9	6.7		4		-				-		-	
						4.0	-	-	27.8		7.9		21.8		70.1		4.9		6.7		4		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 06 July 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	15:19	8.6	Surface	1.0	0.3	138	28.1	28.1	7.7	7.7	14.3	14.3	80.4	80.3	5.8	5.3	6.8	11.5	12	15	83	87	815627	804240	<0.2	<0.2	1.2	1.1
						1.0	0.4	141	28.1		7.7		14.3		80.1		5.8		6.7		13		83				<0.2		1.1	
					Middle	4.3	0.2	141	27.9	27.9	7.7	7.7	16.0	16.2	67.7	67.5	4.9		16.0		12		88				<0.2		1.1	
						4.3	0.2	131	27.8		7.7		16.5		67.2		4.8		16.2		12		88				<0.2		1.1	
					Bottom	7.6	0.4	155	27.8	27.3	7.7	7.7	17.7	18.4	66.6	66.7	4.7	4.8	11.6		20		91				<0.2		1.1	
						7.6	0.4	156	26.8		7.7		19.1		66.7		4.8		11.6		21		91				<0.2		1.1	
C2	Cloudy	Moderate	14:01	11.4	Surface	1.0	0.3	104	29.3	29.3	7.8	7.8	11.7	11.7	83.2	82.9	6.0	5.5	3.7	7.2	10	9	85	87	825697	806938	<0.2	<0.2	1.9	1.9
						1.0	0.3	112	29.2		7.8		11.7		82.6		5.9		3.7		10		84				<0.2		1.8	
					Middle	5.7	0.2	135	28.9	28.9	7.8	7.8	14.8	14.8	70.3	70.2	5.0		7.8		9		87				<0.2		2.0	
						5.7	0.2	128	28.9		7.8		14.8		70.1		5.0		8.0		10		88				<0.2		1.7	
					Bottom	10.4	0.3	135	28.7	28.7	7.8	7.8	16.5	16.7	69.2	69.3	4.9	4.9	10.1		7		91				<0.2		1.9	
						10.4	0.4	145	28.7		7.8		16.8		69.3		4.9		10.0		8		89				<0.2		1.9	
C3	Cloudy	Moderate	16:02	11.8	Surface	1.0	0.2	122	28.7	28.7	7.9	7.9	17.0	17.1	74.7	74.7	5.3	4.6	1.8	4.0	8	11	86	88	822109	817798	<0.2	<0.2	1.5	1.5
						1.0	0.2	128	28.7		7.9		17.1		74.6		5.3		1.8		7		85				<0.2		1.5	
					Middle	5.9	0.6	149	27.8	27.8	7.9	7.9	21.8	21.9	56.7	55.2	3.9		2.5		12		88				<0.2		1.5	
						5.9	0.6	153	27.7		7.9		22.0		53.6		3.7		2.6		10		87				<0.2		1.4	
					Bottom	10.8	0.1	156	26.4	26.4	7.9	7.9	28.6	28.6	46.4	46.5	3.2	3.2	7.8		14		90				<0.2		1.4	
						10.8	0.1	160	26.4		7.9		28.6		46.6		3.2		7.8		13		90				<0.2		1.5	
IM1	Fine	Rough	14:50	5.4	Surface	1.0	0.2	201	28.2	28.2	7.7	7.7	15.1	15.1	84.7	84.7	6.1	6.1	6.3	7.0	10	10	83	88	817953	807134	<0.2	<0.2	1.3	1.3
						1.0	0.2	200	28.2		7.7		15.1		84.6		6.1		6.6		11		84				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	252	28.1	28.1	7.7	7.7	15.2	15.2	84.4	84.5	6.1	6.1	7.5		8		91				<0.2		1.3	
						4.4	0.2	232	28.1		7.7		15.2		84.6		6.1		7.7		9		92				<0.2		1.2	
IM2	Fine	Rough	14:44	7.1	Surface	1.0	0.5	219	28.1	28.1	7.7	7.7	14.9	14.9	81.6	81.5	5.9	5.8	5.3	8.6	7	9	80	87	818173	806171	<0.2	<0.2	1.2	1.2
						1.0	0.5	220	28.1		7.7		14.9		81.4		5.9		5.3		8		83				<0.2		1.2	
					Middle	3.6	0.3	203	28.0	28.0	7.7	7.7	15.1	15.2	78.3	78.0	5.6		8.2		9		88				<0.2		1.2	
						3.6	0.3	188	28.0		7.7		15.2		77.6		5.6		8.2		9		88				<0.2		1.2	
					Bottom	6.1	0.2	141	27.8	27.8	7.7	7.6	16.1	16.8	72.1	69.5	5.2	5.0	12.5		9		91				<0.2		1.2	
						6.1	0.2	143	27.7		7.6		17.6		66.9		4.8		12.5		10		91				<0.2		1.3	
IM3	Fine	Rough	14:37	7.7	Surface	1.0	0.5	204	28.1	28.1	7.7	7.7	14.8	14.8	78.9	78.8	5.7	5.5	5.5	7.9	14	12	83	88	818787	805616	<0.2	<0.2	1.2	1.2
						1.0	0.5	200	28.1		7.7		14.8		78.7		5.7		5.5		14		84				<0.2		1.1	
					Middle	3.9	0.6	193	28.0	28.0	7.7	7.7	15.9	15.9	74.3	74.1	5.3		7.2		12		88				<0.2		1.2	
						3.9	0.6	184	27.9		7.7		15.9		73.9		5.3		7.3		12		91				<0.2		1.3	
					Bottom	6.7	0.3	186	27.7	27.7	7.6	7.6	18.1	18.1	63.9	63.9	4.5	4.5	11.1		11		92				<0.2		1.2	
						6.7	0.3	187	27.7		7.6		18.2		63.9		4.5		11.0		10		92				<0.2		1.2	
IM4	Fine	Rough	14:28	7.8	Surface	1.0	0.7	205	28.2	28.2	7.7	7.7	13.8	13.8	84.1	84.1	6.1	5.9	5.7	6.6	10	11	83	87	819738	804614	<0.2	<0.2	1.2	1.2
						1.0	0.7	189	28.2		7.7		13.8		84.1		6.1		5.7		9		83				<0.2		1.2	
					Middle	3.9	0.8	183	28.1	28.1	7.7	7.7	14.7	14.8	79.2	79.0	5.7		5.2		10		87				<0.2		1.2	
						3.9	0.8	184	28.1		7.7		14.8		78.7		5.7		5.3		9		87				<0.2		1.2	
					Bottom	6.8	0.5	177	27.8	27.8	7.7	7.7	18.5	18.5	70.0	70.2	5.0	5.0	8.9		12		91				<0.2		1.2	
						6.8	0.5	168	27.8		7.7		18.6		70.4		5.0		8.9		13		91				<0.2		1.2	
IM5	Fine	Rough	14:18	8.2	Surface	1.0	0.9	201	28.1	28.1	7.7	7.7	13.8	13.8	83.1	83.0	6.0	5.8	5.6	6.8	9	9	84	88	820727	804872	<0.2	<0.2	1.2	1.2
						1.0	1.0	193	28.1		7.7		13.8		82.8		6.0		5.6		9		84				<0.2		1.2	
					Middle	4.1	0.9	195	28.0	28.0	7.7	7.7	14.3	14.3	78.8	78.5	5.7		6.1		9		88				<0.2		1.3	
						4.1	0.9	179	28.0		7.7		14.3		78.1		5.6		6.2		9		88				<0.2		1.2	
					Bottom	7.2	0.5	164	27.9	27.9	7.7	7.7	16.2	16.3	72.5	72.4	5.2	5.2	8.5		8		91				<0.2		1.2	
						7.2	0.5	175	27.9		7.7		16.4		72.3		5.2		8.6		9		91				<0.2		1.2	
IM6	Fine	Rough	14:10	8.0	Surface	1.0	0.0	188	28.2	28.2	7.7	7.7	15.1	15.1	79.0	79.0	5.7	5.4	4.2	6.4	18	14	83	88	821053	805829	<0.2	<0.2	1.4	1.3
						1.0	0.0	165	28.2		7.7		15.2		78.9		5.7		4.2		17		85				<0.2		1.4	
					Middle	4.0	0.0	183	27.9	27.9	7.7	7.7	17.5	17.5	71.0	71.0	5.1		5.3		13		88				<0.2		1.2	
						4.0	0.0	188	27.9		7.7		17.6		70.9		5.1		5.3		14		88				<0.2		1.2	
					Bottom	7.0	0.0	155	27.9	27.9	7.7	7.7	18.4	18.5	70.8	71.2	5.0	5.1	9.6		11		91				<0.2		1.3	
						7.0	0.0	167	27.9		7.7		18.6		71.5		5.1		9.6		10		92				<0.2		1.3	
IM7	Fine	Rough	14:02	8.1	Surface	1.0	0.2	178	28.3	28.3	7.7	7.7	12.6	12.7	81.7	81.6	5.9	5.6	5.7	8.4	13	12	83	88	821335	806825	<0.2	<0.2	1.4	1.4
						1.0	0.2	175	28.3		7.7		12.7		81.5		5.9		5.9		13		84				<0.2		1.4	
					Middle	4.1	0.2	179	28.0	28.0	7.7	7.7	16.5	16.5	74.7	74.8	5.3		9.0		12		88				<0.2		1.4	
						4.1	0.2	175	28.0		7.7		16.6		74.8		5.3		9.1		11		88				<0.2		1.4	
					Bottom	7.1	0.2	146	28.0	28.0	7.7	7.7	16.7	16.7	75.5	75.6	5.4	5.4	10.3		10		91				<0.2		1.4	
						7.1	0.3	152	28.0		7.7		16.7		75.6		5.4		10.3		11		91				<0.2		1.4	
IM8	Cloudy	Moderate	14:23	7.9	Surface	1.0	0.6	163	28.9	28.9	7.8	7.8	12.8	12.8	83.4	83.4	6.0	6.0	9.2	9.9	10	12	85	88	821814	808116	<0.2	<0.2	1.8	1.8
						1.0	0.6	170	28.9		7.8		12.8		83.3		6.0		9.1		11		84				<0.2		1.7	
					Middle	4.0	0.6	157	28.8	28.8	7.8	7.8	13.1	13.1	81.8	81.7	5.9		9.9		11		89				<0.2		1.7	
						4.0	0.6	150	28.8		7.8		13.1		81.5		5.9		9.9		12		89				<0.2		1.8	
					Bottom	6.9	0.3	154	28.7	28.7	7.8	7.8	14.3	14.4	81.1	81.3	5.8	5.8	10.6		12		90				<0.2		1.8	
						6.9	0.3	159	28.7		7.8		14.4		81.4		5.8		10.7		13		90				<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 06 July 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	14:28	7.3	Surface	1.0	0.5	160	29.0	29.0	7.8	7.8	10.8	10.8	82.4	82.1	6.0	5.7	5.5	8.5	7	6	85	88	822098	808834	<0.2	<0.2	1.8	1.9
						1.0	0.5	155	29.0		7.8		10.9		81.7		5.9		5.9		6		86				<0.2		1.8	
					Middle	3.7	0.4	147	28.9	28.9	7.8	7.8	13.8	13.8	75.1	75.1	5.4		7.5		5		87				<0.2		2.0	
						3.7	0.4	152	28.9		7.8		13.8		75.1		5.4		7.9		6		88				<0.2		1.9	
					Bottom	6.3	0.2	155	28.8	28.8	7.8	7.8	14.8	14.8	76.8	77.0	5.5	5.5	12.2		6		90				<0.2		1.9	
						6.3	0.2	150	28.8		7.8		14.8		77.1		5.5		12.3		6		90				<0.2		1.9	
IM10	Cloudy	Moderate	14:33	7.2	Surface	1.0	0.6	151	29.0	29.0	7.8	7.8	12.7	12.7	77.2	77.1	5.5	5.5	5.6	6.5	6	7	86	88	822366	809814	<0.2	<0.2	2.0	1.9
						1.0	0.6	147	28.9		7.8		12.7		77.0		5.5		5.7		6		85				<0.2		1.9	
					Middle	3.6	0.2	145	28.9	28.9	7.8	7.8	13.7	13.8	76.4	76.4	5.5		6.9		6		87				<0.2		1.9	
						3.6	0.2	133	28.9		7.8		13.8		76.4		5.5		6.9		6		88				<0.2		1.9	
					Bottom	6.2	0.1	135	28.8	28.8	7.8	7.8	15.0	15.0	77.1	77.2	5.5	5.5	6.8		8		89				<0.2		2.0	
						6.2	0.1	139	28.8		7.8		15.1		77.2		5.5		6.9		9		90				<0.2		1.9	
IM11	Cloudy	Moderate	14:41	7.9	Surface	1.0	0.2	143	28.9	28.9	7.8	7.8	15.8	15.8	76.1	76.0	5.4	5.3	3.8	5.1	8	7	85	88	822058	811457	<0.2	<0.2	1.5	1.6
						1.0	0.2	146	28.8		7.8		15.8		75.9		5.4		3.8		7		86				<0.2		1.6	
					Middle	4.0	0.1	137	28.6	28.6	7.8	7.8	16.3	16.3	73.8	73.8	5.2		4.8		7		88				<0.2		1.6	
						4.0	0.1	141	28.6		7.8		16.3		73.7		5.2		5.0		6		87				<0.2		1.6	
					Bottom	6.9	0.1	129	28.4	28.4	7.8	7.8	17.8	17.8	69.6	69.7	4.9	4.9	6.5		7		89				<0.2		1.6	
						6.9	0.1	142	28.4		7.8		17.8		69.7		4.9		6.4		8		90				<0.2		1.6	
IM12	Cloudy	Moderate	14:47	8.2	Surface	1.0	0.2	135	28.9	28.9	7.8	7.8	15.6	15.6	76.3	76.3	5.4	5.1	3.4	5.8	6	6	86	88	821467	812023	<0.2	<0.2	1.7	1.7
						1.0	0.2	139	28.9		7.8		15.6		76.2		5.4		3.4		5		84				<0.2		1.6	
					Middle	4.1	0.0	133	28.4	28.4	7.8	7.8	18.1	18.1	67.1	67.1	4.7		5.7		5		89				<0.2		1.6	
						4.1	0.0	132	28.3		7.8		18.1		67.1		4.7		5.9		6		87				<0.2		1.7	
					Bottom	7.2	0.1	129	28.2	28.2	7.8	7.8	19.8	19.7	64.8	64.9	4.5	4.5	8.4		6		89				<0.2		1.7	
						7.2	0.1	128	28.2		7.8		19.7		65.0		4.5		7.8		7		91				<0.2		1.6	
SR1A	Cloudy	Moderate	15:24	5.1	Surface	1.0	-	-	28.8	28.8	7.8	7.8	16.1	16.1	75.5	75.5	5.3	5.3	3.7	3.7	5	5	-	-	819979	812657	-	-	-	-
						1.0	-	-	28.8		7.8		16.2		75.4		5.3		3.7		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	28.7	28.7	7.8	7.8	16.6	16.6	75.0	75.1	5.3	5.3	3.8		5		-				-		-	
						4.1	-	-	28.7		7.8		16.6		75.1		5.3		3.8		5		-				-		-	
SR2	Cloudy	Moderate	15:43	4.4	Surface	1.0	0.4	100	28.8	28.8	7.8	7.8	16.2	16.2	75.0	75.0	5.3	5.3	3.9	3.9	7	6	85	88	821466	814160	<0.2	<0.2	1.7	1.7
						1.0	0.4	98	28.8		7.8		16.2		75.0		5.3		3.9		6		86				<0.2		1.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.4	140	28.8	28.8	7.8	7.8	16.2	16.2	75.5	75.6	5.3	5.3	3.9		6		89				<0.2		1.7	
						3.4	0.4	122	28.8		7.8		16.1		75.6		5.3		3.8		5		90				<0.2		1.7	
SR3	Cloudy	Moderate	14:19	8.8	Surface	1.0	0.5	184	28.9	28.9	7.9	7.9	11.3	11.3	81.8	81.7	5.9	5.8	10.1	13.0	8	7	-	-	822169	807588	-	-	-	-
						1.0	0.5	179	28.9		7.9		11.3		81.5		5.9		11.0		7		-				-		-	
					Middle	4.4	0.6	171	28.7	28.7	7.9	7.9	14.9	14.9	79.0	79.0	5.6		15.0		7		-				-		-	
						4.4	0.6	176	28.7		7.9		14.9		78.9		5.6		15.0		7		-				-		-	
					Bottom	7.8	0.3	157	28.7	28.7	7.9	7.9	15.1	15.1	79.2	79.3	5.6	5.6	13.3		7		-				-		-	
						7.8	0.3	159	28.7		7.9		15.1		79.3		5.6		13.3		6		-				-		-	
SR4A	Fine	Rough	15:46	9.5	Surface	1.0	0.6	99	28.2	28.2	7.7	7.7	14.7	14.7	85.0	85.0	6.1	6.1	9.4	11.7	10	11	-	-	817204	807820	-	-	-	-
						1.0	0.6	106	28.2		7.7		14.7		85.0		6.1		9.5		9		-				-		-	
					Middle	4.8	0.4	89	28.2	28.2	7.7	7.7	14.9	14.9	83.8	83.7	6.0		11.2		10		-				-		-	
						4.8	0.5	90	28.2		7.7		14.9		83.6		6.0		11.2		11		-				-		-	
					Bottom	8.5	0.2	93	28.1	28.1	7.7	7.7	15.5	15.5	84.0	84.3	6.0	6.1	14.5		12		-				-		-	
						8.5	0.3	98	28.1		7.7		15.5		84.5		6.1		14.5		13		-				-		-	
SR5A	Fine	Moderate	16:01	5.4	Surface	1.0	0.2	13	28.3	28.3	7.7	7.7	16.2	16.2	78.0	78.0	5.6	5.6	8.3	8.5	8	10	-	-	816584	810709	-	-	-	-
						1.0	0.2	13	28.3		7.7		16.3		77.9		5.5		8.4		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	19	28.2	28.2	7.6	7.6	16.4	16.4	78.2	78.3	5.6	5.6	8.6		10		-				-		-	
						4.4	0.1	20	28.2		7.6		16.4		78.3		5.6		8.6		11		-				-		-	
SR6	Fine	Moderate	16:33	4.8	Surface	1.0	0.0	60	28.5	28.5	7.6	7.6	15.1	15.1	77.4	77.4	5.5	5.5	5.9	7.6	6	7	-	-	817878	814672	-	-	-	-
						1.0	0.0	60	28.5		7.6		15.1		77.4		5.5		5.9		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.0	46	28.3	28.4	7.6	7.6	15.6	15.4	75.5	78.4	5.4	5.6	9.2		8		-				-		-	
						3.8	0.0	51	28.4		7.6		15.3		81.3		5.8		9.3		8		-				-		-	
SR7	Cloudy	Moderate	16:34	16.5	Surface	1.0	0.3	71	28.0	28.0	7.9	7.9	20.6	20.6	75.0	75.0	5.2	5.2	2.0	2.6	3	3	-	-	823658	823740	-	-	-	-
						1.0	0.3	71	28.0		7.9		20.6		75.0		5.2		2.0		3		-				-		-	
					Middle	8.3	0.0	9	27.1	27.1	7.9	7.9	24.9	24.9	73.2	73.2	5.1		2.2		4		-				-		-	
						8.3	0.0	9	27.1		7.9		25.0		73.2		5.1		2.4		3		-				-		-	
					Bottom	15.5	0.0	18	26.6	26.7	7.9	7.9	29.1	29.1	59.9	59.9	4.1	4.1	3.6		4		-				-		-	
						15.5	0.0	17	26.7		7.9		29.0		59.9		4.1		3.4		3		-				-		-	
SR8	Cloudy	Moderate	15:09	5.0	Surface	1.0	-	-	28.9	28.9	7.8	7.8	15.7	15.6	77.0	77.1	5.5	5.5	3.4	3.8	4	4	-	-	820383	811603	-	-	-	-
						1.0	-	-	28.8		7.8		15.6		77.1		5.5		3.4		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	28.5	28.6	7.8	7.8	17.3	17.3	71.0	71.0	5.0	5.0	4.3		4		-				-		-	
						4.0	-	-	28.6		7.8		17.3		71.0		5.0		4.1		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 06 July 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	08:17	7.9	Surface	1.0	0.6	35	28.2	28.2	7.7	7.7	14.4	14.4	85.4	85.4	6.2	6.1	5.1	5.8	6	5	83	88	815627	804236	<0.2	<0.2	1.3	1.3
						1.0	0.6	37	28.2		7.7		14.4		85.4		6.2		5.1		5		84				<0.2		1.2	
					Middle	4.0	0.5	26	28.1	28.1	7.7	7.7	15.0	15.0	81.6	81.5	5.9		5.5		5		88				<0.2		1.3	
						4.0	0.6	27	28.1		7.7		15.0		81.3		5.9		5.5		6		88				<0.2		1.2	
					Bottom	6.9	0.4	11	28.0	28.0	7.7	7.7	16.3	16.7	74.2	74.3	5.3	5.3	6.7		5		91				<0.2		1.2	
						6.9	0.5	11	28.0		7.7		17.0		74.3		5.3		6.6		5		92				<0.2		1.3	
C2	Cloudy	Moderate	09:38	11.6	Surface	1.0	0.5	12	29.0	29.0	7.8	7.8	9.7	9.7	84.8	84.8	6.2	5.7	5.4	5.9	6	6	85	88	825662	806931	<0.2	<0.2	1.6	1.7
						1.0	0.5	12	29.0		7.8		9.7		84.8		6.2		5.4		5		85				<0.2		1.6	
					Middle	5.8	0.5	349	29.0	29.0	7.8	7.8	14.3	14.3	71.8	71.8	5.1		4.3		6		87				<0.2		1.7	
						5.8	0.5	321	29.0		7.8		14.3		71.8		5.1		4.3		6		89				<0.2		1.7	
					Bottom	10.6	0.4	342	28.9	28.9	7.8	7.8	15.0	15.0	71.6	71.7	5.1	5.1	8.2		5		90				<0.2		1.7	
						10.6	0.5	342	28.9		7.8		15.0		71.7		5.1		8.2		6		90				<0.2		1.8	
C3	Cloudy	Moderate	08:03	11.8	Surface	1.0	0.4	255	28.9	28.9	7.8	7.8	13.5	13.5	77.1	77.1	5.5	5.3	3.2	5.9	3	3	86	88	822092	817808	<0.2	<0.2	1.8	1.9
						1.0	0.4	262	28.9		7.8		13.5		77.1		5.5		3.2		3		86				<0.2		1.7	
					Middle	5.9	0.5	250	28.6	28.6	7.9	7.9	16.4	16.4	70.7	70.7	5.0		3.0		2		88				<0.2		1.7	
						5.9	0.6	272	28.6		7.9		16.4		70.6		5.0		3.1		3		89				<0.2		2.1	
					Bottom	10.8	0.4	289	27.2	27.2	7.8	7.8	25.2	25.2	55.4	55.5	3.8	3.8	11.4		4		91				<0.2		2.2	
						10.8	0.5	315	27.2		7.8		25.2		55.5		3.8		11.4		4		89				<0.2		2.1	
IM1	Cloudy	Rough	08:48	4.5	Surface	1.0	0.5	359	28.1	28.1	7.7	7.7	15.3	15.3	81.9	81.9	5.9	5.9	6.2	6.6	7	7	83	86	817964	807110	<0.2	<0.2	1.3	1.3
						1.0	0.5	330	28.1		7.7		15.3		81.8		5.9		6.2		7		84				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.1	330	28.1	28.1	7.7	7.7	15.4	15.4	81.3	81.5	5.8	5.9	7.1		6		88				<0.2		1.4	
						3.5	0.1	350	28.1		7.7		15.4		81.7		5.9		7.0		7		89				<0.2		1.3	
IM2	Cloudy	Rough	08:56	6.8	Surface	1.0	0.5	32	28.3	28.3	7.7	7.7	14.1	14.1	84.7	84.7	6.1	5.9	5.1	5.2	6	6	83	87	818150	806160	<0.2	<0.2	1.4	1.4
						1.0	0.5	32	28.3		7.7		14.1		84.6		6.1		5.1		6		83				<0.2		1.4	
					Middle	3.4	0.5	15	28.2	28.2	7.7	7.7	15.0	15.0	80.2	80.1	5.8		5.2		6		88				<0.2		1.4	
						3.4	0.5	15	28.2		7.7		15.0		79.9		5.7		5.2		5		88				<0.2		1.4	
					Bottom	5.8	0.4	3	28.2	28.2	7.7	7.7	15.0	15.0	79.6	79.7	5.7	5.7	5.2		5		91				<0.2		1.3	
						5.8	0.4	3	28.2		7.7		15.0		79.7		5.7		5.2		6		91				<0.2		1.4	
IM3	Cloudy	Rough	09:01	6.9	Surface	1.0	0.7	6	28.2	28.2	7.7	7.7	13.8	13.8	83.5	83.5	6.0	5.9	5.5	5.6	6	5	88	90	818788	805615	<0.2	<0.2	1.4	1.5
						1.0	0.7	6	28.2		7.7		13.8		83.4		6.0		5.5		6		88				<0.2		1.5	
					Middle	3.5	0.5	2	28.1	28.1	7.6	7.6	13.8	13.9	81.0	80.7	5.9		5.5		6		91				<0.2		1.4	
						3.5	0.5	2	28.0		7.6		13.9		80.4		5.8		5.6		5		91				<0.2		1.5	
					Bottom	5.9	0.4	16	28.0	28.0	7.7	7.7	15.7	16.5	73.9	74.0	5.3	5.3	5.8		4		92				<0.2		1.5	
						5.9	0.4	16	28.0		7.7		17.4		74.1		5.3		5.8		5		92				<0.2		1.4	
IM4	Cloudy	Rough	09:10	7.1	Surface	1.0	1.0	9	28.1	28.1	7.7	7.7	14.2	14.2	83.7	83.7	6.0	5.9	5.1	5.4	4	5	83	87	819708	804627	<0.2	<0.2	1.2	1.3
						1.0	1.0	9	28.1		7.7		14.2		83.7		6.0		5.1		5		83				<0.2		1.3	
					Middle	3.6	0.8	4	28.1	28.1	7.7	7.7	14.4	14.4	80.1	80.0	5.8		5.4		4		87				<0.2		1.3	
						3.6	0.9	4	28.1		7.7		14.4		79.9		5.8		5.5		4		87				<0.2		1.3	
					Bottom	6.1	0.6	336	27.9	27.9	7.6	7.6	15.7	15.8	72.0	71.7	5.2	5.2	5.8		5		91				<0.2		1.3	
						6.1	0.6	350	27.8		7.6		15.8		71.3		5.1		5.9		5		91				<0.2		1.3	
IM5	Cloudy	Rough	09:16	7.3	Surface	1.0	1.0	17	28.2	28.2	7.7	7.7	14.4	14.4	80.9	80.7	5.8	5.8	5.3	8.0	5	5	84	88	820736	804867	<0.2	<0.2	1.4	1.4
						1.0	1.0	18	28.2		7.7		14.5		80.4		5.8		5.3		4		84				<0.2		1.3	
					Middle	3.7	0.9	11	28.1	28.1	7.7	7.7	14.7	14.7	78.8	78.6	5.7		8.2		5		88				<0.2		1.4	
						3.7	1.0	12	28.1		7.7		14.7		78.4		5.7		8.2		4		88				<0.2		1.3	
					Bottom	6.3	0.7	12	28.0	28.0	7.7	7.7	16.3	16.3	72.5	72.5	5.2	5.2	10.4		4		91				<0.2		1.3	
						6.3	0.7	12	27.9		7.7		16.3		72.4		5.2		10.4		5		91				<0.2		1.4	
IM6	Cloudy	Rough	09:23	8.0	Surface	1.0	0.6	9	28.0	28.0	7.7	7.7	17.1	17.0	72.6	72.6	5.2	5.1	4.9	8.1	20	22	83	89	821083	805831	<0.2	<0.2	1.2	1.2
						1.0	0.7	9	28.0		7.7		17.0		72.6		5.2		4.9		19		88				<0.2		1.2	
					Middle	4.0	0.5	51	27.9	27.9	7.7	7.7	17.6	17.5	70.5	70.7	5.0		8.6		21		88				<0.2		1.2	
						4.0	0.5	51	27.9		7.7		17.5		70.8		5.0		8.7		20		88				<0.2		1.3	
					Bottom	7.0	0.5	76	27.9	27.9	7.7	7.7	17.8	17.8	69.9	70.0	5.0	5.0	11.0		26		92				<0.2		1.3	
						7.0	0.6	76	27.9		7.7		17.8		70.0		5.0		10.9		26		92				<0.2		1.2	
IM7	Cloudy	Rough	09:29	7.6	Surface	1.0	0.2	65	28.3	28.3	7.7	7.7	12.7	12.8	81.6	81.5	5.9	5.6	5.8	8.9	7	8	83	88	821367	806836	<0.2	<0.2	1.5	1.5
						1.0	0.2	67	28.3		7.7		12.8		81.4		5.9		5.8		7		84				<0.2		1.5	
					Middle	3.8	0.3	87	28.0	28.0	7.7	7.7	16.9	16.9	74.4	74.5	5.3		9.7		7		88				<0.2		1.6	
						3.8	0.3	87	28.0		7.7		16.9		74.5		5.3		9.7		8		88				<0.2		1.5	
					Bottom	6.6	0.2	150	27.9	27.9	7.7	7.7	17.0	17.0	76.6	77.0	5.5	5.5	11.2		10		91				<0.2		1.5	
						6.6	0.2	153	27.9		7.7		17.0		77.4		5.5		11.2		9		91				<0.2		1.5	
IM8	Cloudy	Moderate	09:20	8.0	Surface	1.0	0.2	5	29.1	29.1	7.8	7.8	12.2	12.2	80.5	80.4	5.8	5.7	3.9	5.7	5	6	85	88	821841	808163	<0.2	<0.2	1.9	2.0
						1.0	0.2	5	29.0		7.8		12.2		80.2		5.8		4.1		5		86				<0.2		1.9	
					Middle	4.0	0.1	347	28.9	28.9	7.8	7.8	12.6	12.6	78.5	78.5	5.6		5.1		6		87				<0.2		1.9	
						4.0	0.1	351	28.9		7.8		12.6		78.5		5.6		5.3		5		88				<0.2		2.0	
					Bottom	7.0	0.1	297	28.9	28.9	7.8	7.8	13.5	13.5	79.9	80.1	5.7	5.7	7.9		6		90				<0.2		2.0	
						7.0	0.1	322	28.9		7.8		13.5		80.2		5.7		7.9		6		90				<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 06 July 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	09:15	7.8	Surface	1.0	0.3	266	28.9	28.9	7.8	7.8	14.0	14.0	77.0	76.9	5.5	5.5	7.5	8.5	11	11	85	88	822100	808823	<0.2	<0.2	2.0	2.0
						1.0	0.4	269	28.9		7.8		14.0		76.7		5.5		7.5		11		86				<0.2		2.1	
					Middle	3.9	0.3	281	28.8	28.8	7.8	7.8	14.1	14.1	75.0	75.0	5.4		8.8		11		88				<0.2		2.0	
						3.9	0.3	290	28.8		7.8		14.1		75.0		5.4		8.8		11		90				<0.2		2.0	
					Bottom	6.8	0.3	261	28.8	28.8	7.8	7.8	14.1	14.1	75.4	75.5	5.4	5.4	9.3		12		91				<0.2		2.0	
						6.8	0.3	281	28.8		7.8		14.1		75.5		5.4		9.3		11		90				<0.2		2.1	
IM10	Cloudy	Moderate	09:09	8.0	Surface	1.0	0.7	310	28.9	28.9	7.8	7.8	13.4	13.4	76.0	75.9	5.4	5.4	4.3	6.8	6	5	87	88	822380	809790	<0.2	<0.2	1.9	2.0
						1.0	0.8	311	28.9		7.8		13.4		75.8		5.4		4.3		5		86				<0.2		1.9	
					Middle	4.0	0.8	300	28.8	28.8	7.8	7.8	13.7	13.7	74.6	74.6	5.3		7.2		5		88				<0.2		1.9	
						4.0	0.8	318	28.8		7.8		13.7		74.5		5.3		7.2		5		88				<0.2		2.0	
					Bottom	7.0	0.5	300	28.5	28.5	7.8	7.8	17.1	17.1	68.2	68.3	4.8	4.8	8.8		5		90				<0.2		2.0	
						7.0	0.5	324	28.5		7.8		17.1		68.3		4.8		8.8		6		90				<0.2		2.1	
IM11	Cloudy	Moderate	08:58	7.8	Surface	1.0	0.5	300	28.9	28.9	7.8	7.8	13.3	13.3	79.4	79.5	5.7	5.5	3.5	7.3	4	5	86	88	822041	811477	<0.2	<0.2	2.0	2.1
						1.0	0.6	325	28.9		7.8		13.3		79.5		5.7		3.5		4		85				<0.2		2.2	
					Middle	3.9	0.6	296	28.7	28.7	7.8	7.8	15.6	15.6	73.6	73.6	5.2		8.4		4		88				<0.2		2.0	
						3.9	0.6	311	28.6		7.8		15.6		73.6		5.2		8.6		5		89				<0.2		2.1	
					Bottom	6.8	0.3	298	28.5	28.5	7.8	7.8	17.3	17.3	70.2	70.3	5.0	5.0	9.8		6		90				<0.2		2.1	
						6.8	0.3	302	28.5		7.8		17.3		70.4		5.0		9.8		5		90				<0.2		2.0	
IM12	Cloudy	Moderate	08:54	8.2	Surface	1.0	0.6	282	28.9	28.9	7.8	7.8	12.5	12.5	77.8	77.8	5.6	5.4	3.4	7.8	4	4	86	88	821454	812060	<0.2	<0.2	2.0	2.0
						1.0	0.6	286	28.9		7.8		12.5		77.7		5.6		3.4		3		85				<0.2		2.0	
					Middle	4.1	0.7	281	28.6	28.6	7.8	7.8	15.7	15.7	71.2	71.2	5.1		11.4		4		88				<0.2		1.9	
						4.1	0.8	302	28.6		7.8		15.7		71.2		5.1		11.7		5		89				<0.2		2.0	
					Bottom	7.2	0.2	276	28.2	28.3	7.8	7.8	19.3	19.3	60.9	60.9	4.3	4.3	8.4		4		90				<0.2		2.0	
						7.2	0.2	280	28.3		7.8		19.3		60.8		4.3		8.4		4		90				<0.2		2.0	
SR1A	Cloudy	Moderate	08:37	5.2	Surface	1.0	-	-	28.9	28.9	7.8	7.8	12.6	12.6	78.9	78.9	5.7	5.7	3.0	3.8	5	5	-	-	819977	812658	-	-	-	-
						1.0	-	-	28.9		7.8		12.6		78.8		5.7		3.0		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	28.8	28.8	7.8	7.8	14.7	14.7	74.8	74.8	5.3	5.3	4.4		4		-				-		-	
						4.2	-	-	28.8		7.8		14.7		74.8		5.3		4.5		4		-				-		-	
SR2	Cloudy	Moderate	08:25	4.7	Surface	1.0	0.2	186	28.9	28.9	7.8	7.8	11.7	11.7	79.5	79.5	5.7	5.7	3.7	6.3	4	4	85	88	821452	814150	<0.2	<0.2	2.1	2.1
						1.0	0.2	192	28.9		7.8		11.7		79.4		5.7		3.9		4		86				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	316	28.5	28.5	7.8	7.8	16.8	16.8	70.1	70.2	5.0	5.0	8.8		4		89				<0.2		2.1	
						3.7	0.2	338	28.5		7.8		16.8		70.2		5.0		8.8		5		90				<0.2		2.2	
SR3	Cloudy	Moderate	09:25	8.6	Surface	1.0	0.2	343	29.1	29.1	7.8	7.8	12.1	12.1	82.2	82.2	5.9	5.7	3.6	5.7	5	5	-	-	822163	807587	-	-	-	-
						1.0	0.2	316	29.1		7.8		12.1		82.1		5.9		3.6		5		-				-		-	
					Middle	4.3	0.2	299	28.9	28.9	7.8	7.8	12.8	12.8	76.6	76.6	5.5		5.8		5		-				-		-	
						4.3	0.2	322	28.9		7.8		12.8		76.5		5.5		6.0		4		-				-		-	
					Bottom	7.6	0.1	20	28.9	28.9	7.8	7.8	13.7	13.7	78.3	78.3	5.6	5.6	7.7		4		-				-		-	
						7.6	0.1	20	28.9		7.8		13.7		78.3		5.6		7.7		4		-				-		-	
SR4A	Cloudy	Moderate	07:47	9.1	Surface	1.0	0.1	231	28.1	28.1	7.6	7.6	14.9	14.9	77.9	77.8	5.6	5.4	8.1	10.7	9	10	-	-	817180	807791	-	-	-	-
						1.0	0.1	232	28.1		7.6		14.9		77.7		5.6		8.1		10		-				-		-	
					Middle	4.6	0.1	263	28.0	28.0	7.6	7.6	16.1	16.1	71.2	71.2	5.1		11.3		10		-				-		-	
						4.6	0.1	274	28.0		7.6		16.1		71.1		5.1		11.4		10		-				-		-	
					Bottom	8.1	0.0	194	27.5	27.5	7.6	7.6	21.0	21.0	54.5	54.7	3.8	3.9	12.7		10		-				-		-	
						8.1	0.0	196	27.5		7.6		21.0		54.8		3.9		12.7		10		-				-		-	
SR5A	Cloudy	Moderate	07:31	3.5	Surface	1.0	0.3	271	28.3	28.3	7.6	7.6	16.2	16.2	80.0	80.0	5.7	5.7	7.5	7.7	19	18	-	-	816609	810696	-	-	-	-
						1.0	0.3	295	28.3		7.6		16.2		79.9		5.7		7.4		18		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.5	0.2	267	28.3	28.3	7.6	7.6	16.2	16.2	80.0	80.1	5.7	5.7	7.9		18		-				-		-	
						2.5	0.3	282	28.3		7.6		16.2		80.1		5.7		7.8		17		-				-		-	
SR6	Cloudy	Moderate	07:05	3.2	Surface	1.0	0.0	222	28.3	28.3	7.6	7.6	14.4	14.4	79.0	79.0	5.7	5.7	4.8	5.0	7	6	-	-	817883	814675	-	-	-	-
						1.0	0.0	229	28.3		7.6		14.4		79.0		5.7		4.9		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.0	241	28.3	28.3	7.5	7.5	14.5	14.5	78.6	78.6	5.7	5.7	5.2		5		-				-		-	
						2.2	0.0	245	28.3		7.5		14.5		78.6		5.7		5.2		4		-				-		-	
SR7	Cloudy	Moderate	07:35	16.2	Surface	1.0	0.1	145	28.8	28.8	7.8	7.8	14.5	14.5	78.5	78.5	5.6	5.4	2.8	2.9	3	4	-	-	823630	823744	-	-	-	-
						1.0	0.1	149	28.8		7.8		14.5		78.5		5.6		2.8		3		-				-		-	
					Middle	8.1	0.1	127	27.9	27.9	7.8	7.8	21.0	21.0	74.4	74.4	5.2		2.6		4		-				-		-	
						8.1	0.1	136	27.9		7.8		21.0		74.4		5.2		2.6		5		-				-		-	
					Bottom	15.2	0.2	12	27.1	27.1	7.8	7.8	25.5	25.5	62.2	62.2	4.3	4.3	3.2		5		-				-		-	
						15.2	0.2	12	27.1		7.8		25.5		62.2		4.3		3.2		5		-				-		-	
SR8	Cloudy	Moderate	08:45	5.3	Surface	1.0	-	-	28.9	28.9	7.8	7.8	12.5	12.5	78.3	78.3	5.6	5.6	5.0	6.9	4	5	-	-	820375	811627	-	-	-	-
						1.0	-	-	28.9		7.8		12.6		78.2		5.6		5.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	28.6	28.6	7.8	7.8	16.4	16.4	72.3	72.4	5.1	5.1	8.6		5		-				-		-	
						4.3	-	-	28.6		7.8		16.4		72.4		5.1		8.6		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 09 July 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	Rough	18:39	7.6	Surface	1.0	0.2	119	28.5	28.5	7.8	7.8	12.4	12.4	85.3	85.2	6.2	6.2	4.8	6.5	4	5	83	87	815628	804240	<0.2	<0.2	1.3	1.3
						1.0	0.2	124	28.4		7.8		12.4		85.0		6.2		4.9		4		83				<0.2		1.3	
					Middle	3.8	0.2	150	28.3	28.3	7.7	7.7	13.6	13.6	83.9	83.9	6.1		5.3		5		88				<0.2		1.2	
						3.8	0.2	163	28.3		7.7		13.6		83.8		6.1		5.4		6		88				<0.2		1.3	
					Bottom	6.6	0.2	141	28.3	28.3	7.7	7.7	13.8	13.8	83.4	83.4	6.0	6.0	9.3		7		91				<0.2		1.3	
						6.6	0.3	143	28.3		7.7		13.8		83.3		6.0		9.4		6		91				<0.2		1.3	
C2	Cloudy	Moderate	16:46	11.2	Surface	1.0	0.3	168	29.3	29.3	7.9	7.9	8.8	8.8	82.3	82.3	6.0	5.0	4.5	6.5	8	8	84	87	825691	806966	<0.2	<0.2	1.6	1.5
						1.0	0.3	184	29.3		7.9		8.8		82.2		6.0		4.4		7		85				<0.2		1.5	
					Middle	5.6	0.2	163	28.6	28.6	7.8	7.8	16.7	16.7	57.4	57.3	4.1		8.0		9		87				<0.2		1.6	
						5.6	0.2	173	28.5		7.8		16.7		57.1		4.0		8.0		8		88				<0.2		1.6	
					Bottom	10.2	0.2	200	27.9	27.9	7.8	7.8	21.3	21.3	46.4	46.5	3.2	3.2	7.2		7		90				<0.2		1.5	
						10.2	0.2	211	27.9		7.8		21.3		46.5		3.2		7.2		7		90				<0.2		1.4	
C3	Cloudy	Moderate	18:50	11.2	Surface	1.0	0.2	146	28.8	28.8	7.9	7.9	14.5	14.5	72.3	72.3	5.2	5.0	2.9	3.5	7	8	85	88	822108	817814	<0.2	<0.2	1.5	1.4
						1.0	0.2	159	28.8		7.9		14.5		72.2		5.2		2.9		8		86				<0.2		1.5	
					Middle	5.6	0.1	116	28.4	28.4	7.9	7.9	16.7	16.7	66.6	66.6	4.7		3.3		8		87				<0.2		1.4	
						5.6	0.1	124	28.3		7.9		16.7		66.5		4.7		3.5		8		89				<0.2		1.3	
					Bottom	10.2	0.2	109	27.8	27.8	7.9	7.9	22.0	22.0	60.0	60.1	4.2	4.2	4.3		9		90				<0.2		1.4	
						10.2	0.2	111	27.7		7.9		22.0		60.1		4.2		4.1		10		91				<0.2		1.4	
IM1	Cloudy	Rough	17:55	4.2	Surface	1.0	0.3	100	28.4	28.4	7.8	7.8	11.7	11.8	86.7	86.6	6.3	6.3	4.1	4.7	6	6	79	86	817969	807121	<0.2	<0.2	1.5	1.6
						1.0	0.3	112	28.4		7.8		11.8		86.5		6.3		4.1		6		81				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.4	149	28.4	28.4	7.8	7.8	12.1	12.1	85.3	85.2	6.2	6.2	5.2		5		92				<0.2		1.6	
						3.2	0.4	136	28.3		7.8		12.1		85.0		6.2		5.3		6		92				<0.2		1.5	
IM2	Cloudy	Rough	17:46	7.7	Surface	1.0	0.2	187	28.4	28.4	7.8	7.7	11.4	11.4	84.8	84.7	6.2	6.1	4.4	7.4	4	5	83	88	818170	806153	<0.2	<0.2	1.0	1.2
						1.0	0.2	189	28.4		7.7		11.4		84.5		6.2		4.4		5		84				<0.2		1.2	
					Middle	3.9	0.4	155	28.4	28.4	7.7	7.7	12.2	12.1	81.6	81.4	5.9		7.5		5		88				<0.2		1.2	
						3.9	0.4	136	28.4		7.7		12.0		81.2		5.9		7.5		6		89				<0.2		1.3	
					Bottom	6.7	0.3	203	27.9	27.9	7.7	7.6	15.4	15.5	74.8	72.4	5.4	5.2	10.2		5		91				<0.2		1.3	
						6.7	0.3	211	27.9		7.6		15.6		70.0		5.0		10.3		6		92				<0.2		1.2	
IM3	Cloudy	Rough	17:39	7.6	Surface	1.0	0.1	186	28.5	28.5	7.8	7.7	11.8	12.6	84.4	83.9	6.1	6.0	3.2	5.1	7	6	83	88	818768	805605	<0.2	<0.2	1.2	1.2
						1.0	0.1	188	28.4		7.7		13.5		83.4		6.0		3.2		6		88				<0.2		1.2	
					Middle	3.8	0.2	162	28.4	28.4	7.7	7.7	13.5	12.7	83.0	82.1	6.0		4.5		6		88				<0.2		1.3	
						3.8	0.2	164	28.4		7.7		11.9		81.2		5.9		4.5		6		88				<0.2		1.2	
					Bottom	6.6	0.1	203	28.3	28.3	7.7	7.7	12.7	12.5	79.3	78.8	5.8	5.8	7.7		7		91				<0.2		1.2	
						6.6	0.2	208	28.3		7.7		12.4		78.2		5.7		7.7		6		91				<0.2		1.2	
IM4	Cloudy	Rough	17:26	8.1	Surface	1.0	0.4	169	28.3	28.3	7.7	7.7	14.9	14.9	80.6	80.5	5.8	5.7	3.7	4.7	6	7	83	87	819713	804594	<0.2	<0.2	1.4	1.2
						1.0	0.4	159	28.2		7.7		14.9		80.3		5.8		3.7		5		83				<0.2		1.2	
					Middle	4.1	0.3	147	28.1	28.1	7.7	7.7	15.2	15.2	76.0	76.2	5.5		4.5		7		88				<0.2		1.2	
						4.1	0.3	139	28.1		7.7		15.2		76.3		5.5		4.5		6		88				<0.2		1.2	
					Bottom	7.1	0.4	204	28.1	28.1	7.7	7.7	16.5	16.5	77.3	77.6	5.5	5.6	5.8		7		91				<0.2		1.2	
						7.1	0.5	198	28.0		7.7		16.5		77.8		5.6		5.8		8		91				<0.2		1.2	
IM5	Cloudy	Rough	17:15	8.3	Surface	1.0	0.9	224	28.6	28.6	7.7	7.7	12.9	12.9	82.8	82.7	6.0	6.0	3.6	4.5	5	7	87	89	820754	804867	<0.2	<0.2	1.2	1.2
						1.0	1.0	238	28.5		7.7		12.9		82.6		6.0		3.6		6		87				<0.2		1.2	
					Middle	4.2	0.8	203	28.5	28.5	7.7	7.7	12.9	12.9	82.2	82.0	5.9		4.8		6		88				<0.2		1.3	
						4.2	0.9	202	28.4		7.7		12.9		81.8		5.9		4.8		7		88				<0.2		1.2	
					Bottom	7.3	0.5	211	28.2	28.1	7.7	7.7	14.9	14.9	75.0	74.5	5.4	5.4	5.2		7		91				<0.2		1.2	
						7.3	0.5	212	28.0		7.7		14.9		74.0		5.3		5.2		8		92				<0.2		1.3	
IM6	Cloudy	Rough	17:06	8.0	Surface	1.0	0.0	185	28.5	28.5	7.7	7.7	14.6	14.6	78.2	78.0	5.6	5.5	3.9	4.9	7	8	83	88	821068	805843	<0.2	<0.2	1.3	1.3
						1.0	0.0	185	28.5		7.7		14.6		77.8		5.6		3.9		8		84				<0.2		1.3	
					Middle	4.0	0.0	180	28.4	28.4	7.7	7.7	14.6	14.6	75.7	75.5	5.4		4.3		7		88				<0.2		1.3	
						4.0	0.0	172	28.4		7.7		14.6		75.2		5.4		4.3		7		88				<0.2		1.3	
					Bottom	7.0	0.0	169	28.4	28.4	7.7	7.7	15.0	15.0	74.8	74.8	5.4	5.4	6.4		8		91				<0.2		1.2	
						7.0	0.0	153	28.4		7.7		15.0		74.8		5.4		6.4		8		92				<0.2		1.2	
IM7	Cloudy	Rough	16:54	8.2	Surface	1.0	0.2	183	28.6	28.6	7.7	7.7	13.3	13.4	76.6	76.1	5.5	5.3	4.3	8.0	6	6	84	88	821334	806855	<0.2	<0.2	1.2	1.3
						1.0	0.2	175	28.5		7.7		13.6		75.5		5.4		4.4		5		88				<0.2		1.2	
					Middle	4.1	0.2	156	28.5	28.5	7.6	7.6	13.6	13.6	72.4	72.2	5.2		5.2		6		87				<0.2		1.2	
						4.1	0.3	168	28.4		7.6		13.6		72.0		5.2		5.1		6		88				<0.2		1.3	
					Bottom	7.2	0.2	170	28.0	28.0	7.6	7.6	17.7	17.7	60.8	61.0	4.3	4.3	14.4		7		91				<0.2		1.3	
						7.2	0.3	159	28.0		7.6		17.7		61.1		4.3		14.4		6		91				<0.2		1.3	
IM8	Cloudy	Moderate	17:24	7.2	Surface	1.0	0.2	166	29.1	29.1	7.9	7.9	12.2	12.2	77.4	77.2	5.6	5.5	4.1	6.2	5	5	84	88	821819	808125	<0.2	<0.2	1.7	1.6
						1.0	0.2	163	29.1		7.9		12.2		77.0		5.5		4.2		4		85				<0.2		1.6	
					Middle	3.6	0.3	167	29.0	29.0	7.8	7.8	12.3	12.3	74.9	74.8	5.4		7.0		5		87				<0.2		1.4	
						3.6	0.3	153	28.9		7.8		12.3		74.7		5.4		7.0		6		88				<0.2		1.6	
					Bottom	6.2	0.2	157	28.8	28.8	7.8	7.8	15.7	15.7	66.5	66.6	4.7	4.7	7.5		6		90				<0.2		1.6	
						6.2	0.2	159	28.8		7.8		15.7		66.6		4.7		7.5		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 09 July 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	17:30	6.8	Surface	1.0	0.0	156	29.1	29.1	7.9	7.9	11.9	11.9	78.3	78.2	5.6	5.6	3.4	4.0	7	6	86	88	822099	808794	<0.2	<0.2	1.8	1.8
						1.0	0.0	158	29.1		7.9		11.9		78.1		5.6		3.4		8		84				<0.2		1.8	
					Middle	3.4	0.2	148	29.0	29.0	7.9	7.9	12.2	12.2	76.1	76.1	5.5		3.9		6		87				<0.2		1.8	
						3.4	0.2	143	29.0		7.9		12.2		76.1		5.5		4.0		6		89				<0.2		1.8	
					Bottom	5.8	0.2	163	28.8	28.8	7.9	7.9	15.7	15.7	68.8	68.9	4.9	4.9	4.6		5		89				<0.2		1.8	
						5.8	0.2	169	28.8		7.9		15.7		68.9		4.9		4.5		6		91				<0.2		1.9	
IM10	Cloudy	Moderate	17:37	7.6	Surface	1.0	0.4	144	29.1	29.1	7.9	7.9	11.7	11.8	80.2	79.8	5.8	5.6	3.4	4.3	6	6	83	88	822404	809817	<0.2	<0.2	1.6	1.5
						1.0	0.4	132	29.1		7.9		11.8		79.3		5.7		3.4		6		85				<0.2		1.6	
					Middle	3.8	0.3	111	29.0	29.0	7.9	7.9	12.1	12.1	76.6	76.5	5.5		3.9		6		88				<0.2		1.4	
						3.8	0.3	118	29.0		7.9		12.1		76.3		5.5		4.0		6		88				<0.2		1.4	
					Bottom	6.6	0.0	141	28.7	28.7	7.9	7.9	16.3	16.3	66.0	66.1	4.7	4.7	5.7		7		90				<0.2		1.4	
						6.6	0.0	145	28.7		7.9		16.3		66.1		4.7		5.6		6		92				<0.2		1.3	
IM11	Cloudy	Moderate	17:48	8.1	Surface	1.0	0.5	104	29.1	29.1	7.9	7.9	11.7	11.7	77.5	77.4	5.6	5.4	3.2	4.1	7	7	86	88	822052	811436	<0.2	<0.2	1.5	1.5
						1.0	0.5	113	29.1		7.9		11.7		77.3		5.6		3.2		6		83				<0.2		1.6	
					Middle	4.1	0.4	103	29.0	29.0	7.8	7.8	13.9	13.8	71.5	71.6	5.1		3.3		7		88				<0.2		1.6	
						4.1	0.4	104	28.9		7.8		13.8		71.6		5.1		3.5		6		90				<0.2		1.6	
					Bottom	7.1	0.1	108	28.6	28.6	7.8	7.8	16.4	16.4	66.6	66.7	4.7	4.7	5.6		7		90				<0.2		1.4	
						7.1	0.1	111	28.6		7.8		16.5		66.7		4.7		5.7		6		92				<0.2		1.5	
IM12	Cloudy	Moderate	17:57	8.2	Surface	1.0	0.5	102	29.0	29.0	7.9	7.9	11.9	11.9	78.4	78.3	5.6	5.4	3.6	4.3	6	6	86	88	821466	812056	<0.2	<0.2	1.5	1.6
						1.0	0.5	102	29.0		7.9		11.9		78.2		5.6		3.6		6		84				<0.2		1.5	
					Middle	4.1	0.3	92	28.9	28.9	7.8	7.8	13.9	13.9	71.3	71.2	5.1		4.1		6		87				<0.2		1.5	
						4.1	0.4	95	28.9		7.8		13.9		71.1		5.1		4.2		6		88				<0.2		1.6	
					Bottom	7.2	0.1	95	28.8	28.8	7.8	7.8	15.3	15.3	68.0	68.0	4.8	4.8	5.2		6		90				<0.2		1.6	
						7.2	0.1	97	28.8		7.8		15.3		68.0		4.8		5.2		6		90				<0.2		1.6	
SR1A	Cloudy	Moderate	18:13	5.2	Surface	1.0	-	-	29.0	29.0	7.9	7.9	12.5	12.5	79.9	79.8	5.7	5.7	3.6	4.0	5	6	-	-	819982	812661	-	-	-	-
						1.0	-	-	29.0		7.9		12.5		79.7		5.7		3.7		5		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	28.9	28.9	7.9	7.9	14.0	13.9	74.5	74.5	5.3	5.3	4.5		7		-				-		-	
						4.2	-	-	28.9		7.9		13.9		74.5		5.3		4.4		6		-				-		-	
SR2	Cloudy	Moderate	18:25	4.6	Surface	1.0	0.5	82	29.0	29.0	7.9	7.9	12.6	12.6	80.7	79.2	5.8	5.7	3.6	3.9	6	6	84	88	821485	814165	<0.2	<0.2	1.8	1.7
						1.0	0.6	86	29.0		7.9		12.6		77.7		5.6		3.7		6		86				<0.2		1.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.4	82	29.0	29.0	7.9	7.9	14.0	14.0	76.6	76.7	5.5	5.5	4.0		5		90				<0.2		1.7	
						3.6	0.4	82	29.0		7.9		14.0		76.8		5.5		4.0		6		90				<0.2		1.7	
SR3	Cloudy	Moderate	17:19	8.4	Surface	1.0	0.2	179	29.1	29.1	7.9	7.9	12.3	12.3	78.3	78.2	5.6	5.5	3.5	5.7	7	7	-	-	822130	807558	-	-	-	-
						1.0	0.3	184	29.1		7.9		12.3		78.1		5.6		3.5		8		-				-		-	
					Middle	4.2	0.2	165	29.0	29.0	7.9	7.9	12.4	12.4	74.4	74.3	5.3		4.8		8		-				-		-	
						4.2	0.2	169	29.0		7.9		12.5		74.1		5.3		4.8		7		-				-		-	
					Bottom	7.4	0.2	170	28.4	28.4	7.8	7.8	18.5	18.5	57.9	58.1	4.1	4.1	8.8		6		-				-		-	
						7.4	0.2	161	28.4		7.8		18.5		58.3		4.1		8.8		6		-				-		-	
SR4A	Cloudy	Rough	19:07	8.9	Surface	1.0	0.5	72	28.5	28.5	7.7	7.7	14.6	14.6	83.9	83.5	6.0	6.0	4.1	4.5	6	6	-	-	817203	807828	-	-	-	-
						1.0	0.6	77	28.4		7.7		14.7		83.1		6.0		4.1		5		-				-		-	
					Middle	4.5	0.5	97	28.4	28.4	7.7	7.7	14.7	14.7	82.9	82.8	5.9		3.7		6		-				-		-	
						4.5	0.5	105	28.4		7.7		14.8		82.7		5.9		3.6		6		-				-		-	
					Bottom	7.9	0.3	131	28.4	28.4	7.7	7.7	14.9	14.9	82.5	82.5	5.9	5.9	5.8		6		-				-		-	
						7.9	0.3	132	28.4		7.7		14.9		82.5		5.9		5.8		6		-				-		-	
SR5A	Cloudy	Moderate	19:22	3.7	Surface	1.0	0.2	149	28.5	28.5	7.7	7.7	15.7	15.7	81.6	81.6	5.8	5.8	3.4	5.0	8	8	-	-	816585	810702	-	-	-	-
						1.0	0.2	155	28.5		7.7		15.7		81.5		5.8		3.5		9		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	85	28.5	28.5	7.7	7.7	15.7	15.7	81.4	81.5	5.8	5.8	6.6		8		-				-		-	
						2.7	0.1	88	28.5		7.7		15.7		81.5		5.8		6.5		8		-				-		-	
SR6	Cloudy	Moderate	19:47	3.8	Surface	1.0	0.0	116	28.5	28.5	7.7	7.7	14.6	14.6	80.0	79.9	5.7	5.7	4.5	4.8	4	4	-	-	817889	814652	-	-	-	-
						1.0	0.0	123	28.4		7.7		14.7		79.8		5.7		4.5		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.0	40	28.4	28.4	7.7	7.7	14.9	14.9	80.3	80.5	5.8	5.8	5.0		4		-				-		-	
						2.8	0.0	42	28.4		7.7		14.9		80.7		5.8		5.1		4		-				-		-	
SR7	Cloudy	Moderate	19:23	16.2	Surface	1.0	0.6	75	29.0	29.0	7.9	7.9	13.0	13.0	79.9	79.9	5.7	5.4	2.2	2.0	4	4	-	-	823652	823737	-	-	-	-
						1.0	0.6	76	29.0		7.9		13.0		79.8		5.7		2.2		4		-				-		-	
					Middle	8.1	0.3	78	28.7	28.7	7.9	7.9	15.5	15.5	72.1	72.1	5.1		2.0		4		-				-		-	
						8.1	0.3	78	28.7		7.9		15.5		72.0		5.1		2.0		3		-				-		-	
					Bottom	15.2	0.1	86	27.7	27.8	7.8	7.8	23.6	23.6	50.9	51.3	3.5	3.6	1.7		4		-				-		-	
						15.2	0.1	89	27.8		7.8		23.5		51.7		3.6		1.7		3		-				-		-	
SR8	Cloudy	Moderate	18:03	5.2	Surface	1.0	-	-	28.9	28.9	7.9	7.9	12.0	12.0	77.3	77.2	5.6	5.6	4.2	4.2	4	5	-	-	820392	811620	-	-	-	-
						1.0	-	-	28.9		7.9		12.0		77.1		5.6		4.2		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	28.9	28.9	7.9	7.9	14.1	14.1	72.1	72.2	5.1	5.1	4.2		5		-				-		-	
						4.2	-	-	28.9		7.9		14.1		72.2		5.1		4.2		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 09 July 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	Rough	11:25	8.5	Surface	1.0	0.6	57	28.4	28.4	7.7	7.7	13.7	13.7	82.3	82.3	5.9	5.7	4.3	5.5	4	7	83	87	815619	804260	<0.2	<0.2	1.3	1.4
						1.0	0.6	64	28.4		7.7		13.7		82.2		5.9		4.4		5		83				<0.2		1.5	
					Middle	4.3	0.6	80	28.3	28.3	7.7	7.7	14.7	14.7	75.5	75.3	5.4		5.5		6		87				<0.2		1.4	
						4.3	0.6	82	28.2		7.7		14.7		75.0		5.4		5.5		6		87				<0.2		1.3	
					Bottom	7.5	0.5	88	28.2	28.2	7.7	7.7	15.8	15.7	74.3	74.5	5.3	5.3	6.8		9		91				<0.2		1.4	
						7.5	0.5	90	28.2		7.7		15.7		74.6		5.3		6.8		10		91				<0.2		1.4	
C2	Cloudy	Moderate	12:32	11.2	Surface	1.0	0.4	63	29.2	29.2	7.9	7.9	8.9	8.9	80.8	80.8	5.9	5.0	4.1	5.1	5	5	86	88	825662	806950	<0.2	<0.2	1.5	1.5
						1.0	0.4	70	29.2		7.9		8.9		80.8		5.9		4.1		6		86				<0.2		1.6	
					Middle	5.6	0.2	79	28.6	28.6	7.8	7.8	16.9	16.9	57.2	57.1	4.0		6.0		4		87				<0.2		1.4	
						5.6	0.2	78	28.6		7.8		16.9		57.0		4.0		6.0		5		89				<0.2		1.4	
					Bottom	10.2	0.2	84	27.9	27.9	7.8	7.8	21.3	21.3	44.9	45.0	3.1	3.1	5.3		5		89				<0.2		1.4	
						10.2	0.2	86	27.9		7.8		21.3		45.0		3.1		5.3		6		90				<0.2		1.5	
C3	Cloudy	Moderate	10:47	11.7	Surface	1.0	0.2	256	29.2	29.2	7.9	7.9	12.8	12.8	78.3	78.0	5.6	4.8	2.1	1.9	5	4	85	88	822108	817812	<0.2	<0.2	1.7	1.7
						1.0	0.2	262	29.2		7.9		12.8		77.7		5.6		2.1		5		85				<0.2		1.7	
					Middle	5.9	0.3	278	28.0	28.0	7.8	7.8	18.4	19.5	56.0	55.9	4.0		1.7		4		87				<0.2		1.7	
						5.9	0.3	291	28.0		7.9		20.5		55.7		3.9		1.7		4		88				<0.2		1.9	
					Bottom	10.7	0.6	310	26.7	26.7	7.8	7.8	26.8	26.8	43.6	43.8	3.0	3.0	1.9		4		90				<0.2		1.7	
						10.7	0.6	318	26.7		7.8		26.8		44.0		3.0		1.9		3		91				<0.2		1.5	
IM1	Cloudy	Rough	11:50	5.2	Surface	1.0	0.2	51	28.4	28.4	7.7	7.7	14.2	14.2	82.5	82.5	5.9	5.9	4.3	4.9	6	6	83	87	817936	807114	<0.2	<0.2	1.6	1.5
						1.0	0.2	51	28.4		7.7		14.2		82.4		5.9		4.4		6		84				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	53	28.1	28.1	7.7	7.7	15.2	15.2	76.3	76.3	5.5	5.5	5.6		4		91				<0.2		1.4	
						4.2	0.1	54	28.1		7.7		15.2		76.2		5.5		5.5		6		91				<0.2		1.4	
IM2	Cloudy	Rough	11:55	6.8	Surface	1.0	0.6	36	28.3	28.3	7.7	7.7	14.6	14.7	77.2	76.9	5.5	5.4	4.7	7.8	6	6	83	88	818172	806169	<0.2	<0.2	1.3	1.4
						1.0	0.6	36	28.3		7.7		14.8		76.5		5.5		4.7		7		84				<0.2		1.3	
					Middle	3.4	0.6	28	28.3	28.3	7.7	7.7	15.0	15.1	74.3	74.3	5.3		5.9		6		87				<0.2		1.4	
						3.4	0.6	29	28.3		7.7		15.3		74.3		5.3		5.9		6		88				<0.2		1.4	
					Bottom	5.8	0.3	7	26.8	26.9	7.6	7.6	25.2	23.6	70.5	70.6	5.1	5.1	12.9		6		91				<0.2		1.4	
						5.8	0.3	7	26.9		7.6		22.0		70.6		5.1		12.9		7		92				<0.2		1.4	
IM3	Cloudy	Rough	12:03	6.4	Surface	1.0	0.6	53	28.4	28.4	7.7	7.7	14.9	14.9	78.4	78.4	5.6	5.6	5.4	5.5	7	7	83	87	818764	805580	<0.2	<0.2	1.3	1.3
						1.0	0.6	56	28.4		7.7		14.9		78.3		5.6		5.4		6		83				<0.2		1.4	
					Middle	3.2	0.4	45	28.3	28.3	7.7	7.7	15.3	15.2	76.8	77.0	5.5		5.6		6		87				<0.2		1.4	
						3.2	0.4	46	28.3		7.7		15.2		77.2		5.5		5.7		7		88				<0.2		1.2	
					Bottom	5.4	0.4	9	28.3	28.3	7.7	7.7	15.0	15.0	78.3	78.4	5.6	5.6	5.5		7		91				<0.2		1.2	
						5.4	0.4	9	28.3		7.7		15.0		78.4		5.6		5.5		6		91				<0.2		1.2	
IM4	Cloudy	Rough	12:12	7.1	Surface	1.0	0.5	30	28.3	28.3	7.7	7.7	14.6	14.6	81.2	81.1	5.8	5.7	5.3	5.8	7	6	79	86	819747	804596	<0.2	<0.2	1.3	1.2
						1.0	0.5	31	28.3		7.7		14.6		81.0		5.8		5.4		6		81				<0.2		1.2	
					Middle	3.6	0.2	42	28.2	28.2	7.7	7.7	15.2	15.2	77.9	77.9	5.6		5.8		6		88				<0.2		1.2	
						3.6	0.2	43	28.2		7.7		15.2		77.8		5.6		5.8		5		88				<0.2		1.2	
					Bottom	6.1	0.4	335	27.9	27.9	7.7	7.7	17.3	17.8	67.4	68.1	4.8	4.9	6.4		6		91				<0.2		1.2	
						6.1	0.4	339	27.9		7.7		18.3		68.7		4.9		6.4		5		91				<0.2		1.2	
IM5	Cloudy	Rough	12:20	7.5	Surface	1.0	1.0	20	28.4	28.4	7.8	7.8	11.5	11.5	86.4	86.4	6.3	6.3	4.1	6.6	4	5	83	88	820744	804844	<0.2	<0.2	1.3	1.3
						1.0	1.0	20	28.4		7.8		11.5		86.3		6.3		4.1		5		84				<0.2		1.3	
					Middle	3.8	0.9	33	28.4	28.4	7.8	7.8	11.5	11.5	86.3	86.3	6.3		5.1		4		88				<0.2		1.4	
						3.8	1.0	33	28.4		7.8		11.5		86.2		6.3		5.1		6		88				<0.2		1.2	
					Bottom	6.5	0.7	46	28.3	28.3	7.6	7.6	14.1	14.3	73.7	73.8	5.3	5.3	10.2		6		91				<0.2		1.3	
						6.5	0.7	47	28.3		7.6		14.5		73.8		5.3		10.8		7		91				<0.2		1.2	
IM6	Cloudy	Rough	12:28	7.9	Surface	1.0	0.6	22	28.5	28.5	7.7	7.6	13.9	14.1	76.3	75.2	5.5	5.3	3.5	5.2	6	7	83	88	821038	805845	<0.2	<0.2	1.2	1.2
						1.0	0.7	22	28.4		7.6		14.3		74.0		5.3		3.5		7		83				<0.2		1.3	
					Middle	4.0	0.5	54	28.4	28.4	7.6	7.6	14.3	14.4	73.7	73.3	5.3		5.5		7		88				<0.2		1.2	
						4.0	0.5	57	28.4		7.6		14.6		72.8		5.2		5.6		6		88				<0.2		1.2	
					Bottom	6.9	0.5	77	28.3	28.3	7.6	7.6	14.7	14.6	72.0	71.8	5.2	5.2	6.7		7		91				<0.2		1.2	
						6.9	0.5	81	28.3		7.6		14.5		71.6		5.1		6.7		6		92				<0.2		1.2	
IM7	Cloudy	Rough	12:34	8.1	Surface	1.0	0.2	60	28.6	28.6	7.7	7.7	13.3	13.3	78.2	78.2	5.6	5.5	4.0	5.3	5	5	83	88	821349	806840	<0.2	<0.2	1.4	1.5
						1.0	0.2	65	28.6		7.7		13.3		78.2		5.6		4.0		5		84				<0.2		1.4	
					Middle	4.1	0.3	72	28.5	28.5	7.7	7.6	13.4	13.4	75.1	74.9	5.4		4.1		5		88				<0.2		1.3	
						4.1	0.3	77	28.5		7.6		13.4		74.7		5.4		4.1		5		89				<0.2		1.5	
					Bottom	7.1	0.2	81	28.2	28.2	7.6	7.6	17.4	17.4	66.6	67.1	4.7	4.8	7.8		5		91				<0.2		1.5	
						7.1	0.2	85	28.2		7.6		17.4		67.6		4.8		7.8		6		92				<0.2		1.6	
IM8	Cloudy	Moderate	12:06	7.9	Surface	1.0	0.2	268	29.1	29.1	7.9	7.9	11.8	11.8	81.7	81.7	5.9	5.9	3.3	6.6	5	4	85	87	821808	808132	<0.2	<0.2	1.7	1.6
						1.0	0.2	291	29.1		7.9		11.8		81.6		5.9		3.3		6		84				<0.2		1.6	
					Middle	4.0	0.2	265	29.1	29.1	7.9	7.9	11.8	11.8	80.4	80.3	5.8		5.2		4		87				<0.2		1.6	
						4.0	0.2	273	29.1		7.9		11.8		80.2		5.8		5.2		4		87				<0.2		1.6	
					Bottom	6.9	0.3	273	28.9	28.9	7.9	7.9	13.1	13.2	72.0	71.9	5.2	5.2	11.3		4		90				<0.2		1.7	
						6.9	0.3	275	28.9		7.9		13.3		71.8		5.1		11.7		3		90				<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 09 July 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	12:00	7.2	Surface	1.0	0.1	328	29.3	29.3	7.9	7.9	11.1	11.1	83.0	82.9	6.0	5.9	3.2	4.4	4	4	84	88	822080	808829	<0.2	<0.2	1.5	1.5
						1.0	0.1	356	29.2		7.9		11.2		82.7		6.0		3.1		4		86				<0.2		1.5	
					Middle	3.6	0.1	267	29.1	29.1	7.9	7.9	11.6	11.6	79.9	79.8	5.8		3.5		4		88				<0.2		1.5	
						3.6	0.1	280	29.0		7.9		11.6		79.6		5.7		3.7		3		87				<0.2		1.4	
					Bottom	6.2	0.2	308	28.9	28.9	7.8	7.8	14.7	14.7	69.0	69.0	4.9	4.9	6.4		5		90				<0.2		1.4	
						6.2	0.3	321	28.9		7.8		14.7		69.0		4.9		6.4		4		91				<0.2		1.4	
IM10	Cloudy	Moderate	11:53	7.7	Surface	1.0	0.3	319	29.1	29.1	7.9	7.9	12.1	12.2	79.8	79.6	5.7	5.7	2.9	3.3	4	4	85	88	822361	809796	<0.2	<0.2	1.4	1.4
						1.0	0.3	341	29.1		7.9		12.2		79.4		5.7		2.9		5		85				<0.2		1.4	
					Middle	3.9	0.3	311	29.1	29.1	7.9	7.9	12.4	12.4	78.5	78.5	5.6		3.0		4		87				<0.2		1.4	
						3.9	0.3	328	29.1		7.9		12.4		78.5		5.6		3.0		4		90				<0.2		1.4	
					Bottom	6.7	0.3	310	29.0	29.0	7.8	7.8	14.1	14.2	71.2	71.3	5.1	5.1	4.2		4		90				<0.2		1.4	
						6.7	0.3	334	28.9		7.9		14.2		71.3		5.1		4.2		5		88				<0.2		1.4	
IM11	Cloudy	Moderate	11:43	7.5	Surface	1.0	0.2	326	29.2	29.2	7.9	7.9	12.5	12.5	80.0	79.8	5.7	5.6	2.8	2.8	4	5	85	88	822049	811466	<0.2	<0.2	1.5	1.5
						1.0	0.2	339	29.2		7.9		12.5		79.5		5.7		2.8		5		86				<0.2		1.5	
					Middle	3.8	0.3	275	29.1	29.1	7.9	7.9	13.0	13.0	76.1	76.2	5.4		2.8		5		87				<0.2		1.5	
						3.8	0.3	300	29.1		7.9		13.0		76.2		5.5		2.8		4		88				<0.2		1.6	
					Bottom	6.5	0.4	290	28.9	28.9	7.9	7.9	13.9	13.9	73.3	73.4	5.2	5.2	3.0		5		90				<0.2		1.5	
						6.5	0.4	306	28.9		7.9		13.9		73.4		5.2		2.9		4		90				<0.2		1.6	
IM12	Cloudy	Moderate	11:34	8.3	Surface	1.0	0.3	289	29.1	29.1	7.9	7.9	13.1	13.1	76.3	76.3	5.5	5.1	3.1	5.3	5	5	86	88	821462	812028	<0.2	<0.2	1.5	1.5
						1.0	0.3	314	29.0		7.9		13.1		76.2		5.5		3.1		5		85				<0.2		1.4	
					Middle	4.2	0.5	266	28.5	28.4	7.9	7.9	14.7	14.7	66.7	66.4	4.8		4.9		6		87				<0.2		1.5	
						4.2	0.5	270	28.3		7.9		14.7		66.1		4.7		4.9		5		88				<0.2		1.6	
					Bottom	7.3	0.3	292	27.6	27.6	7.8	7.8	22.4	22.4	56.1	56.2	3.9	3.9	8.0		5		90				<0.2		1.5	
						7.3	0.3	292	27.6		7.8		22.4		56.3		3.9		8.0		4		90				<0.2		1.6	
SR1A	Cloudy	Moderate	11:18	5.1	Surface	1.0	-	-	29.0	29.0	7.9	7.9	13.0	13.0	81.7	81.3	5.9	5.9	2.5	3.5	5	5	-	-	819977	812658	-	-	-	-
						1.0	-	-	29.0		7.9		13.0		80.9		5.8		2.7		6		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	28.9	28.9	7.9	7.9	14.0	14.0	77.2	77.2	5.5	5.5	4.3		5		-				-		-	
						4.1	-	-	28.9		7.9		14.0		77.2		5.5		4.3		4		-				-		-	
SR2	Cloudy	Moderate	11:10	4.8	Surface	1.0	0.1	163	28.9	28.9	7.9	7.9	12.7	12.7	80.3	80.1	5.8	5.8	3.6	3.7	4	4	85	88	821479	814154	<0.2	<0.2	1.6	1.6
						1.0	0.1	168	28.9		7.9		12.7		79.8		5.7		3.7		4		86				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	143	28.8	28.8	7.9	7.9	15.1	15.1	73.3	73.3	5.2	5.2	3.8		3		90				<0.2		1.6	
						3.8	0.1	143	28.8		7.9		15.1		73.3		5.2		3.7		4		90				<0.2		1.7	
SR3	Cloudy	Moderate	12:13	8.2	Surface	1.0	0.2	270	29.1	29.1	7.9	7.9	11.7	11.7	81.1	81.0	5.8	5.8	3.4	4.6	6	5	-	-	822134	807549	-	-	-	-
						1.0	0.2	280	29.1		7.9		11.7		80.8		5.8		3.4		6		-				-		-	
					Middle	4.1	0.2	264	29.1	29.1	7.9	7.9	11.7	11.7	79.2	79.1	5.7		3.5		5		-				-		-	
						4.1	0.2	271	29.1		7.9		11.7		79.0		5.7		3.7		5		-				-		-	
					Bottom	7.2	0.1	318	28.6	28.6	7.9	7.9	17.3	17.3	63.9	64.1	4.5	4.5	7.0		5		-				-		-	
						7.2	0.1	336	28.6		7.9		17.3		64.3		4.5		7.0		4		-				-		-	
SR4A	Cloudy	Moderate	10:57	9.8	Surface	1.0	0.2	252	28.3	28.3	7.7	7.7	13.6	13.6	79.5	79.4	5.7	5.5	4.9	6.3	6	8	-	-	817176	807830	-	-	-	-
						1.0	0.2	261	28.3		7.7		13.6		79.3		5.7		5.0		5		-				-		-	
					Middle	4.9	0.2	265	26.6	26.5	7.6	7.6	25.7	26.2	72.5	72.6	5.2		6.2		8		-				-		-	
						4.9	0.2	289	26.4		7.6		26.7		72.6		5.2		6.2		6		-				-		-	
					Bottom	8.8	0.0	252	26.4	26.4	7.6	7.6	26.7	26.7	70.6	70.6	5.0	5.0	7.7		12		-				-		-	
						8.8	0.0	267	26.4		7.6		26.7		70.5		5.0		7.7		13		-				-		-	
SR5A	Cloudy	Moderate	10:42	4.1	Surface	1.0	0.0	251	28.3	28.3	7.7	7.7	14.9	14.9	78.4	78.4	5.6	5.6	3.1	3.6	7	7	-	-	816576	810706	-	-	-	-
						1.0	0.0	264	28.3		7.7		14.9		78.4		5.6		3.1		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.0	314	28.1	28.1	7.6	7.6	15.6	15.6	76.1	76.2	5.5	5.5	4.2		8		-				-		-	
						3.1	0.0	317	28.1		7.7		15.6		76.2		5.5		4.2		8		-				-		-	
SR6	Cloudy	Moderate	10:17	4.2	Surface	1.0	0.1	204	28.2	28.2	7.6	7.6	14.9	14.9	72.6	72.4	5.2	5.2	3.1	4.1	7	6	-	-	817922	814656	-	-	-	-
						1.0	0.1	204	28.2		7.6		14.9		72.1		5.2		3.1		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	263	28.1	28.1	7.5	7.5	15.9	15.9	70.5	70.6	5.0	5.1	5.1		5		-				-		-	
						3.2	0.0	264	28.1		7.5		15.9		70.7		5.1		5.1		5		-				-		-	
SR7	Cloudy	Moderate	10:16	16.3	Surface	1.0	0.1	213	28.7	28.7	7.9	7.9	15.9	15.9	82.2	82.2	5.8	5.1	1.6	1.5	4	4	-	-	823622	823733	-	-	-	-
						1.0	0.1	222	28.7		7.9		15.9		82.2		5.8		1.6		5		-				-		-	
					Middle	8.2	0.3	210	27.7	27.8	7.8	7.8	21.2	21.1	62.4	62.3	4.3		1.4		3		-				-		-	
						8.2	0.3	209	27.8		7.8		21.1		62.2		4.3		1.4		4		-				-		-	
					Bottom	15.3	0.1	239	26.4	26.5	7.8	7.8	28.2	28.1	48.8	48.8	3.4	3.4	1.5		3		-				-		-	
						15.3	0.1	221	26.5		7.8		28.0		48.8		3.4		1.5		2		-				-		-	
SR8	Cloudy	Moderate	11:25	5.0	Surface	1.0	-	-	29.1	29.1	7.9	7.9	13.4	13.5	76.9	76.8	5.5	5.5	3.8	4.5	4	5	-	-	820396	811640	-	-	-	-
						1.0	-	-	29.1		7.9		13.5		76.6		5.5		3.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	28.9	28.9	7.9	7.9	14.2	14.2	74.5	74.5	5.3	5.3	5.1		6		-				-		-	
						4.0	-	-	28.9		7.9		14.2		74.5		5.3		5.0		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 11 July 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	08:59	8.6	Surface	1.0	1.0	188	28.1	28.1	7.7	7.7	14.0	14.0	65.9	65.7	4.8	3.5	3.7	8.0	3	2	85	88	815628	804241	<0.2	<0.2	1.5	1.5
						1.0	1.0	199	28.1		7.7		14.0		65.4		4.7		3.7		2		85				<0.2		1.5	
					Middle	4.3	0.6	181	25.7	25.7	7.6	7.6	29.0	29.0	33.0	33.3	2.3		8.2		2		88				<0.2		1.5	
						4.3	0.6	187	25.7		7.6		29.0		33.5		2.3		8.6		2		87				<0.2		1.5	
					Bottom	7.6	0.1	141	25.5	25.5	7.6	7.6	30.1	30.0	37.4	38.5	2.6	2.7	11.8		3		90				<0.2		1.4	
						7.6	0.1	142	25.5		7.6		30.0		39.6		2.7		11.9		2		90				<0.2		1.5	
C2	Cloudy	Rough	10:30	10.8	Surface	1.0	1.1	171	29.4	29.4	7.8	7.8	4.3	4.3	72.3	72.2	5.4	4.3	9.2	6.6	7	7	84	87	825668	806965	<0.2	<0.2	2.1	2.0
						1.0	1.2	182	29.4		7.8		4.3		72.1		5.4		9.3		7		84				<0.2		2.0	
					Middle	5.4	0.8	155	27.9	27.9	7.7	7.7	20.4	20.4	45.3	45.3	3.2		5.0		7		86				<0.2		1.9	
						5.4	0.8	156	27.9		7.7		20.3		45.3		3.2		4.9		7		87				<0.2		2.0	
					Bottom	9.8	0.2	158	26.7	26.7	7.7	7.7	27.3	27.4	32.8	33.0	2.3	2.3	5.5		7		89				<0.2		2.0	
						9.8	0.2	159	26.7		7.7		27.4		33.1		2.3		5.5		7		90				<0.2		2.1	
C3	Cloudy	Moderate	08:24	12.4	Surface	1.0	0.1	212	28.4	28.4	7.9	7.9	13.7	13.7	72.0	72.0	5.2	5.0	2.3	1.7	3	3	85	88	822091	817780	<0.2	<0.2	1.5	1.5
						1.0	0.1	221	28.4		7.9		13.7		72.0		5.2		2.2		2		86				<0.2		1.5	
					Middle	6.2	0.1	0	28.1	28.1	7.9	7.9	16.3	16.3	66.9	66.8	4.8		1.4		3		87				<0.2		1.4	
						6.2	0.1	0	28.1		7.9		16.3		66.7		4.8		1.4		2		88				<0.2		1.6	
					Bottom	11.4	0.1	309	26.3	26.4	7.8	7.8	28.3	28.3	49.4	50.6	3.4	3.5	1.4		3		89				<0.2		1.6	
						11.4	0.1	334	26.4		7.8		28.2		51.8		3.6		1.4		4		90				<0.2		1.6	
IM1	Cloudy	Moderate	08:34	5.9	Surface	1.0	0.0	303	27.9	27.9	7.8	7.8	12.5	12.5	66.8	66.3	4.9	4.9	5.7	8.6	2	2	84	86	817956	807145	<0.2	<0.2	1.6	1.6
						1.0	0.0	312	27.9		7.8		12.5		65.7		4.8		5.7		2		82				<0.2		1.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.9	0.1	136	25.6	25.6	7.6	7.6	29.9	29.9	34.1	34.5	2.4	**2.4**	11.5		2		89				<0.2		1.6	
						4.9	0.1	144	25.6		7.6		29.9		34.9		2.4		11.4		2		90				<0.2		1.5	
IM2	Cloudy	Moderate	08:29	7.2	Surface	1.0	0.5	172	28.0	28.0	7.7	7.7	12.5	12.5	69.5	69.3	5.1		3.9		3		84				<0.2		1.6	
						1.0	0.5	176	28.0		7.7		12.5		69.0		5.0	**3.7**	4.0		2		86				<0.2		1.6	
					Middle	3.6	0.0	216	25.9	26.0	7.6	7.6	27.7	27.7	34.6	34.8	2.4		5.0	5.0	3	3	88	88	818163	806156	<0.2	<0.2	1.6	1.6
						3.6	0.0	216	26.0		7.6		27.6		35.0		2.4		5.0		3		87				<0.2		1.5	
					Bottom	6.2	0.1	28	25.5	25.5	7.6	7.6	29.9	29.9	36.2	36.6	2.5	**2.6**	6.1		4		90				<0.2		1.4	
						6.2	0.1	28	25.5		7.6		29.9		36.9		2.6		6.2		3		90				<0.2		1.8	
IM3	Cloudy	Moderate	08:24	7.4	Surface	1.0	0.1	253	27.5	27.5	7.6	7.6	18.0	18.0	58.9	59.0	4.2		4.2		3		85				<0.2		1.5	
						1.0	0.1	260	27.5		7.6		18.0		59.1		4.2	**3.4**	4.2		3		86				<0.2		1.5	
					Middle	3.7	0.1	355	26.3	26.3	7.6	7.6	25.1	25.2	36.5	36.4	2.6		5.9	5.6	3	3	88	88	818807	805580	<0.2	<0.2	1.6	1.5
						3.7	0.1	327	26.3		7.6		25.2		36.3		2.5		5.9		2		88				<0.2		1.6	
					Bottom	6.4	0.2	313	26.0	26.0	7.6	7.6	24.8	25.1	41.6	41.9	2.9	3.0	6.6		4		90				<0.2		1.5	
						6.4	0.2	329	26.0		7.6		25.5		42.1		3.0		6.9		5		90				<0.2		1.5	
IM4	Cloudy	Moderate	08:17	7.4	Surface	1.0	0.3	190	28.2	28.2	7.7	7.7	11.6	11.6	70.0	69.9	5.1		3.9		2		84				<0.2		1.6	
						1.0	0.3	208	28.2		7.7		11.6		69.8		5.1	**3.6**	4.0		3		85				<0.2		1.7	
					Middle	3.7	0.3	205	26.2	26.2	7.5	7.5	27.0	27.0	29.2	29.3	2.0		11.6	9.6	3	3	89	88	819735	804616	<0.2	<0.2	1.7	1.7
						3.7	0.3	213	26.2		7.5		27.0		29.3		2.0		11.6		3		88				<0.2		1.7	
					Bottom	6.4	0.2	276	25.7	25.7	7.5	7.5	29.1	29.2	26.9	27.0	1.9	**1.9**	13.1		4		89				<0.2		1.6	
						6.4	0.2	276	25.7		7.5		29.2		27.1		1.9		13.1		3		90				<0.2		1.7	
IM5	Cloudy	Moderate	08:10	7.0	Surface	1.0	0.5	239	28.2	28.2	7.6	7.6	9.4	9.4	76.1	75.4	5.6	5.3	4.2	7.1	2	3	86	88	820725	804849	<0.2	<0.2	1.6	1.6
						1.0	0.5	257	28.2		7.6		9.4		74.6		5.5		4.1		3		84				<0.2		1.5	
					Middle	3.5	0.0	230	28.1	28.1	7.6	7.6	12.0	12.0	69.0	68.9	5.1		4.1		3		88				<0.2		1.7	
						3.5	0.0	239	28.1		7.6		12.0		68.7		5.0		4.1		3		87				<0.2		1.8	
					Bottom	6.0	0.0	201	26.2	26.2	7.5	7.5	26.8	26.8	44.0	44.8	3.1	3.2	13.1		3		90				<0.2		1.5	
						6.0	0.0	207	26.2		7.5		26.8		45.6		3.2		13.1		3		90				<0.2		1.6	
IM6	Cloudy	Moderate	08:01	7.2	Surface	1.0	0.1	336	28.2	28.2	7.6	7.6	11.7	11.7	70.7	70.5	5.2	4.5	3.5	7.2	3	3	81	87	821059	805838	<0.2	<0.2	1.6	1.6
						1.0	0.1	309	28.2		7.6		11.7		70.3		5.1		3.4		3		83				<0.2		1.5	
					Middle	3.6	0.2	341	27.7	27.7	7.5	7.5	17.9	17.9	53.5	53.6	3.8		5.7		4		87				<0.2		1.6	
						3.6	0.2	350	27.7		7.5		17.9		53.7		3.8		5.9		3		88				<0.2		1.6	
					Bottom	6.2	0.1	304	26.1	26.1	7.5	7.5	27.4	27.4	37.9	39.4	2.6	2.7	12.5		2		90				<0.2		1.6	
						6.2	0.1	328	26.1		7.5		27.5		40.8		2.8		12.5		4		90				<0.2		1.8	
IM7	Cloudy	Moderate	07:52	7.2	Surface	1.0	0.0	101	28.2	28.2	7.6	7.6	14.2	13.3	70.1	70.0	5.1	4.4	4.7	7.7	3	3	82	87	821347	806836	<0.2	<0.2	1.6	1.6
						1.0	0.0	108	28.2		7.6		12.5		69.9		5.1		4.7		3		85				<0.2		1.6	
					Middle	3.6	0.0	62	27.5	27.4	7.5	7.5	17.3	17.4	50.4	50.0	3.6		5.2		2		87				<0.2		1.8	
						3.6	0.0	64	27.3		7.5		17.4		49.6		3.6		5.2		2		88				<0.2		1.5	
					Bottom	6.2	0.0	335	26.1	26.2	7.5	7.5	28.5	28.5	28.6	28.9	2.0	**2.0**	13.1		3		89				<0.2		1.6	
						6.2	0.0	345	26.2		7.5		28.5		29.2		2.0		13.1		4		91				<0.2		1.7	
IM8	Cloudy	Moderate	10:01	7.2	Surface	1.0	0.3	203	28.9	28.9	7.8	7.8	10.5	10.5	75.3	75.3	5.5	5.5	3.5	5.1	3	3	86	88	821839	808151	<0.2	<0.2	1.8	1.8
						1.0	0.3	208	28.9		7.8		10.5		75.2		5.5		3.5		4		86				<0.2		1.8	
					Middle	3.6	0.3	192	28.9	28.9	7.8	7.8	11.1	11.1	74.3	74.3	5.4		3.2		4		89				<0.2		1.7	
						3.6	0.3	201	28.8		7.8		11.1		74.3		5.4		3.2		2		89				<0.2		1.8	
					Bottom	6.2	0.1	253	28.7	28.7	7.8	7.8	11.4	11.4	71.9	71.7	5.2	5.2	8.4		3		90				<0.2		1.7	
						6.2	0.1	259	28.7		7.8		11.4		71.5		5.2		9.0		4		90				<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 11 July 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	09:56	7.0	Surface	1.0	0.4	132	28.9	28.9	7.8	7.8	10.2	10.2	76.7	76.7	5.6	5.6	3.7	3.3	2	3	84	87	822103	808819	<0.2	<0.2	1.7	1.7
						1.0	0.4	142	28.9		7.8		10.2		76.7		5.6		3.7		2		84				<0.2		1.7	
					Middle	3.5	0.3	123	28.9	28.9	7.8	7.8	10.9	10.8	76.0	76.0	5.5		2.8		3		88				<0.2		1.8	
						3.5	0.3	126	28.9		7.8		10.8		75.9		5.5		2.8		2		88				<0.2		1.7	
					Bottom	6.0	0.3	48	28.5	28.5	7.8	7.7	17.7	17.9	57.7	58.1	4.1	4.1	3.6		3		89				<0.2		1.8	
						6.0	0.3	51	28.5		7.7		18.1		58.4		4.1		3.5		3		90				<0.2		1.6	
IM10	Cloudy	Moderate	09:47	7.1	Surface	1.0	0.6	104	28.9	28.9	7.8	7.8	11.1	11.1	74.9	74.9	5.4	5.2	2.6	3.6	3	3	85	87	822377	809810	<0.2	<0.2	1.7	1.9
						1.0	0.6	111	28.9		7.8		11.1		74.8		5.4		2.5		3		85				<0.2		1.7	
					Middle	3.6	0.6	93	28.7	28.7	7.8	7.8	14.6	14.6	69.0	69.1	4.9		1.9		4		87				<0.2		1.7	
						3.6	0.6	98	28.7		7.8		14.6		69.2		4.9		1.9		3		88				<0.2		2.0	
					Bottom	6.1	0.4	93	27.8	27.9	7.8	7.8	20.1	20.1	49.9	50.1	3.5	3.5	6.3		2		89				<0.2		2.0	
						6.1	0.4	97	27.9		7.8		20.1		50.2		3.5		6.3		2		90				<0.2		2.0	
IM11	Cloudy	Moderate	09:34	8.5	Surface	1.0	0.6	111	28.9	28.9	7.9	7.9	11.2	11.2	76.4	76.5	5.5	4.8	2.6	4.6	3	3	86	88	822055	811456	<0.2	<0.2	1.7	1.7
						1.0	0.7	116	28.9		7.9		11.2		76.5		5.5		2.7		3		86				<0.2		1.7	
					Middle	4.3	0.6	99	28.2	28.2	7.8	7.8	18.3	18.3	57.4	57.5	4.0		3.1		4		88				<0.2		1.5	
						4.3	0.6	106	28.2		7.8		18.3		57.5		4.1		3.2		3		88				<0.2		1.8	
					Bottom	7.5	0.1	97	27.8	27.9	7.7	7.7	23.6	23.6	45.1	47.3	3.1	3.3	7.8		3		90				<0.2		1.7	
						7.5	0.2	98	27.9		7.7		23.5		49.5		3.4		8.2		4		90				<0.2		1.8	
IM12	Cloudy	Moderate	09:26	8.1	Surface	1.0	0.5	100	28.8	28.8	7.9	7.9	10.7	10.7	73.6	73.5	5.4	4.9	2.8	3.5	3	3	84	87	821436	812044	<0.2	<0.2	1.7	1.7
						1.0	0.5	107	28.8		7.9		10.7		73.3		5.3		2.8		3		85				<0.2		1.6	
					Middle	4.1	0.5	98	28.5	28.5	7.8	7.8	15.2	15.2	61.3	61.3	4.4		3.3		3		87				<0.2		1.5	
						4.1	0.5	106	28.4		7.8		15.3		61.2		4.4		3.4		3		87				<0.2		1.9	
					Bottom	7.1	0.1	154	28.1	28.1	7.8	7.8	18.2	18.3	50.9	50.8	3.6	3.6	4.4		3		88				<0.2		1.7	
						7.1	0.1	156	28.1		7.8		18.3		50.7		3.6		4.6		3		88				<0.2		1.7	
SR1A	Cloudy	Calm	09:02	5.3	Surface	1.0	-	-	28.8	28.8	7.9	7.9	9.8	9.8	76.6	76.6	5.6	5.6	3.2	4.8	4	4	-	-	819979	812663	-	-	-	-
						1.0	-	-	28.8		7.9		9.8		76.5		5.6		3.2		3		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	28.3	28.3	7.8	7.8	15.1	15.2	61.6	61.5	4.4	4.4	6.0		4		-				-		-	
						4.3	-	-	28.3		7.8		15.2		61.4		4.4		6.7		4		-				-		-	
SR2	Cloudy	Moderate	08:49	4.6	Surface	1.0	0.2	121	29.0	29.0	7.8	7.8	9.3	9.3	76.8	76.8	5.6	5.6	3.5	3.5	3	4	85	87	821468	814157	<0.2	<0.2	1.6	1.7
						1.0	0.2	122	29.0		7.8		9.3		76.7		5.6		3.6		4		85				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.5	118	28.8	28.8	7.8	7.8	11.3	11.3	70.9	70.9	5.1	5.1	3.5		3		88				<0.2		1.7	
						3.6	0.5	123	28.8		7.8		11.3		70.8		5.1		3.5		4		89				<0.2		1.7	
SR3	Cloudy	Moderate	10:07	8.3	Surface	1.0	0.6	196	28.7	28.7	7.8	7.8	11.9	11.9	67.6	67.5	4.9	4.5	3.8	5.3	4	4	-	-	822133	807589	-	-	-	-
						1.0	0.6	214	28.7		7.8		11.9		67.4		4.9		3.9		4		-				-		-	
					Middle	4.2	0.3	210	28.3	28.3	7.8	7.8	16.4	16.4	57.1	57.1	4.1		4.3		4		-				-		-	
						4.2	0.3	219	28.3		7.8		16.4		57.0		4.1		4.3		5		-				-		-	
					Bottom	7.3	0.1	196	26.6	26.6	7.7	7.7	27.0	27.0	36.6	37.1	2.5	**2.6**	7.9		4		-				-		-	
						7.3	0.1	208	26.6		7.7		27.0		37.5		2.6		7.9		5		-				-		-	
SR4A	Cloudy	Moderate	09:20	8.8	Surface	1.0	0.8	229	28.0	28.1	7.7	7.7	12.6	12.6	67.9	67.7	5.0	**3.5**	4.3	6.8	4	4	-	-	817210	807792	-	-	-	-
						1.0	0.8	231	28.1		7.7		12.6		67.5		4.9		4.3		4		-				-		-	
					Middle	4.4	0.8	230	25.6	25.6	7.6	7.6	29.5	29.5	29.1	29.2	2.0		7.1		5		-				-		-	
						4.4	0.8	243	25.6		7.6		29.5		29.3		2.0		7.2		4		-				-		-	
					Bottom	7.8	0.3	214	25.6	25.6	7.6	7.6	29.9	29.9	34.8	35.1	2.4	**2.4**	8.8		4		-				-		-	
						7.8	0.3	229	25.6		7.6		29.9		35.3		2.4		8.9		4		-				-		-	
SR5A	Cloudy	Moderate	09:44	4.8	Surface	1.0	0.6	226	28.0	28.0	7.7	7.7	12.3	12.3	77.8	77.6	5.7	5.7	4.6	5.3	4	4	-	-	816588	810710	-	-	-	-
						1.0	0.6	232	27.9		7.7		12.3		77.4		5.7		4.9		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	226	27.2	27.3	7.6	7.6	21.0	20.1	53.0	55.3	3.8	4.0	5.8		4		-				-		-	
						3.8	0.4	242	27.3		7.6		19.2		57.5		4.1		5.8		4		-				-		-	
SR6	Cloudy	Moderate	10:14	4.2	Surface	1.0	0.6	234	28.2	28.2	7.6	7.6	12.3	12.3	77.0	76.6	5.6	5.6	6.9	7.8	3	4	-	-	817901	814675	-	-	-	-
						1.0	0.6	238	28.1		7.6		12.3		76.2		5.6		6.9		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	221	27.9	27.9	7.4	7.4	16.3	16.7	58.8	58.6	4.2	4.2	8.8		4		-				-		-	
						3.2	0.4	241	27.9		7.4		17.1		58.4		4.1		8.7		4		-				-		-	
SR7	Rainy	Moderate	07:44	16.3	Surface	1.0	0.4	62	28.3	28.3	7.9	7.9	14.6	14.6	72.7	72.7	5.2	5.0	1.5	1.4	3	3	-	-	823619	823755	-	-	-	-
						1.0	0.4	65	28.3		7.9		14.6		72.7		5.2		1.6		2		-				-		-	
					Middle	8.2	0.1	62	28.0	28.0	7.8	7.8	16.7	16.7	66.5	66.5	4.7		1.5		3		-				-		-	
						8.2	0.1	63	28.0		7.8		16.7		66.4		4.7		1.5		3		-				-		-	
					Bottom	15.3	0.2	53	25.8	25.9	7.8	7.8	29.9	29.8	44.4	45.2	3.1	3.2	1.3		3		-				-		-	
						15.3	0.2	54	26.0		7.8		29.6		46.0		3.2		1.3		4		-				-		-	
SR8	Cloudy	Calm	09:11	4.9	Surface	1.0	-	-	29.3	29.3	7.9	7.9	9.4	9.3	78.5	78.4	5.7	5.7	5.6	8.3	3	4	-	-	820404	811638	-	-	-	-
						1.0	-	-	29.2		7.9		9.3		78.2		5.7		5.6		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	28.3	28.3	7.8	7.8	17.0	17.0	60.4	60.5	4.3	4.3	10.8		4		-				-		-	
						3.9	-	-	28.3		7.8		17.0		60.5		4.3		11.2		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 11 July 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	14:36	8.6	Surface	1.0	0.4	55	28.7	28.7	7.5	7.5	9.7	9.7	68.5	68.2	5.0	3.5	5.2	9.0	5	5	86	88	815623	804259	<0.2	<0.2	1.6	1.7
						1.0	0.4	55	28.7		7.5		9.7		67.9		5.0		6.0		5		86				<0.2		1.6	
					Middle	4.3	0.2	10	25.7	25.8	7.4	7.4	29.4	29.4	28.0	28.2	1.9		11.6		5		88				<0.2		1.7	
						4.3	0.2	10	25.8		7.4		29.4		28.3		2.0		11.2		5		89				<0.2		1.8	
					Bottom	7.6	0.3	17	25.3	25.3	7.4	7.4	31.1	31.1	25.2	25.4	1.7	1.8	9.9		6		90				<0.2		1.6	
						7.6	0.3	17	25.3		7.4		31.1		25.5		1.8		9.9		6		90				<0.2		1.7	
C2	Cloudy	Rough	13:18	10.3	Surface	1.0	0.8	183	30.0	30.0	7.8	7.8	3.9	3.9	76.9	76.9	5.7	4.6	11.5	6.1	10	11	80	85	825665	806928	<0.2	<0.2	2.4	2.2
						1.0	0.9	191	30.0		7.8		3.9		76.9		5.7		11.5		10		81				<0.2		2.2	
					Middle	5.2	0.3	166	28.0	28.0	7.7	7.7	19.6	19.6	48.2	48.4	3.4		3.3		12		84				<0.2		2.2	
						5.2	0.3	176	28.0		7.7		19.6		48.6		3.4		3.3		12		84				<0.2		2.0	
					Bottom	9.3	0.2	331	27.1	27.1	7.7	7.7	24.9	24.9	35.5	35.5	2.5	2.5	3.4		12		89				<0.2		2.1	
						9.3	0.2	349	27.0		7.7		25.0		35.5		2.5		3.5		11		90				<0.2		2.0	
C3	Cloudy	Moderate	15:07	11.7	Surface	1.0	0.2	238	29.1	29.1	7.9	7.9	12.3	12.3	79.8	79.7	5.7	4.1	1.9	2.0	3	3	81	85	822120	817780	<0.2	<0.2	1.5	1.5
						1.0	0.2	250	29.1		7.9		12.3		79.5		5.7		1.9		3		82				<0.2		1.5	
					Middle	5.9	0.1	215	26.5	26.5	7.8	7.8	27.1	27.1	34.6	34.6	2.4		2.0		3		84				<0.2		1.6	
						5.9	0.1	234	26.5		7.8		27.1		34.6		2.4		1.9		3		85				<0.2		1.4	
					Bottom	10.7	0.4	301	26.0	26.1	7.8	7.8	30.7	30.6	33.3	35.3	2.3	2.4	2.3		4		90				<0.2		1.4	
						10.7	0.4	315	26.1		7.8		30.6		37.3		2.5		2.2		2		90				<0.2		1.4	
IM1	Rainy	Moderate	14:13	5.2	Surface	1.0	0.3	10	28.6	28.6	7.6	7.6	11.6	11.6	83.2	83.1	6.0	6.0	5.7	5.2	7	8	86	88	817960	807115	<0.2	<0.2	1.4	1.4
						1.0	0.3	10	28.6		7.6		11.6		82.9		6.0		5.7		7		85				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	282	28.0	28.0	7.6	7.5	13.9	13.8	77.0	76.5	5.6	5.6	4.8		8		89				<0.2		1.4	
						4.2	0.2	290	28.0		7.5		13.8		75.9		5.5		4.7		8		90				<0.2		1.5	
IM2	Rainy	Moderate	14:05	7.1	Surface	1.0	0.7	333	28.3	28.3	7.5	7.5	12.4	12.3	76.7	76.6	5.6	5.2	5.2	8.1	6	7	85	88	818166	806157	<0.2	<0.2	1.5	1.4
						1.0	0.8	336	28.2		7.5		12.3		76.4		5.6		5.2		6		84				<0.2		1.4	
					Middle	3.6	0.6	316	27.8	27.9	7.5	7.5	16.4	16.6	65.2	65.2	4.7		5.9		6		89				<0.2		1.4	
						3.6	0.7	323	27.9		7.5		16.7		65.2		4.7		6.0		7		87				<0.2		1.4	
					Bottom	6.1	0.2	303	25.9	25.9	7.4	7.4	28.1	28.2	28.9	28.8	2.0	**2.0**	13.1		8		90				<0.2		1.2	
						6.1	0.2	325	25.9		7.4		28.2		28.7		2.0		13.2		9		90				<0.2		1.2	
IM3	Cloudy	Moderate	13:55	7.4	Surface	1.0	0.7	339	28.4	28.4	7.5	7.5	14.3	14.2	73.0	73.0	5.2	4.8	3.8	6.9	4	4	84	88	818780	805592	<0.2	<0.2	1.3	1.3
						1.0	0.7	312	28.4		7.5		14.2		73.0		5.2		3.9		4		86				<0.2		1.3	
					Middle	3.7	0.6	326	27.6	27.6	7.5	7.5	16.8	16.8	60.6	60.3	4.4		4.8		4		88				<0.2		1.4	
						3.7	0.7	341	27.6		7.5		16.8		60.0		4.3		4.8		4		88				<0.2		1.4	
					Bottom	6.4	0.2	331	25.6	25.6	7.4	7.4	30.2	30.2	31.1	31.3	2.1	**2.2**	12.0		5		90				<0.2		1.2	
						6.4	0.2	349	25.6		7.4		30.2		31.5		2.2		12.0		4		90				<0.2		1.1	
IM4	Cloudy	Moderate	13:45	7.7	Surface	1.0	0.6	298	28.2	28.2	7.6	7.6	14.1	14.1	74.7	74.6	5.4	4.4	3.3	7.0	3	4	84	88	819745	804615	<0.2	<0.2	1.3	1.2
						1.0	0.7	307	28.2		7.6		14.1		74.4		5.4		3.4		3		86				<0.2		1.2	
					Middle	3.9	0.5	277	27.1	27.1	7.4	7.4	21.7	21.7	48.5	48.6	3.4		4.8		3		88				<0.2		1.2	
						3.9	0.5	286	27.1		7.4		21.8		48.6		3.4		4.9		3		87				<0.2		1.2	
					Bottom	6.7	0.3	346	25.4	25.4	7.4	7.4	30.8	30.8	26.1	26.3	1.8	**1.8**	13.0		4		90				<0.2		1.0	
						6.7	0.3	318	25.4		7.4		30.8		26.4		1.8		12.9		5		90				<0.2		1.3	
IM5	Cloudy	Moderate	13:33	7.0	Surface	1.0	0.5	300	28.6	28.6	7.4	7.4	12.4	12.3	69.0	69.1	5.0	4.6	7.3	8.7	8	7	82	87	820737	804837	<0.2	<0.2	1.8	1.6
						1.0	0.5	321	28.6		7.4		12.2		69.2		5.0		7.2		7		83				<0.2		1.6	
					Middle	3.5	0.3	339	28.1	28.1	7.4	7.4	15.7	15.4	58.5	58.0	4.2		7.1		7		88				<0.2		1.5	
						3.5	0.3	312	28.1		7.4		15.0		57.5		4.1		7.6		8		86				<0.2		1.4	
					Bottom	6.0	0.2	340	25.9	25.9	7.4	7.4	28.6	28.6	31.2	31.3	2.2	**2.2**	11.6		7		90				<0.2		1.4	
						6.0	0.2	313	25.9		7.4		28.6		31.3		2.2		11.6		7		90				<0.2		1.7	
IM6	Fine	Moderate	13:26	7.0	Surface	1.0	0.7	270	29.0	29.0	7.4	7.4	6.4	6.5	71.2	71.1	5.3	4.8	7.9	8.7	9	8	82	87	821073	805812	<0.2	<0.2	1.8	1.7
						1.0	0.8	289	29.0		7.4		6.6		71.0		5.3		7.8		9		84				<0.2		1.8	
					Middle	3.5	0.6	280	27.9	27.9	7.4	7.4	14.4	14.4	59.1	59.0	4.3		7.4		8		88				<0.2		1.7	
						3.5	0.6	301	27.9		7.4		14.4		58.9		4.3		7.4		8		87				<0.2		1.6	
					Bottom	6.0	0.2	250	26.9	26.9	7.4	7.3	20.9	21.0	40.5	40.3	2.9	2.9	10.9		7		90				<0.2		1.6	
						6.0	0.2	259	26.9		7.3		21.0		40.0		2.8		11.0		7		89				<0.2		1.7	
IM7	Fine	Moderate	13:17	8.0	Surface	1.0	0.7	249	28.8	28.8	7.4	7.4	6.2	6.2	73.6	73.5	5.5	5.4	7.7	8.3	9	8	83	87	821370	806825	<0.2	<0.2	1.9	1.8
						1.0	0.7	253	28.8		7.4		6.2		73.4		5.5		7.5		8		83				<0.2		1.9	
					Middle	4.0	0.6	251	28.6	28.6	7.4	7.4	8.1	8.1	71.7	71.6	5.3		6.6		7		88				<0.2		1.8	
						4.0	0.6	268	28.6		7.4		8.0		71.4		5.3		6.6		7		87				<0.2		1.7	
					Bottom	7.0	0.3	210	27.1	27.1	7.3	7.3	21.5	21.5	50.2	50.2	3.5	3.5	10.8		7		90				<0.2		1.7	
						7.0	0.3	224	27.1		7.3		21.5		50.2		3.5		10.8		7		90				<0.2		1.7	
IM8	Cloudy	Moderate	13:40	7.4	Surface	1.0	0.2	238	30.3	30.3	7.8	7.8	3.2	3.2	78.5	78.5	5.8	5.8	9.9	9.8	9	8	81	85	821843	808155	<0.2	<0.2	2.5	2.4
						1.0	0.2	257	30.3		7.8		3.2		78.4		5.8		10.0		8		82				<0.2		2.4	
					Middle	3.7	0.2	288	29.8	29.8	7.8	7.8	5.1	5.1	77.1	77.0	5.7		7.9		9		85				<0.2		2.4	
						3.7	0.2	295	29.8		7.8		5.1		76.9		5.7		7.9		8		85				<0.2		2.2	
					Bottom	6.4	0.2	214	28.6	28.6	7.7	7.7	14.3	14.3	65.9	66.0	4.7	4.7	11.7		8		89				<0.2		2.3	
						6.4	0.3	222	28.6		7.7		14.3		66.1		4.7		11.4		8		90				<0.2		2.3	

