MOTT MACDONALD

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

Construction Phase Monthly EM&A Report No.19 (For July 2017)

August 2017

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This Monthly EM&A Report No. 19 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 2017

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By Email

Airport Authority Hong Kong
HKIA Tower, 1 Sky Plaza Road
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Attn: Mr. Lawrence Tsui, Principal Manager

14 August 2017

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No.19 (July 2017)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No.19 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 August 2017.

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

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

Yours faithfully,
AECOM Asia Co. Ltd.



Jackel Law
Independent Environmental Checker

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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 19th 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 2017.

Key Activities in the Reporting Period

The key activities of the Project carried out in the reporting period included deep cement mixing (DCM) works and trials, laying of sand blanket and geotextile, site preparation works, site office establishment and horizontal directional drilling (HDD) works.

EM&A Activities Conducted in the Reporting Period

The monthly EM&A programme was undertaken in accordance with the Manual of the Project. During the reporting period, the ET conducted 30 sets of construction dust measurements, 20 sets of construction noise measurements, 13 events of water quality measurements, 2 complete sets of small vessel line-transect surveys and 5 days of land-based theodolite tracking survey effort for Chinese White Dolphin (CWD) monitoring and waste monitoring. Construction works on Sheung Sha Chau Island was suspended during the ardeid's breeding season (between April and July). The ecological monitoring is therefore suspended.

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 Independent Environmental Checker (IEC). Observations have been recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

On the implementation of Marine Mammal Watching Plan (MMWP), dolphin observers were deployed by the contractors for laying of open sea silt curtain and laying of silt curtains for sand blanket in accordance with the plan. On the implementation of Dolphin Exclusion Zone (DEZ) Plan, dolphin observers at 12 to 15 dolphin observation stations were deployed for continuous monitoring of the DEZ by all contractors for DCM works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers were provided by the ET prior to the aforementioned works, with the training records kept by the ET. From the contractors' MMWP observation records and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtains, whilst there were two records of dolphin sighting within the DEZs of DCM works in this reporting month. Audits of acoustic decoupling for construction vessels were also carried out by the ET.

On the implementation of the Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan), the daily movements of all SkyPier high speed ferries (HSFs) in July 2017 were in the range of 20 to 93 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 846 HSF movements under the SkyPier Plan were recorded in the reporting period. All HSFs had travelled through the Speed Control Zone (SCZ) with average speeds under 15 knots (9.9 to 14.0 knots), which were in compliance with the SkyPier Plan. One ferry movement with minor deviation from the diverted route is under investigation by ET. The investigation result will be presented in the next monthly EM&A report. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigation or actions accordingly.

On the implementation of the Marine Travel Routes and Management Plan for Construction and Associated Vessel (MTRMP-CAV), the Marine Surveillance System (MSS) automatically recorded the deviation case such as speeding, entering no entry zone, not traveling through the designated gate. 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, entry from non-designated gates, and entering no-entry zones were reviewed by ET. All the concerned captains were reminded by the contractor's Marine Traffic Control Centre (MTCC) representative to comply with the requirements of the MTRMP-CAV. ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park. 3-month rolling programmes for construction vessel activities, which ensures the proposed vessels are necessary and minimal through good planning, were also received from contractors.

Results of Impact Monitoring

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

No exceedance of the Action or Limit Levels in relation to construction dust, construction noise, construction waste, and CWD monitoring was recorded in the reporting month.

The water quality monitoring results for turbidity, total alkalinity, and chromium obtained during the reporting period did not trigger their corresponding Action and Limit Levels stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme if being exceeded. For DO, SS, and nickel, some of the testing results exceeded the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the exceedances were not due to the Project.

Summary of Upcoming Key Issues

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- HDD works; and
- Stockpiling of excavated materials from HDD operation.

DCM Works:

Contract 3201 to 3205 DCM Works

- Laying of sand blanket; and
- DCM works and trials.

Reclamation Works:

Contract 3206 Main Reclamation Works

- Site office establishment; and
- Laying of sand blanket.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Site formation and excavation works.

Contract 3502 Terminal 2 APM Depot Modification Works

- Removal of existing concrete.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- CLP cable ducting work.

The key environmental issues will be associated with construction dust, construction noise, water quality, construction waste management, CWD and terrestrial ecology on Sheung Sha Chau. The implementation of required mitigation measures by the contractor will be monitored by the ET.

		
Dolphin Exclusion Zone Monitoring by Dolphin Observer	Chemical Spill Drill conducted by the Contractor	Skipper Training

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
Exceedance of Limit Level^		✓	No exceedance of project-related limit level was recorded.	Nil
Exceedance of Action Level^		✓	No exceedance of project-related action level was recorded.	Nil
Complaints Received		✓	No construction activities related complaints were received.	Nil
Notification of any summons and status of prosecutions		✓	No notifications of summons or prosecution were received.	Nil
Changes that affect the EM&A		✓	There were no changes to the construction works that may affect the EM&A	Nil

Remarks: ^Only exceedance of Action or Limit Level related to Project works is counted as Breaches 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. The Manual is available on the Project's dedicated website (accessible at: http://env.threerunwaysystem.com/en/index.html). 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 existing 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**.

1.2 Scope of this Report

This is the 19th 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 2017.

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 month. Contact details of the key personnel have been updated and is presented in **Table 1.1**.

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

Party	Position	Name	Telephone
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	Keith Chau	2972 1721
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Joanne Tsoi	3922 9423
Advanced Works:			
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 Lau	5172 6543
DCM Works:			
Contract 3201 DCM (Package 1) (Penta-Ocean-China State-Dong-Ah Joint Venture)	Project Director	Tsugunari Suzuki	9178 9689
	Environmental Officer	Alan Tam	6119 3107
Contract 3202 DCM (Package 2) (Samsung-BuildKing Joint Venture)	Project Manager	Ilkwon Nam	9643 3117
	Environmental Officer	Dickson Mak	9525 8408
Contract 3203 DCM (Package 3) (Sambo E&C Co., Ltd)	Project Manager	Eric Kan	9014 6758
	Environmental Officer	Calvin Leung	9203 5820
Contract 3204 DCM (Package 4) (CRBC-SAMBO Joint Venture)	Project Manager	Kyung-Sik Yoo	9683 8697
	Environmental Officer	Kanny Cho	6799 8226
Contract 3205 DCM (Package 5) (Bachy Soletanche - Sambo Joint Venture)	Deputy Project Director	Min Park	9683 0765
	Environmental Officer	Margaret Chung	9130 3696
Reclamation Works:			

Party	Position	Name	Telephone
Contract 3206 (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Kim Chuan Lim	3693 2288
	Environmental Officer	Kwai Fung Wong	3693 2252
Terminal 2 Expansion Works:			
Contract 3501 Antenna Farm and Sewage Pumping Station (Build King Construction Ltd.)	Project Manager	Osbert Sit	9079 7030

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included DCM works and trials, laying of sand blanket and geotextile, site preparation works, site office establishment and HDD works.

1.5 Summary of EM&A Programme Requirements

The status for all environmental aspects is presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period and details can be referred to Table 1.2 of the Construction Phase Monthly EM&A Report No. 1.

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

Parameters	Status
Air Quality	
Baseline Monitoring	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Water Quality	
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	On-going
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	Completed in May 2017 and data analysis in-progress.
Early/ Regular DCM Water Quality Monitoring	On-going
Waste Management	
Waste Monitoring	On-going
Land Contamination	
Supplementary Contamination Assessment Plan (CAP)	To be submitted with the relevant construction works.
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.

Parameters	Status
Terrestrial Ecology	
Pre-construction Egretry Survey Plan	The Egretry Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Construction works on Sheung Sha Chau Island was suspended during the ardeid's breeding season (between April and July). The ecological monitoring is therefore suspended.
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	On-going
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	
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 Plan (DEZP) implementation measures	On-going
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	On-going

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

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. In order to enhance environmental awareness and closely monitor the environmental performance of the contractors, environmental briefings and regular environmental management meetings were conducted.

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

2 Air Quality Monitoring

2.1 Monitoring Stations

Air quality monitoring was conducted at 2 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

2.2 Monitoring Requirements and Schedule

In accordance with the Manual, baseline 1-hour total suspended particulate (TSP) levels at the two air quality monitoring stations were established as presented in the Baseline Monitoring Report. Impact 1-hour TSP monitoring was conducted for three times every 6 days. 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**.

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

Table 2.2: Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AR1A	306	500
AR2	298	

2.3 Monitoring Equipment

Portable direct reading dust meter was used to carry out the 1-hour TSP monitoring. Details of equipment are given in **Table 2.3**.

Table 2.3: Air Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date
Portable direct reading dust meter (Laser dust monitor)	SIBATA LD-3B-002 (Serial No. 974350)	26 Oct 2016

2.4 Monitoring Methodology

2.4.1 Measuring Procedure

The measurement procedures involved in the impact 1-hr TSP 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.

2.4.2 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 certificates of the portable direct reading dust meter and calibration record of the HVS provided in Appendix B of the Construction Phase Monthly EM&A Report No.11 are still valid. Any updates of calibration certificates will be reported in the Monthly EM&A report if necessary.

2.5 Analysis and Interpretation of Monitoring Results

The monitoring results for 1-hour TSP are summarized in **Table 2.4**. Detailed impact monitoring results are presented in **Appendix D**.

Table 2.4: Summary of 1-hour TSP Monitoring Results

Monitoring Station	1-hr TSP Concentration Range (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
AR1A	9 – 20	306	500
AR2	9 – 23	298	

No exceedance of the Action or Limit Level was recorded 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.

3 Noise Monitoring

3.1 Monitoring Stations

Noise monitoring was conducted at 5 representative monitoring stations in the vicinity of noise sensitive receivers in Tung Chung and villages in North Lantau in accordance with the Manual. **Figure 2.1** shows the locations of the monitoring stations and these are described in **Table 3.1** below. As described in Section 4.3.3 of the Manual, monitoring at NM2 will commence when the future residential buildings in Tung Chung West Development become occupied.

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	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.

3.2 Monitoring Requirements and Schedule

In accordance with the Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring was conducted once per week in the form of 30-minute measurements of L_{eq}, L_{10} and L_{90} levels recorded at each monitoring station between 0700 and 1900 on normal weekdays. 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 Error! Not a valid bookmark self-reference.. The construction noise monitoring schedule involved in the reporting period is provided in **Appendix C**.

Table 3.2: Action and Limit Levels for Construction Noise

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)(i)

Note: (i) Reduced to 70dB(A) for school and 65dB(A) during school examination periods.

3.3 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 are given in **Table 3.3**.

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date
Integrated Sound Level Meter	B&K 2238 (Serial No. 2800932)	17 Jul 2017
	B&K 2238 (Serial No. 2381580)	8 Sep 2016
Acoustic Calibrator	B&K 4231 (Serial No. 3003246)	16 May 2017
	B&K 4231 (Serial No. 3004068)	17 Jul 2017

3.4 Monitoring Methodology

3.4.1 Monitoring Procedure

The monitoring procedures involved in the noise impact 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.

3.4.2 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 provided in Appendix B of the Construction Phase Monthly EM&A Report No. 9 and Appendix D of the Construction Phase Monthly EM&A Report No. 17 are still valid. The equipment calibrated in July 2017 is provided in **Appendix E**.

3.5 Analysis and Interpretation of Monitoring Results

The construction noise monitoring results are summarized in **Table 3.4** and the detailed monitoring data are provided in **Appendix D**.

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[(i)]	71 – 72	75
NM3A	57 – 63	75
NM4[(i)]	64 – 65	70[(ii)]
NM5[(i)]	57 – 67	75
NM6[(i)]	62 – 73	75

Note: (i) +3 dB(A) Façade correction included;

(ii) Reduced to 65 dB(A) during school examination periods at NM4. No school examination took place in the reporting period.

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 road traffic and helicopter noise at NM1A, helicopter and aircraft noise at NM3A, road traffic, aircraft, and helicopter noise at NM4, aircraft and helicopter noise at NM5, and insect, aircraft, and marine vessel noise at NM6 in this reporting month.

No exceedance of the Action or Limit Level was recorded at all monitoring stations in the reporting period.

4 Water Quality Monitoring

4.1 Monitoring Stations

Water quality monitoring was conducted at a total of 22 water quality monitoring stations, comprising 12 impact (IM) stations, 7 sensitive receiver (SR) stations and 3 control stations in the vicinity of water quality sensitive receivers around the airport island in accordance with the Manual. **Table 4.1** describes the details of the monitoring stations**. Figure 3.1** shows the locations of the monitoring stations.

Table 4.1: Monitoring Locations and Parameters for Impact Water Quality Monitoring

Monitoring Stations	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control	804247	815620	DO, pH, Temperature, Salinity, Turbidity, SS, Total Alkalinity, Heavy Metals[2]
C2	Control	806945	825682	
C3[3]	Control	817803	822109	
IM1	Impact	806458	818351	
IM2	Impact	806193	818852	
IM3	Impact	806019	819411	
IM4	Impact	805039	819570	
IM5	Impact	804924	820564	
IM6	Impact	805828	821060	
IM7	Impact	806835	821349	
IM8	Impact	807838	821695	
IM9	Impact	808811	822094	
IM10	Impact	809838	822240	
IM11	Impact	810545	821501	
IM12	Impact	811519	821162	
SR1[1]	Future Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812586	820069	DO, pH, Temperature, Salinity, Turbidity, SS
SR2[3]	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	
SR4A	Sha Lo Wan	807810	817189	
SR5A	San Tau Beach SSSI	810696	816593	
SR6	Tai Ho Bay, Near Tai Ho Stream SSSI	814663	817899	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8[4]	Seawater Intake for cooling at Hong Kong International Airport (East)	811418 (from July 2017 onwards)	820246	

Notes:
[1] The seawater intakes of SR1 for the future HKBCF is not yet in operation, hence no water quality impact monitoring was conducted at this station. The future permanent location for SR1 during impact monitoring is subject to finalisation after the HKBCF seawater is commissioned.

(2) Details of selection criteria for the two heavy metals for early 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) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.

4.2 Monitoring Requirements and Schedule

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.

General water quality monitoring and early regular DCM water quality monitoring were conducted three days per week, at mid-flood and mid-ebb tides, at the 22 water quality monitoring stations during the reporting period. The sea conditions varied from calm to moderate, and the weather conditions varied from sunny to rainy during the monitoring period.

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

4.1.1 Action and Limit Levels for Water Quality Monitoring

The Action and Limit Levels for 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 presented in **Table 4.2**. The control and impact stations during flood tide and ebb 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 SR1& SR8)				
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	
Total Alkalinity in ppm	95		99	
Representative Heavy Metals for early regular DCM monitoring (Chromium)	0.2		0.2	
Representative Heavy Metals for early regular DCM monitoring (Nickel)	3.2		3.6	
Action and Limit Levels SR1				
SS (mg/l)	To be determined prior to its commissioning		To be determined prior to its commissioning	

Parameters	Action Level (AL)	Limit Level (LL)
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 early 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

^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 for monitoring of specific water quality parameters under the impact water quality monitoring programme.

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI ProDSS (serial no. 15M101244)	16 Jun 2017
	YSI ProDSS (serial no. 16J101716)	16 Jun 2017
	YSI 6920 V2 (serial no. 00019CB2)	16 Jun 2017
	YSI 6920 V2 (serial no. 000109DF)	16 Jun 2017
Digital Titrator (measurement of total alkalinity)	Titrette Digital Burette 50ml Class A (serial no.10N65665)	19 Jun 2017

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 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 suspended solids (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 monitoring period provided in Appendix D of the Construction Phase Monthly EM&A Report No.17 are still valid. Any updates of calibration certificates will be reported in the Monthly EM&A report if necessary.

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
Suspended Solid (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 Analysis and Interpretation of Monitoring Results

4.4.1 Summary of Monitoring Results

The water quality monitoring results for turbidity, total alkalinity, and chromium obtained during the reporting period did not trigger their corresponding Action and Limit Levels stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme if being exceeded. For DO, SS, and nickel, some of the testing results exceeded the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. Details of the exceedances are presented in **Section 4.5.2**.

4.4.2 Summary of Findings for Investigation of Exceedances

During the reporting period, water quality monitoring was conducted at 12 impact (IM) stations, seven sensitive receiver (SR) stations, and three control stations 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).

During the monitoring period, testing results exceeding the corresponding Action or Limit Levels were recorded on five monitoring days. Details of the exceedance cases are presented below.

Findings for DO Exceedances (Mid-Ebb Tide)

Table 4.7 and **Table 4.8** presents a summary of the DO compliance status at IM and SR stations during mid-ebb tide for the reporting month.

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
01/07/2017																		
04/07/2017																		
06/07/2017																		
08/07/2017																		
11/07/2017																		
13/07/2017																		
15/07/2017																		
18/07/2017																		
20/07/2017																		
22/07/2017																		
25/07/2017																		
27/07/2017																		
29/07/2017																		

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7
No. of Exceedance	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	0

Note: Detailed results are presented in **Appendix D**.

Legend:

	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Exceedance of Limit Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Limit Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

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
01/07/2017																		
04/07/2017																		
06/07/2017																		
08/07/2017																		
11/07/2017																		
13/07/2017																		
15/07/2017																		
18/07/2017																		
20/07/2017																		
22/07/2017																		
25/07/2017																		
27/07/2017																		
29/07/2017																		
No. of Exceedance	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0

Note: Detailed results are presented in **Appendix D**.

Legend:

	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Exceedances of Action or Limit Levels were recorded on one monitoring day. Repeat in-situ measurements were conducted on 7 July 2017 as stipulated in the Manual. No exceedance was recorded during the repeat measurement. As some of the exceedances occurred at stations located downstream of the Project, which might be affected by Project's construction activities, exceedance investigation was carried out.

As part of the investigation on downstream exceedance events, details of the Project's marine construction activities on the concerned monitoring day was collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.9**.

Table 4.9: Summary of Findings from Investigations of DO Exceedances

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	Exceedance due to Project
06/07/2017	DCM works Sand blanket laying	Around 500m	Silt curtain deployed	No	No	No

* This refers to the approximate distance between the marine construction works and the nearest monitoring stations with exceedance.

According to the investigation findings, it was confirmed that both DCM and sand blanket laying activities were operating normally with silt curtains deployed as additional measures. The silt curtains were maintained properly.

For the exceedance events at downstream monitoring stations, namely IM1, IM2, and SR4A, it is noted that exceedances also occurred at upstream stations on the same day, and no exceedance was recorded at other downstream IM stations, including IM3, which was located closer to active construction activities. Besides, lower DO concentrations were recorded during baseline monitoring at these monitoring stations. Based on these findings, the exceedances were possibly due to natural fluctuation in the vicinity of these monitoring stations, and considered not due to the Project.