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 11 July 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	13:48	6.9	Surface	1.0	0.2	78	30.3	30.3	7.8	7.8	4.3	4.3	80.0	80.0	5.9	5.7	9.5	7.3	8	9	81	85	822108	808805	<0.2	<0.2	2.0	2.0
						1.0	0.2	82	30.3		7.8		4.3		80.0		5.9		9.5		8		81				<0.2		1.9	
					Middle	3.5	0.1	102	29.6	29.6	7.8	7.8	6.6	6.6	75.4	75.3	5.5		7.1		8		85				<0.2		2.1	
						3.5	0.1	109	29.6		7.8		6.6		75.2		5.5		7.1		9		85				<0.2		2.0	
					Bottom	5.9	0.2	312	28.5	28.6	7.7	7.7	14.7	14.7	63.6	63.7	4.6	4.6	5.5		9		90				<0.2		2.0	
						5.9	0.2	315	28.6		7.7		14.6		63.8		4.6		5.4		9		90				<0.2		2.0	
IM10	Cloudy	Moderate	13:53	7.3	Surface	1.0	0.2	40	30.1	30.1	7.8	7.8	5.2	5.2	80.1	80.1	5.9	5.5	8.4	7.1	6	8	82	85	822399	809781	<0.2	<0.2	2.1	2.1
						1.0	0.2	42	30.1		7.8		5.2		80.0		5.9		8.4		7		82				<0.2		2.1	
					Middle	3.7	0.3	349	29.0	29.0	7.8	7.8	10.4	10.4	70.2	70.2	5.1		4.7		9		84				<0.2		2.1	
						3.7	0.3	359	29.0		7.8		10.4		70.1		5.1		4.7		8		84				<0.2		2.1	
					Bottom	6.3	0.3	297	28.1	28.1	7.7	7.7	18.0	18.0	55.7	55.9	3.9	4.0	8.3		8		90				<0.2		2.0	
						6.3	0.3	297	28.1		7.7		18.0		56.1		4.0		8.3		7		90				<0.2		2.1	
IM11	Cloudy	Moderate	14:04	7.9	Surface	1.0	0.1	343	29.9	29.9	7.8	7.8	6.6	6.6	80.3	80.3	5.9	5.6	6.2	4.7	5	5	82	86	822043	811454	<0.2	<0.2	2.0	2.0
						1.0	0.1	352	29.9		7.8		6.6		80.2		5.9		6.0		5		82				<0.2		2.0	
					Middle	4.0	0.5	299	28.8	28.8	7.8	7.8	11.6	11.6	71.7	71.6	5.2		2.9		5		84				<0.2		1.9	
						4.0	0.5	320	28.8		7.8		11.6		71.5		5.2		2.9		5		85				<0.2		1.9	
					Bottom	6.9	0.5	295	27.5	27.6	7.7	7.7	22.2	22.2	47.9	48.0	3.3	3.3	5.2		5		90				<0.2		1.9	
						6.9	0.5	297	27.6		7.7		22.3		48.1		3.3		5.0		5		90				<0.2		2.0	
IM12	Rainy	Moderate	14:11	7.4	Surface	1.0	0.2	302	29.8	29.8	7.9	7.9	6.3	6.3	80.2	80.1	5.9	5.5	5.9	4.2	4	4	81	85	821442	812035	<0.2	<0.2	2.0	2.0
						1.0	0.2	309	29.7		7.9		6.3		79.9		5.9		5.6		4		80				<0.2		2.0	
					Middle	3.7	0.4	301	28.7	28.7	7.8	7.8	12.9	12.9	69.1	69.0	5.0		2.8		4		84				<0.2		2.0	
						3.7	0.4	318	28.7		7.8		12.9		68.8		5.0		2.8		5		84				<0.2		1.9	
					Bottom	6.4	0.5	287	27.7	27.7	7.7	7.7	19.9	20.0	50.9	50.9	3.6	3.6	4.1		5		89				<0.2		1.9	
						6.4	0.5	287	27.7		7.7		20.1		50.9		3.6		4.2		4		89				<0.2		2.0	
SR1A	Rainy	Calm	14:30	5.3	Surface	1.0	-	-	29.5	29.5	7.9	7.9	9.2	9.2	84.8	84.6	6.2	6.2	3.4	4.4	3	3	-	-	819971	812659	-	-	-	-
						1.0	-	-	29.5		7.9		9.2		84.4		6.1		3.4		3		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	29.0	29.0	7.8	7.8	13.4	13.4	71.1	71.1	5.1	5.1	5.5		4		-				-		-	
						4.3	-	-	29.0		7.8		13.5		71.1		5.1		5.4		3		-				-		-	
SR2	Cloudy	Moderate	14:42	4.8	Surface	1.0	0.1	121	29.2	29.2	7.9	7.9	12.5	12.5	78.9	78.8	5.6	5.6	2.4	3.7	3	4	84	86	821474	814156	<0.2	<0.2	2.1	2.1
						1.0	0.1	124	29.2		7.9		12.5		78.6		5.6		2.3		4		84				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	70	28.2	28.3	7.9	7.9	18.4	18.3	63.1	63.4	4.4	4.5	5.3		4		87				<0.2		2.1	
						3.8	0.1	75	28.3		7.9		18.2		63.7		4.5		4.7		3		88				<0.2		2.1	
SR3	Cloudy	Moderate	13:36	8.2	Surface	1.0	0.4	215	29.4	29.4	7.8	7.8	5.3	5.4	74.0	74.0	5.5	5.3	7.9	6.0	8	9	-	-	822168	807580	-	-	-	-
						1.0	0.4	215	29.3		7.8		5.5		74.0		5.5		7.3		9		-				-		-	
					Middle	4.1	0.2	227	28.9	28.9	7.7	7.7	10.7	10.7	69.2	69.2	5.0		3.9		8		-				-		-	
						4.1	0.2	233	28.9		7.7		10.7		69.1		5.0		4.0		9		-				-		-	
					Bottom	7.2	0.3	183	28.4	28.4	7.7	7.7	15.6	15.6	61.2	61.2	4.4	4.4	6.4		9		-				-		-	
						7.2	0.3	187	28.4		7.7		15.6		61.2		4.4		6.2		9		-				-		-	
SR4A	Cloudy	Moderate	14:57	9.1	Surface	1.0	0.1	24	29.0	29.0	7.6	7.6	12.3	12.2	85.3	85.3	6.1	5.7	7.1	8.9	5	5	-	-	817197	807814	-	-	-	-
						1.0	0.1	24	29.0		7.6		12.1		85.2		6.1		7.2		4		-				-		-	
					Middle	4.6	0.1	264	28.6	28.6	7.5	7.5	14.5	14.5	72.7	72.6	5.2		8.1		4		-				-		-	
						4.6	0.1	264	28.6		7.5		14.5		72.4		5.2		8.1		5		-				-		-	
					Bottom	8.1	0.1	197	26.1	26.1	7.4	7.4	27.5	27.5	35.0	35.4	2.4	**2.5**	11.3		6		-				-		-	
						8.1	0.1	203	26.1		7.4		27.5		35.8		2.5		11.4		7		-				-		-	
SR5A	Cloudy	Calm	15:13	4.8	Surface	1.0	0.1	247	28.5	28.5	7.5	7.5	13.9	13.9	75.6	75.5	5.4	5.4	5.5	5.9	6	6	-	-	816618	810701	-	-	-	-
						1.0	0.1	265	28.4		7.5		13.9		75.3		5.4		5.4		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	269	27.8	27.9	7.5	7.5	18.2	18.2	60.6	61.0	4.3	4.4	6.4		6		-				-		-	
						3.8	0.1	294	27.9		7.5		18.1		61.3		4.4		6.4		5		-				-		-	
SR6	Cloudy	Calm	15:39	4.6	Surface	1.0	0.0	350	28.5	28.6	7.6	7.6	13.2	13.1	82.2	82.3	5.9	5.9	3.4	5.6	3	3	-	-	817995	814760	-	-	-	-
						1.0	0.0	354	28.6		7.6		13.1		82.3		5.9		3.4		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	186	27.8	27.8	7.4	7.4	17.8	17.7	55.6	55.9	4.0	4.0	7.8		3		-				-		-	
						3.6	0.1	193	27.8		7.4		17.7		56.1		4.0		7.8		3		-				-		-	
SR7	Cloudy	Moderate	15:46	16.7	Surface	1.0	0.1	137	28.1	28.1	7.9	7.9	18.4	18.3	63.6	63.8	4.5	**3.6**	1.2	1.7	3	4	-	-	823641	823742	-	-	-	-
						1.0	0.1	141	28.1		7.9		18.2		63.9		4.5		1.2		2		-				-		-	
					Middle	8.4	0.2	349	26.2	26.2	7.8	7.8	27.7	27.8	37.0	37.0	2.6		1.6		4		-				-		-	
						8.4	0.2	321	26.2		7.8		27.8		36.9		2.6		1.7		3		-				-		-	
					Bottom	15.7	0.3	217	25.4	25.5	7.8	7.8	31.5	31.4	34.3	34.6	2.4	**2.4**	2.2		5		-				-		-	
						15.7	0.3	222	25.6		7.8		31.3		34.8		2.4		2.1		6		-				-		-	
SR8	Rainy	Calm	14:21	4.4	Surface	1.0	-	-	30.4	30.4	7.9	7.9	7.4	7.3	83.6	83.6	6.0	6.0	7.7	9.5	7	7	-	-	820390	811604	-	-	-	-
						1.0	-	-	30.4		7.9		7.3		83.6		6.0		7.7		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	-	-	29.8	29.8	7.9	7.9	7.4	7.6	80.3	80.0	5.8	5.8	11.5		7		-				-		-	
						3.4	-	-	29.8		7.9		7.7		79.7		5.8		11.3		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**
Note: Access to SR6 was blocked by barge and wire. The monitoring at SR6 was slightly shifted to the closest safe and accessible location temporarily.

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 13 July 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	10:49	8.4	Surface	1.0	0.1	213	28.9	28.9	8.1	8.1	5.8	5.8	86.7	86.7	6.5	6.0	5.7	7.2	5	5	82	85	815604	804267	<0.2	<0.2	1.2	1.2
						1.0	0.1	217	28.9		8.1		5.8		86.6		6.5		5.7		5		81				<0.2		1.1	
					Middle	4.2	0.1	177	28.5	28.5	8.0	8.0	8.5	8.5	74.7	74.5	5.5		5.1		5		86				<0.2		1.1	
						4.2	0.1	179	28.5		8.0		8.5		74.3		5.5		5.2		5		84				<0.2		1.2	
					Bottom	7.4	0.0	220	28.0	28.0	8.0	8.0	11.8	11.8	58.2	58.2	4.2	4.2	10.8		5		89				<0.2		1.2	
						7.4	0.0	229	28.0		8.0		11.8		58.2		4.2		10.8		5		90				<0.2		1.4	
C2	Fine	Rough	12:02	7.8	Surface	1.0	0.3	120	29.7	29.7	8.0	8.0	5.8	5.8	82.7	82.7	6.1	5.1	9.6	11.6	5	6	83	88	825694	806930	<0.2	<0.2	1.6	1.7
						1.0	0.3	126	29.7		8.0		5.8		82.6		6.1		9.6		5		84				<0.2		1.7	
					Middle	3.9	0.3	124	28.9	28.9	8.1	8.1	10.2	10.1	56.8	56.6	4.1		13.2		5		88				<0.2		1.7	
						3.9	0.4	128	28.9		8.1		10.0		56.3		4.1		13.1		5		88				<0.2		1.6	
					Bottom	6.8	0.3	76	27.6	27.6	8.0	8.0	24.2	24.2	69.8	70.4	4.8	4.9	12.0		7		91				<0.2		1.8	
						6.8	0.3	77	27.7		8.0		24.2		70.9		4.9		12.1		6		92				<0.2		1.9	
C3	Fine	Moderate	09:26	13.4	Surface	1.0	0.6	71	29.1	29.1	7.8	7.8	11.7	11.7	80.4	80.3	5.8	5.5	7.6	8.5	3	2	83	86	822118	817781	<0.2	<0.2	1.5	1.5
						1.0	0.6	76	29.1		7.8		11.7		80.2		5.8		7.6		2		83				<0.2		1.3	
					Middle	6.7	0.4	61	28.6	28.6	7.8	7.8	15.7	15.7	72.9	73.0	5.2		8.8		3		87				<0.2		1.4	
						6.7	0.5	61	28.6		7.8		15.7		73.1		5.2		8.8		2		88				<0.2		1.4	
					Bottom	12.4	0.3	14	28.5	28.5	7.9	7.9	16.3	16.3	76.9	77.1	5.5	5.5	9.0		2		88				<0.2		1.6	
						12.4	0.3	14	28.5		7.9		16.3		77.3		5.5		9.0		2		88				<0.2		1.7	
IM1	Cloudy	Rough	11:05	5.2	Surface	1.0	0.3	20	28.9	28.9	8.0	8.0	6.4	6.4	88.8	88.7	6.6	6.6	5.3	5.3	4	4	81	86	817966	807150	<0.2	<0.2	1.2	1.3
						1.0	0.3	21	28.9		8.0		6.4		88.6		6.6		5.3		3		84				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	25	28.4	28.4	8.0	8.0	8.8	8.8	77.0	76.7	5.7	5.7	5.3		4		88				<0.2		1.4	
						4.2	0.3	27	28.4		8.0		8.8		76.4		5.7		5.4		4		89				<0.2		1.2	
IM2	Cloudy	Rough	11:11	7.2	Surface	1.0	0.5	177	28.7	28.7	8.1	8.0	7.2	7.2	82.3	81.9	6.1	5.6	5.7	7.3	4	5	84	86	818151	806185	<0.2	<0.2	1.2	1.3
						1.0	0.5	181	28.6		8.0		7.2		81.5		6.1		5.6		5		83				<0.2		1.2	
					Middle	3.6	0.0	219	28.3	28.3	7.9	7.9	11.3	11.3	69.9	69.8	5.1		5.3		4		85				<0.2		1.2	
						3.6	0.0	239	28.3		7.9		11.3		69.7		5.1		5.3		5		84				<0.2		1.3	
					Bottom	6.2	0.1	38	27.3	27.4	7.9	7.9	17.8	19.0	47.9	47.4	3.4	3.4	10.9		5		89				<0.2		1.3	
						6.2	0.1	40	27.4		7.9		20.3		46.8		3.3		10.9		5		90				<0.2		1.3	
IM3	Cloudy	Rough	11:18	7.2	Surface	1.0	0.8	191	28.8	28.8	8.0	8.0	8.3	8.3	78.1	77.9	5.8	5.0	5.5	9.3	4	4	84	86	818801	805572	<0.2	<0.2	1.4	1.3
						1.0	0.9	202	28.8		8.0		8.3		77.6		5.7		5.5		4		85				<0.2		1.3	
					Middle	3.6	0.8	208	27.8	27.8	7.9	7.9	15.0	14.7	58.6	58.6	4.2		9.3		4		85				<0.2		1.3	
						3.6	0.9	213	27.8		7.9		14.5		58.5		4.2		9.2		4		85				<0.2		1.2	
					Bottom	6.2	0.3	217	25.3	25.3	7.9	7.9	30.4	30.4	31.5	31.6	2.2	**2.2**	13.1		5		90				<0.2		1.3	
						6.2	0.4	226	25.3		7.9		30.4		31.7		2.2		13.4		4		89				<0.2		1.2	
IM4	Cloudy	Rough	11:32	7.4	Surface	1.0	0.8	172	29.0	29.0	8.1	8.1	5.4	5.4	85.5	85.4	6.4	4.8	6.7	8.9	5	5	84	87	819747	804592	<0.2	<0.2	1.5	1.4
						1.0	0.9	183	29.0		8.1		5.4		85.3		6.4		6.8		5		86				<0.2		1.4	
					Middle	3.7	0.9	191	27.0	27.0	7.8	7.8	18.1	18.1	46.2	44.4	3.3		9.6		5		87				<0.2		1.5	
						3.7	0.9	196	27.0		7.8		18.1		42.5		3.1		9.6		5		88				<0.2		1.5	
					Bottom	6.4	0.2	199	25.4	25.4	7.9	7.9	30.2	30.2	32.5	32.6	2.3	**2.3**	10.3		6		89				<0.2		1.4	
						6.4	0.2	203	25.4		7.9		30.2		32.6		2.3		10.3		6		90				<0.2		1.3	
IM5	Cloudy	Rough	11:42	7.0	Surface	1.0	0.8	196	29.1	29.1	8.0	8.0	4.7	4.7	86.7	86.7	6.5	6.3	7.3	9.3	6	6	86	88	820713	804846	<0.2	<0.2	1.3	1.3
						1.0	0.8	200	29.1		8.0		4.7		86.7		6.5		7.3		6		84				<0.2		1.3	
					Middle	3.5	0.7	216	28.8	28.8	8.0	8.0	7.0	6.9	80.5	80.5	6.0		6.0		6		89				<0.2		1.3	
						3.5	0.7	235	28.8		8.0		6.8		80.5		6.0		6.0		6		88				<0.2		1.4	
					Bottom	6.0	0.6	238	27.4	27.4	7.8	7.8	19.0	19.1	51.9	52.0	3.7	3.7	14.6		6		89				<0.2		1.3	
						6.0	0.7	254	27.4		7.8		19.2		52.1		3.7		14.6		5		90				<0.2		1.3	
IM6	Cloudy	Rough	11:51	7.5	Surface	1.0	0.5	219	29.1	29.1	8.0	8.0	5.6	5.6	85.6	85.5	6.4	6.0	6.4	7.3	5	5	85	88	821040	805813	<0.2	<0.2	1.3	1.3
						1.0	0.5	230	29.1		8.0		5.6		85.4		6.4		6.2		5		83				<0.2		1.4	
					Middle	3.8	0.5	248	28.8	28.8	8.0	8.0	8.8	8.8	74.7	74.5	5.5		4.8		5		89				<0.2		1.3	
						3.8	0.5	249	28.8		8.0		8.8		74.2		5.5		4.9		4		89				<0.2		1.3	
					Bottom	6.5	0.5	268	26.8	26.8	7.8	7.8	22.9	22.9	45.8	46.1	3.2	3.3	10.7		5		90				<0.2		1.3	
						6.5	0.5	291	26.8		7.8		22.8		46.3		3.3		10.7		6		90				<0.2		1.2	
IM7	Cloudy	Rough	11:57	7.9	Surface	1.0	0.4	255	28.9	28.9	7.9	7.9	8.2	8.2	79.6	79.5	5.9	5.4	4.6	5.9	4	4	83	87	821361	806850	<0.2	<0.2	1.4	1.4
						1.0	0.4	268	28.9		7.9		8.2		79.4		5.8		4.6		4		85				<0.2		1.4	
					Middle	4.0	0.5	238	28.3	28.3	7.9	7.9	10.5	10.4	67.4	67.3	5.0		4.7		4		88				<0.2		1.3	
						4.0	0.5	243	28.3		7.9		10.3		67.1		4.9		4.9		4		89				<0.2		1.4	
					Bottom	6.9	0.3	254	26.8	26.8	7.8	7.8	22.2	22.1	40.8	40.8	2.9	2.9	8.1		4		89				<0.2		1.3	
						6.9	0.3	266	26.8		7.8		22.0		40.7		2.9		8.7		4		90				<0.2		1.3	
IM8	Fine	Moderate	11:22	7.5	Surface	1.0	0.9	112	29.4	29.4	8.1	8.1	8.2	8.2	83.5	83.5	6.1	5.4	9.4	10.7	3	3	83	88	821810	808123	<0.2	<0.2	1.7	1.6
						1.0	0.9	122	29.4		8.1		8.2		83.4		6.1		9.4		3		84				<0.2		1.7	
					Middle	3.8	0.8	112	29.0	29.0	8.1	8.1	8.9	9.0	64.7	64.4	4.7		10.9		3		88				<0.2		1.6	
						3.8	0.9	113	28.9		8.1		9.1		64.1		4.7		11.0		3		88				<0.2		1.5	
					Bottom	6.5	0.6	100	28.4	28.4	8.0	8.0	16.9	16.9	59.8	59.9	4.2	4.2	11.8		4		91				<0.2		1.4	
						6.5	0.7	108	28.4		8.0		16.9		59.9		4.2		11.8		3		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 13 July 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	11:14	8.0	Surface	1.0	0.4	115	29.4	29.4	8.1	8.1	8.0	8.0	78.3	78.2	5.7	5.4	10.7	11.6	4	4	84	88	822085	808807	<0.2	<0.2	1.6	1.6
						1.0	0.4	119	29.4		8.1		8.0		78.0		5.7		10.7		4		84				<0.2		1.6	
					Middle	4.0	0.2	87	29.0	29.0	8.0	8.0	10.8	10.8	68.7	68.6	5.0		11.4		4		88				<0.2		1.7	
						4.0	0.2	89	29.0		8.0		10.8		68.4		5.0		11.5		4		88				<0.2		1.9	
					Bottom	7.0	0.2	99	28.6	28.6	7.9	7.9	15.0	15.1	66.4	66.5	4.7	4.7	12.5		5		91				<0.2		1.4	
						7.0	0.2	105	28.6		7.9		15.3		66.6		4.7		12.5		5		91				<0.2		1.4	
IM10	Fine	Moderate	11:05	7.7	Surface	1.0	0.3	78	29.5	29.5	8.0	8.0	7.3	7.3	87.9	87.9	6.4	5.8	10.9	12.4	4	4	84	88	822407	809791	<0.2	<0.2	1.4	1.4
						1.0	0.3	83	29.5		8.0		7.3		87.9		6.4		10.9		4		84				<0.2		1.4	
					Middle	3.9	0.4	84	28.9	28.9	7.9	7.9	11.2	11.1	71.1	71.0	5.2		12.5		5		88				<0.2		1.5	
						3.9	0.4	85	28.9		7.9		11.1		70.8		5.1		12.6		4		88				<0.2		1.4	
					Bottom	6.7	0.3	79	28.5	28.5	7.8	7.8	16.5	16.5	71.8	72.1	5.1	5.1	13.8		4		91				<0.2		1.5	
						6.7	0.3	84	28.5		7.8		16.5		72.3		5.1		13.8		5		92				<0.2		1.4	
IM11	Fine	Moderate	10:51	7.9	Surface	1.0	0.6	100	29.2	29.2	7.9	7.9	7.9	7.9	67.9	67.6	5.0	4.5	10.2	10.4	4	4	83	88	822065	811479	<0.2	<0.2	1.8	1.8
						1.0	0.7	102	29.2		7.9		7.9		67.2		4.9		10.2		3		84				<0.2		1.8	
					Middle	4.0	0.6	90	28.5	28.5	7.9	7.9	14.0	14.1	55.8	55.6	4.0		10.3		4		88				<0.2		1.8	
						4.0	0.6	94	28.5		7.9		14.1		55.3		4.0		10.3		3		88				<0.2		2.0	
					Bottom	6.9	0.1	99	27.4	27.4	7.9	7.9	23.4	23.4	54.3	55.6	3.8	3.9	10.7		4		91				<0.2		1.8	
						6.9	0.1	103	27.4		7.9		23.4		56.9		4.0		10.8		4		92				<0.2		1.6	
IM12	Fine	Moderate	10:35	6.9	Surface	1.0	0.5	109	29.4	29.4	7.9	7.9	9.1	9.1	75.7	75.6	5.5	4.8	9.5	10.1	4	4	83	88	821457	812051	<0.2	<0.2	1.6	1.5
						1.0	0.5	114	29.4		7.9		9.1		75.4		5.5		9.5		3		84				<0.2		1.5	
					Middle	3.5	0.4	93	28.5	28.5	7.8	7.8	16.5	16.5	58.0	58.0	4.1		10.1		4		88				<0.2		1.6	
						3.5	0.5	94	28.5		7.8		16.5		57.9		4.1		10.1		4		88				<0.2		1.5	
					Bottom	5.9	0.1	155	27.4	27.4	7.8	7.8	22.9	22.9	50.5	50.7	3.5	3.5	10.8		4		91				<0.2		1.3	
						5.9	0.1	167	27.4		7.8		22.9		50.8		3.5		10.8		5		91				<0.2		1.3	
SR1A	Fine	Moderate	10:07	5.5	Surface	1.0	-	-	29.4	29.4	7.9	7.9	8.4	8.4	79.9	79.8	5.8	5.8	10.1	8.2	4	4	-	-	819977	812657	-	-	-	-
						1.0	-	-	29.4		7.9		8.4		79.6		5.8		10.1		4		-				-		-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	-	-	29.0	29.0	7.9	7.9	12.2	12.2	75.1	75.1	5.4	5.4	6.3		4		-				-		-	
						4.5	-	-	29.0		7.9		12.2		75.1		5.4		6.4		4		-				-		-	
SR2	Fine	Moderate	09:52	5.2	Surface	1.0	0.3	74	29.4	29.4	7.9	7.9	8.4	8.4	82.5	82.4	6.0	6.0	8.5	9.1	3	3	83	86	821481	814157	<0.2	<0.2	2.3	2.2
						1.0	0.4	74	29.4		7.9		8.4		82.3		6.0		8.5		3		83				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.4	61	29.0	29.0	7.8	7.8	11.8	11.8	77.6	77.7	5.6	5.6	9.7		3		88				<0.2		1.9	
						4.2	0.5	63	29.0		7.8		11.8		77.7		5.6		9.6		3		88				<0.2		2.0	
SR3	Fine	Rough	11:40	8.1	Surface	1.0	0.8	173	29.5	29.5	8.1	8.1	8.1	8.1	87.3	87.3	6.4	5.7	5.5	6.8	4	4	-	-	822131	807562	-	-	-	-
						1.0	0.8	172	29.5		8.1		8.1		87.3		6.4		5.5		4		-				-		-	
					Middle	4.1	0.8	187	29.0	28.9	8.1	8.1	10.4	10.4	68.2	68.1	5.0		6.2		5		-				-		-	
						4.1	0.8	195	28.9		8.1		10.4		67.9		4.9		6.2		4		-				-		-	
					Bottom	7.1	0.4	243	28.3	28.3	8.0	8.0	17.1	18.3	63.6	63.8	4.5	4.5	8.8		4		-				-		-	
						7.1	0.4	245	28.4		8.0		19.5		63.9		4.5		8.8		5		-				-		-	
SR4A	Cloudy	Moderate	10:34	9.0	Surface	1.0	0.1	41	28.8	28.8	7.9	7.9	6.5	6.4	80.9	80.6	6.0	5.1	5.6	8.3	4	6	-	-	817191	807822	-	-	-	-
						1.0	0.1	43	28.8		7.9		6.4		80.3		6.0		5.6		4		-				-		-	
					Middle	4.5	0.2	52	27.9	27.9	7.9	7.9	16.6	16.6	57.4	57.4	4.1		6.9		4		-				-		-	
						4.5	0.2	54	27.9		7.9		16.7		57.3		4.1		6.9		5		-				-		-	
					Bottom	8.0	0.2	56	25.2	25.2	7.9	7.9	31.2	31.2	33.0	33.2	2.3	**2.3**	12.5		8		-				-		-	
						8.0	0.2	52	25.2		7.9		31.2		33.3		2.3		12.6		8		-				-		-	
SR5A	Cloudy	Calm	10:19	4.4	Surface	1.0	0.1	84	28.7	28.7	8.0	8.0	10.1	10.1	86.4	86.2	6.3	6.3	4.8	4.9	5	5	-	-	816602	810703	-	-	-	-
						1.0	0.1	88	28.7		8.0		10.1		85.9		6.3		4.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	119	28.6	28.6	8.0	8.0	13.0	13.0	81.8	81.8	5.9	5.9	5.0		5		-				-		-	
						3.4	0.0	123	28.6		8.0		13.0		81.7		5.9		5.1		5		-				-		-	
SR6	Cloudy	Calm	09:43	4.2	Surface	1.0	0.1	42	28.5	28.5	7.8	7.8	13.0	13.0	71.6	71.5	5.2	5.2	6.5	7.3	7	8	-	-	817907	814645	-	-	-	-
						1.0	0.1	42	28.5		7.8		13.1		71.4		5.2		6.5		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	238	28.3	28.3	7.7	7.7	14.6	14.6	62.0	62.0	4.5	4.5	8.0		8		-				-		-	
						3.2	0.1	241	28.3		7.7		14.6		61.9		4.5		8.3		9		-				-		-	
SR7	Fine	Moderate	08:58	16.5	Surface	1.0	0.1	65	29.1	29.1	7.7	7.7	12.3	12.3	86.3	86.4	6.2	6.1	6.7	7.7	3	4	-	-	823633	823736	-	-	-	-
						1.0	0.1	68	29.1		7.7		12.3		86.5		6.2		6.8		4		-				-		-	
					Middle	8.3	0.3	103	28.9	28.9	7.7	7.7	13.0	13.0	82.6	82.6	5.9		7.6		3		-				-		-	
						8.3	0.3	104	28.9		7.7		13.0		82.5		5.9		7.6		4		-				-		-	
					Bottom	15.5	0.2	30	28.9	28.9	7.9	7.9	13.2	13.2	84.1	84.1	6.0	6.0	8.7		4		-				-		-	
						15.5	0.3	30	28.9		7.9		13.2		84.1		6.0		8.7		5		-				-		-	
SR8	Fine	Moderate	10:22	4.8	Surface	1.0	-	-	29.4	29.4	7.9	7.9	8.4	8.4	80.4	80.3	5.9	5.9	8.2	8.7	5	5	-	-	820387	811603	-	-	-	-
						1.0	-	-	29.4		7.9		8.4		80.2		5.9		8.2		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	29.0	29.0	7.8	7.8	12.4	12.4	75.0	75.1	5.4	5.4	9.1		4		-				-		-	
						3.8	-	-	29.0		7.9		12.5		75.1		5.4		9.1		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 13 July 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	17:12	8.4	Surface	1.0	0.1	69	29.7	29.7	7.9	7.9	7.1	7.1	94.1	94.0	6.9	6.6	5.1	4.8	5	6	85	88	815635	804232	<0.2	<0.2	1.4	1.4
						1.0	0.1	0	29.6		7.9		7.1		93.9		6.9		5.1		6		87				<0.2		1.4	
					Middle	4.2	0.1	73	29.4	29.4	7.9	7.9	17.9	17.9	91.7	91.6	6.3		4.8		6		89				<0.2		1.4	
						4.2	0.1	75	29.4		7.9		17.9		91.5		6.3		4.7		6		90				<0.2		1.4	
					Bottom	7.4	0.1	73	29.4	29.4	7.9	7.9	27.3	27.3	91.2	91.2	6.0	6.0	4.4		6		90				<0.2		1.4	
						7.4	0.1	78	29.4		7.9		27.3		91.2		6.0		4.4		6		89				<0.2		1.4	
C2	Fine	Rough	16:05	8.5	Surface	1.0	0.2	75	28.8	28.8	8.1	8.1	10.7	10.7	71.8	71.8	5.2	5.3	8.7	9.6	4	5	83	88	825660	806946	<0.2	<0.2	1.8	1.9
						1.0	0.2	76	28.8		8.1		10.7		71.8		5.2		8.6		5		84				<0.2		1.8	
					Middle	4.3	0.3	76	28.6	28.6	8.1	8.1	13.3	13.3	74.0	74.0	5.3		9.5		4		88				<0.2		1.8	
						4.3	0.3	74	28.6		8.1		13.3		74.0		5.3		9.5		5		89				<0.2		1.9	
					Bottom	7.5	0.1	67	28.7	28.7	8.0	8.0	16.6	16.7	77.9	78.5	5.5	5.6	10.5		5		91				<0.2		1.9	
						7.5	0.1	66	28.8		8.0		16.7		79.1		5.6		10.6		6		91				<0.2		2.0	
C3	Fine	Rough	18:18	11.2	Surface	1.0	0.1	210	29.4	29.4	8.0	8.0	10.5	10.5	74.0	73.8	5.3	4.8	8.4	7.9	5	5	83	88	822116	817807	<0.2	<0.2	1.7	1.7
						1.0	0.2	236	29.4		8.0		10.5		73.5		5.3		8.4		5		84				<0.2		1.7	
					Middle	5.6	0.0	240	28.3	28.3	8.0	8.0	17.6	17.6	60.2	60.2	4.3		9.7		5		88				<0.2		1.7	
						5.6	0.0	222	28.3		8.0		17.6		60.1		4.3		9.7		4		88				<0.2		1.6	
					Bottom	10.2	0.1	275	26.7	26.7	8.0	8.0	26.1	26.1	47.7	47.8	3.3	3.3	5.5		5		91				<0.2		1.6	
						10.2	0.1	280	26.7		8.0		26.1		47.9		3.3		5.5		4		92				<0.2		1.7	
IM1	Fine	Rough	16:52	5.2	Surface	1.0	0.1	18	29.0	29.0	8.0	8.0	16.7	16.7	95.6	95.5	6.7	6.7	5.1	8.3	5	5	85	88	817952	807144	<0.2	<0.2	1.4	1.5
						1.0	0.2	18	29.0		8.0		16.7		95.4		6.7		5.1		4		86				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	294	28.9	28.9	7.9	7.9	28.4	28.4	93.6	93.5	6.2	6.2	11.7		5		89				<0.2		1.5	
						4.2	0.1	305	28.8		7.9		28.4		93.3		6.2		11.6		6		90				<0.2		1.4	
IM2	Fine	Rough	16:47	7.1	Surface	1.0	0.8	77	29.0	29.0	8.0	8.0	7.2	7.2	91.0	91.0	6.7	6.3	5.0	5.8	4	4	86	88	818144	806152	<0.2	<0.2	1.5	1.5
						1.0	0.8	73	29.0		8.0		7.2		90.9		6.7		5.0		4		85				<0.2		1.5	
					Middle	3.6	0.8	78	28.7	28.7	7.9	7.9	8.6	8.6	80.4	80.1	5.9		5.3		4		87				<0.2		1.5	
						3.6	0.8	76	28.7		7.9		8.6		79.8		5.9		5.3		5		88				<0.2		1.4	
					Bottom	6.1	0.3	72	25.3	25.3	7.8	7.8	30.8	30.8	39.7	39.9	2.7	2.8	7.2		5		90				<0.2		1.5	
						6.1	0.4	73	25.3		7.8		30.8		40.0		2.8		7.2		4		89				<0.2		1.5	
IM3	Fine	Rough	16:41	7.3	Surface	1.0	0.7	73	28.5	28.5	7.9	7.9	8.9	9.0	84.9	84.6	6.3	5.8	11.2	11.0	11	10	85	87	818785	805614	<0.2	<0.2	1.5	1.4
						1.0	0.8	76	28.5		7.9		9.0		84.3		6.2		11.2		11		83				<0.2		1.4	
					Middle	3.7	0.6	79	28.3	28.3	7.8	7.8	13.2	13.2	74.5	74.5	5.4		12.8		10		89				<0.2		1.5	
						3.7	0.7	75	28.3		7.8		13.2		74.5		5.4		12.8		10		88				<0.2		1.5	
					Bottom	6.3	0.2	72	25.7	25.7	7.7	7.7	30.6	30.6	46.4	46.8	3.2	3.2	8.9		10		90				<0.2		1.4	
						6.3	0.2	75	25.7		7.7		30.5		47.2		3.2		8.9		10		89				<0.2		1.3	
IM4	Fine	Rough	16:28	7.4	Surface	1.0	1.1	68	29.1	29.1	7.9	7.9	5.3	5.2	86.9	86.4	6.5	5.3	6.9	9.3	7	7	85	88	819710	804626	<0.2	<0.2	1.4	1.4
						1.0	1.2	66	29.1		7.9		5.2		85.9		6.4		6.9		6		83				<0.2		1.4	
					Middle	3.7	0.9	59	27.7	27.7	7.7	7.7	17.6	17.6	58.1	58.1	4.1		8.7		6		90				<0.2		1.5	
						3.7	1.0	62	27.7		7.7		17.6		58.1		4.1		8.7		6		88				<0.2		1.5	
					Bottom	6.4	0.3	55	25.7	25.7	7.7	7.7	29.4	29.4	40.2	40.3	2.8	2.8	12.4		8		89				<0.2		1.4	
						6.4	0.3	54	25.7		7.7		29.4		40.4		2.8		12.4		7		90				<0.2		1.4	
IM5	Fine	Rough	16:20	7.5	Surface	1.0	1.0	55	29.1	29.1	7.9	7.9	5.2	5.2	88.7	88.6	6.6	5.8	7.7	8.3	6	6	87	88	820735	804869	<0.2	<0.2	1.5	1.5
						1.0	1.1	53	29.1		7.9		5.2		88.5		6.6		7.7		6		84				<0.2		1.4	
					Middle	3.8	1.0	54	27.9	27.9	7.8	7.8	12.0	12.0	68.5	68.2	5.0		8.3		6		90				<0.2		1.5	
						3.8	1.1	45	27.9		7.8		12.1		67.8		5.0		8.4		6		87				<0.2		1.5	
					Bottom	6.5	0.5	49	27.6	27.6	7.7	7.7	17.4	17.4	59.1	59.2	4.2	4.2	8.8		6		90				<0.2		1.4	
						6.5	0.5	45	27.6		7.7		17.4		59.2		4.2		8.8		6		89				<0.2		1.4	
IM6	Fine	Rough	16:12	7.2	Surface	1.0	0.4	47	28.9	28.9	7.9	7.9	6.1	6.1	89.3	89.2	6.7	6.2	5.4	8.3	5	5	83	87	821077	805839	<0.2	<0.2	1.4	1.3
						1.0	0.4	50	28.9		7.9		6.1		89.0		6.6		5.3		5		84				<0.2		1.3	
					Middle	3.6	0.7	43	28.7	28.7	7.8	7.8	10.2	10.2	79.3	79.3	5.8		4.5		5		90				<0.2		1.3	
						3.6	0.7	42	28.7		7.8		10.2		79.3		5.8		4.5		5		88				<0.2		1.2	
					Bottom	6.2	0.4	42	27.0	27.0	7.7	7.7	21.9	21.9	51.2	51.3	3.6	3.6	14.8		5		89				<0.2		1.3	
						6.2	0.4	43	27.0		7.7		21.9		51.3		3.6		15.0		5		89				<0.2		1.3	
IM7	Fine	Rough	16:00	8.0	Surface	1.0	0.4	35	28.9	28.9	7.8	7.8	8.2	8.2	85.9	85.8	6.3	5.9	4.6	6.0	3	4	83	87	821363	806813	<0.2	<0.2	1.4	1.4
						1.0	0.4	37	28.9		7.8		8.2		85.6		6.3		4.7		3		84				<0.2		1.3	
					Middle	4.0	0.5	34	28.3	28.3	7.8	7.8	10.3	10.3	73.4	73.1	5.4		5.3		4		90				<0.2		1.4	
						4.0	0.6	38	28.3		7.8		10.3		72.8		5.4		5.8		4		88				<0.2		1.4	
					Bottom	7.0	0.5	38	26.9	26.9	7.7	7.7	22.9	22.9	55.0	55.5	3.9	3.9	8.1		4		89				<0.2		1.3	
						7.0	0.5	38	26.9		7.7		22.9		55.9		3.9		7.6		4		90				<0.2		1.4	
IM8	Fine	Rough	16:38	8.0	Surface	1.0	1.1	355	29.7	29.7	8.1	8.1	7.0	7.0	89.1	89.1	6.5	6.4	9.1	10.8	4	4	83	87	821825	808158	<0.2	<0.2	2.2	2.0
						1.0	1.1	356	29.7		8.1		7.0		89.1		6.5		9.2		3		84				<0.2		2.1	
					Middle	4.0	1.0	312	29.5	29.5	8.1	8.1	7.2	7.2	85.0	85.0	6.2		10.6		4		87				<0.2		2.1	
						4.0	1.1	341	29.5		8.1		7.2		84.9		6.2		10.6		5		87				<0.2		2.2	
					Bottom	7.0	0.5	304	29.0	29.0	8.0	8.0	10.1	10.1	77.4	77.4	5.6	5.6	12.5		4		91				<0.2		1.7	
						7.0	0.5	306	29.0		8.0		10.1		77.4		5.6		12.5		5		92				<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 13 July 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	16:44	8.1	Surface	1.0	1.1	326	29.6	29.6	8.1	8.1	6.4	6.4	87.2	87.2	6.4	6.4	10.6	11.4	5	5	83	88	822072	808815	<0.2	<0.2	1.4	1.5
						1.0	1.2	323	29.6		8.1		6.4		87.2		6.4		10.6		4		84				<0.2		1.5	
					Middle	4.1	1.0	318	29.5	29.5	8.1	8.1	8.0	8.0	86.2	86.2	6.3		11.5		5		88				<0.2		1.5	
						4.1	1.0	306	29.5		8.1		8.0		86.2		6.3		11.5		4		88				<0.2		1.5	
					Bottom	7.1	0.3	294	29.5	29.5	8.1	8.1	8.0	7.9	89.3	90.1	6.5	6.6	12.0		5		91				<0.2		1.4	
						7.1	0.3	289	29.5		8.1		7.9		90.8		6.6		12.1		5		92				<0.2		1.6	
IM10	Fine	Rough	16:50	7.9	Surface	1.0	0.2	297	29.7	29.7	8.1	8.1	6.3	6.3	83.9	83.8	6.2	5.9	3.8	6.2	5	5	80	87	822370	809805	<0.2	<0.2	2.4	2.2
						1.0	0.2	288	29.7		8.1		6.3		83.6		6.1		3.8		5		84				<0.2		2.3	
					Middle	4.0	0.5	278	29.3	29.3	8.1	8.1	9.3	9.1	76.8	76.7	5.6		6.4		5		88				<0.2		2.4	
						4.0	0.5	294	29.3		8.1		9.0		76.6		5.6		6.4		5		88				<0.2		2.4	
					Bottom	6.9	0.2	285	28.8	28.8	8.0	8.0	12.8	12.8	76.5	76.7	5.5	5.5	8.5		6		91				<0.2		1.7	
						6.9	0.2	276	28.8		8.0		12.8		76.8		5.5		8.5		6		91				<0.2		1.7	
IM11	Fine	Rough	17:00	7.7	Surface	1.0	0.9	279	29.8	29.8	8.0	8.0	6.3	6.3	84.9	84.9	6.2	5.6	9.3	10.6	5	6	83	88	822035	811454	<0.2	<0.2	2.0	1.9
						1.0	0.9	281	29.8		8.0		6.3		84.8		6.2		9.3		6		84				<0.2		1.8	
					Middle	3.9	0.8	269	28.7	28.7	8.0	8.0	13.3	13.2	69.7	69.7	5.0		10.2		6		88				<0.2		2.0	
						3.9	0.9	255	28.7		8.0		13.2		69.7		5.0		10.2		5		88				<0.2		1.9	
					Bottom	6.7	0.4	249	28.8	28.8	8.1	8.1	12.9	12.9	72.3	72.3	5.2	5.2	12.3		6		91				<0.2		1.8	
						6.7	0.4	246	28.8		8.1		12.9		72.3		5.2		12.3		6		92				<0.2		1.8	
IM12	Fine	Rough	17:06	8.0	Surface	1.0	0.9	263	29.8	29.8	8.1	8.1	6.5	6.5	87.7	87.6	6.4	5.9	7.3	9.6	6	6	83	88	821472	812053	<0.2	<0.2	1.8	1.8
						1.0	1.0	253	29.8		8.1		6.5		87.5		6.4		7.4		6		83				<0.2		1.8	
					Middle	4.0	0.5	251	29.0	29.0	8.0	8.0	11.9	11.9	73.6	73.6	5.3		9.6		6		88				<0.2		1.7	
						4.0	0.5	254	29.0		8.0		12.0		73.6		5.3		9.6		6		89				<0.2		1.7	
					Bottom	7.0	0.3	260	28.7	28.7	8.0	8.0	13.6	13.6	72.6	72.8	5.2	5.2	11.8		7		91				<0.2		1.8	
						7.0	0.3	244	28.7		8.0		13.6		72.9		5.2		11.8		6		92				<0.2		1.8	
SR1A	Fine	Rough	17:40	3.6	Surface	1.0	-	-	29.8	29.8	8.0	8.0	6.6	6.6	86.5	86.4	6.3	6.3	3.8	5.6	5	5	-	-	819982	812663	-	-	-	-
						1.0	-	-	29.8		8.0		6.6		86.3		6.3		3.9		4		-				-		-	
					Middle	1.8	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						1.8	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	-	-	29.3	29.3	8.0	8.0	8.9	8.9	80.5	80.5	5.9	5.9	7.3		6		-				-		-	
						2.6	-	-	29.3		8.0		8.9		80.5		5.9		7.3		5		-				-		-	
SR2	Fine	Rough	17:59	3.8	Surface	1.0	0.4	338	29.6	29.6	8.1	8.1	7.7	7.7	89.0	89.1	6.5	6.5	8.8	9.8	6	6	83	86	821476	814186	<0.2	<0.2	1.7	1.7
						1.0	0.5	359	29.6		8.1		7.7		89.1		6.5		8.8		6		84				<0.2		1.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.2	99	29.4	29.4	8.1	8.1	9.0	9.0	88.1	88.2	6.4	6.4	10.9		6		88				<0.2		1.7	
						2.8	0.2	105	29.4		8.1		9.1		88.2		6.4		10.8		6		88				<0.2		1.6	
SR3	Fine	Rough	16:32	8.3	Surface	1.0	0.2	116	29.8	29.8	8.1	8.1	6.9	6.9	88.3	88.3	6.5	6.2	9.1	10.3	6	6	-	-	822135	807578	-	-	-	-
						1.0	0.2	125	29.8		8.1		6.9		88.3		6.5		9.1		6		-				-		-	
					Middle	4.2	0.5	116	29.4	29.4	8.1	8.1	7.1	7.1	81.4	81.1	6.0		10.2		6		-				-		-	
						4.2	0.5	121	29.4		8.1		7.1		80.8		5.9		10.2		6		-				-		-	
					Bottom	7.3	0.2	87	29.2	29.2	8.1	8.1	9.8	9.8	82.0	82.1	6.0	6.0	11.5		8		-				-		-	
						7.3	0.3	90	29.3		8.1		9.8		82.1		6.0		11.5		7		-				-		-	
SR4A	Fine	Moderate	17:44	8.5	Surface	1.0	0.7	267	29.5	29.5	8.0	8.0	8.2	8.2	90.5	90.1	6.6	5.8	5.1	5.5	6	8	-	-	817180	807815	-	-	-	-
						1.0	0.8	276	29.4		8.0		8.2		89.7		6.6		5.1		6		-				-		-	
					Middle	4.3	0.8	264	29.0	29.0	7.9	7.9	13.8	13.8	69.9	69.1	5.0		6.0		7		-				-		-	
						4.3	0.8	287	28.9		7.9		13.8		68.3		4.9		6.0		7		-				-		-	
					Bottom	7.5	0.4	258	26.1	26.1	7.8	7.8	28.8	28.8	35.6	35.8	2.5	**2.5**	5.5		10		-				-		-	
						7.5	0.4	267	26.1		7.8		28.8		35.9		2.5		5.5		10		-				-		-	
SR5A	Fine	Calm	18:10	4.4	Surface	1.0	0.4	293	29.6	29.6	8.0	8.0	11.3	11.3	99.5	99.4	7.1	7.1	6.3	9.5	5	8	-	-	816579	810690	-	-	-	-
						1.0	0.4	320	29.6		8.0		11.3		99.3		7.1		6.3		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.4	309	29.3	29.3	7.9	7.9	13.2	13.2	88.4	88.3	6.3	6.3	12.6		10		-				-		-	
						3.4	0.4	328	29.3		7.9		13.2		88.1		6.3		12.7		11		-				-		-	
SR6	Fine	Calm	18:43	4.2	Surface	1.0	0.1	294	29.5	29.5	8.0	8.0	11.8	11.8	91.9	91.7	6.6	6.6	5.6	6.7	5	5	-	-	817917	814676	-	-	-	-
						1.0	0.1	306	29.4		8.0		11.8		91.5		6.6		5.6		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	294	29.0	29.0	7.8	7.8	14.8	14.8	66.5	67.0	4.7	4.8	7.7		5		-				-		-	
						3.2	0.1	307	29.0		7.8		14.8		67.4		4.8		7.7		5		-				-		-	
SR7	Fine	Rough	18:47	18.5	Surface	1.0	0.4	237	29.6	29.6	8.1	8.1	8.8	8.8	86.3	86.2	6.3	6.1	5.4	7.6	5	5	-	-	823632	823740	-	-	-	-
						1.0	0.4	249	29.5		8.1		8.9		86.0		6.2		5.5		5		-				-		-	
					Middle	9.3	0.2	333	29.3	29.3	8.1	8.1	11.1	11.1	83.6	83.7	6.0		7.6		5		-				-		-	
						9.3	0.2	334	29.3		8.1		11.1		83.8		6.0		7.6		5		-				-		-	
					Bottom	17.5	0.1	202	29.2	29.2	8.1	8.1	11.8	11.8	84.5	84.5	6.1	6.1	9.7		5		-				-		-	
						17.5	0.1	215	29.2		8.1		11.8		84.5		6.1		9.7		5		-				-		-	
SR8	Fine	Rough	17:22	3.9	Surface	1.0	-	-	29.8	29.8	8.1	8.1	6.6	6.6	81.9	81.8	6.0	6.0	6.4	8.6	4	5	-	-	820381	811605	-	-	-	-
						1.0	-	-	29.8		8.1		6.6		81.6		6.0		6.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.9	-	-	28.8	28.8	8.0	8.0	12.8	12.8	71.2	71.2	5.1	5.1	10.8		5		-				-		-	
						2.9	-	-	28.8		8.0		12.8		71.2		5.1		10.8		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 16 July 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	12:22	7.6	Surface	1.0	0.0	154	29.6	29.6	8.9	8.9	9.1	9.1	84.4	84.3	6.1	6.1	7.1	8.3	5	4	82	86	815611	804226	<0.2	<0.2	1.6	1.2
						1.0	0.0	156	29.6		8.9		9.1		84.2		6.1		7.1		4		82				<0.2		1.7	
					Middle	3.8	0.0	178	28.9	28.8	8.9	8.9	12.4	12.2	83.9	84.0	6.0		8.2		4		86				<0.2		0.9	
						3.8	0.0	178	28.8		8.9		11.9		84.0		6.1		8.2		4		87				<0.2		1.0	
					Bottom	6.6	0.1	139	28.2	28.2	8.8	8.8	17.5	17.5	91.9	92.3	6.5	6.6	9.5		4		90				<0.2		0.9	
						6.6	0.1	147	28.2		8.8		17.5		92.7		6.6		9.5		4		91				<0.2		1.1	
C2	Fine	Moderate	11:05	11.3	Surface	1.0	0.5	143	28.6	28.6	7.7	7.7	9.6	10.0	75.0	74.9	5.5	4.7	3.9	7.9	4	6	77	81	825669	806940	<0.2	<0.2	1.2	1.3
						1.0	0.5	154	28.6		7.7		10.4		74.8		5.5		3.9		4		77				<0.2		1.2	
					Middle	5.7	0.5	150	27.3	27.3	7.6	7.6	18.6	18.6	53.4	53.4	3.8		6.3		6		81				<0.2		1.3	
						5.7	0.5	154	27.3		7.6		18.6		53.3		3.8		6.3		5		80				<0.2		1.5	
					Bottom	10.3	0.7	148	25.3	25.3	7.6	7.6	28.8	28.8	41.0	41.3	2.9	2.9	13.6		8		85				<0.2		1.2	
						10.3	0.7	155	25.3		7.6		28.8		41.5		2.9		13.5		8		85				<0.2		1.1	
C3	Fine	Moderate	12:42	12.6	Surface	1.0	0.5	296	28.1	28.1	7.8	7.8	15.8	15.8	78.6	78.4	5.6	4.7	4.4	5.4	6	6	80	84	822109	817780	<0.2	<0.2	1.2	1.1
						1.0	0.5	310	28.1		7.8		15.8		78.1		5.6		4.5		6		80				<0.2		1.1	
					Middle	6.3	0.2	207	25.9	25.9	7.7	7.7	25.5	25.5	54.2	54.3	3.8		5.0		6		84				<0.2		1.1	
						6.3	0.2	214	25.9		7.7		25.5		54.4		3.8		4.9		6		84				<0.2		1.1	
					Bottom	11.6	0.6	114	24.8	24.8	7.7	7.7	30.1	30.1	45.8	45.9	3.2	3.2	6.7		6		87				<0.2		0.9	
						11.6	0.6	117	24.8		7.7		30.1		45.9		3.2		6.8		6		88				<0.2		0.9	
IM1	Sunny	Calm	11:54	4.3	Surface	1.0	0.4	168	28.2	28.2	8.5	8.5	18.1	18.1	66.4	66.3	4.7	4.7	8.6	9.6	4	4	87	89	817948	807138	<0.2	<0.2	1.3	1.2
						1.0	0.4	174	28.2		8.5		18.1		66.2		4.7		8.6		3		87				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.4	151	26.3	26.3	8.6	8.6	27.3	27.3	61.2	61.4	4.2	4.3	10.5		4		90				<0.2		1.2	
						3.3	0.4	163	26.3		8.6		27.3		61.6		4.3		10.8		4		91				<0.2		1.3	
IM2	Sunny	Calm	11:42	6.8	Surface	1.0	0.2	230	27.1	27.1	8.5	8.5	23.6	23.6	75.4	75.4	5.4	5.0	5.4	7.5	6	7	82	87	818148	806157	<0.2	<0.2	1.2	1.1
						1.0	0.2	237	27.1		8.5		23.6		75.4		5.4		5.4		7		86				<0.2		1.3	
					Middle	3.4	0.2	193	26.4	26.4	8.6	8.6	26.0	26.0	66.4	66.4	4.6		7.5		7		87				<0.2		1.0	
						3.4	0.2	207	26.3		8.6		26.1		66.4		4.6		7.6		7		87				<0.2		1.1	
					Bottom	5.8	0.2	159	25.9	25.9	8.5	8.5	29.6	29.6	51.1	51.1	3.6	3.6	9.6		6		91				<0.2		1.1	
						5.8	0.2	172	26.0		8.5		29.5		51.1		3.6		9.6		6		91				<0.2		1.1	
IM3	Sunny	Calm	11:37	6.5	Surface	1.0	0.2	168	26.8	26.8	8.6	8.6	25.1	25.1	83.8	83.8	6.0	5.3	9.2	10.7	11	9	82	87	818772	805578	<0.2	<0.2	1.2	1.2
						1.0	0.2	180	26.8		8.6		25.1		83.8		6.0		9.2		11		83				<0.2		1.1	
					Middle	3.3	0.5	156	26.4	26.4	8.6	8.6	27.1	27.1	66.5	66.5	4.6		10.1		10		86				<0.2		1.1	
						3.3	0.5	166	26.4		8.6		27.1		66.4		4.6		10.1		10		87				<0.2		1.1	
					Bottom	5.5	0.3	140	26.0	26.0	8.5	8.5	29.4	29.4	51.0	51.0	3.5	3.5	12.7		6		90				<0.2		1.2	
						5.5	0.3	140	26.0		8.5		29.4		50.9		3.5		12.7		7		91				<0.2		1.2	
IM4	Sunny	Moderate	11:30	7.2	Surface	1.0	0.9	205	29.0	28.9	8.5	8.5	9.9	9.9	71.8	71.6	5.2	4.9	6.8	8.7	4	4	83	87	819713	804604	<0.2	<0.2	1.1	1.1
						1.0	0.9	206	28.9		8.5		9.9		71.4		5.2		6.8		4		83				<0.2		1.1	
					Middle	3.6	0.7	187	27.7	27.7	8.6	8.6	17.1	17.1	63.4	63.3	4.5		8.7		4		87				<0.2		1.1	
						3.6	0.7	203	27.6		8.6		17.2		63.2		4.5		8.7		3		87				<0.2		1.2	
					Bottom	6.2	0.4	181	27.3	27.3	8.5	8.5	21.8	21.8	67.5	67.6	4.7	4.8	10.7		4		90				<0.2		1.1	
						6.2	0.4	198	27.3		8.5		21.8		67.7		4.8		10.7		3		90				<0.2		1.1	
IM5	Sunny	Moderate	11:22	7.9	Surface	1.0	0.8	213	29.2	29.2	8.5	8.5	10.0	10.0	78.8	78.7	5.7	5.5	6.3	8.6	4	4	79	85	820718	804887	<0.2	<0.2	1.1	1.1
						1.0	0.8	213	29.2		8.5		10.0		78.6		5.7		6.3		2		79				<0.2		1.0	
					Middle	4.0	0.6	217	28.2	28.2	8.5	8.5	18.9	18.9	74.0	74.2	5.2		8.9		3		87				<0.2		1.1	
						4.0	0.6	219	28.2		8.5		18.9		74.3		5.2		8.9		3		87				<0.2		1.2	
					Bottom	6.9	0.4	189	28.3	28.3	8.5	8.5	13.2	13.1	78.1	78.4	5.7	5.7	10.6		4		90				<0.2		1.1	
						6.9	0.5	197	28.2		8.5		13.1		78.6		5.7		10.6		5		90				<0.2		1.2	
IM6	Sunny	Moderate	11:14	8.7	Surface	1.0	0.5	243	29.8	29.8	8.5	8.5	9.6	9.6	81.5	81.5	5.9	5.1	9.8	12.0	3	3	82	87	821077	805832	<0.2	<0.2	1.4	1.2
						1.0	0.5	260	29.8		8.5		9.6		81.4		5.9		9.8		4		82				<0.2		1.2	
					Middle	4.4	0.3	206	27.3	27.3	8.6	8.6	21.2	21.2	59.2	59.2	4.2		12.7		3		87				<0.2		1.1	
						4.4	0.3	208	27.3		8.6		21.2		59.1		4.2		12.8		3		88				<0.2		1.2	
					Bottom	7.7	0.1	174	26.8	26.9	8.5	8.5	24.9	25.1	68.4	68.8	4.8	4.8	13.3		3		90				<0.2		1.3	
						7.7	0.2	179	26.9		8.5		25.3		69.2		4.8		13.3		3		90				<0.2		1.2	
IM7	Sunny	Moderate	11:05	8.5	Surface	1.0	0.5	237	28.4	28.4	8.6	8.6	12.5	12.5	78.2	78.2	5.7	5.3	9.6	11.1	3	4	82	87	821341	806856	<0.2	<0.2	1.2	1.3
						1.0	0.6	253	28.4		8.6		12.5		78.2		5.7		9.6		4		83				<0.2		1.2	
					Middle	4.3	0.2	246	27.6	27.6	8.6	8.6	19.8	19.8	68.3	68.3	4.8		10.4		4		87				<0.2		1.3	
						4.3	0.2	260	27.6		8.6		19.8		68.3		4.8		10.3		4		88				<0.2		1.3	
					Bottom	7.5	0.1	24	27.1	27.1	8.7	8.7	22.9	22.9	59.9	59.7	4.3	4.3	13.4		3		90				<0.2		1.3	
						7.5	0.1	25	27.1		8.7		22.9		59.5		4.3		13.4		4		91				<0.2		1.3	
IM8	Fine	Moderate	11:25	8.1	Surface	1.0	0.1	208	28.2	28.2	7.6	7.6	13.4	13.4	69.7	69.8	5.1	4.8	4.1	6.9	3	5	80	83	821838	808151	<0.2	<0.2	1.4	1.3
						1.0	0.1	211	28.2		7.6		13.4		69.8		5.1		4.1		4		79				<0.2		1.4	
					Middle	4.1	0.2	174	27.5	27.5	7.6	7.6	18.6	17.5	62.1	62.3	4.4		5.5		4		83				<0.2		1.4	
						4.1	0.2	187	27.5		7.6		16.4		62.4		4.5		5.4		5		83				<0.2		1.4	
					Bottom	7.1	0.1	215	26.8	26.8	7.6	7.6	20.9	20.9	55.4	55.5	3.9	4.0	11.2		7		87				<0.2		1.2	
						7.1	0.1	219	26.8		7.6		20.9		55.6		4.0		11.2		6		87				<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 16 July 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	11:31	7.6	Surface	1.0	0.1	137	28.4	28.4	7.7	7.7	11.9	11.9	75.4	75.5	5.5	5.1	4.1	6.4	4	5	79	83	822075	808820	<0.2	<0.2	1.4	1.2
						1.0	0.1	142	28.4		7.7		11.9		75.5		5.5		3.9		3		79				<0.2		1.3	
					Middle	3.8	0.3	138	27.5	27.5	7.6	7.6	16.7	16.7	63.6	63.6	4.6		5.0		4		82				<0.2		1.2	
						3.8	0.4	141	27.5		7.6		16.7		63.5		4.6		5.0		4		83				<0.2		1.2	
					Bottom	6.6	0.2	108	26.8	26.8	7.6	7.6	21.0	21.0	54.6	54.7	3.9	3.9	10.2		7		87				<0.2		1.1	
						6.6	0.2	115	26.8		7.6		21.0		54.8		3.9		10.3		7		87				<0.2		1.1	
IM10	Fine	Moderate	11:38	7.5	Surface	1.0	0.6	115	28.4	28.4	7.7	7.7	11.7	11.8	74.7	74.7	5.4	4.6	3.3	11.3	4	6	79	83	822368	809800	<0.2	<0.2	1.3	1.2
						1.0	0.7	115	28.4		7.7		11.8		74.6		5.4		3.3		3		78				<0.2		1.4	
					Middle	3.8	0.7	114	26.9	26.9	7.6	7.6	19.5	20.2	53.5	53.6	3.8		13.1		5		83				<0.2		1.2	
						3.8	0.8	120	26.9		7.6		20.8		53.6		3.8		13.1		5		84				<0.2		1.2	
					Bottom	6.5	0.5	117	26.8	26.8	7.6	7.6	21.2	21.2	55.6	55.9	3.9	4.0	17.5		9		87				<0.2		1.1	
						6.5	0.5	126	26.8		7.6		21.2		56.1		4.0		17.4		9		87				<0.2		0.9	
IM11	Fine	Moderate	11:46	8.9	Surface	1.0	0.8	109	28.9	28.9	7.7	7.7	10.7	10.7	79.3	79.1	5.8	4.6	3.3	8.1	4	7	79	83	822064	811472	<0.2	<0.2	1.4	1.2
						1.0	0.8	109	28.9		7.7		10.7		78.9		5.7		3.3		3		79				<0.2		1.4	
					Middle	4.5	0.7	115	26.7	26.7	7.6	7.6	22.0	22.0	49.5	49.5	3.5		8.4		6		83				<0.2		1.2	
						4.5	0.8	126	26.7		7.6		22.0		49.5		3.5		8.4		5		83				<0.2		1.2	
					Bottom	7.9	0.4	111	26.3	26.3	7.6	7.6	23.8	23.8	49.3	49.5	3.5	3.5	12.5		10		87				<0.2		1.1	
						7.9	0.4	116	26.3		7.6		23.8		49.7		3.5		12.5		11		87				<0.2		1.1	
IM12	Fine	Moderate	11:52	8.3	Surface	1.0	0.7	111	28.8	28.8	7.7	7.7	10.9	10.9	80.9	80.9	5.9	4.9	3.4	6.6	4	8	78	83	821450	812050	<0.2	<0.2	0.9	1.0
						1.0	0.7	120	28.8		7.7		10.9		80.8		5.9		3.4		4		79				<0.2		1.0	
					Middle	4.2	0.6	102	27.2	27.2	7.6	7.6	19.0	18.9	55.2	55.2	3.9		7.4		8		82				<0.2		1.1	
						4.2	0.7	103	27.2		7.6		18.9		55.1		3.9		7.4		8		83				<0.2		1.1	
					Bottom	7.3	0.5	112	26.5	26.5	7.6	7.6	22.6	22.6	51.4	51.6	3.6	3.7	9.0		11		86				<0.2		1.0	
						7.3	0.5	115	26.5		7.6		22.6		51.7		3.7		8.9		10		87				<0.2		1.0	
SR1A	Fine	Moderate	12:11	4.7	Surface	1.0	-	-	28.8	28.8	7.8	7.8	11.9	11.9	86.7	86.8	6.3	6.3	4.8	4.5	5	8	-	-	819976	812656	-	-	-	-
						1.0	-	-	28.7		7.8		11.9		86.8		6.3		4.7		6		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	-	-	28.5	28.5	7.8	7.8	13.7	13.7	88.3	88.4	6.4	6.4	4.2		11		-				-		-	
						3.7	-	-	28.5		7.8		13.7		88.4		6.4		4.2		10		-				-		-	
SR2	Fine	Moderate	12:21	4.4	Surface	1.0	0.6	93	28.7	28.8	7.7	7.7	12.1	12.1	85.4	85.5	6.2	6.2	3.8	3.8	6	6	79	81	821483	814166	<0.2	<0.2	1.3	1.3
						1.0	0.6	100	28.8		7.7		12.0		85.6		6.2		3.7		5		79				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.6	115	28.4	28.4	7.7	7.7	12.5	12.5	80.7	80.8	5.9	5.9	3.8		7		82				<0.2		1.2	
						3.4	0.6	123	28.4		7.7		12.5		80.8		5.9		3.8		7		83				<0.2		1.3	
SR3	Fine	Moderate	11:19	9.5	Surface	1.0	0.3	227	28.5	28.5	7.7	7.7	10.1	10.1	75.0	74.9	5.5	4.6	3.7	11.2	4	7	-	-	822162	807550	-	-	-	-
						1.0	0.3	242	28.4		7.7		10.2		74.7		5.5		3.7		3		-				-		-	
					Middle	4.8	0.1	214	26.8	26.8	7.6	7.6	21.3	21.3	50.0	50.0	3.6		11.3		6		-				-		-	
						4.8	0.2	229	26.8		7.6		21.3		50.0		3.6		11.3		7		-				-		-	
					Bottom	8.5	0.1	26	26.0	26.0	7.6	7.6	25.9	25.9	49.4	49.5	3.5	3.5	18.6		11		-				-		-	
						8.5	0.1	26	26.0		7.6		26.0		49.6		3.5		18.6		13		-				-		-	
SR4A	Sunny	Moderate	12:55	9.5	Surface	1.0	0.2	269	28.6	28.6	8.8	8.8	15.3	15.3	75.3	75.3	5.4	4.6	6.4	8.5	7	6	-	-	817209	807792	-	-	-	-
						1.0	0.2	278	28.6		8.8		15.3		75.2		5.4		6.4		6		-				-		-	
					Middle	4.8	0.1	317	26.4	26.4	9.1	9.1	24.5	24.5	54.0	54.1	3.8		8.5		8		-				-		-	
						4.8	0.1	322	26.3		9.1		24.5		54.1		3.8		8.5		7		-				-		-	
					Bottom	8.5	0.0	112	26.0	26.0	9.1	9.1	29.3	29.2	59.1	59.4	4.1	4.1	10.6		4		-				-		-	
						8.5	0.0	115	26.0		9.1		29.2		59.6		4.1		10.6		3		-				-		-	
SR5A	Sunny	Calm	13:12	3.8	Surface	1.0	0.1	332	30.1	30.1	9.0	9.0	11.5	11.5	91.0	90.4	6.5	6.5	5.4	7.1	6	7	-	-	816579	810681	-	-	-	-
						1.0	0.1	357	30.1		9.0		11.5		89.8		6.4		5.5		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.0	325	28.5	28.5	8.9	8.9	15.5	15.5	68.0	67.8	4.8	4.8	8.8		7		-				-		-	
						2.8	0.0	335	28.5		8.9		15.5		67.6		4.8		8.8		7		-				-		-	
SR6	Sunny	Calm	13:45	3.2	Surface	1.0	0.2	99	29.8	29.8	9.2	9.2	13.3	13.3	107.3	107.3	7.6	7.6	5.6	6.0	6	7	-	-	817901	814686	-	-	-	-
						1.0	0.2	105	29.8		9.2		13.3		107.2		7.6		5.6		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.2	0.1	358	29.3	29.3	9.2	9.2	14.3	14.3	91.9	91.9	6.5	6.5	6.3		8		-				-		-	
						2.2	0.1	329	29.3		9.2		14.3		91.9		6.5		6.3		9		-				-		-	
SR7	Fine	Moderate	13:08	15.8	Surface	1.0	0.7	55	28.6	28.6	7.9	7.9	13.3	13.3	96.2	96.0	6.9	6.4	4.4	3.5	6	6	-	-	823623	823757	-	-	-	-
						1.0	0.7	56	28.6		7.9		13.3		95.8		6.9		4.4		8		-				-		-	
					Middle	7.9	0.4	46	27.9	27.9	7.8	7.8	15.8	15.8	82.9	82.8	6.0		2.9		7		-				-		-	
						7.9	0.4	47	27.9		7.8		15.8		82.7		5.9		3.0		6		-				-		-	
					Bottom	14.8	0.4	49	26.2	26.2	7.7	7.7	24.1	24.1	67.2	67.4	4.7	4.8	3.1		4		-				-		-	
						14.8	0.4	49	26.2		7.7		24.2		67.5		4.8		3.1		4		-				-		-	
SR8	Fine	Moderate	12:03	5.2	Surface	1.0	-	-	28.9	28.9	7.7	7.7	10.8	10.8	83.0	83.0	6.0	6.0	10.2	12.8	5	11	-	-	820367	811627	-	-	-	-
						1.0	-	-	28.9		7.7		10.8		83.0		6.0		10.9		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-	-			-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	29.2	29.2	7.7	7.7	13.7	13.7	84.2	84.3	6.0	6.0	14.9		16		-				-		-	
						4.2	-	-	29.2		7.7		13.7		84.3		6.0		15.2		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 16 July 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	05:20	8.4	Surface	1.0	0.3	13	27.2	27.1	8.5	8.5	22.3	22.1	73.0	73.2	5.1	5.4	5.4	8.1	5	5	83	87	815598	804234	<0.2	<0.2	1.1	1.1
						1.0	0.3	13	27.1		8.5		22.0		73.4		5.2		5.5		5		83				<0.2		1.1	
					Middle	4.2	0.1	15	28.9	28.9	8.4	8.4	11.8	11.8	78.3	78.6	5.7		8.2		4		86				<0.2		1.1	
						4.2	0.1	16	28.9		8.4		11.8		78.8		5.7		8.3		5		87				<0.2		1.0	
					Bottom	7.4	0.2	22	28.9	28.9	8.4	8.4	10.6	10.6	78.6	78.6	5.7	5.7	10.7		6		90				<0.2		1.0	
						7.4	0.2	23	29.0		8.4		10.6		78.5		5.7		10.7		5		91				<0.2		1.0	
C2	Fine	Moderate	07:18	10.8	Surface	1.0	0.4	12	28.2	28.2	7.7	7.7	10.5	10.5	75.1	75.0	5.5	4.8	4.2	8.8	3	7	81	85	825700	806953	<0.2	<0.2	1.4	1.3
						1.0	0.5	13	28.2		7.7		10.5		74.8		5.5		4.2		4		80				<0.2		1.4	
					Middle	5.4	0.3	12	27.3	27.3	7.6	7.6	18.2	18.2	56.8	56.6	4.1		9.1		6		84				<0.2		1.3	
						5.4	0.3	12	27.3		7.6		18.2		56.3		4.0		9.2		6		85				<0.2		1.3	
					Bottom	9.8	0.5	15	25.1	25.1	7.6	7.6	29.4	29.4	39.8	39.9	2.8	2.8	13.4		10		89				<0.2		1.1	
						9.8	0.6	16	25.1		7.6		29.4		40.0		2.8		12.8		11		88				<0.2		1.2	
C3	Fine	Moderate	05:14	12.8	Surface	1.0	0.4	271	27.5	27.5	7.8	7.8	17.4	17.4	78.8	78.7	5.7	5.2	2.9	3.4	2	4	79	83	822100	817781	<0.2	<0.2	1.2	1.2
						1.0	0.4	271	27.5		7.8		17.4		78.6		5.6		2.9		3		79				<0.2		1.1	
					Middle	6.4	0.8	253	26.4	26.4	7.7	7.7	23.0	23.0	66.8	66.7	4.7		2.9		5		83				<0.2		1.1	
						6.4	0.9	271	26.4		7.7		23.0		66.6		4.7		2.8		4		83				<0.2		1.2	
					Bottom	11.8	0.4	276	24.6	24.6	7.6	7.6	30.4	30.5	48.3	48.4	3.4	3.4	4.4		4		87				<0.2		1.3	
						11.8	0.4	293	24.6		7.6		30.6		48.4		3.4		4.4		4		87				<0.2		1.1	
IM1	Sunny	Calm	05:46	5.3	Surface	1.0	0.3	27	27.6	27.6	8.6	8.6	19.5	19.6	64.4	64.4	4.6	4.6	4.3	6.4	5	5	82	86	817964	807145	<0.2	<0.2	1.4	1.4
						1.0	0.3	29	27.6		8.6		19.6		64.4		4.6		4.3		6		82				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	14	26.9	26.9	8.5	8.5	24.9	24.9	78.0	78.5	5.4	5.5	8.5		5		90				<0.2		1.4	
						4.3	0.2	16	26.9		8.5		24.9		79.0		5.5		8.5		4		91				<0.2		1.4	
IM2	Sunny	Calm	05:52	6.8	Surface	1.0	0.3	29	28.0	28.0	8.5	8.5	17.9	17.9	78.2	78.2	5.4	5.1	3.8	6.3	5	5	86	87	818151	806184	<0.2	<0.2	1.6	1.5
						1.0	0.3	28	28.0		8.5		17.8		78.2		5.4		3.8		4		85				<0.2		1.5	
					Middle	3.4	0.2	27	26.7	26.7	8.6	8.6	25.4	25.2	65.9	65.9	4.7		6.4		3		87				<0.2		1.5	
						3.4	0.2	27	26.7		8.6		25.1		65.9		4.7		6.4		4		88				<0.2		1.5	
					Bottom	5.8	0.2	28	25.7	25.7	8.6	8.6	30.3	30.3	51.9	52.0	3.6	3.6	8.6		5		89				<0.2		1.4	
						5.8	0.2	26	25.7		8.6		30.3		52.1		3.6		8.8		7		88				<0.2		1.5	
IM3	Sunny	Calm	05:59	7.1	Surface	1.0	0.3	29	28.3	28.3	8.6	8.6	16.3	16.3	73.5	73.5	5.2	4.6	5.5	8.9	4	5	85	87	818801	805571	<0.2	<0.2	1.2	1.2
						1.0	0.3	29	28.3		8.6		16.3		73.5		5.2		5.6		4		84				<0.2		1.2	
					Middle	3.6	0.2	24	26.4	26.4	8.8	8.8	26.2	26.1	58.7	58.6	4.0		8.5		5		89				<0.2		1.3	
						3.6	0.3	26	26.4		8.8		26.1		58.5		4.0		8.6		6		87				<0.2		1.2	
					Bottom	6.1	0.2	25	25.7	25.7	8.8	8.7	30.3	30.3	51.4	51.4	3.6	3.6	12.6		6		89				<0.2		1.1	
						6.1	0.3	26	25.7		8.7		30.3		51.4		3.6		12.7		6		90				<0.2		1.1	
IM4	Sunny	Calm	06:07	8.2	Surface	1.0	0.7	25	28.1	28.1	8.6	8.6	16.9	16.9	70.7	70.7	5.1	4.7	5.1	7.4	4	5	84	87	819723	804593	<0.2	<0.2	1.2	1.2
						1.0	0.7	27	28.1		8.6		16.9		70.7		5.1		5.2		5		84				<0.2		1.3	
					Middle	4.1	0.6	25	26.9	26.9	8.7	8.7	22.6	22.7	59.3	59.3	4.2		7.6		5		87				<0.2		1.2	
						4.1	0.6	26	26.9		8.7		22.7		59.3		4.2		7.6		4		87				<0.2		1.1	
					Bottom	7.2	0.3	28	25.9	25.9	8.6	8.6	27.1	27.5	66.1	66.2	4.6	4.6	9.3		5		88				<0.2		1.2	
						7.2	0.4	29	25.9		8.6		27.9		66.2		4.6		9.3		4		89				<0.2		1.3	
IM5	Sunny	Moderate	06:17	8.0	Surface	1.0	0.5	26	28.7	28.7	8.5	8.5	12.7	12.7	71.3	71.3	5.1	4.9	4.8	8.0	4	5	85	88	820735	804890	<0.2	<0.2	1.3	1.3
						1.0	0.5	27	28.7		8.5		12.7		71.3		5.1		4.8		4		84				<0.2		1.3	
					Middle	4.0	0.4	24	28.1	28.1	8.6	8.6	16.0	16.0	64.1	64.0	4.6		8.4		5		88				<0.2		1.2	
						4.0	0.4	23	28.1		8.6		16.0		63.9		4.6		8.4		4		89				<0.2		1.2	
					Bottom	7.0	0.5	18	26.1	26.0	8.7	8.7	28.7	28.7	52.9	53.1	3.7	3.7	10.9		5		90				<0.2		1.3	
						7.0	0.5	19	26.0		8.7		28.7		53.3		3.7		10.9		5		89				<0.2		1.2	
IM6	Sunny	Moderate	06:25	8.5	Surface	1.0	0.6	14	28.6	28.6	8.5	8.5	14.5	14.7	70.6	70.6	5.1	4.6	5.5	8.0	3	4	83	87	821075	805836	<0.2	<0.2	1.4	1.3
						1.0	0.6	15	28.6		8.6		14.9		70.6		5.0		5.6		4		84				<0.2		1.3	
					Middle	4.3	0.3	22	27.4	27.4	8.7	8.7	20.5	20.5	59.2	59.2	4.2		8.1		3		87				<0.2		1.3	
						4.3	0.3	23	27.4		8.7		20.5		59.2		4.2		8.2		4		88				<0.2		1.3	
					Bottom	7.5	0.2	18	26.8	26.8	8.7	8.7	24.6	24.6	62.9	63.1	4.4	4.4	10.4		4		89				<0.2		1.2	
						7.5	0.2	18	26.8		8.7		24.6		63.3		4.4		10.4		4		88				<0.2		1.2	
IM7	Sunny	Moderate	06:32	9.1	Surface	1.0	0.5	13	29.0	29.0	8.6	8.6	10.5	10.5	75.8	75.7	5.5	5.1	10.8	13.0	3	4	85	87	821344	806850	<0.2	<0.2	1.4	1.4
						1.0	0.5	13	29.0		8.6		10.5		75.6		5.5		10.8		4		84				<0.2		1.3	
					Middle	4.6	0.2	17	27.7	27.7	8.6	8.6	18.8	18.9	66.1	66.3	4.7		13.4		3		87				<0.2		1.4	
						4.6	0.2	17	27.7		8.6		19.1		66.5		4.7		13.5		3		89				<0.2		1.4	
					Bottom	8.1	0.1	12	27.4	27.4	8.5	8.5	22.2	22.2	81.8	82.3	5.7	5.8	14.8		4		88				<0.2		1.4	
						8.1	0.1	13	27.5		8.5		22.2		82.8		5.8		14.8		4		89				<0.2		1.4	
IM8	Fine	Moderate	06:52	9.0	Surface	1.0	0.3	321	28.4	28.4	7.6	7.6	10.1	10.1	72.2	71.9	5.3	4.8	4.0	6.9	4	6	76	80	821851	808135	<0.2	<0.2	1.2	1.2
						1.0	0.3	344	28.4		7.6		10.1		71.6		5.3		3.9		4		76				<0.2		1.3	
					Middle	4.5	0.2	340	27.4	27.4	7.6	7.6	18.4	18.4	58.1	58.2	4.2		4.3		5		81				<0.2		1.1	
						4.5	0.2	350	27.4		7.6		18.3		58.3		4.2		4.2		6		80				<0.2		1.1	
					Bottom	8.0	0.2	338	26.7	26.7	7.6	7.6	22.1	22.1	50.0	50.2	3.5	3.6	12.1		8		84				<0.2		1.2	
						8.0	0.3	342	26.7		7.6		22.1		50.3		3.6		12.7		8		85				<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 16 July 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	Fine	Moderate	06:45	7.9	Surface	1.0	0.4	44	28.4	28.4	7.6	7.6	8.5	8.5	79.9	79.9	5.9	5.5	4.6	6.0	4	6	77	80	822079	808825	<0.2	<0.2	1.3	1.6
						1.0	0.4	45	28.4		7.6		8.5		79.9		5.9		4.6		4		76				<0.2		1.4	
					Middle	4.0	0.6	49	27.8	27.8	7.7	7.7	13.5	13.5	68.8	68.6	5.0		5.5		5		80				<0.2		1.5	
						4.0	0.6	50	27.8		7.7		13.5		68.4		5.0		5.5		4		80				<0.2		1.6	
					Bottom	6.9	0.5	54	26.9	27.0	7.6	7.6	19.8	19.8	58.7	58.8	4.2	4.2	7.8		9		84				<0.2		1.7	
						6.9	0.5	56	27.0		7.6		19.8		58.9		4.2		8.0		10		84				<0.2		1.8	
IM10	Fine	Moderate	06:36	8.4	Surface	1.0	0.8	62	28.2	28.2	7.7	7.7	10.0	10.1	74.8	74.7	5.5	5.2	5.0	7.0	4	6	76	80	822399	809802	<0.2	<0.2	1.4	1.5
						1.0	0.9	67	28.2		7.7		10.1		74.6		5.5		5.1		3		77				<0.2		1.3	
					Middle	4.2	0.8	61	27.5	27.5	7.7	7.7	15.5	15.5	66.8	66.8	4.8		8.4		5		80				<0.2		1.5	
						4.2	0.8	63	27.5		7.7		15.5		66.7		4.8		8.4		6		80				<0.2		1.5	
					Bottom	7.4	0.6	72	27.2	27.2	7.6	7.6	20.3	20.2	56.3	58.1	4.0	4.2	7.5		8		84				<0.2		1.6	
						7.4	0.6	72	27.2		7.6		20.2		59.8		4.3		7.6		8		84				<0.2		1.6	
IM11	Fine	Moderate	06:20	9.2	Surface	1.0	0.6	81	28.1	28.1	7.7	7.7	11.9	12.3	69.6	69.7	5.1	5.0	5.0	5.0	4	4	76	80	822040	811478	<0.2	<0.2	1.4	1.5
						1.0	0.6	86	28.1		7.7		12.7		69.7		5.1		5.1		4		77				<0.2		1.5	
					Middle	4.6	0.3	80	27.7	27.7	7.7	7.7	16.3	16.3	69.0	68.9	5.0		3.7		5		80				<0.2		1.5	
						4.6	0.4	81	27.7		7.7		16.3		68.8		4.9		3.7		4		80				<0.2		1.5	
					Bottom	8.2	0.1	115	26.2	26.2	7.6	7.6	24.4	24.4	51.9	52.1	3.7	3.7	6.3		4		84				<0.2		1.6	
						8.2	0.2	121	26.2		7.6		24.3		52.3		3.7		6.2		5		84				<0.2		1.5	
IM12	Fine	Moderate	06:12	8.8	Surface	1.0	0.4	99	28.6	28.6	7.8	7.8	11.5	11.4	82.8	82.8	6.0	5.7	3.6	6.0	3	4	76	80	821445	812061	<0.2	<0.2	1.3	1.3
						1.0	0.4	97	28.6		7.8		11.4		82.7		6.0		3.6		4		76				<0.2		1.2	
					Middle	4.4	0.3	88	28.3	28.3	7.8	7.8	13.4	13.4	75.7	75.4	5.5		4.6		3		81				<0.2		1.2	
						4.4	0.3	90	28.3		7.8		13.5		75.1		5.4		5.1		4		80				<0.2		1.3	
					Bottom	7.8	0.2	93	25.6	25.6	7.6	7.6	27.2	27.1	56.4	56.5	4.0	4.0	9.5		5		85				<0.2		1.5	
						7.8	0.2	93	25.6		7.6		27.0		56.5		4.0		9.5		4		84				<0.2		1.5	
SR1A	Fine	Moderate	05:51	4.9	Surface	1.0	-	-	28.5	28.5	7.8	7.8	12.1	12.1	87.1	87.2	6.3	6.3	4.0	3.8	4	4	-	-	819978	812660	-	-	-	-
						1.0	-	-	28.5		7.8		12.1		87.2		6.3		3.9		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	28.4	28.4	7.8	7.8	12.7	12.8	85.6	85.6	6.2	6.2	3.7		5		-				-		-	
						3.9	-	-	28.4		7.8		12.8		85.5		6.2		3.7		4		-				-		-	
SR2	Fine	Moderate	05:39	4.3	Surface	1.0	0.1	101	28.5	28.5	7.8	7.8	12.0	12.0	87.1	87.1	6.3	6.3	3.9	3.9	5	6	80	82	821446	814185	<0.2	<0.2	1.4	1.3
						1.0	0.1	104	28.5		7.8		12.0		87.0		6.3		3.9		6		80				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	39	28.4	28.4	7.8	7.8	12.8	12.8	85.4	85.4	6.2	6.2	3.9		5		84				<0.2		1.2	
						3.3	0.0	39	28.4		7.8		12.9		85.4		6.2		3.9		6		84				<0.2		1.0	
SR3	Fine	Moderate	06:59	9.6	Surface	1.0	0.3	15	28.4	28.4	7.6	7.6	9.9	9.9	74.3	74.2	5.5	4.8	4.4	6.9	4	6	-	-	822155	807556	-	-	-	-
						1.0	0.3	16	28.3		7.6		9.9		74.1		5.5		4.4		4		-				-		-	
					Middle	4.8	0.4	17	27.4	27.4	7.6	7.6	17.5	17.5	56.5	56.5	4.1		4.8		5		-				-		-	
						4.8	0.5	17	27.4		7.6		17.5		56.4		4.1		4.9		5		-				-		-	
					Bottom	8.6	0.1	17	26.8	26.8	7.6	7.6	21.1	21.1	50.0	50.1	3.6	3.6	11.4		8		-				-		-	
						8.6	0.1	18	26.8		7.6		21.1		50.1		3.6		11.5		8		-				-		-	
SR4A	Sunny	Calm	04:52	9.6	Surface	1.0	0.3	280	29.0	29.0	8.4	8.4	10.4	10.4	77.3	77.3	5.6	5.6	4.8	6.5	6	7	-	-	817206	807823	-	-	-	-
						1.0	0.3	283	29.0		8.4		10.4		77.2		5.6		4.9		6		-				-		-	
					Middle	4.8	0.4	273	29.0	29.0	8.4	8.4	10.4	10.4	76.8	76.8	5.6		6.5		7		-				-		-	
						4.8	0.4	277	29.0		8.4		10.3		76.8		5.6		6.5		8		-				-		-	
					Bottom	8.6	0.3	265	25.3	25.3	8.6	8.6	32.4	32.4	50.2	50.3	3.4	3.4	8.1		7		-				-		-	
						8.6	0.4	270	25.3		8.6		32.4		50.3		3.4		8.3		8		-				-		-	
SR5A	Sunny	Calm	04:34	4.8	Surface	1.0	0.1	228	29.6	29.6	8.7	8.7	11.8	11.8	99.9	100.0	7.1	7.1	10.7	11.8	6	5	-	-	816600	810702	-	-	-	-
						1.0	0.1	219	29.6		8.7		11.8		100.1		7.1		10.7		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	231	29.3	29.3	8.7	8.7	13.2	13.2	91.8	91.9	6.5	6.5	12.9		5		-				-		-	
						3.8	0.1	235	29.3		8.7		13.2		91.9		6.5		12.9		5		-				-		-	
SR6	Sunny	Calm	04:05	4.2	Surface	1.0	0.0	289	29.2	29.2	9.0	9.0	12.0	12.0	82.8	82.8	5.9	5.9	14.2	15.0	4	5	-	-	817896	814642	-	-	-	-
						1.0	0.0	294	29.2		9.1		12.0		82.7		5.9		14.4		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	294	28.9	28.9	9.2	9.2	14.0	14.0	76.9	76.9	5.5	5.5	15.6		5		-				-		-	
						3.2	0.1	308	28.9		9.2		14.0		76.8		5.5		15.8		5		-				-		-	
SR7	Fine	Moderate	04:44	15.5	Surface	1.0	0.2	211	26.3	26.3	7.7	7.7	23.3	23.3	84.0	84.0	5.9	5.5	3.1	4.7	4	5	-	-	823615	823746	-	-	-	-
						1.0	0.2	218	26.3		7.7		23.3		83.9		5.9		3.0		5		-				-		-	
					Middle	7.8	0.1	202	24.7	24.7	7.6	7.6	30.0	30.0	70.7	70.8	5.0		4.1		5		-				-		-	
						7.8	0.1	211	24.7		7.6		30.0		70.8		5.0		4.0		5		-				-		-	
					Bottom	14.5	0.1	268	24.1	24.1	7.6	7.6	32.2	32.2	63.7	63.8	4.5	4.5	7.1		6		-				-		-	
						14.5	0.1	272	24.1		7.6		32.2		63.8		4.5		7.0		6		-				-		-	
SR8	Fine	Moderate	06:01	5.4	Surface	1.0	-	-	28.6	28.6	7.7	7.7	11.3	11.4	84.2	84.2	6.1	6.1	3.6	3.5	4	4	-	-	820367	811611	-	-	-	-
						1.0	-	-	28.6		7.7		11.4		84.2		6.1		3.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	-	-	28.4	28.4	7.8	7.8	12.7	12.8	79.7	79.6	5.8	5.8	3.4		4		-				-		-	
						4.4	-	-	28.3		7.8		12.8		79.4		5.8		3.4		3		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 July 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	Calm	14:11	8.4	Surface	1.0	0.3	205	26.9	26.9	8.3	8.3	24.5	24.5	60.2	60.2	4.2	4.1	11.1	11.7	8	8	85	88	815639	804231	<0.2	<0.2	1.1	1.1
						1.0	0.3	216	26.9		8.3		24.5		60.1		4.2		11.0		9		86				<0.2		1.3	
					Middle	4.2	0.3	194	26.2	26.2	8.4	8.4	28.5	28.4	58.2	58.2	4.0		11.7		7		88				<0.2		1.1	
						4.2	0.3	204	26.2		8.4		28.4		58.2		4.0		11.8		8		88				<0.2		1.1	
					Bottom	7.4	0.3	191	26.1	26.2	8.4	8.4	29.5	29.4	73.6	73.6	5.0	5.0	12.3		7		90				<0.2		1.0	
						7.4	0.3	205	26.2		8.4		29.3		73.5		5.0		12.3		7		90				<0.2		1.1	
C2	Cloudy	Moderate	12:27	11.1	Surface	1.0	0.6	160	30.3	30.4	8.0	8.0	12.0	12.0	87.0	86.9	6.1	5.3	2.5	5.3	4	5	85	87	825666	806924	<0.2	<0.2	1.3	1.4
						1.0	0.6	170	30.4		8.0		12.0		86.8		6.1		2.6		5		83				<0.2		1.2	
					Middle	5.6	0.5	138	27.8	27.8	7.9	7.9	18.5	18.6	62.3	62.1	4.4		4.2		5		88				<0.2		1.4	
						5.6	0.5	150	27.8		7.9		18.8		61.8		4.4		4.2		4		89				<0.2		1.4	
					Bottom	10.1	0.5	136	25.7	25.7	7.9	7.9	28.6	28.6	49.5	49.8	3.4	3.5	9.2		4		90				<0.2		1.4	
						10.1	0.5	142	25.7		7.9		28.6		50.1		3.5		9.2		5		89				<0.2		1.5	
C3	Cloudy	Moderate	14:02	11.3	Surface	1.0	0.3	256	28.2	28.2	8.1	8.1	19.1	19.1	86.4	86.5	6.1	4.9	3.6	4.2	6	6	85	88	822105	817784	<0.2	<0.2	1.2	1.2
						1.0	0.3	265	28.2		8.1		19.1		86.5		6.1		3.5		6		86				<0.2		1.2	
					Middle	5.7	0.3	126	25.6	25.6	7.9	7.9	28.2	28.2	52.7	52.7	3.7		4.2		6		87				<0.2		1.1	
						5.7	0.3	128	25.6		7.9		28.1		52.7		3.7		4.3		6		88				<0.2		1.1	
					Bottom	10.3	0.3	116	25.2	25.2	7.9	7.9	29.9	29.9	50.7	51.0	3.5	3.6	4.8		6		89				<0.2		1.1	
						10.3	0.4	127	25.2		7.9		30.0		51.2		3.6		5.0		6		90				<0.2		1.2	
IM1	Cloudy	Calm	13:45	5.5	Surface	1.0	0.1	264	27.2	27.2	8.2	8.2	25.7	25.5	70.2	70.3	4.9	4.9	11.8	12.1	6	7	82	83	817929	807150	<0.2	<0.2	1.2	1.0
						1.0	0.1	284	27.2		8.2		25.4		70.4		4.9		11.8		6		82				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.3	164	25.9	25.9	8.0	8.0	29.9	29.9	81.1	81.7	5.6	5.6	12.3		8		84				<0.2		0.7	
						4.5	0.4	164	25.9		8.0		29.9		82.2		5.6		12.3		8		84				<0.2		0.9	
IM2	Cloudy	Calm	13:38	7.4	Surface	1.0	0.5	169	27.8	27.8	8.0	8.0	22.4	22.4	70.2	70.3	4.9	4.9	11.6	13.2	9	9	85	87	818171	806164	<0.2	<0.2	1.0	1.0
						1.0	0.5	171	27.8		8.0		22.4		70.3		4.9		11.6		9		86				<0.2		1.0	
					Middle	3.7	0.4	156	25.9	25.9	8.4	8.4	28.9	28.9	68.4	68.5	4.8		13.6		9		87				<0.2		1.0	
						3.7	0.4	170	25.8		8.4		28.9		68.6		4.8		13.6		9		88				<0.2		1.0	
					Bottom	6.4	0.4	149	25.7	25.7	8.3	8.3	30.5	30.4	70.6	71.1	4.9	4.9	14.5		10		89				<0.2		1.0	
						6.4	0.4	154	25.7		8.3		30.4		71.6		4.9		14.5		9		89				<0.2		1.2	
IM3	Cloudy	Calm	13:29	7.7	Surface	1.0	0.2	238	27.3	27.3	7.9	7.9	24.4	24.4	70.2	70.2	4.9	4.9	12.4	16.2	4	5	84	88	818772	805572	<0.2	<0.2	1.0	1.0
						1.0	0.2	261	27.3		7.9		24.4		70.1		4.9		12.4		5		84				<0.2		1.0	
					Middle	3.9	0.2	227	26.0	26.0	8.3	8.3	28.2	28.2	69.5	69.5	4.9		17.7		4		88				<0.2		1.0	
						3.9	0.2	241	26.0		8.3		28.2		69.4		4.8		17.8		5		89				<0.2		1.0	
					Bottom	6.7	0.3	119	25.8	25.8	8.3	8.3	29.6	29.6	60.6	61.0	4.2	4.2	18.6		6		90				<0.2		1.0	
						6.7	0.3	119	25.8		8.3		29.6		61.3		4.2		18.5		7		90				<0.2		1.0	
IM4	Cloudy	Calm	13:21	8.4	Surface	1.0	1.0	199	29.9	29.9	7.9	7.9	13.0	13.0	99.5	99.5	7.0	5.6	9.6	18.1	4	5	84	86	819707	804626	<0.2	<0.2	1.1	1.2
						1.0	1.0	215	29.9		8.0		13.0		99.5		7.0		9.6		4		84				<0.2		1.2	
					Middle	4.2	0.8	187	26.8	26.7	8.4	8.4	24.6	24.6	59.5	59.7	4.2		18.1		4		86				<0.2		1.2	
						4.2	0.9	196	26.7		8.4		24.6		59.9		4.2		19.3		4		87				<0.2		1.3	
					Bottom	7.4	0.4	174	25.9	25.9	8.3	8.3	29.1	29.1	69.9	70.4	4.8	4.9	26.2		6		88				<0.2		1.1	
						7.4	0.4	191	25.9		8.3		29.1		70.8		4.9		25.6		5		89				<0.2		1.1	
IM5	Cloudy	Calm	13:15	8.1	Surface	1.0	0.8	211	29.2	29.2	8.0	8.0	14.4	14.4	92.7	92.8	6.6	5.4	10.0	16.7	4	5	85	86	820727	804864	<0.2	<0.2	1.2	1.3
						1.0	0.8	219	29.2		8.0		14.3		92.8		6.6		10.0		5		85				<0.2		1.3	
					Middle	4.1	0.7	204	26.6	26.6	8.4	8.4	24.0	24.0	58.6	58.6	4.1		17.6		5		86				<0.2		1.2	
						4.1	0.7	219	26.6		8.4		24.0		58.5		4.1		17.9		5		86				<0.2		1.3	
					Bottom	7.1	0.5	198	26.0	26.0	8.4	8.3	28.7	28.7	66.7	67.0	4.6	4.7	23.1		6		88				<0.2		1.4	
						7.1	0.5	212	26.0		8.3		28.7		67.3		4.7		21.3		7		88				<0.2		1.2	
IM6	Cloudy	Calm	13:07	7.8	Surface	1.0	0.8	238	29.2	29.2	8.1	8.1	14.2	14.2	88.1	88.1	6.2	5.3	9.2	14.3	5	5	83	86	821072	805821	<0.2	<0.2	1.5	1.4
						1.0	0.8	244	29.3		8.1		14.2		88.0		6.2		9.2		4		84				<0.2		1.4	
					Middle	3.9	0.6	246	26.9	26.9	8.4	8.4	23.6	23.6	62.1	62.1	4.3		15.7		5		86				<0.2		1.4	
						3.9	0.7	262	26.9		8.4		23.6		62.1		4.3		16.0		4		86				<0.2		1.3	
					Bottom	6.8	0.4	236	26.2	26.2	8.3	8.3	28.3	28.3	75.0	75.6	5.2	5.3	18.1		6		88				<0.2		1.4	
						6.8	0.4	250	26.2		8.3		28.3		76.1		5.3		17.6		7		88				<0.2		1.3	
IM7	Cloudy	Calm	12:59	9.2	Surface	1.0	0.4	204	29.4	29.4	7.7	7.7	13.8	13.8	86.5	86.4	6.1	5.0	9.5	13.5	5	5	83	85	821344	806814	<0.2	<0.2	1.3	1.2
						1.0	0.4	210	29.4		7.7		13.8		86.3		6.1		9.5		5		82				<0.2		1.1	
					Middle	4.6	0.1	44	26.9	26.9	8.0	8.0	24.5	24.5	54.4	54.5	3.8		13.4		5		85				<0.2		1.2	
						4.6	0.1	46	26.9		8.0		24.5		54.6		3.8		13.4		5		85				<0.2		1.2	
					Bottom	8.2	0.2	92	26.2	26.2	8.1	8.1	27.8	27.8	53.8	54.0	3.7	3.7	17.7		5		87				<0.2		1.3	
						8.2	0.2	92	26.2		8.1		27.8		54.1		3.7		17.6		6		88				<0.2		1.3	
IM8	Cloudy	Moderate	12:44	7.7	Surface	1.0	0.1	230	29.2	29.2	8.0	8.0	13.3	13.3	84.8	84.7	6.0	5.3	2.5	4.5	2	4	83	87	821835	808158	<0.2	<0.2	1.2	1.3
						1.0	0.1	230	29.2		8.0		13.3		84.5		6.0		2.6		2		83				<0.2		1.2	
					Middle	3.9	0.1	228	27.8	27.8	7.9	7.9	17.9	17.9	66.8	65.0	4.8		3.4		4		89				<0.2		1.2	
						3.9	0.1	230	27.8		7.9		17.9		63.1		4.5		3.5		4		87				<0.2		1.3	
					Bottom	6.7	0.2	90	26.5	26.5	7.9	7.9	25.6	25.6	52.9	53.2	3.7	3.7	7.5		4		90				<0.2		1.4	
						6.7	0.2	91	26.5		7.9		25.6		53.5		3.7		7.5		5		90				<0.2		1.3	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 July 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	12:52	7.4	Surface	1.0	0.2	99	29.6	29.6	8.0	8.0	13.0	12.9	86.6	86.3	6.1	5.5	2.8	5.4	3	4	84	87	822084	808832	<0.2	<0.2	1.4	1.4
						1.0	0.2	105	29.6		8.0		12.9		86.0		6.1		2.9		4		84				<0.2		1.4	
					Middle	3.7	0.2	88	27.8	27.8	7.9	7.9	18.2	18.0	67.1	67.0	4.8		4.0		3		89				<0.2		1.3	
						3.7	0.2	90	27.8		7.9		17.8		66.9		4.8		4.2		4		87				<0.2		1.3	
					Bottom	6.4	0.3	117	26.8	26.8	7.9	7.9	24.5	24.5	53.0	53.2	3.7	3.7	9.3		5		90				<0.2		1.5	
						6.4	0.3	124	26.8		7.9		24.5		53.4		3.7		9.3		4		90				<0.2		1.4	
IM10	Cloudy	Moderate	12:59	7.2	Surface	1.0	0.5	112	29.0	29.0	8.0	8.0	14.5	14.5	87.8	87.8	6.2	6.0	2.0	4.2	4	5	84	88	822362	809804	<0.2	<0.2	1.3	1.3
						1.0	0.5	118	29.0		8.0		14.5		87.7		6.2		2.0		4		84				<0.2		1.5	
					Middle	3.6	0.6	117	28.5	28.5	8.0	8.0	15.9	15.9	80.2	80.0	5.7		2.2		5		88				<0.2		1.2	
						3.6	0.7	124	28.5		8.0		15.9		79.8		5.7		2.3		4		89				<0.2		1.2	
					Bottom	6.2	0.6	111	26.8	26.8	7.9	7.9	24.0	24.0	52.9	53.1	3.7	3.7	8.3		5		90				<0.2		1.2	
						6.2	0.6	115	26.8		7.9		24.0		53.2		3.7		8.3		5		90				<0.2		1.2	
IM11	Cloudy	Moderate	13:08	8.0	Surface	1.0	0.9	109	29.2	29.2	8.1	8.1	14.6	14.6	89.8	89.6	6.4	5.0	2.1	6.9	5	6	83	87	822042	811445	<0.2	<0.2	1.2	1.2
						1.0	0.9	111	29.2		8.1		14.6		89.4		6.3		2.4		4		84				<0.2		1.2	
					Middle	4.0	0.5	123	26.9	26.9	7.9	7.9	23.6	23.6	53.1	53.2	3.7		10.0		6		87				<0.2		1.1	
						4.0	0.5	129	26.9		7.9		23.5		53.3		3.7		9.9		5		88				<0.2		1.2	
					Bottom	7.0	0.3	132	26.7	26.7	7.9	7.9	24.5	24.5	54.8	55.0	3.8	3.9	8.6		8		89				<0.2		1.2	
						7.0	0.3	140	26.7		7.9		24.5		55.2		3.9		8.6		9		90				<0.2		1.3	
IM12	Cloudy	Moderate	13:13	8.3	Surface	1.0	0.8	105	29.5	29.5	8.1	8.1	14.1	14.1	90.1	89.9	6.4	5.0	3.7	7.3	4	9	85	87	821442	812050	<0.2	<0.2	1.2	1.2
						1.0	0.8	107	29.5		8.1		14.1		89.6		6.3		3.7		4		85				<0.2		1.2	
					Middle	4.2	0.4	114	26.9	26.9	7.9	7.9	23.1	23.1	53.0	53.0	3.7		8.9		5		87				<0.2		1.1	
						4.2	0.4	119	26.9		7.9		23.1		53.0		3.7		8.9		6		87				<0.2		1.2	
					Bottom	7.3	0.4	129	26.7	26.7	7.9	7.9	24.4	24.4	52.5	52.6	3.7	3.7	9.4		16		89				<0.2		1.2	
						7.3	0.4	131	26.7		7.9		24.4		52.7		3.7		9.4		16		89				<0.2		1.2	
SR1A	Cloudy	Moderate	13:30	5.1	Surface	1.0	-	-	29.5	29.5	8.1	8.1	14.7	14.7	92.7	92.5	6.5	6.5	3.4	4.8	4	6	-	-	819980	812657	-	-	-	-
						1.0	-	-	29.5		8.1		14.7		92.3		6.5		3.5		4		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	27.7	27.7	7.9	7.9	20.3	20.3	69.8	70.0	4.9	4.9	6.2		8		-				-		-	
						4.1	-	-	27.7		7.9		20.4		70.2		4.9		6.2		7		-				-		-	
SR2	Cloudy	Moderate	13:40	4.5	Surface	1.0	0.5	76	29.7	29.8	8.1	8.1	13.5	13.4	93.8	93.6	6.6	6.6	2.8	3.3	4	5	81	86	821463	814152	<0.2	<0.2	1.2	1.3
						1.0	0.5	77	29.8		8.1		13.4		93.4		6.6		2.9		4		82				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.4	119	28.4	28.4	8.0	8.0	17.0	17.1	77.4	77.4	5.5	5.5	3.6		5		89				<0.2		1.4	
						3.5	0.5	123	28.3		8.0		17.1		77.3		5.5		3.8		6		90				<0.2		1.2	
SR3	Cloudy	Moderate	12:39	8.6	Surface	1.0	0.3	175	28.7	28.7	8.0	8.0	15.4	15.3	79.1	79.1	5.6	4.8	2.8	5.5	3	4	-	-	822150	807568	-	-	-	-
						1.0	0.3	188	28.7		8.0		15.3		79.1		5.6		2.8		3		-				-		-	
					Middle	4.3	0.1	186	27.2	27.2	7.9	7.9	21.9	21.9	56.2	56.3	4.0		5.2		4		-				-		-	
						4.3	0.1	193	27.2		7.9		21.9		56.3		4.0		5.2		4		-				-		-	
					Bottom	7.6	0.1	56	26.4	26.4	7.9	7.9	25.9	26.0	52.7	52.9	3.7	3.7	8.5		4		-				-		-	
						7.6	0.1	57	26.4		7.9		26.0		53.0		3.7		8.5		5		-				-		-	
SR4A	Cloudy	Calm	14:34	8.6	Surface	1.0	0.4	248	29.3	29.3	8.3	8.3	16.6	16.6	93.4	93.3	6.5	6.0	10.7	12.1	5	5	-	-	817202	807813	-	-	-	-
						1.0	0.5	260	29.3		8.3		16.6		93.1		6.5		10.7		5		-				-		-	
					Middle	4.3	0.3	243	26.3	26.4	8.4	8.4	28.9	28.8	80.8	81.2	5.5		11.7		4		-				-		-	
						4.3	0.3	245	26.5		8.4		28.8		81.6		5.6		11.6		5		-				-		-	
					Bottom	7.6	0.1	249	25.6	25.6	8.7	8.7	30.7	30.7	68.8	69.3	4.7	4.8	14.0		5		-				-		-	
						7.6	0.1	263	25.6		8.7		30.7		69.8		4.8		13.9		4		-				-		-	
SR5A	Cloudy	Calm	14:52	3.7	Surface	1.0	0.1	346	30.2	30.2	8.5	8.5	15.9	15.9	128.1	127.7	8.9	8.9	11.5	12.1	7	8	-	-	816593	810684	-	-	-	-
						1.0	0.1	318	30.2		8.5		15.9		127.2		8.8		11.5		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	319	28.9	28.9	8.3	8.3	17.9	17.9	104.5	104.9	7.3	7.4	12.7		9		-				-		-	
						2.7	0.1	349	28.9		8.3		17.9		105.2		7.4		12.8		8		-				-		-	
SR6	Cloudy	Calm	15:31	3.5	Surface	1.0	0.0	312	29.9	29.9	8.2	8.2	16.5	16.5	97.3	97.3	6.7	6.7	13.3	14.6	6	7	-	-	817883	814662	-	-	-	-
						1.0	0.0	335	29.9		8.2		16.5		97.3		6.7		13.4		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.5	0.1	311	28.1	28.1	8.2	8.2	20.1	20.1	82.1	82.4	5.7	5.8	15.8		7		-				-		-	
						2.5	0.1	340	28.1		8.2		20.1		82.6		5.8		15.9		8		-				-		-	
SR7	Cloudy	Moderate	14:27	16.4	Surface	1.0	0.5	56	28.5	28.5	8.1	8.1	17.8	17.9	97.8	97.7	6.9	6.1	2.5	2.2	5	6	-	-	823649	823743	-	-	-	-
						1.0	0.5	56	28.5		8.1		17.9		97.6		6.9		2.5		6		-				-		-	
					Middle	8.2	0.5	73	27.4	27.3	8.0	8.0	20.6	20.7	75.3	75.1	5.3		1.9		6		-				-		-	
						8.2	0.5	79	27.2		8.0		20.8		74.8		5.3		2.0		5		-				-		-	
					Bottom	15.4	0.2	81	26.4	26.5	8.0	8.0	25.5	25.6	66.1	66.2	4.6	4.6	2.3		7		-				-		-	
						15.4	0.3	82	26.5		8.0		25.6		66.3		4.6		2.2		6		-				-		-	
SR8	Cloudy	Moderate	13:22	5.2	Surface	1.0	-	-	29.7	29.7	8.0	8.0	13.5	13.5	87.3	87.0	6.2	6.2	5.1	7.4	5	7	-	-	820382	811646	-	-	-	-
						1.0	-	-	29.7		8.0		13.5		86.7		6.1		5.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	28.1	28.2	7.9	7.9	19.5	19.5	68.1	68.2	4.8	4.8	9.5		8		-				-		-	
						4.2	-	-	28.2		7.9		19.5		68.2		4.8		9.5		9		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 July 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	Calm	06:42	8.8	Surface	1.0	0.2	49	27.4	27.4	8.0	8.0	22.1	22.1	69.3	69.1	4.9	4.1	10.3	15.3	5	5	86	88	815643	804258	<0.2	<0.2	1.3	1.3
						1.0	0.3	55	27.4		8.0		22.1		68.8		4.8		10.3		5		85				<0.2		1.3	
					Middle	4.4	0.3	66	25.3	25.3	8.4	8.4	31.6	31.6	48.6	49.0	3.3		15.2		5		88				<0.2		1.3	
						4.4	0.3	66	25.3		8.4		31.6		49.3		3.4		15.4		5		88				<0.2		1.2	
					Bottom	7.8	0.3	73	25.3	25.3	8.3	8.3	31.8	31.8	64.0	64.4	4.4	4.4	20.2		4		89				<0.2		1.2	
						7.8	0.3	80	25.3		8.3		31.8		64.7		4.4		20.5		5		89				<0.2		1.2	
C2	Cloudy	Moderate	07:35	11.7	Surface	1.0	0.2	44	29.3	29.3	8.0	8.0	13.7	13.7	83.2	83.0	5.9	4.7	3.2	6.2	3	4	85	88	825696	806945	<0.2	<0.2	1.2	1.3
						1.0	0.2	48	29.3		8.0		13.7		82.7		5.9		3.2		3		85				<0.2		1.3	
					Middle	5.9	0.4	47	27.1	27.1	7.9	7.9	22.0	22.1	50.2	49.9	3.5		7.2		3		87				<0.2		1.4	
						5.9	0.4	45	27.0		7.9		22.1		49.6		3.5		7.2		3		88				<0.2		1.3	
					Bottom	10.7	0.6	47	25.5	25.5	7.9	7.9	28.8	28.7	44.9	44.9	3.1	3.1	8.2		5		90				<0.2		1.3	
						10.7	0.6	46	25.5		7.9		28.7		44.9		3.1		8.2		6		90				<0.2		1.3	
C3	Cloudy	Moderate	05:58	11.4	Surface	1.0	0.3	74	28.3	28.3	8.1	8.1	17.9	17.8	87.7	87.7	6.2	5.4	1.8	2.3	3	4	85	87	822109	817799	<0.2	<0.2	1.3	1.2
						1.0	0.3	77	28.3		8.1		17.8		87.7		6.2		1.9		4		85				<0.2		1.2	
					Middle	5.7	0.5	256	26.5	26.5	8.0	8.0	24.8	24.9	66.2	66.0	4.6		1.7		4		87				<0.2		1.1	
						5.7	0.5	257	26.5		8.0		25.0		65.7		4.6		1.8		4		87				<0.2		1.2	
					Bottom	10.4	0.2	313	24.8	24.8	8.0	8.0	31.2	31.2	52.6	52.8	3.7	3.7	3.3		5		89				<0.2		1.3	
						10.4	0.2	315	24.8		8.0		31.2		52.9		3.7		3.3		5		88				<0.2		1.3	
IM1	Cloudy	Calm	07:07	5.1	Surface	1.0	0.1	17	27.1	27.0	8.2	8.2	24.3	24.3	66.3	66.4	4.6	4.6	13.5	14.3	8	8	86	87	817935	807147	<0.2	<0.2	1.3	1.2
						1.0	0.1	20	27.0		8.2		24.4		66.4		4.6		13.6		8		86				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	20	26.2	26.2	8.1	8.1	28.4	28.4	70.9	71.4	4.9	5.0	15.1		7		87				<0.2		1.1	
						4.1	0.1	22	26.2		8.1		28.4		71.9		5.0		15.0		7		88				<0.2		1.1	
IM2	Cloudy	Calm	07:14	7.9	Surface	1.0	0.3	67	27.5	27.4	7.9	7.9	22.3	22.3	66.1	66.1	4.6	4.7	10.3	11.5	4	5	84	88	818152	806163	<0.2	<0.2	1.1	1.1
						1.0	0.3	69	27.4		7.9		22.3		66.1		4.6		10.3		4		85				<0.2		1.2	
					Middle	4.0	0.3	63	26.0	25.9	8.3	8.3	29.0	29.0	67.3	67.3	4.7		11.2		5		89				<0.2		1.1	
						4.0	0.3	65	25.9		8.3		29.0		67.3		4.7		11.4		4		89				<0.2		1.2	
					Bottom	6.9	0.2	59	25.6	25.6	8.2	8.2	30.7	30.7	67.8	68.2	4.7	4.7	13.0		7		90				<0.2		1.1	
						6.9	0.3	59	25.6		8.2		30.7		68.6		4.7		13.0		7		90				<0.2		1.1	
IM3	Cloudy	Calm	07:21	8.8	Surface	1.0	0.2	69	27.5	27.5	7.9	7.9	22.5	22.5	66.7	66.7	4.6	4.6	10.4	14.1	4	5	85	87	818799	805607	<0.2	<0.2	1.2	1.0
						1.0	0.2	71	27.5		7.9		22.5		66.7		4.6		10.4		5		85				<0.2		1.2	
					Middle	4.4	0.2	51	25.7	25.7	8.2	8.2	30.2	30.2	67.2	67.2	4.6		15.4		5		86				<0.2		0.9	
						4.4	0.2	53	25.7		8.2		30.2		67.2		4.6		15.5		5		87				<0.2		0.9	
					Bottom	7.8	0.2	54	25.6	25.6	8.1	8.1	30.5	30.5	66.4	66.7	4.6	4.6	16.6		5		88				<0.2		1.0	
						7.8	0.2	57	25.6		8.1		30.5		67.0		4.6		16.5		5		88				<0.2		0.9	
IM4	Cloudy	Calm	07:32	8.6	Surface	1.0	0.7	58	27.4	27.4	8.0	8.0	22.8	22.8	69.3	69.3	4.8	4.8	11.1	17.3	5	6	85	88	819713	804590	<0.2	<0.2	1.1	1.0
						1.0	0.8	58	27.5		8.0		22.8		69.3		4.8		11.0		4		85				<0.2		0.9	
					Middle	4.3	0.4	61	25.9	25.9	8.3	8.3	29.9	29.9	68.2	68.3	4.7		17.7		4		88				<0.2		0.9	
						4.3	0.5	66	25.9		8.3		29.9		68.4		4.7		17.7		5		89				<0.2		0.9	
					Bottom	7.6	0.4	78	25.6	25.6	8.3	8.3	30.2	30.2	54.1	54.3	3.7	3.8	23.2		8		89				<0.2		1.1	
						7.6	0.5	84	25.6		8.3		30.2		54.5		3.8		23.3		8		90				<0.2		0.9	
IM5	Cloudy	Calm	07:41	8.4	Surface	1.0	0.7	52	29.3	29.3	8.1	8.1	14.0	13.9	80.6	80.4	5.7	5.2	10.7	13.5	2	3	84	87	820743	804888	<0.2	<0.2	1.0	0.9
						1.0	0.7	53	29.3		8.1		13.9		80.2		5.7		10.8		3		84				<0.2		1.0	
					Middle	4.2	0.5	55	26.3	26.3	8.3	8.3	23.5	23.5	65.0	65.2	4.6		14.8		3		88				<0.2		0.8	
						4.2	0.5	56	26.2		8.3		23.6		65.3		4.6		15.0		4		88				<0.2		0.9	
					Bottom	7.4	0.3	41	26.0	26.0	8.1	8.1	29.1	29.1	77.8	78.4	5.4	5.4	14.9		4		88				<0.2		0.8	
						7.4	0.3	40	26.0		8.1		29.1		79.0		5.4		14.8		4		89				<0.2		1.0	
IM6	Cloudy	Calm	07:49	8.2	Surface	1.0	0.5	49	29.4	29.4	8.0	8.0	13.4	13.4	84.2	84.1	6.0	5.2	9.7	12.2	3	4	85	87	821048	805847	<0.2	<0.2	0.9	1.0
						1.0	0.6	46	29.4		8.0		13.4		83.9		6.0		9.7		3		86				<0.2		0.9	
					Middle	4.1	0.3	43	26.8	26.8	8.3	8.3	24.2	24.3	60.8	60.8	4.3		12.9		3		87				<0.2		0.9	
						4.1	0.4	47	26.7		8.3		24.3		60.8		4.3		13.0		4		88				<0.2		1.0	
					Bottom	7.2	0.2	31	26.1	26.1	8.2	8.2	28.5	28.5	73.5	74.1	5.1	5.1	14.0		4		89				<0.2		1.0	
						7.2	0.2	34	26.1		8.2		28.5		74.6		5.1		13.9		4		89				<0.2		1.0	
IM7	Cloudy	Calm	07:57	8.7	Surface	1.0	0.3	22	29.5	29.5	7.9	7.9	13.6	13.6	88.6	88.5	6.3	5.4	9.4	11.7	3	4	85	88	821331	806854	<0.2	<0.2	1.4	1.3
						1.0	0.3	24	29.5		8.0		13.6		88.4		6.3		9.4		3		86				<0.2		1.4	
					Middle	4.4	0.1	28	27.0	26.9	8.3	8.3	21.5	21.5	62.3	62.3	4.4		12.7		3		88				<0.2		1.4	
						4.4	0.1	29	26.9		8.3		21.6		62.3		4.4		12.8		4		88				<0.2		1.3	
					Bottom	7.7	0.2	25	26.5	26.5	8.2	8.2	27.5	27.4	69.8	70.2	4.8	4.9	13.1		4		90				<0.2		1.3	
						7.7	0.2	26	26.5		8.2		27.3		70.6		4.9		13.0		4		91				<0.2		1.2	
IM8	Cloudy	Moderate	07:14	7.5	Surface	1.0	0.2	336	28.8	28.8	7.9	7.9	14.4	13.9	77.5	77.6	5.5	4.9	2.7	5.2	2	3	85	87	821849	808155	<0.2	<0.2	1.4	1.5
						1.0	0.2	338	28.8		7.9		13.5		77.7		5.6		2.7		2		85				<0.2		1.4	
					Middle	3.8	0.2	350	27.6	27.6	7.9	7.9	19.7	19.8	60.3	60.5	4.3		4.2		2		87				<0.2		1.5	
						3.8	0.3	355	27.5		7.9		19.8		60.7		4.3		4.2		2		87				<0.2		1.5	
					Bottom	6.5	0.3	328	27.0	27.0	7.9	7.9	23.2	23.3	56.1	56.2	3.9	3.9	8.6		4		89				<0.2		1.6	
						6.5	0.3	335	26.9		7.9		23.3		56.2		3.9		8.6		4		88				<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**