Findings for DO Exceedances (Mid-Flood Tide)

Table 4.10 and Table 4.11 presents a summary of the DO compliance status at IM and SR stations during mid-flood tide for the reporting month.

Table 4.10: 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
04/07/2017																	
06/07/2017																	
08/07/2017																	
11/07/2017																	
13/07/2017																	
15/07/2017																	
18/07/2017																	
20/07/2017																	
22/07/2017																	
25/07/2017																	
27/07/2017																	
29/07/2017																	
No. of Exceedance	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0

Note: Detailed results are presented in **Appendix D**.	
Legend:	
	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Table 4.11: 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
04/07/2017																	
06/07/2017																	
08/07/2017																	
11/07/2017																	
13/07/2017																	
15/07/2017																	
18/07/2017																	
20/07/2017																	
22/07/2017																	
25/07/2017																	
27/07/2017																	
29/07/2017																	
No. of Exceedance	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Detailed results are presented in **Appendix D**.	
Legend:	
	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Exceedances of Action Levels were recorded on one monitoring day. Repeat in-situ measurements were conducted on 7 July 2017 as stipulated in the Manual. No exceedance was recorded during the repeat measurement. As there was exceedance occurred at a station located upstream of the Project, which would unlikely be affected by Project's construction activities, exceedance investigation focused on downstream exceedance events was carried out.

As part of the investigation on downstream exceedance events, details of the Project's marine construction activities on concerned monitoring day were collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.9**.

According to the investigation findings, it was confirmed that both DCM and sand blanket laying activities were operating normally with silt curtains deployed as additional measures. The silt curtains were maintained properly.

For the exceedance events at downstream monitoring stations, namely IM8, IM9, and SR3, it is noted that the DO concentration at surface and middle level at C1, the corresponding control station for IM8 and SR3, was also below Action Level during the same tide. Besides, no exceedance was recorded at other downstream monitoring stations, including IM7 and IM10, which were similarly close to active construction activities. Based on these findings, the exceedances were possibly due to natural fluctuation in the vicinity of these monitoring stations, and considered not due to the Project.

Findings for SS Exceedances (Mid-Ebb Tide)

Table 4.12 presents a summary of the SS compliance status at IM and SR stations during mid-ebb tide for the reporting month.

Table 4.12: Summary of SS Compliance Status (Mid-Ebb Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6	SR7	SR8
01/07/2017																			
04/07/2017																			
06/07/2017																			
08/07/2017																			
11/07/2017																			
13/07/2017																			
15/07/2017																			
18/07/2017																			
20/07/2017																			
22/07/2017																			
25/07/2017																			
27/07/2017																			
29/07/2017																			
No. of Exceedance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

Note: Detailed results are presented in **Appendix D**.

Legend:

	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow
	Cancelled session due to safety constraint

An exceedance of Action Level was recorded on one monitoring day. However, during the same tide, no exceedances were recorded at all IM stations, which are located closer to active construction activities. Therefore, the exceedance was unlikely to be due to the Project. The exceedance at SR6 might be due to natural fluctuation.

Findings for Nickel Exceedances (Mid-Ebb Tide)

Table 4.13 presents a summary of the nickel compliance status at IM stations during mid-ebb tide for the reporting month.

Table 4.13: Summary of Nickel Compliance Status (Mid-Ebb Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12
01/07/2017												
04/07/2017												
06/07/2017												
08/07/2017												
11/07/2017												
13/07/2017												
15/07/2017												
18/07/2017												
20/07/2017												
22/07/2017												
25/07/2017												
27/07/2017												
29/07/2017												
No. of Exceedance	0	1	1	0	0	0	0	0	1	0	0	1

Note: Detailed results are presented in **Appendix D**.

Legend:

	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Exceedances of Action Levels were recorded on two monitoring days. As some of the exceedances occurred at stations located downstream of the Project, which might be affected by Project's construction activities, exceedance investigation was carried out.

As part of the investigation on downstream exceedance events, details of the Project's marine construction activities on concerned monitoring day were collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.9**.

According to the investigation findings, it was confirmed that both DCM and sand blanket laying activities were operating normally with silt curtains deployed as additional measures. The silt curtains were maintained properly.

Nickel is a representative heavy metal that indicates the potential for release of contaminants from contaminated mud pits due to the disturbance of marine sediment within it by DCM activities. Therefore, elevated nickel concentrations due to these activities should be associated with similar elevated SS levels. For the exceedances at IM2, IM3, and IM12 on 6 July 2017, it is noted that no SS exceedance was recorded in the same tide and the concentration (9 – 10 mg/L) was well below the Action and Limit Levels. The low SS levels at impact stations indicates that the active DCM works had limited or insignificant effect on downstream water quality. Besides, no nickel exceedance was recorded at other downstream IM stations in the same tide, including IM4, which was located similarly close to active construction activities as IM3, and IM11, which was located closer to active construction activities as IM12. Based on these findings, the exceedances were

possibly due to natural fluctuation in the vicinity of these monitoring stations, and considered not due to the Project.

Findings for Nickel Exceedances (Mid-Flood Tide)

Table 4.14 presents a summary of the nickel compliance status at IM stations during mid-flood tide for the reporting month.

Table 4.14: Summary of Nickel Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12
04/07/2017												
06/07/2017												
08/07/2017												
11/07/2017												
13/07/2017												
15/07/2017												
18/07/2017												
20/07/2017												
22/07/2017												
25/07/2017												
27/07/2017												
29/07/2017												
No. of Exceedance	0	0	0	0	0	1	1	2	1	1	2	0

Note: Detailed results are presented in **Appendix D**.

Legend:

	No exceedance of Action and Limit Level
	Exceedance of Action Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Action Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Exceedance of Limit Level recorded at monitoring station located downstream of the Project based on dominant tidal flow
	Exceedance of Limit Level recorded at monitoring station located upstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Exceedances of Action or Limit Levels were recorded on four monitoring days. As some of the exceedances occurred at stations located downstream of the Project, which might be affected by Project's construction activities, exceedance investigation was carried out.

As part of the investigation on downstream exceedance events, details of the Project's marine construction activities on concerned monitoring days were collected, as well as any observations during the monitoring. The findings are summarized in **Table 4.15**.

Table 4.15: Summary of Findings from Investigations of Nickel Exceedances

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	Exceedance due to Project
20/07/2017	DCM works Sand blanket laying Geotextile laying	Around 500m	Silt curtain deployed	No	No	No
22/07/2017	DCM works Sand blanket laying	Around 500m	Silt curtain deployed	No	No	No

* This refers to the approximate distance between the marine construction works and the nearest monitoring stations with exceedance.

According to the investigation findings, it was confirmed that all construction activities were operating normally with silt curtains deployed as additional measures for DCM and sand blanket laying. The silt curtains were maintained properly.

For the downstream exceedance events on 20 and 22 July 2017, it is noted that no SS exceedance was recorded in this period and the concentration (11 – 15 mg/L) was well below the Action and Limit Levels. The low SS levels at impact stations indicates that the active DCM works had limited or insignificant effect on downstream water quality. Besides, higher nickel concentrations were recorded during baseline monitoring at IM6, IM9, and IM10. Based on these findings, the exceedances were possibly due to natural fluctuation in the vicinity of these monitoring stations, and considered not due to the Project.

Conclusions

Based on the findings of the exceedance investigations, it is concluded that the exceedances were not due to the Project. Hence no SR was adversely affected by the Project. All required actions under the Event and Action Plan were followed. Exceedances appeared to be due to natural fluctuation or other sources not related to the Project.

Nevertheless, recognising that the IM stations represent a 'first line of defence', the non-project related exceedances identified at IM stations were attended to as a precautionary measure. 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 for DCM works and sand blanket laying works properly as recommended in the Manual.

5 Waste Management

5.1 Monitoring Requirements

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. 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 including provision and maintenance of spill kits and drip trays, as well as provision of proper storage area for general refuse and chemical waste. The contractors had taken actions to implement the recommended measures.

Based on the Contractor's information, about 435m^3 of excavated materials were produced from the HDD launching site under P560(R) in the reporting period. The generated excavated materials were temporarily stored at the stockpiling area. The excavated material will be reused in the Project.

Around 157 tonnes of general refuse was disposed of to the designated landfill and 120 kg of chemical waste was collected by licensed chemical waste collector in July 2017. Around 26m^3 of Construction and Demolition (C&D) material generated from the reclamation contract for site office establishment was sent to public fill.

No exceedances of the Action or Limit Levels were recorded in the reporting period.

6 Chinese White Dolphin Monitoring

6.1 CWD Monitoring Requirements

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

The small vessel line-transect survey as proposed in the Manual should be conducted at a frequency of two full survey per month while land-based theodolite tracking should be conducted at a frequency of one day per month per station during the construction phase. In addition to the land-based theodolite tracking required for impact monitoring as stipulated in the Manual, supplemental theodolite tracking have also been conducted during the implementation for the SkyPier HSF diversion and speed control in order to assist in monitoring the effectiveness of these measures, i.e. in total twice per month at the Sha Chau station and three times per month at the Lung Kwu Chau station.

The Action Level (AL) and Limit Level (LL) 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 AL and LL for CWD monitoring were summarized in **Table 6.1**.

Table 6.1: Derived Values of Action Level (AL) and Limit Level (LL) for Chinese White Dolphin Monitoring

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

[Notes for Table 6.1 (referring to the baseline monitoring report):
*Action Level – running quarterly STG & ANI will be calculated from the three preceding survey months. For CWD monitoring for July 2017, data from 1 May 2017 to 31 July 2017 will be used to calculate the running quarterly encounter rates STG & ANI;

^Limit Level – two consecutive running quarters mean both the running quarterly encounter rates of the preceding month June 2017 (calculated by data from April 2017 to June 2017) and the running quarterly encounter rates of this month (calculated by data from May 2017 to July 2017).

AL and/or LL will be exceeded 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 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

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

6.2.2 Land-based Theodolite Tracking

Land-based theodolite tracking 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 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 crossing 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 pair. 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 left the study area or were lost. At that point, the boat returned (off effort) to the next survey line and began to survey on effort again.

Focal follows of dolphins were conducted 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 involved 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

Land-based monitoring 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 month, two complete sets of small vessel line-transect surveys were conducted on the 11th, 12th, 13th, 14th, 20th, 21st, 25th and 26th July 2017, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 446.88 km of survey effort was collected from these surveys, with around 86.09% 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**.

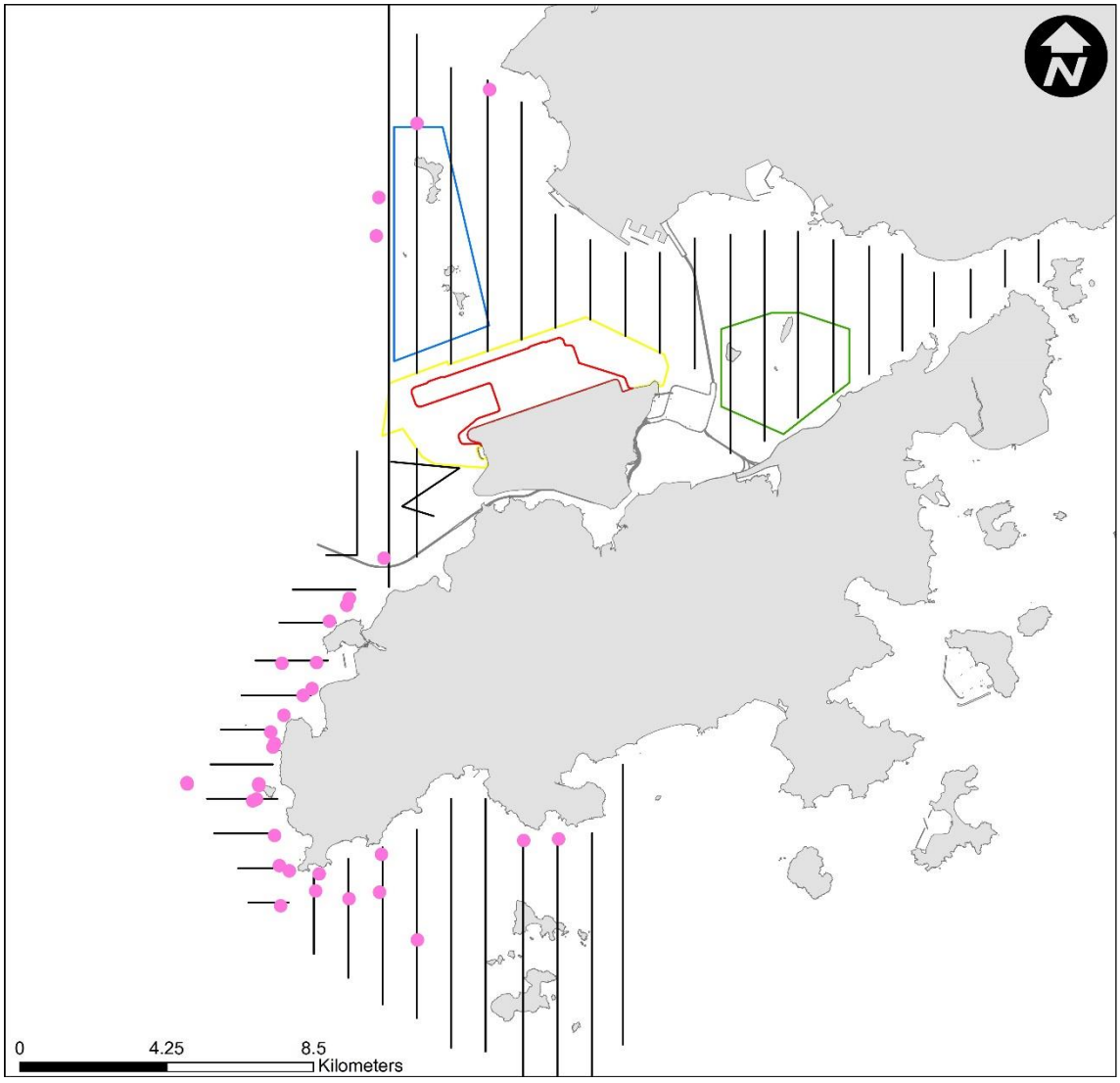
Sighting Distribution

In July 2017, 34 groups of CWDs with 92 individuals were sighted. Amongst these sightings, 26 groups of CWDs with 71 animals were recorded during on-effort search under favourable weather conditions (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix D**.

Distribution of all CWD sightings recorded in July 2017 is illustrated in **Figure 6.3**. In July 2017, five sightings of CWDs were recorded in NWL. Amongst these five sightings, three were located around the SCLKCMP, one was sighted near Black Point while the remaining one was recorded near the Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road at the southwestern corner of NWL. In WL, CWDs were sighted along the coastal waters from Tai O to Fan Lau with a few sightings recorded offshore to Peaked Hill. In SWL, CWD sightings were mainly recorded around Fan Lau Tung Wan and the coastal waters around Lo Kei Wan. No sightings of CWDs were recorded in NEL and also the vicinity of or within the 3RS land-formation footprint.

Figure 6.3: Sightings Distribution of Chinese White Dolphins

[Pink circle: Sighting locations of CWD, Black line: Vessel survey transects, Blue polygon: Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP), Green polygon: Brothers Marine Park (BMP) Red polygon: 3RS land-formation footprint, Yellow line: 3RS temporary works area boundary]



Remarks: Please note that there are 34 pink circles on the map indicating the sighting locations of CWD. Some of them were very close to each other and therefore appear overlapped on this distribution map.

Encounter Rate

Two types of dolphin encounter rates were calculated based on the data from July 2017. 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 was used)

In July 2017, a total of around 384.73 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 26 on-effort sightings with a total number of 71 dolphins from on-effort sightings were obtained under such condition. Calculation of the encounter rates in July 2017 are shown in **Appendix D**.

For the running quarter of the reporting month (i.e., from May 2017 to July 2017), a total of around 1169.66 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 67 on-effort sightings and a total number of 245 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix D**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of July 2017 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 the Action Level (i.e., remained above the 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 2017	6.76	18.45
Running Quarter from May 2017 to July 2017*	5.73	20.95
Action Level	Running quarterly* < 1.86	Running quarterly* < 9.35

*Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting month and the two preceding survey months, i.e. the data from May 2017 to July 2017, containing six sets of transect surveys for all monitoring areas.

Group Size

In July 2017, 34 groups of CWDs with 92 individuals were sighted, and the average group size of CWDs was 2.71 individuals per group. Small-sized (i.e. 1-2 individuals) CWD groups dominated (i.e. with 23 groups). No large CWD groups (i.e. 10 or more individuals) were recorded in this reporting month.

Activities and Association with Fishing Boats

Four out of 34 sightings of CWDs were recorded engaging in feeding activities in July 2017, whilst one of these sightings was associated with operating gillnetter.

Mother-calf Pair

In July 2017, six sightings of CWDs were recorded with the presence of mother-and-calf, mother-and-unspotted juvenile or mother-and-spotted juvenile pairs. Five out of these six sightings were recorded in WL while the remaining one was recorded in SWL.