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Water Quality Monitoring

Water Quality Monitoring Results on 18 July 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	07:09	7.3	Surface	1.0	0.3	318	29.1	29.1	8.0	8.0	12.3	12.3	78.9	78.7	5.7	5.1	2.7	5.0	<2	3	84	87	822091	808793	<0.2	<0.2	1.5	1.4
						1.0	0.4	322	29.1		8.0		12.3		78.4		5.6		2.9		<2		84				<0.2		1.4	
					Middle	3.7	0.3	306	27.7	27.7	7.9	7.9	19.4	19.4	62.7	62.8	4.4		4.3		2		89				<0.2		1.4	
						3.7	0.3	299	27.6		7.9		19.4		62.9		4.5		4.3		2		87				<0.2		1.3	
					Bottom	6.3	0.3	283	27.0	27.0	7.9	7.9	23.0	22.9	56.8	56.9	4.0	4.0	7.8		5		90				<0.2		1.4	
						6.3	0.3	305	27.0		7.9		22.9		57.0		4.0		7.8		5		88				<0.2		1.4	
IM10	Cloudy	Moderate	07:03	7.3	Surface	1.0	0.6	289	29.1	29.1	7.9	7.9	12.0	12.0	79.3	79.3	5.7	4.9	2.6	6.6	2	3	84	87	822391	809796	<0.2	<0.2	1.4	1.4
						1.0	0.6	286	29.1		7.9		12.0		79.2		5.7		2.5		2		85				<0.2		1.4	
					Middle	3.7	0.6	279	27.5	27.5	7.9	7.9	20.6	20.5	57.4	57.3	4.0		5.6		3		87				<0.2		1.3	
						3.7	0.6	275	27.5		7.9		20.5		57.2		4.0		5.6		3		88				<0.2		1.4	
					Bottom	6.3	0.5	283	27.1	27.1	7.9	7.9	22.7	22.7	55.5	55.6	3.9	3.9	11.9		4		90				<0.2		1.5	
						6.3	0.5	278	27.1		7.9		22.7		55.7		3.9		11.8		4		89				<0.2		1.4	
IM11	Cloudy	Moderate	06:56	7.8	Surface	1.0	0.8	273	28.9	28.9	7.9	7.9	14.8	14.8	75.2	75.2	5.3	4.7	3.0	4.5	2	3	84	87	822061	811480	<0.2	<0.2	1.3	1.3
						1.0	0.8	260	28.9		7.9		14.7		75.2		5.3		3.0		3		85				<0.2		1.2	
					Middle	3.9	0.6	256	27.6	27.6	7.9	7.9	22.0	22.0	58.9	59.2	4.1		5.1		2		87				<0.2		1.4	
						3.9	0.7	259	27.6		7.9		22.0		59.5		4.2		5.1		2		88				<0.2		1.3	
					Bottom	6.8	0.2	251	26.9	26.9	7.9	7.9	23.6	23.6	58.9	59.0	4.1	4.1	5.5		6		91				<0.2		1.3	
						6.8	0.2	250	26.9		7.9		23.5		59.1		4.1		5.5		5		88				<0.2		1.3	
IM12	Cloudy	Moderate	06:48	8.6	Surface	1.0	0.5	264	28.7	28.7	8.0	8.0	15.8	15.8	83.6	83.6	5.9	5.4	3.1	4.3	<2	3	83	87	821444	812049	<0.2	<0.2	1.5	1.4
						1.0	0.6	259	28.7		8.0		15.8		83.5		5.9		3.0		<2		84				<0.2		1.3	
					Middle	4.3	0.6	240	28.1	28.1	8.0	7.9	18.2	18.2	70.4	70.1	5.0		3.5		2		88				<0.2		1.4	
						4.3	0.6	246	28.1		7.9		18.2		69.8		4.9		3.8		3		89				<0.2		1.4	
					Bottom	7.6	0.3	249	26.4	26.4	7.9	7.9	26.0	26.0	57.8	57.9	4.0	4.0	6.3		3		90				<0.2		1.4	
						7.6	0.3	238	26.3		7.9		26.0		57.9		4.0		6.3		3		90				<0.2		1.4	
SR1A	Cloudy	Moderate	06:32	4.9	Surface	1.0	-	-	29.1	29.1	8.1	8.1	15.2	15.2	94.2	94.1	6.7	6.7	2.1	2.4	<2	2	-	-	819982	812666	-	-	-	-
						1.0	-	-	29.1		8.1		15.2		94.0		6.6		2.1		<2		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	27.8	27.8	8.0	8.0	19.5	19.5	77.1	77.3	5.4	5.5	2.8		2		-				-		-	
						3.9	-	-	27.8		8.0		19.5		77.4		5.5		2.8		2		-				-		-	
SR2	Cloudy	Moderate	06:26	4.7	Surface	1.0	0.3	244	28.9	28.9	8.0	8.0	15.2	15.2	94.1	93.9	6.7	6.7	2.1	2.4	3	3	85	87	821448	814149	<0.2	<0.2	1.3	1.3
						1.0	0.3	232	28.8		8.0		15.3		93.7		6.7		2.2		2		85				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	241	28.0	28.0	8.0	8.0	18.9	18.9	80.1	80.2	5.6	5.7	2.6		4		90				<0.2		1.2	
						3.7	0.2	240	28.0		8.0		18.9		80.3		5.7		2.6		4		89				<0.2		1.3	
SR3	Cloudy	Moderate	07:18	8.2	Surface	1.0	0.3	49	29.1	29.1	8.0	8.0	13.3	13.3	84.6	84.7	6.0	5.3	2.5	5.3	2	3	-	-	822159	807582	-	-	-	-
						1.0	0.3	49	29.0		8.0		13.3		84.8		6.1		2.6		2		-				-		-	
					Middle	4.1	0.1	48	27.9	27.9	7.9	7.9	18.7	18.7	64.5	64.6	4.6		4.1		3		-				-		-	
						4.1	0.2	45	27.8		7.9		18.6		64.7		4.6		4.1		3		-				-		-	
					Bottom	7.2	0.3	26	26.8	26.8	7.9	7.9	24.1	24.1	54.7	54.8	3.8	3.8	9.2		5		-				-		-	
						7.2	0.3	27	26.8		7.9		24.1		54.9		3.8		9.1		5		-				-		-	
SR4A	Cloudy	Calm	06:17	9.7	Surface	1.0	0.0	208	28.2	28.2	7.9	7.9	19.5	19.5	72.8	72.8	5.1	4.9	11.6	15.5	5	5	-	-	817177	807830	-	-	-	-
						1.0	0.0	217	28.2		7.9		19.5		72.7		5.1		11.6		4		-				-		-	
					Middle	4.9	0.2	277	25.9	25.9	8.4	8.4	29.3	29.3	68.4	68.3	4.7		15.8		5		-				-		-	
						4.9	0.2	279	25.9		8.4		29.3		68.2		4.7		15.8		5		-				-		-	
					Bottom	8.7	0.0	240	25.7	25.7	8.3	8.3	30.4	30.4	63.0	63.4	4.3	4.4	19.2		5		-				-		-	
						8.7	0.0	256	25.7		8.3		30.4		63.8		4.4		19.0		5		-				-		-	
SR5A	Cloudy	Calm	05:59	4.8	Surface	1.0	0.1	236	29.5	29.5	7.9	7.9	16.0	16.0	102.9	102.6	7.2	7.2	12.7	13.0	6	6	-	-	816606	810691	-	-	-	-
						1.0	0.1	244	29.5		7.9		16.0		102.2		7.1		12.9		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	268	29.0	29.0	7.9	7.9	16.9	16.9	95.4	95.5	6.7	6.7	13.3		6		-				-		-	
						3.8	0.1	251	29.0		7.9		16.9		95.6		6.7		13.2		7		-				-		-	
SR6	Cloudy	Calm	05:30	5.3	Surface	1.0	0.1	287	29.6	29.6	7.9	7.9	15.0	15.0	98.4	98.4	6.9	6.9	10.6	12.6	4	5	-	-	817896	814657	-	-	-	-
						1.0	0.1	292	29.6		7.9		15.0		98.3		6.9		10.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.0	267	28.3	28.3	8.0	8.0	18.6	18.6	69.6	69.6	4.9	4.9	14.5		5		-				-		-	
						4.3	0.0	269	28.3		8.0		18.6		69.5		4.9		14.6		5		-				-		-	
SR7	Cloudy	Moderate	05:22	16.4	Surface	1.0	0.1	280	27.1	27.1	8.0	8.0	23.0	23.1	86.2	86.2	6.0	5.1	1.9	3.7	4	5	-	-	823646	823745	-	-	-	-
						1.0	0.1	280	27.0		8.0		23.1		86.2		6.0		1.9		5		-				-		-	
					Middle	8.2	0.1	228	25.0	25.0	7.9	7.9	30.3	30.3	61.4	61.4	4.2		3.5		5		-				-		-	
						8.2	0.1	229	25.0		7.9		30.3		61.4		4.2		3.5		5		-				-		-	
					Bottom	15.4	0.2	245	24.5	24.5	7.9	7.9	32.0	32.0	56.8	56.8	3.9	3.9	5.6		6		-				-		-	
						15.4	0.2	247	24.5		7.9		32.0		56.8		3.9		5.6		6		-				-		-	
SR8	Cloudy	Moderate	06:40	4.9	Surface	1.0	-	-	28.8	28.8	8.0	8.0	14.7	14.6	88.6	88.6	6.3	6.3	2.8	2.9	4	5	-	-	820383	811617	-	-	-	-
						1.0	-	-	28.7		8.0		14.6		88.6		6.3		2.8		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	-	-	28.2	28.2	8.0	8.0	18.1	18.1	79.0	79.2	5.6	5.6	3.0		5		-				-		-	
						3.9	-	-	28.2		8.0		18.1		79.3		5.6		2.9		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 20 July 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	14:44	9.0	Surface	1.0	0.4	201	30.5	30.5	8.3	8.3	16.6	16.6	112.2	112.2	7.7	6.8	7.6	11.0	3	4	84	89	815620	804251	<0.2	<0.2	1.8	1.7
						1.0	0.4	204	30.5		8.3		16.6		112.1		7.7		7.6		3		85				<0.2		1.7	
					Middle	4.5	0.3	199	29.7	29.7	8.2	8.2	23.0	23.1	86.3	86.3	5.8		8.8		4		90				<0.2		1.6	
						4.5	0.3	217	29.7		8.2		23.1		86.2		5.8		8.9		3		89				<0.2		1.6	
					Bottom	8.0	0.3	190	29.4	29.4	8.1	8.1	26.0	25.7	71.9	72.0	4.8	4.8	16.5		4		93				<0.2		1.7	
						8.0	0.3	198	29.4		8.1		25.5		72.0		4.8		16.5		5		94				<0.2		1.5	
C2	Rainy	Moderate	13:30	12.0	Surface	1.0	0.4	12	27.8	27.8	7.9	7.9	10.3	10.2	67.0	66.8	5.0	4.5	4.5	7.1	3	3	85	87	825664	806944	<0.2	<0.2	1.4	1.3
						1.0	0.5	12	27.7		7.9		10.2		66.6		5.0		4.5		3		84				<0.2		1.3	
					Middle	6.0	0.5	328	26.8	26.8	7.9	7.9	20.9	20.9	54.8	54.7	3.9		5.1		3		86				<0.2		1.3	
						6.0	0.6	347	26.7		7.9		20.9		54.5		3.9		5.5		3		88				<0.2		1.3	
					Bottom	11.0	0.6	327	26.2	26.2	7.9	7.9	24.7	24.8	54.7	54.9	3.9	3.9	11.2		2		89				<0.2		1.4	
						11.0	0.6	357	26.2		7.9		24.8		55.0		3.9		11.6		3		89				<0.2		1.3	
C3	Cloudy	Moderate	15:02	11.4	Surface	1.0	0.2	143	27.4	27.4	8.0	8.0	20.3	20.3	71.7	71.7	5.1	4.8	2.5	2.8	4	4	84	87	822088	817785	<0.2	<0.2	1.4	1.2
						1.0	0.2	145	27.4		8.0		20.3		71.6		5.1		2.5		4		85				<0.2		1.3	
					Middle	5.7	0.2	195	26.1	26.1	8.0	8.0	25.2	25.2	62.7	62.6	4.4		2.7		4		87				<0.2		1.1	
						5.7	0.2	213	26.1		8.0		25.2		62.5		4.4		2.7		4		87				<0.2		1.2	
					Bottom	10.4	0.3	241	24.3	24.3	8.0	8.0	31.4	31.4	55.3	55.5	3.9	3.9	3.3		4		89				<0.2		1.1	
						10.4	0.3	247	24.3		8.0		31.4		55.7		3.9		3.2		4		89				<0.2		1.1	
IM1	Cloudy	Moderate	14:23	5.4	Surface	1.0	0.1	265	30.8	30.8	8.3	8.3	15.6	15.6	108.2	108.2	7.4	7.4	8.2	10.2	2	4	87	90	817926	807148	<0.2	<0.2	1.2	1.3
						1.0	0.1	268	30.8		8.3		15.6		108.1		7.4		8.2		2		87				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.3	170	29.9	29.9	8.1	8.1	22.1	22.1	80.8	80.9	5.4	5.4	12.2		5		93				<0.2		1.3	
						4.4	0.4	175	29.9		8.1		22.0		80.9		5.4		12.2		5		93				<0.2		1.2	
IM2	Cloudy	Moderate	14:15	7.8	Surface	1.0	0.5	166	30.5	30.5	8.2	8.2	18.3	18.3	101.6	101.5	6.9	6.4	8.6	10.2	3	3	86	90	818141	806179	<0.2	<0.2	1.1	1.2
						1.0	0.5	181	30.5		8.2		18.3		101.4		6.9		8.6		2		87				<0.2		1.1	
					Middle	3.9	0.4	154	30.1	30.1	8.2	8.2	20.8	20.8	86.8	86.7	5.8		11.5		2		90				<0.2		1.2	
						3.9	0.4	165	30.1		8.2		20.8		86.5		5.8		11.6		3		91				<0.2		1.2	
					Bottom	6.8	0.4	153	29.1	29.1	8.1	8.1	26.9	26.9	66.0	66.1	4.4	4.4	10.3		3		94				<0.2		1.3	
						6.8	0.4	154	29.1		8.1		26.9		66.1		4.4		10.3		4		94				<0.2		1.3	
IM3	Cloudy	Moderate	14:07	8.1	Surface	1.0	0.2	231	31.0	31.0	8.3	8.3	16.8	16.8	108.9	108.9	7.4	6.5	8.5	10.5	4	5	86	90	818795	805597	<0.2	<0.2	1.2	1.2
						1.0	0.3	233	31.0		8.3		16.8		108.8		7.4		8.5		5		86				<0.2		1.3	
					Middle	4.1	0.2	229	29.8	29.8	8.1	8.1	22.2	22.2	81.4	81.4	5.5		11.6		4		89				<0.2		1.3	
						4.1	0.2	239	29.8		8.1		22.2		81.4		5.5		11.6		4		90				<0.2		1.2	
					Bottom	7.1	0.2	107	29.4	29.4	8.1	8.1	25.4	25.4	69.8	69.9	4.6	4.6	11.5		5		94				<0.2		1.2	
						7.1	0.2	109	29.4		8.1		25.3		69.9		4.6		11.5		5		93				<0.2		1.2	
IM4	Cloudy	Moderate	13:57	8.2	Surface	1.0	1.0	190	30.9	30.9	8.2	8.2	16.3	16.3	104.7	104.7	7.1	6.7	7.8	10.1	3	4	85	89	819727	804583	<0.2	<0.2	1.2	1.2
						1.0	1.0	203	31.0		8.2		16.3		104.6		7.1		7.8		3		85				<0.2		1.2	
					Middle	4.1	0.8	176	30.0	30.1	8.2	8.2	21.2	21.2	93.5	93.6	6.3		10.7		3		89				<0.2		1.3	
						4.1	0.8	181	30.1		8.2		21.1		93.6		6.3		10.7		4		89				<0.2		1.2	
					Bottom	7.2	0.4	177	29.3	29.3	8.1	8.1	25.6	25.6	68.1	68.2	4.5	4.5	11.8		4		94				<0.2		1.2	
						7.2	0.5	188	29.3		8.1		25.6		68.2		4.5		11.8		5		93				<0.2		1.2	
IM5	Cloudy	Moderate	13:48	7.6	Surface	1.0	0.8	214	30.9	30.9	8.2	8.2	16.0	16.0	103.2	103.2	7.0	6.1	7.8	12.0	3	3	86	90	820723	804876	<0.2	<0.2	1.3	1.3
						1.0	0.8	234	30.9		8.2		16.0		103.1		7.0		7.8		4		88				<0.2		1.2	
					Middle	3.8	0.7	200	29.7	29.7	8.1	8.1	23.2	23.2	77.2	77.3	5.2		14.0		3		90				<0.2		1.3	
						3.8	0.7	207	29.7		8.1		23.2		77.3		5.2		14.1		3		91				<0.2		1.2	
					Bottom	6.6	0.5	197	29.4	29.4	8.1	8.1	25.3	25.3	67.8	67.9	4.5	4.5	14.2		3		91				<0.2		1.2	
						6.6	0.5	199	29.4		8.1		25.3		68.0		4.5		14.2		3		92				<0.2		1.3	
IM6	Cloudy	Moderate	13:39	7.8	Surface	1.0	0.8	233	30.9	30.9	8.1	8.1	14.9	14.9	98.8	98.8	6.8	6.3	8.0	10.5	4	4	84	90	821062	805832	<0.2	<0.2	1.3	1.4
						1.0	0.8	247	30.9		8.1		14.9		98.7		6.8		8.0		3		85				<0.2		1.4	
					Middle	3.9	0.6	241	29.8	29.8	8.2	8.2	21.5	21.6	84.0	84.0	5.7		9.9		3		90				<0.2		1.4	
						3.9	0.6	249	29.8		8.2		21.8		83.9		5.7		10.0		4		92				<0.2		1.4	
					Bottom	6.8	0.4	239	29.4	29.4	8.1	8.1	24.8	24.8	71.2	71.3	4.7	4.8	13.4		6		92				<0.2		1.4	
						6.8	0.5	243	29.4		8.1		24.8		71.4		4.8		13.4		6		94				<0.2		1.3	
IM7	Cloudy	Moderate	13:31	8.8	Surface	1.0	0.4	205	31.1	31.1	8.2	8.2	14.0	14.0	101.6	101.6	7.0	6.6	7.7	10.3	4	4	86	90	821346	806818	<0.2	<0.2	1.2	1.3
						1.0	0.4	210	31.1		8.2		14.0		101.6		7.0		7.7		4		86				<0.2		1.3	
					Middle	4.4	0.1	57	30.1	30.1	8.2	8.2	19.9	19.9	90.0	90.0	6.1		9.2		4		89				<0.2		1.4	
						4.4	0.1	59	30.1		8.2		19.9		89.9		6.1		9.2		3		90				<0.2		1.5	
					Bottom	7.8	0.2	99	29.6	29.6	8.1	8.1	23.9	23.9	73.3	73.3	4.9	4.9	13.9		3		94				<0.2		1.2	
						7.8	0.2	108	29.6		8.1		23.9		73.3		4.9		13.9		3		93				<0.2		1.3	
IM8	Cloudy	Moderate	13:56	7.5	Surface	1.0	0.1	69	27.9	27.9	7.9	7.9	12.5	12.5	72.2	72.2	5.3	5.0	3.9	6.6	3	4	84	87	821835	808157	<0.2	<0.2	1.2	1.2
						1.0	0.1	70	27.9		7.9		12.5		72.1		5.3		3.9		3		83				<0.2		1.2	
					Middle	3.8	0.4	90	27.4	27.4	8.0	8.0	17.2	17.2	66.1	66.1	4.8		4.3		3		87				<0.2		1.3	
						3.8	0.4	98	27.4		8.0		17.2		66.0		4.7		4.3		4		87				<0.2		1.2	
					Bottom	6.5	0.2	41	26.3	26.3	7.9	7.9	23.4	23.4	55.9	55.9	4.0	4.0	11.5		4		90				<0.2		1.2	
						6.5	0.3	42	26.3		7.9		23.4		55.9		4.0		11.6		4		90				<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 20 July 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	Moderate	14:02	7.8	Surface	1.0	0.3	50	27.5	27.5	7.9	7.9	15.8	15.7	69.8	69.8	5.0	4.7	4.7	5.5	3	4	85	87	822084	808813	<0.2	<0.2	1.3	1.2
						1.0	0.3	54	27.4		7.9		15.6		69.8		5.0		4.8		3		84				<0.2		1.2	
					Middle	3.9	0.3	50	26.8	26.8	7.9	7.9	20.9	20.9	61.2	61.2	4.3		6.0		3		88				<0.2		1.1	
						3.9	0.3	53	26.8		7.9		20.9		61.2		4.3		5.8		4		86				<0.2		1.2	
					Bottom	6.8	0.3	38	26.6	26.6	7.9	7.9	22.5	22.5	56.6	56.7	4.0	4.0	5.7		4		89				<0.2		1.2	
						6.8	0.3	41	26.6		7.9		22.5		56.7		4.0		5.7		4		90				<0.2		1.2	
IM10	Cloudy	Moderate	14:09	7.5	Surface	1.0	0.2	359	27.7	27.7	8.0	8.0	16.4	16.4	71.1	71.0	5.1	4.9	4.0	5.1	2	3	84	87	822380	809816	<0.2	<0.2	1.1	1.2
						1.0	0.2	330	27.7		8.0		16.4		70.9		5.1		3.9		3		85				<0.2		1.2	
					Middle	3.8	0.2	284	27.0	27.0	8.0	7.9	18.0	18.0	67.4	65.6	4.9		5.0		3		87				<0.2		1.1	
						3.8	0.2	303	27.0		7.9		18.0		63.8		4.6		5.2		3		87				<0.2		1.2	
					Bottom	6.5	0.2	-	26.6	26.6	7.9	7.9	22.7	22.7	62.9	63.1	4.5	4.5	6.1		4		89				<0.2		1.2	
						6.5	0.2	-	26.5		7.9		22.8		63.3		4.5		6.2		3		90				<0.2		1.2	
IM11	Cloudy	Moderate	14:17	7.8	Surface	1.0	0.2	211	27.6	27.6	8.0	8.0	17.1	17.1	69.6	69.6	5.0	4.7	3.3	5.5	3	3	84	87	822042	811443	<0.2	<0.2	1.2	1.3
						1.0	0.2	214	27.6		8.0		17.1		69.5		5.0		3.3		3		83				<0.2		1.2	
					Middle	3.9	0.1	182	26.7	26.7	8.0	8.0	21.8	21.8	61.6	61.7	4.4		4.7		3		87				<0.2		1.2	
						3.9	0.1	194	26.7		8.0		21.8		61.7		4.4		4.6		3		88				<0.2		1.2	
					Bottom	6.8	0.1	100	26.1	26.1	8.0	8.0	24.7	24.8	60.1	60.3	4.2	4.3	8.6		4		89				<0.2		1.4	
						6.8	0.1	100	26.1		8.0		24.8		60.4		4.3		8.9		4		90				<0.2		1.4	
IM12	Cloudy	Moderate	14:23	8.3	Surface	1.0	0.2	98	27.8	27.8	8.0	8.0	16.9	16.9	72.7	72.6	5.2	4.9	3.1	6.9	2	3	84	86	821447	812067	<0.2	<0.2	1.2	1.2
						1.0	0.2	103	27.8		8.0		16.9		72.5		5.2		3.1		2		85				<0.2		1.3	
					Middle	4.2	0.1	329	25.9	25.9	8.0	8.0	22.0	22.0	63.4	63.4	4.5		7.5		3		86				<0.2		1.1	
						4.2	0.1	337	25.9		8.0		22.0		63.4		4.5		7.5		3		87				<0.2		1.2	
					Bottom	7.3	0.1	209	25.5	25.5	8.0	8.0	27.1	27.1	53.2	53.3	3.7	3.8	10.2		3		88				<0.2		1.2	
						7.3	0.1	220	25.5		8.0		27.1		53.4		3.8		10.3		4		88				<0.2		1.2	
SR1A	Cloudy	Moderate	14:35	4.8	Surface	1.0	-	-	27.8	27.8	8.0	8.0	17.4	17.4	70.1	70.0	5.0	5.0	4.8	8.1	3	5	-	-	819973	812655	-	-	-	-
						1.0	-	-	27.8		8.0		17.4		69.8		5.0		4.8		4		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	26.2	26.2	8.0	8.0	23.2	23.0	60.5	60.4	4.3	4.3	11.1		6		-				-		-	
						3.8	-	-	26.1		8.0		22.7		60.2		4.3		11.8		6		-				-		-	
SR2	Cloudy	Moderate	14:46	4.8	Surface	1.0	0.3	46	27.6	27.6	8.0	8.0	17.5	17.5	70.1	70.0	5.0	5.0	3.9	6.4	4	5	85	87	821454	814161	<0.2	<0.2	1.4	1.3
						1.0	0.3	46	27.6		8.0		17.5		69.8		5.0		4.0		5		83				<0.2		1.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.4	1	26.6	26.5	8.0	8.0	22.2	22.7	58.4	58.2	4.1	4.1	8.8		5		89				<0.2		1.3	
						3.8	0.4	1	26.4		8.0		23.2		57.9		4.1		8.8		6		90				<0.2		1.2	
SR3	Rainy	Moderate	13:51	8.4	Surface	1.0	0.1	137	27.8	27.8	7.9	7.9	12.5	12.5	69.5	69.6	5.1	5.0	6.6	5.9	4	4	-	-	822132	807576	-	-	-	-
						1.0	0.1	146	27.8		7.9		12.4		69.6		5.1		6.5		4		-				-		-	
					Middle	4.2	0.4	88	27.6	27.6	8.0	8.0	16.3	16.3	66.9	66.9	4.8		3.7		4		-				-		-	
						4.2	0.4	95	27.6		8.0		16.3		66.8		4.8		3.7		4		-				-		-	
					Bottom	7.4	0.3	42	26.3	26.4	7.9	7.9	23.3	23.3	58.2	58.4	4.1	4.2	7.3		5		-				-		-	
						7.4	0.3	45	26.4		7.9		23.3		58.6		4.2		7.3		4		-				-		-	
SR4A	Cloudy	Moderate	15:07	9.5	Surface	1.0	0.4	244	30.4	30.4	8.2	8.2	18.0	18.0	87.8	87.6	6.0	5.2	11.5	10.8	3	3	-	-	817194	807821	-	-	-	-
						1.0	0.5	255	30.4		8.2		17.9		87.4		6.0		11.5		2		-				-		-	
					Middle	4.8	0.3	259	29.3	29.3	8.1	8.1	26.4	26.4	64.2	64.2	4.3		9.5		2		-				-		-	
						4.8	0.3	270	29.3		8.1		26.4		64.2		4.3		9.5		3		-				-		-	
					Bottom	8.5	0.1	247	29.2	29.2	8.1	8.1	26.8	26.8	65.5	65.6	4.3	4.3	11.5		3		-				-		-	
						8.5	0.1	264	29.2		8.1		26.8		65.6		4.3		11.5		3		-				-		-	
SR5A	Cloudy	Calm	15:23	5.7	Surface	1.0	0.1	344	31.2	31.2	8.3	8.3	19.1	19.1	122.7	122.7	8.2	8.2	9.0	10.0	4	5	-	-	816582	810675	-	-	-	-
						1.0	0.1	351	31.2		8.3		19.1		122.6		8.2		9.0		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.1	324	30.9	30.9	8.2	8.2	20.2	20.2	103.9	104.0	6.9	6.9	11.0		5		-				-		-	
						4.7	0.1	345	30.9		8.2		20.2		104.0		6.9		11.0		5		-				-		-	
SR6	Cloudy	Calm	15:55	4.7	Surface	1.0	0.0	320	31.1	31.1	8.3	8.3	19.8	19.8	126.3	126.1	8.4	8.4	11.6	11.7	4	4	-	-	817902	814663	-	-	-	-
						1.0	0.0	339	31.1		8.3		19.8		125.9		8.4		11.6		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	316	30.8	30.8	8.2	8.2	20.3	20.3	116.4	116.7	7.8	7.8	11.7		3		-				-		-	
						3.7	0.1	333	30.8		8.2		20.3		116.9		7.8		11.7		4		-				-		-	
SR7	Cloudy	Moderate	15:32	16.8	Surface	1.0	0.2	55	26.0	26.0	8.0	8.0	25.1	25.1	79.6	79.6	5.6	5.2	2.5	4.1	2	3	-	-	823628	823729	-	-	-	-
						1.0	0.2	58	26.0		8.0		25.1		79.6		5.6		2.5		2		-				-		-	
					Middle	8.4	0.1	100	24.3	24.3	8.0	8.0	31.3	31.4	69.6	69.6	4.8		4.3		4		-				-		-	
						8.4	0.1	100	24.3		8.0		31.4		69.6		4.8		4.6		4		-				-		-	
					Bottom	15.8	0.1	104	24.2	24.2	8.0	8.0	32.1	32.1	62.9	62.9	4.4	4.4	5.3		4		-				-		-	
						15.8	0.2	108	24.2		8.0		32.1		62.9		4.4		5.3		4		-				-		-	
SR8	Cloudy	Moderate	14:30	5.1	Surface	1.0	-	-	28.0	28.0	8.0	8.0	16.5	16.6	74.7	74.6	5.3	5.3	3.1	6.0	3	3	-	-	820395	811639	-	-	-	-
						1.0	-	-	27.9		8.0		16.6		74.4		5.3		3.1		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	26.9	26.9	8.0	8.0	21.1	21.2	56.3	56.1	4.0	4.0	8.7		3		-				-		-	
						4.1	-	-	26.8		8.0		21.3		55.9		4.0		9.0		3		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 July 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	07:42	9.5	Surface	1.0	0.2	25	29.2	29.2	8.0	8.0	25.6	25.6	64.0	64.1	4.3	5.1	11.4	9.4	<2	<2	86	90	815603	804258	<0.2	<0.2	1.3	1.3
						1.0	0.3	26	29.2		8.0		25.5		64.1		4.3		11.4		<2		87				<0.2		1.1	
					Middle	4.8	0.3	20	29.8	29.8	8.0	8.0	16.6	16.6	84.7	84.7	5.9		7.7		<2		90				<0.2		1.1	
						4.8	0.3	21	29.8		8.0		16.6		84.6		5.9		7.7		<2		90				<0.2		1.3	
					Bottom	8.5	0.3	21	30.0	30.0	8.1	8.1	20.3	20.3	78.2	78.2	5.3	5.3	9.0		<2		93				<0.2		1.3	
						8.5	0.3	21	30.0		8.1		20.3		78.2		5.3		9.1		<2		93				<0.2		1.4	
C2	Cloudy	Moderate	09:33	11.1	Surface	1.0	0.4	357	27.9	27.9	7.8	7.8	10.9	10.9	69.8	69.8	5.2	4.7	6.1	5.3	4	3	83	87	825683	806968	<0.2	<0.2	1.2	1.4
						1.0	0.4	328	27.9		7.8		10.9		69.7		5.1		6.1		4		85				<0.2		1.3	
					Middle	5.6	0.5	316	27.1	27.1	7.9	7.9	20.3	20.2	59.6	59.7	4.2		3.5		3		86				<0.2		1.4	
						5.6	0.6	327	27.1		7.9		20.2		59.7		4.3		3.5		3		87				<0.2		1.4	
					Bottom	10.1	0.5	330	26.1	26.2	7.9	7.9	25.1	25.1	52.9	53.0	3.7	3.7	6.2		3		89				<0.2		1.5	
						10.1	0.5	340	26.2		7.9		25.1		53.1		3.7		6.2		2		89				<0.2		1.3	
C3	Cloudy	Moderate	07:56	12.0	Surface	1.0	0.5	242	27.5	27.5	8.0	8.0	17.3	17.3	67.4	67.4	4.8	4.4	3.8	5.0	3	3	85	87	822093	817821	<0.2	<0.2	1.4	1.4
						1.0	0.6	264	27.5		8.0		17.3		67.3		4.8		3.7		2		84				<0.2		1.4	
					Middle	6.0	0.4	235	26.5	26.5	8.0	8.0	23.2	23.2	57.3	57.2	4.1		2.9		3		87				<0.2		1.5	
						6.0	0.5	257	26.5		8.0		23.2		57.0		4.0		2.9		4		87				<0.2		1.4	
					Bottom	11.0	0.5	270	24.6	24.6	8.0	8.0	30.8	30.8	47.6	47.7	3.3	3.3	8.5		4		89				<0.2		1.4	
						11.0	0.5	295	24.6		8.0		30.8		47.7		3.3		8.5		3		89				<0.2		1.3	
IM1	Cloudy	Moderate	08:01	5.7	Surface	1.0	0.1	19	29.7	29.7	8.0	8.0	15.9	15.9	85.2	85.2	5.9	5.9	8.3	9.3	2	3	88	91	817965	807130	<0.2	<0.2	1.6	1.6
						1.0	0.1	20	29.7		8.0		15.9		85.1		5.9		8.3		3		88				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.1	20	29.9	29.9	8.1	8.1	18.6	18.6	80.9	80.9	5.5	5.5	10.3		3		94				<0.2		1.6	
						4.7	0.1	22	29.9		8.1		18.6		80.8		5.5		10.4		2		94				<0.2		1.6	
IM2	Cloudy	Moderate	08:09	8.0	Surface	1.0	0.3	49	29.7	29.7	8.1	8.1	17.4	17.4	88.8	88.8	6.1	5.9	7.1	8.9	2	3	88	91	818166	806144	<0.2	<0.2	1.7	1.7
						1.0	0.3	47	29.7		8.1		17.4		88.7		6.1		7.1		2		89				<0.2		1.6	
					Middle	4.0	0.3	62	30.1	30.1	8.1	8.1	19.3	19.3	83.1	83.1	5.6		8.4		3		92				<0.2		1.7	
						4.0	0.3	66	30.1		8.1		19.3		83.0		5.6		8.4		3		92				<0.2		1.7	
					Bottom	7.0	0.2	51	29.9	29.9	8.1	8.1	21.6	21.7	75.4	75.4	5.1	5.1	11.1		3		94				<0.2		1.7	
						7.0	0.2	53	29.9		8.1		21.7		75.4		5.1		11.3		3		93				<0.2		1.7	
IM3	Cloudy	Moderate	08:17	8.2	Surface	1.0	0.2	66	29.8	29.8	8.1	8.1	18.5	18.5	89.9	89.9	6.2	6.0	7.7	10.4	2	3	89	92	818782	805578	<0.2	<0.2	1.5	1.5
						1.0	0.2	69	29.8		8.1		18.5		89.8		6.2		7.8		2		88				<0.2		1.6	
					Middle	4.1	0.2	52	30.2	30.2	8.1	8.1	19.9	19.9	84.9	84.8	5.7		10.3		3		91				<0.2		1.5	
						4.1	0.2	56	30.2		8.1		19.9		84.7		5.7		10.4		3		92				<0.2		1.4	
					Bottom	7.2	0.2	60	29.8	29.8	8.1	8.1	23.1	23.1	77.4	77.5	5.2	5.2	13.2		2		94				<0.2		1.4	
						7.2	0.2	66	29.8		8.1		23.1		77.5		5.2		13.2		3		95				<0.2		1.5	
IM4	Cloudy	Moderate	08:28	8.2	Surface	1.0	0.7	57	29.1	29.1	8.1	8.1	27.4	27.4	64.9	65.0	4.3	5.4	11.5	9.3	<2	2	88	91	819731	804589	<0.2	<0.2	1.4	1.5
						1.0	0.8	53	29.1		8.1		27.4		65.0		4.3		11.5		<2		88				<0.2		1.5	
					Middle	4.1	0.4	53	29.8	29.8	8.1	8.1	17.9	17.9	93.2	93.2	6.4		7.6		2		92				<0.2		1.6	
						4.1	0.5	53	29.8		8.1		17.9		93.1		6.4		7.7		2		91				<0.2		1.5	
					Bottom	7.2	0.4	48	30.0	30.0	8.1	8.1	21.4	21.3	88.3	88.3	5.9	6.0	8.7		2		94				<0.2		1.4	
						7.2	0.5	49	30.0		8.1		21.1		88.3		6.0		8.7		2		95				<0.2		1.5	
IM5	Cloudy	Moderate	08:37	7.6	Surface	1.0	0.7	55	29.8	29.8	8.1	8.1	23.6	23.6	78.7	78.9	5.2	5.5	10.8	11.2	2	3	88	92	820732	804855	<0.2	<0.2	1.5	1.7
						1.0	0.7	59	29.8		8.1		23.6		79.0		5.3		10.8		2		89				<0.2		1.4	
					Middle	3.8	0.5	44	29.7	29.7	8.1	8.1	15.6	15.6	83.6	83.5	5.8		10.7		3		94				<0.2		1.8	
						3.8	0.5	45	29.7		8.1		15.6		83.4		5.8		10.7		2		93				<0.2		1.7	
					Bottom	6.6	0.3	38	29.4	29.4	8.1	8.1	25.2	25.2	70.3	70.3	4.7	4.7	12.2		4		95				<0.2		1.9	
						6.6	0.3	35	29.4		8.1		25.2		70.3		4.7		12.2		3		95				<0.2		1.8	
IM6	Cloudy	Moderate	08:45	7.7	Surface	1.0	0.5	42	30.5	30.5	8.2	8.2	20.3	20.3	96.6	96.6	6.5	6.4	11.1	10.0	2	3	89	92	821076	805845	<0.2	<0.2	1.8	1.9
						1.0	0.5	43	30.5		8.2		20.3		96.6		6.5		11.1		2		88				<0.2		1.8	
					Middle	3.9	0.3	38	30.2	30.2	8.1	8.1	18.4	18.4	91.1	91.1	6.2		8.2		3		92				<0.2		2.0	
						3.9	0.4	40	30.2		8.1		18.4		91.0		6.2		8.2		3		93				<0.2		2.0	
					Bottom	6.7	0.2	34	30.2	30.2	8.1	8.1	20.4	20.4	82.2	82.2	5.5	5.5	10.5		3		94				<0.2		1.9	
						6.7	0.2	34	30.2		8.1		20.4		82.1		5.5		10.6		3		94				<0.2		1.8	
IM7	Cloudy	Moderate	08:55	8.7	Surface	1.0	0.3	28	30.5	30.5	8.1	8.1	18.5	18.5	90.5	90.5	6.1	6.0	9.1	9.6	2	3	88	92	821341	806827	<0.2	<0.2	1.8	1.8
						1.0	0.3	27	30.5		8.1		18.5		90.4		6.1		9.1		3		88				<0.2		1.8	
					Middle	4.4	0.1	28	30.3	30.3	8.1	8.1	19.6	19.6	87.8	87.8	5.9		9.6		3		92				<0.2		1.7	
						4.4	0.1	29	30.3		8.1		19.6		87.8		5.9		9.6		2		93				<0.2		1.7	
					Bottom	7.7	0.2	31	30.6	30.6	8.2	8.2	20.3	20.3	97.6	97.6	6.5	6.5	10.0		5		94				<0.2		1.8	
						7.7	0.2	31	30.6		8.2		20.3		97.6		6.5		10.0		5		95				<0.2		1.7	
IM8	Cloudy	Moderate	09:13	7.6	Surface	1.0	0.1	277	27.6	27.6	7.9	7.9	12.7	12.7	67.8	67.9	5.0	4.7	4.2	5.6	4	4	85	87	821827	808116	<0.2	<0.2	1.5	1.5
						1.0	0.1	303	27.6		7.9		12.7		67.9		5.0		4.2		4		84				<0.2		1.5	
					Middle	3.8	0.1	279	27.4	27.4	7.9	7.9	17.3	17.3	60.9	60.9	4.4		6.1		4		88				<0.2		1.5	
						3.8	0.1	280	27.3		7.9		17.3		60.8		4.4		6.1		4		87				<0.2		1.5	
					Bottom	6.6	0.2	295	26.4	26.4	7.9	7.9	23.6	23.7	55.9	56.0	3.9	4.0	6.4		4		89				<0.2		1.5	
						6.6	0.2	301	26.4		7.9		23.7		56.0		4.0		6.5		4		89				<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 20 July 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	09:07	7.2	Surface	1.0	0.2	257	27.7	27.7	7.9	7.9	12.8	12.8	71.4	71.4	5.2	4.7	4.1	6.5	5	4	84	86	822110	808798	<0.2	<0.2	1.5	1.5
						1.0	0.3	261	27.7		7.9		12.8		71.3		5.2		4.1		4		85				<0.2		1.5	
					Middle	3.6	0.2	334	27.1	27.1	7.9	7.9	19.5	19.5	58.4	58.3	4.2		7.6		4		86				<0.2		1.4	
						3.6	0.2	358	27.1		7.9		19.5		58.1		4.2		7.6		4		87				<0.2		1.5	
					Bottom	6.2	0.2	284	26.7	26.8	7.9	7.9	21.8	21.8	58.3	58.4	4.1	4.1	7.9		4		89				<0.2		1.6	
						6.2	0.2	285	26.8		7.9		21.8		58.5		4.1		7.9		4		87				<0.2		1.6	
IM10	Cloudy	Moderate	09:00	8.0	Surface	1.0	0.8	308	27.8	27.8	7.9	7.9	14.5	14.5	69.8	69.8	5.1	4.9	3.9	5.7	3	4	85	87	822371	809808	<0.2	<0.2	1.6	1.6
						1.0	0.8	324	27.8		7.9		14.5		69.8		5.1		4.0		4		84				<0.2		1.7	
					Middle	4.0	0.7	310	27.6	27.6	7.9	7.9	15.8	15.8	64.9	64.9	4.7		4.0		4		86				<0.2		1.6	
						4.0	0.7	325	27.6		7.9		15.8		64.8		4.7		4.0		4		87				<0.2		1.7	
					Bottom	7.0	0.8	294	26.6	26.6	7.9	7.9	22.5	22.5	56.5	56.8	4.0	4.0	9.1		5		89				<0.2		1.6	
						7.0	0.9	321	26.6		7.9		22.6		57.0		4.0		9.1		4		88				<0.2		1.6	
IM11	Cloudy	Moderate	08:50	7.8	Surface	1.0	0.8	330	27.9	27.9	8.0	8.0	15.8	15.8	74.6	74.5	5.4	4.6	4.1	7.4	4	4	84	87	822043	811438	<0.2	<0.2	1.6	1.6
						1.0	0.8	351	27.9		8.0		15.7		74.4		5.4		4.1		4		85				<0.2		1.6	
					Middle	3.9	0.6	327	26.6	26.6	7.9	7.9	22.2	22.2	53.3	53.4	3.8		6.1		4		87				<0.2		1.8	
						3.9	0.6	337	26.6		7.9		22.2		53.4		3.8		6.1		4		87				<0.2		1.7	
					Bottom	6.8	0.3	340	25.6	25.6	7.9	7.9	26.9	26.9	50.8	51.1	3.6	3.6	11.9		5		90				<0.2		1.4	
						6.8	0.3	313	25.6		7.9		26.9		51.4		3.6		11.9		4		89				<0.2		1.4	
IM12	Cloudy	Moderate	08:46	8.3	Surface	1.0	0.8	302	27.8	27.8	8.0	8.0	16.4	16.4	72.6	72.5	5.2	4.9	4.1	7.6	3	4	83	86	821459	812022	<0.2	<0.2	1.4	1.4
						1.0	0.9	317	27.8		8.0		16.4		72.3		5.2		4.2		3		84				<0.2		1.5	
					Middle	4.2	0.8	284	26.6	26.6	8.0	8.0	22.1	22.1	65.6	65.6	4.6		5.6		3		87				<0.2		1.5	
						4.2	0.8	305	26.5		8.0		22.2		65.5		4.6		5.7		4		86				<0.2		1.4	
					Bottom	7.3	0.6	287	25.6	25.6	7.9	7.9	27.0	27.0	59.9	59.9	4.2	4.2	13.1		6		88				<0.2		1.4	
						7.3	0.6	312	25.6		7.9		27.0		59.9		4.2		13.2		6		89				<0.2		1.4	
SR1A	Cloudy	Moderate	08:27	4.8	Surface	1.0	-	-	27.9	27.9	8.0	8.0	14.7	14.7	69.6	69.4	5.0	5.0	4.3	4.3	4	4	-	-	819977	812657	-	-	-	-
						1.0	-	-	27.8		8.0		14.7		69.1		5.0		4.3		4		-				-		-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.4	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	-	-	27.6	27.6	8.0	8.0	17.7	17.7	67.8	67.8	4.8	4.9	4.3		4		-				-		-	
						3.8	-	-	27.6		8.0		17.8		67.8		4.9		4.4		4		-				-		-	
SR2	Cloudy	Moderate	08:16	4.7	Surface	1.0	0.0	126	27.5	27.5	7.9	7.9	17.2	17.2	62.6	62.6	4.5	4.5	4.7	7.2	3	4	86	88	821460	814157	<0.2	<0.2	1.6	1.5
						1.0	0.0	134	27.5		7.9		17.2		62.6		4.5		4.7		3		86				<0.2		1.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	109	26.7	26.7	7.9	7.9	21.9	21.9	55.5	55.6	3.9	4.0	9.5		4		89				<0.2		1.4	
						3.7	0.1	118	26.7		7.9		21.9		55.7		4.0		9.6		4		89				<0.2		1.4	
SR3	Cloudy	Moderate	09:18	8.3	Surface	1.0	0.2	280	27.6	27.6	7.9	7.9	12.4	12.3	64.4	64.3	4.7	4.5	4.1	4.8	4	4	-	-	822137	807553	-	-	-	-
						1.0	0.2	299	27.6		7.9		12.3		64.2		4.7		4.2		4		-				-		-	
					Middle	4.2	0.1	35	27.3	27.3	7.9	7.9	17.3	17.3	60.1	59.9	4.3		5.2		4		-				-		-	
						4.2	0.2	36	27.2		7.9		17.3		59.6		4.3		5.2		4		-				-		-	
					Bottom	7.3	0.3	52	26.7	26.7	7.9	7.9	21.8	21.8	59.6	59.7	4.2	4.2	4.9		4		-				-		-	
						7.3	0.3	53	26.7		7.9		21.8		59.8		4.2		4.9		5		-				-		-	
SR4A	Cloudy	Calm	07:18	10.0	Surface	1.0	0.0	200	29.6	29.6	8.0	8.0	23.0	23.0	71.1	71.2	4.8	5.3	8.6	9.4	2	3	-	-	817182	807807	-	-	-	-
						1.0	0.0	205	29.6		8.0		23.1		71.2		4.8		8.6		2		-				-		-	
					Middle	5.0	0.2	280	30.2	30.2	8.1	8.1	17.8	17.8	84.1	84.1	5.8		8.6		3		-				-		-	
						5.0	0.2	286	30.2		8.1		17.8		84.1		5.8		8.6		3		-				-		-	
					Bottom	9.0	0.0	245	30.2	30.2	8.1	8.1	18.6	18.6	80.6	80.6	5.5	5.5	10.9		2		-				-		-	
						9.0	0.0	247	30.2		8.1		18.6		80.6		5.5		11.0		3		-				-		-	
SR5A	Rainy	Calm	06:59	5.0	Surface	1.0	0.1	242	30.0	30.0	8.1	8.1	20.8	20.9	77.3	77.4	5.2	5.2	12.2	10.3	2	3	-	-	816606	810675	-	-	-	-
						1.0	0.1	245	30.0		8.1		21.0		77.4		5.2		12.2		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	270	30.3	30.3	8.0	8.0	16.6	16.6	82.7	82.7	5.7	5.7	8.4		3		-				-		-	
						4.0	0.1	274	30.3		8.0		16.6		82.6		5.7		8.4		3		-				-		-	
SR6	Rainy	Calm	06:34	4.7	Surface	1.0	0.1	288	30.3	30.3	8.0	8.0	17.6	17.6	79.1	79.1	5.4	5.4	10.9	12.3	2	2	-	-	817896	814667	-	-	-	-
						1.0	0.1	293	30.3		8.0		17.6		79.1		5.4		11.1		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.0	272	30.3	30.3	8.0	8.0	18.1	18.1	81.4	81.4	5.6	5.6	13.5		2		-				-		-	
						3.7	0.0	274	30.3		8.0		18.1		81.4		5.6		13.5		2		-				-		-	
SR7	Cloudy	Moderate	07:27	16.6	Surface	1.0	0.1	196	27.5	27.5	7.9	7.9	17.1	17.1	88.2	88.2	6.3	5.7	3.6	3.4	2	3	-	-	823618	823749	-	-	-	-
						1.0	0.1	213	27.5		7.9		17.1		88.2		6.3		3.5		2		-				-		-	
					Middle	8.3	0.1	234	25.4	25.4	7.9	7.9	27.2	27.2	71.6	71.6	5.0		3.1		3		-				-		-	
						8.3	0.1	236	25.3		7.9		27.2		71.6		5.0		3.2		3		-				-		-	
					Bottom	15.6	0.2	206	24.7	24.7	7.9	7.9	30.1	30.1	62.2	62.2	4.3	4.3	3.5		3		-				-		-	
						15.6	0.2	206	24.7		7.9		30.2		62.2		4.3		3.5		3		-				-		-	
SR8	Cloudy	Moderate	08:36	5.1	Surface	1.0	-	-	26.8	26.8	7.9	7.9	21.0	21.0	64.3	64.3	4.5	4.6	8.1	9.2	3	4	-	-	820370	811646	-	-	-	-
						1.0	-	-	26.7		7.9		21.0		64.3		4.6		8.7		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	26.6	26.6	7.9	7.9	22.7	22.7	54.1	54.2	3.8	3.8	9.9		4		-				-		-	
						4.1	-	-	26.6		7.9		22.7		54.2		3.8		9.9		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 23 July 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	16:23	7.3	Surface	1.0	0.5	207	27.3	27.3	6.8	6.8	20.6	20.6	67.5	67.5	4.8	4.7	6.6	8.3	4	4	83	88	815625	804239	<0.2	<0.2	1.3	1.3
						1.0	0.5	226	27.3		6.8		20.6		67.4		4.8		6.8		4		84				<0.2		1.3	
					Middle	3.7	0.3	199	26.8	26.9	6.8	6.8	22.9	22.8	65.4	65.4	4.6		8.2		5		88				<0.2		1.3	
						3.7	0.3	218	26.9		6.8		22.6		65.3		4.6		8.1		4		88				<0.2		1.2	
					Bottom	6.3	0.3	195	25.9	25.9	6.9	6.9	27.3	27.3	64.1	64.2	4.5	4.5	10.0		4		92				<0.2		1.3	
						6.3	0.3	196	25.9		6.9		27.3		64.3		4.5		10.1		5		92				<0.2		1.2	
C2	Cloudy	Moderate	15:10	11.7	Surface	1.0	0.2	316	27.7	27.7	7.6	7.6	12.6	12.6	63.9	63.7	4.7	4.3	4.3	4.3	5	5	85	89	825668	806945	<0.2	<0.2	1.4	1.6
						1.0	0.2	328	27.7		7.6		12.6		63.5		4.7		4.3		5		86				<0.2		1.5	
					Middle	5.9	0.3	325	26.2	26.2	7.6	7.6	22.9	22.9	54.0	54.1	3.8		2.3		4		89				<0.2		1.9	
						5.9	0.3	353	26.2		7.6		22.9		54.1		3.8		2.3		5		89				<0.2		1.4	
					Bottom	10.7	0.4	350	25.7	25.7	7.6	7.6	25.9	25.8	53.0	53.3	3.7	3.8	6.3		6		91				<0.2		1.6	
						10.7	0.4	351	25.7		7.6		25.8		53.6		3.8		6.5		5		91				<0.2		1.5	
C3	Cloudy	Moderate	17:16	11.5	Surface	1.0	0.3	84	27.7	27.7	7.7	7.7	19.2	19.2	76.7	76.7	5.4	5.0	1.7	2.0	4	4	87	89	822125	817806	<0.2	<0.2	1.1	1.1
						1.0	0.3	88	27.7		7.7		19.1		76.6		5.4		1.7		4		87				<0.2		1.1	
					Middle	5.8	0.1	187	25.2	25.2	7.7	7.7	27.7	27.7	64.0	64.7	4.5		1.7		4		88				<0.2		1.1	
						5.8	0.2	197	25.2		7.7		27.7		65.3		4.6		1.7		4		89				<0.2		1.2	
					Bottom	10.5	0.2	249	24.4	24.4	7.7	7.7	31.4	31.4	64.9	65.7	4.5	4.6	2.5		4		90				<0.2		1.0	
						10.5	0.2	262	24.4		7.7		31.3		66.5		4.7		2.5		5		90				<0.2		1.2	
IM1	Fine	Moderate	15:52	4.2	Surface	1.0	0.1	266	27.2	27.2	6.9	6.9	19.7	19.7	66.5	66.4	4.7	4.7	3.6	3.9	5	5	81	86	817931	807112	<0.2	<0.2	1.1	1.1
						1.0	0.1	280	27.2		6.9		19.8		66.2		4.7		3.7		4		81				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	169	26.2	26.2	6.8	6.8	28.2	28.2	58.1	58.2	4.1	4.1	4.1		5		91				<0.2		1.1	
						3.2	0.3	169	26.3		6.8		28.2		58.2		4.1		4.2		5		92				<0.2		1.0	
IM2	Fine	Moderate	15:46	7.9	Surface	1.0	0.5	171	27.5	27.5	6.9	6.9	19.7	19.7	67.7	67.6	4.8	4.8	3.2	5.2	3	3	83	88	818148	806172	<0.2	<0.2	1.2	1.2
						1.0	0.5	174	27.5		6.9		19.7		67.5		4.8		3.3		3		84				<0.2		1.2	
					Middle	4.0	0.4	154	26.4	26.3	6.9	6.9	23.7	23.7	66.2	68.2	4.7		5.8		3		88				<0.2		1.2	
						4.0	0.4	155	26.3		6.9		23.7		70.2		4.8		5.8		4		88				<0.2		1.1	
					Bottom	6.9	0.4	157	25.8	25.8	6.8	6.8	27.1	27.7	57.9	57.9	4.0	4.0	6.4		3		91				<0.2		1.2	
						6.9	0.4	157	25.8		6.8		28.2		57.9		4.0		6.4		3		91				<0.2		1.2	
IM3	Fine	Moderate	15:40	7.8	Surface	1.0	0.2	237	27.3	27.3	6.8	6.8	19.7	19.7	70.1	70.1	5.0	4.9	3.1	5.1	3	3	84	88	818795	805578	<0.2	<0.2	1.2	1.1
						1.0	0.2	258	27.3		6.8		19.7		70.0		5.0		3.2		3		84				<0.2		1.1	
					Middle	3.9	0.2	221	25.8	25.8	6.9	6.9	27.0	27.0	66.9	67.2	4.7		5.4		3		88				<0.2		1.2	
						3.9	0.2	237	25.8		6.9		27.0		67.5		4.7		5.5		3		88				<0.2		1.1	
					Bottom	6.8	0.3	124	25.5	25.5	6.9	6.9	29.4	29.4	54.1	54.2	3.8	3.8	6.5		3		91				<0.2		1.1	
						6.8	0.3	125	25.5		6.9		29.4		54.3		3.8		6.7		2		92				<0.2		1.1	
IM4	Sunny	Moderate	15:32	8.0	Surface	1.0	1.0	209	27.0	27.0	6.8	6.8	20.7	20.7	76.6	76.6	5.3	4.6	2.2	4.0	4	4	83	87	819704	804608	<0.2	<0.2	1.0	1.0
						1.0	1.1	226	27.0		6.8		20.7		76.5		5.3		2.3		4		83				<0.2		1.1	
					Middle	4.0	0.8	189	26.0	26.0	6.8	6.8	26.4	26.4	56.6	56.7	3.9		4.6		3		84				<0.2		1.0	
						4.0	0.9	193	26.0		6.8		26.4		56.8		4.0		4.5		4		88				<0.2		1.0	
					Bottom	7.0	0.4	177	25.6	25.6	6.8	6.8	28.4	28.4	51.5	51.6	3.6	3.6	5.2		4		91				<0.2		1.0	
						7.0	0.4	189	25.6		6.8		28.4		51.7		3.6		5.2		3		92				<0.2		1.0	
IM5	Sunny	Moderate	15:23	8.3	Surface	1.0	0.8	215	27.4	27.4	6.9	6.9	20.2	20.2	79.4	79.9	5.6	4.8	4.2	7.6	3	4	79	86	820717	804882	<0.2	<0.2	0.9	0.9
						1.0	0.8	230	27.4		6.9		20.1		80.3		5.6		4.3		3		80				<0.2		1.0	
					Middle	4.2	0.7	200	25.4	25.4	6.8	6.8	29.7	29.7	57.8	57.5	4.1		8.5		4		88				<0.2		0.8	
						4.2	0.7	211	25.4		6.8		29.7		57.1		4.0		8.6		3		88				<0.2		0.9	
					Bottom	7.3	0.5	199	25.4	25.4	6.8	6.8	29.8	29.8	57.5	57.8	4.0	4.0	10.1		4		91				<0.2		0.9	
						7.3	0.5	207	25.4		6.8		29.8		58.0		4.0		10.1		4		91				<0.2		1.1	
IM6	Sunny	Moderate	15:17	8.2	Surface	1.0	0.8	245	27.5	27.5	6.8	6.8	20.0	20.0	74.1	74.2	5.2	5.1	4.2	6.3	4	4	84	88	821058	805845	<0.2	<0.2	1.2	1.1
						1.0	0.9	249	27.5		6.8		20.0		74.2		5.2		4.3		4		84				<0.2		1.2	
					Middle	4.1	0.6	254	27.0	27.0	6.8	6.8	21.2	21.2	70.0	70.0	5.0		6.5		4		88				<0.2		1.0	
						4.1	0.6	266	27.0		6.8		21.2		69.9		4.9		6.5		4		88				<0.2		1.1	
					Bottom	7.2	0.4	233	26.0	26.0	6.8	6.8	25.5	26.2	50.2	50.4	3.5	3.5	8.1		6		92				<0.2		1.1	
						7.2	0.4	249	26.0		6.8		26.8		50.5		3.5		8.1		4		93				<0.2		1.2	
IM7	Fine	Moderate	15:10	7.9	Surface	1.0	0.4	201	27.7	27.7	6.7	6.7	16.4	16.4	68.7	68.7	4.9	4.8	5.4	6.8	3	3	84	88	821367	806858	<0.2	<0.2	1.1	1.1
						1.0	0.4	203	27.7		6.7		16.5		68.6		4.9		5.5		2		84				<0.2		1.2	
					Middle	4.0	0.1	54	27.3	27.3	6.8	6.8	19.8	19.7	66.6	66.6	4.7		6.3		3		87				<0.2		1.1	
						4.0	0.1	57	27.3		6.8		19.7		66.5		4.7		6.4		4		88				<0.2		1.1	
					Bottom	6.9	0.2	98	26.0	26.0	6.8	6.8	27.7	27.7	56.1	56.3	3.9	3.9	8.4		4		91				<0.2		1.2	
						6.9	0.2	104	26.1		6.8		27.7		56.4		3.9		8.5		3		91				<0.2		1.1	
IM8	Cloudy	Moderate	15:39	8.7	Surface	1.0	0.2	248	27.3	27.3	7.6	7.6	15.6	15.6	67.2	67.4	4.9	4.6	2.8	7.2	4	4	85	88	821819	808152	<0.2	<0.2	1.4	1.4
						1.0	0.2	267	27.3		7.6		15.5		67.6		4.9		2.8		4		85				<0.2		1.5	
					Middle	4.4	0.2	76	26.7	26.8	7.7	7.7	22.9	22.9	59.4	60.1	4.2		13.0		4		88				<0.2		1.4	
						4.4	0.2	81	26.8		7.7		22.8		60.7		4.3		13.0		5		88				<0.2		1.4	
					Bottom	7.7	0.3	74	25.9	25.9	7.6	7.6	23.7	23.7	57.4	59.6	4.1	4.3	5.8		4		90				<0.2		1.4	
						7.7	0.4	75	25.9		7.6		23.7		61.7		4.4		5.8		4		90				<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 23 July 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	15:46	7.8	Surface	1.0	0.1	139	27.7	27.7	7.7	7.7	17.3	17.3	72.8	72.8	5.2	4.7	2.6	4.0	4	4	85	88	822087	808795	<0.2	<0.2	1.2	1.3
						1.0	0.1	147	27.7		7.7		17.3		72.7		5.2		2.7		3		85				<0.2		1.3	
					Middle	3.9	0.1	68	26.4	26.4	7.6	7.6	21.3	21.3	56.9	57.0	4.1		4.5		5		88				<0.2		1.3	
						3.9	0.1	73	26.3		7.6		21.3		57.0		4.1		4.5		4		89				<0.2		1.4	
					Bottom	6.8	0.3	60	25.9	26.0	7.7	7.7	25.3	25.3	59.3	61.9	4.2	4.4	5.1		4		89				<0.2		1.3	
						6.8	0.3	62	26.0		7.7		25.2		64.4		4.5		5.0		3		89				<0.2		1.3	
IM10	Cloudy	Moderate	15:55	9.4	Surface	1.0	0.3	336	27.3	27.3	7.7	7.7	17.4	17.4	72.2	72.2	5.2	5.0	2.5	3.4	4	5	86	88	822390	809795	<0.2	<0.2	1.2	1.2
						1.0	0.4	338	27.2		7.7		17.4		72.1		5.2		2.6		5		86				<0.2		1.2	
					Middle	4.7	0.5	316	26.6	26.6	7.7	7.7	20.7	20.7	67.0	67.1	4.8		2.7		5		88				<0.2		1.2	
						4.7	0.6	319	26.6		7.7		20.7		67.2		4.8		3.0		6		88				<0.2		1.2	
					Bottom	8.4	0.2	308	26.0	26.0	7.7	7.7	24.2	24.2	64.8	65.4	4.6	4.7	4.9		4		89				<0.2		1.2	
						8.4	0.2	320	26.0		7.7		24.2		66.0		4.7		4.8		5		90				<0.2		1.3	
IM11	Cloudy	Moderate	16:06	8.7	Surface	1.0	0.2	230	27.3	27.3	7.7	7.7	18.9	18.9	72.1	72.0	5.1	4.9	1.8	2.4	3	3	86	88	822060	811464	<0.2	<0.2	1.2	1.2
						1.0	0.2	232	27.3		7.7		18.9		71.9		5.1		1.9		3		85				<0.2		1.1	
					Middle	4.4	0.3	277	26.5	26.5	7.7	7.7	21.5	21.5	64.3	64.3	4.6		1.8		3		88				<0.2		1.2	
						4.4	0.3	290	26.5		7.7		21.5		64.3		4.6		1.7		4		89				<0.2		1.1	
					Bottom	7.7	0.2	322	25.8	25.8	7.7	7.7	24.2	24.2	62.4	62.5	4.4	4.5	3.5		3		90				<0.2		1.1	
						7.7	0.2	345	25.8		7.7		24.2		62.6		4.5		3.6		4		90				<0.2		1.2	
IM12	Cloudy	Moderate	16:13	8.1	Surface	1.0	0.3	202	26.9	26.9	7.7	7.7	19.7	19.7	72.5	72.7	5.2	4.7	12.7	7.1	2	3	87	89	821450	812051	<0.2	<0.2	1.1	1.2
						1.0	0.3	215	26.9		7.7		19.7		72.8		5.2		12.7		3		87				<0.2		1.4	
					Middle	4.1	0.1	243	26.6	26.7	7.7	7.7	24.7	24.7	60.2	61.1	4.2		3.6		2		88				<0.2		1.2	
						4.1	0.1	264	26.7		7.7		24.6		62.0		4.3		3.4		3		89				<0.2		1.2	
					Bottom	7.1	0.1	136	25.5	25.5	7.7	7.7	26.4	26.4	62.9	63.7	4.4	4.5	5.1		2		91				<0.2		1.1	
						7.1	0.1	139	25.5		7.7		26.4		64.4		4.5		5.0		3		91				<0.2		1.1	
SR1A	Cloudy	Calm	16:42	4.3	Surface	1.0	-	-	27.5	27.5	7.7	7.7	18.5	18.5	73.1	73.0	5.2	5.2	1.9	1.9	3	4	-	-	819977	812662	-	-	-	-
						1.0	-	-	27.4		7.7		18.6		72.9		5.2		1.9		4		-				-		-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.2	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	26.6	26.7	7.7	7.7	22.2	22.2	64.1	64.3	4.5	4.6	1.9		3		-				-		-	
						3.3	-	-	26.7		7.7		22.2		64.5		4.6		1.9		4		-				-		-	
SR2	Cloudy	Moderate	16:54	5.5	Surface	1.0	0.4	349	27.1	27.1	7.7	7.7	20.2	20.2	73.8	73.7	5.2	5.2	2.6	2.9	4	5	86	87	821464	814169	<0.2	<0.2	1.0	1.0
						1.0	0.4	349	27.1		7.7		20.2		73.6		5.2		2.6		4		86				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.3	339	25.7	25.7	7.7	7.7	26.3	26.2	65.6	66.5	4.6	4.7	3.3		6		88				<0.2		1.0	
						4.5	0.3	358	25.7		7.7		26.2		67.3		4.7		3.2		5		89				<0.2		1.0	
SR3	Cloudy	Moderate	15:32	8.9	Surface	1.0	0.1	283	27.1	27.1	7.6	7.6	15.7	15.7	63.0	63.0	4.6	4.7	2.8	8.8	4	4	-	-	822161	807558	-	-	-	-
						1.0	0.1	305	27.1		7.6		15.7		63.0		4.6		2.9		4		-				-		-	
					Middle	4.5	0.2	73	26.6	26.6	7.6	7.6	22.7	22.7	66.1	66.1	4.7		13.7		4		-				-		-	
						4.5	0.2	78	26.6		7.6		22.7		66.0		4.7		13.7		3		-				-		-	
					Bottom	7.9	0.3	74	25.8	25.8	7.7	7.7	24.8	24.8	54.8	55.5	3.9	4.0	9.9		4		-				-		-	
						7.9	0.3	75	25.8		7.7		24.8		56.1		4.0		9.7		4		-				-		-	
SR4A	Fine	Moderate	16:54	8.6	Surface	1.0	0.4	241	28.0	28.0	7.0	7.0	18.2	18.2	76.7	76.7	5.4	5.1	6.3	8.5	4	4	-	-	817192	807810	-	-	-	-
						1.0	0.5	243	28.0		7.0		18.2		76.6		5.4		6.4		5		-				-		-	
					Middle	4.3	0.3	247	27.0	27.0	7.0	7.0	21.1	21.1	66.3	66.3	4.7		8.5		4		-				-		-	
						4.3	0.3	256	27.0		7.0		21.1		66.2		4.7		8.6		4		-				-		-	
					Bottom	7.6	0.1	250	26.7	26.7	7.0	7.0	23.1	23.1	65.4	65.5	4.6	4.6	10.6		5		-				-		-	
						7.6	0.1	261	26.7		7.0		23.1		65.5		4.6		10.4		4		-				-		-	
SR5A	Fine	Calm	17:13	3.8	Surface	1.0	0.1	344	28.3	28.3	6.9	6.9	18.7	18.7	87.9	87.9	6.2	6.2	4.1	5.2	6	7	-	-	816591	810672	-	-	-	-
						1.0	0.1	316	28.3		6.9		18.7		87.9		6.2		4.1		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	0	28.2	28.2	6.9	6.9	18.8	18.8	92.3	92.4	6.5	6.5	6.3		7		-				-		-	
						2.8	0.1	0	28.2		6.9		18.8		92.5		6.5		6.3		8		-				-		-	
SR6	Fine	Calm	17:34	3.6	Surface	1.0	0.0	315	28.1	28.2	6.9	6.9	19.3	19.3	79.5	79.5	5.6	5.6	5.5	7.1	3	3	-	-	817884	814663	-	-	-	-
						1.0	0.0	341	28.2		6.9		19.3		79.5		5.6		5.6		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.6	0.1	309	27.7	27.7	6.9	6.9	21.2	21.2	86.8	87.2	6.1	6.1	8.7		4		-				-		-	
						2.6	0.1	312	27.7		6.9		21.2		87.5		6.1		8.7		3		-				-		-	
SR7	Cloudy	Moderate	17:46	15.7	Surface	1.0	0.3	72	26.0	26.0	7.8	7.8	25.1	25.1	73.3	73.3	5.3	5.2	1.6	5.6	3	4	-	-	823618	823749	-	-	-	-
						1.0	0.3	74	26.0		7.8		25.1		73.2		5.3		1.6		3		-				-		-	
					Middle	7.9	0.1	121	25.3	25.3	7.8	7.8	28.2	28.2	71.2	71.2	5.0		1.9		4		-				-		-	
						7.9	0.1	124	25.2		7.8		28.2		71.2		5.0		1.9		3		-				-		-	
					Bottom	14.7	0.3	40	24.4	24.4	7.7	7.7	31.6	31.5	58.9	61.4	4.1	4.3	13.2		5		-				-		-	
						14.7	0.3	40	24.4		7.7		31.4		63.8		4.5		13.3		4		-				-		-	
SR8	Cloudy	Calm	16:27	4.5	Surface	1.0	-	-	26.8	26.8	7.7	7.7	19.5	19.5	68.7	68.6	4.9	4.9	1.9	1.9	3	5	-	-	820377	811639	-	-	-	-
						1.0	-	-	26.7		7.7		19.6		68.5		4.9		1.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	-	-	26.4	26.4	7.7	7.7	22.8	22.8	62.4	62.6	4.4	4.4	1.9		5		-				-		-	
						3.5	-	-	26.4		7.7		22.8		62.7		4.4		1.9		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 23 July 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	Rough	10:09	9.6	Surface	1.0	0.2	50	27.4	27.4	6.9	6.9	19.7	19.7	68.6	68.6	4.9	4.8	8.5	10.2	3	4	83	87	815600	804266	<0.2	<0.2	1.1	1.1
						1.0	0.2	56	27.4		6.9		19.7		68.5		4.9		8.6		4		83				<0.2		1.1	
					Middle	4.8	0.3	60	26.2	26.2	7.1	7.1	24.0	24.0	64.9	64.9	4.6		9.6		4		88				<0.2		1.2	
						4.8	0.3	62	26.1		7.1		24.0		64.9		4.6		9.7		3		88				<0.2		1.1	
					Bottom	8.6	0.3	71	25.5	25.5	7.1	7.1	29.8	29.9	60.6	60.8	4.2	4.2	12.4		5		91				<0.2		1.2	
						8.6	0.3	77	25.5		7.1		29.9		60.9		4.2		12.4		5		91				<0.2		1.0	
C2	Cloudy	Moderate	11:28	11.5	Surface	1.0	0.2	317	27.4	27.5	7.6	7.6	14.0	14.0	64.8	64.7	4.7	4.3	4.0	4.2	4	4	85	88	825680	806931	<0.2	<0.2	1.6	1.6
						1.0	0.2	320	27.5		7.6		14.0		64.6		4.7		4.1		3		86				<0.2		1.4	
					Middle	5.8	0.3	333	26.0	26.0	7.6	7.6	23.1	23.1	55.2	55.2	3.9		3.4		4		88				<0.2		1.7	
						5.8	0.3	348	25.9		7.6		23.1		55.1		3.9		3.8		4		89				<0.2		1.6	
					Bottom	10.5	0.3	346	25.7	25.7	7.6	7.6	26.0	25.9	59.0	59.6	4.2	4.3	5.1		4		90				<0.2		1.6	
						10.5	0.3	353	25.7		7.6		25.9		60.2		4.3		4.7		4		90				<0.2		1.7	
C3	Cloudy	Moderate	09:30	14.5	Surface	1.0	0.3	269	26.6	26.6	7.7	7.7	19.7	19.6	64.5	64.5	4.6	4.1	2.3	2.5	4	4	87	89	822104	817824	<0.2	<0.2	1.5	1.5
						1.0	0.3	289	26.6		7.7		19.6		64.4		4.6		2.3		4		88				<0.2		1.4	
					Middle	7.3	0.3	254	25.0	25.0	7.7	7.7	28.5	28.5	51.3	51.3	3.6		2.3		5		89				<0.2		1.5	
						7.3	0.3	276	24.9		7.7		28.5		51.2		3.6		2.5		4		89				<0.2		1.5	
					Bottom	13.5	0.4	281	24.5	24.5	7.7	7.7	30.9	30.8	52.8	53.3	3.7	3.8	3.0		4		91				<0.2		1.5	
						13.5	0.4	291	24.5		7.7		30.8		53.7		3.8		2.9		4		92				<0.2		1.5	
IM1	Cloudy	Rough	10:37	4.9	Surface	1.0	0.1	69	27.3	27.3	7.0	7.0	19.9	19.9	70.2	70.2	5.0	5.0	5.5	7.2	4	4	83	87	817966	807146	<0.2	<0.2	1.4	1.4
						1.0	0.1	70	27.3		7.0		19.9		70.1		5.0		5.6		3		84				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	55	25.8	25.7	7.1	7.1	27.1	27.1	55.8	55.8	3.9	3.9	8.7		5		91				<0.2		1.2	
						3.9	0.1	55	25.7		7.1		27.2		55.8		3.9		8.8		5		91				<0.2		1.7	
IM2	Cloudy	Rough	10:42	6.5	Surface	1.0	0.3	66	27.7	27.7	6.8	6.8	17.7	17.7	74.2	74.1	5.3	5.0	6.2	8.4	4	4	83	88	818139	806174	<0.2	<0.2	1.1	1.1
						1.0	0.3	68	27.7		6.8		17.7		73.9		5.3		6.3		5		84				<0.2		1.2	
					Middle	3.3	0.2	66	26.6	26.6	6.8	6.8	22.9	22.9	64.7	64.8	4.6		8.4		4		87				<0.2		1.2	
						3.3	0.3	69	26.6		6.8		22.9		64.8		4.6		8.4		5		87				<0.2		1.1	
					Bottom	5.5	0.2	52	26.1	26.0	6.8	6.8	26.4	26.4	69.3	69.7	4.8	4.9	10.4		4		92				<0.2		1.0	
						5.5	0.2	57	26.0		6.8		26.4		70.0		4.9		10.5		4		92				<0.2		1.1	
IM3	Cloudy	Moderate	10:46	6.9	Surface	1.0	0.2	52	27.4	27.4	6.8	6.8	19.1	19.1	71.8	71.7	5.1	4.9	8.8	9.5	4	4	79	87	818806	805608	<0.2	<0.2	1.3	1.3
						1.0	0.2	55	27.4		6.8		19.1		71.6		5.1		8.9		4		83				<0.2		1.3	
					Middle	3.5	0.2	58	27.0	27.0	6.8	6.8	22.9	22.8	68.0	68.0	4.7		9.6		4		88				<0.2		1.4	
						3.5	0.2	58	27.0		6.8		22.6		67.9		4.7		9.6		5		88				<0.2		1.2	
					Bottom	5.9	0.2	60	25.6	25.6	6.8	6.8	29.1	29.1	59.2	59.2	4.2	4.2	10.1		4		91				<0.2		1.3	
						5.9	0.2	71	25.6		6.8		29.1		59.1		4.2		10.0		4		92				<0.2		1.2	
IM4	Cloudy	Moderate	10:53	7.1	Surface	1.0	0.7	50	27.5	27.5	6.8	6.8	20.4	20.4	69.0	69.0	4.9	4.6	6.2	7.8	3	4	83	88	819731	804626	<0.2	<0.2	1.1	1.2
						1.0	0.8	54	27.5		6.8		20.4		69.0		4.9		6.3		4		84				<0.2		1.3	
					Middle	3.6	0.4	55	26.3	26.3	6.8	6.8	22.3	22.6	60.5	60.6	4.3		8.1		3		88				<0.2		1.1	
						3.6	0.5	56	26.2		6.8		22.9		60.6		4.3		8.2		4		88				<0.2		1.3	
					Bottom	6.1	0.4	49	25.9	25.9	6.7	6.7	28.2	28.2	68.7	69.0	4.8	4.8	9.1		6		91				<0.2		1.3	
						6.1	0.5	45	25.9		6.7		28.2		69.2		4.8		9.1		6		92				<0.2		1.3	
IM5	Cloudy	Moderate	11:00	7.2	Surface	1.0	0.7	45	26.8	26.8	6.8	6.8	22.7	22.7	60.7	60.6	4.3	4.6	9.3	11.5	3	4	83	87	820715	804882	<0.2	<0.2	1.3	1.2
						1.0	0.7	40	26.8		6.8		22.7		60.5		4.3		9.3		4		84				<0.2		1.2	
					Middle	3.6	0.5	49	26.0	26.0	6.8	6.8	26.4	26.4	69.2	69.2	4.9		11.5		3		85				<0.2		1.3	
						3.6	0.5	51	26.0		6.8		26.4		69.2		4.9		11.6		3		87				<0.2		1.2	
					Bottom	6.2	0.3	44	25.4	25.4	6.8	6.8	29.8	29.8	52.5	52.5	3.7	3.7	13.6		4		91				<0.2		1.2	
						6.2	0.3	46	25.4		6.8		29.8		52.5		3.7		13.6		4		91				<0.2		1.2	
IM6	Cloudy	Moderate	11:06	7.6	Surface	1.0	0.5	32	27.2	27.2	6.8	6.8	20.3	20.3	67.9	67.9	4.7	4.7	9.6	11.1	3	3	84	88	821045	805804	<0.2	<0.2	1.2	1.2
						1.0	0.5	32	27.2		6.8		20.3		67.9		4.7		9.6		3		84				<0.2		1.2	
					Middle	3.8	0.3	36	26.9	26.9	6.8	6.8	22.4	22.5	65.6	65.6	4.7		11.4		3		87				<0.2		1.2	
						3.8	0.3	35	26.9		6.8		22.5		65.5		4.6		11.4		3		88				<0.2		1.3	
					Bottom	6.6	0.2	36	25.6	25.6	6.8	6.8	28.9	28.9	54.0	54.1	3.8	3.8	12.2		2		91				<0.2		1.2	
						6.6	0.2	34	25.6		6.8		28.9		54.2		3.8		12.1		3		92				<0.2		1.2	
IM7	Cloudy	Moderate	11:11	7.3	Surface	1.0	0.3	28	27.8	27.8	6.7	6.7	15.9	15.9	68.6	68.6	4.9	4.6	8.1	10.6	3	3	83	88	821356	806839	<0.2	<0.2	1.2	1.2
						1.0	0.3	24	27.8		6.7		15.8		68.6		4.9		8.2		3		84				<0.2		1.1	
					Middle	3.7	0.1	28	26.4	26.4	6.8	6.8	23.8	23.8	59.7	59.6	4.2		10.2		4		88				<0.2		1.2	
						3.7	0.1	28	26.4		6.8		23.8		59.4		4.2		10.3		3		89				<0.2		1.2	
					Bottom	6.3	0.2	20	25.9	25.9	6.8	6.8	27.9	27.9	59.1	59.1	4.2	4.2	13.5		2		91				<0.2		1.2	
						6.3	0.2	17	25.9		6.8		27.9		59.0		4.2		13.5		4		91				<0.2		1.2	
IM8	Cloudy	Moderate	11:01	7.7	Surface	1.0	0.3	358	27.1	27.1	7.6	7.6	15.4	15.4	71.3	71.5	5.2	4.8	4.9	4.3	2	3	85	88	821824	808147	<0.2	<0.2	1.1	1.2
						1.0	0.3	344	27.1		7.6		15.5		71.6		5.2		4.9		2		86				<0.2		1.2	
					Middle	3.9	0.2	323	26.7	26.7	7.6	7.6	18.5	18.5	60.3	60.3	4.4		3.1		2		88				<0.2		1.1	
						3.9	0.2	337	26.7		7.6		18.5		60.3		4.4		3.1		2		89				<0.2		1.2	
					Bottom	6.7	0.1	357	26.1	26.1	7.6	7.6	23.0	23.0	59.6	60.1	4.2	4.3	4.9		3		91				<0.2		1.1	
						6.7	0.1	358	26.1		7.6		22.9		60.5		4.3		5.1		4		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**

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Water Quality Monitoring
Water Quality Monitoring Results on 23 July 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	10:55	7.6	Surface	1.0	0.2	336	27.6	27.6	7.7	7.7	15.0	15.1	76.2	76.2	5.5	5.3	2.6	3.7	4	3	85	88	822074	808827	<0.2	<0.2	1.5	1.4
						1.0	0.2	327	27.5		7.7		15.1		76.1		5.5		2.6		3		85				<0.2		1.4	
					Middle	3.8	0.5	326	27.0	27.0	7.7	7.7	17.3	17.3	68.8	68.8	5.0		2.9		3		88				<0.2		1.4	
						3.8	0.5	334	27.0		7.7		17.3		68.7		5.0		2.8		3		88				<0.2		1.4	
					Bottom	6.6	0.3	303	26.3	26.4	7.6	7.6	22.4	22.4	60.0	60.4	4.3	4.3	5.6		3		89				<0.2		1.3	
						6.6	0.3	301	26.5		7.6		22.4		60.7		4.3		5.6		3		90				<0.2		1.5	
IM10	Sunny	Moderate	10:45	8.1	Surface	1.0	0.5	318	27.0	27.0	7.6	7.6	17.1	17.1	67.5	67.5	4.9	4.8	2.6	6.6	2	3	86	88	822365	809775	<0.2	<0.2	1.5	1.5
						1.0	0.5	311	27.0		7.6		17.1		67.5		4.9		2.6		2		86				<0.2		1.4	
					Middle	4.1	0.4	305	26.2	26.2	7.6	7.6	21.2	21.3	64.4	64.4	4.7		5.3		3		88				<0.2		1.5	
						4.1	0.5	295	26.2		7.6		21.3		64.3		4.7		6.0		2		89				<0.2		1.4	
					Bottom	7.1	0.3	274	26.2	26.3	7.6	7.6	24.5	24.5	59.3	59.9	4.2	4.3	11.6		3		89				<0.2		1.4	
						7.1	0.3	285	26.3		7.6		24.4		60.5		4.3		11.5		3		90				<0.2		1.5	
IM11	Sunny	Moderate	10:33	8.8	Surface	1.0	0.4	284	27.1	27.1	7.7	7.7	16.1	16.1	72.1	72.1	5.2	4.6	2.7	4.8	2	3	85	88	822066	811463	<0.2	<0.2	1.6	1.6
						1.0	0.4	289	27.1		7.7		16.1		72.0		5.2		2.7		2		85				<0.2		1.6	
					Middle	4.4	0.4	285	26.4	26.4	7.6	7.6	21.1	21.2	56.7	56.6	4.1		2.4		2		88				<0.2		1.6	
						4.4	0.5	306	26.4		7.6		21.3		56.5		4.0		2.5		3		88				<0.2		1.6	
					Bottom	7.8	0.3	262	25.1	25.1	7.6	7.6	28.4	28.5	54.8	57.4	3.9	4.1	9.1		3		90				<0.2		1.6	
						7.8	0.3	277	25.1		7.6		28.5		60.0		4.2		9.4		3		89				<0.2		1.6	
IM12	Sunny	Moderate	10:26	8.4	Surface	1.0	0.3	278	26.8	26.8	7.6	7.6	18.6	18.6	63.6	63.7	4.6	4.7	4.0	4.2	2	3	86	88	821441	812066	<0.2	<0.2	1.6	1.7
						1.0	0.4	285	26.8		7.6		18.6		63.7		4.6		3.8		2		86				<0.2		1.7	
					Middle	4.2	0.4	277	26.4	26.4	7.6	7.6	21.0	21.0	66.4	66.4	4.8		2.5		3		87				<0.2		1.7	
						4.2	0.4	278	26.4		7.6		21.0		66.3		4.7		2.5		3		87				<0.2		1.7	
					Bottom	7.4	0.4	252	25.0	25.0	7.6	7.6	28.7	28.8	49.9	50.3	3.5	3.6	6.3		4		90				<0.2		1.5	
						7.4	0.4	263	25.0		7.6		28.8		50.7		3.6		6.3		5		90				<0.2		1.7	
SR1A	Cloudy	Calm	10:06	4.5	Surface	1.0	-	-	27.1	27.1	7.7	7.7	16.9	16.9	75.5	75.5	5.5	5.5	3.0	4.2	2	2	-	-	819975	812658	-	-	-	-
						1.0	-	-	27.1		7.7		16.9		75.5		5.5		2.9		2		-				-		-	
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.3	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	-	-	26.9	26.9	7.7	7.7	19.3	19.3	73.6	74.5	5.3	5.4	5.5		3		-				-		-	
						3.5	-	-	26.9		7.7		19.3		75.3		5.4		5.6		2		-				-		-	
SR2	Cloudy	Moderate	09:53	4.8	Surface	1.0	0.3	269	26.9	26.9	7.7	7.7	19.2	19.2	71.8	71.6	5.2	5.2	2.7	2.9	2	3	88	90	821458	814189	<0.2	<0.2	1.2	1.2
						1.0	0.3	265	26.9		7.7		19.2		71.4		5.1		2.8		2		89				<0.2		1.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	272	26.4	26.4	7.7	7.7	20.8	20.8	62.0	62.0	4.4	4.4	3.1		2		90				<0.2		1.4	
						3.8	0.3	266	26.4		7.7		20.8		62.0		4.4		3.1		4		91				<0.2		1.2	
SR3	Cloudy	Moderate	11:07	9.1	Surface	1.0	0.2	54	27.6	27.6	7.6	7.6	12.6	12.6	71.4	71.3	5.3	4.6	3.5	3.7	2	3	-	-	822148	807593	-	-	-	-
						1.0	0.2	57	27.5		7.6		12.6		71.1		5.2		3.5		2		-				-		-	
					Middle	4.6	0.2	63	26.5	26.5	7.6	7.6	19.8	19.8	54.3	54.3	3.9		3.2		3		-				-		-	
						4.6	0.2	58	26.5		7.6		19.9		54.2		3.9		3.2		3		-				-		-	
					Bottom	8.1	0.2	63	25.6	25.6	7.6	7.6	25.9	25.8	52.5	54.7	3.7	3.9	4.4		3		-				-		-	
						8.1	0.2	68	25.6		7.6		25.8		56.8		4.0		4.4		3		-				-		-	
SR4A	Cloudy	Moderate	09:40	10.4	Surface	1.0	0.0	210	27.8	27.8	6.8	6.8	18.8	18.7	70.6	70.6	5.0	4.9	9.8	11.9	4	3	-	-	817175	807804	-	-	-	-
						1.0	0.0	217	27.8		6.8		18.7		70.6		5.0		9.8		2		-				-		-	
					Middle	5.2	0.2	282	26.3	26.3	6.9	6.9	25.7	25.7	66.5	66.5	4.7		12.5		4		-				-		-	
						5.2	0.2	265	26.3		6.9		25.7		66.5		4.7		12.6		4		-				-		-	
					Bottom	9.4	0.0	232	25.8	25.8	6.8	6.8	28.7	28.7	71.5	72.0	5.0	5.0	13.4		3		-				-		-	
						9.4	0.0	236	25.8		6.8		28.7		72.5		5.0		13.4		3		-				-		-	
SR5A	Cloudy	Moderate	09:27	5.1	Surface	1.0	0.1	242	27.9	27.9	6.8	6.8	18.7	18.6	78.9	78.9	5.6	5.6	9.3	9.5	4	4	-	-	816613	810718	-	-	-	-
						1.0	0.1	245	27.9		6.8		18.5		78.9		5.6		9.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	270	27.8	27.8	6.8	6.8	20.0	20.1	80.9	81.1	5.7	5.7	9.6		4		-				-		-	
						4.1	0.1	276	27.8		6.8		20.1		81.2		5.7		9.6		3		-				-		-	
SR6	Cloudy	Moderate	08:59	5.2	Surface	1.0	0.1	288	27.6	27.6	6.8	6.8	18.7	18.7	71.2	71.3	5.1	5.1	6.3	7.6	3	3	-	-	817882	814649	-	-	-	-
						1.0	0.1	295	27.6		6.8		18.7		71.3		5.1		6.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	269	27.5	27.5	6.9	6.9	19.2	19.2	67.5	67.5	4.8	4.8	8.9		3		-				-		-	
						4.2	0.0	270	27.5		6.9		19.2		67.4		4.8		8.9		3		-				-		-	
SR7	Cloudy	Moderate	08:54	15.2	Surface	1.0	0.1	216	26.7	26.7	7.6	7.6	18.9	18.9	70.2	70.2	5.1	5.1	1.9	2.1	2	2	-	-	823629	823752	-	-	-	-
						1.0	0.1	237	26.7		7.6		18.9		70.2		5.1		1.9		2		-				-		-	
					Middle	7.6	0.1	233	25.7	25.7	7.6	7.6	25.0	25.0	70.1	70.1	5.0		1.7		2		-				-		-	
						7.6	0.1	249	25.7		7.6		25.0		70.0		5.0		1.7		2		-				-		-	
					Bottom	14.2	0.1	236	24.4	24.4	7.5	7.5	31.2	31.1	68.3	68.3	4.9	4.9	2.8		3		-				-		-	
						14.2	0.1	242	24.4		7.5		31.0		68.2		4.9		2.7		3		-				-		-	
SR8	Cloudy	Calm	10:17	4.3	Surface	1.0	-	-	27.2	27.2	7.7	7.7	17.0	17.0	70.4	70.3	5.1	5.1	2.8	3.5	4	4	-	-	820391	811635	-	-	-	-
						1.0	-	-	27.2		7.7		17.0		70.2		5.1		2.8		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	-	-	26.2	26.2	7.6	7.6	21.4	21.5	59.2	59.3	4.2	4.3	4.2		3		-				-		-	
						3.3	-	-	26.2		7.6		21.5		59.4		4.3		4.3		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 25 July 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	18:03	8.6	Surface	1.0	0.2	160	28.9	28.9	7.9	7.9	8.9	8.9	109.9	109.9	8.0	7.2	4.1	7.9	4	5	86	88	815640	804259	<0.2	<0.2	1.1	1.1
						1.0	0.2	171	28.8		7.9		8.9		109.9		8.0		4.1		5		86				<0.2		1.1	
					Middle	4.3	0.1	115	28.3	28.3	7.9	7.9	16.5	17.0	92.2	91.9	6.5		5.1		4		88				<0.2		1.1	
						4.3	0.1	116	28.3		7.9		17.5		91.6		6.4		5.1		5		88				<0.2		1.1	
					Bottom	7.6	0.0	337	25.8	25.8	7.7	7.7	27.6	27.6	56.1	56.7	3.9	4.0	14.6		4		89				<0.2		1.1	
						7.6	0.0	343	25.8		7.7		27.6		57.3		4.0		14.5		5		90				<0.2		1.0	
C2	Fine	Moderate	16:48	11.6	Surface	1.0	0.4	221	28.0	28.1	7.7	7.7	10.9	10.8	114.4	114.4	8.4	6.4	4.5	3.7	4	5	86	88	825700	806946	<0.2	<0.2	1.6	1.7
						1.0	0.4	200	28.1		7.7		10.8		114.4		8.4		4.5		4		85				<0.2		1.7	
					Middle	5.8	0.1	198	25.5	25.5	7.7	7.7	27.3	27.3	62.4	62.4	4.4		2.9		5		87				<0.2		1.7	
						5.8	0.1	196	25.4		7.7		27.2		62.4		4.4		3.1		6		87				<0.2		1.8	
					Bottom	10.6	0.1	234	25.2	25.2	7.7	7.7	28.7	28.7	61.8	61.9	4.3	4.3	3.8		6		90				<0.2		1.8	
						10.6	0.1	246	25.2		7.7		28.7		61.9		4.3		3.8		6		90				<0.2		1.8	
C3	Fine	Moderate	18:59	11.3	Surface	1.0	0.1	143	27.5	27.5	7.9	7.9	17.3	17.3	98.4	98.4	7.0	6.7	2.6	2.5	3	4	86	88	822112	817804	<0.2	<0.2	2.0	1.8
						1.0	0.1	159	27.4		7.9		17.3		98.3		7.0		2.6		4		85				<0.2		1.8	
					Middle	5.7	0.1	157	26.5	26.4	7.9	7.9	23.6	24.1	90.7	89.9	6.4		2.0		4		88				<0.2		1.5	
						5.7	0.1	163	26.2		7.9		24.6		89.1		6.2		2.2		3		87				<0.2		1.9	
					Bottom	10.3	0.1	92	25.6	25.6	7.9	7.9	28.1	28.1	88.6	88.6	6.1	6.1	2.8		4		90				<0.2		1.5	
						10.3	0.1	99	25.6		7.9		28.1		88.6		6.1		2.8		3		90				<0.2		1.8	
IM1	Fine	Moderate	17:32	4.8	Surface	1.0	0.3	139	29.3	29.3	7.9	7.9	6.3	6.3	109.6	109.6	8.1	8.1	3.7	3.6	4	4	85	87	817931	807117	<0.2	<0.2	1.0	0.9
						1.0	0.3	144	29.3		7.9		6.3		109.6		8.1		3.7		4		85				<0.2		0.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	221	28.9	28.9	7.9	7.9	8.6	8.6	99.3	99.5	7.3	7.3	3.5		4		88				<0.2		1.0	
						3.8	0.1	226	28.9		7.9		8.6		99.6		7.3		3.5		4		88				<0.2		0.8	
IM2	Fine	Moderate	17:26	6.3	Surface	1.0	0.1	250	28.4	28.4	7.8	7.8	11.8	11.8	102.2	102.2	7.4	6.6	3.2	3.4	4	5	84	87	818157	806147	<0.2	<0.2	1.3	1.4
						1.0	0.1	271	28.4		7.8		11.8		102.2		7.4		3.2		5		84				<0.2		1.3	
					Middle	3.2	0.2	235	28.3	28.3	7.8	7.8	12.9	12.9	81.1	81.0	5.8		3.5		4		87				<0.2		1.5	
						3.2	0.2	237	28.3		7.8		12.9		80.8		5.8		3.5		5		87				<0.2		1.3	
					Bottom	5.3	0.2	211	26.4	26.5	7.7	7.7	26.6	26.8	54.6	55.1	3.8	3.8	3.6		5		89				<0.2		1.4	
						5.3	0.2	208	26.5		7.7		26.9		55.6		3.8		3.6		5		88				<0.2		1.4	
IM3	Fine	Moderate	17:19	6.9	Surface	1.0	0.3	215	29.0	29.0	7.9	7.9	9.7	9.7	101.4	101.4	7.4	6.0	3.3	3.7	5	5	85	88	818760	805586	<0.2	<0.2	1.0	1.3
						1.0	0.3	200	29.0		7.9		9.7		101.4		7.4		3.4		4		85				<0.2		1.4	
					Middle	3.5	0.4	242	27.0	27.0	7.8	7.8	20.3	20.3	64.7	64.7	4.6		3.3		4		88				<0.2		1.4	
						3.5	0.4	214	27.0		7.8		20.3		64.7		4.6		3.3		5		88				<0.2		1.4	
					Bottom	5.9	0.2	220	26.0	26.1	7.7	7.7	26.9	26.9	52.7	53.4	3.7	3.7	4.4		5		89				<0.2		1.2	
						5.9	0.2	208	26.1		7.7		26.8		54.1		3.7		4.4		4		90				<0.2		1.4	
IM4	Fine	Moderate	17:09	6.9	Surface	1.0	0.3	234	28.8	28.8	7.9	7.9	10.1	10.1	108.8	108.8	7.9	6.1	3.9	5.0	4	4	85	88	819729	804620	<0.2	<0.2	1.4	1.4
						1.0	0.3	251	28.8		7.9		10.1		108.8		7.9		3.9		4		86				<0.2		1.5	
					Middle	3.5	0.2	210	27.1	27.1	7.7	7.7	19.8	19.8	61.3	61.3	4.3		5.6		5		88				<0.2		1.4	
						3.5	0.3	125	27.1		7.7		19.8		61.3		4.3		5.6		4		88				<0.2		1.4	
					Bottom	5.9	0.2	221	25.7	25.7	7.7	7.7	27.3	27.3	52.1	52.6	3.6	3.7	5.6		5		90				<0.2		1.2	
						5.9	0.2	222	25.6		7.7		27.4		53.1		3.7		5.6		4		90				<0.2		1.4	
IM5	Fine	Moderate	17:01	6.2	Surface	1.0	0.7	198	29.7	29.7	7.9	7.9	4.4	4.4	107.4	107.4	7.9	6.0	5.5	6.1	5	6	85	88	820715	804877	<0.2	<0.2	1.5	1.4
						1.0	0.7	196	29.7		7.9		4.4		107.4		7.9		5.4		6		85				<0.2		1.4	
					Middle	3.1	0.8	223	26.8	26.9	7.7	7.7	22.3	22.3	57.8	57.9	4.1		5.2		5		88				<0.2		1.4	
						3.1	0.8	235	26.9		7.7		22.3		58.0		4.0		5.2		6		88				<0.2		1.2	
					Bottom	5.2	0.7	209	26.1	26.2	7.7	7.7	27.6	27.5	53.1	53.1	3.7	3.7	7.6		6		89				<0.2		1.5	
						5.2	0.8	198	26.2		7.7		27.3		53.0		3.7		7.6		6		90				<0.2		1.6	
IM6	Fine	Moderate	16:55	7.1	Surface	1.0	0.3	185	29.0	29.0	7.8	7.8	10.1	10.1	109.1	109.1	7.9	6.6	3.5	3.4	6	6	85	88	821069	805804	<0.2	<0.2	1.4	1.5
						1.0	0.4	163	29.0		7.8		10.1		109.1		7.9		3.5		5		86				<0.2		1.5	
					Middle	3.6	0.3	212	28.1	28.1	7.8	7.8	18.1	18.1	75.0	75.0	5.3		1.4		5		88				<0.2		1.6	
						3.6	0.3	235	28.1		7.8		18.0		74.9		5.3		1.6		5		88				<0.2		1.5	
					Bottom	6.1	0.3	207	26.7	26.8	7.7	7.7	23.6	23.6	67.2	67.2	4.7	4.7	5.3		6		89				<0.2		1.6	
						6.1	0.4	208	26.8		7.7		23.6		67.2		4.7		5.3		6		90				<0.2		1.6	
IM7	Fine	Moderate	16:46	7.3	Surface	1.0	0.6	200	28.5	28.5	7.8	7.8	12.3	11.7	101.8	101.8	7.3	6.0	3.0	2.8	6	6	85	87	821340	806828	<0.2	<0.2	1.5	1.6
						1.0	0.6	216	28.4		7.8		11.1		101.8		7.4		2.9		6		85				<0.2		1.3	
					Middle	3.7	0.4	187	27.7	27.6	7.7	7.7	18.1	18.1	65.0	64.9	4.6		2.0		5		87				<0.2		1.7	
						3.7	0.5	202	27.5		7.7		18.2		64.8		4.6		2.2		6		88				<0.2		1.6	
					Bottom	6.3	0.3	189	26.4	26.4	7.7	7.7	24.7	24.7	54.6	55.3	3.8	3.9	3.4		5		89				<0.2		1.7	
						6.3	0.3	192	26.4		7.7		24.8		55.9		3.9		3.3		5		89				<0.2		1.6	
IM8	Fine	Moderate	17:28	7.9	Surface	1.0	0.3	269	27.7	27.7	7.8	7.8	10.0	10.0	108.2	108.2	8.0	7.0	3.9	4.1	5	5	86	88	821815	808131	<0.2	<0.2	2.1	2.1
						1.0	0.3	271	27.7		7.8		10.1		108.2		8.0		3.7		5		86				<0.2		2.0	
					Middle	4.0	0.2	237	27.4	27.5	7.7	7.7	19.8	19.0	84.4	84.5	5.9		2.8		6		88				<0.2		2.1	
						4.0	0.2	256	27.5		7.7		18.3		84.6		6.0		2.7		5		89				<0.2		2.1	
					Bottom	6.9	0.1	195	25.9	25.9	7.7	7.7	25.1	25.1	68.9	69.2	4.8	4.9	6.0		4		90				<0.2		2.3	
						6.9	0.1	207	25.9		7.7		25.0		69.4		4.9		5.6		4		89				<0.2		2.2	

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 25 July 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	17:34	7.3	Surface	1.0	0.1	188	28.0	28.0	7.8	7.8	10.7	10.7	103.7	103.7	7.6	6.9	3.7	4.0	4	4	86	88	822081	808805	<0.2	<0.2	2.4	2.3
						1.0	0.1	199	27.9		7.8		10.7		103.7		7.6		3.7		4		85				<0.2		2.2	
					Middle	3.7	0.1	254	27.7	27.7	7.8	7.8	15.7	15.7	87.1	87.1	6.2		2.6		4		87				<0.2		2.4	
						3.7	0.1	260	27.7		7.8		15.6		87.0		6.2		2.6		4		87				<0.2		2.4	
					Bottom	6.3	0.1	231	26.2	26.2	7.7	7.7	23.7	23.7	69.9	70.0	4.9	4.9	5.7		4		90				<0.2		2.4	
						6.3	0.1	235	26.2		7.7		23.7		70.0		4.9		5.6		4		90				<0.2		2.2	
IM10	Fine	Moderate	17:42	7.2	Surface	1.0	0.1	87	27.8	27.8	7.8	7.8	13.3	13.3	105.5	105.5	7.7	7.0	3.1	2.7	5	4	86	88	822385	809808	<0.2	<0.2	2.0	2.1
						1.0	0.1	91	27.8		7.8		13.3		105.5		7.7		3.0		4		87				<0.2		2.0	
					Middle	3.6	0.2	129	27.2	27.2	7.7	7.7	18.2	18.2	86.9	86.8	6.2		2.4		4		89				<0.2		2.2	
						3.6	0.2	135	27.1		7.7		18.2		86.7		6.2		2.4		4		88				<0.2		2.1	
					Bottom	6.2	0.2	125	26.6	26.6	7.7	7.7	22.6	22.6	79.2	79.3	5.6	5.6	2.6		4		90				<0.2		2.1	
						6.2	0.2	132	26.6		7.7		22.6		79.4		5.6		2.7		4		90				<0.2		2.1	
IM11	Fine	Moderate	17:53	8.2	Surface	1.0	0.4	101	27.9	27.9	7.8	7.8	13.9	13.8	103.8	103.8	7.5	6.6	3.3	3.2	4	4	86	88	822066	811467	<0.2	<0.2	2.1	2.1
						1.0	0.4	110	27.9		7.8		13.8		103.8		7.5		3.3		4		87				<0.2		2.2	
					Middle	4.1	0.2	91	26.9	26.9	7.7	7.7	20.8	20.8	80.9	80.8	5.7		2.9		4		88				<0.2		2.2	
						4.1	0.2	98	26.9		7.7		20.8		80.7		5.7		2.9		4		87				<0.2		2.1	
					Bottom	7.2	0.0	161	25.8	25.8	7.7	7.7	26.1	26.1	70.9	71.0	5.0	5.0	3.5		4		89				<0.2		2.0	
						7.2	0.0	173	25.8		7.7		26.1		71.1		5.0		3.5		5		90				<0.2		2.0	
IM12	Fine	Moderate	18:01	8.4	Surface	1.0	0.4	105	27.9	27.9	7.8	7.8	13.7	13.7	96.5	96.5	7.0	6.1	3.1	3.2	4	4	85	88	821472	812061	<0.2	<0.2	2.0	2.1
						1.0	0.4	110	27.9		7.8		13.7		96.4		7.0		3.1		4		86				<0.2		2.1	
					Middle	4.2	0.2	48	26.7	26.7	7.7	7.7	21.3	21.3	74.0	74.0	5.2		3.0		4		87				<0.2		2.0	
						4.2	0.2	50	26.6		7.7		21.3		74.0		5.2		3.0		4		88				<0.2		2.2	
					Bottom	7.4	0.1	332	25.7	25.7	7.7	7.7	26.4	26.4	69.9	70.1	4.9	4.9	3.5		4		90				<0.2		2.2	
						7.4	0.1	348	25.7		7.7		26.4		70.2		4.9		3.5		4		90				<0.2		2.0	
SR1A	Fine	Moderate	18:22	5.1	Surface	1.0	-	-	27.9	28.0	7.8	7.8	14.4	14.3	94.2	94.1	6.8	6.8	2.9	3.1	3	3	-	-	819983	812661	-	-	-	-
						1.0	-	-	28.0		7.8		14.3		94.0		6.8		2.9		2		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	26.7	26.7	7.7	7.7	21.4	21.5	78.7	78.9	5.6	5.6	3.3		3		-				-		-	
						4.1	-	-	26.7		7.7		21.5		79.1		5.6		3.3		4		-				-		-	
SR2	Fine	Moderate	18:34	4.7	Surface	1.0	0.2	82	27.9	27.9	7.8	7.8	14.8	14.8	94.8	94.8	6.8	6.8	2.8	2.9	2	2	85	88	821477	814156	<0.2	<0.2	2.1	2.2
						1.0	0.2	84	27.9		7.8		14.8		94.8		6.8		2.8		2		86				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.2	84	26.9	26.9	7.7	7.7	20.2	20.2	81.7	81.9	5.8	5.8	2.8		2		89				<0.2		2.1	
						3.7	0.2	89	26.9		7.8		20.2		82.0		5.8		3.0		2		90				<0.2		2.2	
SR3	Fine	Moderate	17:22	8.3	Surface	1.0	0.3	262	27.6	27.6	7.8	7.8	14.2	14.2	107.7	107.7	7.8	6.6	3.1	3.0	4	4	-	-	822132	807584	-	-	-	-
						1.0	0.3	262	27.6		7.8		14.2		107.7		7.8		2.9		4		-				-		-	
					Middle	4.2	0.4	194	26.7	26.7	7.7	7.7	21.0	21.0	76.3	76.1	5.4		2.4		4		-				-		-	
						4.2	0.4	210	26.7		7.7		21.0		75.9		5.4		2.4		4		-				-		-	
					Bottom	7.3	0.2	168	25.9	25.9	7.7	7.7	25.3	25.3	65.7	65.8	4.6	4.6	3.3		4		-				-		-	
						7.3	0.2	171	25.9		7.7		25.3		65.8		4.6		3.6		3		-				-		-	
SR4A	Fine	Calm	18:30	8.7	Surface	1.0	0.6	89	29.0	29.0	7.9	7.9	8.6	8.6	105.8	105.8	7.7	7.2	4.2	6.2	4	4	-	-	817180	807792	-	-	-	-
						1.0	0.6	90	29.0		7.9		8.6		105.8		7.7		4.2		4		-				-		-	
					Middle	4.4	0.1	66	28.6	28.6	7.9	7.9	14.7	14.6	92.9	92.7	6.6		3.8		4		-				-		-	
						4.4	0.1	68	28.6		7.9		14.6		92.5		6.6		3.8		5		-				-		-	
					Bottom	7.7	0.0	105	26.0	26.0	7.7	7.7	26.8	26.8	51.4	51.4	3.6	3.6	10.5		5		-				-		-	
						7.7	0.0	101	26.0		7.7		26.8		51.4		3.6		10.5		4		-				-		-	
SR5A	Fine	Calm	18:46	4.4	Surface	1.0	0.1	90	29.2	29.1	8.1	8.1	15.2	15.2	127.3	127.1	9.0	9.0	3.6	4.4	5	5	-	-	816584	810675	-	-	-	-
						1.0	0.1	103	29.0		8.1		15.2		126.9		9.0		3.8		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	94	28.3	28.3	8.0	8.0	19.6	19.6	110.5	110.7	7.7	7.8	5.1		5		-				-		-	
						3.4	0.1	99	28.3		8.0		19.6		110.9		7.8		5.0		5		-				-		-	
SR6	Fine	Calm	19:23	3.7	Surface	1.0	0.1	212	28.9	28.9	8.1	8.1	15.2	15.2	123.5	123.5	8.7	8.7	1.8	3.6	5	5	-	-	817884	814686	-	-	-	-
						1.0	0.1	232	28.9		8.1		15.2		123.4		8.7		1.9		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.7	0.1	226	29.1	29.2	8.1	8.1	15.5	15.5	115.5	115.4	8.1	8.1	5.1		5		-				-		-	
						2.7	0.1	239	29.2		8.1		15.5		115.2		8.1		5.5		5		-				-		-	
SR7	Fine	Moderate	19:30	16.5	Surface	1.0	0.4	55	27.5	27.5	7.9	7.9	17.9	17.9	103.1	103.1	7.3	7.1	2.0	2.0	2	3	-	-	823645	823725	-	-	-	-
						1.0	0.4	58	27.4		7.9		17.9		103.1		7.3		2.0		2		-				-		-	
					Middle	8.3	0.1	58	27.3	27.3	7.9	7.9	20.8	20.8	98.9	98.5	6.9		2.0		3		-				-		-	
						8.3	0.1	63	27.3		7.9		20.8		98.0		6.9		2.0		3		-				-		-	
					Bottom	15.5	0.1	344	24.6	24.6	7.8	7.8	30.9	30.9	65.4	65.4	4.6	4.6	2.0		4		-				-		-	
						15.5	0.1	357	24.6		7.8		30.9		65.4		4.6		2.0		4		-				-		-	
SR8	Fine	Moderate	18:11	5.2	Surface	1.0	-	-	27.8	27.8	7.9	7.9	13.0	13.0	103.4	103.2	7.5	7.5	3.4	3.3	3	4	-	-	820374	811644	-	-	-	-
						1.0	-	-	27.7		7.9		13.0		103.0		7.5		3.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	27.1	27.2	7.8	7.8	20.4	20.4	90.9	91.0	6.4	6.4	3.3		4		-				-		-	
						4.2	-	-	27.2		7.8		20.4		91.0		6.4		3.3		3		-				-		-	

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 25 July 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	12:22	8.5	Surface	1.0	0.4	46	29.0	29.0	7.8	7.8	6.1	6.1	87.0	87.0	6.5	5.9	4.1	7.9	4	5	86	88	815641	804256	<0.2	<0.2	1.3	1.3
						1.0	0.4	47	29.0		7.8		6.1		86.9		6.5		4.0		5		86				<0.2		1.3	
					Middle	4.3	0.3	32	28.0	28.1	7.8	7.8	17.0	16.5	74.2	74.3	5.2		5.2		5		88				<0.2		1.4	
						4.3	0.4	35	28.1		7.8		16.1		74.4		5.3		5.4		4		89				<0.2		1.2	
					Bottom	7.5	0.3	344	25.3	25.3	7.7	7.7	28.6	28.5	59.6	61.1	4.2	4.3	14.3		5		90				<0.2		1.3	
						7.5	0.3	353	25.3		7.7		28.3		62.5		4.4		14.6		5		90				<0.2		1.2	
C2	Fine	Moderate	13:32	11.5	Surface	1.0	0.4	158	27.9	27.9	7.7	7.7	11.4	11.4	68.7	68.6	5.1	4.5	4.3	6.1	5	7	84	87	825670	806950	<0.2	<0.2	1.9	2.2
						1.0	0.4	168	27.9		7.7		11.4		68.5		5.0		4.3		6		85				<0.2		2.0	
					Middle	5.8	0.0	152	25.9	25.9	7.7	7.7	26.3	26.3	57.8	57.8	4.0		3.1		7		89				<0.2		2.3	
						5.8	0.0	155	25.9		7.7		26.3		57.8		4.0		3.1		7		87				<0.2		2.3	
					Bottom	10.5	0.1	333	25.1	25.1	7.7	7.7	29.1	29.1	55.6	55.6	3.9	3.9	10.8		8		90				<0.2		2.3	
						10.5	0.1	347	25.1		7.7		29.1		55.6		3.9		10.8		8		89				<0.2		2.3	
C3	Fine	Moderate	11:34	10.5	Surface	1.0	0.1	303	27.7	27.7	8.0	8.0	17.9	17.9	96.4	96.1	6.9	5.5	2.6	4.9	4	6	86	88	822094	817782	<0.2	<0.2	2.4	2.3
						1.0	0.1	323	27.7		8.0		17.9		95.7		6.8		2.5		4		87				<0.2		2.1	
					Middle	5.3	0.2	250	25.7	25.7	7.8	7.8	27.4	27.4	59.2	59.0	4.1		4.3		6		87				<0.2		2.3	
						5.3	0.2	258	25.7		7.8		27.5		58.7		4.1		4.8		6		87				<0.2		2.3	
					Bottom	9.5	0.3	311	24.2	24.2	7.8	7.8	32.2	32.2	55.5	55.5	3.9	3.9	7.7		6		89				<0.2		2.3	
						9.5	0.3	319	24.2		7.8		32.2		55.5		3.9		7.5		7		90				<0.2		2.1	
IM1	Fine	Moderate	12:46	4.5	Surface	1.0	0.0	10	28.9	28.9	7.9	7.9	9.0	8.9	93.5	93.6	6.9	6.9	3.2	3.3	4	4	84	86	817951	807131	<0.2	<0.2	1.4	1.4
						1.0	0.0	10	28.9		7.9		8.7		93.7		6.9		3.3		4		84				<0.2		1.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	322	27.5	27.6	7.8	7.8	18.8	18.8	72.8	72.9	5.2	5.2	3.4		4		88				<0.2		1.4	
						3.5	0.3	336	27.6		7.8		18.7		73.0		5.2		3.5		5		89				<0.2		1.4	
IM2	Fine	Moderate	12:52	6.5	Surface	1.0	0.4	11	28.4	28.4	7.8	7.8	11.4	11.0	84.1	84.2	6.1	5.0	3.2	4.0	2	3	85	88	818145	806167	<0.2	<0.2	1.4	1.4
						1.0	0.4	11	28.4		7.8		10.6		84.2		6.2		3.2		3		85				<0.2		1.4	
					Middle	3.3	0.2	43	26.3	26.3	7.8	7.8	25.0	25.0	54.4	54.5	3.8		3.5		3		88				<0.2		1.4	
						3.3	0.2	46	26.3		7.8		25.0		54.5		3.8		3.6		3		88				<0.2		1.4	
					Bottom	5.5	0.2	328	25.7	25.7	7.7	7.7	27.5	27.5	50.2	50.3	3.5	3.5	5.2		3		90				<0.2		1.3	
						5.5	0.3	330	25.7		7.7		27.5		50.4		3.5		5.2		3		90				<0.2		1.4	
IM3	Fine	Moderate	12:58	6.8	Surface	1.0	0.2	277	28.5	28.5	7.9	7.9	13.0	12.7	87.1	87.0	6.3	5.0	3.0	3.7	3	3	85	88	818778	805602	<0.2	<0.2	1.3	1.4
						1.0	0.2	295	28.5		7.9		12.3		86.8		6.3		3.2		3		85				<0.2		1.4	
					Middle	3.4	0.3	342	26.2	26.3	7.8	7.8	25.0	25.0	53.2	53.5	3.7		3.5		3		88				<0.2		1.4	
						3.4	0.3	352	26.3		7.8		24.9		53.8		3.8		3.5		3		89				<0.2		1.3	
					Bottom	5.8	0.3	310	26.0	26.1	7.7	7.7	28.2	28.2	49.6	50.3	3.4	3.5	4.5		3		90				<0.2		1.4	
						5.8	0.3	318	26.2		7.7		28.2		50.9		3.5		4.6		4		90				<0.2		1.4	
IM4	Fine	Moderate	13:08	7.2	Surface	1.0	0.3	314	28.8	28.8	7.8	7.8	9.5	9.6	82.2	82.2	6.0	5.2	4.2	8.0	4	4	84	88	819720	804612	<0.2	<0.2	1.2	1.2
						1.0	0.3	333	28.8		7.8		9.6		82.1		6.0		4.2		4		85				<0.2		1.2	
					Middle	3.6	0.3	359	26.4	26.3	7.7	7.7	23.0	23.0	60.4	60.4	4.4		5.7		4		88				<0.2		1.3	
						3.6	0.3	331	26.2		7.7		23.1		60.3		4.4		5.7		4		89				<0.2		1.2	
					Bottom	6.2	0.3	39	25.4	25.4	7.7	7.7	28.6	28.5	52.0	52.1	3.6	3.6	14.4		4		90				<0.2		1.2	
						6.2	0.3	41	25.4		7.7		28.5		52.1		3.6		14.1		4		90				<0.2		1.2	
IM5	Fine	Moderate	13:19	6.8	Surface	1.0	0.4	237	28.7	28.7	7.9	7.9	8.5	8.5	90.2	90.1	6.7	6.1	3.0	5.4	4	5	84	88	820746	804879	<0.2	<0.2	1.3	1.3
						1.0	0.5	254	28.6		7.9		8.5		89.9		6.6		2.9		5		85				<0.2		1.4	
					Middle	3.4	0.2	277	28.1	28.2	7.7	7.7	17.0	17.0	77.7	78.0	5.5		1.8		5		88				<0.2		1.4	
						3.4	0.2	300	28.2		7.7		16.9		78.2		5.6		1.8		4		89				<0.2		1.3	
					Bottom	5.8	0.5	352	27.0	27.0	7.7	7.7	22.6	22.7	64.7	65.7	4.5	4.6	11.2		4		89				<0.2		1.3	
						5.8	0.5	324	27.0		7.7		22.8		66.6		4.7		11.9		6		90				<0.2		1.3	
IM6	Fine	Moderate	13:26	7.2	Surface	1.0	0.4	279	28.6	28.6	7.8	7.8	13.0	12.7	81.7	81.8	5.9	5.3	2.9	3.1	5	4	85	87	821057	805845	<0.2	<0.2	1.4	1.4
						1.0	0.4	284	28.5		7.8		12.5		81.8		5.9		2.8		5		85				<0.2		1.4	
					Middle	3.6	0.3	282	27.6	27.6	7.7	7.7	18.5	18.5	66.0	66.0	4.7		1.7		4		87				<0.2		1.3	
						3.6	0.3	282	27.6		7.7		18.5		65.9		4.7		1.7		4		87				<0.2		1.3	
					Bottom	6.2	0.2	85	26.4	26.4	7.7	7.7	24.8	24.8	57.3	58.1	4.0	4.1	4.7		4		88				<0.2		1.4	
						6.2	0.3	91	26.4		7.7		24.8		58.9		4.1		4.7		4		88				<0.2		1.4	
IM7	Fine	Moderate	13:35	7.5	Surface	1.0	0.4	266	28.5	28.5	7.8	7.8	11.9	11.9	80.7	80.7	5.9	4.8	3.1	2.7	4	4	86	88	821333	806828	<0.2	<0.2	1.4	1.4
						1.0	0.4	284	28.5		7.8		11.8		80.6		5.9		3.1		4		86				<0.2		1.4	
					Middle	3.8	0.3	286	26.8	26.8	7.7	7.7	22.7	22.7	53.0	52.9	3.7		2.0		4		88				<0.2		1.4	
						3.8	0.3	305	26.8		7.7		22.6		52.8		3.7		2.1		4		88				<0.2		1.4	
					Bottom	6.5	0.1	299	26.4	26.4	7.7	7.7	25.0	25.0	51.7	54.4	3.6	3.8	3.2		5		89				<0.2		1.3	
						6.5	0.1	312	26.4		7.7		25.0		57.1		4.0		2.9		4		89				<0.2		1.4	
IM8	Fine	Moderate	13:03	7.7	Surface	1.0	0.3	258	27.5	27.5	7.8	7.8	13.3	13.3	72.1	72.0	5.3	4.9	3.3	2.6	4	4	85	88	821831	808152	<0.2	<0.2	2.1	2.2
						1.0	0.3	265	27.4		7.8		13.3		71.8		5.3		3.3		4		87				<0.2		2.1	
					Middle	3.9	0.3	216	26.6	26.6	7.7	7.7	21.0	21.0	61.0	61.0	4.4		2.2		4		87				<0.2		2.3	
						3.9	0.3	231	26.6		7.7		21.0		60.9		4.4		2.1		4		87				<0.2		2.3	
					Bottom	6.7	0.1	272	26.1	26.1	7.7	7.7	24.6	24.6	55.7	55.8	3.9	3.9	2.4		4		90				<0.2		2.2	
						6.7	0.1	285	26.1		7.7		24.6		55.8		3.9		2.4		4		90				<0.2		2.4	

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 25 July 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	12:57	7.6	Surface	1.0	0.2	233	28.2	28.2	7.8	7.8	11.0	11.0	78.7	78.6	5.8	5.3	4.2	5.6	3	4	86	88	822085	808811	<0.2	<0.2	2.4	2.1
						1.0	0.2	241	28.2		7.8		11.0		78.4		5.8		4.2		4		87				<0.2		2.3	
					Middle	3.8	0.2	238	26.8	26.8	7.7	7.7	19.7	19.7	65.5	65.4	4.7		5.0		4		88				<0.2		2.3	
						3.8	0.2	256	26.7		7.7		19.7		65.3		4.7		5.3		3		89				<0.2		2.0	
					Bottom	6.6	0.1	270	26.3	26.3	7.7	7.7	23.7	23.6	57.2	57.4	4.0	4.1	7.7		4		90				<0.2		1.8	
						6.6	0.1	272	26.3		7.7		23.6		57.6		4.1		7.2		3		90				<0.2		1.8	
IM10	Fine	Moderate	12:48	7.1	Surface	1.0	0.1	350	28.1	28.1	7.8	7.8	11.6	11.6	80.2	80.2	5.9	5.7	4.1	4.2	4	4	85	88	822375	809783	<0.2	<0.2	2.0	2.1
						1.0	0.1	358	28.1		7.8		11.7		80.1		5.9		4.1		3		86				<0.2		1.8	
					Middle	3.6	0.2	302	27.7	27.7	7.8	7.8	16.0	16.0	75.6	75.5	5.5		2.7		4		89				<0.2		2.2	
						3.6	0.2	317	27.7		7.8		16.0		75.4		5.4		2.9		3		87				<0.2		2.0	
					Bottom	6.1	0.2	297	26.0	26.1	7.7	7.7	25.0	24.9	53.2	53.4	3.8	3.8	5.8		3		90				<0.2		2.4	
						6.1	0.2	308	26.1		7.7		24.8		53.5		3.8		5.7		4		89				<0.2		2.4	
IM11	Fine	Moderate	12:34	7.4	Surface	1.0	0.1	25	28.0	28.0	7.8	7.8	13.0	13.0	83.4	83.4	6.1	5.4	3.4	3.5	3	3	86	88	822034	811468	<0.2	<0.2	1.9	2.1
						1.0	0.1	26	28.0		7.8		13.1		83.3		6.1		3.3		3		86				<0.2		1.9	
					Middle	3.7	0.3	303	27.1	27.1	7.8	7.8	19.9	19.9	66.1	66.1	4.7		2.6		3		88				<0.2		1.9	
						3.7	0.3	332	27.1		7.8		19.9		66.0		4.7		2.6		3		87				<0.2		2.1	
					Bottom	6.4	0.5	296	25.9	25.9	7.7	7.7	25.9	25.9	56.3	56.3	4.0	4.0	4.5		3		90				<0.2		2.3	
						6.4	0.5	308	25.9		7.7		26.0		56.3		4.0		4.6		2		90				<0.2		2.6	
IM12	Fine	Moderate	12:24	8.1	Surface	1.0	0.2	298	28.1	28.1	7.9	7.9	12.9	13.0	88.4	88.4	6.4	5.2	3.0	3.3	3	3	86	88	821462	812040	<0.2	<0.2	2.1	2.2
						1.0	0.2	309	28.0		7.9		13.0		88.3		6.4		3.0		3		87				<0.2		2.1	
					Middle	4.1	0.3	294	26.3	26.3	7.7	7.7	23.7	23.7	56.7	56.7	4.0		2.7		3		88				<0.2		2.1	
						4.1	0.3	313	26.3		7.7		23.7		56.6		4.0		2.7		3		89				<0.2		2.4	
					Bottom	7.1	0.1	14	25.2	25.3	7.7	7.7	28.4	28.4	52.2	52.2	3.6	3.6	4.1		3		90				<0.2		2.2	
						7.1	0.1	14	25.3		7.7		28.4		52.2		3.6		4.1		3		90				<0.2		2.0	
SR1A	Fine	Moderate	12:08	5.1	Surface	1.0	-	-	27.9	27.9	7.9	7.9	14.0	14.0	104.2	103.9	7.6	7.6	3.9	3.8	2	3	-	-	819970	812666	-	-	-	-
						1.0	-	-	27.8		7.9		14.0		103.6		7.5		3.9		2		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	27.7	27.7	7.9	7.9	19.8	19.8	93.4	93.5	6.6	6.6	3.7		3		-				-		-	
						4.1	-	-	27.7		7.9		19.8		93.6		6.6		3.6		3		-				-		-	
SR2	Fine	Moderate	12:01	4.3	Surface	1.0	0.2	313	28.3	28.3	8.1	8.1	14.9	15.0	115.2	115.2	8.3	8.3	3.3	3.5	3	3	87	88	821461	814173	<0.2	<0.2	2.1	2.1
						1.0	0.2	337	28.2		8.1		15.2		115.2		8.3		3.3		2		86				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.5	311	27.7	27.7	8.0	8.0	18.5	18.5	114.3	114.2	8.1	8.1	3.7		3		90				<0.2		2.1	
						3.3	0.5	315	27.6		8.0		18.6		114.1		8.1		3.8		3		90				<0.2		2.2	
SR3	Fine	Moderate	13:10	8.5	Surface	1.0	0.3	244	27.9	27.9	7.8	7.8	13.9	14.0	75.0	74.9	5.4	4.8	3.9	3.3	5	5	-	-	822123	807552	-	-	-	-
						1.0	0.3	247	27.9		7.8		14.0		74.8		5.4		3.7		5		-				-		-	
					Middle	4.3	0.3	220	26.8	26.8	7.7	7.7	21.3	21.3	59.7	59.7	4.2		2.4		4		-				-		-	
						4.3	0.3	221	26.7		7.7		21.3		59.6		4.2		2.5		5		-				-		-	
					Bottom	7.5	0.1	258	25.9	25.9	7.7	7.7	25.5	25.5	54.7	54.9	3.9	3.9	3.8		4		-				-		-	
						7.5	0.1	278	25.9		7.7		25.5		55.0		3.9		3.7		4		-				-		-	
SR4A	Fine	Calm	11:55	8.1	Surface	1.0	0.1	243	28.6	28.6	7.9	7.9	10.3	10.2	84.8	84.7	6.2	5.8	3.3	4.4	5	5	-	-	817191	807796	-	-	-	-
						1.0	0.1	254	28.5		7.9		10.2		84.6		6.2		3.3		6		-				-		-	
					Middle	4.1	0.0	188	27.8	27.8	7.8	7.8	18.4	18.4	74.2	74.1	5.3		4.4		5		-				-		-	
						4.1	0.0	195	27.8		7.8		18.4		74.0		5.3		4.5		5		-				-		-	
					Bottom	7.1	0.1	221	25.4	25.4	7.7	7.7	29.0	29.0	51.6	54.4	3.6	3.8	5.3		6		-				-		-	
						7.1	0.1	232	25.4		7.7		29.0		57.2		4.0		5.5		5		-				-		-	
SR5A	Fine	Calm	11:37	4.7	Surface	1.0	0.2	270	28.6	28.6	8.0	8.0	17.0	17.0	93.1	93.0	6.6	6.6	5.8	6.4	5	5	-	-	816602	810684	-	-	-	-
						1.0	0.2	288	28.6		8.0		17.1		92.9		6.6		5.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.0	276	26.5	26.6	7.8	7.8	24.6	24.6	57.6	58.1	4.0	4.1	7.2		5		-				-		-	
						3.7	0.0	294	26.6		7.8		24.5		58.5		4.1		6.8		4		-				-		-	
SR6	Fine	Calm	11:11	4.2	Surface	1.0	0.1	152	28.3	28.3	8.0	8.0	17.1	17.1	100.0	100.0	7.1	7.1	1.9	1.9	4	5	-	-	817914	814651	-	-	-	-
						1.0	0.1	160	28.3		8.0		17.2		100.0		7.1		1.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	144	28.2	28.2	8.0	8.0	17.6	17.6	99.7	99.8	7.1	7.1	2.0		5		-				-		-	
						3.2	0.1	151	28.2		8.0		17.6		99.8		7.1		2.0		5		-				-		-	
SR7	Fine	Moderate	10:59	16.1	Surface	1.0	0.2	211	27.5	27.5	8.2	8.2	20.2	20.3	124.8	124.7	8.8	7.0	2.3	2.6	4	4	-	-	823657	823750	-	-	-	-
						1.0	0.2	227	27.5		8.2		20.3		124.5		8.8		2.3		3		-				-		-	
					Middle	8.1	0.1	267	25.9	25.9	8.0	8.0	27.5	27.5	73.2	73.1	5.1		2.4		4		-				-		-	
						8.1	0.1	272	25.9		8.0		27.4		73.0		5.1		2.5		4		-				-		-	
					Bottom	15.1	0.1	254	23.9	23.9	7.8	7.8	33.2	33.2	58.4	58.4	4.1	4.1	3.2		5		-				-		-	
						15.1	0.1	263	23.9		7.8		33.1		58.4		4.1		3.2		4		-				-		-	
SR8	Fine	Moderate	12:14	5.0	Surface	1.0	-	-	28.7	28.7	8.0	8.0	12.4	12.4	84.6	83.5	6.1	6.1	4.5	4.7	2	2	-	-	820371	811618	-	-	-	-
						1.0	-	-	28.7		8.0		12.4		82.4		6.0		4.6		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	26.3	26.3	7.7	7.7	25.2	25.2	60.9	61.1	4.3	4.3	4.8		2		-				-		-	
						4.0	-	-	26.3		7.7		25.2		61.2		4.3		4.8		2		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 27 July 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	08:59	6.9	Surface	1.0	0.2	222	28.9	28.9	8.3	8.3	6.9	6.9	117.7	117.7	8.7	8.3	5.5	5.5	3	4	86	88	815642	804246	<0.2	<0.2	0.8	0.8
						1.0	0.2	233	28.9		8.3		6.9		117.6		8.7				4		85				<0.2		0.8	
					Middle	3.5	0.3	198	28.7	28.7	8.2	8.2	9.3	9.3	106.0	105.9	7.8				3		89				<0.2		0.8	
						3.5	0.3	202	28.7		8.2		9.3		105.7		7.8				4		90				<0.2		0.9	
					Bottom	5.9	0.2	237	26.5	26.5	7.8	7.8	19.7	19.3	63.5	62.5	4.6	4.6			4		90				<0.2		0.8	
						5.9	0.3	252	26.4		7.8		18.9		61.4		4.5				4		90				<0.2		0.9	
C2	Cloudy	Moderate	10:53	11.2	Surface	1.0	0.9	165	29.2	29.2	8.0	8.0	8.8	8.8	95.6	95.6	7.0	5.3	3.9	3.9	4	5	86	88	825680	806948	<0.2	<0.2	1.1	1.2
						1.0	1.0	174	29.2		8.0		8.7		95.6		7.0				4		84				<0.2		1.2	
					Middle	5.6	0.3	146	26.6	26.6	7.7	7.7	24.9	25.0	51.8	51.8	3.6				4		87				<0.2		1.2	
						5.6	0.3	159	26.6		7.7		25.0		51.7		3.6				4		88				<0.2		1.1	
					Bottom	10.2	0.2	161	25.5	25.6	7.7	7.7	29.2	29.1	41.3	41.4	2.9	2.9			5		90				<0.2		1.2	
						10.2	0.2	167	25.6		7.7		29.1		41.5		2.9				6		90				<0.2		1.1	
C3	Cloudy	Moderate	08:46	11.3	Surface	1.0	0.2	214	29.0	29.0	8.2	8.2	14.0	14.0	120.4	120.4	8.6	7.3	2.9	2.9	4	4	85	88	822124	817825	<0.2	<0.2	1.1	1.1
						1.0	0.2	219	29.0		8.2		14.0		120.4		8.6				5		86				<0.2		1.2	
					Middle	5.7	0.1	71	27.7	27.7	8.0	8.0	20.8	20.8	85.7	85.7	6.0				4		88				<0.2		1.1	
						5.7	0.1	73	27.7		8.0		20.8		85.7		6.0				4		87				<0.2		1.1	
					Bottom	10.3	0.3	118	24.8	24.8	7.8	7.8	31.1	31.1	49.7	49.8	3.5	3.5			4		90				<0.2		1.0	
						10.3	0.3	120	24.8		7.8		31.1		49.9		3.5				4		90				<0.2		1.0	
IM1	Sunny	Moderate	09:29	5.6	Surface	1.0	0.1	99	29.0	29.0	8.3	8.3	8.7	8.7	126.1	126.1	9.3	9.3	4.6	4.6	4	4	85	88	817970	807145	<0.2	<0.2	0.9	0.9
						1.0	0.1	108	29.0		8.3		8.7		126.0		9.2				4		86				<0.2		0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-				-		-				-		-	
						-	-	-	-		-		-		-		-				-		-				-		-	
					Bottom	4.6	0.1	170	28.5	28.5	8.3	8.2	14.0	14.0	105.8	106.0	7.7	7.7			5		90				<0.2		0.9	
						4.6	0.1	175	28.5		8.2		13.9		106.1		7.7				4		89				<0.2		0.8	
IM2	Sunny	Moderate	09:36	6.6	Surface	1.0	0.5	189	28.7	28.7	8.3	8.3	9.5	9.5	114.7	114.6	8.4	6.1	5.4	5.4	5	5	84	87	818147	806177	<0.2	<0.2	0.9	0.9
						1.0	0.5	206	28.7		8.3		9.5		114.4		8.4				5		86				<0.2		0.9	
					Middle	3.3	0.2	209	26.2	26.2	7.8	7.8	24.3	24.2	53.7	53.7	3.8				5		89				<0.2		0.9	
						3.3	0.2	211	26.2		7.8		24.2		53.6		3.8				5		87				<0.2		0.8	
					Bottom	5.6	0.0	151	24.4	24.4	7.7	7.7	31.4	31.4	35.1	35.2	2.5	**2.5**			6.6		89				<0.2		0.8	
						5.6	0.0	154	24.4		7.7		31.4		35.3		2.5				6.7		88				<0.2		0.9	
IM3	Sunny	Moderate	09:48	6.8	Surface	1.0	0.3	209	29.0	29.0	8.3	8.3	7.6	7.6	120.1	120.0	8.9	6.0	5.0	5.0	4	5	85	87	818785	805612	<0.2	<0.2	0.9	0.8
						1.0	0.3	223	29.0		8.3		7.6		119.8		8.8				5		85				<0.2		0.8	
					Middle	3.4	0.3	233	25.5	25.5	7.8	7.8	27.0	27.0	43.9	43.9	3.1				5		87				<0.2		0.9	
						3.4	0.3	239	25.5		7.8		27.0		43.9		3.1				4		88				<0.2		0.8	
					Bottom	5.8	0.1	221	24.8	24.8	7.7	7.7	29.9	29.9	36.3	36.6	2.5	**2.6**			5		89				<0.2		0.8	
						5.8	0.1	241	24.8		7.7		29.8		36.8		2.6				6		90				<0.2		0.8	
IM4	Sunny	Moderate	10:04	7.2	Surface	1.0	0.9	170	29.3	29.3	8.4	8.4	6.6	6.6	131.1	131.1	9.7	6.4	6.9	6.9	4	6	86	88	819730	804600	<0.2	<0.2	0.9	0.8
						1.0	0.9	170	29.3		8.4		6.6		131.0		9.7				5		85				<0.2		0.9	
					Middle	3.6	0.3	190	25.5	25.5	7.7	7.7	27.5	27.5	42.3	42.4	3.0				5		89				<0.2		0.9	
						3.6	0.3	207	25.5		7.7		27.5		42.5		3.0				6		88				<0.2		0.8	
					Bottom	6.2	0.1	298	25.2	25.2	7.7	7.7	28.2	28.2	40.2	40.3	2.8	2.8			6		90				<0.2		0.8	
						6.2	0.1	306	25.2		7.7		28.2		40.4		2.8				8.1		90				<0.2		0.7	
IM5	Sunny	Moderate	10:16	7.3	Surface	1.0	0.7	168	28.7	28.7	8.3	8.3	8.7	8.8	115.2	114.9	8.5	7.9	7.9	7.9	4	4	85	88	820724	804861	<0.2	<0.2	1.0	1.0
						1.0	0.7	179	28.6		8.3		8.8		114.6		8.5				3		86				<0.2		0.9	
					Middle	3.7	0.6	199	28.3	28.3	8.1	8.1	14.7	14.7	99.5	99.5	7.2				4		89				<0.2		1.0	
						3.7	0.6	212	28.3		8.1		14.7		99.5		7.2				4		87				<0.2		1.0	
					Bottom	6.3	0.4	214	26.1	26.1	7.7	7.7	25.2	25.2	52.4	52.5	3.7	3.7			4		90				<0.2		0.8	
						6.3	0.4	234	26.1		7.7		25.2		52.6		3.7				5		90				<0.2		1.0	
IM6	Sunny	Moderate	10:24	7.4	Surface	1.0	0.2	255	29.4	29.4	8.4	8.4	8.1	8.1	135.1	135.0	9.9	7.0	9.9	9.9	5	4	85	88	821067	805821	<0.2	<0.2	0.9	1.0
						1.0	0.2	262	29.4		8.4		8.1		134.9		9.9				4		86				<0.2		0.9	
					Middle	3.7	0.3	248	26.5	26.5	7.8	7.8	22.9	23.0	58.6	58.4	4.1				4		89				<0.2		1.0	
						3.7	0.3	258	26.5		7.8		23.0		58.2		4.1				4		90				<0.2		1.0	
					Bottom	6.4	0.1	251	25.3	25.3	7.7	7.7	28.0	28.1	37.1	37.3	2.6	**2.6**			15.1		89				<0.2		0.9	
						6.4	0.2	270	25.3		7.7		28.1		37.4		2.6				15.1		90				<0.2		1.0	
IM7	Sunny	Moderate	10:31	7.0	Surface	1.0	0.5	290	28.9	28.9	8.3	8.3	9.8	9.8	121.2	121.1	8.9	8.2	3.8	3.8	3	3	86	88	821347	806828	<0.2	<0.2	0.9	1.0
						1.0	0.5	291	28.9		8.3		9.8		120.9		8.8				4.5		84				<0.2		0.9	
					Middle	3.5	0.4	284	28.5	28.5	8.1	8.1	12.7	12.7	104.7	104.5	7.6				3.8		89				<0.2		1.0	
						3.5	0.5	301	28.5		8.1		12.7		104.2		7.5				3.8		87				<0.2		1.0	
					Bottom	6.0	0.2	226	26.3	26.3	7.7	7.7	24.4	24.4	53.9	53.9	3.8	3.8			3.1		90				<0.2		1.1	
						6.0	0.3	235	26.3		7.7		24.5		53.8		3.8				3.2		90				<0.2		1.0	
IM8	Cloudy	Moderate	10:24	7.2	Surface	1.0	0.1	185	29.3	29.3	8.1	8.1	10.7	10.7	111.8	111.8	8.1	7.9	5.5	5.5	4	4	85	88	821852	808160	<0.2	<0.2	1.3	1.3
						1.0	0.1	188	29.3		8.1		10.7		111.8		8.1				3.1		86				<0.2		1.3	
					Middle	3.6	0.2	222	29.2	29.2	8.1	8.1	11.6	11.6	106.4	106.3	7.7				3.1		88				<0.2		1.4	
						3.6	0.2	231	29.2		8.1		11.6		106.2		7.6				3.2		89				<0.2		1.3	
					Bottom	6.2	0.0	253	27.5	27.5	7.8	7.8	20.7	20.7	74.1	74.2	5.2	5.2			10.1		90				<0.2		1.2	
						6.2	0.0	257	27.5		7.8		20.7		74.2		5.2				10.3		90				<0.2		1.3	