6.4.2 Photo Identification

In July 2017, a total number of 32 different CWD individuals were identified for totally 40 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix D**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd/mm/yyyy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd/mm/yyyy)	Sighting Group No.	Area
NLMM013	14/07/2017	1	NWL	WLMM008	26/07/2017	3	SWL
NLMM019	12/07/2017	1	NWL	WLMM009	11/07/2017	12	SWL
NLMM020	12/07/2017	1	NWL		20/07/2017	3	WL
NLMM023	11/07/2017	13	SWL	WLMM013	21/07/2017	2	WL
NLMM034	11/07/2017	2	WL	WLMM015	11/07/2017	9	WL
		5	WL		21/07/2017	2	WL
NLMM050	14/07/2017	2	NWL	WLMM028	11/07/2017	10	WL
SLMM003	26/07/2017	4	SWL	WLMM038	11/07/2017	5	WL
SLMM010	20/07/2017	1	SWL	WLMM043	21/07/2017	5	WL
SLMM011	20/07/2017	1	SWL			7	WL
SLMM030	21/07/2017	7	WL	WLMM047	21/07/2017	7	WL
SLMM040	11/07/2017	7	WL	WLMM067	11/07/2017	12	SWL
	21/07/2017	5	WL	WLMM076	26/07/2017	5	SWL
SLMM045	21/07/2017	7	WL	WLMM078	26/07/2017	5	SWL
SLMM059	26/07/2017	5	SWL	WLMM079	11/07/2017	7	WL
WLMM001	11/07/2017	10	WL		26/07/2017	4	SWL
		13	SWL	WLMM097	11/07/2017	1	WL
WLMM003	11/07/2017	13	SWL	WLMM098	11/07/2017	1	WL
WLMM006	11/07/2017	12	SWL	WLMM099	11/07/2017	3	WL
	20/07/2017	3	WL	WLMM100	11/07/2017	10	WL

6.4.3 Land-based Theodolite Tracking

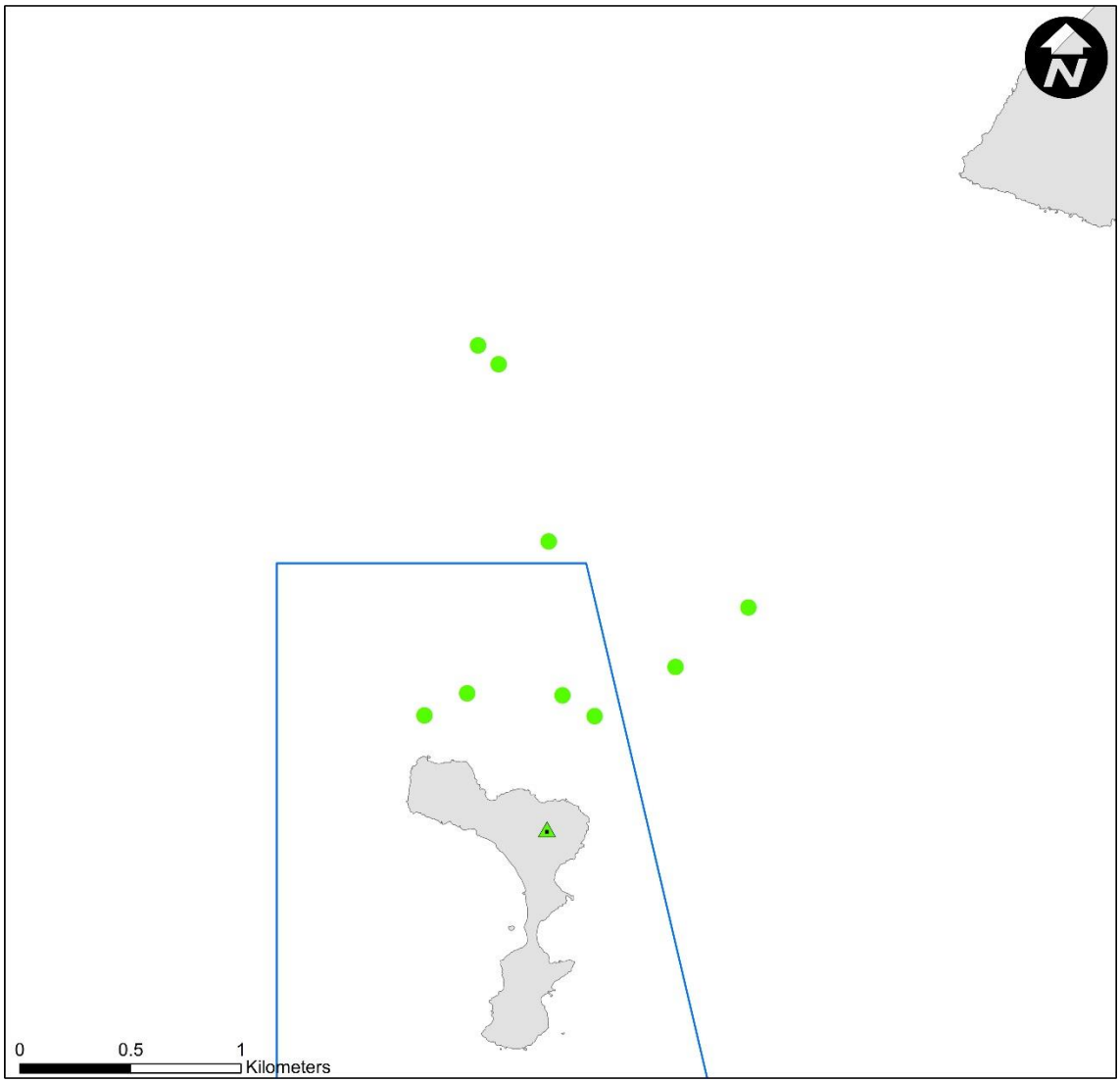
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 5th, 10th and 14th July 2017 and at SC on 21st and 24th July 2017, with a total of five days of land-based theodolite tracking survey effort accomplished in this reporting month. In total, nine 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 D**. The first sighting locations of CWD groups tracked at LKC station during land-based theodolite tracking surveys in July 2017 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	3	18:10	9	0.50
Sha Chau	2	12:00	0	0
TOTAL	**5**	**30:10**	**9**	**0.30**

Figure 6.4: Plots of First Sightings of All CWD Groups obtained from Land-based Stations
[Green triangle: LKC station; Green circle: CWD group off LKC; Blue line: SCLKCMP boundary]



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. The Ecological Acoustic Recorder (EAR) deployment is generally for 4-6 weeks prior to data retrieval for analysis. In this reporting month, the EAR has remained underwater and positioned at south of Sha Chau Island with 20% duty cycle (**Figure 6.5**). 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 two months, PAM results could not be reported in monthly intervals.

As a result of the recent changes in the marine traffic conditions around the 3RS project works area, the PAM device deployed at south of Sha Chau station (A5) may pose marine traffic risks

in the narrowed navigation channel between the northern boundary of the 3RS project areas, and the southern boundary of the SCLKCMP. In the interests of diver safety and to avoid potential obstruction of the narrowed navigation channel, it is proposed to move the PAM around 30 – 80m from the existing Station A5 to a location just inside the SCLKCMP (Station A5* as shown in **Figure 6.6**) .

The proposed minor shift of this PAM location due to marine safety reason is considered not having significant effect on the impact monitoring for CWD, as previous studies found that dolphins' click sounds may generally be detected at a distance of up to about 2 km by the underwater acoustic devices, subject to the orientation of dolphins and parameters of the environment. In addition, the PAM is used for collecting underwater acoustic data that only provide additional reference information for facilitating the review of effectiveness of mitigation measures proposed and the need for adaptive management. The proposed minor shift of PAM station has been supported by the Marine Department, verified by the IEC and approved by the EPD in this reporting month, prior to any action on relocating the EAR. The relevant permits for the deployment of PAM within the SCLKCMP have been obtained and the proposed shift in PAM station will be carried out in the next re-deployment in early August.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractors for sand blanket laying works, in which dolphin observers were deployed by each contractor in accordance with the Marine Mammal Watching Plan (MMWP). Teams of at least two dolphin observers were deployed at 12 to 15 dolphin observation stations by the contractors for continuous monitoring of the Dolphin Exclusion Zone (DEZ) by all contractors for DCM works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 447 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtains, whilst there were two records of dolphin sighting within the DEZ of DCM works in this reporting month. According to contractors' site records, DCM works were suspended in these dolphin sighting events until the DEZ was clear of dolphin for a continuous period of 30 minutes. These contractors' records were also audited by the ET during site inspection. Details for the implementation of DEZ during the incidents of dolphin sighting within the DEZ of DCM works are mentioned in **Section 7.4**.

Audits of acoustic decoupling 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 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 five days of land-based theodolite tracking survey effort as scheduled. The running quarterly encounter rates STG and ANI in the reporting month did not trigger the Action Level for CWD monitoring.

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

Weekly site inspections of the construction works for the advanced works contract, DCM contracts and reclamation contracts were carried out by the ET to audit the implementation of proper environmental pollution control and mitigation measures for the Project. The weekly site inspection schedule of the construction works is provided in **Appendix C**. Bi-weekly site inspections were also conducted by the IEC. Observations have been recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

The key observations from site inspection and associated recommendations were related to provision and maintenance of drip trays and chemical waste storage container, implementation of noise mitigation, dust suppression, and surface runoff prevention measures, as well as display of non-road mobile machinery (NRMM) label on required machinery. In addition, recommendations were also provided during site inspection on barges, which included provision and maintenance of drip trays; provision of proper storage area for general refuse and chemical waste; implementation of proper wastewater treatment, DEZ monitoring, dust suppression measures, dark smoke prevention measures, acoustic decoupling measures, and spill and runoff preventive measures; as well as proper installation and maintenance of silt curtains.

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

7.2 Audit of Route Diversion and Speed Control of the SkyPier High Speed Ferries

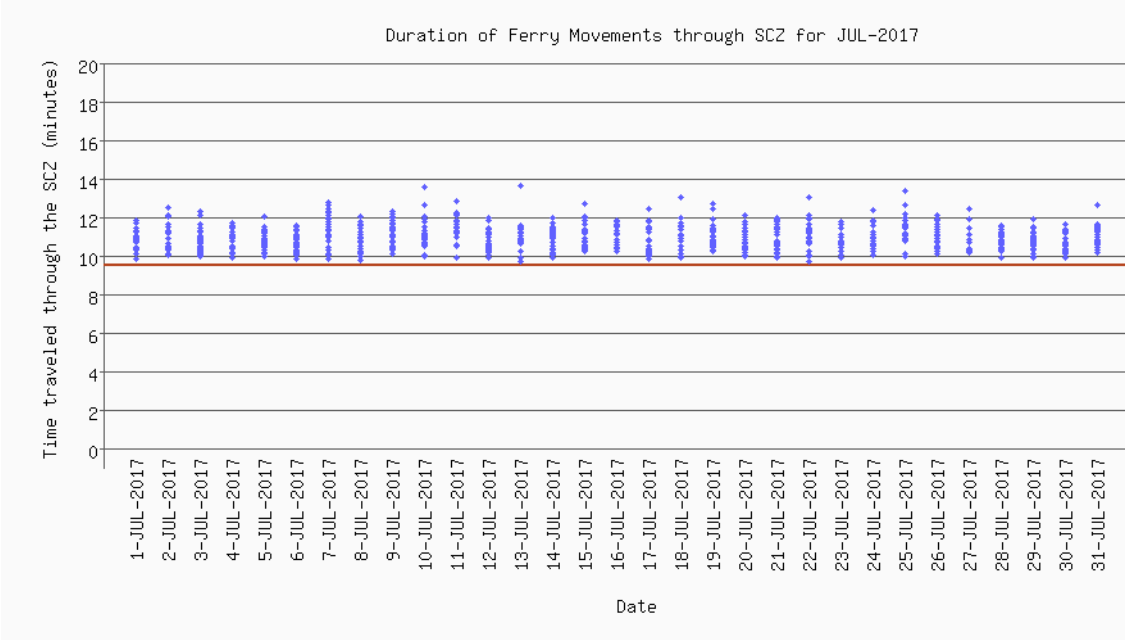
The Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier (the SkyPier Plan) was submitted to the Advisory Council on the Environment (ACE) for comment and subsequently submitted to and approved by EPD in November 2015 under EP Condition 2.10. The approved SkyPier Plan is available on the dedicated website of the Project. In the SkyPier Plan, AAHK has committed to implementing the mitigation measure of requiring high speed ferries (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 July 2017 (i.e., 20 to 93 daily movements) were within the maximum daily cap of 125 daily movements. There was fewer ferry movement on 23 July 2017 (20 movements) due to typhoon. Status of compliance with the annual daily average of 99 movements will be further reviewed in the annual EM&A Report.

In total, 846 ferry movements between HKIA SkyPier and Zhuhai / Macau were recorded in July 2017 and the data are presented in **Appendix H**. The time spent by the SkyPier HSFs travelling through the SCZ in July 2017 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 2017



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.

One ferry was recorded with minor deviation from the diverted route on 12 July 2017. Notice was sent to the ferry operator (FO) and the case is under investigation by ET. The investigation result will be presented in the next monthly EM&A report.

One case of minor deviation from the diverted route recorded on 17 June 2017 was followed up after receiving information from the FO. ET's investigation found that the minor route deviation was due to strong tidal wave and current. After that, the HSF had returned to the normal route following the SkyPier Plan.

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

Requirements in the SkyPier Plan	1 July to 31 July 2017
Total number of ferry movements recorded and audited	846
Use diverted route and enter / leave SCZ through Gate Access Points	1 deviation, which is under investigation
Speed control in speed control zone	The average speeds taken within the SCZ of all HSFs were within 15 knots (9.9 knots to 14.0 knots), which complied 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)	20 to 93 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:

- Three skipper training sessions were held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.
- Three skipper training sessions were held by contractor's Environmental Officer. Competency test was subsequently conducted with the trained skippers by ET.
- 16 skippers were trained by ET and 4 skippers were trained by contractor's Environmental Officer in July 2017. In total, 707 skippers were trained from August 2016 to July 2017.
- The Marine Surveillance System (MSS) automatically recorded deviation cases such as speeding, entering no entry zone, not traveling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entering from non-designated gates and entering no-entry zones were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly MTCC audit.
- 3-month rolling programmes (one month record and two 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.

The IEC of the Project had performed audit on the compliance of the requirements as part of the EM&A programme.

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 Updated EM&A 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 according to their Method Statement for DEZ Monitoring that followed the specifications and requirements of the DEZ Plan.

During the reporting period, ET has been notified on two records of dolphin sighting within the DEZs of DCM works by the contractors. ET has checked the dolphin sighting records and the contractors' site records to audit the implementation of DEZ. Both dolphin sightings within the DEZs were recorded on 15 July 2017. One of the sightings was recorded from a DCM barge working at Area A8 (geographical coordinates: 22°19.110N, 113°52.884E; refer to Figure 1.2 for the location of works area), with the dolphin group being first sighted at 09:12 within the DEZ and last sighted at 09:25 from the DEZ monitoring station on the barge. The other sighting was recorded from a DCM barge working at Area D6 (geographical coordinates: 22°18.838N, 113°53.754E; refer to Figure 1.2 for the location of works area), with the dolphin group being first sighted at 09:11 within the DEZ and last sighted at 10:00 from the DEZ monitoring station on the barge. DCM installation works on DCM barges within the DEZs were ceased respectively by the contractors, and not resumed until the DEZs were clear of dolphin for a continuous period of at least 30 minutes in accordance with the DEZ Plan.

7.5 Ecological Monitoring

In accordance with the Manual, ecological monitoring shall be undertaken monthly at the Horizontal Directional Drilling (HDD) daylighting location on Sheung Sha Chau Island during the HDD construction works period from August to March. Since the construction works on Sheung Sha Chau is suspended during the ardeid's breeding season between April to July, no ecological monitoring was carried out in this reporting period.

7.6 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	
2.19	Waste Management Plan	
3.1	Updated EM&A Manual	
3.4	Baseline Monitoring Reports	

7.7 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 month are presented in **Appendix F**.

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

7.8.1 Complaints

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

7.8.2 Notifications of Summons or Status of Prosecution

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

7.8.3 Cumulative Statistics

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

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

8.1 Construction Programme for the Coming Reporting Period

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

Advanced Works:

Contract P560 (R) Aviation Fuel Pipeline Diversion Works

- HDD works; and
- Stockpiling of excavated materials from HDD operation.

DCM Works:

Contract 3201 to 3205 DCM Works

- Laying of sand blanket; and
- DCM trials and works.

Reclamation Works:

Contract 3206 Main Reclamation Works

- Site office establishment; and
- Laying of sand blanket.

Terminal 2 Expansion Works:

Contract 3501 Antenna Farm and Sewage Pumping Station

- Site formation and excavation works.

Contract 3502 Terminal 2 APM Depot Modification Works

- Removal of existing concrete.

Airfield Works Contract:

Contract 3301 North Runway Crossover Taxiway

- CLP cable ducting work.

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 laying of sand blankets and DCM works;
- DEZ monitoring for DCM works and implementation of MMWP for silt curtain deployment by the contractors' dolphin observers;
- 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 C**.

9 Conclusion and Recommendation

The key activities of the Project carried out in the reporting period included DCM works and trials, laying of sand blanket and geotextile, site preparation works, site office establishment and HDD works.

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

No exceedance of the Action or Limit Levels in relation to construction dust, construction noise, construction waste and CWD monitoring was recorded in the reporting month.

The water quality monitoring results for turbidity, total alkalinity, and chromium obtained during the reporting period did not trigger their corresponding Action and Limit Levels stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme if being exceeded. For DO, SS, and nickel, some of the testing results exceeded the relevant Action or Limit Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the exceedances were not due to the Project.

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. Observations have been recorded in the site inspection checklists which have been provided to the contractors together with the appropriate follow-up actions where necessary.

On the implementation of Marine Mammal Watching Plan (MMWP), dolphin observers were deployed by the contractors for laying of open sea silt curtain and laying of silt curtains for sand blanket in accordance with the plan. On the implementation of DEZ Plan, dolphin observers at 12 to 15 dolphin observation stations were deployed for continuous monitoring of the DEZ by all contractors for DCM works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers were provided by the ET prior to the aforementioned works, with the training records kept by the ET. From the contractors' MMWP observation records and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtains, whilst there were two records of dolphin sighting within the DEZs of DCM works in this reporting month. DCM works were suspended in the dolphin sighting events until the DEZs were clear of dolphin for a continuous period of 30 minutes. These contractors' records were checked by the ET during site inspection. Audits of acoustic decoupling for construction vessels were also carried out by the ET.

On the implementation of the SkyPier Plan, the daily movements of all SkyPier HSFs in July 2017 were in the range of 20 to 93 daily movements, which are within the maximum daily cap of 125 daily movements. A total of 846 HSF movements under the SkyPier Plan were recorded in the reporting period. All HSFs had travelled through the SCZ with average speeds under 15 knots (9.9 to 14.0 knots), which were in compliance with the SkyPier Plan. One ferry movement with minor deviation from the diverted route is under investigation by ET. The investigation result will be presented in the next monthly EM&A report. In summary, the ET and IEC have audited the HSF movements against the SkyPier Plan and conducted follow up investigation or actions accordingly.

On the implementation of the MTRMP-CAV, the MSS automatically recorded the deviation case such as speeding, entering no entry zone, not traveling through the designated gate. 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, entry from non-designated gates, and entering no-entry zones 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. ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park. 3-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

824000 N
822000 N
820000 N
818000 N
804000 E
806000 E
808000 E
810000 E
812000 E
814000 E

LEGEND:
- LAND FORMATION
- TEMPORARY WORKS AREA BOUNDARY
- KEY CONSTRUCTION ACTIVITIES

RECLAMATION WORKS AREA
(please refer to Figure 1.2)

Contract 3501 - Project Site

Contract 3201- 3206 and AAHK Site Offices

Contract P560 (R)- Launching Site

Contract P560 (R)- Site Office

Contract P560 (R)- Stockpiling Area

白洲 PAK CHAU
沙洲 SHA CHAU
大鹏刃 TAI MO TO
東涌 TUNG CHUNG
沙螺灣 SHA LO WAN
蚺殼灣 HAU HOK WAN
田心 TIN SAM
白沙咀 Pak Sha Tsui

0 250 500 750 1000 m
1 : 30 000 SCALE BAR

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Mott MacDonald

Title

LOCATIONS OF KEY CONSTRUCTION ACTIVITIES IN THIS REPORTING PERIOD

Consultant's Signatures for Approval		Date
Design	DC	31AUG15
Checkers	DC	31AUG15
Design Supervisor	EC	31AUG15
Authorised Representative	JFP	31AUG15

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

Drawing No. FIGURE 1.1

Scale at A3 1 : 30000

Rev. A

Filename: J:\355482\REPORT\ENV\CWSLP\FIG 1.dgn

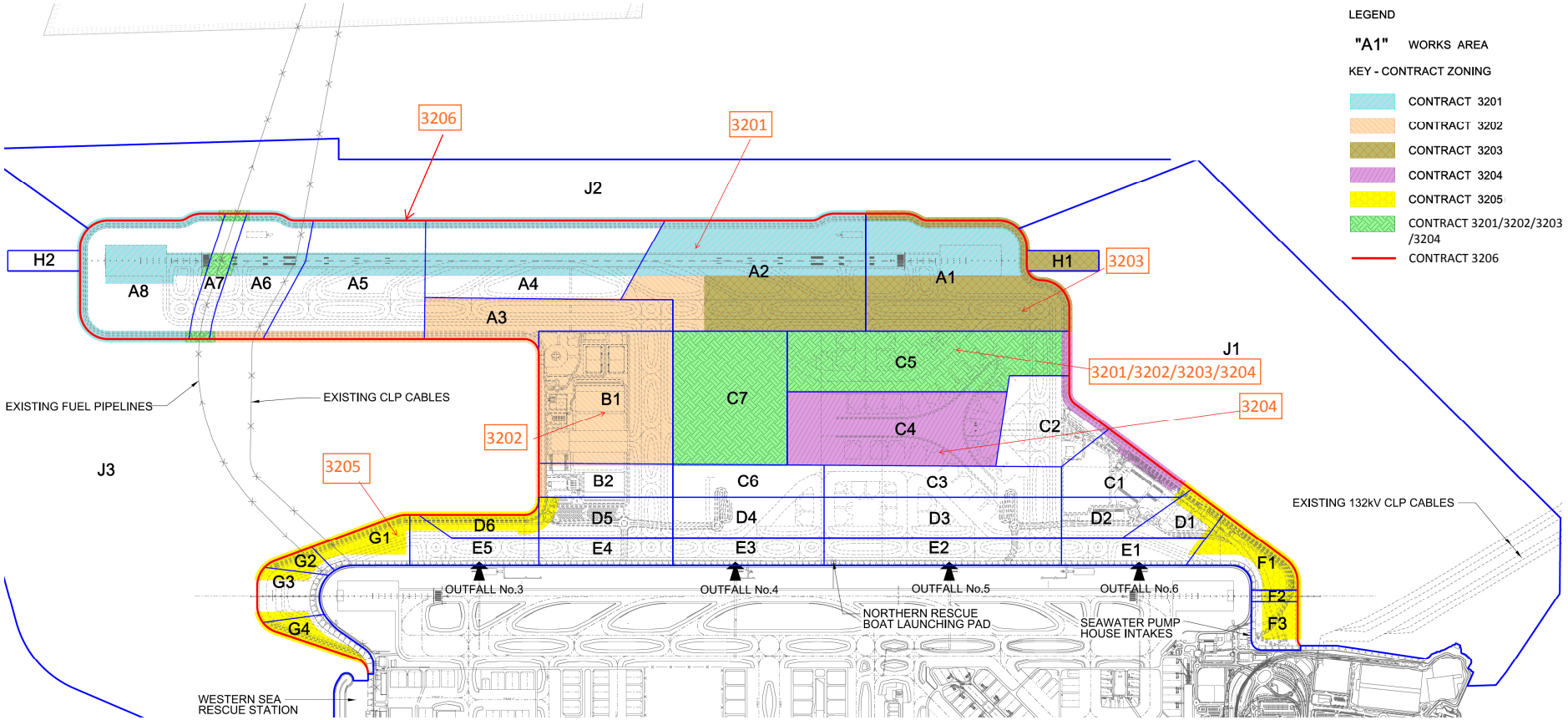


FIGURE 1.2- LOCATIONS OF RECLAMATION WORKS AREA

LEGEND:

- RECLAMATION AREA
- NOISE MONITORING STATION (UPDATED EM&A MANUAL)
- AIR QUALITY MONITORING STATION (UPDATED EM&A MANUAL)
- CHEK LAP KOK WIND STATION

806000 E
808000 E
810000 E
812000 E
814000 E
820000 N
818000 N

NM1A AR1A
NM2
NM3A
NM4
NM5 AR2
NM6

0 200 400 600 800 1000 m
1 : 22 500 SCALE BAR

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A	06JAN16	FIRST ISSUE	RO
B	29JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO

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

Consultant's Signatures for Approval		Date
Design	AM	11FEB16
Checkers	AM / TK	11FEB16
Approver	EC	11FEB16

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

Drawing No.

FIGURE 2.1

Scale at A3 1 : 22500

Rev. C

Filename: J:\355482\REPORT\ENV\EMA\160211\FIG 2.1.dgn

805000 E
810000 E
815000 E
820000 E
825000 N
820000 N
815000 N
HKSAR BOUNDARY
C1
C2
C3
SR2
SR3
SR4A
SR5A
SR6
SR7
SR8
IM1
IM2
IM3
IM4
IM5
IM6
IM7
IM8
IM9
IM10
IM11
IM12

LEGEND:
- PROPOSED LAND FORMATION FOOTPRINT
- 500m ENVELOPE
- IMPACT STATION
- SENSITIVE RECEIVER
- CONTROL STATION

0 500 1000 1500 2000 m
1 : 60 000 SCALE BAR

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D	02AUG17	GENERAL REVISION	RO

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Title

WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
Design	DC	02AUG17
Checkers	DC / TK	02AUG17
Approver	EC	02AUG17

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

Drawing No.

FIGURE 3.1

Scale at A3 1 : 60000

Rev. D

Filename: J:\355482\REPORT\ENV\EMA\170802\FIG 3.1.dgn

800000 E
805000 E
810000 E
815000 E
820000 E
825000 E
830000 E
835000 E
840000 E
845000 E
830000 N
825000 N
820000 N
815000 N
810000 N
805000 N

NORTHWEST LANTAU
NORTHEAST LANTAU
SOUTHWEST LANTAU
AIRPORT WEST
WEST LANTAU

LEGEND:
- HKSAR BOUNDARY
- LAND FORMATION FOOTPRINT
- TEMPORARY WORKS AREA BOUNDARY
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE
- DOLPHIN VESSEL SURVEY TRANSECT ROUTE

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

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

Consultant's Signatures for Approval		Date
Design	JC	01MAR17
Checkers	JC / TK	01MAR17
Approver	EC	01MAR17

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

Drawing No. FIGURE 6.1

Scale at A3 1 : 125000

Rev. D

Filename: J:\355482\REPORT\ENV\EMA\170301\MCL-P132-EMA-10-003.dgn

804000 E
806000 E
808000 E
810000 E
812000 E
814000 E
816000 E
818000 E
820000 N
822000 N
824000 N
826000 N
E
D
HKSAR BOUNDARY
沙洲及龍鼓洲海岸公園
SHA CHAU AND LUNG KWU CHAU MARINE PARK
LEGEND:
LAND FORMATION FOOTPRINT
HONG KONG INTERNATIONAL AIRPORT
LAND BASED SURVEY LOCATION
0 500 1000 1500 2000 m
1 : 45,000 SCALE BAR

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Title

LAND BASED DOLPHIN MONITORING IN BASELINE AND CONSTRUCTION PHASES

Consultant's Signatures for Approval		Date
Design	JC	06FEB17
Checkers	JC / TK	06FEB17
Approver	EC	06FEB17

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

Drawing No. FIGURE 6.2

Scale at A3 1 : 45000

Rev. B

Filename: J:\355482\REPORT\ENV\EMA\170206\MCL-P132-EMA-10-004.dgn

804000 E
806000 E
808000 E
810000 E
812000 E
814000 E
816000 E
818000 E
820000 E

828000 N
826000 N
824000 N
822000 N
820000 N
818000 N

URMSTON ROAD

龍鼓洲
LUNG KWU CHAU

沙洲及龍鼓洲海岸公園
SHA CHAU AND LUNG KWU CHAU MARINE PARK

沙洲
SHA CHAU

A5

HKSAR BOUNDARY

小冷水
SIU LANG SHUI

PILLAR POINT

青山灣
CASTLE PEAK BAY
TSING SHAN WAN

大小廣刀
THE BROTHERS

東涌
TUNG CHUNG

LEGEND:

- LAND FORMATION FOOTPRINT
- HONG KONG INTERNATIONAL AIRPORT
- AUTONOMOUS PASSIVE ACOUSTIC MONITORING LOCATION

0 500 1000 1500 2000 m
1 : 45 000 SCALE BAR

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MOTT MACDONALD

Title

LOCATIONS FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING IN BASELINE AND CONSTRUCTION PHASES

Consultant's Signatures for Approval		Date
Design	JC	06FEB17
Checkers	JC / TK	06FEB17
Approver	EC	06FEB17

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

Drawing No. FIGURE 6.5

Scale at A3 1 : 45000

Rev. B

Filename: J:\355482\REPORT\ENV\EMA\170206\MCL-P132-EMA-10-005.dgn

Appendix A. Contract Description

Contract Description

Contract No.	Contract Title	Contractor	Key Construction Activities
P560 (R)	Aviation Fuel Pipeline Diversion Works	Langfang Huayuan Mechanical and Electrical Engineering Co., Ltd.	Diversion of the existing submarine aviation fuel pipelines will use a horizontal directional drilling (HDD) method forming two rock drill holes by drilling through bedrock from a launching site located at the west of the airport island to a daylighting point adjacent to the offshore receiving platform at Sha Chau. Two new pipelines will be installed through the drilled tunnels. The total length is approximately 5 km. Drilling works will proceed from the HDD launching site at the airport island.
3201	Deep Cement Mixing (Package 1)	Penta-Ocean-China State-Dong-Ah Joint Venture	The works covered by the Contract 3201, 3202, 3203 and 3204 comprise ground improvement of seabed using Deep Cement Mixing (DCM) method, the major construction activities including without limitation the following • Geophysical surveys; • Supply and placing of geotextile and sand blanket under seawalls; • Supply, maintenance, installation and removal of silt curtain systems; • Preliminary construction trails; • Supply and installation of DCM clusters within the works areas; and • Coring, sampling and testing of DCM treated soils and reporting works.
3202	Deep Cement Mixing (Package 2)	Samsung-BuildKing Joint Venture	
3203	Deep Cement Mixing (Package 3)	Sambo E&C Co.,Ltd	
3204	Deep Cement Mixing (Package 4)	CRBC-SAMBO Joint Venture	
3205	Deep Cement Mixing (Package 5)	Bachy Soletanche- Sambo Joint Venture	The works covered by the Contract 3205 comprise ground improvement of seabed using Deep Cement Mixing (DCM) method within or outside their contract boundary as outlined on the low headroom DCM zoning plan, the major construction activities including without limitation the following • Geophysical surveys; • Supply and placing of geotextile and sand blanket under seawalls; • Supply, maintenance, installation and removal of silt curtain systems; • Preliminary construction trails; • Supply and installation of DCM clusters within the works areas; and • Coring, sampling and testing of DCM treated soils and reporting works.

3206	Reclamation Contract	ZHEC-CCCC-CDC Joint Venture	The works covered by the Contract 3206 comprise the formation of approximately 650 hectares of land north of the existing airport island for the project, the major construction activities including without limitation the following • Site clearance and demolition; • Geotechnical and ground improvement works; • Seawall construction; • Marine and land filling works; and • Civil works.
3212	11 kV Submarine Cable Diversion	Hong Kong Marine Contractors Limited	The works covered by the Contract 3212 comprise the submarine cable diversion, the major construction activities including without limitation the following • Forming a marine approach trench; • Conduct a diver survey; • Laying and burying the new 11kV submarine cable; and • Post-Laid Burial (PLB) and protection operations.
3213	CLP Cable Diversion Enabling Works	Wing Hing Construction Company	CLP cable diversion enabling works of Sha Chau South, Sheung Sha Chau and Lung Kwu Chau at Hong Kong International Airport Landside. The major construction activities including without limitation the following: • Geotechnical instrumentation and monitoring of the Works; • Temporary removal of armour rock and underlayers of existing seawall and subsequent reinstatement to its original condition; • Construction of the concrete cable trough embedded at about 3m below the surface of the existing seawall; and • Supply, installation, maintenance, and subsequent removal of temporary generator sets for temporary power supply with associated fuel supply and pump system located at Sheung Sha Chau, Sha Chau South and Lung Kwu Chau Islands.
3501	Antenna Farm and Sewage Pumping Station	Build King Construction Limited	The works covered by the Contract 3501 comprise the construction of antenna farm and sewage pumping station, the major construction activities including without limitation the following: • Civil and structural engineering works; • Building services works; • Architectural builder's works and finishes;

			• Trenchless excavation for sewage rising mains; and • All associated works.

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

Appendix B 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	N/A

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	N/A
			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;		N/A
			▪ 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	NA *(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, 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
			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	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 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.		N/A

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 and 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;		N/A
			▪ 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		N/A

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.		N/A
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; ▪ 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; ▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission; ▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area; ▪ Treated and untreated sediment should be clearly separated and stored separately; and ▪ 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.	Project Site Area / Construction Phase	N/A
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	N/A
			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.		N/A
			▪ 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.	N/A
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 C. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Jul-17

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 WQ General & Regular DCM mid-ebb: 07:09 mid-flood: 12:38^
2	**3**	**4** Site Inpsection AR1A, AR2 NM1A, NM3A, NM4, NM5 WQ General & Regular DCM mid-ebb: 10:16 mid-flood: 16:47	**5** CWD Land-based Survey	**6** Site Inpsection NM6 WQ General & Regular DCM mid-ebb: 11:34 mid-flood: 18:34	**7**	**8** WQ General & Regular DCM mid-ebb: 12:44 mid-flood: 19:50
9	**10** Site Inpsection CWD Land-based Survey AR1A, AR2 NM1A, NM4, NM5	**11** Site Inpsection CWD Vessel Survey WQ General & Regular DCM mid-ebb: 14:26 mid-flood: 07:33	**12** Site Inpsection CWD Vessel Survey NM6	**13** Site Inpsection CWD Vessel Survey WQ General & Regular DCM mid-ebb: 15:37 mid-flood: 08:53	**14** CWD Vessel Survey CWD Land-based Survey AR1A, AR2 NM3A	**15** WQ General & Regular DCM mid-ebb: 17:00 mid-flood: 10:31
16	**17**	**18** Site Inpsection NM6 WQ General & Regular DCM mid-ebb: 08:22 mid-flood: 14:30	**19** Site Inpsection	**20** Site Inpsection CWD Vessel Survey AR1A, AR2 NM1A, NM3A, NM4, NM5 WQ General & Regular DCM mid-ebb: 10:22 mid-flood: 17:14	**21** Site Inspection CWD Vessel Survey CWD Land-based Survey	**22** WQ General & Regular DCM mid-ebb: 12:05 mid-flood: 19:12
23	**24** CWD Land-based Survey NM6	**25** Site Inpsection CWD Vessel Survey WQ General & Regular DCM mid-ebb: 14:27 mid-flood: 07:33	**26** Site Inpsection CWD Vessel Survey AR1A, AR2 NM1A, NM3A, NM4, NM5	**27** Site Inpsection WQ General & Regular DCM mid-ebb: 15:53 mid-flood: 09:08	**28** Site Inspection	**29** WQ General & Regular DCM mid-ebb: 17:14 mid-flood: 10:48
30	**31**	**Notes:** Air quality and Noise Monitoring Station CWD - Chinese White Dolphin WQ - Water Quality DCM - Deep Cemenet Mixing NM1A/AR1A - Man Tung Road Park NM3A - Site Office NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan ^ Cancelled due to marine police blockade of the monitoring area.				