DA: Depth-Averaged

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

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 27 July 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	10:17	6.8	Surface	1.0	0.3	130	29.3	29.3	8.1	8.1	11.7	11.6	111.0	111.0	8.0	7.9	3.0	2.9	5	4	86	88	822079	808825	<0.2	<0.2	1.2	1.2
						1.0	0.3	134	29.3		8.1		11.6		111.0		8.0		3.0		4		85				<0.2		1.2	
					Middle	3.4	0.2	110	29.2	29.2	8.1	8.1	11.8	11.8	108.4	108.4	7.8		2.8		3		88				<0.2		1.2	
						3.4	0.2	111	29.2		8.1		11.8		108.3		7.8		2.8		4		87				<0.2		1.2	
					Bottom	5.8	0.2	65	28.0	28.0	7.9	7.9	19.1	19.1	86.4	86.8	6.1	6.1	2.4		4		89				<0.2		1.4	
						5.8	0.3	70	28.0		7.9		19.2		87.1		6.1		3.2		4		90				<0.2		1.2	
IM10	Cloudy	Moderate	10:08	7.0	Surface	1.0	0.6	108	29.2	29.2	8.1	8.1	11.8	11.8	109.5	109.5	7.9	7.8	3.0	4.1	4	5	85	88	822385	809770	<0.2	<0.2	1.2	1.1
						1.0	0.6	108	29.2		8.1		11.8		109.5		7.9		3.1		4		87				<0.2		1.2	
					Middle	3.5	0.5	92	29.2	29.2	8.1	8.1	12.0	12.0	108.0	107.9	7.7		3.1		5		87				<0.2		1.1	
						3.5	0.5	97	29.2		8.1		12.1		107.7		7.7		3.1		4		87				<0.2		1.0	
					Bottom	6.0	0.2	148	27.3	27.3	7.8	7.8	22.1	22.1	67.2	67.3	4.7	4.7	6.2		7		90				<0.2		1.1	
						6.0	0.2	156	27.3		7.8		22.1		67.3		4.7		6.3		6		89				<0.2		1.1	
IM11	Cloudy	Moderate	09:54	7.4	Surface	1.0	0.6	111	29.4	29.4	8.1	8.1	10.3	10.3	112.0	112.0	8.1	7.5	3.3	3.1	5	5	86	88	822054	811443	<0.2	<0.2	1.1	1.1
						1.0	0.7	113	29.4		8.1		10.3		111.9		8.1		3.3		4		86				<0.2		1.1	
					Middle	3.7	0.4	94	28.2	28.2	8.0	8.0	14.5	14.6	95.1	94.4	6.8		2.6		4		88				<0.2		1.1	
						3.7	0.5	98	28.1		8.0		14.7		93.7		6.8		2.6		5		87				<0.2		1.1	
					Bottom	6.4	0.3	101	26.3	26.3	7.7	7.7	26.1	26.1	49.9	50.0	3.5	3.5	3.5		5		90				<0.2		1.0	
						6.4	0.3	110	26.3		7.7		26.0		50.1		3.5		3.5		6		90				<0.2		1.2	
IM12	Cloudy	Moderate	09:42	8.4	Surface	1.0	0.5	100	29.5	29.5	8.2	8.2	10.6	10.6	121.7	121.2	8.8	7.2	3.2	4.0	4	4	85	88	821457	812022	<0.2	<0.2	1.0	1.1
						1.0	0.5	103	29.4		8.2		10.6		120.7		8.7		3.2		4		86				<0.2		1.1	
					Middle	4.2	0.4	95	28.2	28.3	7.9	7.9	18.1	18.1	79.8	79.9	5.6		3.6		5		89				<0.2		1.1	
						4.2	0.4	101	28.3		7.9		18.1		80.0		5.6		3.6		4		87				<0.2		1.0	
					Bottom	7.4	0.2	84	25.7	25.7	7.7	7.7	28.3	28.3	53.6	53.6	3.7	3.7	5.3		4		90				<0.2		1.0	
						7.4	0.2	86	25.7		7.7		28.3		53.6		3.7		5.3		5		90				<0.2		1.1	
SR1A	Cloudy	Moderate	09:25	5.2	Surface	1.0	-	-	29.6	29.6	8.4	8.4	12.4	12.4	148.7	149.3	10.6	10.7	1.9	2.2	5	5	-	-	819976	812658	-	-	-	-
						1.0	-	-	29.6		8.4		12.4		149.8		10.7		2.1		6		-				-		-	
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.6	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	28.7	28.7	8.0	8.0	17.3	17.3	107.3	107.4	7.6	7.6	2.3		5		-				-		-	
						4.2	-	-	28.7		8.0		17.3		107.4		7.6		2.4		5		-				-		-	
SR2	Cloudy	Moderate	09:11	4.2	Surface	1.0	0.3	111	29.2	29.2	8.1	8.1	11.0	11.0	113.7	113.6	8.2	8.2	3.6	3.4	5	5	86	88	821472	814154	<0.2	<0.2	1.1	1.1
						1.0	0.4	121	29.2		8.1		11.0		113.5		8.2		3.6		6		87				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.3	117	29.0	29.0	8.1	8.1	14.3	14.3	114.8	115.0	8.2	8.2	3.3		5		88				<0.2		1.1	
						3.2	0.3	128	29.0		8.1		14.3		115.1		8.2		3.2		5		90				<0.2		1.1	
SR3	Cloudy	Moderate	10:30	8.3	Surface	1.0	0.3	197	29.0	29.0	8.0	8.0	12.9	12.9	99.1	99.2	7.1	6.7	2.8	2.6	3	4	-	-	822151	807570	-	-	-	-
						1.0	0.3	205	29.0		8.0		12.9		99.2		7.1		2.8		3		-				-		-	
					Middle	4.2	0.2	199	28.2	28.2	7.9	7.9	17.1	17.1	88.8	88.6	6.3		1.7		4		-				-		-	
						4.2	0.2	209	28.2		7.9		17.1		88.3		6.3		1.7		4		-				-		-	
					Bottom	7.3	0.1	252	26.2	26.3	7.7	7.7	26.2	26.2	48.9	49.1	3.4	3.4	3.5		4		-				-		-	
						7.3	0.1	276	26.3		7.7		26.1		49.3		3.4		3.2		4		-				-		-	
SR4A	Sunny	Moderate	08:29	9.8	Surface	1.0	0.2	244	29.4	29.4	8.5	8.5	8.3	8.3	134.2	133.9	9.8	7.6	4.4	6.0	5	5	-	-	817165	807794	-	-	-	-
						1.0	0.2	253	29.4		8.5		8.3		133.6		9.8		4.3		5		-				-		-	
					Middle	4.9	0.1	73	27.5	27.5	8.0	8.0	19.9	19.9	75.9	75.4	5.4		6.1		5		-				-		-	
						4.9	0.1	73	27.5		8.0		19.9		74.8		5.3		6.1		4		-				-		-	
					Bottom	8.8	0.0	77	24.4	24.4	7.7	7.7	31.6	31.6	33.3	33.4	2.3	**2.3**	7.6		6		-				-		-	
						8.8	0.0	84	24.4		7.7		31.6		33.4		2.3		7.6		5		-				-		-	
SR5A	Sunny	Moderate	08:12	5.2	Surface	1.0	0.0	306	29.4	29.4	8.5	8.5	12.2	12.1	152.4	152.5	10.9	10.9	4.5	5.5	4	5	-	-	816580	810686	-	-	-	-
						1.0	0.0	324	29.4		8.5		12.1		152.5		10.9		4.5		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	66	28.8	28.8	8.3	8.3	17.1	17.1	134.0	134.0	9.4	9.4	6.5		5		-				-		-	
						4.2	0.0	68	28.8		8.3		17.1		133.9		9.4		6.4		6		-				-		-	
SR6	Sunny	Moderate	07:46	4.8	Surface	1.0	0.1	210	29.1	29.1	8.4	8.4	13.4	13.4	166.3	165.9	11.9	11.9	4.1	4.7	4	5	-	-	817901	814644	-	-	-	-
						1.0	0.1	220	29.0		8.4		13.4		165.5		11.8		4.1		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	177	28.5	28.5	8.0	8.0	16.7	16.7	116.2	118.6	8.2	8.4	5.5		4		-				-		-	
						3.8	0.1	185	28.5		8.0		16.8		120.9		8.5		5.4		6		-				-		-	
SR7	Cloudy	Moderate	08:07	16.8	Surface	1.0	0.5	55	29.1	29.1	8.2	8.2	13.9	13.9	121.4	121.4	8.6	7.7	2.5	2.3	5	6	-	-	823623	823750	-	-	-	-
						1.0	0.5	58	29.1		8.2		13.9		121.3		8.6		2.6		6		-				-		-	
					Middle	8.4	0.3	43	27.6	27.6	8.0	8.0	21.1	21.0	95.5	95.5	6.7		2.3		5		-				-		-	
						8.4	0.3	43	27.6		8.0		21.0		95.4		6.7		2.3		6		-				-		-	
					Bottom	15.8	0.2	22	24.3	24.3	7.7	7.7	32.5	32.5	38.3	38.3	2.7	2.7	2.1		6		-				-		-	
						15.8	0.2	24	24.3		7.7		32.5		38.3		2.7		2.1		5		-				-		-	
SR8	Cloudy	Moderate	09:33	5.1	Surface	1.0	-	-	29.4	29.4	8.2	8.2	11.3	11.3	114.4	114.4	8.2	8.2	4.2	4.1	7	7	-	-	820402	811640	-	-	-	-
						1.0	-	-	29.4		8.2		11.3		114.4		8.2		4.2		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	27.1	27.2	7.8	7.8	22.8	22.7	67.5	67.6	4.7	4.7	4.1		8		-				-		-	
						4.1	-	-	27.2		7.8		22.7		67.7		4.7		4.1		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 27 July 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	15:15	7.2	Surface	1.0	0.1	29	29.3	29.3	8.4	8.4	8.0	8.0	123.8	123.7	9.1	8.3	5.0	7.6	5	4	85	89	815621	804258	<0.2	<0.2	1.1	1.0
						1.0	0.1	26	29.3		8.4		8.0		123.5		9.0		5.0		5		86				<0.2		1.0	
					Middle	3.6	0.1	25	28.6	28.6	8.2	8.2	9.4	9.4	103.2	102.7	7.6		7.5		4		90				<0.2		1.0	
						3.6	0.1	23	28.6		8.2		9.4		102.1		7.5		7.5		3		89				<0.2		1.0	
					Bottom	6.2	0.1	12	25.0	25.0	7.7	7.7	26.6	26.7	43.2	43.1	3.1	3.1	10.3		5		91				<0.2		0.9	
						6.2	0.1	12	25.0		7.7		26.9		42.9		3.1		10.3		4		90				<0.2		0.9	
C2	Cloudy	Moderate	14:05	11.6	Surface	1.0	0.9	56	29.1	29.1	8.0	8.0	8.7	8.7	92.0	91.9	6.7	5.0	4.0	6.0	4	5	85	88	825698	806924	<0.2	<0.2	1.1	1.2
						1.0	0.9	65	29.1		8.0		8.8		91.7		6.7		4.0		3		85				<0.2		1.2	
					Middle	5.8	0.3	47	26.0	26.0	7.7	7.7	25.0	25.0	46.6	46.3	3.3		4.4		4		88				<0.2		1.2	
						5.8	0.3	45	25.9		7.7		25.1		46.0		3.3		4.5		4		90				<0.2		1.2	
					Bottom	10.6	0.2	75	25.6	25.6	7.7	7.7	29.0	29.0	37.3	37.4	2.6	2.6	9.6		6		89				<0.2		1.3	
						10.6	0.2	86	25.6		7.7		29.0		37.4		2.6		9.6		6		90				<0.2		1.3	
C3	Cloudy	Moderate	16:13	12.0	Surface	1.0	0.2	345	30.2	30.2	8.5	8.5	12.8	12.8	181.9	181.8	12.8	9.2	2.8	2.7	6	5	85	88	822102	817826	<0.2	<0.2	1.2	1.1
						1.0	0.2	317	30.1		8.5		12.8		181.6		12.8		2.9		5		86				<0.2		1.1	
					Middle	6.0	0.2	279	27.3	27.3	7.9	7.9	22.1	22.1	77.7	77.8	5.5		1.7		5		89				<0.2		1.2	
						6.0	0.3	289	27.3		7.9		22.1		77.8		5.5		1.7		5		87				<0.2		1.0	
					Bottom	11.0	0.1	229	26.8	26.8	7.8	7.8	24.1	24.2	66.9	66.9	4.7	4.7	3.5		4		90				<0.2		1.2	
						11.0	0.1	235	26.7		7.8		24.2		66.8		4.7		3.6		4		90				<0.2		1.0	
IM1	Fine	Moderate	14:47	4.8	Surface	1.0	0.4	32	29.5	29.5	8.5	8.5	7.7	7.7	138.4	135.7	10.1	9.9	5.1	5.8	5	4	86	87	817972	807146	<0.2	<0.2	1.0	1.0
						1.0	0.4	34	29.5		8.5		7.7		133.0		9.7		5.1		4		85				<0.2		1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	328	25.3	25.3	7.7	7.7	26.7	26.7	41.4	41.3	2.9	2.9	6.6		3		88				<0.2		0.9	
						3.8	0.3	355	25.3		7.7		26.6		41.2		2.9		6.6		4		90				<0.2		1.0	
IM2	Fine	Moderate	14:40	6.9	Surface	1.0	0.2	44	29.1	29.1	8.4	8.3	9.0	9.0	124.5	124.1	9.1	7.1	4.9	5.7	4	6	85	88	818148	806186	<0.2	<0.2	1.2	1.1
						1.0	0.2	46	29.1		8.3		9.0		123.7		9.0		4.9		5		84				<0.2		1.1	
					Middle	3.5	0.1	61	26.9	26.9	7.9	7.9	18.7	18.7	70.1	70.1	5.1		5.6		5		87				<0.2		1.1	
						3.5	0.1	58	26.9		7.9		18.7		70.1		5.1		5.6		5		89				<0.2		1.0	
					Bottom	5.9	0.1	31	24.3	24.3	7.7	7.7	31.7	31.7	39.3	39.5	2.7	2.8	6.7		7		90				<0.2		1.0	
						5.9	0.1	34	24.3		7.7		31.7		39.6		2.8		6.8		7		90				<0.2		1.0	
IM3	Fine	Moderate	14:35	7.3	Surface	1.0	0.3	37	29.2	29.2	8.4	8.4	9.6	9.7	135.5	135.5	9.8	9.6	5.4	6.1	5	6	84	88	818766	805615	<0.2	<0.2	1.2	1.1
						1.0	0.3	35	29.2		8.4		9.7		135.4		9.8		5.4		5		85				<0.2		1.1	
					Middle	3.7	0.4	65	29.0	29.0	8.3	8.3	10.2	10.2	128.3	128.3	9.3		5.5		6		88				<0.2		1.2	
						3.7	0.4	71	29.0		8.3		10.2		128.2		9.3		5.4		6		88				<0.2		1.2	
					Bottom	6.3	0.3	70	24.4	24.4	7.7	7.7	31.5	31.5	34.5	34.8	2.4	**2.5**	7.6		7		90				<0.2		0.9	
						6.3	0.3	72	24.4		7.7		31.5		35.1		2.5		7.6		6		90				<0.2		1.0	
IM4	Fine	Moderate	14:26	8.1	Surface	1.0	0.6	48	29.4	29.4	8.4	8.4	9.8	9.8	138.2	138.2	10.1	6.4	4.9	7.1	5	5	86	87	819709	804618	<0.2	<0.2	1.1	1.1
						1.0	0.7	52	29.4		8.4		9.8		138.2		10.1		4.9		4		84				<0.2		1.1	
					Middle	4.1	0.1	68	25.2	25.2	7.7	7.7	28.3	28.4	38.8	38.9	2.7		7.9		4		88				<0.2		1.2	
						4.1	0.1	65	25.1		7.7		28.6		38.9		2.7		7.9		4		85				<0.2		1.2	
					Bottom	7.1	0.1	35	24.6	24.6	7.7	7.7	30.8	30.8	34.8	34.9	2.4	**2.5**	8.6		6		90				<0.2		0.9	
						7.1	0.2	34	24.6		7.7		30.9		35.0		2.5		8.6		5		90				<0.2		1.0	
IM5	Fine	Moderate	14:21	8.0	Surface	1.0	0.6	23	29.4	29.4	8.3	8.3	7.9	7.9	122.7	122.7	9.0	7.2	4.7	5.5	4	4	86	87	820751	804874	<0.2	<0.2	1.2	1.2
						1.0	0.6	25	29.4		8.3		7.9		122.7		9.0		4.7		4		84				<0.2		1.2	
					Middle	4.0	0.5	26	27.3	27.3	7.9	7.9	19.7	19.6	76.3	76.5	5.4		4.8		4		87				<0.2		1.2	
						4.0	0.5	26	27.2		7.9		19.6		76.6		5.5		4.8		4		87				<0.2		1.2	
					Bottom	7.0	0.3	22	26.5	26.5	7.8	7.8	23.5	23.5	61.8	62.0	4.4	4.4	7.0		4		89				<0.2		1.1	
						7.0	0.3	23	26.5		7.8		23.5		62.2		4.4		7.0		4		90				<0.2		1.0	
IM6	Fine	Moderate	14:13	7.6	Surface	1.0	0.5	28	29.2	29.2	8.3	8.3	9.5	9.6	128.4	128.2	9.3	8.1	4.3	6.4	5	4	85	88	821062	805809	<0.2	<0.2	1.2	1.2
						1.0	0.5	29	29.2		8.3		9.6		128.0		9.3		4.4		4		86				<0.2		1.2	
					Middle	3.8	0.6	26	28.3	28.3	8.0	8.0	14.1	14.1	95.8	95.6	6.9		3.5		4		88				<0.2		1.2	
						3.8	0.6	28	28.3		8.0		14.1		95.4		6.9		3.5		4		87				<0.2		1.2	
					Bottom	6.6	0.4	0	26.0	26.0	7.7	7.7	25.6	25.6	48.8	48.8	3.4	3.4	11.2		4		89				<0.2		1.2	
						6.6	0.4	0	26.0		7.7		25.6		48.8		3.4		11.2		3		90				<0.2		1.2	
IM7	Fine	Moderate	14:06	7.5	Surface	1.0	0.5	35	28.7	28.7	8.2	8.2	10.7	10.7	113.8	113.7	8.3	7.7	4.2	4.7	4	4	86	88	821338	806837	<0.2	<0.2	1.2	1.2
						1.0	0.6	36	28.7		8.2		10.7		113.5		8.3		4.2		4		85				<0.2		1.2	
					Middle	3.8	0.6	25	28.3	28.3	8.0	8.0	14.0	14.0	97.3	97.2	7.0		3.6		3		89				<0.2		1.2	
						3.8	0.6	26	28.3		8.0		13.9		97.1		7.0		3.6		4		89				<0.2		1.3	
					Bottom	6.5	0.3	22	26.1	26.1	7.7	7.7	25.3	25.3	51.0	51.0	3.6	3.6	6.3		4		90				<0.2		1.2	
						6.5	0.3	23	26.1		7.7		25.3		51.0		3.6		6.2		5		89				<0.2		1.1	
IM8	Cloudy	Moderate	14:29	7.1	Surface	1.0	0.2	328	30.1	30.1	8.3	8.3	7.3	7.3	133.9	133.9	9.7	8.4	3.9	3.2	4	4	86	88	821813	808162	<0.2	<0.2	1.3	1.3
						1.0	0.3	345	30.0		8.3		7.3		133.8		9.7		3.9		5		86				<0.2		1.2	
					Middle	3.6	0.2	300	29.0	29.0	8.0	8.0	12.7	12.7	99.2	99.3	7.1		3.0		5		89				<0.2		1.2	
						3.6	0.2	310	29.0		8.0		12.7		99.3		7.1		3.0		4		87				<0.2		1.3	
					Bottom	6.1	0.2	326	28.8	28.9	7.9	7.9	16.2	16.2	93.8	94.0	6.6	6.6	2.6		4		89				<0.2		1.3	
						6.1	0.3	323	28.9		7.9		16.3		94.1		6.6		2.7		3		90				<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 27 July 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	14:35	6.6	Surface	1.0	0.3	301	29.6	29.6	8.1	8.1	8.3	8.3	115.2	115.2	8.4	7.9	3.7	3.0	4	4	85	88	822115	808805	<0.2	<0.2	1.3	1.3
						1.0	0.3	298	29.6		8.1		8.3		115.1		8.4		3.7		4		86				<0.2		1.4	
					Middle	3.3	0.1	257	29.1	29.1	8.0	8.0	11.8	11.8	100.8	100.8	7.3		3.0		4		87				<0.2		1.3	
						3.3	0.1	259	29.0		8.0		11.8		100.8		7.3		3.0		4		89				<0.2		1.3	
					Bottom	5.6	0.1	266	28.5	28.5	7.9	7.9	16.0	16.1	94.3	94.3	6.7	6.7	2.4		4		90				<0.2		1.4	
						5.6	0.1	277	28.5		7.9		16.1		94.2		6.7		2.4		3		90				<0.2		1.3	
IM10	Cloudy	Moderate	14:42	7.0	Surface	1.0	0.5	297	29.6	29.6	8.2	8.2	7.9	7.9	116.3	115.9	8.5	7.1	3.9	3.9	4	4	85	88	822389	809773	<0.2	<0.2	1.4	1.4
						1.0	0.6	282	29.6		8.2		7.9		115.5		8.4		3.9		3		85				<0.2		1.3	
					Middle	3.5	0.4	210	28.5	28.5	7.9	7.9	15.8	15.8	80.6	80.6	5.7		3.0		4		87				<0.2		1.4	
						3.5	0.4	221	28.5		7.9		15.8		80.5		5.7		2.9		4		88				<0.2		1.4	
					Bottom	6.0	0.3	222	27.2	27.2	7.8	7.8	22.6	22.6	65.0	65.1	4.6	4.6	4.7		4		90				<0.2		1.4	
						6.0	0.4	232	27.2		7.8		22.6		65.1		4.6		4.7		4		90				<0.2		1.3	
IM11	Cloudy	Moderate	14:50	7.2	Surface	1.0	0.5	275	29.1	29.1	8.1	8.1	11.5	11.5	105.0	105.0	7.6	6.4	3.2	3.0	3	4	86	88	822042	811457	<0.2	<0.2	1.2	1.3
						1.0	0.5	276	29.1		8.1		11.5		105.0		7.6		3.2		2		85				<0.2		1.2	
					Middle	3.6	0.4	210	27.7	27.7	7.8	7.8	20.4	20.5	74.4	74.4	5.2		2.5		4		88				<0.2		1.3	
						3.6	0.5	199	27.6		7.8		20.5		74.4		5.2		2.5		4		89				<0.2		1.3	
					Bottom	6.2	0.0	228	26.7	26.7	7.8	7.8	24.5	24.4	58.1	58.3	4.1	4.1	3.1		5		90				<0.2		1.4	
						6.2	0.0	229	26.7		7.8		24.4		58.4		4.1		3.1		4		90				<0.2		1.3	
IM12	Cloudy	Moderate	14:59	8.0	Surface	1.0	0.5	267	29.3	29.3	8.2	8.2	10.5	10.5	120.3	120.2	8.7	7.8	3.6	3.3	4	4	85	87	821435	812061	<0.2	<0.2	1.3	1.4
						1.0	0.5	268	29.3		8.2		10.5		120.0		8.7		3.5		4		84				<0.2		1.4	
					Middle	4.0	0.1	239	28.8	28.8	8.0	8.0	14.7	14.6	97.7	95.9	7.0		3.2		4		88				<0.2		1.3	
						4.0	0.1	240	28.8		8.0		14.6		94.0		6.7		3.1		4		87				<0.2		1.3	
					Bottom	7.0	0.1	194	26.4	26.5	7.7	7.7	25.8	25.7	51.6	51.8	3.6	3.6	3.2		4		89				<0.2		1.4	
						7.0	0.1	199	26.5		7.7		25.7		52.0		3.6		3.2		4		91				<0.2		1.4	
SR1A	Cloudy	Moderate	15:16	5.0	Surface	1.0	-	-	29.6	29.6	8.3	8.3	10.1	10.1	134.5	134.5	9.7	9.7	3.3	5.8	4	5	-	-	819978	812656	-	-	-	-
						1.0	-	-	29.6		8.3		10.1		134.5		9.7		3.3		4		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	29.1	29.1	8.1	8.1	12.9	12.9	114.1	114.2	8.2	8.2	8.2		5		-				-		-	
						4.0	-	-	29.1		8.1		12.9		114.2		8.2		8.2		5		-				-		-	
SR2	Cloudy	Moderate	15:48	4.6	Surface	1.0	0.2	276	29.9	29.9	8.2	8.2	10.0	10.0	136.3	136.4	9.8	9.8	3.3	6.4	4	4	85	88	821482	814158	<0.2	<0.2	1.3	1.3
						1.0	0.2	281	29.8		8.2		9.9		136.4		9.8		3.3		5		86				<0.2		1.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	333	29.2	29.3	8.1	8.1	12.4	12.4	120.5	120.5	8.6	8.6	9.5		3		90				<0.2		1.4	
						3.6	0.1	306	29.3		8.1		12.4		120.5		8.6		9.5		4		90				<0.2		1.4	
SR3	Cloudy	Moderate	14:24	8.5	Surface	1.0	0.5	18	29.5	29.5	8.2	8.2	8.1	8.1	113.8	113.6	8.3	7.3	3.9	2.9	4	3	-	-	822130	807555	-	-	-	-
						1.0	0.5	19	29.5		8.2		8.2		113.4		8.3		3.8		3		-				-		-	
					Middle	4.3	0.2	21	28.6	28.6	7.9	7.9	15.2	15.2	87.2	87.1	6.2		2.7		3		-				-		-	
						4.3	0.3	23	28.6		7.9		15.2		87.0		6.2		2.7		3		-				-		-	
					Bottom	7.5	0.1	20	26.3	26.3	7.7	7.7	26.0	26.0	50.9	51.0	3.6	3.6	2.1		3		-				-		-	
						7.5	0.1	21	26.3		7.7		26.0		51.1		3.6		2.0		3		-				-		-	
SR4A	Fine	Moderate	15:43	9.6	Surface	1.0	0.4	244	30.0	30.0	8.7	8.7	9.5	9.5	166.0	166.0	11.9	9.9	6.0	8.8	4	5	-	-	817198	807790	-	-	-	-
						1.0	0.5	246	30.0		8.7		9.5		166.0		11.9		6.1		5		-				-		-	
					Middle	4.8	0.4	256	28.3	28.3	8.2	8.2	18.2	18.2	113.3	113.1	8.0		5.9		5		-				-		-	
						4.8	0.5	267	28.3		8.2		18.2		112.9		7.9		5.9		5		-				-		-	
					Bottom	8.6	0.3	250	24.8	24.8	7.7	7.7	30.5	30.5	45.1	45.8	3.1	3.2	14.3		4		-				-		-	
						8.6	0.3	268	24.8		7.7		30.5		46.5		3.2		14.3		4		-				-		-	
SR5A	Fine	Moderate	15:59	4.4	Surface	1.0	0.2	311	30.0	30.0	8.6	8.6	11.9	11.9	163.3	162.9	11.6	11.6	4.1	8.1	3	4	-	-	816602	810710	-	-	-	-
						1.0	0.2	333	30.0		8.6		11.9		162.4		11.5		4.1		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	301	28.0	28.0	8.1	8.1	19.4	19.4	109.0	109.1	7.7	7.7	12.1		4		-				-		-	
						3.4	0.2	301	28.0		8.1		19.5		109.1		7.7		12.0		4		-				-		-	
SR6	Fine	Moderate	16:27	4.1	Surface	1.0	0.0	190	29.9	29.9	8.7	8.7	13.0	13.0	196.3	196.0	13.9	13.9	3.8	4.2	3	4	-	-	817905	814675	-	-	-	-
						1.0	0.0	192	29.9		8.7		13.0		195.6		13.8		3.8		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	277	28.3	28.3	8.0	8.0	17.7	18.0	95.0	95.7	6.7	6.8	4.7		4		-				-		-	
						3.1	0.1	304	28.3		8.0		18.3		96.4		6.8		4.7		4		-				-		-	
SR7	Cloudy	Moderate	16:55	16.4	Surface	1.0	0.2	95	29.6	29.6	8.4	8.4	12.7	12.7	163.6	163.5	11.6	8.1	3.0	2.2	5	5	-	-	823632	823759	-	-	-	-
						1.0	0.2	101	29.6		8.4		12.7		163.4		11.6		3.0		6		-				-		-	
					Middle	8.2	0.1	194	26.4	26.4	7.8	7.8	25.4	25.4	65.2	65.2	4.6		1.8		5		-				-		-	
						8.2	0.1	203	26.4		7.8		25.4		65.1		4.5		1.8		5		-				-		-	
					Bottom	15.4	0.2	202	24.9	24.9	7.8	7.8	30.9	30.9	50.2	50.3	3.5	3.5	1.8		4		-				-		-	
						15.4	0.2	210	24.9		7.8		30.9		50.3		3.5		1.8		4		-				-		-	
SR8	Cloudy	Moderate	15:08	5.1	Surface	1.0	-	-	29.1	29.1	8.1	8.1	11.4	11.3	117.2	117.3	8.5	8.5	3.4	3.2	4	4	-	-	820404	811620	-	-	-	-
						1.0	-	-	29.1		8.1		11.2		117.4		8.5		3.4		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	-	-	28.8	28.8	8.1	8.1	13.7	13.7	105.4	105.2	7.5	7.5	3.0		4		-				-		-	
						4.1	-	-	28.7		8.1		13.7		104.9		7.5		3.0		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 30 July 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	Calm	11:52	8.5	Surface	1.0	0.4	190	27.0	27.0	8.2	8.2	21.6	21.6	93.4	93.3	6.6	5.8	2.6	6.6	6	5	86	88	815612	804256	<0.2	<0.2	1.2	1.2
						1.0	0.4	198	26.9		8.2		21.7		93.2		6.6		2.8		4		86				<0.2		1.3	
					Middle	4.3	0.6	191	26.2	26.3	7.9	7.9	23.7	23.6	71.2	71.3	5.0		6.3		4		88				<0.2		1.1	
						4.3	0.6	204	26.3		8.0		23.5		71.3		5.0		6.3		4		89				<0.2		1.2	
					Bottom	7.5	0.3	193	25.1	25.2	7.8	7.8	29.0	29.0	54.1	54.4	3.8	3.8	10.8		5		90				<0.2		1.1	
						7.5	0.4	199	25.2		7.8		29.0		54.7		3.8		10.8		4		90				<0.2		1.1	
C2	Cloudy	Moderate	12:37	12.0	Surface	1.0	0.3	173	27.5	27.5	7.9	7.9	19.1	19.1	75.9	75.9	5.4	4.4	3.0	6.7	4	5	86	88	825676	806962	<0.2	<0.2	1.3	1.4
						1.0	0.3	176	27.5		7.9		19.1		75.9		5.4		2.9		3		86				<0.2		1.2	
					Middle	6.0	0.3	164	26.0	26.0	7.8	7.8	25.0	25.0	47.5	47.5	3.4		8.3		5		89				<0.2		0.9	
						6.0	0.4	175	25.9		7.8		25.0		47.5		3.4		8.3		6		88				<0.2		0.9	
					Bottom	11.0	0.4	144	25.6	25.6	7.8	7.8	29.4	29.4	51.9	51.9	3.6	3.6	8.8		5		90				<0.2		2.0	
						11.0	0.4	152	25.6		7.8		29.4		51.9		3.6		8.8		5		88				<0.2		1.9	
C3	Cloudy	Moderate	10:34	11.6	Surface	1.0	0.3	107	26.5	26.5	8.0	8.0	26.3	26.3	81.0	80.9	5.6	5.2	1.3	2.4	10	10	85	88	822110	817802	<0.2	<0.2	2.2	2.2
						1.0	0.3	110	26.5		8.0		26.3		80.7		5.6		1.3		10		86				<0.2		2.4	
					Middle	5.8	0.2	54	25.9	25.9	7.9	7.9	28.8	28.8	68.5	68.5	4.7		1.8		10		87				<0.2		2.2	
						5.8	0.2	54	25.9		7.9		28.8		68.5		4.7		1.8		11		88				<0.2		2.2	
					Bottom	10.6	0.3	107	25.1	25.1	7.9	7.9	30.8	30.8	55.0	55.1	3.8	3.8	4.3		11		90				<0.2		2.1	
						10.6	0.3	109	25.1		7.9		30.8		55.2		3.8		4.2		10		90				<0.2		1.9	
IM1	Cloudy	Moderate	12:08	5.8	Surface	1.0	0.3	176	27.0	27.0	8.1	8.1	21.3	21.4	99.2	99.1	7.0	7.0	2.5	3.0	6	5	85	86	817943	807117	<0.2	<0.2	2.1	2.2
						1.0	0.3	190	27.0		8.1		21.4		99.0		7.0		2.6		6		85				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.3	167	26.6	26.6	8.0	8.0	23.2	23.2	92.4	92.7	6.5	6.6	3.5		5		87				<0.2		2.2	
						4.8	0.3	167	26.6		8.0		23.2		93.0		6.6		3.5		4		87				<0.2		2.2	
IM2	Cloudy	Moderate	12:15	7.7	Surface	1.0	0.3	116	26.7	26.7	8.0	8.0	22.8	22.7	87.4	87.3	6.2	5.2	3.3	4.5	4	4	85	87	818182	806183	<0.2	<0.2	2.4	2.4
						1.0	0.3	124	26.7		8.0		22.7		87.2		6.2		3.3		5		85				<0.2		2.4	
					Middle	3.9	0.2	130	25.7	25.7	7.8	7.8	26.6	26.6	58.9	59.0	4.1		4.0		3		87				<0.2		2.2	
						3.9	0.2	142	25.7		7.8		26.6		59.0		4.1		4.0		4		88				<0.2		2.3	
					Bottom	6.7	0.1	159	25.2	25.2	7.8	7.8	28.2	28.3	55.1	55.2	3.9	3.9	6.0		3		89				<0.2		2.5	
						6.7	0.1	174	25.2		7.8		28.3		55.3		3.9		6.2		3		90				<0.2		2.4	
IM3	Cloudy	Moderate	12:21	8.0	Surface	1.0	0.1	260	26.9	26.9	8.1	8.1	21.8	21.8	91.9	91.8	6.5	5.6	2.7	4.7	4	5	85	88	818792	805591	<0.2	<0.2	2.4	2.5
						1.0	0.1	276	26.9		8.1		21.8		91.6		6.5		2.7		4		86				<0.2		2.6	
					Middle	4.0	0.2	182	26.0	26.0	7.9	7.9	24.8	24.8	66.5	66.5	4.7		3.4		4		88				<0.2		2.5	
						4.0	0.2	187	26.0		7.9		24.8		66.4		4.7		3.4		5		89				<0.2		2.5	
					Bottom	7.0	0.3	201	25.1	25.1	7.8	7.8	28.8	28.8	51.7	51.9	3.6	3.6	7.9		5		90				<0.2		2.4	
						7.0	0.3	201	25.1		7.8		28.8		52.0		3.6		7.9		5		90				<0.2		2.3	
IM4	Cloudy	Moderate	12:29	8.4	Surface	1.0	0.8	169	26.7	26.7	8.0	8.0	22.6	22.6	84.7	84.7	6.0	5.3	3.5	7.8	6	4	84	87	819716	804609	<0.2	<0.2	2.1	1.8
						1.0	0.9	179	26.7		8.0		22.6		84.6		6.0		3.6		5		85				<0.2		2.0	
					Middle	4.2	0.8	181	25.9	25.9	7.8	7.8	25.3	25.3	63.8	63.8	4.5		4.6		4		87				<0.2		1.8	
						4.2	0.8	182	25.9		7.8		25.3		63.7		4.5		4.6		3		88				<0.2		1.6	
					Bottom	7.4	0.6	166	25.8	25.9	7.8	7.8	28.3	28.3	65.0	66.2	4.5	4.6	15.6		3		89				<0.2		1.8	
						7.4	0.6	182	25.9		7.8		28.3		67.3		4.7		15.2		<2		89				<0.2		1.7	
IM5	Cloudy	Moderate	12:37	7.5	Surface	1.0	0.6	209	27.0	27.0	8.0	8.0	20.8	20.8	96.6	96.5	6.9	6.2	3.0	5.1	4	5	84	87	820718	804861	<0.2	<0.2	2.3	2.4
						1.0	0.6	227	27.0		8.0		20.8		96.4		6.8		3.0		5		85				<0.2		2.3	
					Middle	3.8	0.6	244	26.4	26.4	8.0	7.9	22.6	22.6	77.5	77.3	5.5		3.3		5		88				<0.2		2.3	
						3.8	0.7	244	26.4		7.9		22.6		77.1		5.5		3.3		5		89				<0.2		2.4	
					Bottom	6.5	0.6	228	25.0	25.0	7.8	7.8	29.0	29.0	52.6	52.9	3.7	3.7	8.9		5		89				<0.2		2.5	
						6.5	0.6	233	25.0		7.8		29.0		53.1		3.7		8.9		5		89				<0.2		2.5	
IM6	Cloudy	Moderate	12:46	7.8	Surface	1.0	0.4	201	27.1	27.1	8.1	8.1	21.0	21.0	98.6	98.4	7.0	5.9	2.8	6.7	6	5	85	87	821041	805804	<0.2	<0.2	2.7	2.4
						1.0	0.5	211	27.1		8.1		21.0		98.1		7.0		2.8		5		85				<0.2		2.7	
					Middle	3.9	0.4	233	25.9	25.9	7.9	7.9	24.6	24.6	68.4	68.4	4.8		5.6		6		87				<0.2		2.4	
						3.9	0.4	233	25.8		7.9		24.6		68.3		4.8		5.3		5		88				<0.2		2.2	
					Bottom	6.8	0.3	220	25.7	25.8	7.8	7.8	27.9	27.9	63.9	64.3	4.5	4.5	11.8		4		89				<0.2		2.1	
						6.8	0.3	222	25.8		7.8		27.9		64.7		4.5		12.1		4		89				<0.2		2.3	
IM7	Cloudy	Moderate	12:52	8.5	Surface	1.0	0.4	185	27.0	27.0	8.0	8.0	20.9	20.9	93.8	93.7	6.7	6.3	3.0	5.5	5	5	86	88	821333	806858	<0.2	<0.2	2.6	2.7
						1.0	0.4	191	27.0		8.0		20.9		93.6		6.6		3.0		5		86				<0.2		2.5	
					Middle	4.3	0.3	215	26.7	26.7	8.0	8.0	22.3	22.3	84.0	83.8	5.9		3.2		5		88				<0.2		2.8	
						4.3	0.3	229	26.7		8.0		22.3		83.6		5.9		3.4		5		89				<0.2		2.7	
					Bottom	7.5	0.1	193	25.6	25.7	7.8	7.8	27.7	27.7	62.1	62.6	4.3	4.4	10.2		4		90				<0.2		2.8	
						7.5	0.1	196	25.7		7.8		27.7		63.0		4.4		10.3		5		90				<0.2		2.9	
IM8	Cloudy	Moderate	11:59	7.4	Surface	1.0	0.1	127	27.6	27.6	8.1	8.1	21.0	21.0	91.0	90.8	6.4	5.6	2.2	3.5	4	5	86	88	821849	808131	<0.2	<0.2	2.8	2.7
						1.0	0.1	132	27.5		8.1		21.0		90.6		6.4		2.3		4		85				<0.2		2.6	
					Middle	3.7	0.2	117	27.0	27.0	7.9	7.9	22.9	22.9	67.9	67.8	4.8		3.2		5		89				<0.2		2.5	
						3.7	0.2	123	27.0		7.9		22.9		67.7		4.7		3.2		6		88				<0.2		2.7	
					Bottom	6.4	0.2	48	26.3	26.3	7.9	7.9	25.2	25.2	56.9	57.0	4.0	4.0	5.0		6		89				<0.2		2.9	
						6.4	0.2	48	26.3		7.9		25.1		57.1		4.0		5.0		5		90				<0.2		2.9	

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 30 July 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	11:52	7.1	Surface	1.0	0.2	118	27.7	27.7	8.1	8.1	20.9	20.9	95.4	95.3	6.7	6.4	1.9	3.3	4	5	86	88	822100	808803	<0.2	<0.2	3.0	3.0
						1.0	0.2	127	27.7		8.1		21.0		95.2		6.7		2.0		4		85				<0.2		3.0	
					Middle	3.6	0.3	77	27.4	27.4	8.1	8.1	21.5	21.5	85.2	85.0	6.0		2.7		4		87				<0.2		2.9	
						3.6	0.3	78	27.3		8.1		21.5		84.8		6.0		2.8		5		88				<0.2		3.1	
					Bottom	6.1	0.3	78	26.7	26.7	7.9	7.9	24.1	24.2	65.7	65.7	4.6	4.6	5.3		5		90				<0.2		3.0	
						6.1	0.3	80	26.6		7.9		24.2		65.7		4.6		5.5		6		89				<0.2		2.9	
IM10	Cloudy	Moderate	11:45	7.4	Surface	1.0	0.5	96	27.6	27.6	8.1	8.1	21.5	21.5	95.2	95.2	6.7	5.9	1.3	6.0	4	6	86	88	822394	809801	<0.2	<0.2	2.8	2.8
						1.0	0.6	98	27.6		8.1		21.5		95.1		6.7		1.3		4		85				<0.2		2.8	
					Middle	3.7	0.5	95	27.0	27.0	7.9	7.9	23.1	23.1	71.4	71.2	5.0		4.0		5		88				<0.2		2.7	
						3.7	0.5	99	27.0		7.9		23.1		71.0		5.0		4.0		5		90				<0.2		2.9	
					Bottom	6.4	0.4	109	26.6	26.6	7.9	7.9	24.5	24.5	60.3	60.3	4.2	4.2	12.7		8		89				<0.2		2.7	
						6.4	0.4	114	26.6		7.9		24.5		60.3		4.2		12.7		7		90				<0.2		2.8	
IM11	Cloudy	Moderate	11:38	8.0	Surface	1.0	0.7	113	27.4	27.4	8.0	8.0	21.3	21.3	80.5	80.5	5.7	5.0	3.9	4.9	5	7	86	88	822049	811454	<0.2	<0.2	3.0	3.1
						1.0	0.7	120	27.4		8.0		21.3		80.4		5.7		3.9		6		86				<0.2		3.1	
					Middle	4.0	0.6	119	26.4	26.4	7.9	7.9	25.8	25.9	61.5	61.5	4.3		5.2		7		88				<0.2		3.0	
						4.0	0.6	122	26.4		7.9		25.9		61.5		4.3		5.3		6		89				<0.2		3.1	
					Bottom	7.0	0.4	117	26.3	26.3	7.9	7.9	26.6	26.6	62.6	62.8	4.4	4.4	5.4		9		90				<0.2		3.1	
						7.0	0.4	127	26.3		7.9		26.6		62.9		4.4		5.5		8		90				<0.2		3.1	
IM12	Cloudy	Moderate	11:22	8.5	Surface	1.0	0.6	112	27.4	27.4	8.1	8.1	22.0	22.0	86.4	86.2	6.0	5.6	2.3	3.2	4	6	86	87	821468	812043	<0.2	<0.2	3.1	3.0
						1.0	0.7	120	27.4		8.1		22.1		86.0		6.0		2.4		4		85				<0.2		3.0	
					Middle	4.3	0.4	106	26.9	26.9	7.9	7.9	23.1	23.1	73.5	73.3	5.2		3.1		5		86				<0.2		2.8	
						4.3	0.4	110	26.8		7.9		23.2		73.1		5.1		3.2		6		88				<0.2		3.0	
					Bottom	7.5	0.2	108	26.0	26.0	7.9	7.9	27.7	27.7	62.0	62.1	4.3	4.3	4.1		7		90				<0.2		3.0	
						7.5	0.2	116	26.0		7.9		27.7		62.2		4.3		4.1		8		89				<0.2		3.0	
SR1A	Cloudy	Moderate	11:09	5.0	Surface	1.0	-	-	27.5	27.5	8.1	8.1	21.7	21.7	91.0	90.8	6.4	6.4	1.6	2.9	6	7	-	-	819970	812664	-	-	-	-
						1.0	-	-	27.5		8.1		21.7		90.6		6.3		1.8		7		-				-		-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.5	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	-	-	26.0	26.0	7.9	7.9	27.7	27.7	61.3	61.4	4.3	4.3	4.0		8		-				-		-	
						4.0	-	-	26.0		7.9		27.8		61.4		4.3		4.1		7		-				-		-	
SR2	Cloudy	Moderate	11:00	4.6	Surface	1.0	0.8	111	27.5	27.5	8.1	8.1	21.6	21.6	95.0	95.0	6.7	6.7	1.4	1.9	6	7	85	88	821453	814184	<0.2	<0.2	3.0	3.1
						1.0	0.8	121	27.5		8.1		21.6		94.9		6.7		1.4		5		86				<0.2		3.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.5	125	27.1	27.1	8.0	8.0	23.8	23.8	83.4	83.4	5.8	5.8	2.5		8		89				<0.2		3.2	
						3.6	0.5	132	27.1		8.1		23.8		83.4		5.8		2.4		8		90				<0.2		3.1	
SR3	Cloudy	Moderate	12:07	8.3	Surface	1.0	0.2	170	27.4	27.4	8.0	8.0	21.9	21.9	77.1	77.1	5.4	4.8	2.9	4.0	3	5	-	-	822156	807552	-	-	-	-
						1.0	0.2	182	27.3		8.0		21.9		77.0		5.4		2.9		4		-				-		-	
					Middle	4.2	0.0	179	26.6	26.6	7.9	7.9	24.3	24.4	59.6	59.6	4.2		4.0		6		-				-		-	
						4.2	0.0	190	26.6		7.9		24.4		59.5		4.2		4.2		5		-				-		-	
					Bottom	7.3	0.1	66	26.3	26.3	7.9	7.9	25.3	25.4	57.4	57.4	4.0	4.0	5.1		5		-				-		-	
						7.3	0.1	70	26.3		7.9		25.4		57.3		4.0		5.1		6		-				-		-	
SR4A	Rainy	Calm	11:26	9.5	Surface	1.0	0.2	240	26.6	26.6	8.0	8.0	22.7	22.7	87.2	87.2	6.2	5.8	3.5	5.9	6	7	-	-	817208	807833	-	-	-	-
						1.0	0.2	245	26.6		8.0		22.7		87.1		6.2		3.5		7		-				-		-	
					Middle	4.8	0.1	77	26.2	26.2	7.9	7.9	23.8	23.8	75.0	74.9	5.3		5.9		6		-				-		-	
						4.8	0.1	82	26.1		7.9		23.8		74.7		5.3		6.1		6		-				-		-	
					Bottom	8.5	0.0	80	25.4	25.4	7.8	7.8	27.6	27.6	69.3	70.1	4.9	5.0	8.1		7		-				-		-	
						8.5	0.0	82	25.4		7.8		27.6		70.9		5.0		8.2		8		-				-		-	
SR5A	Rainy	Calm	11:11	5.5	Surface	1.0	0.1	272	27.7	27.7	8.1	8.1	20.2	20.2	93.4	93.3	6.6	6.6	3.9	4.7	6	6	-	-	816616	810694	-	-	-	-
						1.0	0.1	283	27.6		8.1		20.2		93.1		6.6		4.0		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.2	46	26.8	26.8	7.9	7.9	22.8	22.8	77.7	77.7	5.5	5.5	5.5		5		-				-		-	
						4.5	0.2	49	26.8		7.9		22.8		77.7		5.5		5.5		4		-				-		-	
SR6	Rainy	Calm	10:34	5.2	Surface	1.0	0.1	124	26.7	26.7	7.8	7.8	22.7	22.7	78.3	78.3	5.5	5.5	4.3	5.2	4	4	-	-	817909	814642	-	-	-	-
						1.0	0.1	133	26.7		7.8		22.7		78.2		5.5		4.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	160	26.4	26.4	7.8	7.8	24.5	24.5	74.2	74.4	5.2	5.2	6.0		3		-				-		-	
						4.2	0.1	170	26.4		7.8		24.5		74.6		5.2		5.9		4		-				-		-	
SR7	Cloudy	Moderate	10:03	16.5	Surface	1.0	0.5	63	26.4	26.4	8.0	8.0	27.2	27.2	86.6	86.6	5.9	5.1	0.9	2.4	6	5	-	-	823646	823718	-	-	-	-
						1.0	0.5	67	26.4		8.0		27.2		86.6		5.9		0.9		4		-				-		-	
					Middle	8.3	0.6	96	25.5	25.5	7.9	7.9	29.8	29.8	61.8	61.8	4.2		2.8		6		-				-		-	
						8.3	0.7	103	25.5		7.9		29.9		61.8		4.2		2.7		6		-				-		-	
					Bottom	15.5	0.4	100	25.2	25.2	7.9	7.9	30.7	30.7	55.3	55.3	3.8	3.8	3.6		5		-				-		-	
						15.5	0.4	106	25.2		7.9		30.7		55.3		3.8		3.7		5		-				-		-	
SR8	Cloudy	Moderate	11:13	5.2	Surface	1.0	-	-	27.4	27.4	8.0	8.0	21.6	21.6	89.9	89.8	6.3	6.3	2.3	2.3	7	7	-	-	820399	811613	-	-	-	-
						1.0	-	-	27.3		8.0		21.6		89.7		6.3		2.3		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	27.1	27.2	8.0	8.0	23.2	23.2	83.3	83.4	5.8	5.8	2.4		6		-				-		-	
						4.2	-	-	27.2		8.0		23.1		83.5		5.8		2.4		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 30 July 19 during Mid-Flood Tide

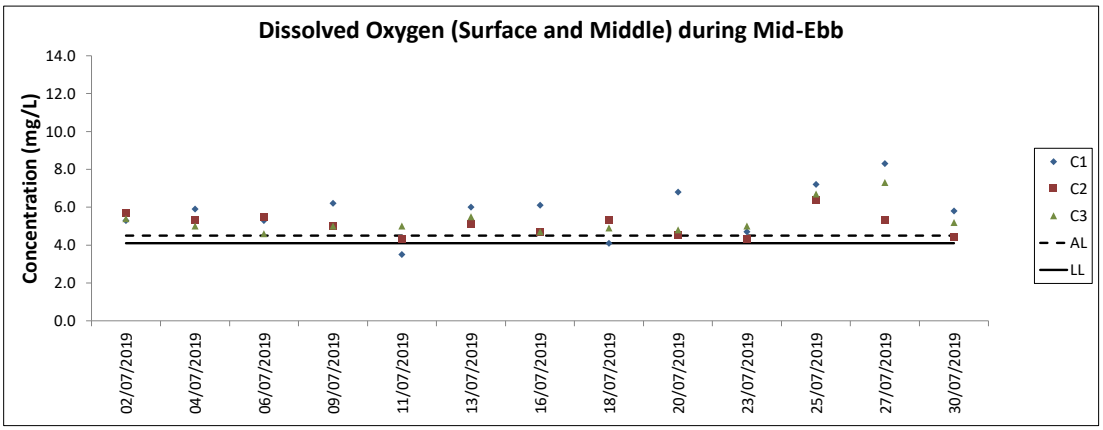
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	18:03	8.5	Surface	1.0	0.2	53	26.8	26.8	8.1	8.1	22.0	22.0	92.2	91.9	6.5	5.3	3.8	9.0	5	5	85	87	815636	804256	<0.2	<0.2	2.8	2.9
						1.0	0.3	55	26.8		8.1		22.0		91.5		6.5		3.9		6		86				<0.2		2.9	
					Middle	4.3	0.2	90	25.5	25.5	7.8	7.8	26.9	27.0	61.2	59.3	4.3		8.8		5		87				<0.2		2.8	
						4.3	0.2	89	25.5		7.8		27.1		57.3		4.0		8.6		4		88				<0.2		2.9	
					Bottom	7.5	0.3	69	25.3	25.3	7.8	7.8	27.8	27.8	58.9	59.2	4.1	4.2	14.3		6		89				<0.2		2.8	
						7.5	0.3	72	25.3		7.8		27.8		59.4		4.2		14.7		6		89				<0.2		2.9	
C2	Cloudy	Moderate	17:06	11.4	Surface	1.0	0.3	41	27.1	27.1	7.9	7.9	18.9	19.0	73.2	73.0	5.3	4.3	4.8	7.6	5	6	86	89	825660	806931	<0.2	<0.2	2.8	2.6
						1.0	0.3	42	27.0		7.9		19.0		72.7		5.2		4.8		4		87				<0.2		2.8	
					Middle	5.7	0.4	63	26.3	26.3	7.8	7.8	24.8	24.8	47.1	47.3	3.3		8.2		7		89				<0.2		2.5	
						5.7	0.4	58	26.3		7.8		24.8		47.4		3.3		8.0		6		89				<0.2		2.6	
					Bottom	10.4	0.4	47	25.5	25.5	7.8	7.8	29.4	29.4	49.2	49.4	3.4	3.4	9.8		7		91				<0.2		2.5	
						10.4	0.4	48	25.5		7.8		29.4		49.6		3.4		9.8		6		91				<0.2		2.6	
C3	Cloudy	Moderate	19:02	12.2	Surface	1.0	0.3	224	26.7	26.7	8.0	8.0	24.6	24.7	80.9	80.6	5.6	4.9	4.3	6.7	4	5	86	88	822107	817806	<0.2	<0.2	2.6	2.8
						1.0	0.3	229	26.6		8.0		24.7		80.2		5.6		4.4		3		85				<0.2		2.7	
					Middle	6.1	0.6	259	25.7	25.7	7.9	7.9	28.6	28.7	59.6	59.1	4.1		7.3		5		89				<0.2		2.7	
						6.1	0.6	270	25.6		7.9		28.8		58.5		4.1		7.4		6		88				<0.2		2.8	
					Bottom	11.2	0.1	253	25.3	25.3	7.9	7.9	30.2	30.2	52.6	52.7	3.6	3.7	8.3		5		90				<0.2		2.9	
						11.2	0.1	257	25.3		7.9		30.2		52.7		3.7		8.4		5		89				<0.2		2.9	
IM1	Cloudy	Moderate	17:41	5.4	Surface	1.0	0.1	48	26.5	26.5	8.0	8.0	23.6	23.6	82.1	82.0	5.8	5.8	4.7	5.2	5	6	84	86	817932	807117	<0.2	<0.2	2.7	2.7
						1.0	0.2	50	26.5		8.0		23.6		81.9		5.8		4.7		6		84				<0.2		2.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.2	67	26.0	26.0	7.9	7.9	25.8	25.8	72.1	72.5	5.1	5.1	5.7		6		88				<0.2		2.7	
						4.4	0.2	68	26.0		7.9		25.8		72.9		5.1		5.7		6		88				<0.2		2.6	
IM2	Cloudy	Moderate	17:35	7.3	Surface	1.0	0.3	68	26.6	26.6	8.0	8.0	22.8	22.8	86.1	85.9	6.1	5.4	3.1	5.3	6	6	87	88	818186	806154	<0.2	<0.2	2.8	2.8
						1.0	0.3	73	26.6		8.0		22.9		85.7		6.1		3.1		6		87				<0.2		2.8	
					Middle	3.7	0.2	81	25.8	25.8	7.8	7.8	24.9	25.0	65.1	64.9	4.6		4.5		6		88				<0.2		2.8	
						3.7	0.2	85	25.7		7.8		25.0		64.6		4.6		5.0		6		89				<0.2		2.8	
					Bottom	6.3	0.2	75	25.2	25.2	7.8	7.8	28.5	28.5	55.3	55.5	3.9	3.9	8.0		6		89				<0.2		2.7	
						6.3	0.2	77	25.2		7.8		28.4		55.6		3.9		7.9		7		90				<0.2		2.8	
IM3	Cloudy	Moderate	17:29	7.6	Surface	1.0	0.2	50	26.8	26.8	8.1	8.1	21.9	21.9	91.3	91.2	6.5	5.1	2.9	7.6	6	6	85	88	818760	805571	<0.2	<0.2	2.8	2.7
						1.0	0.2	57	26.8		8.1		21.9		91.1		6.4		3.0		6		85				<0.2		2.7	
					Middle	3.8	0.2	53	25.2	25.2	7.8	7.8	28.4	28.4	51.8	52.0	3.6		9.2		6		88				<0.2		2.8	
						3.8	0.2	60	25.2		7.8		28.4		52.1		3.7		9.5		6		88				<0.2		2.7	
					Bottom	6.6	0.2	52	25.1	25.1	7.8	7.8	28.6	28.6	54.5	54.9	3.8	3.9	10.4		6		90				<0.2		2.6	
						6.6	0.2	53	25.1		7.8		28.6		55.2		3.9		10.8		5		90				<0.2		2.7	
IM4	Cloudy	Moderate	17:22	8.2	Surface	1.0	0.6	49	27.0	27.0	8.0	8.0	21.1	21.1	97.3	97.2	6.9	6.3	2.9	6.1	6	7	85	88	819739	804590	<0.2	<0.2	2.7	2.6
						1.0	0.6	53	27.0		8.0		21.1		97.0		6.9		3.0		6		86				<0.2		2.6	
					Middle	4.1	0.6	65	26.5	26.5	8.0	8.0	22.9	22.9	80.6	80.3	5.7		5.0		8		88				<0.2		2.7	
						4.1	0.7	73	26.5		8.0		22.9		80.0		5.7		5.6		7		88				<0.2		2.5	
					Bottom	7.2	0.3	60	25.2	25.2	7.8	7.8	28.1	28.1	59.2	59.6	4.2	4.2	10.2		8		90				<0.2		2.6	
						7.2	0.4	68	25.2		7.8		28.1		59.9		4.2		10.0		7		90				<0.2		2.7	
IM5	Cloudy	Moderate	17:17	7.5	Surface	1.0	0.5	47	27.2	27.2	8.1	8.1	19.3	19.4	104.9	104.8	7.5	6.4	2.8	4.5	7	6	86	88	820745	804863	<0.2	<0.2	2.7	2.7
						1.0	0.5	50	27.2		8.1		19.4		104.6		7.5		2.8		7		86				<0.2		2.7	
					Middle	3.8	0.5	57	26.2	26.2	8.0	8.0	23.9	23.9	73.3	73.3	5.2		3.2		6		88				<0.2		2.7	
						3.8	0.5	62	26.2		8.0		23.9		73.2		5.2		3.4		5		88				<0.2		2.6	
					Bottom	6.5	0.4	65	25.2	25.2	7.8	7.8	28.4	28.4	57.7	58.3	4.0	4.1	7.3		6		89				<0.2		2.7	
						6.5	0.4	63	25.2		7.8		28.4		58.9		4.1		7.3		6		89				<0.2		2.7	
IM6	Cloudy	Moderate	17:12	7.6	Surface	1.0	0.3	36	27.0	27.0	8.0	8.0	20.4	20.4	97.4	97.3	6.9	6.2	3.0	4.5	6	6	84	86	821044	805812	<0.2	<0.2	2.6	2.7
						1.0	0.4	34	27.0		8.0		20.4		97.2		6.9		3.1		6		85				<0.2		2.5	
					Middle	3.8	0.3	35	26.5	26.5	8.0	8.0	22.8	22.8	77.5	77.4	5.5		3.6		6		86				<0.2		2.7	
						3.8	0.3	38	26.5		8.0		22.8		77.3		5.5		3.7		7		86				<0.2		2.7	
					Bottom	6.6	0.2	61	25.3	25.3	7.8	7.8	28.1	28.1	57.8	58.5	4.1	4.1	6.8		6		88				<0.2		2.8	
						6.6	0.2	59	25.3		7.8		28.1		59.1		4.1		7.1		7		88				<0.2		2.7	
IM7	Cloudy	Moderate	17:06	8.3	Surface	1.0	0.3	29	27.0	27.0	8.0	8.0	20.9	20.9	92.5	92.4	6.6	6.1	2.9	4.8	6	6	85	87	821337	806825	<0.2	<0.2	2.7	2.8
						1.0	0.3	31	27.0		8.0		20.9		92.3		6.5		3.0		4		86				<0.2		2.8	
					Middle	4.2	0.3	32	26.6	26.6	8.0	8.0	22.5	22.5	79.2	79.2	5.6		3.2		6		87				<0.2		2.8	
						4.2	0.3	34	26.6		8.0		22.5		79.2		5.6		3.6		6		87				<0.2		2.7	
					Bottom	7.3	0.1	46	25.3	25.3	7.8	7.8	27.9	27.9	57.3	57.6	4.0	4.1	8.3		6		89				<0.2		2.8	
						7.3	0.2	51	25.3		7.8		27.9		57.8		4.1		8.0		6		89				<0.2		2.8	
IM8	Cloudy	Moderate	17:37	7.2	Surface	1.0	0.2	353	27.6	27.6	8.1	8.1	20.8	20.8	96.3	96.2	6.8	5.8	2.3	3.2	7	7	86	88	821852	808146	<0.2	<0.2	2.9	3.0
						1.0	0.2	357	27.6		8.1		20.8		96.0		6.7		2.4		6		86				<0.2		3.0	
					Middle	3.6	0.1	356	26.9	26.9	7.9	7.9	23.2	23.2	68.0	68.0	4.8		3.2		8		89				<0.2		2.8	
						3.6	0.1	344	26.8		7.9		23.2		68.0		4.8		3.2		8		88				<0.2		3.0	
					Bottom	6.2	0.0	352	26.4	26.4	7.9	7.9	25.1	25.2	62.2	62.3	4.4	4.4	4.0		7		90				<0.2		3.0	
						6.2	0.0	341	26.4		7.9		25.2		62.3		4.4		4.1		8		88				<0.2		3.0	

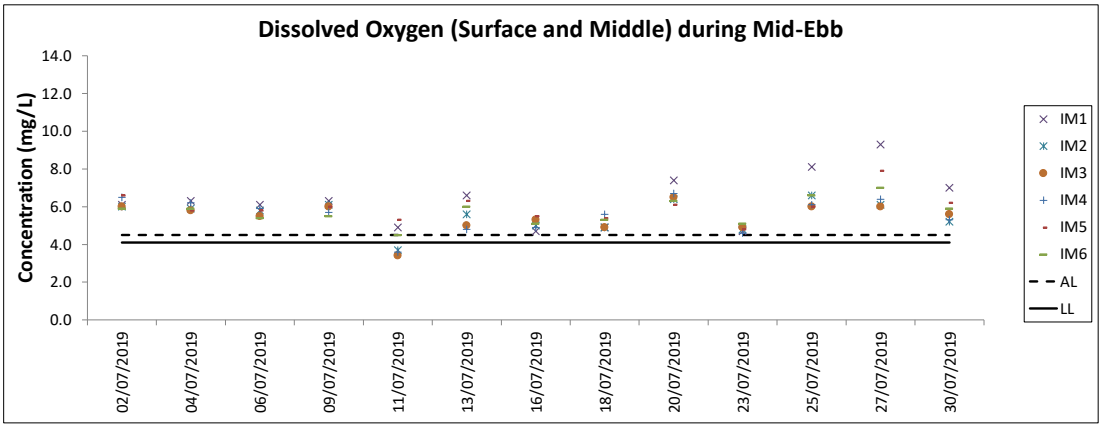
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**

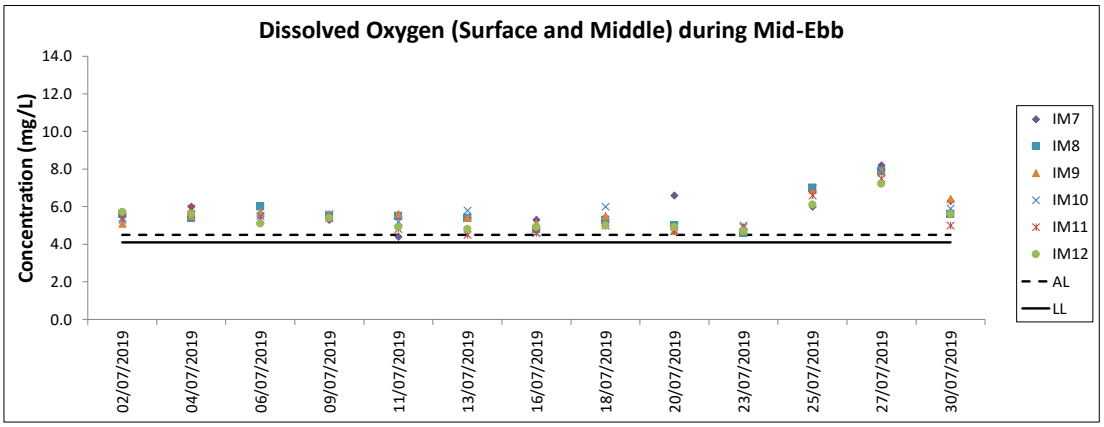
Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 30 July 19 during Mid-Flood Tide

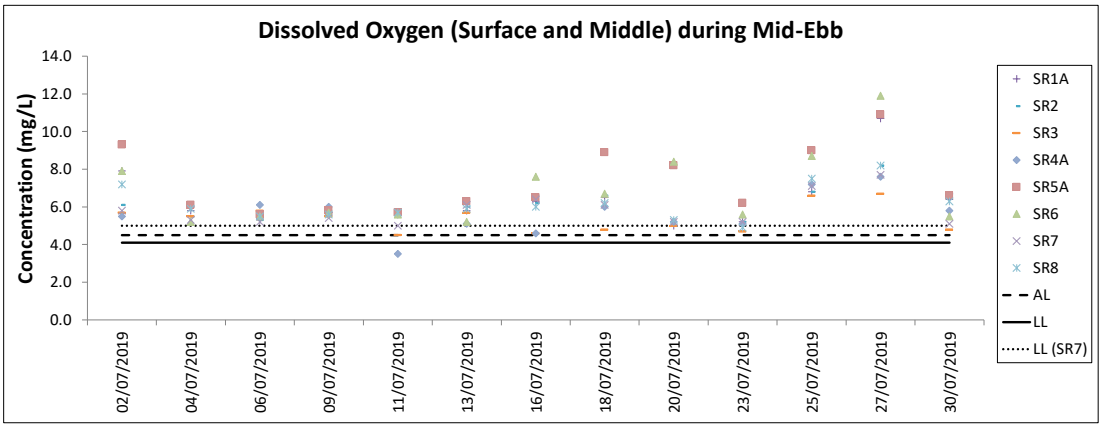
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	17:44	7.6	Surface	1.0	0.3	343	27.8	27.8	8.1	8.1	20.2	20.2	102.1	102.0	7.2	6.2	2.1	4.6	6	7	86	88	822098	808811	<0.2	<0.2	3.1	3.1
						1.0	0.4	345	27.8		8.1		20.3		101.8		7.2		2.2		7		86				<0.2		3.0	
					Middle	3.8	0.3	298	27.2	27.2	8.0	8.0	22.6	22.6	74.4	74.5	5.2		3.3		7		87				<0.2		3.2	
						3.8	0.3	302	27.2		8.0		22.6		74.6		5.2		3.6		6		88				<0.2		3.2	
					Bottom	6.6	0.3	311	26.3	26.3	7.9	7.9	25.6	25.6	57.2	57.3	4.0	4.0	8.3		8		90				<0.2		3.0	
						6.6	0.3	309	26.3		7.9		25.6		57.4		4.0		8.4		7		90				<0.2		3.1	
IM10	Cloudy	Moderate	17:52	7.2	Surface	1.0	0.7	313	27.3	27.3	8.0	8.0	20.7	20.8	87.9	85.9	6.2	5.2	2.6	4.2	8	7	86	89	822379	809776	<0.2	<0.2	3.1	3.1
						1.0	0.7	307	27.2		8.0		20.8		83.8		5.9		2.7		7		87				<0.2		3.0	
					Middle	3.6	0.6	297	26.7	26.7	7.9	7.9	24.3	24.3	61.8	61.8	4.3		3.5		8		89				<0.2		3.2	
						3.6	0.6	283	26.7		7.9		24.3		61.8		4.3		3.5		8		89				<0.2		3.2	
					Bottom	6.2	0.4	295	26.5	26.5	7.9	7.9	24.9	24.9	60.2	60.3	4.2	4.2	6.3		7		90				<0.2		3.1	
						6.2	0.5	296	26.5		7.9		24.9		60.4		4.2		6.4		6		91				<0.2		3.1	
IM11	Cloudy	Moderate	18:02	8.0	Surface	1.0	0.7	303	27.1	27.1	8.0	8.0	21.9	21.9	73.1	73.0	5.1	4.5	3.5	7.3	8	10	85	88	822037	811464	<0.2	<0.2	2.9	3.0
						1.0	0.7	304	27.1		8.0		21.9		72.8		5.1		3.6		8		86				<0.2		3.0	
					Middle	4.0	0.4	313	26.4	26.4	7.9	7.9	25.2	25.2	55.7	55.8	3.9		8.0		11		88				<0.2		3.0	
						4.0	0.4	308	26.4		7.9		25.2		55.8		3.9		8.0		10		88				<0.2		3.1	
					Bottom	7.0	0.1	298	26.4	26.4	7.9	7.9	25.4	25.4	57.3	57.4	4.0	4.0	10.5		12		90				<0.2		3.1	
						7.0	0.1	285	26.4		7.9		25.4		57.4		4.0		10.4		12		90				<0.2		3.0	
IM12	Cloudy	Moderate	18:09	8.6	Surface	1.0	0.4	281	27.3	27.3	8.0	7.9	20.6	20.6	81.2	81.0	5.7	5.2	2.6	6.5	7	6	85	88	821475	812055	<0.2	<0.2	3.1	3.2
						1.0	0.5	284	27.3		7.9		20.6		80.8		5.7		2.8		7		85				<0.2		3.1	
					Middle	4.3	0.3	295	26.9	26.9	7.9	7.9	23.6	23.6	66.7	66.7	4.7		7.1		5		89				<0.2		3.2	
						4.3	0.3	299	26.9		7.9		23.6		66.6		4.7		7.2		5		89				<0.2		3.2	
					Bottom	7.6	0.2	283	26.7	26.7	7.9	7.9	24.4	24.4	63.7	63.8	4.5	4.5	9.8		6		90				<0.2		3.2	
						7.6	0.2	276	26.7		7.9		24.4		63.8		4.5		9.8		5		90				<0.2		3.2	
SR1A	Cloudy	Moderate	18:28	5.3	Surface	1.0	-	-	27.5	27.5	8.0	8.0	22.0	22.0	89.3	89.1	6.2	6.2	3.4	4.0	5	6	-	-	819972	812657	-	-	-	-
						1.0	-	-	27.5		8.0		22.0		88.8		6.2		3.4		4		-				-		-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						2.7	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	-	-	27.4	27.5	8.1	8.1	22.3	22.3	86.7	86.8	6.1	6.1	4.6		7		-				-		-	
						4.3	-	-	27.5		8.1		22.3		86.9		6.1		4.6		6		-				-		-	
SR2	Cloudy	Moderate	18:40	4.6	Surface	1.0	0.3	222	27.0	27.0	7.9	7.9	20.9	20.9	83.2	82.8	5.9	5.9	4.1	4.7	5	5	86	87	821486	814180	<0.2	<0.2	3.1	3.1
						1.0	0.4	226	27.0		7.9		21.0		82.4		5.9		4.3		4		86				<0.2		3.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	233	26.8	26.8	7.9	7.9	24.1	24.1	71.5	71.7	5.0	5.0	5.4		4		88				<0.2		3.1	
						3.6	0.2	245	26.8		7.9		24.1		71.9		5.0		5.2		5		88				<0.2		3.1	
SR3	Cloudy	Moderate	17:30	8.6	Surface	1.0	0.1	174	28.0	28.0	8.1	8.1	20.2	20.2	102.1	102.0	7.1	5.7	1.7	3.6	6	7	-	-	822160	807584	-	-	-	-
						1.0	0.2	182	28.0		8.1		20.2		101.8		7.1		1.7		6		-				-		-	
					Middle	4.3	0.1	48	26.7	26.7	7.9	7.9	24.0	24.1	61.2	61.1	4.3		3.8		7		-				-		-	
						4.3	0.1	48	26.7		7.9		24.1		60.9		4.3		3.9		8		-				-		-	
					Bottom	7.6	0.2	43	26.3	26.3	7.9	7.9	25.5	25.8	57.3	57.1	4.0	4.0	5.3		8		-				-		-	
						7.6	0.2	43	26.2		7.9		26.0		56.8		4.0		5.3		7		-				-		-	
SR4A	Cloudy	Calm	18:29	8.1	Surface	1.0	0.4	284	27.0	27.0	8.1	8.1	22.0	22.0	96.3	96.2	6.8	5.3	3.1	9.2	6	6	-	-	817193	807803	-	-	-	-
						1.0	0.4	266	27.0		8.1		22.0		96.0		6.8		3.1		7		-				-		-	
					Middle	4.1	0.2	281	25.4	25.4	7.8	7.8	27.6	27.6	52.6	52.7	3.7		11.1		6		-				-		-	
						4.1	0.2	285	25.4		7.8		27.6		52.8		3.7		11.2		6		-				-		-	
					Bottom	7.1	0.2	286	25.7	25.8	7.8	7.8	27.5	27.5	61.4	61.9	4.3	4.4	13.1		6		-				-		-	
						7.1	0.2	288	25.8		7.8		27.5		62.3		4.4		13.8		6		-				-		-	
SR5A	Cloudy	Calm	18:45	5.1	Surface	1.0	0.0	232	27.9	27.9	8.2	8.2	20.5	20.5	104.6	104.6	7.3	7.3	3.5	4.3	6	6	-	-	816569	810691	-	-	-	-
						1.0	0.0	222	27.9		8.2		20.5		104.5		7.3		3.6		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.0	332	26.4	26.4	8.0	8.0	23.9	23.9	83.8	83.9	5.9	5.9	4.9		5		-				-		-	
						4.1	0.0	339	26.4		8.0		23.9		83.9		5.9		4.9		6		-				-		-	
SR6	Cloudy	Calm	19:09	4.3	Surface	1.0	0.1	208	27.4	27.4	8.1	8.1	21.7	21.7	93.8	93.6	6.6	6.6	3.7	5.2	5	5	-	-	817896	814644	-	-	-	-
						1.0	0.1	225	27.4		8.1		21.7		93.3		6.5		3.9		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.1	252	26.2	26.3	7.9	7.9	26.1	26.1	69.8	70.2	4.9	4.9	6.5		6		-				-		-	
						3.3	0.1	263	26.3		7.9		26.1		70.5		4.9		6.5		5		-				-		-	
SR7	Cloudy	Moderate	19:29	16.7	Surface	1.0	0.1	240	27.4	27.4	8.1	8.1	23.4	23.4	103.5	103.4	7.2	6.6	1.7	2.1	6	6	-	-	823644	823762	-	-	-	-
						1.0	0.1	224	27.4		8.1		23.5		103.3		7.2		1.7		5		-				-		-	
					Middle	8.4	0.1	271	26.9	26.9	8.0	8.0	24.6	24.6	84.6	84.6	5.9		2.0		5		-				-		-	
						8.4	0.1	289	26.9		8.0		24.6		84.6		5.9		1.9		6		-				-		-	
					Bottom	15.7	0.1	228	26.5	26.5	7.9	7.9	25.6	25.6	70.2	70.4	4.9	4.9	2.6		7		-				-		-	
						15.7	0.1	223	26.5		7.9		25.6		70.6		4.9		2.6		6		-				-		-	
SR8	Cloudy	Moderate	18:18	5.2	Surface	1.0	-	-	27.7	27.7	8.0	8.0	21.4	21.4	94.1	94.0	6.6	6.6	3.8	5.2	6	6	-	-	820377	811623	-	-	-	-
						1.0	-	-	27.6		8.0		21.4		93.9		6.6		3.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	-	-	27.3	27.3	8.0	8.0	21.9	21.9	84.4	84.1	5.9	5.9	6.6		6		-				-		-	
						4.2	-	-	27.2		8.0		21.9		83.8		5.9		6.6		7		-				-		-	

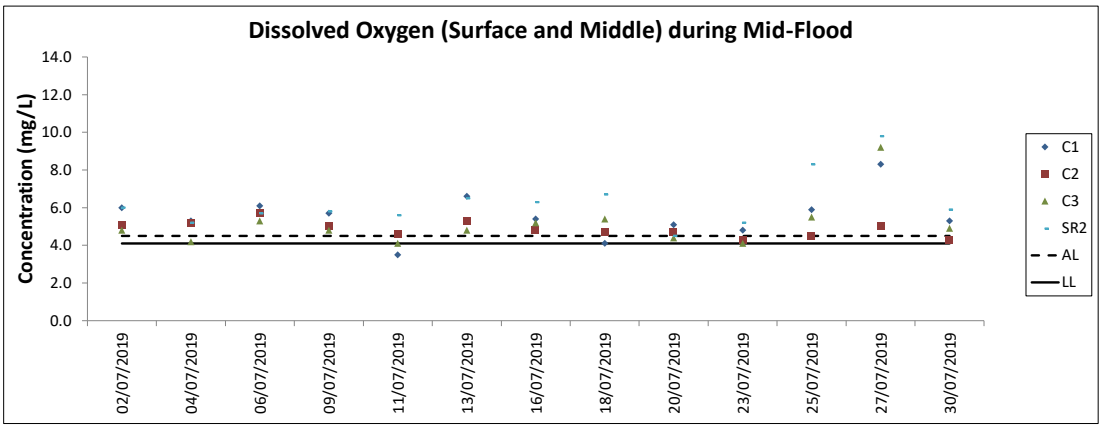
DA: Depth-Averaged
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher
Value exceeding Action Level is underlined; **Value exceeding Limit Level is bolded and underlined**


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
C1
C2
C3
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
SR1A
SR2
SR3
SR4A
SR5A
SR6
SR7
SR8
AL
LL
LL (SR7)


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
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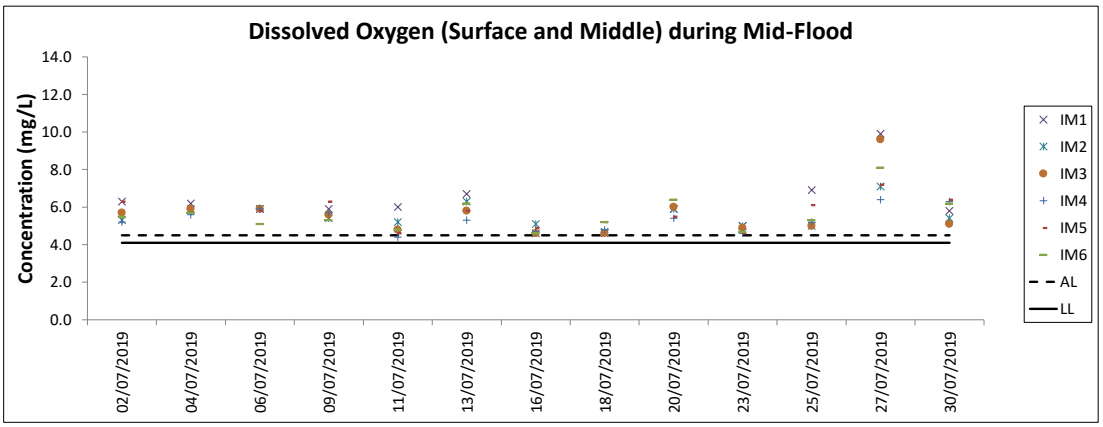
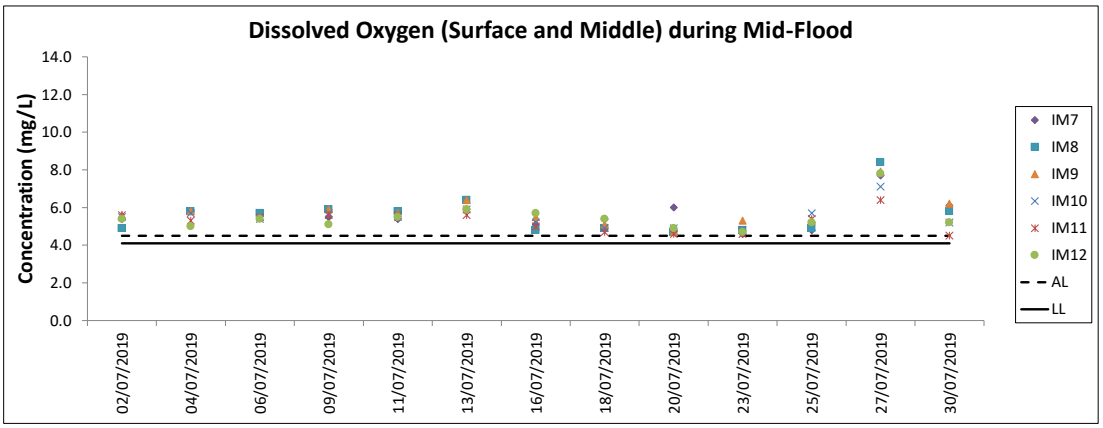
25/07/2019
27/07/2019
30/07/2019
C1
C2
C3
SR2
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
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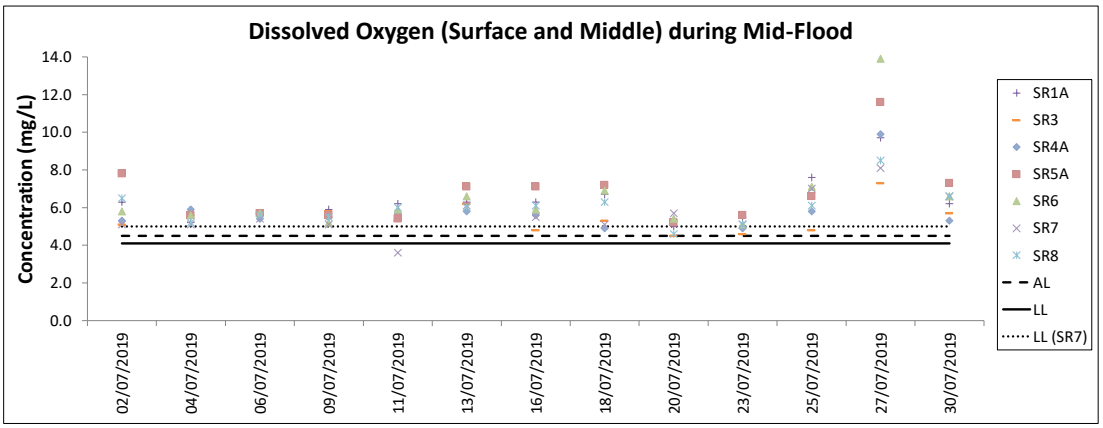
27/07/2019
30/07/2019
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Surface and Middle) during Mid-Flood
Concentration (mg/L)
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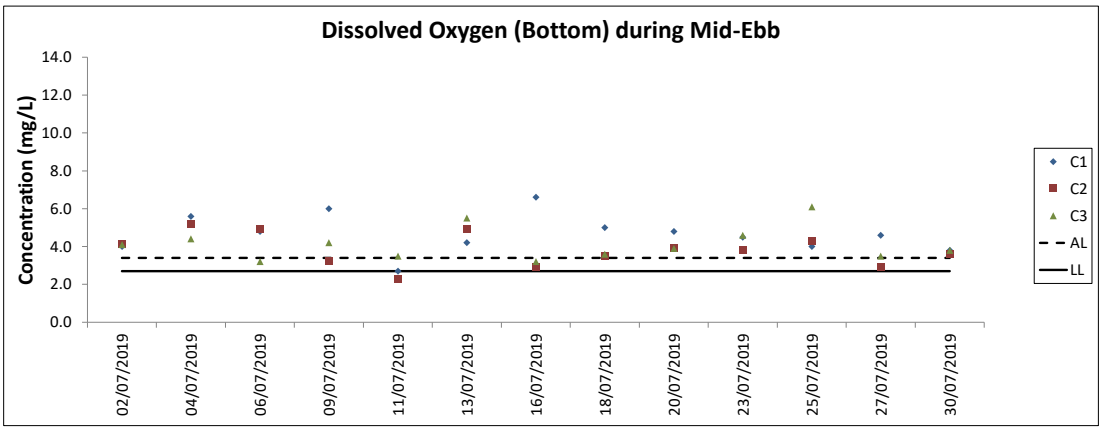
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
SR1A
SR3
SR4A
SR5A
SR6
SR7
SR8
AL
LL
LL (SR7)