Tentative Monitoring Schedule of Next Reporting Period

Aug-17

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Site Inspection AR1A,AR2 NM1A, NM3A,NM4, NM5 WQ General & Regular DCM mid-ebb: 08:30 mid-flood: 15:14	**2** Site Inspection	**3** Site Inspection NM6 WQ General & Regular DCM mid-ebb: 10:27 mid-flood: 17:42	**4** Site Inspection CWD Vessel Survey	**5** WQ General & Regular DCM mid-ebb: 11:45 mid-flood: 18:57
6	**7** CWD Vessel Survey AR1A,AR2 NM1A, NM3A,NM4, NM5	**8** Site Inspection CWD Vessel Survey WQ General & Regular DCM mid-ebb: 13:31 mid-flood: 20:27	**9** Site Inspection CWD Vessel Survey	**10** Site Inspection CWD Land-based Survey NM6 WQ General & Regular DCM mid-ebb: 14:39 mid-flood: 08:03	**11** Site Inspection CWD Land-based Survey AR1A,AR2	**12** WQ General & Regular DCM mid-ebb: 15:52 mid-flood: 09:32
13	**14** CWD Vessel Survey	**15** Site Inspection CWD Vessel Survey NM6 WQ General & Regular DCM mid-ebb: 18:33 mid-flood: 12:55	**16** Site Inspection CWD Land-based Survey	**17** Site Inspection CWD Land-based Survey AR1A, AR2 NM1A, NM3A, NM4, NM5 WQ General & Regular DCM mid-ebb: 08:58 mid-flood: 16:10	**18** Site Inspection CWD Vessel Survey	**19** WQ General & Regular DCM mid-ebb: 11:03 mid-flood: 18:14
20	**21** CWD Vessel Survey NM6	**22** Site Inspection CWD Land-based Survey WQ General & Regular DCM mid-ebb: 13:26 mid-flood: 20:14	**23** Site Inspection AR1A, AR2 NM1A, NM3A,NM4, NM5	**24** Site Inspection WQ General & Regular DCM mid-ebb: 14:48 mid-flood: 08:13	**25** Site Inspection	**26** WQ General & Regular DCM mid-ebb: 15:57 mid-flood: 09:39
27	**28**	**29** Site Inspection AR1A, AR2 NM1A, NM3A, NM4, NM5 WQ General & Regular DCM mid-ebb: 18:21 mid-flood: 12:52	**30** Site Inspection	**31** Site Inspection Ecological Monitoring NM6 WQ General & Regular DCM mid-ebb: 08:35 mid-flood: 16:39		

Notes:

Air quality and Noise Monitoring Station

NM1A/AR1A - Man Tung Road Park
NM3A - Site Office
NM4 - Ching Chung Hau Po Woon Primary School
NM5/AR2 - Village House, Tin Sum
NM6 - House No. 1, Sha Lo Wan

CWD - Chinese White Dolphin
WQ - Water Quality
DCM - Deep Cemenet Mixing

Appendix D. Monitoring Results

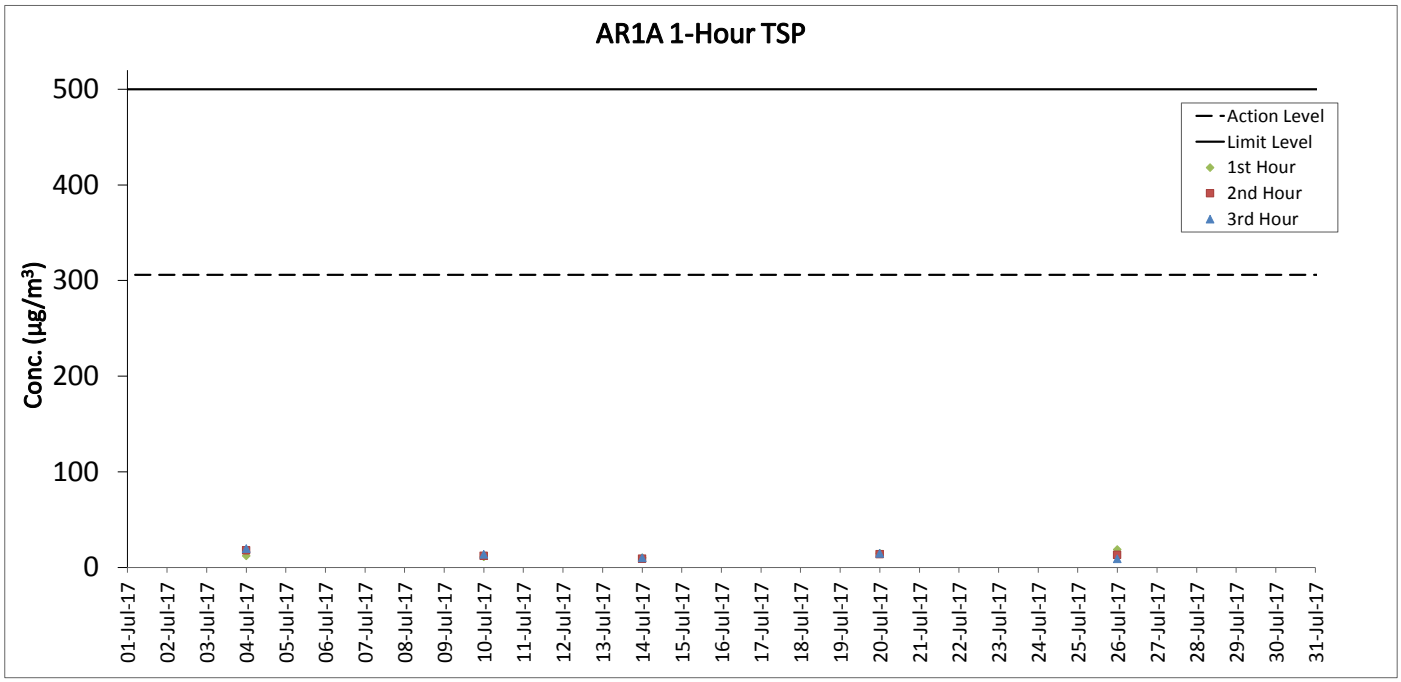
Air Quality Monitoring Results

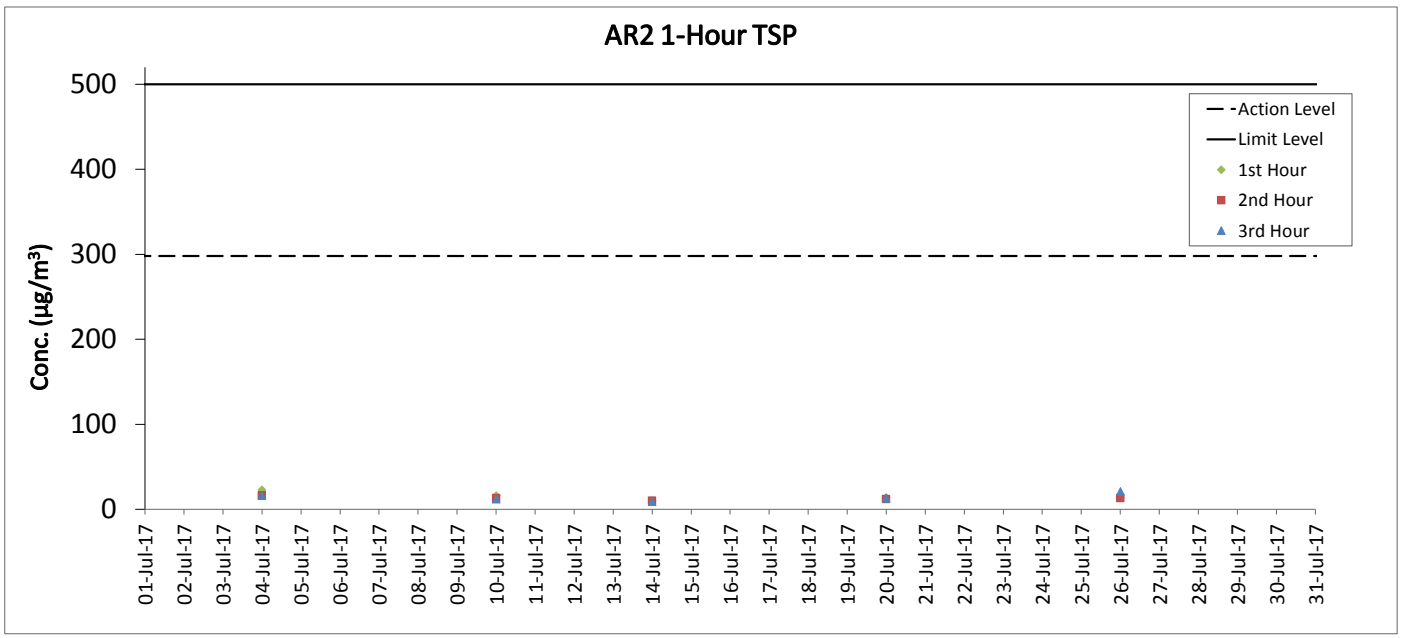
1-hour TSP Results
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
04-Jul-17	13:10	Rainy	4.2	272	12	306	500
04-Jul-17	14:10	Rainy	6.3	234	18	306	500
04-Jul-17	15:10	Rainy	2.7	72	20	306	500
10-Jul-17	13:45	Sunny	5.5	160	11	306	500
10-Jul-17	14:45	Sunny	6	159	12	306	500
10-Jul-17	15:45	Sunny	6.2	152	14	306	500
14-Jul-17	09:00	Sunny	6.2	117	10	306	500
14-Jul-17	10:00	Sunny	5.2	111	9	306	500
14-Jul-17	11:00	Sunny	7.2	116	10	306	500
20-Jul-17	08:40	Sunny	3.7	64	15	306	500
20-Jul-17	09:40	Sunny	3.7	92	14	306	500
20-Jul-17	10:40	Sunny	5.4	118	15	306	500
26-Jul-17	13:15	Sunny	3.8	283	19	306	500
26-Jul-17	14:15	Sunny	4.9	272	13	306	500
26-Jul-17	15:15	Sunny	6.6	161	9	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 ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
04-Jul-17	09:05	Cloudy	5.2	74	23	298	500
04-Jul-17	10:05	Cloudy	5.3	109	16	298	500
04-Jul-17	11:05	Cloudy	4.1	87	16	298	500
10-Jul-17	09:00	Sunny	2.5	172	16	298	500
10-Jul-17	10:00	Sunny	4.4	195	13	298	500
10-Jul-17	11:00	Sunny	3.4	174	12	298	500
14-Jul-17	09:00	Sunny	6.2	117	10	298	500
14-Jul-17	10:00	Sunny	5.2	111	10	298	500
14-Jul-17	11:00	Sunny	7.2	116	9	298	500
20-Jul-17	09:10	Sunny	3.9	87	14	298	500
20-Jul-17	10:10	Sunny	4.6	116	12	298	500
20-Jul-17	11:10	Sunny	6.5	122	13	298	500
26-Jul-17	8:20	Sunny	1.9	26	14	298	500
26-Jul-17	9:20	Sunny	3.1	343	13	298	500
26-Jul-17	10:20	Sunny	3.0	331	21	298	500


AR1A 1-Hour TSP
Conc. (µg/m³)
500
400
300
200
100
0
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour
01-Jul-17
02-Jul-17
03-Jul-17
04-Jul-17
05-Jul-17
06-Jul-17
07-Jul-17
08-Jul-17
09-Jul-17
10-Jul-17
11-Jul-17
12-Jul-17
13-Jul-17
14-Jul-17
15-Jul-17
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20-Jul-17
21-Jul-17
22-Jul-17
23-Jul-17
24-Jul-17
25-Jul-17
26-Jul-17
27-Jul-17
28-Jul-17
29-Jul-17
30-Jul-17
31-Jul-17


AR2 1-Hour TSP
Conc. (µg/m³)
500
400
300
200
100
0
Action Level
Limit Level
1st Hour
2nd Hour
3rd Hour
01-Jul-17
02-Jul-17
03-Jul-17
04-Jul-17
05-Jul-17
06-Jul-17
07-Jul-17
08-Jul-17
09-Jul-17
10-Jul-17
11-Jul-17
12-Jul-17
13-Jul-17
14-Jul-17
15-Jul-17
16-Jul-17
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21-Jul-17
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25-Jul-17
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27-Jul-17
28-Jul-17
29-Jul-17
30-Jul-17
31-Jul-17

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)
04-Jul-17	Fine	13:29	72.5	58.0	72
04-Jul-17	Fine	13:34	72.5	56.5	
04-Jul-17	Fine	13:39	70.5	57.0	
04-Jul-17	Fine	13:44	73.5	58.0	
04-Jul-17	Fine	13:49	72.0	57.5	
04-Jul-17	Fine	13:54	71.0	57.5	
10-Jul-17	Sunny	13:49	71.0	63.5	71
10-Jul-17	Sunny	13:54	71.0	61.0	
10-Jul-17	Sunny	13:59	71.0	57.0	
10-Jul-17	Sunny	14:04	72.5	57.0	
10-Jul-17	Sunny	14:09	71.5	56.0	
10-Jul-17	Sunny	14:14	70.5	56.0	
20-Jul-17	Sunny	08:55	73.0	58.0	72
20-Jul-17	Sunny	09:00	73.0	57.0	
20-Jul-17	Sunny	09:05	72.0	58.5	
20-Jul-17	Sunny	09:10	72.5	57.0	
20-Jul-17	Sunny	09:15	72.5	56.5	
20-Jul-17	Sunny	09:20	70.5	56.0	
26-Jul-17	Sunny	13:40	71.0	56.0	71
26-Jul-17	Sunny	13:45	71.0	54.5	
26-Jul-17	Sunny	13:50	72.0	56.0	
26-Jul-17	Sunny	13:55	72.5	56.0	
26-Jul-17	Sunny	14:00	71.0	55.5	
26-Jul-17	Sunny	14:05	71.0	54.5	

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

Noise Measurement Results
Station: NM3A- Site Office

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
04-Jul-17	Fine	09:13	69.5	59.0	61
04-Jul-17	Fine	09:18	68.0	59.5	
04-Jul-17	Fine	09:23	68.5	60.0	
04-Jul-17	Fine	09:28	69.5	60.5	
04-Jul-17	Fine	09:33	67.0	60.0	
04-Jul-17	Fine	09:38	66.5	59.5	
14-Jul-17	Sunny	13:50	66.0	60.5	63
14-Jul-17	Sunny	13:55	66.0	60.0	
14-Jul-17	Sunny	14:00	66.0	60.5	
14-Jul-17	Sunny	14:05	66.0	60.0	
14-Jul-17	Sunny	14:10	65.0	60.5	
14-Jul-17	Sunny	14:15	64.5	60.5	
20-Jul-17	Fine	14:08	64.5	60.5	57
20-Jul-17	Fine	14:13	67.5	60.5	
20-Jul-17	Fine	14:18	66.5	60.5	
20-Jul-17	Fine	14:23	70.5	60.0	
20-Jul-17	Fine	14:28	66.0	60.0	
20-Jul-17	Fine	14:33	67.0	60.5	
26-Jul-17	Sunny	09:13	67.0	60.5	61
26-Jul-17	Sunny	09:18	67.5	61.5	
26-Jul-17	Sunny	09:23	66.0	61.5	
26-Jul-17	Sunny	09:28	68.0	61.5	
26-Jul-17	Sunny	09:33	69.0	62.5	
26-Jul-17	Sunny	09:38	70.5	61.5	

Noise Measurement Results
Station: NM4- Ching Chung Hau Po Won Primary School

Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
04-Jul-17	Cloudy	10:55	69.5	62.0	64
04-Jul-17	Cloudy	11:00	65.0	62.0	
04-Jul-17	Cloudy	11:05	65.5	61.5	
04-Jul-17	Cloudy	11:10	65.0	62.0	
04-Jul-17	Cloudy	11:15	65.0	61.5	
04-Jul-17	Cloudy	11:20	66.0	62.0	
10-Jul-17	Sunny	14:45	66.5	60.0	64
10-Jul-17	Sunny	14:50	66.5	60.5	
10-Jul-17	Sunny	14:55	66.0	60.5	
10-Jul-17	Sunny	15:00	66.5	60.5	
10-Jul-17	Sunny	15:05	66.5	60.5	
10-Jul-17	Sunny	15:10	66.5	61.0	
20-Jul-17	Sunny	14:53	62.5	59.5	64
20-Jul-17	Sunny	14:58	62.0	59.0	
20-Jul-17	Sunny	15:03	62.0	59.5	
20-Jul-17	Sunny	15:08	62.5	59.5	
20-Jul-17	Sunny	15:13	64.0	60.0	
20-Jul-17	Sunny	15:18	65.0	59.5	
26-Jul-17	Sunny	13:41	64.5	61.5	65
26-Jul-17	Sunny	13:46	63.5	60.0	
26-Jul-17	Sunny	13:51	62.0	59.5	
26-Jul-17	Sunny	13:56	61.5	58.5	
26-Jul-17	Sunny	14:01	66.0	59.5	
26-Jul-17	Sunny	14:06	63.0	59.0	

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)
04-Jul-17	Cloudy	09:25	66.0	59.5	66
04-Jul-17	Cloudy	09:30	66.5	61.0	
04-Jul-17	Cloudy	09:35	66.0	61.0	
04-Jul-17	Cloudy	09:40	66.5	61.5	
04-Jul-17	Cloudy	09:45	66.0	61.0	
04-Jul-17	Cloudy	09:50	66.0	60.5	
10-Jul-17	Sunny	09:35	66.0	60.0	67
10-Jul-17	Sunny	09:40	66.0	61.0	
10-Jul-17	Sunny	09:45	67.5	59.5	
10-Jul-17	Sunny	09:50	66.0	58.5	
10-Jul-17	Sunny	09:55	66.5	59.5	
10-Jul-17	Sunny	10:00	66.5	59.0	
20-Jul-17	Sunny	09:40	57.0	49.5	57
20-Jul-17	Sunny	09:45	56.0	49.0	
20-Jul-17	Sunny	09:50	55.5	50.0	
20-Jul-17	Sunny	09:55	55.0	48.5	
20-Jul-17	Sunny	10:00	55.0	48.5	
20-Jul-17	Sunny	10:05	57.0	48.0	
26-Jul-17	Sunny	09:42	58.0	50.0	58
26-Jul-17	Sunny	09:47	57.5	49.5	
26-Jul-17	Sunny	09:52	51.5	48.0	
26-Jul-17	Sunny	09:57	52.5	48.5	
26-Jul-17	Sunny	10:02	55.5	50.0	
26-Jul-17	Sunny	10:07	61.0	50.5	

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

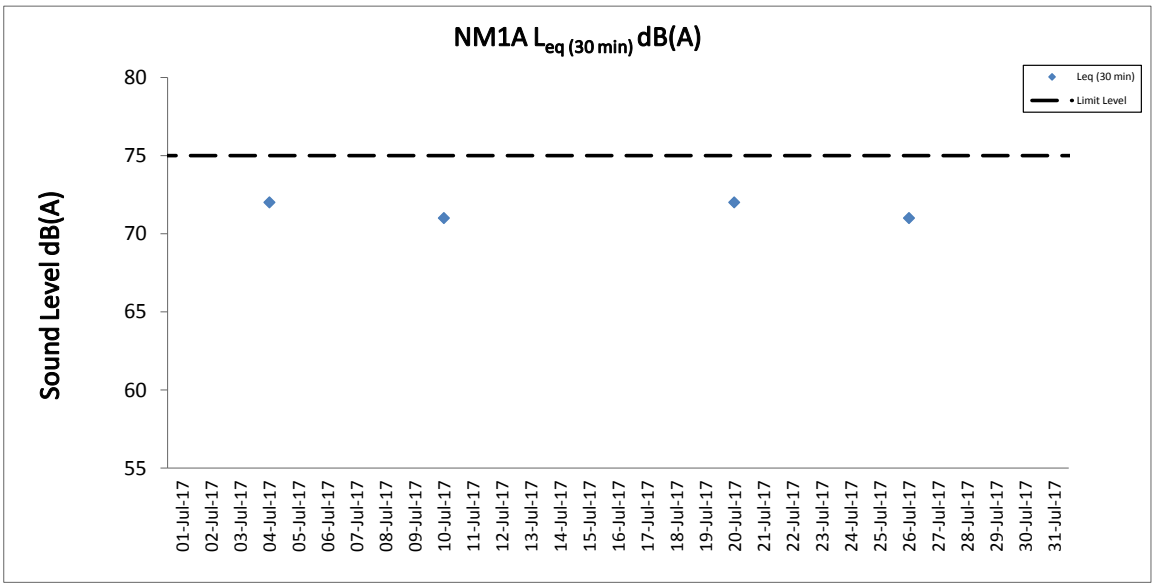
Noise Measurement Results

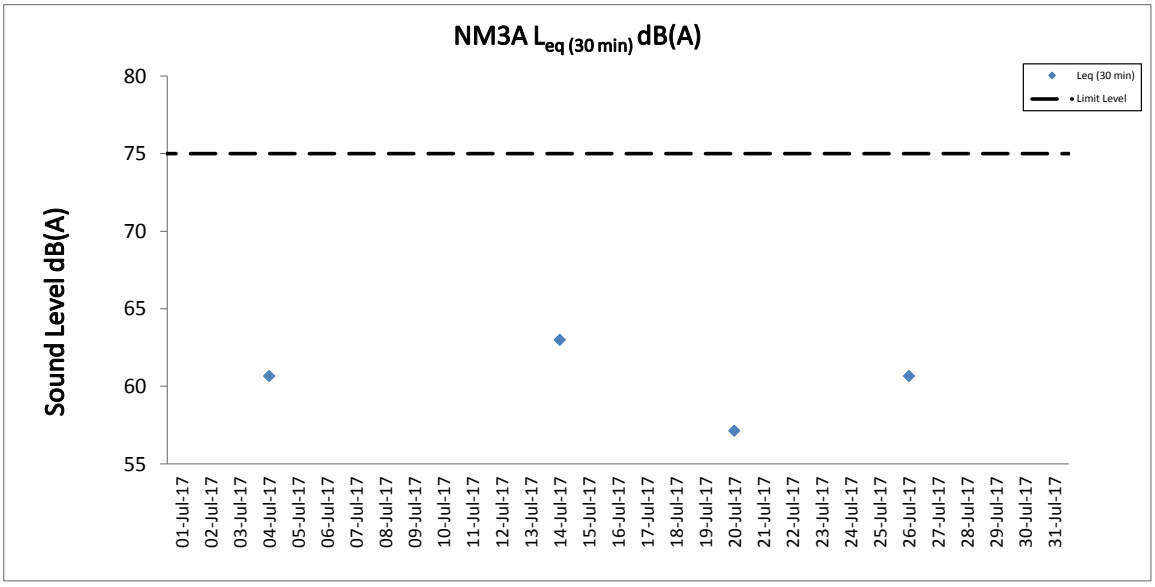
Station: NM6- House No.1 Sha Lo Wan

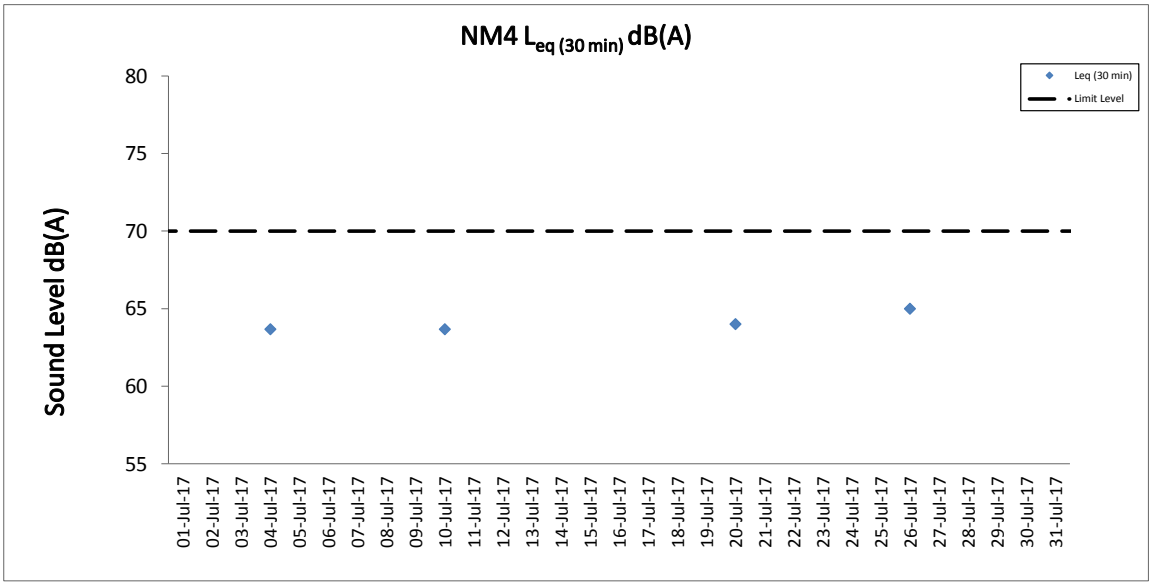
Date	Weather	Time	Measured L_{10} dB(A)	Measured L_{90} dB(A)	$L_{eq(30mins)}$ dB(A)
06-Jul-17	Cloudy	09:39	64.0	50.5	62
06-Jul-17	Cloudy	09:44	64.5	51.5	
06-Jul-17	Cloudy	09:49	73.2	53.5	
06-Jul-17	Cloudy	09:54	63.0	57.0	
06-Jul-17	Cloudy	09:59	73.0	60.0	
06-Jul-17	Cloudy	10:04	71.5	60.5	
12-Jul-17	Fine	09:42	75.5	60.0	68
12-Jul-17	Fine	09:47	74.0	59.5	
12-Jul-17	Fine	09:52	72.0	59.5	
12-Jul-17	Fine	09:57	70.5	57.5	
12-Jul-17	Fine	10:02	68.0	54.0	
12-Jul-17	Fine	10:07	67.5	55.5	
18-Jul-17	Cloudy	09:38	75.5	58.5	73
18-Jul-17	Cloudy	09:43	76.5	60.0	
18-Jul-17	Cloudy	09:48	74.5	61.0	
18-Jul-17	Cloudy	09:53	76.0	58.5	
18-Jul-17	Cloudy	09:58	72.2	57.5	
18-Jul-17	Cloudy	10:03	73.5	55.0	
24-Jul-17	Cloudy	09:39	72.0	59.0	66
24-Jul-17	Cloudy	09:44	71.0	55.5	
24-Jul-17	Cloudy	09:49	70.0	56.5	
24-Jul-17	Cloudy	09:54	70.0	58.0	
24-Jul-17	Cloudy	09:59	72.5	61.5	
24-Jul-17	Cloudy	10:04	71.0	58.0	

Remarks:

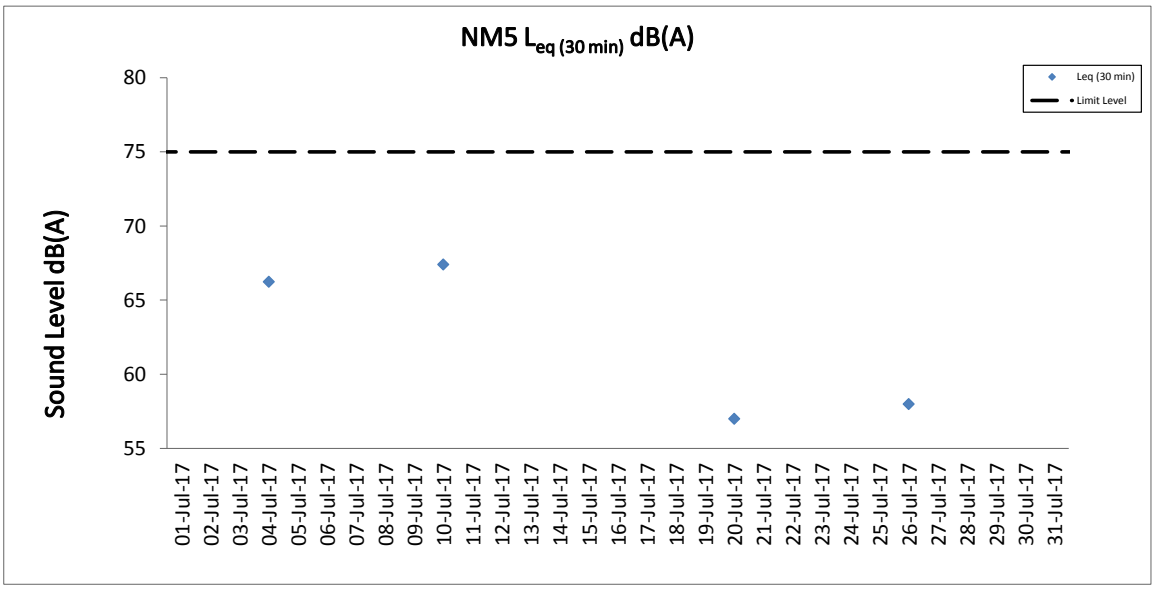
+3dB (A) correction was applied to free-field measurement.

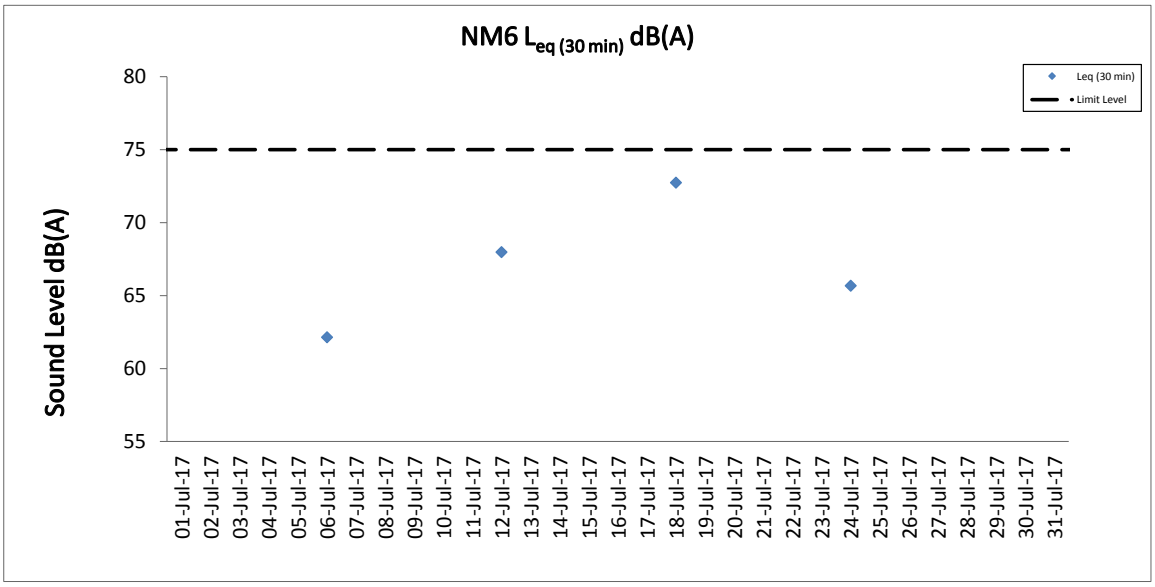






Note: Limit Level at NM4 reduced to 65 dB(A) during school examination period. No school examination took place in the reporting period.


NM5 $L_{eq\ (30\ min)}$ dB(A)
Sound Level dB(A)
80
75
70
65
60
55
Leq (30 min)
Limit Level
01-Jul-17
02-Jul-17
03-Jul-17
04-Jul-17
05-Jul-17
06-Jul-17
07-Jul-17
08-Jul-17
09-Jul-17
10-Jul-17
11-Jul-17
12-Jul-17
13-Jul-17
14-Jul-17
15-Jul-17
16-Jul-17
17-Jul-17
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26-Jul-17
27-Jul-17
28-Jul-17
29-Jul-17
30-Jul-17
31-Jul-17


NM6 $L_{eq\ (30\ min)}$ dB(A)
Sound Level dB(A)
80
75
70
65
60
55
Leq (30 min)
Limit Level
01-Jul-17
02-Jul-17
03-Jul-17
04-Jul-17
05-Jul-17
06-Jul-17
07-Jul-17
08-Jul-17
09-Jul-17
10-Jul-17
11-Jul-17
12-Jul-17
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24-Jul-17
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28-Jul-17
29-Jul-17
30-Jul-17
31-Jul-17