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
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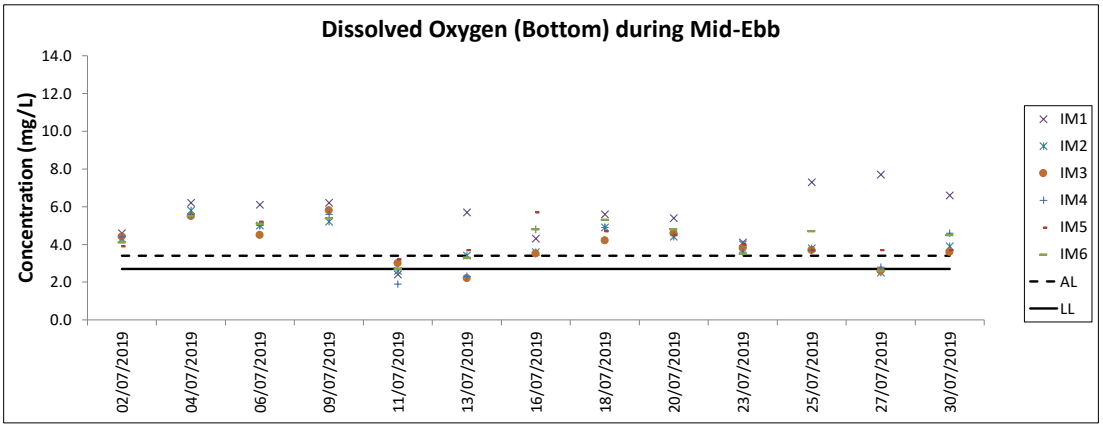
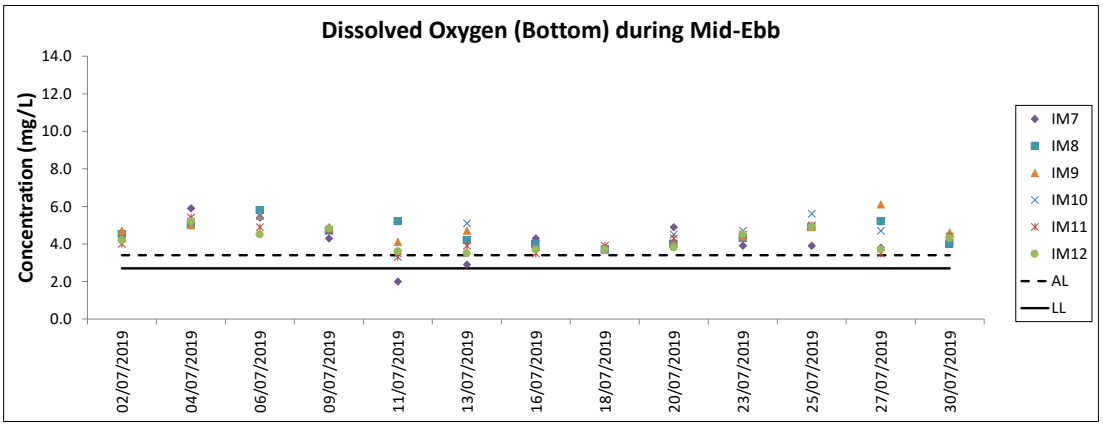
27/07/2019
30/07/2019
C1
C2
C3
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
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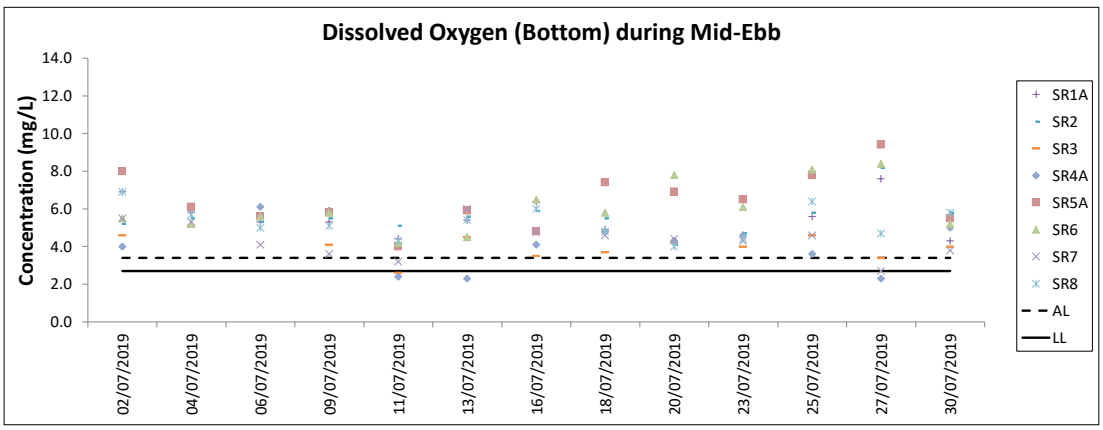
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Bottom) during Mid-Ebb
Concentration (mg/L)
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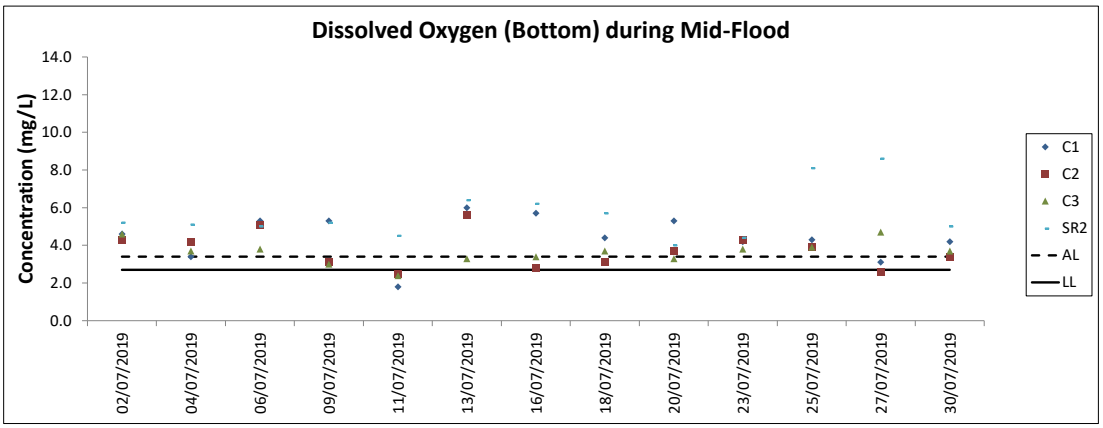
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
SR1A
SR2
SR3
SR4A
SR5A
SR6
SR7
SR8
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
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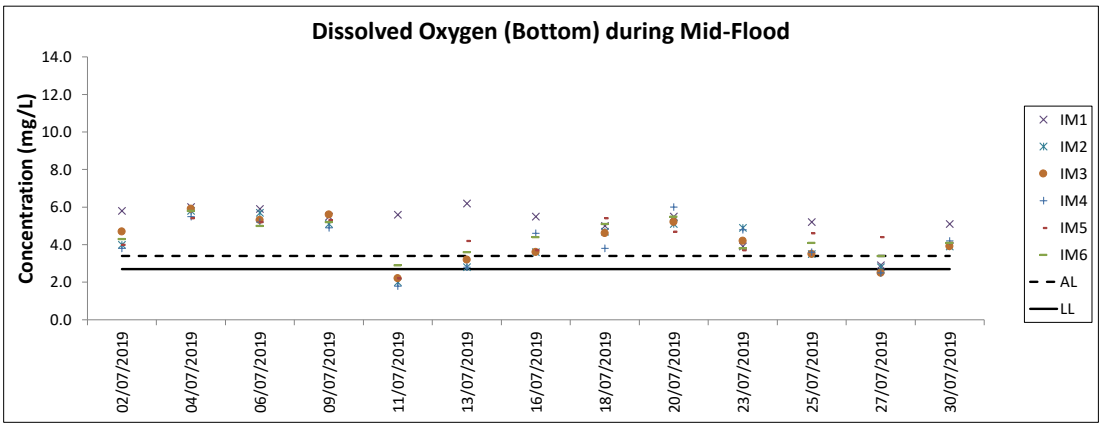
27/07/2019
30/07/2019
C1
C2
C3
SR2
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
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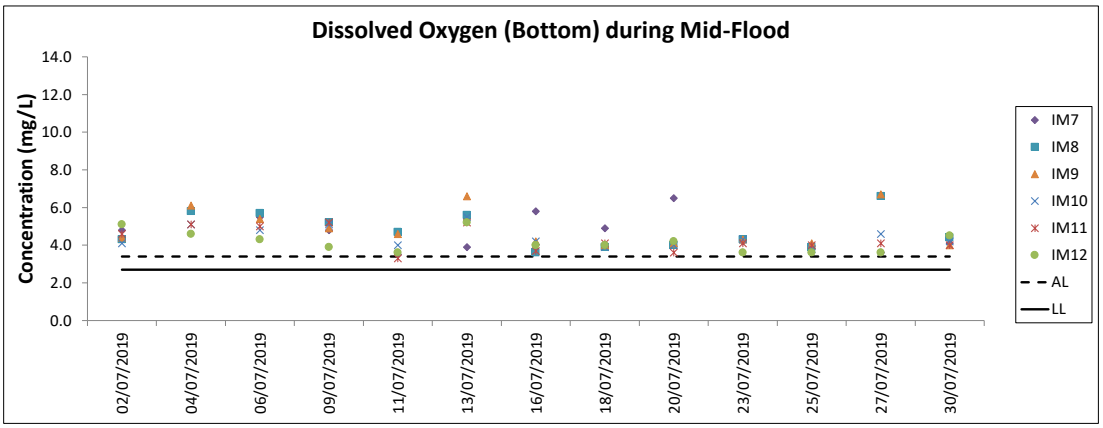
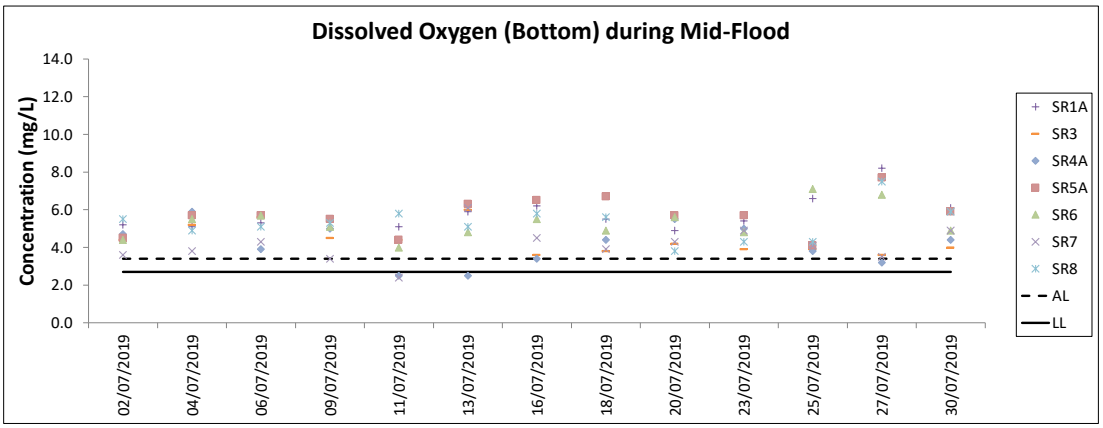
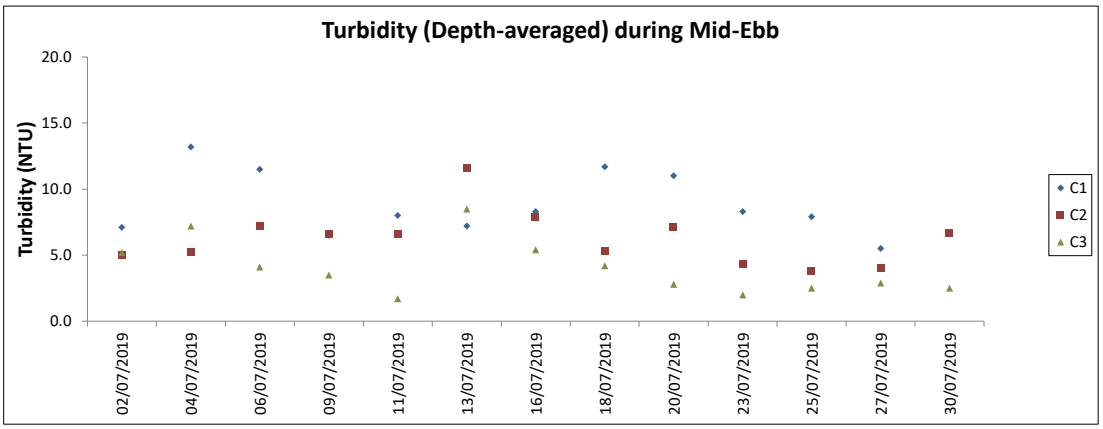
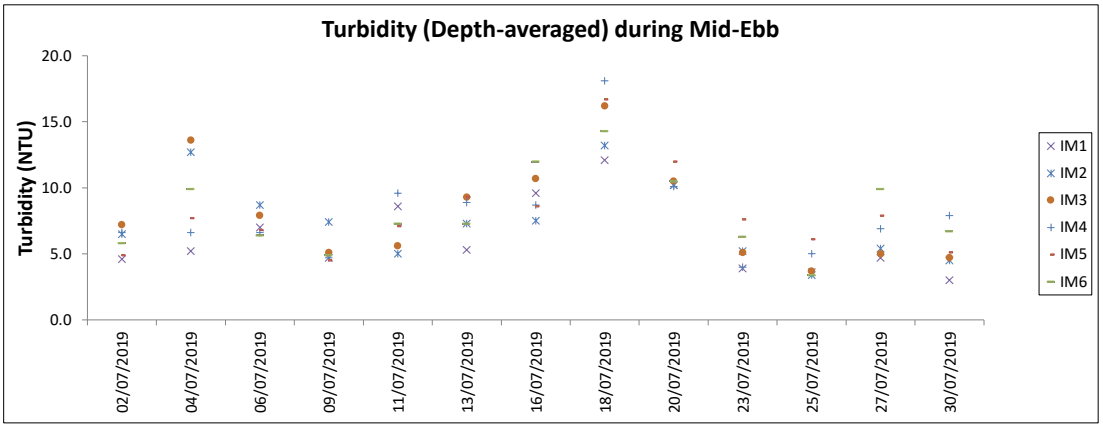
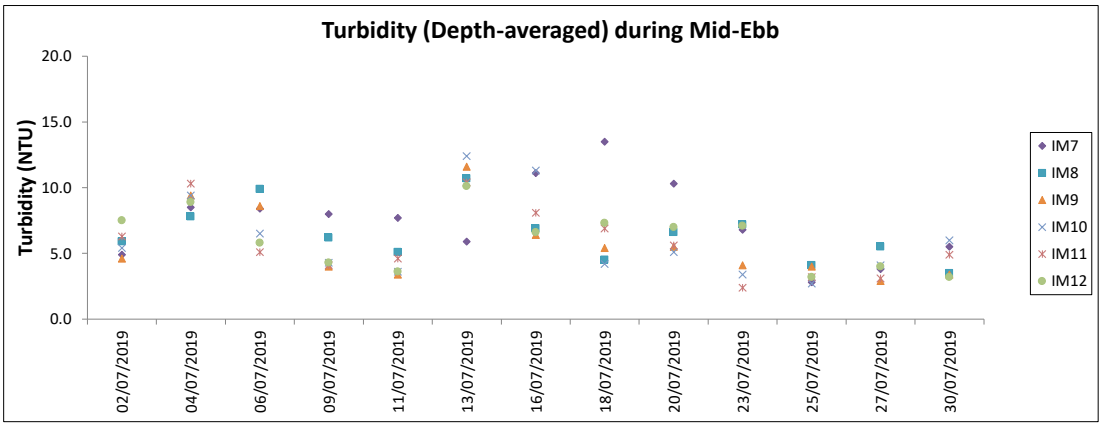
27/07/2019
30/07/2019
IM1
IM2
IM3
IM4
IM5
IM6
AL
LL

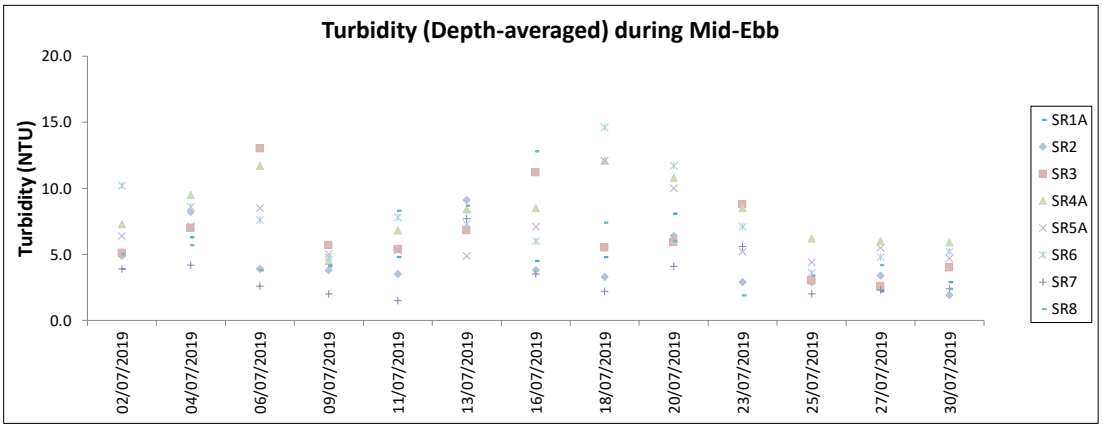

Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
IM7
IM8
IM9
IM10
IM11
IM12
AL
LL


Dissolved Oxygen (Bottom) during Mid-Flood
Concentration (mg/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
02/07/2019
04/07/2019
06/07/2019
09/07/2019
11/07/2019
13/07/2019
16/07/2019
18/07/2019
20/07/2019
23/07/2019
25/07/2019
27/07/2019
30/07/2019
SR1A
SR3
SR4A
SR5A
SR6
SR7
SR8
AL
LL

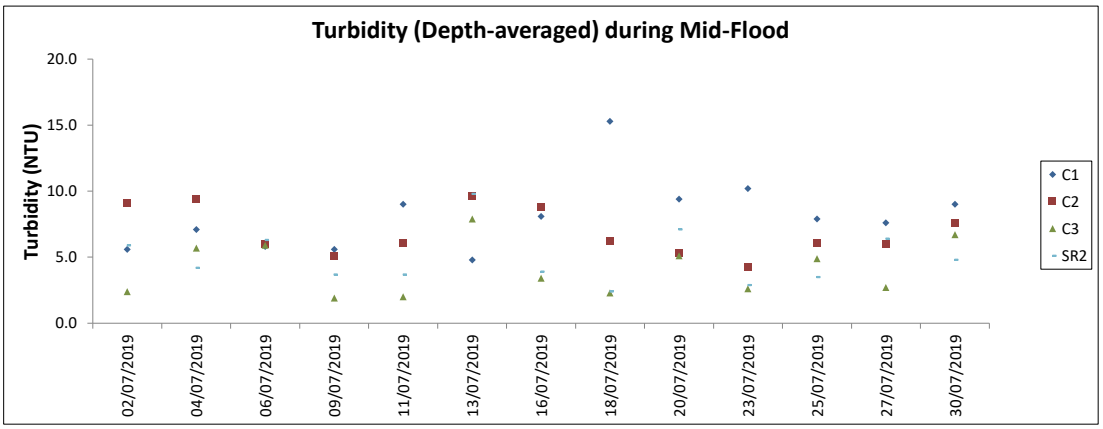


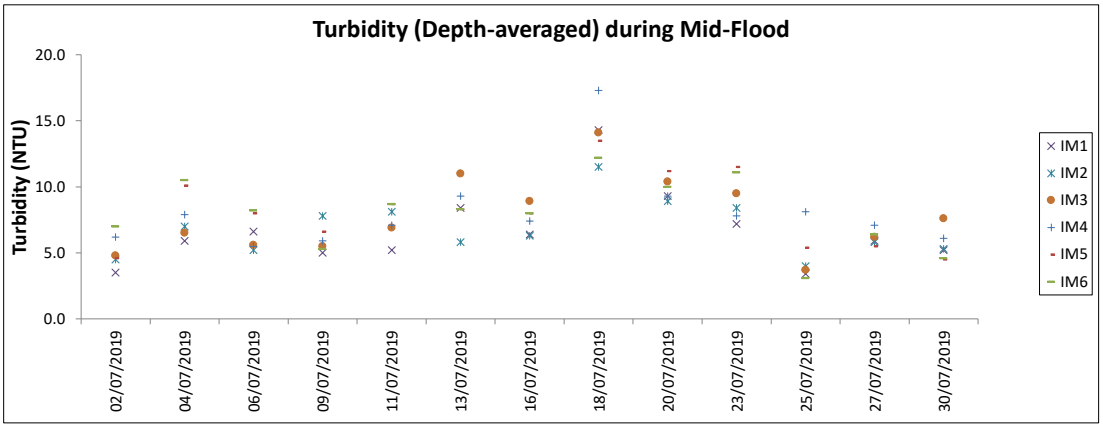


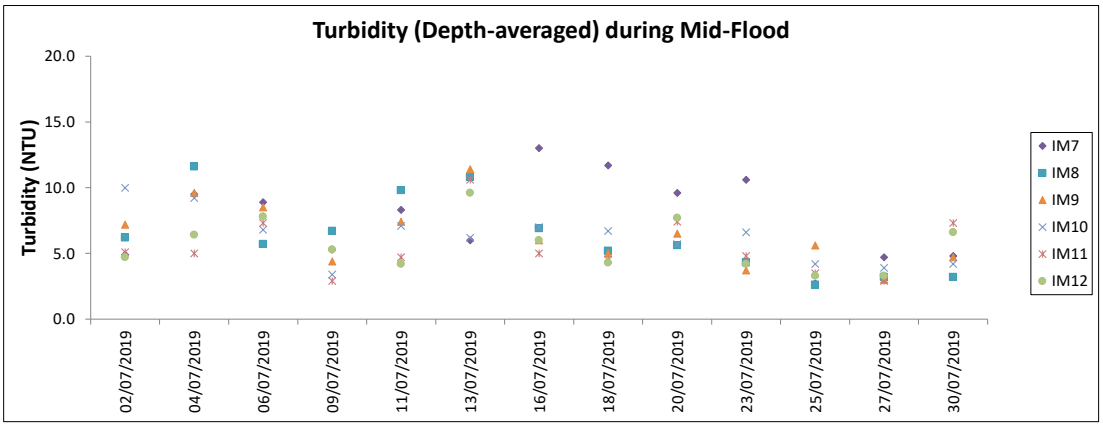


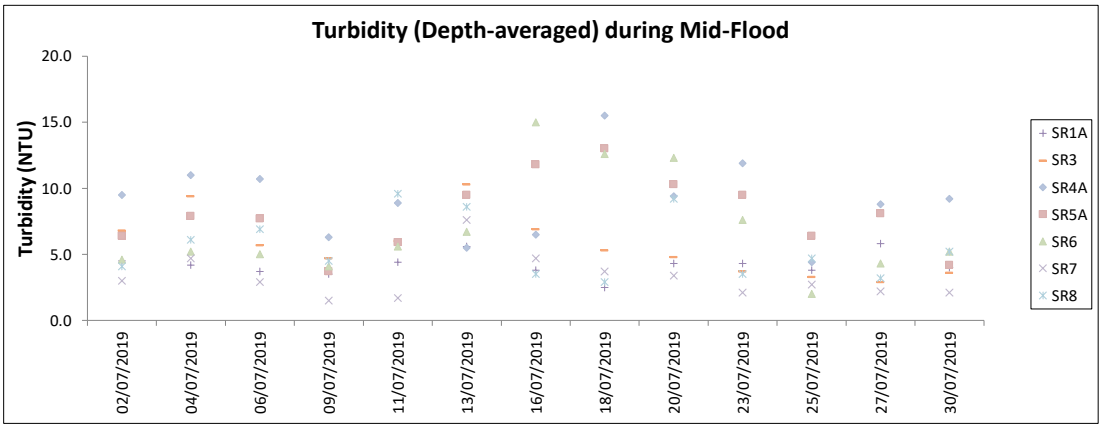


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

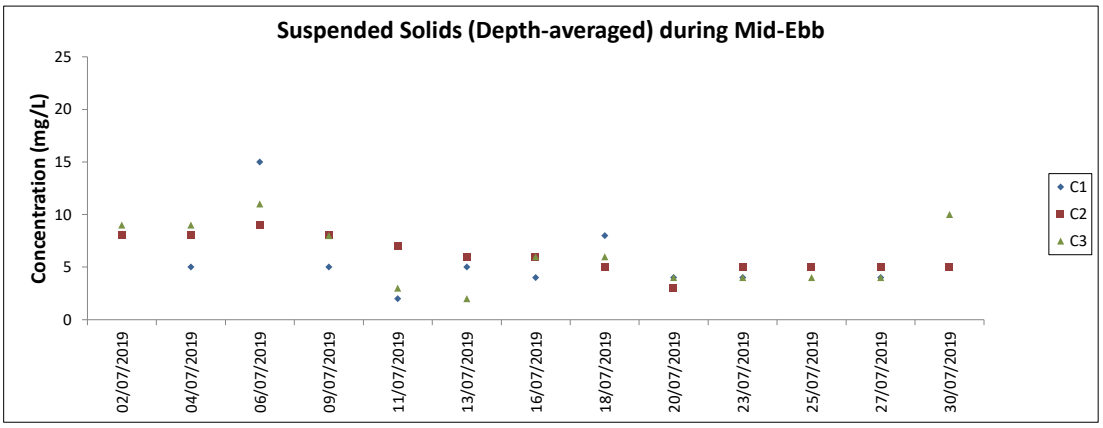


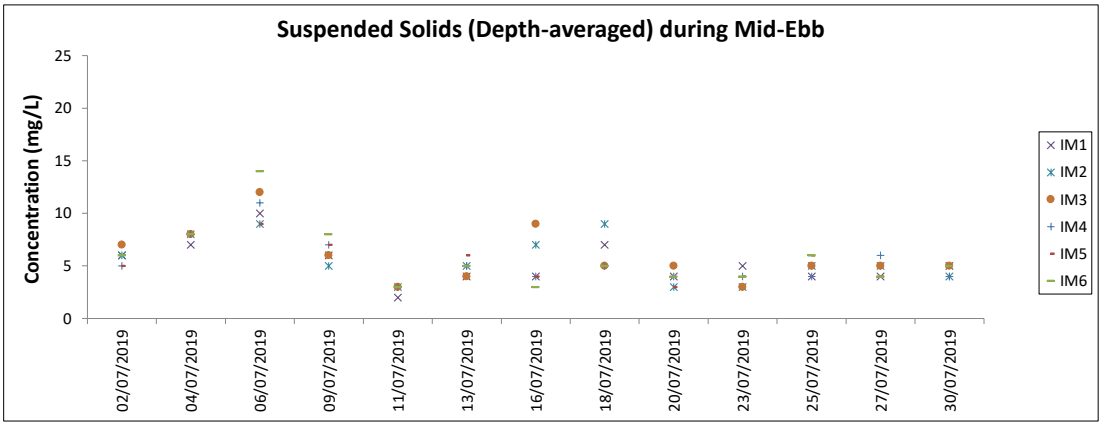


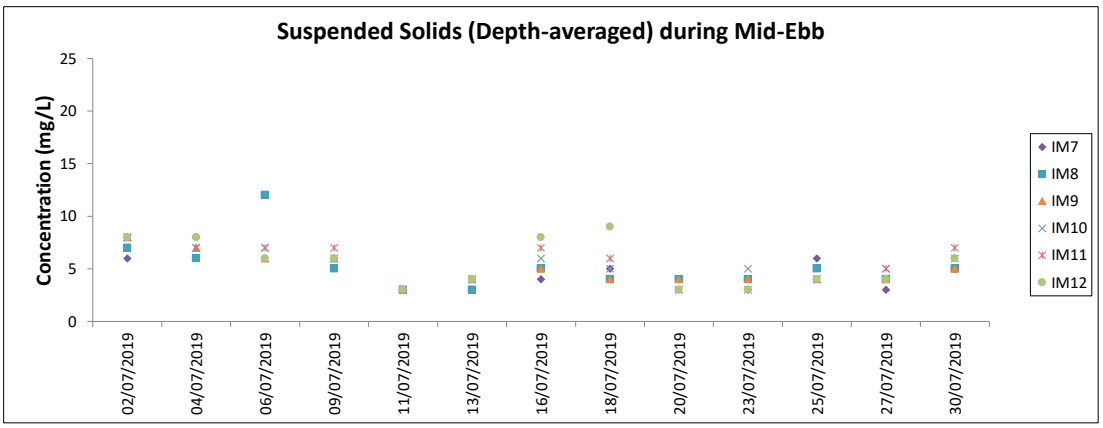


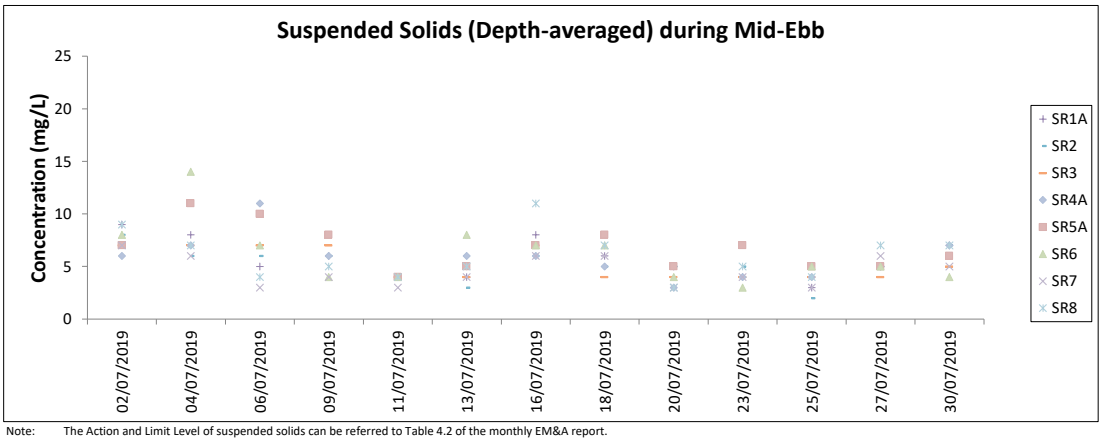


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

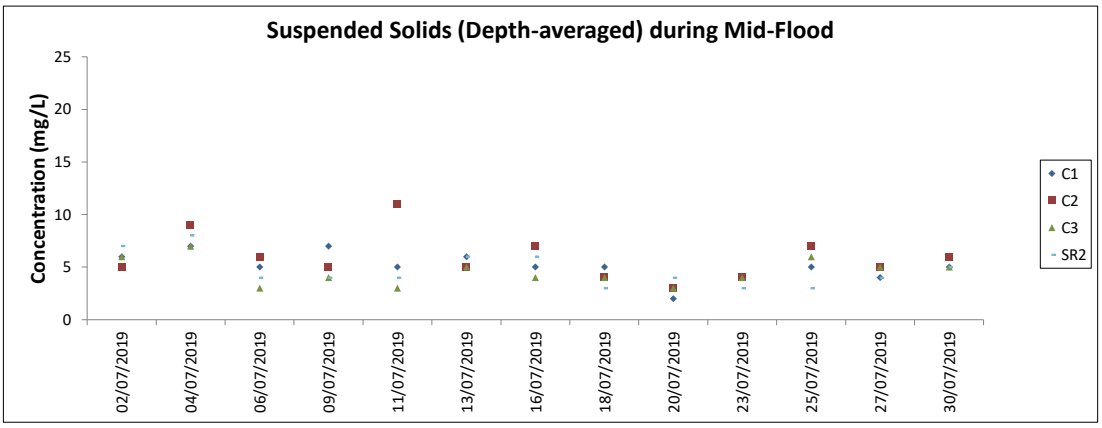


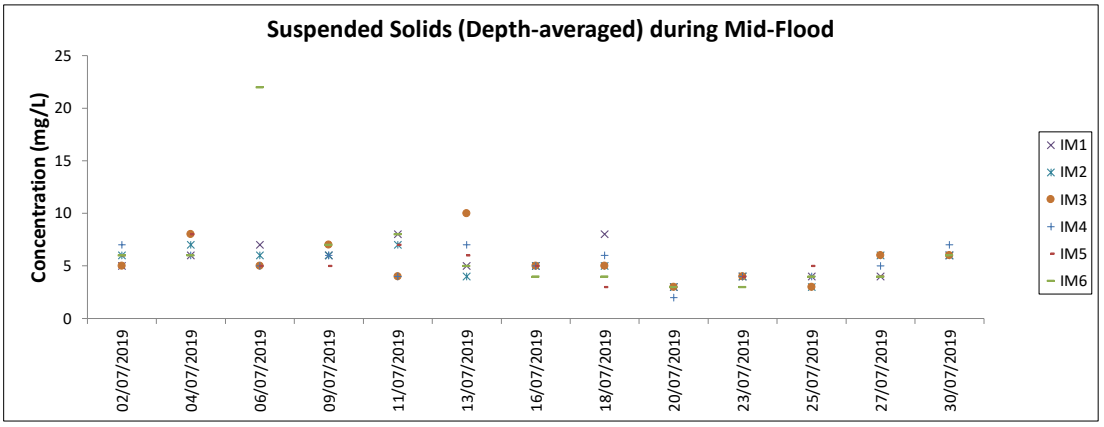


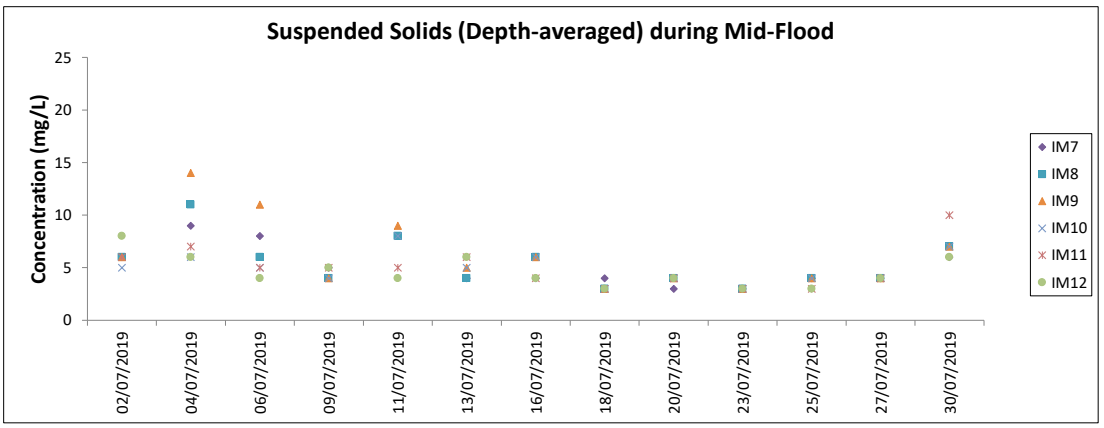


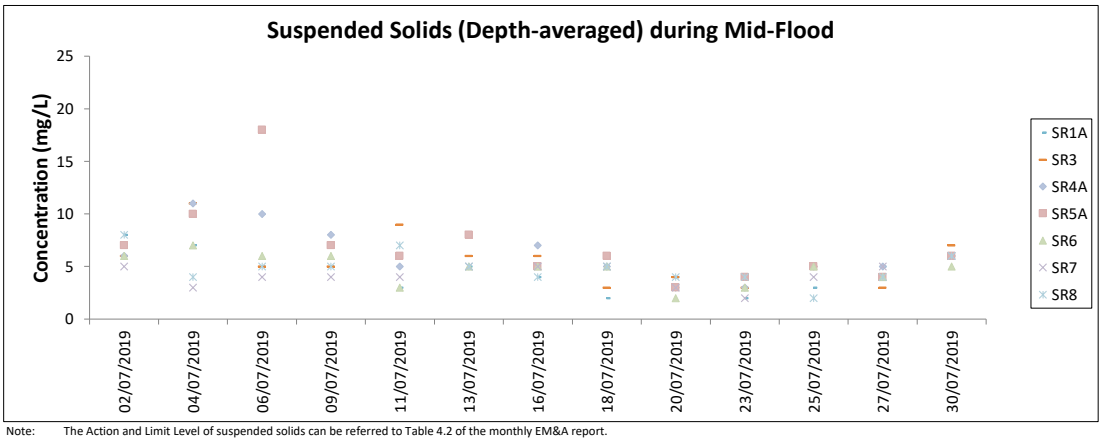


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

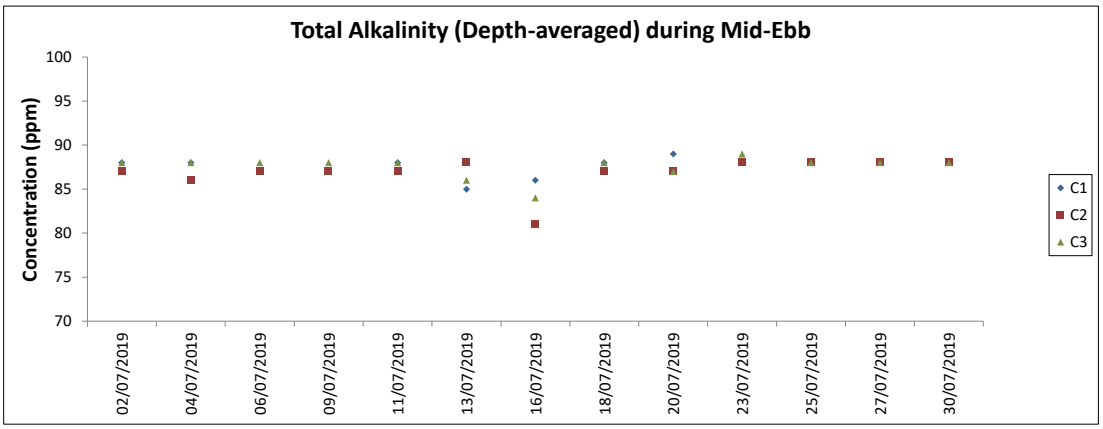


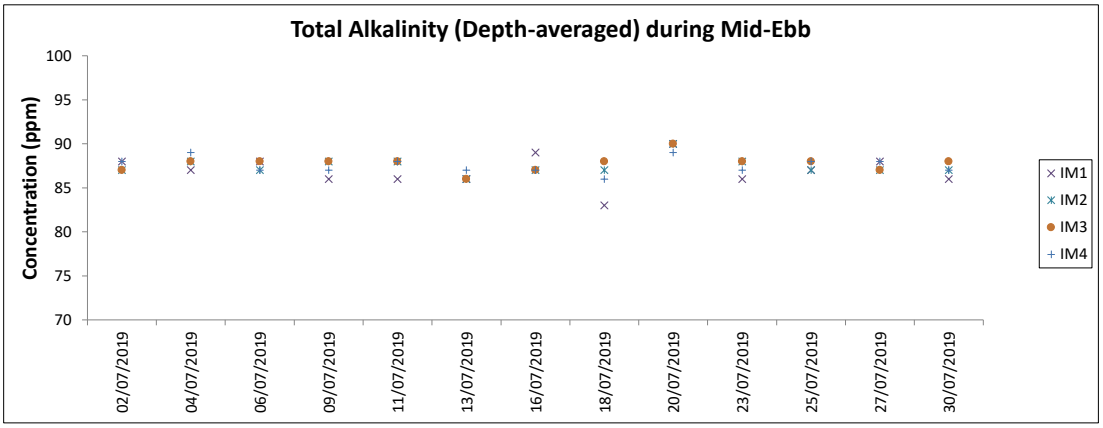


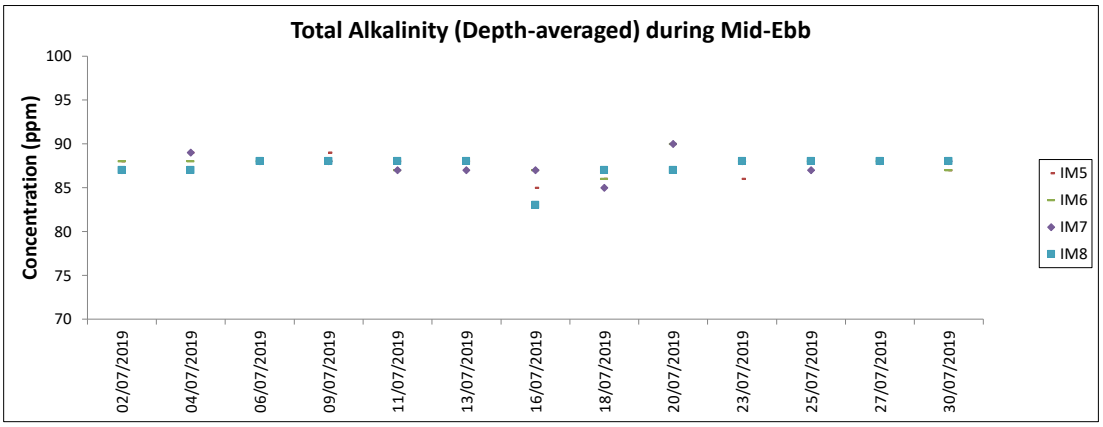


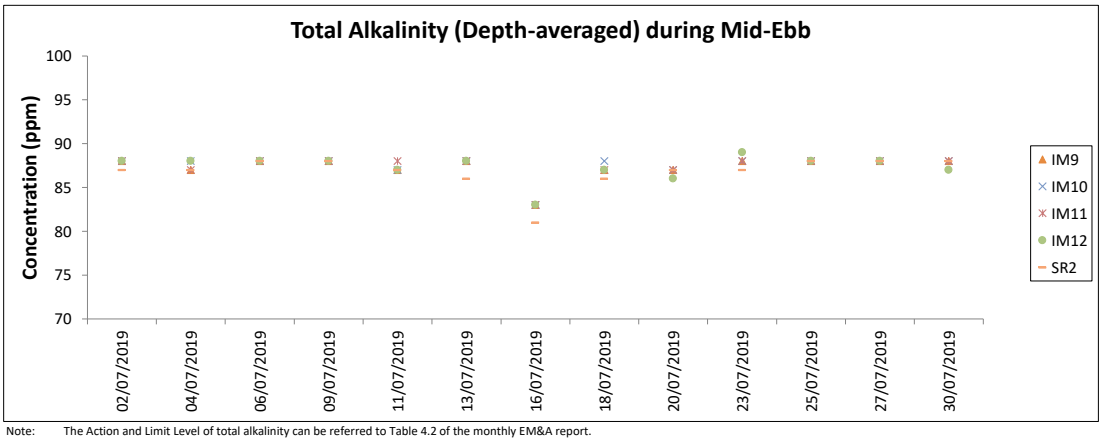


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

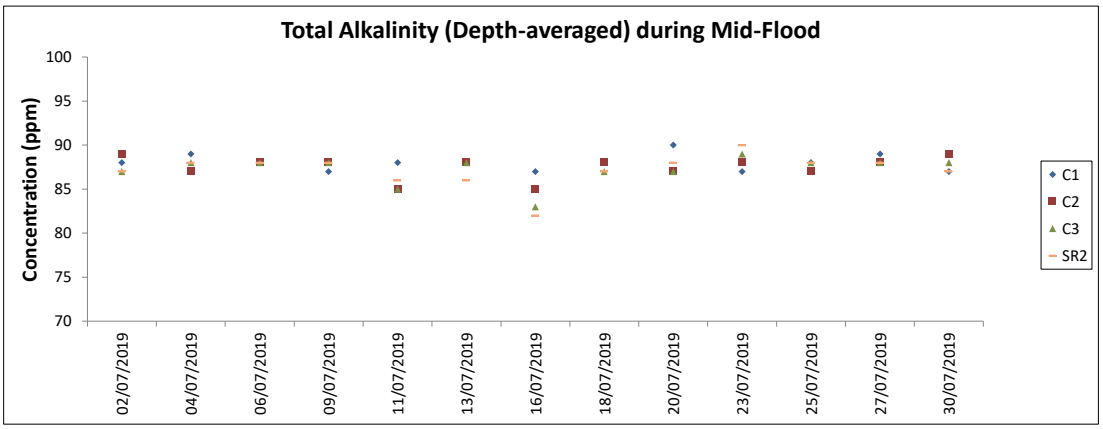


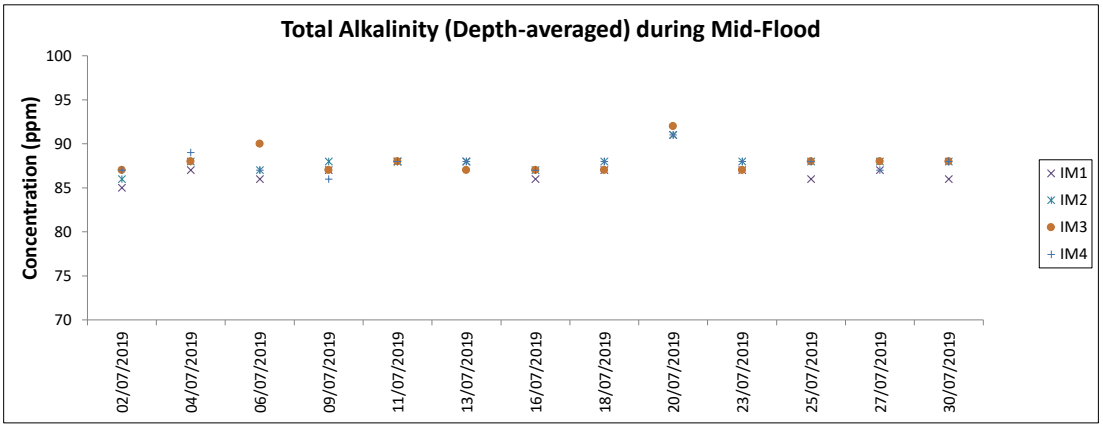


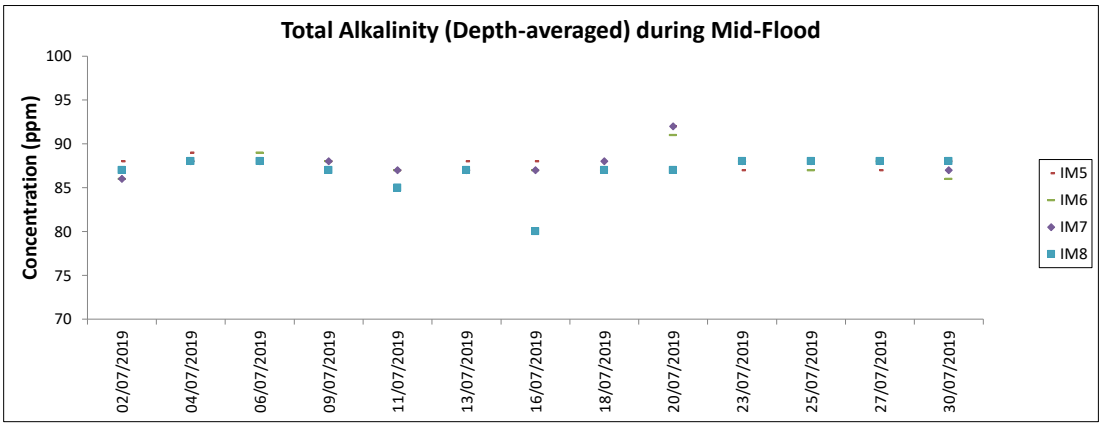


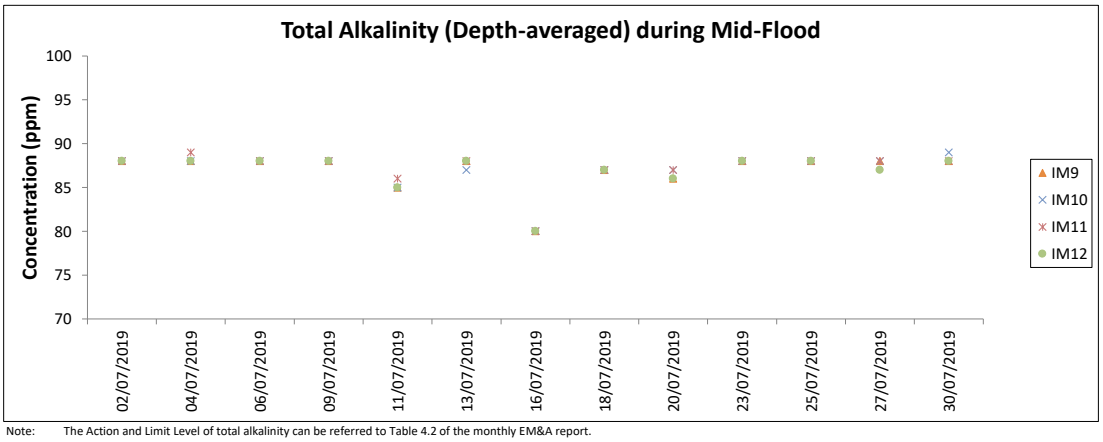


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

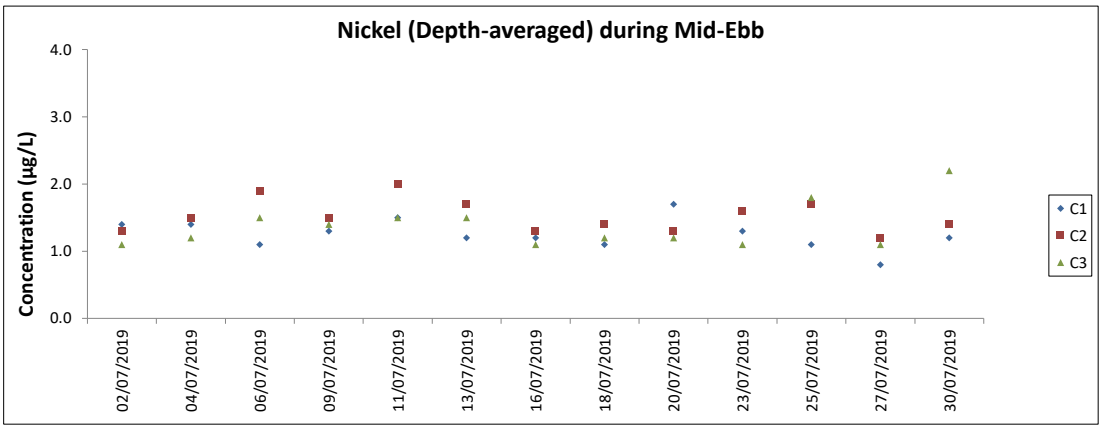


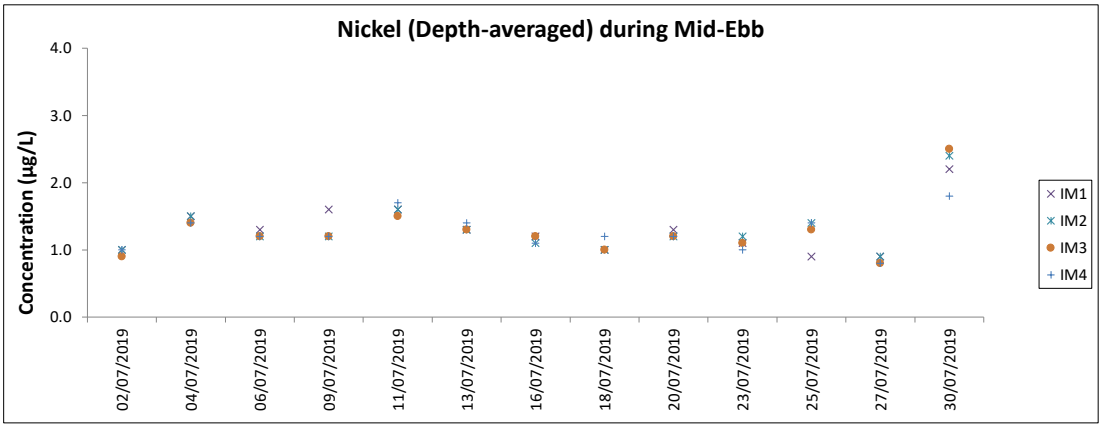


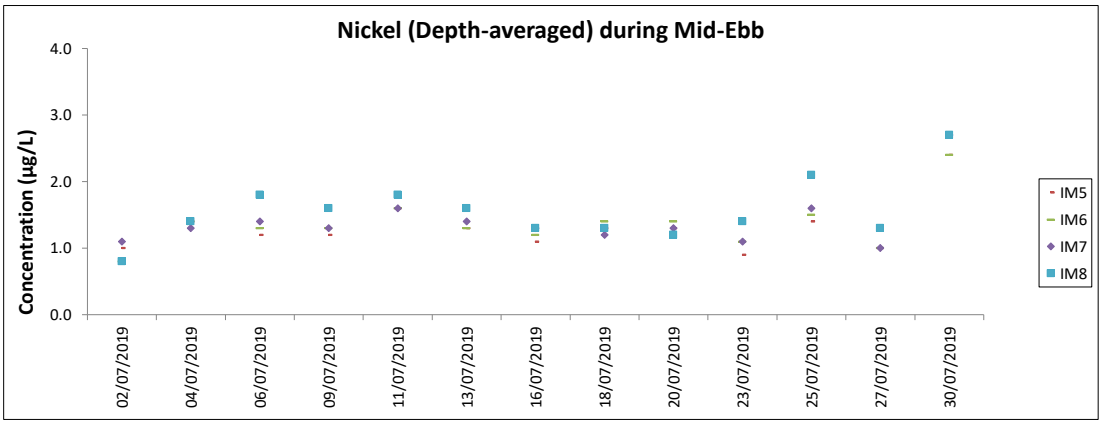


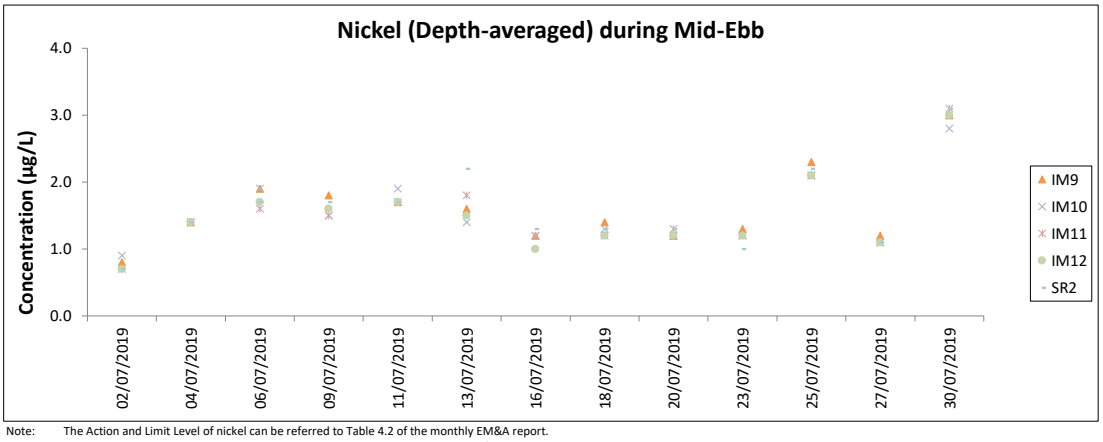


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

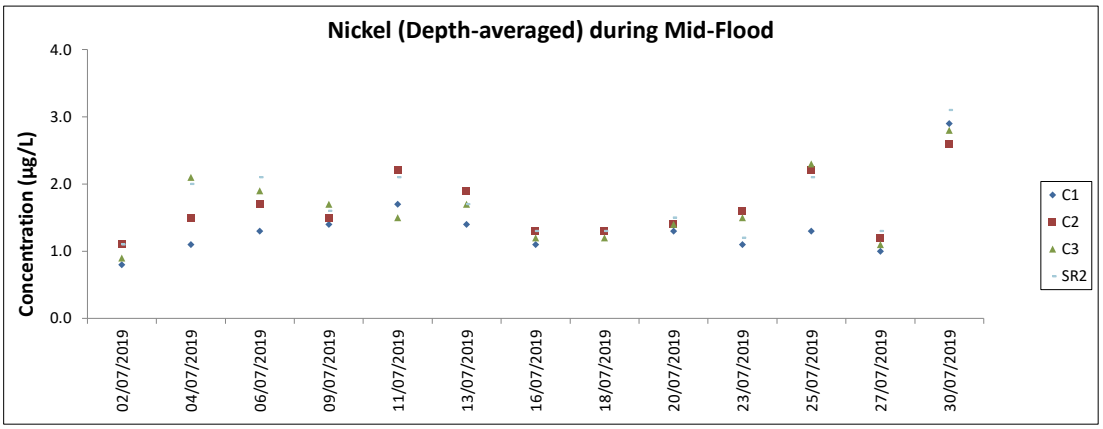


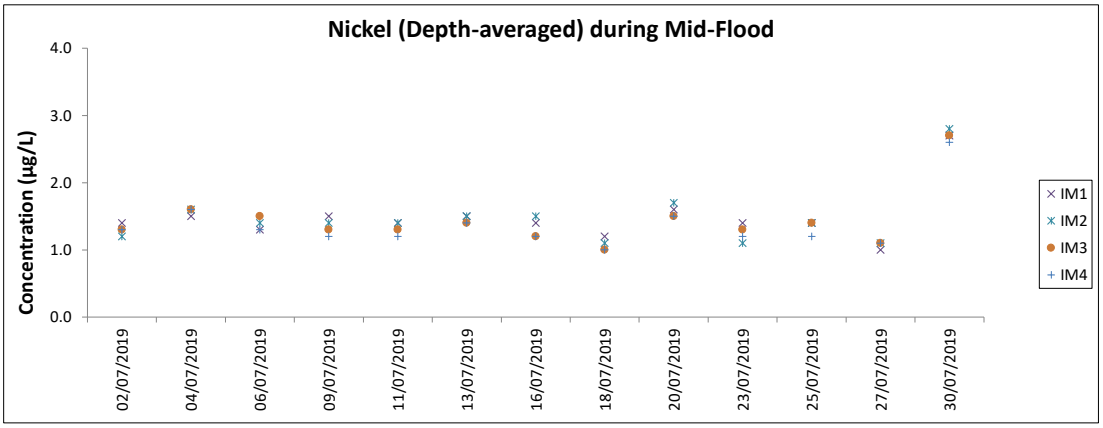


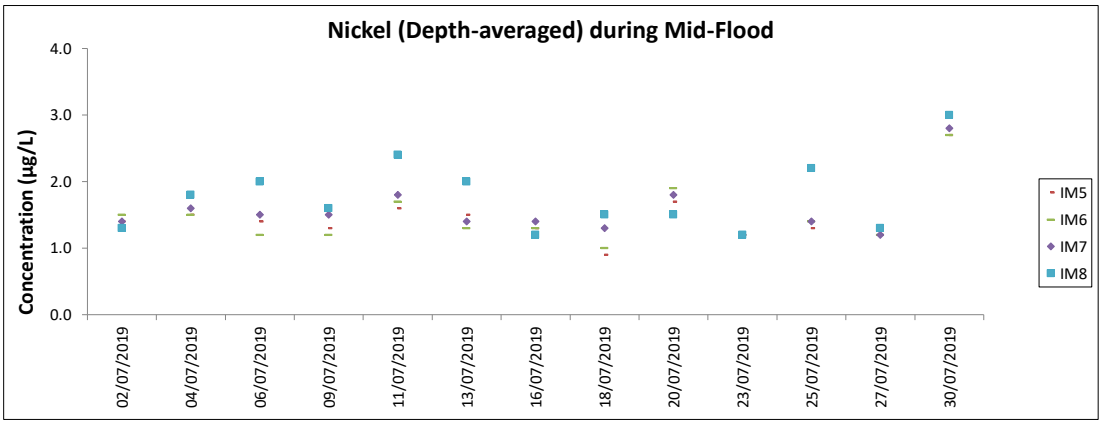


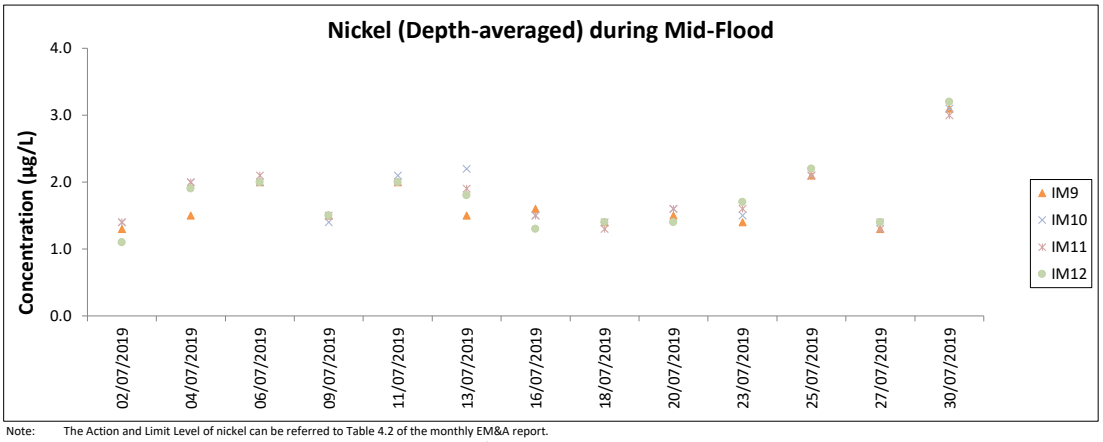


Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.









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 Results

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
3-May-19	NEL	2	9.550	SPRING	32166	3RS ET	P
3-May-19	NEL	3	27.830	SPRING	32166	3RS ET	P
3-May-19	NEL	2	5.120	SPRING	32166	3RS ET	S
3-May-19	NEL	3	5.300	SPRING	32166	3RS ET	S
8-May-19	AW	3	2.330	SPRING	32166	3RS ET	P
8-May-19	AW	4	2.340	SPRING	32166	3RS ET	P
8-May-19	WL	2	8.310	SPRING	32166	3RS ET	P
8-May-19	WL	3	5.280	SPRING	32166	3RS ET	P
8-May-19	WL	4	7.050	SPRING	32166	3RS ET	P
8-May-19	WL	2	5.150	SPRING	32166	3RS ET	S
8-May-19	WL	3	2.580	SPRING	32166	3RS ET	S
8-May-19	WL	4	3.130	SPRING	32166	3RS ET	S
9-May-19	NEL	1	2.300	SPRING	32166	3RS ET	P
9-May-19	NEL	2	32.170	SPRING	32166	3RS ET	P
9-May-19	NEL	3	3.160	SPRING	32166	3RS ET	P
9-May-19	NEL	1	1.000	SPRING	32166	3RS ET	S
9-May-19	NEL	2	8.970	SPRING	32166	3RS ET	S
10-May-19	SWL	2	6.600	SPRING	32166	3RS ET	P
10-May-19	SWL	3	48.980	SPRING	32166	3RS ET	P
10-May-19	SWL	2	2.120	SPRING	32166	3RS ET	S
10-May-19	SWL	3	13.300	SPRING	32166	3RS ET	S
14-May-19	AW	2	4.730	SPRING	32166	3RS ET	P
14-May-19	WL	2	12.245	SPRING	32166	3RS ET	P
14-May-19	WL	3	6.915	SPRING	32166	3RS ET	P
14-May-19	WL	2	5.880	SPRING	32166	3RS ET	S
14-May-19	WL	3	4.048	SPRING	32166	3RS ET	S
15-May-19	NWL	2	36.790	SPRING	32166	3RS ET	P
15-May-19	NWL	3	26.720	SPRING	32166	3RS ET	P
15-May-19	NWL	2	7.310	SPRING	32166	3RS ET	S
15-May-19	NWL	3	4.710	SPRING	32166	3RS ET	S
16-May-19	NWL	2	4.080	SPRING	32166	3RS ET	P
16-May-19	NWL	3	44.920	SPRING	32166	3RS ET	P
16-May-19	NWL	4	13.900	SPRING	32166	3RS ET	P
16-May-19	NWL	3	11.800	SPRING	32166	3RS ET	S
16-May-19	NWL	4	0.300	SPRING	32166	3RS ET	S
27-May-19	SWL	2	29.957	SPRING	32166	3RS ET	P
27-May-19	SWL	3	24.860	SPRING	32166	3RS ET	P
27-May-19	SWL	2	12.763	SPRING	32166	3RS ET	S
27-May-19	SWL	3	1.400	SPRING	32166	3RS ET	S
4-Jun-19	NEL	2	27.350	SUMMER	32166	3RS ET	P
4-Jun-19	NEL	3	7.700	SUMMER	32166	3RS ET	P
4-Jun-19	NEL	4	2.600	SUMMER	32166	3RS ET	P
4-Jun-19	NEL	2	7.050	SUMMER	32166	3RS ET	S
4-Jun-19	NEL	3	3.200	SUMMER	32166	3RS ET	S
6-Jun-19	AW	2	4.730	SUMMER	32166	3RS ET	P
6-Jun-19	WL	2	7.467	SUMMER	32166	3RS ET	P
6-Jun-19	WL	3	12.575	SUMMER	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
6-Jun-19	WL	2	1.850	SUMMER	32166	3RS ET	S
6-Jun-19	WL	3	7.388	SUMMER	32166	3RS ET	S
6-Jun-19	WL	4	0.570	SUMMER	32166	3RS ET	S
11-Jun-19	NEL	1	1.600	SUMMER	32166	3RS ET	P
11-Jun-19	NEL	2	34.960	SUMMER	32166	3RS ET	P
11-Jun-19	NEL	1	1.200	SUMMER	32166	3RS ET	S
11-Jun-19	NEL	2	10.140	SUMMER	32166	3RS ET	S
17-Jun-19	SWL	3	10.690	SUMMER	32166	3RS ET	P
17-Jun-19	SWL	4	44.330	SUMMER	32166	3RS ET	P
17-Jun-19	SWL	2	0.900	SUMMER	32166	3RS ET	S
17-Jun-19	SWL	3	2.800	SUMMER	32166	3RS ET	S
17-Jun-19	SWL	4	12.480	SUMMER	32166	3RS ET	S
18-Jun-19	SWL	2	51.312	SUMMER	32166	3RS ET	P
18-Jun-19	SWL	3	2.970	SUMMER	32166	3RS ET	P
18-Jun-19	SWL	2	10.560	SUMMER	32166	3RS ET	S
18-Jun-19	SWL	3	3.830	SUMMER	32166	3RS ET	S
19-Jun-19	NWL	1	7.700	SUMMER	32166	3RS ET	P
19-Jun-19	NWL	2	30.077	SUMMER	32166	3RS ET	P
19-Jun-19	NWL	3	24.682	SUMMER	32166	3RS ET	P
19-Jun-19	NWL	1	3.900	SUMMER	32166	3RS ET	S
19-Jun-19	NWL	2	6.050	SUMMER	32166	3RS ET	S
19-Jun-19	NWL	3	2.491	SUMMER	32166	3RS ET	S
26-Jun-19	AW	2	5.100	SUMMER	32166	3RS ET	P
26-Jun-19	WL	2	18.167	SUMMER	32166	3RS ET	P
26-Jun-19	WL	3	2.710	SUMMER	32166	3RS ET	P
26-Jun-19	WL	2	9.143	SUMMER	32166	3RS ET	S
26-Jun-19	WL	3	1.810	SUMMER	32166	3RS ET	S
27-Jun-19	NWL	2	4.700	SUMMER	32166	3RS ET	P
27-Jun-19	NWL	3	58.800	SUMMER	32166	3RS ET	P
27-Jun-19	NWL	2	2.200	SUMMER	32166	3RS ET	S
27-Jun-19	NWL	3	9.600	SUMMER	32166	3RS ET	S
8-Jul-19	NEL	2	6.410	SUMMER	32166	3RS ET	P
8-Jul-19	NEL	3	27.530	SUMMER	32166	3RS ET	P
8-Jul-19	NEL	4	3.400	SUMMER	32166	3RS ET	P
8-Jul-19	NEL	2	2.960	SUMMER	32166	3RS ET	S
8-Jul-19	NEL	3	7.500	SUMMER	32166	3RS ET	S
9-Jul-19	NEL	2	4.100	SUMMER	32166	3RS ET	P
9-Jul-19	NEL	3	26.300	SUMMER	32166	3RS ET	P
9-Jul-19	NEL	4	6.700	SUMMER	32166	3RS ET	P
9-Jul-19	NEL	2	2.000	SUMMER	32166	3RS ET	S
9-Jul-19	NEL	3	7.500	SUMMER	32166	3RS ET	S
9-Jul-19	NEL	4	0.900	SUMMER	32166	3RS ET	S
16-Jul-19	AW	1	4.980	SUMMER	32166	3RS ET	P
16-Jul-19	WL	1	5.410	SUMMER	32166	3RS ET	P
16-Jul-19	WL	2	5.206	SUMMER	32166	3RS ET	P
16-Jul-19	WL	3	7.009	SUMMER	32166	3RS ET	P
16-Jul-19	WL	4	1.137	SUMMER	32166	3RS ET	P
16-Jul-19	WL	1	1.570	SUMMER	32166	3RS ET	S
16-Jul-19	WL	2	2.237	SUMMER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
16-Jul-19	WL	3	4.340	SUMMER	32166	3RS ET	S
16-Jul-19	WL	4	0.223	SUMMER	32166	3RS ET	S
17-Jul-19	SWL	2	39.559	SUMMER	32166	3RS ET	P
17-Jul-19	SWL	3	11.290	SUMMER	32166	3RS ET	P
17-Jul-19	SWL	1	0.930	SUMMER	32166	3RS ET	S
17-Jul-19	SWL	2	10.694	SUMMER	32166	3RS ET	S
17-Jul-19	SWL	3	4.140	SUMMER	32166	3RS ET	S
18-Jul-19	SWL	1	1.882	SUMMER	32166	3RS ET	P
18-Jul-19	SWL	2	40.279	SUMMER	32166	3RS ET	P
18-Jul-19	SWL	3	13.740	SUMMER	32166	3RS ET	P
18-Jul-19	SWL	1	0.398	SUMMER	32166	3RS ET	S
18-Jul-19	SWL	2	10.003	SUMMER	32166	3RS ET	S
18-Jul-19	SWL	3	3.490	SUMMER	32166	3RS ET	S
22-Jul-19	NWL	1	8.700	SUMMER	32166	3RS ET	P
22-Jul-19	NWL	2	53.140	SUMMER	32166	3RS ET	P
22-Jul-19	NWL	3	0.800	SUMMER	32166	3RS ET	P
22-Jul-19	NWL	1	1.100	SUMMER	32166	3RS ET	S
22-Jul-19	NWL	2	9.860	SUMMER	32166	3RS ET	S
23-Jul-19	AW	2	4.840	SUMMER	32166	3RS ET	P
23-Jul-19	WL	2	14.693	SUMMER	32166	3RS ET	P
23-Jul-19	WL	3	3.892	SUMMER	32166	3RS ET	P
23-Jul-19	WL	2	5.815	SUMMER	32166	3RS ET	S
23-Jul-19	WL	3	3.119	SUMMER	32166	3RS ET	S
24-Jul-19	NWL	2	38.660	SUMMER	32166	3RS ET	P
24-Jul-19	NWL	3	23.760	SUMMER	32166	3RS ET	P
24-Jul-19	NWL	2	6.300	SUMMER	32166	3RS ET	S
24-Jul-19	NWL	3	5.780	SUMMER	32166	3RS ET	S