Water Quality Monitoring Results

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

Water Quality Monitoring

Water Quality Monitoring Results on 01 July 17 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	06:28	8.0	Surface	1.0	0.1	238	29.5	29.5	7.9	7.9	10.8	10.8	78.6	78.6	5.7	5.1	8.8	10.0	4	3	73	75	815628	804248	<0.2	<0.2	1.8	1.9
						1.0	0.1	252	29.5		7.9		10.8		78.6		5.7		8.8		3		73				<0.2		1.8	
					Middle	4.0	0.1	280	28.7	28.7	7.9	7.9	17.4	17.4	63.9	63.9	4.5		8.8		3		75				<0.2		2.0	
						4.0	0.1	285	28.7		7.9		17.4		63.9		4.5		8.8		3		75				<0.2		1.8	
					Bottom	7.0	0.1	301	27.6	27.6	7.9	7.9	21.2	21.2	55.0	55.0	3.9	3.9	12.5		3		76				<0.2		2.0	
						7.0	0.1	322	27.6		7.9		21.2		55.0		3.9		12.5		3		76				<0.2		1.8	
C2	Cloudy	Moderate	08:22	12.3	Surface	1.0	0.6	162	29.1	29.1	7.8	7.8	8.1	8.1	69.4	69.4	5.1	4.4	8.5	9.9	<2	<2	67	74	825697	806926	<0.2	<0.2	2.2	2.1
						1.0	0.6	164	29.1		7.8		8.1		69.4		5.1		8.5		<2		68				<0.2		2.0	
					Middle	6.2	0.3	297	27.1	27.1	7.8	7.8	21.3	21.3	53.0	53.0	3.7		9.8		<2		76				<0.2		2.2	
						6.2	0.3	297	27.1		7.8		21.3		53.0		3.7		9.8		<2		78				<0.2		2.1	
					Bottom	11.3	0.7	299	26.5	26.5	7.8	7.8	25.4	25.4	56.5	56.5	3.9	3.9	11.3		<2		78				<0.2		2.3	
						11.3	0.7	309	26.5		7.8		25.4		56.5		3.9		11.3		<2		77				<0.2		2.0	
C3	Cloudy	Moderate	06:19	11.3	Surface	1.0	0.4	251	28.7	28.7	7.9	7.9	14.4	14.4	78.9	78.9	5.6	5.4	7.9	9.3	<2	3	72	75	822120	817800	<0.2	<0.2	2.0	1.7
						1.0	0.5	274	28.7		7.9		14.4		78.9		5.6		7.9		<2		71				<0.2		1.9	
					Middle	5.7	0.4	231	28.1	28.1	7.9	7.9	17.3	17.3	72.3	72.3	5.1		7.9		3		75				<0.2		1.7	
						5.7	0.4	250	28.1		7.9		17.3		72.3		5.1		7.9		4		75				<0.2		1.8	
					Bottom	10.3	0.3	261	26.5	26.5	7.9	7.9	25.0	25.0	70.8	70.8	5.0	5.0	12.2		3		78				<0.2		1.2	
						10.3	0.3	275	26.5		7.9		25.0		70.8		5.0		12.2		3		78				<0.2		1.3	
IM1	Cloudy	Moderate	06:57	8.2	Surface	1.0	0.2	210	29.2	29.2	7.9	7.9	10.4	10.4	78.5	78.5	5.7	5.1	8.8	10.0	3	3	73	75	818346	806449	<0.2	<0.2	1.6	1.9
						1.0	0.2	221	29.2		7.9		10.4		78.5		5.7		8.8		3		73				<0.2		1.6	
					Middle	4.1	0.1	182	28.3	28.3	7.9	7.9	16.2	16.2	63.4	63.4	4.5		10.5		2		75				<0.2		2.0	
						4.1	0.1	199	28.3		7.9		16.2		63.4		4.5		10.5		2		75				<0.2		2.1	
					Bottom	7.2	0.1	208	27.4	27.4	7.9	7.9	24.1	24.1	66.5	66.5	4.6	4.6	10.8		3		76				<0.2		2.1	
						7.2	0.1	216	27.4		7.9		24.1		66.5		4.6		10.8		2		76				<0.2		2.0	
IM2	Cloudy	Moderate	07:08	8.3	Surface	1.0	0.1	273	29.4	29.4	7.9	7.9	11.4	11.4	78.0	78.0	5.6	5.1	9.7	10.9	4	3	74	75	818857	806195	<0.2	<0.2	1.8	1.9
						1.0	0.1	278	29.4		7.9		11.4		78.0		5.6		9.7		2		74				<0.2		2.1	
					Middle	4.2	0.2	251	28.5	28.5	7.9	7.9	15.7	15.7	64.4	64.4	4.6		12.4		4		75				<0.2		2.0	
						4.2	0.2	261	28.5		7.9		15.7		64.4		4.6		12.4		3		75				<0.2		1.8	
					Bottom	7.3	0.1	260	27.5	27.5	7.8	7.8	23.8	23.8	76.6	76.6	5.3	5.3	10.5		3		77				<0.2		1.8	
						7.3	0.1	260	27.5		7.8		23.8		76.6		5.3		10.5		3		77				<0.2		1.8	
IM3	Cloudy	Moderate	07:17	8.9	Surface	1.0	0.1	226	29.2	29.2	7.8	7.8	10.9	10.9	72.7	72.7	5.4	5.1	10.1	11.5	3	3	73	76	819402	806000	<0.2	<0.2	1.8	1.9
						1.0	0.1	227	29.2		7.8		10.9		72.7		5.4		10.1		3		74				<0.2		1.8	
					Middle	4.5	0.0	231	28.7	28.7	7.9	7.9	12.9	12.9	67.0	67.0	4.8		11.5		3		75				<0.2		1.8	
						4.5	0.0	245	28.7		7.9		12.9		67.0		4.8		11.6		3		76				<0.2		2.0	
					Bottom	7.9	0.1	229	26.2	26.2	7.9	7.9	28.2	28.2	71.7	71.7	4.9	4.9	12.7		3		77				<0.2		1.9	
						7.9	0.1	231	26.2		7.9		28.2		71.7		4.9		12.7		4		78				<0.2		1.8	
IM4	Cloudy	Moderate	07:25	8.6	Surface	1.0	0.1	207	29.1	29.1	7.9	7.9	9.0	9.0	74.0	74.0	5.4	5.3	11.0	11.8	4	4	73	75	819569	805041	<0.2	<0.2	1.8	1.8
						1.0	0.1	220	29.1		7.9		9.0		74.0		5.4		11.0		3		73				<0.2		2.0	
					Middle	4.3	0.1	166	29.0	29.0	7.8	7.8	13.2	13.2	73.0	73.0	5.2		12.1		4		75				<0.2		1.8	
						4.3	0.1	169	29.0		7.8		13.2		73.0		5.2		12.1		4		76				<0.2		1.8	
					Bottom	7.6	0.2	187	26.4	26.5	7.9	7.9	27.7	27.4	70.6	71.0	4.9	4.9	12.1		4		77				<0.2		1.8	
						7.6	0.2	198	26.6		7.9		27.1		71.3		4.9		12.4		4		78				<0.2		1.8	
IM5	Cloudy	Moderate	07:33	7.8	Surface	1.0	0.2	123	29.0	29.0	7.8	7.8	10.8	10.8	69.9	69.9	5.2	5.0	11.3	11.0	3	3	73	75	820547	804930	<0.2	<0.2	2.0	2.0
						1.0	0.2	131	29.0		7.8		10.8		69.9		5.2		11.1		2		74				<0.2		2.0	
					Middle	3.9	0.3	142	28.8	28.8	7.9	7.9	12.6	12.6	65.7	65.7	4.7		10.5		3		75				<0.2		2.0	
						3.9	0.3	154	28.8		7.9		12.6		65.7		4.7		10.5		2		75				<0.2		1.9	
					Bottom	6.8	0.1	188	27.0	27.0	7.9	7.9	23.2	23.2	54.5	54.5	3.8	3.8	11.4		5		77				<0.2		1.9	
						6.8	0.1	197	27.0		7.9		23.2		54.5		3.8		11.4		4		77				<0.2		1.9	
IM6	Cloudy	Moderate	07:46	7.6	Surface	1.0	0.5	308	28.8	28.8	7.9	7.9	9.0	9.1	67.2	67.1	4.9	4.7	10.2	12.6	3	4	73	75	821059	805823	<0.2	<0.2	1.8	1.9
						1.0	0.5	333	28.7		7.9		9.1		67.0		4.9		10.2		4		73				<0.2		2.0	
					Middle	3.8	0.4	296	28.6	28.6	8.0	8.0	13.7	13.7	63.2	63.2	4.5		11.0		4		75				<0.2		2.1	
						3.8	0.4	319	28.6		8.0		13.7		63.2		4.5		11.0		4		76				<0.2		1.8	
					Bottom	6.6	0.3	336	26.1	26.1	7.9	7.9	28.2	28.2	57.9	57.9	4.0	4.0	16.5		3		77				<0.2		1.9	
						6.6	0.3	309	26.1		7.9		28.2		57.9		4.0		16.5		4		78				<0.2		1.8	
IM7	Cloudy	Moderate	07:57	7.3	Surface	1.0	0.2	322	28.9	28.9	7.9	7.9	6.5	6.5	70.8	70.8	5.3	4.7	10.6	12.3	2	3	73	76	821339	806847	<0.2	<0.2	2.0	1.9
						1.0	0.2	335	28.9		7.9		6.5		70.8		5.3		10.6		3		74				<0.2		2.0	
					Middle	3.7	0.4	254	28.0	28.0	8.0	8.0	16.5	16.5	57.9	57.9	4.1		12.9		4		76				<0.2		2.0	
						3.7	0.4	271	28.0		8.0		16.5		57.9		4.1		12.9		2		76				<0.2		1.9	
					Bottom	6.3	0.2	247	26.6	26.6	8.0	8.0	28.1	28.1	57.9	57.9	4.0	4.0	13.4		4		77				<0.2		2.0	
						6.3	0.2	257	26.6		8.0		28.1		57.9		4.0		13.4		3		77				<0.2		1.7	
IM8	Cloudy	Moderate	07:50	9.2	Surface	1.0	0.3	219	28.4	28.4	7.8	7.8	16.4	16.4	68.0	68.0	4.8	4.7	9.3	9.8	3	4	72	75	821706	807846	<0.2	<0.2	1.9	2.1
						1.0	0.3	237	28.4		7.8		16.4		68.0		4.8		9.3		5		74				<0.2		2.0	
					Middle	4.6	0.5	267	28.1	28.1	7.8	7.8	17.2	17.2	62.7	62.7	4.5		9.9		4		75				<0.2		2.0	
						4.6	0.5	286	28.1		7.8		17.2		62.7		4.5		9.9		4		76				<0.2		2.2	
					Bottom	8.2	0.5	298	27.8	27.8	7.9	7.9	22.5	22.5	71.9	71.9	5.0	5.0	10.3		5		78				<0.2		2.1	
						8.2	0.6	320	27.8		7.9		22.5		71.9		5.0		10.3		5		77				<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 01 July 17 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	07:43	8.3	Surface	1.0	0.4	186	28.8	28.8	7.9	7.9	10.5	10.6	68.1	67.9	5.0	4.7	8.9	9.1	4	4	69	73	822111	808824	<0.2	<0.2	2.4	2.4
						1.0	0.4	196	28.7		7.9		10.6		67.6		4.9		9.0		4		70				<0.2		2.5	
					Middle	4.2	0.1	217	27.8	27.8	7.8	7.8	18.7	18.7	61.8	61.8	4.4		9.3		3		74				<0.2		2.4	
						4.2	0.1	225	27.8		7.8		18.7		61.8		4.4		9.3		4		74				<0.2		2.4	
					Bottom	7.3	0.3	290	27.7	27.7	7.8	7.8	19.0	19.0	68.5	68.5	4.9	4.9	9.1		4		76				<0.2		2.2	
						7.3	0.3	310	27.7		7.8		19.0		68.5		4.9		9.1		4		75				<0.2		2.2	
IM10	Cloudy	Moderate	07:35	7.2	Surface	1.0	0.2	157	28.7	28.7	7.9	7.9	13.3	13.3	67.9	67.9	4.9	4.7	9.7	11.2	4	4	70	75	822245	809857	<0.2	<0.2	2.5	2.4
						1.0	0.2	160	28.7		7.9		13.3		67.9		4.9		9.7		4		71				<0.2		2.4	
					Middle	3.6	0.0	29	28.3	28.3	7.8	7.8	16.2	16.2	62.3	62.3	4.4		10.6		4		75				<0.2		2.4	
						3.6	0.0	29	28.3		7.8		16.2		62.3		4.4		10.6		4		76				<0.2		2.5	
					Bottom	6.2	0.6	241	27.7	27.7	7.8	7.8	19.3	19.3	66.5	66.5	4.7	4.7	13.4		4		77				<0.2		2.3	
						6.2	0.6	243	27.7		7.8		19.3		66.5		4.7		13.4		4		78				<0.2		2.3	
IM11	Cloudy	Moderate	07:23	7.0	Surface	1.0	0.1	108	29.1	29.1	7.9	7.9	10.1	10.1	77.5	77.4	5.6	5.3	9.5	11.5	3	4	69	73	821486	810547	<0.2	<0.2	2.6	2.6
						1.0	0.1	109	29.1		7.9		10.1		77.3		5.6		9.6		2		70				<0.2		2.5	
					Middle	3.5	0.2	8	28.4	28.4	7.9	7.9	14.2	14.2	67.6	67.6	4.9		10.2		3		72				<0.2		2.4	
						3.5	0.2	8	28.4		7.9		14.2		67.6		4.9		10.2		4		73				<0.2		2.6	
					Bottom	6.0	0.4	331	28.0	28.0	7.9	7.9	18.1	18.1	70.4	70.4	5.0	5.0	14.6		4		75				<0.2		2.6	
						6.0	0.4	305	28.0		7.9		18.1		70.4		5.0		14.6		5		76				<0.2		2.6	
IM12	Cloudy	Moderate	07:11	8.7	Surface	1.0	0.2	104	28.9	28.9	7.9	7.9	11.7	11.7	71.6	71.5	5.2	5.0	8.4	10.9	5	6	69	74	821171	811523	<0.2	<0.2	2.7	2.5
						1.0	0.2	112	28.9		7.9		11.7		71.4		5.2		8.4		4		70				<0.2		2.5	
					Middle	4.4	0.2	301	28.6	28.6	7.9	7.9	13.6	13.6	64.9	64.9	4.7		11.2		5		75				<0.2		2.4	
						4.4	0.2	329	28.6		7.9		13.6		64.9		4.7		11.2		4		74				<0.2		2.4	
					Bottom	7.7	0.4	259	27.3	27.3	7.9	7.9	22.0	22.0	53.2	53.2	3.7	3.7	13.0		9		76				<0.2		2.5	
						7.7	0.4	260	27.3		7.9		22.0		53.2		3.7		13.0		8		77				<0.2		2.6	
SR2	Cloudy	Moderate	06:45	4.8	Surface	1.0	0.1	114	29.2	29.2	7.9	7.9	10.0	10.0	81.2	81.2	5.9	5.9	11.0	12.3	4	4	67	71	821443	814177	<0.2	<0.2	2.4	2.3
						1.0	0.1	117	29.2		7.9		10.0		81.2		5.9		11.0		4		68				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	109	28.4	28.4	7.8	7.8	15.4	15.4	68.7	68.7	4.9	4.9	13.5		4		74				<0.2		2.2	
						3.8	0.1	117	28.4		7.8		15.4		68.7		4.9		13.5		5		73				<0.2		2.2	
SR3	Cloudy	Moderate	07:57	9.0	Surface	1.0	0.3	214	28.4	28.4	7.9	7.9	14.7	14.6	63.4	63.4	4.5	4.6	8.9	11.6	7	7	-	-	822144	807555	-	-	-	-
						1.0	0.3	221	28.4		7.9		14.5		63.4		4.5		8.9		7		-				-		-	
					Middle	4.5	0.6	265	27.8	27.8	7.8	7.8	18.9	18.9	66.5	66.5	4.6		10.4		6		-				-		-	
						4.5	0.6	268	27.8		7.8		18.9		66.5		4.6		10.4		7		-				-		-	
					Bottom	8.0	0.5	278	27.1	27.1	7.9	7.9	23.5	23.5	50.5	50.5	3.5	3.5	15.4		7		-				-		-	
						8.0	0.5	289	27.1		7.9		23.5		50.5		3.5		15.4		7		-				-		-	
SR4A	Cloudy	Moderate	06:08	7.8	Surface	1.0	0.1	219	28.7	28.7	8.0	8.0	15.0	15.0	87.0	86.9	6.2	5.6	6.2	9.0	3	4	-	-	817176	807816	-	-	-	-
						1.0	0.1	222	28.7		8.0		15.0		86.8		6.2		6.3		4		-				-		-	
					Middle	3.9	0.2	263	27.7	27.7	7.9	7.9	19.6	19.6	70.9	70.9	5.0		9.7		4		-				-		-	
						3.9	0.2	273	27.7		7.9		19.5		70.9		5.0		9.7		3		-				-		-	
					Bottom	6.8	0.2	280	27.5	27.5	7.8	7.8	20.7	20.7	73.6	73.7	5.2	5.2	10.9		3		-				-		-	
						6.8	0.2	280	27.5		7.8		20.7		73.8		5.2		10.9		4		-				-		-	
SR5A	Cloudy	Moderate	05:49	5.2	Surface	1.0	0.1	74	28.8	28.8	8.0	8.0	14.9	14.9	89.1	89.1	6.3	6.3	6.0	7.8	5	4	-	-	816586	810680	-	-	-	-
						1.0	0.1	80	28.8		8.0		14.9		89.0		6.3		6.1		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	299	27.7	27.7	7.8	7.9	19.7	19.7	79.2	79.4	5.6	5.6	9.6		3		-				-		-	
						4.2	0.1	304	27.7		7.9		19.6		79.5		5.6		9.6		4		-				-		-	
SR6	Cloudy	Moderate	05:25	4.1	Surface	1.0	0.0	154	28.9	28.9	8.0	8.0	14.5	14.5	115.1	115.2	8.2	8.2	5.9	8.2	4	4	-	-	817895	814651	-	-	-	-
						1.0	0.0	154	28.9		8.0		14.5		115.2		8.2		5.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	305	28.9	28.9	8.1	8.1	15.8	15.6	125.5	125.6	8.9	8.9	10.5		4		-				-		-	
						3.1	0.1	320	28.9		8.1		15.4		125.7		8.9		10.5		4		-				-		-	
SR7	Cloudy	Moderate	05:40	16.6	Surface	1.0	0.4	86	28.9	28.9	7.9	7.9	13.2	13.2	82.4	82.4	5.9	5.7	7.2	6.8	3	4	-	-	823618	823724	-	-	-	-
						1.0	0.5	93	28.9		7.9		13.2		82.4		5.9		7.2		4		-				-		-	
					Middle	8.3	0.1	72	28.5	28.5	7.9	7.9	15.2	15.2	75.5	75.5	5.4		6.7		3		-				-		-	
						8.3	0.1	74	28.5		7.9		15.2		75.5		5.4		6.7		4		-				-		-	
					Bottom	15.6	0.6	189	25.5	25.5	7.8	7.8	29.1	29.1	66.4	66.4	4.6	4.6	6.6		3		-				-		-	
						15.6	0.7	194	25.5		7.8		29.1		66.4		4.6		6.6		4		-				-		-	
SR8	Cloudy	Moderate	07:01	5.2	Surface	1.0	0.2	268	29.0	29.0	7.9	7.9	13.5	13.5	78.3	78.3	5.6	5.6	9.2	9.0	5	6	-	-	820246	811418	-	-	-	-
						1.0	0.2	288	29.0		7.9		13.5		78.3		5.6		9.2		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	259	28.8	28.8	7.9	7.9	14.2	14.2	82.0	82.0	5.9	5.9	8.7		6		-				-		-	
						4.2	0.2	272	28.8		7.9		14.2		82.0		5.9		8.7		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: The flood tide monitoring session on 1 July 2017 was cancelled due to marine police blockade of the monitoring area.