Notes: CWD monitoring survey data of the two preceding survey months (i.e. May 2019 and June 2019) 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
8-May-19	1	1120	CWD	12	WL	3	72	ON	3RS ET	22.2321	113.8295	SPRING	NONE	P
14-May-19	1	1038	CWD	2	WL	2	169	ON	3RS ET	22.2606	113.8545	SPRING	NONE	S
14-May-19	2	1102	CWD	7	WL	2	505	ON	3RS ET	22.2496	113.8407	SPRING	NONE	P
14-May-19	3	1229	CWD	4	WL	3	171	ON	3RS ET	22.2012	113.8245	SPRING	NONE	S
14-May-19	4	1249	CWD	8	WL	3	126	ON	3RS ET	22.1962	113.8363	SPRING	NONE	P
14-May-19	5	1318	CWD	2	WL	2	396	ON	3RS ET	22.1926	113.8423	SPRING	NONE	S
15-May-19	1	0955	CWD	2	NWL	2	305	ON	3RS ET	22.3681	113.8700	SPRING	NONE	P
15-May-19	2	1054	CWD	1	NWL	3	1539	ON	3RS ET	22.2727	113.8701	SPRING	NONE	P
15-May-19	3	1348	CWD	4	NWL	2	6	ON	3RS ET	22.4008	113.8978	SPRING	NONE	P
27-May-19	1	1210	FP	2	SWL	2	171	ON	3RS ET	22.1536	113.9084	SPRING	NONE	P
27-May-19	2	1316	FP	1	SWL	2	4	ON	3RS ET	22.1584	113.8976	SPRING	NONE	P
27-May-19	3	1443	CWD	4	SWL	2	15	ON	3RS ET	22.1987	113.8692	SPRING	NONE	P
6-Jun-19	1	1052	CWD	3	WL	3	325	ON	3RS ET	22.2518	113.8337	SUMMER	NONE	S
6-Jun-19	2	1123	CWD	6	WL	2	214	ON	3RS ET	22.2445	113.8496	SUMMER	NONE	S
6-Jun-19	3	1221	CWD	2	WL	2	82	ON	3RS ET	22.2144	113.8319	SUMMER	NONE	P
18-Jun-19	1	1134	CWD	1	SWL	2	22	ON	3RS ET	22.2055	113.9224	SUMMER	NONE	S
18-Jun-19	2	1406	CWD	3	SWL	2	89	ON	3RS ET	22.2096	113.8827	SUMMER	NONE	S
18-Jun-19	3	1505	CWD	4	SWL	2	348	ON	3RS ET	22.1764	113.8690	SUMMER	NONE	P
18-Jun-19	4	1603	CWD	1	SWL	2	70	ON	3RS ET	22.1866	113.8494	SUMMER	NONE	P
18-Jun-19	5	1609	CWD	4	SWL	2	225	ON	3RS ET	22.1892	113.8496	SUMMER	PURSE SEINER	P
19-Jun-19	1	1131	CWD	5	NWL	2	70	ON	3RS ET	22.3867	113.8780	SUMMER	NONE	P
19-Jun-19	2	1323	CWD	1	NWL	3	119	ON	3RS ET	22.3999	113.8974	SUMMER	NONE	P
26-Jun-19	1	1052	CWD	7	WL	2	117	ON	3RS ET	22.2231	113.8350	SUMMER	NONE	P
26-Jun-19	2	1211	CWD	3	WL	3	664	ON	3RS ET	22.2054	113.8309	SUMMER	NONE	P
16-Jul-19	1	1034	CWD	5	WL	1	134	ON	3RS ET	22.2665	113.8595	SUMMER	NONE	S
16-Jul-19	2	1123	CWD	1	WL	3	40	ON	3RS ET	22.2411	113.8416	SUMMER	NONE	P
16-Jul-19	3	1133	CWD	2	WL	3	73	ON	3RS ET	22.2412	113.8312	SUMMER	NONE	P
16-Jul-19	4	1159	CWD	5	WL	2	54	ON	3RS ET	22.2277	113.8378	SUMMER	NONE	S
16-Jul-19	5	1229	CWD	11	WL	3	473	ON	3RS ET	22.2137	113.8294	SUMMER	NONE	P
16-Jul-19	6	1313	CWD	3	WL	3	114	ON	3RS ET	22.1953	113.8420	SUMMER	NONE	P
17-Jul-19	1	1123	CWD	1	SWL	2	565	ON	3RS ET	22.1952	113.9279	SUMMER	NONE	P
17-Jul-19	2	1148	CWD	6	SWL	2	41	ON	3RS ET	22.2008	113.9183	SUMMER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
17-Jul-19	3	1244	CWD	4	SWL	2	289	ON	3RS ET	22.1714	113.9086	SUMMER	NONE	P
17-Jul-19	4	1258	CWD	10	SWL	2	24	ON	3RS ET	22.1751	113.9078	SUMMER	NONE	P
17-Jul-19	5	1326	CWD	4	SWL	2	371	ON	3RS ET	22.1927	113.9082	SUMMER	NONE	S
17-Jul-19	6	1339	CWD	3	SWL	2	143	ON	3RS ET	22.1977	113.9078	SUMMER	NONE	P
17-Jul-19	7	1355	CWD	1	SWL	2	35	ON	3RS ET	22.2089	113.8973	SUMMER	NONE	P
17-Jul-19	8	1446	CWD	5	SWL	2	88	ON	3RS ET	22.1830	113.8885	SUMMER	NONE	P
17-Jul-19	9	1519	CWD	2	SWL	3	23	ON	3RS ET	22.1913	113.8780	SUMMER	NONE	P
17-Jul-19	10	1552	CWD	6	SWL	3	97	ON	3RS ET	22.1784	113.8689	SUMMER	NONE	P
17-Jul-19	11	1645	CWD	3	SWL	3	233	ON	3RS ET	22.1922	113.8494	SUMMER	NONE	P
18-Jul-19	1	1220	CWD	8	SWL	2	435	ON	3RS ET	22.1798	113.9042	SUMMER	NONE	S
18-Jul-19	2	1238	CWD	3	SWL	2	16	ON	3RS ET	22.1894	113.9066	SUMMER	NONE	S
18-Jul-19	3	1315	CWD	11	SWL	2	24	ON	3RS ET	22.1780	113.8975	SUMMER	NONE	P
18-Jul-19	4	1409	CWD	9	SWL	2	403	ON	3RS ET	22.2013	113.8871	SUMMER	NONE	P
18-Jul-19	5	1514	CWD	2	SWL	2	31	ON	3RS ET	22.1785	113.8690	SUMMER	NONE	P
18-Jul-19	6	1527	CWD	2	SWL	2	68	ON	3RS ET	22.1850	113.8690	SUMMER	NONE	P
18-Jul-19	7	1542	CWD	1	SWL	2	462	ON	3RS ET	22.1978	113.8685	SUMMER	NONE	P
22-Jul-19	1	1035	CWD	1	NWL	2	131	ON	3RS ET	22.2771	113.8704	SUMMER	NONE	P
23-Jul-19	1	1031	CWD	7	WL	2	142	ON	3RS ET	22.2606	113.8539	SUMMER	NONE	P
23-Jul-19	2	1111	CWD	1	WL	2	85	ON	3RS ET	22.2447	113.8497	SUMMER	NONE	S
23-Jul-19	3	1126	CWD	4	WL	2	77	ON	3RS ET	22.2418	113.8423	SUMMER	NONE	P
23-Jul-19	4	1153	CWD	3	WL	2	1245	ON	3RS ET	22.2357	113.8252	SUMMER	NONE	S
23-Jul-19	5	1203	CWD	3	WL	2	107	ON	3RS ET	22.2325	113.8330	SUMMER	NONE	P
23-Jul-19	6	1230	CWD	3	WL	3	20	ON	3RS ET	22.2145	113.8282	SUMMER	NONE	P
23-Jul-19	7	1305	CWD	5	WL	2	123	ON	3RS ET	22.1962	113.8392	SUMMER	NONE	P
24-Jul-19	1	1129	CWD	2	NWL	2	217	ON	3RS ET	22.3800	113.8764	SUMMER	NONE	P

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 (i.e. May 2019 and June 2019) 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 July 2019 encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 431.916 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 33 on-effort sightings and total number of 137 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in July 2019 are shown as below:

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

$$STG = \frac{33}{431.916}\ x\ 100 = 7.64$$

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

$$ANI = \frac{137}{431.916}\ x\ 100 = 31.72$$

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

A total of 1258.496 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 55 on-effort sightings and total number of 223 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)

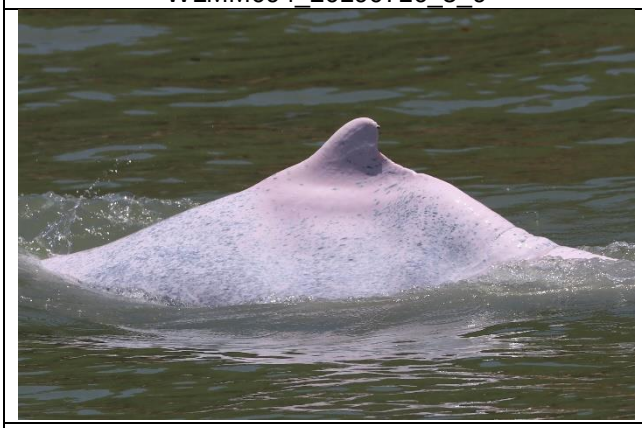
$$STG = \frac{55}{1258.496}\ x\ 100 = 4.37$$

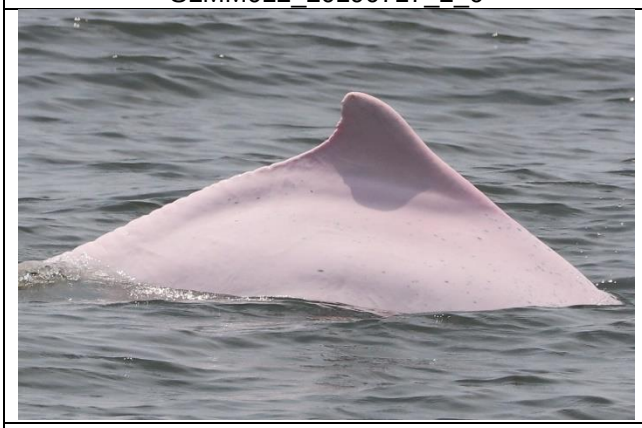
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{223}{1258.496}\ x\ 100 = 17.72$$

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

	
WLMM043_20190716_1_1	WLMM083_20190716_1_4
	
WLMM122_20190716_1_3	WLMM049_20190716_3_8
	
WLMM081_20190716_4_5	WLMM082_20190716_4_9
	
WLMM139_20190716_4_10	WLMM140_20190716_4_5

	
WLMM039_20190716_5_2	WLMM052_20190716_5_14
	
WLMM094_20190716_5_9	WLMM136_20190716_5_6
	
WLMM137_20190716_5_7	WLMM141_20190716_5_2
	
NLMM001_20190716_6_3	SLMM003_20190716_6_9

	
SLMM007_20190716_6_9	SLMM031_20190717_1_6
	
SLMM012_20190717_2_6	SLMM052_20190717_2_5
	
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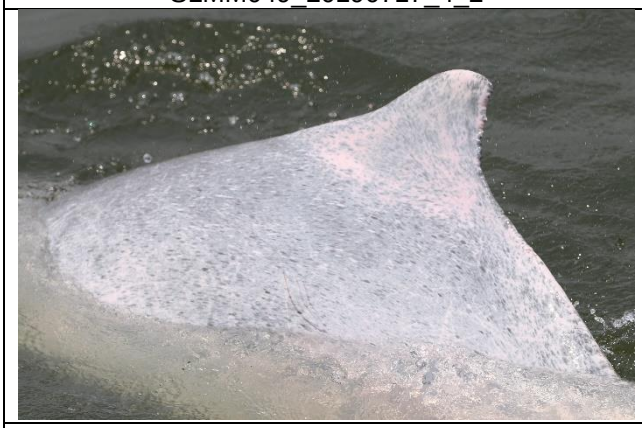
WLMM067_20190717_2_2	WLMM131_20190717_2_3

	
SLMM029_20190717_3_2	WLMM008_20190717_3_1
	
SLMM049_20190717_4_2	SLMM062_20190717_4_6
	
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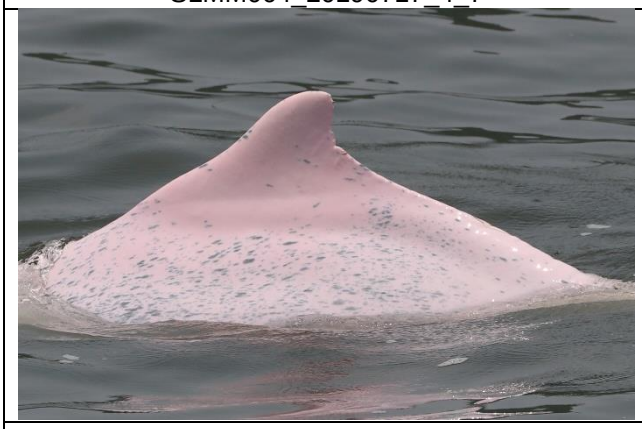	
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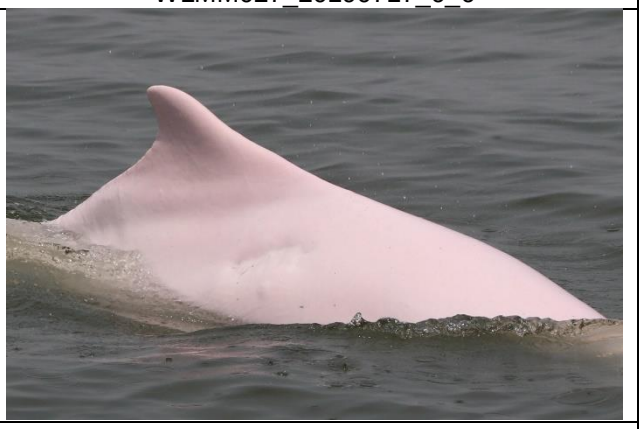
WLMM069_20190717_4_10	WLMM085_20190717_4_6
	
WLMM132_20190717_4_7	SLMM037_20190717_5_2
	
SLMM052_20190717_5_5	WLMM027_20190717_6_6
	
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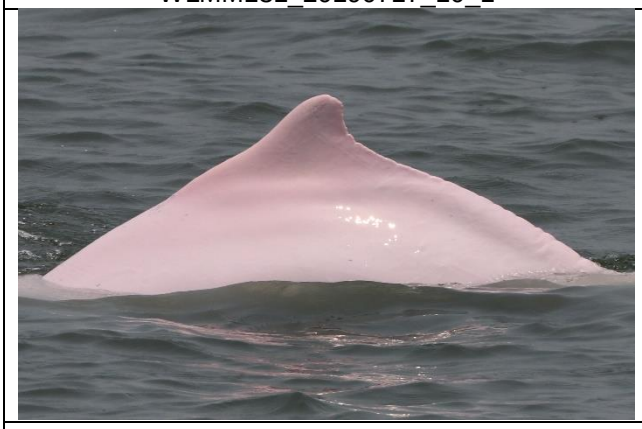
NLMM061_20190717_9_2	WLMM065_20190717_9_8
	
WLMM063_20190717_10_7	WLMM120_20190717_10_2
	
WLMM131_20190717_10_1	WLMM086_20190717_11_4
	
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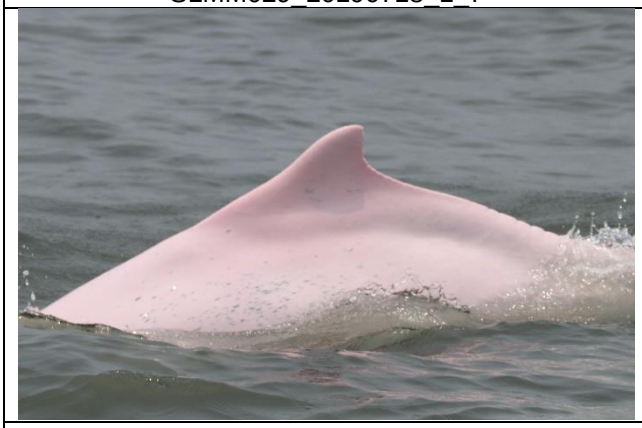
SLMM029_20190718_1_7	SLMM037_20190718_1_7
	
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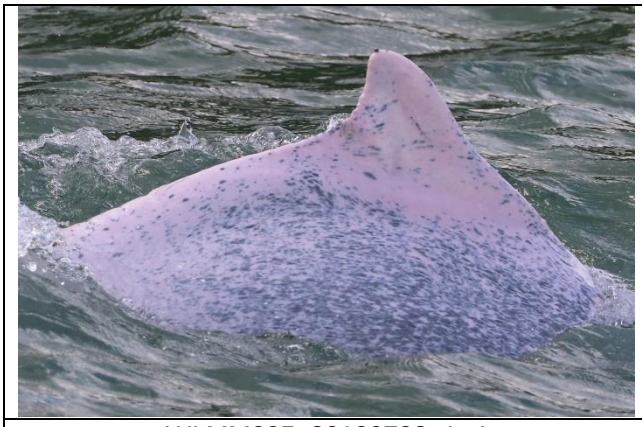
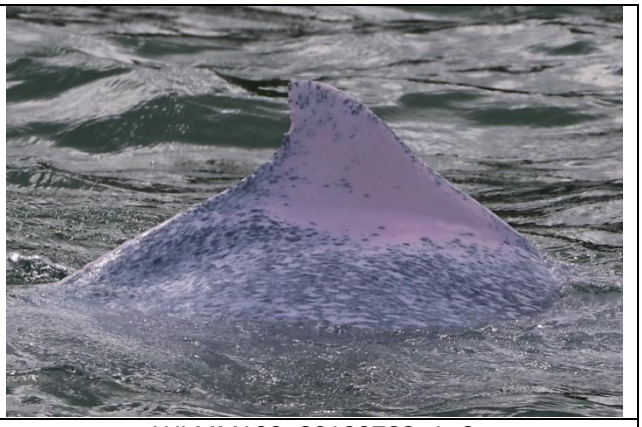
SLMM071_20190718_1_6	WLMM079_20190718_1_11
	
WLMM104_20190718_2_14	NLMM001_20190718_3_5

	
SLMM037_20190718_3_7	SLMM049_20190718_3_2
	
SLMM052_20190718_3_5	SLMM062_20190718_3_5
	
SLMM070_20190718_3_5	WLMM046_20190718_3_17
	
WLMM069_20190718_3_1	WLMM079_20190718_3_2

	
WLMM132_20190718_3_7_Lower	SLMM014_20190718_4_1
	
SLMM028_20190718_4_24	SLMM053_20190718_4_4
	
WLMM006_20190718_4_5	WLMM029_20190718_4_9
	
WLMM078_20190718_4_2	WLMM115_20190722_1_2

	
WLMM095_20190723_1_4	WLMM102_20190723_1_2
	
WLMM115_20190723_1_3	WLMM082_20190723_3_8
	
WLMM115_20190723_3_1	SLMM050_20190723_5_6
	
WLMM109_20190723_5_18	WLMM142_20190723_5_4

	
NLMM049_20190723_6_6	WLMM104_20190723_6_9
	
SLMM022_20190723_7_1	WLMM079_20190723_7_18
	
NLMM037_20190724_1_5	NLMM063_20190724_1_8

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
16/Jul/19	Lung Kwu Chau	8:45	14:45	6:00	2	1-2	1	1
25/Jul/19	Lung Kwu Chau	8:50	14:50	6:00	2-3	1	2	2
26/Jul/19	Sha Chau	8:45	14:45	6:00	2-3	1	0	-

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

Appendix D. Calibration Certificates

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C193701
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-1398)

Date of Receipt / 收件日期 : 8 July 2019

Description / 儀器名稱 : Audio Analyzer
Manufacturer / 製造商 : NTi
Model No. / 型號 : XL2
Serial No. / 編號 : A2A-14829-E0
Supplied By / 委託者 : Mott MacDonald Hong Kong Limited
3/F., International Trade Tower,
348 Kwun Tong Road, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 July 2019

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong
Technical Officer

Certified By 核證 : K C Lee
Engineer

Date of Issue 簽發日期 : 16 July 2019

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C193701
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration using the laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.3.2.

3. The results presented are the mean of 3 measurements at each calibration point.

4 Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C190176
CL281	Multifunction Acoustic Calibrator	CDK1806821

5. Test procedure : MA101N.

6 Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting			Applied Value		UUT Reading (dB)	IEC 61672 Class 1 (dB)
Range (dB)	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	A	FAST	94.00	1	94.0	± 1.1

6.1.2 Linearity

UUT Setting			Applied Value		UUT Reading (dB)
Range (dB)	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 130	A	FAST	94.00	1	94.0 (Ref.)
			104.00		104.0
			114.00		114.0

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting			Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	A	FAST	94.00	1	94.0	Ref.
		SLOW			94.0	± 0.3

Certificate of Calibration
校正證書

Certificate No. : C193701
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting			Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	A	FAST	94.00	63 Hz	67.8	-26.2 ± 1.5
				125 Hz	77.8	-16.1 ± 1.5
				250 Hz	85.3	-8.6 ± 1.4
				500 Hz	90.8	-3.2 ± 1.4
				1 kHz	94.0	Ref.
				2 kHz	95.2	+1.2 ± 1.6
				4 kHz	95.0	+1.0 ± 1.6
				8 kHz	92.9	-1.1 (+2.1; -3.1)
				12.5 kHz	89.7	-4.3 (+3.0; -6.0)

6.3.2 C-Weighting

UUT Setting			Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	C	FAST	94.00	63 Hz	93.0	-0.8 ± 1.5
				125 Hz	93.8	-0.2 ± 1.5
				250 Hz	94.1	0.0 ± 1.4
				500 Hz	94.1	0.0 ± 1.4
				1 kHz	94.0	Ref.
				2 kHz	93.9	-0.2 ± 1.6
				4 kHz	93.3	-0.8 ± 1.6
				8 kHz	91.1	-3.0 (+2.1; -3.1)
				12.5 kHz	88.0	-6.2 (+3.0; -6.0)

Remarks : - Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

94 dB	: 63 Hz - 125 Hz	: ± 0.35 dB
	250 Hz - 500 Hz	: ± 0.30 dB
	1 kHz	: ± 0.20 dB
	2 kHz - 4 kHz	: ± 0.35 dB
	8 kHz	: ± 0.45 dB
	12.5 kHz	: ± 0.70 dB
104 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)
114 dB	: 1 kHz	: ± 0.10 dB (Ref. 94 dB)

- UUT Microphone Model No. : MA220 (ACO7052) & S/N : 72079

- The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

輝創工程有限公司
Sun Creation Engineering Limited
Calibration & Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C193700
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC19-1398) Date of Receipt / 收件日期 : 8 July 2019

Description / 儀器名稱 : Acoustic Calibrator
Manufacturer / 製造商 : Castle
Model No. / 型號 : GA607
Serial No. / 編號 : 040162
Supplied By / 委託者 : Mott MacDonald Hong Kong Limited
3/F., International Trade Tower,
348 Kwun Tong Road, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (50 ± 25)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 July 2019

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : H T Wong, Technical Officer

Certified By 核證 : K C Lee, Engineer

Date of Issue 簽發日期 : 16 July 2019

Certificate of Calibration
校正證書

Certificate No. : C193700
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C183775
CL281	Multifunction Acoustic Calibrator	CDK1806821
TST150A	Measuring Amplifier	C181288

4. Test procedure : MA100N.

5. Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.1	± 0.3	± 0.2
104 dB, 1 kHz	104.0		± 0.3

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000	1 kHz ± 1 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :
Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 — 校正及檢測實驗所
c/o 香港新界屯門興安里一號四樓
Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

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. : AI070143
Date of Issue : 25 July, 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 6920V2 (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	0001C6A7
Date of Received	:	Jul 24, 2019
Date of Calibration	:	Jul 24, 2019
Date of Next Calibration[a]	:	Oct 24, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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	4.08	0.08	Satisfactory
7.42	7.38	-0.04	Satisfactory
10.01	10.05	0.04	Satisfactory

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

(2) Temperature

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

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

(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.

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.02	0.48	0.46	Satisfactory
3.66	3.50	-0.16	Satisfactory
5.70	5.78	0.08	Satisfactory
7.64	7.49	-0.15	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (µS/cm)	Tolerance (%)	Results
0.001	146.9	140.2	-4.56	Satisfactory
0.01	1412	1386	-1.84	Satisfactory
0.1	12890	12742	-1.15	Satisfactory
0.5	58670	56780	-3.22	Satisfactory
1.0	111900	107432	-3.99	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.95	-0.50	Satisfactory
20	19.95	-0.25	Satisfactory
30	30.04	0.13	Satisfactory

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

(6) Turbidity

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

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

~ END OF REPORT ~

Remark(s): -

[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. : AI070142
Date of Issue : 25 July, 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 6920V2 (Multi-Parameters)
Manufacturer	:	YSI (a xylem brand)
Serial Number	:	00019CB2
Date of Received	:	Jul 24, 2019
Date of Calibration	:	Jul 24, 2019
Date of Next Calibration[a]	:	Oct 24, 2019

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS[b,c]

(1) pH at 25°C

Target (pH unit)	Displayed Reading[d] (pH Unit)	Tolerance[e](pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.39	-0.03	Satisfactory
10.01	10.04	0.03	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
23.0	22.62	0.38	Satisfactory
28.0	27.56	-0.44	Satisfactory
48.0	48.9	0.9	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

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

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

(4) Conductivity at 25°C

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

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

(5) Salinity

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

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

(6) Turbidity

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

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

~ END OF REPORT ~

Remark(s): -

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

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

Appendix 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	Approved on 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
3201	Notification of Construction Work under APCO	Works area of 3201	406004	Receipt acknowledged by EPD on 10 Aug 2016
	Construction Noise Permit (General Works)	Works area of 3201	GW-RS0130-19	Valid until 13 Aug 2019
	Discharge License under WPCO	Works area of 3201	WT00032628-2018	Valid from to 19 Dec 2018 to 31 Dec 2023
	Registration as Chemical Waste Producer	Works area of 3201	WPN 5213-951-P3231-01	Completion of Registration on 9 Sep 2016
	Bill Account for disposal		A/C 7025760	Approval granted from EPD on 31 Aug 2016
3202	Notification of Construction Work under APCO	Works area of 3202	439729	Receipt acknowledged by EPD on 23 Nov 2018
	Registration as Chemical Waste Producer	Works area of 3202	WPN 5213-951-S3967-01	Registration was updated on 23 May 2017
	Discharge License under WPCO	Works area of 3202	WT00028293-2017	Valid from 12 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025739	Approval granted from EPD on 31 August 2016
3203	Notification of Construction Work under APCO	Works area of 3203	407053	Receipt acknowledged by EPD on 2 Sep 2016
	Registration as Chemical Waste Producer	Works area of 3203	WPN 5213-951-S3954-01	Registration was updated on 12 Dec 2016
	Discharge License under WPCO	Works area of 3203	WT00028251-2017	Valid from 9 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025846	Approval granted from EPD on 9 Sep 2016

Contract No.	Description	Location	Permit/ Reference No.	Status
3204	Notification of Construction Work under APCO	Works area of 3204	406446	Receipt acknowledged by EPD on 19 Aug 2016
	Registration as Chemical Waste Producer	Works Area of 3204	WPN 5213-951-C4102-01	Completion of Registration on 15 Sep 2016
		Site Office of 3204	WPN 5213-951-C4102-02	Completion of Registration on 17 Mar 2017
	Discharge License under WPCO	Works area of 3204	WT00028245-2017	Valid from 5 Jun 2017 to 30 Jun 2022
	Bill Account for disposal		A/C 7025969	Approval granted from EPD on 21 Sep 2016
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-RS0559-19	Superseded by GW-RS0593-19 on 8 Jul 2019
			GW-RS0593-19	Valid until 07 Jan 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-RS0482-19	Superseded by GW-RS0650-19 on 22 Jul 2019
			GW-RS0650-19	Valid until 10 Jan 2020
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
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
	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-RS0266-19	Valid until 11 Oct 2019
		Works area of 3301	GW-RS0267-19	Valid until 11 Oct 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
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
	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-RS0096-19	Superseded by GW-RS0595-19 on 9 Jul 2019
			GW-RS0595-19	Valid until 06 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
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
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0207-19	Valid until 14 Aug 2019
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-RS0184-19	Valid until 4 Sep 2019
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

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3502	GW-RS0191-19	Valid until 10 Sep 2019
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-RS0554-19	Superseded by GW-RS0592-19 on 10 Jul 2019
			GW-RS0592-19	Valid until 4 Jan 2020
		Stockpiling area of 3503	GW-RS0407-19	Valid until 13 Nov 2019
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-RS0641-19	Valid until 31 Dec 2019
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	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-RS0313-19	Valid until 25 Oct 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

Contract No.	Description	Location	Permit/ Reference No.	Status
	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-RS0068-19	Valid until 24 Jul 2019
			GW-RS0662-19	Valid from 25 Jul 2019 to 24 Jan 2020
		Works area of 3801 (Drill and grouting works)	GW-RS0556-19	Valid until 26 Sep 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 July 2019)

Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 31 July 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-Jul	8:17	8S210	XZM	Arrival	13.2	-	-
1-Jul	10:41	8S212	XZM	Arrival	12.4	-	-
1-Jul	11:11	8S121	XZM	Departure	13	-	-
1-Jul	12:35	8S215	XZM	Arrival	12.5	-	-
1-Jul	18:10	8S126	XZM	Departure	11.9	-	-
1-Jul	20:59	8S2113	XZM	Arrival	12.5	-	-
1-Jul	9:00	3A061	YFT	Arrival	13.1	-	-
1-Jul	10:52	3A063	YFT	Arrival	12.6	-	-
1-Jul	12:58	3A064	YFT	Arrival	12.4	-	-
1-Jul	14:11	3A164	YFT	Departure	12.7	-	-
1-Jul	14:59	3A065	YFT	Arrival	12.1	-	-
1-Jul	16:18	3A167	YFT	Departure	12.2	-	-
1-Jul	17:04	3A067	YFT	Arrival	11.7	-	-
1-Jul	10:04	3A081	ZUI	Arrival	13.6	-	-
1-Jul	10:40	3A181	ZUI	Departure	12.5	-	-
1-Jul	14:00	3A082	ZUI	Arrival	12.9	-	-
1-Jul	14:21	3A182	ZUI	Departure	11.3	-	-
1-Jul	17:10	3A083	ZUI	Arrival	12	-	-
1-Jul	17:24	3A183	ZUI	Departure	13.1	-	-
1-Jul	20:40	3A084	ZUI	Arrival	12.4	-	-
1-Jul	20:54	3A185	ZUI	Departure	13.7	-	-
2-Jul	8:21	8S210	XZM	Arrival	13.4	-	-
2-Jul	10:45	8S212	XZM	Arrival	10.4	-	-
2-Jul	11:06	8S121	XZM	Departure	11.7	-	-
2-Jul	12:35	8S215	XZM	Arrival	13.3	-	-
2-Jul	18:03	8S126	XZM	Departure	11.6	-	-
2-Jul	20:45	8S2113	XZM	Arrival	13.1	-	-
2-Jul	8:56	3A061	YFT	Arrival	11.9	-	-
2-Jul	10:59	3A063	YFT	Arrival	11.8	-	-
2-Jul	12:58	3A064	YFT	Arrival	12	-	-
2-Jul	14:14	3A164	YFT	Departure	12	-	-
2-Jul	14:59	3A065	YFT	Arrival	12	-	-
2-Jul	16:21	3A167	YFT	Departure	12.4	-	-
2-Jul	17:03	3A067	YFT	Arrival	11.6	-	-
2-Jul	9:57	3A081	ZUI	Arrival	13.4	-	-
2-Jul	10:29	3A181	ZUI	Departure	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)
2-Jul	14:18	3A082	ZUI	Arrival	13.3	-	-
2-Jul	14:31	3A182	ZUI	Departure	12	-	-
2-Jul	17:15	3A083	ZUI	Arrival	12.6	-	-
2-Jul	17:30	3A183	ZUI	Departure	12.7	-	-
2-Jul	20:37	3A084	ZUI	Arrival	12.5	-	-
2-Jul	20:56	3A185	ZUI	Departure	13.4	-	-
3-Jul	8:16	8S210	XZM	Arrival	12.4	-	-
3-Jul	10:43	8S212	XZM	Arrival	11.5	-	-
3-Jul	11:11	8S121	XZM	Departure	13	-	-
3-Jul	12:33	8S215	XZM	Arrival	13	-	-
3-Jul	18:10	8S126	XZM	Departure	13.1	-	-
3-Jul	20:51	8S2113	XZM	Arrival	12.3	-	-
3-Jul	9:07	3A061	YFT	Arrival	11.3	-	-
3-Jul	10:54	3A063	YFT	Arrival	11.3	-	-
3-Jul	12:54	3A064	YFT	Arrival	12.8	-	-
3-Jul	14:15	3A164	YFT	Departure	12.6	-	-
3-Jul	15:05	3A065	YFT	Arrival	11.6	-	-
3-Jul	16:18	3A167	YFT	Departure	11.7	-	-
3-Jul	16:58	3A067	YFT	Arrival	11.9	-	-
3-Jul	9:57	3A081	ZUI	Arrival	12.9	-	-
3-Jul	10:30	3A181	ZUI	Departure	12.8	-	-
3-Jul	14:01	3A082	ZUI	Arrival	13.3	-	-
3-Jul	14:15	3A182	ZUI	Departure	11.9	-	-
3-Jul	17:02	3A083	ZUI	Arrival	13	-	-
3-Jul	17:23	3A183	ZUI	Departure	11.7	-	-
3-Jul	20:36	3A084	ZUI	Arrival	11.4	-	-
3-Jul	21:01	3A185	ZUI	Departure	12.4	-	-
4-Jul	8:13	8S210	XZM	Arrival	12.1	-	-
4-Jul	10:30	8S212	XZM	Arrival	12.6	-	-
4-Jul	11:07	8S121	XZM	Departure	12.5	-	-
4-Jul	12:42	8S215	XZM	Arrival	12.6	-	-
4-Jul	18:01	8S126	XZM	Departure	12.7	-	-
4-Jul	20:50	8S2113	XZM	Arrival	11.6	-	-
4-Jul	8:55	3A061	YFT	Arrival	12.3	-	-
4-Jul	10:54	3A063	YFT	Arrival	12.7	-	-
4-Jul	12:59	3A064	YFT	Arrival	12.6	-	-
4-Jul	14:12	3A164	YFT	Departure	12.8	-	-
4-Jul	14:53	3A065	YFT	Arrival	12.2	-	-
4-Jul	16:14	3A167	YFT	Departure	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)
4-Jul	16:56	3A067	YFT	Arrival	13.1	-	-
4-Jul	9:58	3A081	ZUI	Arrival	12.6	-	-
4-Jul	10:25	3A181	ZUI	Departure	12.3	-	-
4-Jul	13:57	3A082	ZUI	Arrival	13.5	-	-
4-Jul	14:11	3A182	ZUI	Departure	11.9	-	-
4-Jul	17:02	3A083	ZUI	Arrival	12.8	-	-
4-Jul	17:23	3A183	ZUI	Departure	11.3	-	-
4-Jul	20:44	3A084	ZUI	Arrival	12.5	-	-
4-Jul	20:59	3A185	ZUI	Departure	13.1	-	-
5-Jul	8:25	8S210	XZM	Arrival	11.4	-	-
5-Jul	10:40	8S212	XZM	Arrival	11.7	-	-
5-Jul	11:01	8S121	XZM	Departure	10.9	-	-
5-Jul	12:37	8S215	XZM	Arrival	12.4	-	-
5-Jul	17:59	8S126	XZM	Departure	11.9	-	-
5-Jul	20:52	8S2113	XZM	Arrival	12.5	-	-
5-Jul	8:55	3A061	YFT	Arrival	11.9	-	-
5-Jul	10:57	3A063	YFT	Arrival	12.2	-	-
5-Jul	12:55	3A064	YFT	Arrival	12.3	-	-
5-Jul	14:14	3A164	YFT	Departure	12.2	-	-
5-Jul	14:51	3A065	YFT	Arrival	12.7	-	-
5-Jul	16:16	3A167	YFT	Departure	11	-	-
5-Jul	16:56	3A067	YFT	Arrival	12.1	-	-
5-Jul	9:59	3A081	ZUI	Arrival	12.9	-	-
5-Jul	10:31	3A181	ZUI	Departure	13.2	-	-
5-Jul	14:01	3A082	ZUI	Arrival	13.3	-	-
5-Jul	14:14	3A182	ZUI	Departure	11.9	-	-
5-Jul	17:01	3A083	ZUI	Arrival	12.9	-	-
5-Jul	17:29	3A183	ZUI	Departure	11	-	-
5-Jul	20:45	3A084	ZUI	Arrival	12.6	-	-
5-Jul	20:56	3A185	ZUI	Departure	12.8	-	-
6-Jul	8:28	8S210	XZM	Arrival	11.6	-	-
6-Jul	10:40	8S212	XZM	Arrival	11.7	-	-
6-Jul	11:01	8S121	XZM	Departure	12.2	-	-
6-Jul	12:34	8S215	XZM	Arrival	12.1	-	-
6-Jul	18:01	8S126	XZM	Departure	13.1	-	-
6-Jul	20:55	8S2113	XZM	Arrival	11.8	-	-
6-Jul	8:54	3A061	YFT	Arrival	12.4	-	-
6-Jul	10:56	3A063	YFT	Arrival	12.5	-	-
6-Jul	12:56	3A064	YFT	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)
6-Jul	14:15	3A164	YFT	Departure	11.8	-	-
6-Jul	14:55	3A065	YFT	Arrival	12.7	<= 5	< 2min
6-Jul	16:13	3A167	YFT	Departure	13.1	-	-
6-Jul	17:01	3A067	YFT	Arrival	12.1	-	-
6-Jul	9:56	3A081	ZUI	Arrival	12.6	-	-
6-Jul	10:25	3A181	ZUI	Departure	13.3	-	-
6-Jul	13:56	3A082	ZUI	Arrival	13.5	-	-
6-Jul	14:16	3A182	ZUI	Departure	12.2	-	-
6-Jul	17:01	3A083	ZUI	Arrival	13.3	-	-
6-Jul	17:20	3A183	ZUI	Departure	11.4	-	-
6-Jul	20:43	3A084	ZUI	Arrival	12.8	-	-
6-Jul	20:57	3A185	ZUI	Departure	12.3	-	-
7-Jul	8:24	8S210	XZM	Arrival	11.4	-	-
7-Jul	10:37	8S212	XZM	Arrival	12.3	-	-
7-Jul	11:11	8S121	XZM	Departure	12.5	-	-
7-Jul	12:35	8S215	XZM	Arrival	11.8	-	-
7-Jul	18:06	8S126	XZM	Departure	11.8	-	-
7-Jul	20:50	8S2113	XZM	Arrival	11.5	-	-
7-Jul	8:54	3A061	YFT	Arrival	13.1	-	-
7-Jul	10:53	3A063	YFT	Arrival	12.2	-	-
7-Jul	12:55	3A064	YFT	Arrival	11.1	-	-
7-Jul	14:15	3A164	YFT	Departure	11.5	-	-
7-Jul	14:55	3A065	YFT	Arrival	12.3	-	-
7-Jul	16:18	3A167	YFT	Departure	12.3	-	-
7-Jul	16:57	3A067	YFT	Arrival	11.5	-	-
7-Jul	19:46	3A168	YFT	Departure	12.1	-	-
7-Jul	10:03	3A081	ZUI	Arrival	12.7	-	-
7-Jul	10:29	3A181	ZUI	Departure	13.1	-	-
7-Jul	14:00	3A082	ZUI	Arrival	13.5	-	-
7-Jul	14:17	3A182	ZUI	Departure	12.5	-	-
7-Jul	17:01	3A083	ZUI	Arrival	13.3	-	-
7-Jul	17:26	3A183	ZUI	Departure	11.7	-	-
7-Jul	20:42	3A084	ZUI	Arrival	12.6	-	-
7-Jul	20:57	3A185	ZUI	Departure	12	-	-
8-Jul	8:17	8S210	XZM	Arrival	12.9	-	-
8-Jul	10:37	8S212	XZM	Arrival	12.1	-	-
8-Jul	11:03	8S121	XZM	Departure	12.3	-	-
8-Jul	12:45	8S215	XZM	Arrival	12.6	-	-
8-Jul	18:09	8S126	XZM	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)
8-Jul	20:55	8S2113	XZM	Arrival	11.7	-	-
8-Jul	8:51	3A061	YFT	Arrival	12.6	-	-
8-Jul	11:02	3A063	YFT	Arrival	12.2	-	-
8-Jul	12:57	3A064	YFT	Arrival	12.6	-	-
8-Jul	14:18	3A164	YFT	Departure	13.2	-	-
8-Jul	14:55	3A065	YFT	Arrival	11.7	-	-
8-Jul	16:19	3A167	YFT	Departure	11.6	-	-
8-Jul	16:58	3A067	YFT	Arrival	13.2	-	-
8-Jul	19:44	3A168	YFT	Departure	12.7	-	-
8-Jul	9:59	3A081	ZUI	Arrival	12.9	-	-
8-Jul	10:27	3A181	ZUI	Departure	13.2	-	-
8-Jul	13:57	3A082	ZUI	Arrival	13	-	-
8-Jul	14:19	3A182	ZUI	Departure	12.9	-	-
8-Jul	17:04	3A083	ZUI	Arrival	13.5	-	-
8-Jul	17:20	3A183	ZUI	Departure	12.5	-	-
8-Jul	20:39	3A084	ZUI	Arrival	13.3	-	-
8-Jul	20:57	3A185	ZUI	Departure	12.1	-	-
9-Jul	8:17	8S210	XZM	Arrival	12.1	-	-
9-Jul	10:41	8S212	XZM	Arrival	11.7	-	-
9-Jul	11:05	8S121	XZM	Departure	12.2	-	-
9-Jul	12:35	8S215	XZM	Arrival	12.1	-	-
9-Jul	18:00	8S126	XZM	Departure	12.3	-	-
9-Jul	20:57	8S2113	XZM	Arrival	13.2	-	-
9-Jul	8:53	3A061	YFT	Arrival	11.9	-	-
9-Jul	10:58	3A063	YFT	Arrival	12.5	-	-
9-Jul	12:59	3A064	YFT	Arrival	12.1	-	-
9-Jul	14:19	3A164	YFT	Departure	12.6	-	-
9-Jul	14:52	3A065	YFT	Arrival	12.8	-	-
9-Jul	16:15	3A167	YFT	Departure	13.4	-	-
9-Jul	16:57	3A067	YFT	Arrival	11.9	-	-
9-Jul	9:58	3A081	ZUI	Arrival	13	-	-
9-Jul	10:25	3A181	ZUI	Departure	12.4	-	-
9-Jul	13:56	3A082	ZUI	Arrival	12.7	-	-
9-Jul	14:21	3A182	ZUI	Departure	13.1	-	-
9-Jul	17:04	3A083	ZUI	Arrival	13.5	-	-
9-Jul	17:22	3A183	ZUI	Departure	12.5	-	-
9-Jul	20:36	3A084	ZUI	Arrival	13	-	-
9-Jul	20:54	3A185	ZUI	Departure	11.9	-	-
10-Jul	8:16	8S210	XZM	Arrival	13.1	-	-

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)
10-Jul	10:38	8S212	XZM	Arrival	12	-	-
10-Jul	11:05	8S121	XZM	Departure	11.3	-	-
10-Jul	12:39	8S215	XZM	Arrival	11.9	-	-
10-Jul	18:05	8S126	XZM	Departure	11.8	-	-
10-Jul	20:56	8S2113	XZM	Arrival	11.7	-	-
10-Jul	8:55	3A061	YFT	Arrival	12.2	-	-
10-Jul	10:57	3A063	YFT	Arrival	11.1	-	-
10-Jul	12:59	3A064	YFT	Arrival	12.6	-	-
10-Jul	14:14	3A164	YFT	Departure	12.8	-	-
10-Jul	14:57	3A065	YFT	Arrival	12	-	-
10-Jul	16:20	3A167	YFT	Departure	12.2	-	-
10-Jul	16:56	3A067	YFT	Arrival	12.7	-	-
10-Jul	10:00	3A081	ZUI	Arrival	12.8	<= 5	< 3min
10-Jul	10:36	3A181	ZUI	Departure	12.4	-	-
10-Jul	13:58	3A082	ZUI	Arrival	12.9	-	-
10-Jul	14:16	3A182	ZUI	Departure	13.2	-	-
10-Jul	17:01	3A083	ZUI	Arrival	12.8	-	-
10-Jul	17:29	3A183	ZUI	Departure	12.8	-	-
10-Jul	20:42	3A084	ZUI	Arrival	12.9	-	-
10-Jul	20:59	3A185	ZUI	Departure	12	-	-
11-Jul	8:19	8S210	XZM	Arrival	12.4	-	-
11-Jul	10:42	8S212	XZM	Arrival	13.1	-	-
11-Jul	11:01	8S121	XZM	Departure	12.5	-	-
11-Jul	12:31	8S215	XZM	Arrival	12	-	-
11-Jul	17:58	8S126	XZM	Departure	12.2	-	-
11-Jul	20:48	8S2113	XZM	Arrival	12.6	-	-
11-Jul	8:56	3A061	YFT	Arrival	12.5	-	-
11-Jul	10:56	3A063	YFT	Arrival	11.7	-	-
11-Jul	12:59	3A064	YFT	Arrival	12.1	-	-
11-Jul	14:17	3A164	YFT	Departure	11.9	-	-
11-Jul	14:55	3A065	YFT	Arrival	12.5	-	-
11-Jul	16:20	3A167	YFT	Departure	13.2	-	-
11-Jul	16:52	3A067	YFT	Arrival	12.7	-	-
11-Jul	9:59	3A081	ZUI	Arrival	12.8	-	-
11-Jul	10:27	3A181	ZUI	Departure	11.9	-	-
11-Jul	13:59	3A082	ZUI	Arrival	12.8	-	-
11-Jul	14:19	3A182	ZUI	Departure	12.9	-	-
11-Jul	17:04	3A083	ZUI	Arrival	12.8	-	-
11-Jul	17:21	3A183	ZUI	Departure	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)
11-Jul	20:46	3A084	ZUI	Arrival	12.7	-	-
11-Jul	21:02	3A185	ZUI	Departure	12.5	-	-
12-Jul	8:18	8S210	XZM	Arrival	12.7	-	-
12-Jul	10:41	8S212	XZM	Arrival	11.5	-	-
12-Jul	11:06	8S121	XZM	Departure	12.8	-	-
12-Jul	12:34	8S215	XZM	Arrival	12.4	-	-
12-Jul	18:09	8S126	XZM	Departure	12.7	-	-
12-Jul	21:06	8S2113	XZM	Arrival	11.5	-	-
12-Jul	8:58	3A061	YFT	Arrival	11.6	-	-
12-Jul	10:57	3A063	YFT	Arrival	12.5	-	-
12-Jul	12:57	3A064	YFT	Arrival	11.8	-	-
12-Jul	14:24	3A164	YFT	Departure	11.7	-	-
12-Jul	15:05	3A065	YFT	Arrival	12.8	-	-
12-Jul	16:17	3A167	YFT	Departure	13.1	-	-
12-Jul	17:00	3A067	YFT	Arrival	12.2	-	-
12-Jul	9:58	3A081	ZUI	Arrival	13.4	-	-
12-Jul	10:28	3A181	ZUI	Departure	12.1	-	-
12-Jul	14:03	3A082	ZUI	Arrival	12.7	-	-
12-Jul	14:19	3A182	ZUI	Departure	12.2	-	-
12-Jul	17:04	3A083	ZUI	Arrival	12.1	-	-
12-Jul	17:20	3A183	ZUI	Departure	12.5	-	-
12-Jul	20:42	3A084	ZUI	Arrival	13.3	-	-
12-Jul	20:56	3A185	ZUI	Departure	12.3	-	-
13-Jul	8:16	8S210	XZM	Arrival	12.2	-	-
13-Jul	10:32	8S212	XZM	Arrival	12.6	-	-
13-Jul	11:00	8S121	XZM	Departure	12.5	-	-
13-Jul	12:35	8S215	XZM	Arrival	13.4	-	-
13-Jul	17:58	8S126	XZM	Departure	13.7	-	-
13-Jul	20:50	8S2113	XZM	Arrival	12.9	-	-
13-Jul	8:59	3A061	YFT	Arrival	12.1	-	-
13-Jul	10:54	3A063	YFT	Arrival	12.8	-	-
13-Jul	12:58	3A064	YFT	Arrival	12.3	-	-
13-Jul	14:11	3A164	YFT	Departure	13	-	-
13-Jul	14:56	3A065	YFT	Arrival	11.8	-	-
13-Jul	16:17	3A167	YFT	Departure	12.1	-	-
13-Jul	16:57	3A067	YFT	Arrival	12.6	-	-
13-Jul	9:59	3A081	ZUI	Arrival	13.4	-	-
13-Jul	10:31	3A181	ZUI	Departure	12.1	-	-
13-Jul	14:07	3A082	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)
13-Jul	14:18	3A182	ZUI	Departure	11.9	-	-
13-Jul	17:08	3A083	ZUI	Arrival	12.6	-	-
13-Jul	17:21	3A183	ZUI	Departure	13	-	-
13-Jul	20:43	3A084	ZUI	Arrival	13.2	-	-
13-Jul	20:58	3A185	ZUI	Departure	13.1	-	-
14-Jul	8:16	8S210	XZM	Arrival	13.3	-	-
14-Jul	10:34	8S212	XZM	Arrival	12.7	-	-
14-Jul	11:04	8S121	XZM	Departure	12.8	-	-
14-Jul	12:38	8S215	XZM	Arrival	12.1	-	-
14-Jul	18:01	8S126	XZM	Departure	12.4	-	-
14-Jul	20:51	8S2113	XZM	Arrival	12.6	-	-
14-Jul	8:57	3A061	YFT	Arrival	12.3	-	-
14-Jul	10:55	3A063	YFT	Arrival	12.6	-	-
14-Jul	13:00	3A064	YFT	Arrival	12.4	-	-
14-Jul	14:17	3A164	YFT	Departure	11.6	-	-
14-Jul	15:01	3A065	YFT	Arrival	11.2	-	-
14-Jul	16:14	3A167	YFT	Departure	12.2	-	-
14-Jul	17:01	3A067	YFT	Arrival	11.9	-	-
14-Jul	11:23	3A081	ZUI	Arrival	12.9	-	-
14-Jul	11:37	3A181	ZUI	Departure	12.3	-	-
14-Jul	13:47	3A082	ZUI	Arrival	12.3**	-	-
14-Jul	14:10	3A182	ZUI	Departure	12.5	-	-
14-Jul	17:03	3A083	ZUI	Arrival	12.5	-	-
14-Jul	17:33	3A183	ZUI	Departure	12.9	-	-
14-Jul	20:44	3A084	ZUI	Arrival	12.8	-	-
14-Jul	20:56	3A185	ZUI	Departure	12.9	-	-
15-Jul	8:20	8S210	XZM	Arrival	11.4	-	-
15-Jul	10:38	8S212	XZM	Arrival	12.4	-	-
15-Jul	11:09	8S121	XZM	Departure	12.6	-	-
15-Jul	12:40	8S215	XZM	Arrival	12.4	-	-
15-Jul	18:03	8S126	XZM	Departure	13.3	-	-
15-Jul	20:52	8S2113	XZM	Arrival	12	-	-
15-Jul	8:57	3A061	YFT	Arrival	12.3	-	-
15-Jul	10:55	3A063	YFT	Arrival	12.9	-	-
15-Jul	12:57	3A064	YFT	Arrival	11.6	-	-
15-Jul	14:16	3A164	YFT	Departure	11.6	-	-
15-Jul	15:03	3A065	YFT	Arrival	12.6	-	-
15-Jul	16:34	3A167	YFT	Departure	12.7	-	-
15-Jul	16:59	3A067	YFT	Arrival	11.1	-	-

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)
15-Jul	9:58	3A081	ZUI	Arrival	11	-	-
15-Jul	10:18	3A181	ZUI	Departure	11.8	-	-
15-Jul	13:59	3A082	ZUI	Arrival	13	-	-
15-Jul	14:17	3A182	ZUI	Departure	11.6	-	-
15-Jul	17:05	3A083	ZUI	Arrival	12.7	-	-
15-Jul	17:38	3A183	ZUI	Departure	13.1	-	-
15-Jul	20:40	3A084	ZUI	Arrival	12.2	-	-
15-Jul	20:57	3A185	ZUI	Departure	13.5	-	-
16-Jul	8:20	8S210	XZM	Arrival	11.6	-	-
16-Jul	10:34	8S212	XZM	Arrival	12	-	-
16-Jul	11:01	8S121	XZM	Departure	12.9	-	-
16-Jul	12:33	8S215	XZM	Arrival	13	-	-
16-Jul	18:03	8S126	XZM	Departure	12.6	-	-
16-Jul	20:49	8S2113	XZM	Arrival	12.7	-	-
16-Jul	8:55	3A061	YFT	Arrival	12.5	-	-
16-Jul	10:56	3A063	YFT	Arrival	12.3	-	-
16-Jul	12:55	3A064	YFT	Arrival	12.8	-	-
16-Jul	14:13	3A164	YFT	Departure	12.4	-	-
16-Jul	14:58	3A065	YFT	Arrival	12.8	-	-
16-Jul	16:15	3A167	YFT	Departure	13.2	-	-
16-Jul	16:55	3A067	YFT	Arrival	12.1	-	-
16-Jul	10:08	3A081	ZUI	Arrival	13.4	-	-
16-Jul	10:20	3A181	ZUI	Departure	12.5	-	-
16-Jul	13:44	3A082	ZUI	Arrival	13.3	-	-
16-Jul	14:25	3A182	ZUI	Departure	12.9	-	-
16-Jul	17:04	3A083	ZUI	Arrival	12.3	-	-
16-Jul	17:40	3A183	ZUI	Departure	11.9	-	-
16-Jul	20:41	3A084	ZUI	Arrival	12.4	-	-
16-Jul	20:56	3A185	ZUI	Departure	13.6	-	-
17-Jul	8:17	8S210	XZM	Arrival	13.1	-	-
17-Jul	10:39	8S212	XZM	Arrival	12.4	-	-
17-Jul	10:59	8S121	XZM	Departure	13	-	-
17-Jul	12:38	8S215	XZM	Arrival	12.8	-	-
17-Jul	18:03	8S126	XZM	Departure	13.1	-	-
17-Jul	20:51	8S2113	XZM	Arrival	12.4	-	-
17-Jul	8:56	3A061	YFT	Arrival	12.5	-	-
17-Jul	10:57	3A063	YFT	Arrival	12.4	-	-
17-Jul	12:24	3A168	YFT	Departure	12.5	-	-
17-Jul	12:58	3A064	YFT	Arrival	13	-	-

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)
17-Jul	14:26	3A164	YFT	Departure	13.3	-	-
17-Jul	15:13	3A065	YFT	Arrival	11.2	-	-
17-Jul	16:13	3A167	YFT	Departure	12.2	-	-
17-Jul	16:57	3A067	YFT	Arrival	12.7	-	-
17-Jul	10:06	3A081	ZUI	Arrival	12.2	-	-
17-Jul	10:30	3A181	ZUI	Departure	13.2	-	-
17-Jul	14:03	3A082	ZUI	Arrival	13.5	-	-
17-Jul	14:16	3A182	ZUI	Departure	11.5	-	-
17-Jul	17:01	3A083	ZUI	Arrival	12.9	-	-
17-Jul	17:25	3A183	ZUI	Departure	12.2	-	-
17-Jul	20:38	3A084	ZUI	Arrival	12.6	-	-
17-Jul	21:00	3A185	ZUI	Departure	13.5	-	-
18-Jul	8:18	8S210	XZM	Arrival	12.7	-	-
18-Jul	10:39	8S212	XZM	Arrival	11.4	-	-
18-Jul	11:01	8S121	XZM	Departure	12.9	-	-
18-Jul	12:36	8S215	XZM	Arrival	12.4	-	-
18-Jul	18:13	8S126	XZM	Departure	11.8	-	-
18-Jul	21:08	8S2113	XZM	Arrival	11.6	-	-
18-Jul	9:05	3A061	YFT	Arrival	10.3	-	-
18-Jul	10:55	3A063	YFT	Arrival	11.2	-	-
18-Jul	13:06	3A064	YFT	Arrival	12.9	-	-
18-Jul	14:12	3A164	YFT	Departure	12.8	-	-
18-Jul	14:56	3A065	YFT	Arrival	12.5	-	-
18-Jul	16:16	3A167	YFT	Departure	12.1	-	-
18-Jul	17:01	3A067	YFT	Arrival	12.4	-	-
18-Jul	9:58	3A081	ZUI	Arrival	13.2	-	-
18-Jul	10:27	3A181	ZUI	Departure	13.2	-	-
18-Jul	13:59	3A082	ZUI	Arrival	13.6	-	-
18-Jul	14:16	3A182	ZUI	Departure	12	-	-
18-Jul	17:03	3A083	ZUI	Arrival	13.5	-	-
18-Jul	17:31	3A183	ZUI	Departure	11.6	-	-
18-Jul	20:44	3A084	ZUI	Arrival	12.3	-	-
18-Jul	21:05	3A185	ZUI	Departure	13.5	-	-
19-Jul	8:31	8S210	XZM	Arrival	11.9	-	-
19-Jul	10:35	8S212	XZM	Arrival	12.3	-	-
19-Jul	11:00	8S121	XZM	Departure	12.5	-	-
19-Jul	12:34	8S215	XZM	Arrival	13.1	-	-
19-Jul	18:06	8S126	XZM	Departure	12.4	-	-
19-Jul	21:10	8S2113	XZM	Arrival	11.5	-	-

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)
19-Jul	8:55	3A061	YFT	Arrival	12.6	-	-
19-Jul	11:06	3A063	YFT	Arrival	11.3	-	-
19-Jul	13:01	3A064	YFT	Arrival	12.4	-	-
19-Jul	14:16	3A164	YFT	Departure	12.4	-	-
19-Jul	14:57	3A065	YFT	Arrival	12.5	-	-
19-Jul	16:16	3A167	YFT	Departure	10.7	-	-
19-Jul	17:01	3A067	YFT	Arrival	12.3	-	-
19-Jul	9:58	3A081	ZUI	Arrival	12.8	-	-
19-Jul	10:31	3A181	ZUI	Departure	12.6	-	-
19-Jul	13:58	3A082	ZUI	Arrival	13.5	-	-
19-Jul	14:10	3A182	ZUI	Departure	12.3	-	-
19-Jul	17:00	3A083	ZUI	Arrival	13.1	-	-
19-Jul	17:16	3A183	ZUI	Departure	11.6	-	-
19-Jul	20:51	3A084	ZUI	Arrival	12.6	-	-
19-Jul	21:03	3A185	ZUI	Departure	13.4	-	-
20-Jul	8:22	8S210	XZM	Arrival	11.8	-	-
20-Jul	10:40	8S212	XZM	Arrival	11.9	-	-
20-Jul	10:59	8S121	XZM	Departure	12.7	-	-
20-Jul	12:40	8S215	XZM	Arrival	12.7	-	-
20-Jul	18:20	8S126	XZM	Departure	12.8	-	-
20-Jul	21:01	8S2113	XZM	Arrival	11.5	-	-
20-Jul	8:59	3A061	YFT	Arrival	11.7	-	-
20-Jul	10:59	3A063	YFT	Arrival	11.9	-	-
20-Jul	13:01	3A064	YFT	Arrival	11.6	-	-
20-Jul	14:12	3A164	YFT	Departure	11.2	-	-
20-Jul	14:59	3A065	YFT	Arrival	12.7	-	-
20-Jul	16:17	3A167	YFT	Departure	11.5	-	-
20-Jul	17:00	3A067	YFT	Arrival	12.2	-	-
20-Jul	10:00	3A081	ZUI	Arrival	12.5	-	-
20-Jul	10:26	3A181	ZUI	Departure	13.5	-	-
20-Jul	13:58	3A082	ZUI	Arrival	12.6	-	-
20-Jul	14:18	3A182	ZUI	Departure	12.2	-	-
20-Jul	17:05	3A083	ZUI	Arrival	12.6	-	-
20-Jul	17:25	3A183	ZUI	Departure	11.8	-	-
20-Jul	20:47	3A084	ZUI	Arrival	12.3	-	-
20-Jul	21:00	3A185	ZUI	Departure	13.6	-	-
21-Jul	8:20	8S210	XZM	Arrival	12.3	-	-
21-Jul	10:41	8S212	XZM	Arrival	11.9	-	-
21-Jul	11:06	8S121	XZM	Departure	13.2	-	-

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-Jul	12:34	8S215	XZM	Arrival	12.7	-	-
21-Jul	18:11	8S126	XZM	Departure	12.2	-	-
21-Jul	20:55	8S2113	XZM	Arrival	12.2	-	-
21-Jul	8:57	3A061	YFT	Arrival	12	-	-
21-Jul	10:54	3A063	YFT	Arrival	12.5	-	-
21-Jul	12:53	3A064	YFT	Arrival	13	-	-
21-Jul	14:18	3A164	YFT	Departure	12.3	-	-
21-Jul	14:53	3A065	YFT	Arrival	12.3	-	-
21-Jul	16:26	3A167	YFT	Departure	12.5	-	-
21-Jul	16:57	3A067	YFT	Arrival	13	-	-
21-Jul	10:00	3A081	ZUI	Arrival	12.5	-	-
21-Jul	10:27	3A181	ZUI	Departure	13.6	-	-
21-Jul	13:57	3A082	ZUI	Arrival	13.5	-	-
21-Jul	14:20	3A182	ZUI	Departure	12.4	-	-
21-Jul	17:04	3A083	ZUI	Arrival	13.3	-	-
21-Jul	17:23	3A183	ZUI	Departure	11.6	-	-
21-Jul	20:43	3A084	ZUI	Arrival	12.6	-	-
21-Jul	20:56	3A185	ZUI	Departure	12.7	-	-
22-Jul	8:19	8S210	XZM	Arrival	12.7	-	-
22-Jul	10:36	8S212	XZM	Arrival	12.5	-	-
22-Jul	10:57	8S121	XZM	Departure	13	-	-
22-Jul	12:43	8S215	XZM	Arrival	13.6	-	-
22-Jul	18:06	8S126	XZM	Departure	12.3	-	-
22-Jul	20:52	8S2113	XZM	Arrival	10.9	-	-
22-Jul	8:55	3A061	YFT	Arrival	12.7	-	-
22-Jul	10:57	3A063	YFT	Arrival	12.2	-	-
22-Jul	11:37	3A168	YFT	Departure	12.6	-	-
22-Jul	13:09	3A064	YFT	Arrival	12.4	-	-
22-Jul	14:16	3A164	YFT	Departure	12.4	-	-
22-Jul	14:57	3A065	YFT	Arrival	12.3	-	-
22-Jul	16:23	3A167	YFT	Departure	12.8	-	-
22-Jul	17:15	3A067	YFT	Arrival	12.2	-	-
22-Jul	9:57	3A081	ZUI	Arrival	12.9	-	-
22-Jul	10:21	3A181	ZUI	Departure	13.7	-	-
22-Jul	13:56	3A082	ZUI	Arrival	13.1	-	-
22-Jul	14:17	3A182	ZUI	Departure	12.6	-	-
22-Jul	17:07	3A083	ZUI	Arrival	12.5	<= 5	< 1min
22-Jul	17:33	3A183	ZUI	Departure	12.1	-	-
22-Jul	20:44	3A084	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)
22-Jul	20:59	3A185	ZUI	Departure	12.3	-	-
23-Jul	8:18	8S210	XZM	Arrival	13	-	-
23-Jul	10:48	8S212	XZM	Arrival	11.7	-	-
23-Jul	11:06	8S121	XZM	Departure	11.8	-	-
23-Jul	12:36	8S215	XZM	Arrival	12.2	-	-
23-Jul	18:07	8S126	XZM	Departure	12.7	-	-
23-Jul	20:56	8S2113	XZM	Arrival	12.7	-	-
23-Jul	8:56	3A061	YFT	Arrival	12.2	-	-
23-Jul	11:05	3A063	YFT	Arrival	12.2	<= 5	< 4min
23-Jul	12:58	3A064	YFT	Arrival	13.3	-	-
23-Jul	14:15	3A164	YFT	Departure	13.4	-	-
23-Jul	14:55	3A065	YFT	Arrival	11.7	-	-
23-Jul	16:16	3A167	YFT	Departure	12.2	-	-
23-Jul	16:59	3A067	YFT	Arrival	13.3	-	-
23-Jul	10:15	3A081	ZUI	Arrival	12.7	-	-
23-Jul	10:46	3A181	ZUI	Departure	13.4	-	-
23-Jul	14:07	3A082	ZUI	Arrival	12.8	-	-
23-Jul	14:21	3A182	ZUI	Departure	12.6	-	-
23-Jul	17:04	3A083	ZUI	Arrival	13.1	-	-
23-Jul	17:21	3A183	ZUI	Departure	12.4	-	-
23-Jul	20:40	3A084	ZUI	Arrival	12.1	-	-
23-Jul	21:00	3A185	ZUI	Departure	12.3	-	-
24-Jul	8:18	8S210	XZM	Arrival	11.7	-	-
24-Jul	10:38	8S212	XZM	Arrival	11.4	-	-
24-Jul	11:02	8S121	XZM	Departure	13.2	-	-
24-Jul	12:36	8S215	XZM	Arrival	11.6	-	-
24-Jul	18:08	8S126	XZM	Departure	12	-	-
24-Jul	21:04	8S2113	XZM	Arrival	11.8	-	-
24-Jul	8:59	3A061	YFT	Arrival	11.5	-	-
24-Jul	10:58	3A063	YFT	Arrival	12.3	-	-
24-Jul	12:58	3A064	YFT	Arrival	12.2	-	-
24-Jul	14:17	3A164	YFT	Departure	12.6	-	-
24-Jul	14:57	3A065	YFT	Arrival	11.3	-	-
24-Jul	16:13	3A167	YFT	Departure	12.7	-	-
24-Jul	16:54	3A067	YFT	Arrival	12.7	-	-
24-Jul	10:00	3A081	ZUI	Arrival	12.4	-	-
24-Jul	10:28	3A181	ZUI	Departure	12.8	-	-
24-Jul	13:58	3A082	ZUI	Arrival	12.6	-	-
24-Jul	14:13	3A182	ZUI	Departure	13	-	-

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)
24-Jul	17:00	3A083	ZUI	Arrival	12.9	-	-
24-Jul	17:33	3A183	ZUI	Departure	12.5	-	-
24-Jul	20:44	3A084	ZUI	Arrival	12.7	-	-
24-Jul	20:59	3A185	ZUI	Departure	12.3	-	-
25-Jul	8:21	8S210	XZM	Arrival	12	-	-
25-Jul	10:38	8S212	XZM	Arrival	13.2	-	-
25-Jul	11:01	8S121	XZM	Departure	12.8	-	-
25-Jul	12:36	8S215	XZM	Arrival	11.9	-	-
25-Jul	18:09	8S126	XZM	Departure	12.1	-	-
25-Jul	21:00	8S2113	XZM	Arrival	12.2	-	-
25-Jul	8:59	3A061	YFT	Arrival	11.1	-	-
25-Jul	10:59	3A063	YFT	Arrival	12	-	-
25-Jul	12:55	3A064	YFT	Arrival	12.6	-	-
25-Jul	14:14	3A164	YFT	Departure	12.8	-	-
25-Jul	14:52	3A065	YFT	Arrival	12.3	-	-
25-Jul	16:15	3A167	YFT	Departure	11.7	-	-
25-Jul	16:51	3A067	YFT	Arrival	13.1	-	-
25-Jul	9:57	3A081	ZUI	Arrival	12.8	-	-
25-Jul	10:29	3A181	ZUI	Departure	12.8	-	-
25-Jul	13:58	3A082	ZUI	Arrival	12.5	-	-
25-Jul	14:13	3A182	ZUI	Departure	13.2	-	-
25-Jul	16:58	3A083	ZUI	Arrival	12.7	-	-
25-Jul	17:25	3A183	ZUI	Departure	12.3	-	-
25-Jul	20:42	3A084	ZUI	Arrival	12.4	-	-
25-Jul	20:57	3A185	ZUI	Departure	12.4	-	-
26-Jul	8:19	8S210	XZM	Arrival	12.4	-	-
26-Jul	10:43	8S212	XZM	Arrival	12	-	-
26-Jul	10:52	8S121	XZM	Departure	12.9	-	-
26-Jul	12:40	8S215	XZM	Arrival	12.1	-	-
26-Jul	18:04	8S126	XZM	Departure	12.9	-	-
26-Jul	20:58	8S2113	XZM	Arrival	12.7	-	-
26-Jul	8:56	3A061	YFT	Arrival	12.3	-	-
26-Jul	10:57	3A063	YFT	Arrival	11.2	-	-
26-Jul	13:09	3A064	YFT	Arrival	11.3	-	-
26-Jul	14:18	3A164	YFT	Departure	12.1	-	-
26-Jul	14:59	3A065	YFT	Arrival	12.5	-	-
26-Jul	16:23	3A167	YFT	Departure	13.4	-	-
26-Jul	17:01	3A067	YFT	Arrival	11.7	-	-
26-Jul	10:00	3A081	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)
26-Jul	10:30	3A181	ZUI	Departure	12.7	-	-
26-Jul	14:01	3A082	ZUI	Arrival	12.3	-	-
26-Jul	14:19	3A182	ZUI	Departure	13.4	-	-
26-Jul	17:03	3A083	ZUI	Arrival	12.4	-	-
26-Jul	17:24	3A183	ZUI	Departure	13	-	-
26-Jul	20:41	3A084	ZUI	Arrival	12.7	-	-
26-Jul	21:02	3A185	ZUI	Departure	12.4	-	-
27-Jul	8:26	8S210	XZM	Arrival	12.6	-	-
27-Jul	10:42	8S212	XZM	Arrival	11	-	-
27-Jul	11:06	8S121	XZM	Departure	12.9	-	-
27-Jul	12:39	8S215	XZM	Arrival	11.9	-	-
27-Jul	18:09	8S126	XZM	Departure	11.9	-	-
27-Jul	21:04	8S2113	XZM	Arrival	12.3	-	-
27-Jul	9:00	3A061	YFT	Arrival	12.3	-	-
27-Jul	11:02	3A063	YFT	Arrival	12.2	-	-
27-Jul	13:00	3A064	YFT	Arrival	12.6	-	-
27-Jul	14:24	3A164	YFT	Departure	12.6	-	-
27-Jul	15:02	3A065	YFT	Arrival	12.4	-	-
27-Jul	16:20	3A167	YFT	Departure	13.7	-	-
27-Jul	17:01	3A067	YFT	Arrival	12.7	-	-
27-Jul	10:01	3A081	ZUI	Arrival	13.8	-	-
27-Jul	10:29	3A181	ZUI	Departure	11.6	-	-
27-Jul	14:04	3A082	ZUI	Arrival	13.3	-	-
27-Jul	14:18	3A182	ZUI	Departure	12.9	-	-
27-Jul	17:00	3A083	ZUI	Arrival	12.2	-	-
27-Jul	17:24	3A183	ZUI	Departure	13.7	-	-
27-Jul	20:44	3A084	ZUI	Arrival	12.6	-	-
27-Jul	20:58	3A185	ZUI	Departure	13.1	-	-
28-Jul	8:32	8S210	XZM	Arrival	12.6	-	-
28-Jul	10:40	8S212	XZM	Arrival	12.9	-	-
28-Jul	11:07	8S121	XZM	Departure	13	-	-
28-Jul	12:40	8S215	XZM	Arrival	13.4	-	-
28-Jul	18:15	8S126	XZM	Departure	12.6	-	-
28-Jul	21:04	8S2113	XZM	Arrival	12.3	-	-
28-Jul	9:05	3A061	YFT	Arrival	12.7	-	-
28-Jul	10:56	3A063	YFT	Arrival	12	-	-
28-Jul	13:02	3A064	YFT	Arrival	12.2	-	-
28-Jul	14:09	3A164	YFT	Departure	12.6	-	-
28-Jul	14:55	3A065	YFT	Arrival	11.7	-	-

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-Jul	16:14	3A167	YFT	Departure	12.3	-	-
28-Jul	16:58	3A067	YFT	Arrival	12.4	-	-
28-Jul	10:05	3A081	ZUI	Arrival	13.6	-	-
28-Jul	10:36	3A181	ZUI	Departure	12.1	-	-
28-Jul	13:59	3A082	ZUI	Arrival	12.9	-	-
28-Jul	14:14	3A182	ZUI	Departure	12.5	-	-
28-Jul	16:58	3A083	ZUI	Arrival	12.3	-	-
28-Jul	17:14	3A183	ZUI	Departure	13.3	-	-
28-Jul	20:51	3A084	ZUI	Arrival	13.3	-	-
28-Jul	21:11	3A185	ZUI	Departure	13.3	-	-
29-Jul	10:15	8S212	XZM	Arrival	12.4	-	-
29-Jul	11:10	8S121	XZM	Departure	12.4	-	-
29-Jul	12:41	8S215	XZM	Arrival	12.8	-	-
29-Jul	18:15	8S126	XZM	Departure	12.4	-	-
29-Jul	21:00	8S2113	XZM	Arrival	12.8	-	-
29-Jul	9:16	3A061	YFT	Arrival	10.9	-	-
29-Jul	10:59	3A063	YFT	Arrival	13.1	-	-
29-Jul	13:01	3A064	YFT	Arrival	12	-	-
29-Jul	14:15	3A164	YFT	Departure	12.4	-	-
29-Jul	14:59	3A065	YFT	Arrival	11.7	-	-
29-Jul	16:19	3A167	YFT	Departure	12	-	-
29-Jul	16:56	3A067	YFT	Arrival	11.6	-	-
29-Jul	10:00	3A081	ZUI	Arrival	13.5	-	-
29-Jul	10:26	3A181	ZUI	Departure	12.5	-	-
29-Jul	14:11	3A082	ZUI	Arrival	13.3	-	-
29-Jul	14:24	3A182	ZUI	Departure	12.1	-	-
29-Jul	17:07	3A083	ZUI	Arrival	11.9	-	-
29-Jul	17:27	3A183	ZUI	Departure	12.8	-	-
29-Jul	20:44	3A084	ZUI	Arrival	11.7	-	-
29-Jul	20:56	3A185	ZUI	Departure	13.2	-	-
30-Jul	10:13	8S212	XZM	Arrival	10.8	-	-
30-Jul	11:08	8S121	XZM	Departure	12.6	-	-
30-Jul	12:43	8S215	XZM	Arrival	12.3	-	-
30-Jul	18:04	8S126	XZM	Departure	12.1	-	-
30-Jul	20:56	8S2113	XZM	Arrival	12	-	-
30-Jul	8:54	3A061	YFT	Arrival	12.4	-	-
30-Jul	10:58	3A063	YFT	Arrival	13.3	-	-
30-Jul	13:05	3A064	YFT	Arrival	12.1	-	-
30-Jul	14:15	3A164	YFT	Departure	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-Jul	14:59	3A065	YFT	Arrival	12.7	-	-
30-Jul	16:24	3A167	YFT	Departure	12.6	-	-
30-Jul	16:54	3A067	YFT	Arrival	11.8	-	-
30-Jul	10:04	3A081	ZUI	Arrival	13.7	-	-
30-Jul	10:31	3A181	ZUI	Departure	12.3	-	-
30-Jul	14:01	3A082	ZUI	Arrival	12.6	-	-
30-Jul	14:18	3A182	ZUI	Departure	11.9	-	-
30-Jul	17:06	3A083	ZUI	Arrival	12.9	-	-
30-Jul	17:32	3A183	ZUI	Departure	13.4	-	-
30-Jul	20:53	3A084	ZUI	Arrival	12.2	-	-
30-Jul	21:03	3A185	ZUI	Departure	13.4	-	-
31-Jul	10:21	8S212	XZM	Arrival	13	-	-
31-Jul	11:06	8S121	XZM	Departure	13	-	-
31-Jul	12:41	8S215	XZM	Arrival	12.3	-	-
31-Jul	8:53	3A061	YFT	Arrival	12.7	-	-
31-Jul	10:58	3A063	YFT	Arrival	13.3	-	-
31-Jul	13:05	3A064	YFT	Arrival	12.6	-	-
31-Jul	9:53	3A081	ZUI	Arrival	11.8	-	-
31-Jul	10:18	3A181	ZUI	Departure	13.5	-	-

** Insufficient or no AIS data for speed calculation.

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in July 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 3 HSF movements of which the durations of all instantaneous speeding cases were less than 2 minutes (2 HSF movements are less than 1 minute, and 1 HSF movement is less than 2 minutes). The 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.

One HSF with insufficient transmission of AIS data were received in July 2019. Vessel captains were requested to provide the AIS plots to indicate the vessels entered the SCZ though the gate access points with no speeding in the SCZ.