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 July 17 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	09:35	7.6	Surface	1.0	0.5	204	28.3	28.3	7.9	7.9	9.7	9.7	76.1	75.9	5.6	4.8	7.9	11.8	8	9	63	71	815631	804231	<0.2	<0.2	2.0	2.1
						1.0	0.5	205	28.3		7.9		9.7		75.7		5.6		7.9		8		63				<0.2		2.0	
					Middle	3.8	0.6	210	27.0	27.0	7.8	7.8	17.7	17.7	55.3	55.3	4.0		12.8		9		74				<0.2		2.1	
						3.8	0.6	225	27.0		7.8		17.7		55.2		4.0		13.1		9		74				<0.2		2.1	
					Bottom	6.6	0.4	215	25.2	25.2	7.7	7.7	29.5	29.5	71.7	72.3	5.0	5.1	14.6		9		77				<0.2		2.3	
						6.6	0.4	227	25.2		7.7		29.5		72.9		5.1		14.2		8		77				<0.2		2.2	
C2	Cloudy	Moderate	11:46	12.3	Surface	1.0	1.3	171	29.0	29.0	7.7	7.7	4.1	4.1	77.9	77.9	5.9	4.8	8.7	11.6	9	11	62	72	825666	806953	<0.2	<0.2	2.5	2.5
						1.0	1.4	178	29.0		7.7		4.1		77.9		5.9		8.8		9		63				<0.2		2.4	
					Middle	6.2	0.8	167	27.1	27.1	7.8	7.8	21.8	21.8	50.4	50.4	3.6		10.3		11		75				<0.2		2.5	
						6.2	0.8	176	27.1		7.8		21.8		50.4		3.6		10.2		11		76				<0.2		2.4	
					Bottom	11.3	0.1	151	26.4	26.4	7.8	7.8	27.5	27.5	57.5	57.5	4.0	4.0	15.8		13		77				<0.2		2.6	
						11.3	0.2	156	26.4		7.8		27.5		57.5		4.0		15.7		13		78				<0.2		2.5	
C3	Rainy	Moderate	09:21	12.2	Surface	1.0	0.2	150	27.9	27.9	7.9	7.9	12.1	12.1	74.0	74.0	5.4	5.1	6.1	5.9	5	5	67	73	822120	817810	<0.2	<0.2	2.0	2.1
						1.0	0.3	158	27.9		7.9		12.1		74.0		5.4		6.1		4		68				<0.2		2.1	
					Middle	6.1	0.3	82	27.3	27.3	7.9	7.9	17.8	17.8	67.0	67.0	4.8		6.2		6		75				<0.2		2.2	
						6.1	0.3	86	27.3		7.9		17.8		67.0		4.8		6.2		5		74				<0.2		2.2	
					Bottom	11.2	1.1	82	27.1	27.1	7.9	7.9	22.2	22.2	70.2	70.2	4.9	4.9	5.3		6		77				<0.2		2.1	
						11.2	1.2	84	27.1		7.9		22.2		70.2		4.9		5.3		6		78				<0.2		2.1	
IM1	Rainy	Moderate	09:57	7.1	Surface	1.0	0.5	205	28.1	28.1	7.9	7.9	10.5	10.5	77.9	77.9	5.7	5.4	8.5	10.1	8	9	66	73	818351	806447	<0.2	<0.2	2.4	2.1
						1.0	0.6	219	28.1		7.9		10.5		77.9		5.8		8.5		8		65				<0.2		2.4	
					Middle	3.6	0.6	204	26.8	26.8	7.7	7.7	22.8	22.8	72.3	72.3	5.1		9.2		9		75				<0.2		1.9	
						3.6	0.6	223	26.8		7.7		22.8		72.3		5.1		9.2		9		74				<0.2		1.9	
					Bottom	6.1	0.4	212	25.1	25.1	7.7	7.7	29.9	29.9	68.2	68.2	4.8	4.8	12.6		10		77				<0.2		1.9	
						6.1	0.4	232	25.1		7.7		29.9		68.2		4.8		12.6		9		78				<0.2		2.1	
IM2	Rainy	Moderate	10:04	6.9	Surface	1.0	0.2	172	28.4	28.4	7.9	7.9	9.3	9.3	73.5	73.3	5.4	4.6	8.4	9.8	6	8	64	73	818871	806205	<0.2	<0.2	2.4	2.3
						1.0	0.2	176	28.4		7.9		9.3		73.1		5.4		8.3		7		66				<0.2		2.3	
					Middle	3.5	0.4	178	26.7	26.7	7.8	7.8	19.9	20.0	52.6	52.8	3.8		10.3		8		75				<0.2		2.3	
						3.5	0.4	185	26.6		7.8		20.1		53.0		3.8		10.4		8		76				<0.2		2.3	
					Bottom	5.9	0.2	166	25.2	25.2	7.8	7.8	29.6	29.6	75.4	75.4	5.2	5.2	10.7		8		77				<0.2		2.3	
						5.9	0.2	178	25.2		7.8		29.6		75.3		5.2		10.6		8		78				<0.2		2.2	
IM3	Rainy	Moderate	10:12	6.8	Surface	1.0	0.2	230	28.2	28.2	7.8	7.8	9.4	9.4	76.5	76.5	5.7	5.2	9.0	8.7	9	9	65	71	819395	806016	<0.2	<0.2	2.4	2.4
						1.0	0.2	247	28.2		7.8		9.4		76.4		5.7		9.0		7		64				<0.2		2.5	
					Middle	3.4	0.2	195	27.7	27.7	7.8	7.8	13.2	13.3	63.1	62.9	4.6		8.4		9		69				<0.2		2.4	
						3.4	0.2	203	27.6		7.8		13.3		62.6		4.6		8.5		8		70				<0.2		2.4	
					Bottom	5.8	0.2	183	25.9	25.9	7.8	7.8	24.6	24.6	80.2	80.2	5.7	5.7	8.6		9		77				<0.2		2.5	
						5.8	0.2	196	25.9		7.8		24.6		80.2		5.7		8.6		9		78				<0.2		2.3	
IM4	Rainy	Moderate	10:18	7.5	Surface	1.0	0.3	168	28.2	28.2	7.8	7.8	8.2	8.2	74.5	74.4	5.6	5.4	8.2	10.7	6	8	62	69	819574	805057	<0.2	<0.2	2.3	2.4
						1.0	0.3	181	28.2		7.8		8.2		74.2		5.5		8.2		7		63				<0.2		2.5	
					Middle	3.8	0.2	183	28.0	28.0	7.8	7.8	10.1	10.1	69.6	69.5	5.2		8.4		8		66				<0.2		2.5	
						3.8	0.3	185	28.0		7.8		10.1		69.3		5.1		8.4		8		66				<0.2		2.4	
					Bottom	6.5	0.2	195	25.4	25.4	7.8	7.8	26.7	26.7	49.5	49.8	3.5	3.5	15.5		10		77				<0.2		2.3	
						6.5	0.2	196	25.3		7.8		26.7		50.0		3.5		15.7		8		78				<0.2		2.5	
IM5	Rainy	Moderate	10:26	7.1	Surface	1.0	0.2	130	28.3	28.3	7.9	7.9	5.8	5.8	74.9	74.2	5.7	5.1	12.2	15.5	9	9	62	69	820568	804909	<0.2	<0.2	2.7	2.6
						1.0	0.2	135	28.2		7.9		5.8		73.4		5.5		12.5		9		62				<0.2		2.5	
					Middle	3.6	0.2	136	27.8	27.8	7.8	7.8	11.8	11.7	62.3	62.2	4.6		18.8		8		68				<0.2		2.6	
						3.6	0.2	140	27.8		7.8		11.5		62.0		4.6		19.3		9		68				<0.2		2.6	
					Bottom	6.1	0.2	144	26.3	26.4	7.7	7.7	24.2	24.1	81.7	82.4	5.8	5.9	15.9		8		76				<0.2		2.6	
						6.1	0.2	157	26.4		7.7		23.9		83.0		5.9		14.4		10		77				<0.2		2.6	
IM6	Rainy	Moderate	10:36	6.8	Surface	1.0	0.2	165	27.5	27.5	7.8	7.8	15.0	15.0	70.4	70.4	5.1	5.0	10.4	15.1	9	9	71	74	821045	805820	<0.2	<0.2	2.5	2.4
						1.0	0.3	173	27.5		7.8		15.0		70.4		5.1		10.4		9		70				<0.2		2.4	
					Middle	3.4	0.2	164	27.0	27.0	7.8	7.8	19.1	19.1	66.8	66.8	4.8		12.8		9		75				<0.2		2.5	
						3.4	0.3	165	27.0		7.8		19.0		66.8		4.8		13.0		9		76				<0.2		2.5	
					Bottom	5.8	0.2	158	26.5	26.5	7.8	7.8	22.0	22.0	54.8	55.0	3.9	3.9	21.9		9		77				<0.2		2.2	
						5.8	0.2	158	26.5		7.8		22.0		55.2		3.9		22.3		8		77				<0.2		2.2	
IM7	Rainy	Moderate	10:43	6.7	Surface	1.0	0.3	160	28.3	28.3	7.8	7.8	6.1	6.1	72.7	72.6	5.5	4.8	11.1	12.1	9	10	62	70	821359	806845	<0.2	<0.2	2.5	2.3
						1.0	0.3	161	28.3		7.8		6.1		72.4		5.4		11.1		10		63				<0.2		2.5	
					Middle	3.4	0.2	162	27.4	27.4	7.8	7.8	15.6	15.6	58.4	58.0	4.2		11.1		10		71				<0.2		2.5	
						3.4	0.3	169	27.4		7.8		15.5		57.5		4.2		12.2		10		72				<0.2		2.5	
					Bottom	5.7	0.1	161	26.1	26.2	7.7	7.7	27.0	27.0	75.6	76.3	5.3	5.4	13.7		11		77				<0.2		2.0	
						5.7	0.1	169	26.2		7.7		26.9		77.0		5.4		13.4		10		77				<0.2		2.0	
IM8	Cloudy	Moderate	11:07	7.9	Surface	1.0	0.6	188	28.9	28.9	7.8	7.8	6.0	6.0	69.3	69.3	5.2	4.7	8.7	9.2	10	10	64	72	821688	807835	<0.2	<0.2	2.2	2.2
						1.0	0.7	203	28.9		7.8		6.0		69.3		5.2		8.7		10		65				<0.2		2.0	
					Middle	4.0	0.3	300	27.9	27.9	7.8	7.8	16.3	16.3	57.8	57.8	4.1		9.4		11		75				<0.2		2.2	
						4.0	0.3	303	27.9		7.8		16.3		57.8		4.1		9.4		10		74				<0.2		2.3	
					Bottom	6.9	0.2	357	27.6	27.6	7.8	7.8	18.5	18.5	60.0	60.0	4.3	4.3	9.6		11		77				<0.2		2.3	
						6.9	0.3	328	27.6		7.8		18.5		60.0		4.3		9.6		10		76				<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 04 July 17 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	11:00	7.0	Surface	1.0	0.5	157	28.6	28.6	7.8	7.8	8.8	8.8	68.7	68.7	5.1	4.6	8.8	9.3	7	9	67	73	822091	808794	<0.2	<0.2	2.1	2.1
						1.0	0.6	166	28.6		7.8		8.8		68.7		5.1		8.8		9		68				<0.2		2.1	
					Middle	3.5	0.3	138	27.9	27.9	7.8	7.8	16.3	16.3	57.3	57.3	4.1		9.1		10		75				<0.2		2.2	
						3.5	0.3	149	27.9		7.8		16.3		57.3		4.1		9.1		8		74				<0.2		2.2	
					Bottom	6.0	0.4	93	27.7	27.7	7.8	7.8	17.2	17.2	57.0	57.0	4.1	4.1	10.0		10		76				<0.2		2.0	
						6.0	0.4	94	27.7		7.8		17.2		57.0		4.1		10.0		10		76				<0.2		2.0	
IM10	Cloudy	Moderate	10:50	7.1	Surface	1.0	0.7	137	28.3	28.3	7.9	7.9	7.8	7.8	63.1	63.1	4.7	4.6	8.4	9.0	8	7	66	73	822221	809857	<0.2	<0.2	2.8	2.7
						1.0	0.7	139	28.3		7.9		7.8		63.1		4.7		8.4		7		66				<0.2		2.8	
					Middle	3.6	0.8	104	27.8	27.8	7.8	7.8	16.3	16.3	62.5	62.5	4.5		8.9		7		75				<0.2		2.8	
						3.6	0.8	107	27.8		7.8		16.2		62.5		4.5		8.8		7		74				<0.2		2.8	
					Bottom	6.1	0.7	93	27.6	27.6	7.8	7.8	18.8	18.8	58.0	58.0	4.1	4.1	9.6		7		77				<0.2		2.6	
						6.1	0.7	101	27.6		7.8		18.8		58.0		4.1		9.6		8		78				<0.2		2.5	
IM11	Cloudy	Moderate	10:33	8.2	Surface	1.0	0.6	126	28.7	28.7	8.0	8.0	7.4	7.4	83.5	83.5	6.2	5.6	9.2	12.2	7	7	66	70	821511	810549	<0.2	<0.2	2.5	2.7
						1.0	0.7	130	28.7		8.0		7.4		83.5		6.2		9.2		7		65				<0.2		2.8	
					Middle	4.1	0.6	94	28.2	28.2	7.9	7.9	11.2	11.2	67.5	67.5	4.9		10.8		5		70				<0.2		3.0	
						4.1	0.7	98	28.2		7.9		11.2		67.5		4.9		10.8		7		69				<0.2		3.4	
					Bottom	7.2	0.2	141	27.6	27.6	8.0	8.0	16.9	16.9	56.0	56.0	4.0	4.0	16.5		8		74				<0.2		2.3	
						7.2	0.2	150	27.6		8.0		16.9		56.0		4.0		16.5		8		75				<0.2		2.2	
IM12	Cloudy	Moderate	10:18	9.2	Surface	1.0	0.4	106	28.7	28.7	7.9	7.9	9.4	9.4	78.1	78.1	5.7	5.2	8.7	12.0	5	6	67	73	821157	811533	<0.2	<0.2	2.8	2.6
						1.0	0.4	106	28.7		7.9		9.4		78.1		5.7		8.7		6		68				<0.2		2.8	
					Middle	4.6	0.5	91	28.1	28.1	7.9	7.9	14.1	14.1	65.1	65.1	4.7		12.1		6		73				<0.2		2.6	
						4.6	0.5	99	28.1		7.9		14.1		65.1		4.7		12.1		7		74				<0.2		2.6	
					Bottom	8.2	0.4	73	27.8	27.8	7.9	7.9	21.0	21.0	77.5	77.5	5.4	5.4	15.3		5		78				<0.2		2.2	
						8.2	0.4	78	27.8		7.9		21.0		77.5		5.4		15.3		6		77				<0.2		2.3	
SR2	Cloudy	Moderate	09:49	5.4	Surface	1.0	0.5	79	28.0	28.0	7.9	7.9	11.1	11.1	73.4	73.4	5.4	5.4	11.5	11.6	8	9	68	72	821481	814153	<0.2	<0.2	2.2	2.3
						1.0	0.6	86	28.0		7.9		11.1		73.4		5.4		11.5		8		67				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.4	82	27.8	27.8	7.8	7.8	19.1	19.1	84.5	84.5	6.0	6.0	11.7		9		77				<0.2		2.3	
						4.4	0.4	84	27.8		7.8		19.1		84.5		6.0		11.7		9		77				<0.2		2.3	
SR3	Cloudy	Moderate	11:16	9.7	Surface	1.0	0.5	180	28.5	28.5	7.8	7.8	9.8	9.8	64.4	64.4	4.7	4.7	9.9	10.6	8	8	-	-	822155	807557	-	-	-	-
						1.0	0.5	184	28.5		7.8		9.8		64.4		4.7		9.9		7		-				-		-	
					Middle	4.9	0.2	80	27.6	27.6	7.8	7.8	20.9	20.9	66.0	66.0	4.6		10.6		7		-				-		-	
						4.9	0.2	87	27.6		7.8		20.9		66.0		4.6		10.6		7		-				-		-	
					Bottom	8.7	0.6	68	27.1	27.1	7.8	7.8	26.6	26.6	67.6	67.6	4.6	4.6	11.4		10		-				-		-	
						8.7	0.7	74	27.1		7.8		26.6		67.6		4.6		11.4		9		-				-		-	
SR4A	Cloudy	Moderate	09:07	8.2	Surface	1.0	0.4	75	28.0	28.0	7.9	7.9	10.5	10.5	76.1	76.1	5.6	5.3	7.5	13.4	6	10	-	-	817197	807804	-	-	-	-
						1.0	0.4	81	28.0		7.9		10.4		76.0		5.6		7.5		6		-				-		-	
					Middle	4.1	0.3	70	25.7	25.7	7.7	7.7	26.8	26.8	71.4	71.4	5.0		14.8		8		-				-		-	
						4.1	0.3	71	25.7		7.7		26.8		71.4		5.0		14.9		10		-				-		-	
					Bottom	7.2	0.2	76	25.2	25.2	7.7	7.7	29.4	29.4	58.6	59.1	4.1	4.2	17.8		15		-				-		-	
						7.2	0.2	78	25.2		7.7		29.4		59.5		4.2		17.8		16		-				-		-	
SR5A	Cloudy	Moderate	08:50	5.1	Surface	1.0	0.1	99	28.2	28.2	8.0	8.0	11.6	11.6	83.9	83.8	6.1	6.1	8.0	11.2	6	5	-	-	816602	810701	-	-	-	-
						1.0	0.1	102	28.2		8.0		11.6		83.6		6.1		8.0		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	131	26.6	26.6	7.7	7.7	21.2	21.3	75.0	75.5	5.4	5.4	14.5		5		-				-		-	
						4.1	0.1	142	26.6		7.7		21.3		75.9		5.4		14.3		5		-				-		-	
SR6	Cloudy	Moderate	08:32	4.3	Surface	1.0	0.2	61	28.2	28.2	7.9	7.9	11.1	11.2	85.3	84.8	6.3	6.3	7.6	11.2	4	4	-	-	817904	814647	-	-	-	-
						1.0	0.2	63	28.2		7.9		11.2		84.2		6.2		7.6		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	23	28.0	28.1	7.7	7.7	14.2	14.2	89.9	90.3	6.5	6.6	14.8		4		-				-		-	
						3.3	0.0	23	28.1		7.7		14.2		90.7		6.6		14.6		3		-				-		-	
SR7	Rainy	Moderate	08:57	15.2	Surface	1.0	0.4	64	27.4	27.4	7.9	7.9	15.6	15.6	74.9	74.9	5.4	5.2	5.2	5.4	3	3	-	-	823643	823755	-	-	-	-
						1.0	0.4	69	27.4		7.9		15.6		74.9		5.4		5.2		3		-				-		-	
					Middle	7.6	0.2	15	27.0	27.0	7.9	7.9	18.5	18.5	68.5	68.5	4.9		5.0		3		-				-		-	
						7.6	0.2	15	27.0		7.9		18.5		68.5		4.9		5.0		3		-				-		-	
					Bottom	14.2	3.3	43	25.2	25.2	7.9	7.9	30.2	30.2	56.8	56.8	3.9	3.9	6.0		4		-				-		-	
						14.2	3.4	46	25.2		7.9		30.2		56.8		3.9		6.0		3		-				-		-	
SR8	Cloudy	Moderate	10:09	5.2	Surface	1.0	0.1	255	28.5	28.5	7.9	7.9	9.5	9.5	79.2	79.2	5.8	5.8	9.6	10.2	6	6	-	-	820246	811418	-	-	-	-
						1.0	0.1	277	28.5		7.9		9.5		79.2		5.8		9.6		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	111	27.9	27.9	7.8	7.8	14.7	14.7	80.1	80.1	5.8	5.8	10.7		5		-				-		-	
						4.2	0.1	115	27.9		7.8		14.7		80.1		5.8		10.7		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 04 July 17 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	16:43	7.4	Surface	1.0	0.5	22	28.0	28.0	7.8	7.8	7.0	7.0	71.0	70.5	5.4	4.7	15.0	16.6	10	12	63	68	815624	804253	<0.2	<0.2	2.8	2.7
						1.0	0.6	23	28.0		7.8		7.0		69.9		5.3		15.2		11		62				<0.2		2.7	
					Middle	3.7	0.4	26	28.0	27.9	7.9	7.9	8.1	8.2	55.7	54.7	4.2		17.1		12		63				<0.2		2.8	
						3.7	0.5	26	27.8		7.8		8.2		53.6		4.0		17.6		12		64				<0.2		2.8	
					Bottom	6.4	0.2	25	26.3	26.4	7.7	7.7	22.3	22.3	59.0	60.5	4.2	4.3	17.5		12		77				<0.2		2.6	
						6.4	0.3	26	26.4		7.7		22.2		62.0		4.4		17.2		12		78				<0.2		2.4	
C2	Rainy	Moderate	15:03	11.5	Surface	1.0	1.4	13	29.2	29.2	7.8	7.8	4.1	4.1	71.6	71.6	5.4	4.5	11.0	12.5	9	10	61	70	825683	806926	<0.2	<0.2	2.6	2.7
						1.0	1.5	13	29.2		7.8		4.1		71.6		5.4		11.0		10		62				<0.2		2.6	
					Middle	5.8	1.1	13	27.8	27.8	7.8	7.8	13.0	13.6	49.0	49.0	3.6		11.5		11		72				<0.2		2.8	
						5.8	1.1	13	27.8		7.8		14.1		48.9		3.6		11.5		9		71				<0.2		2.8	
					Bottom	10.5	0.2	21	26.4	26.4	7.8	7.8	27.1	27.1	63.2	63.2	4.4	4.4	15.1		10		77				<0.2		2.7	
						10.5	0.2	21	26.4		7.8		27.1		63.2		4.4		15.1		11		76				<0.2		2.9	
C3	Cloudy	Moderate	16:48	13.2	Surface	1.0	0.2	262	28.4	28.4	8.0	8.0	11.1	11.1	74.1	74.1	5.4	5.0	6.8	10.2	5	5	68	72	822115	817812	<0.2	<0.2	2.1	2.1
						1.0	0.2	279	28.4		8.0		11.1		74.1		5.4		6.8		5		67				<0.2		1.9	
					Middle	6.6	0.2	260	28.0	28.0	8.0	8.0	14.7	14.7	62.7	62.7	4.5		7.5		5		72				<0.2		2.1	
						6.6	0.3	277	28.0		8.0		14.7		62.7		4.5		7.5		6		71				<0.2		2.2	
					Bottom	12.2	0.2	258	26.3	26.3	7.9	7.9	25.3	25.3	48.8	48.8	3.4	3.4	16.3		5		77				<0.2		2.2	
						12.2	0.2	281	26.3		7.9		25.3		48.8		3.4		16.3		5		77				<0.2		2.3	
IM1	Rainy	Moderate	16:07	6.3	Surface	1.0	0.7	21	28.0	28.0	7.9	7.9	7.1	7.1	66.5	66.5	5.0	4.8	16.3	16.3	10	11	62	69	818350	806475	<0.2	<0.2	2.9	2.7
						1.0	0.8	21	28.0		7.9		7.0		66.5		5.0		16.7		10		63				<0.2		2.8	
					Middle	3.2	0.4	20	25.7	25.7	7.8	7.8	21.7	21.7	64.5	64.5	4.6		16.5		11		65				<0.2		2.9	
						3.2	0.5	20	25.7		7.7		21.7		64.5		4.6		16.1		10		66				<0.2		2.8	
					Bottom	5.3	0.3	22	26.4	26.4	7.7	7.7	25.5	25.5	71.6	71.6	5.0	5.0	16.1		12		78				<0.2		2.5	
						5.3	0.3	23	26.4		7.7		25.5		71.6		5.0		16.1		11		78				<0.2		2.4	
IM2	Rainy	Moderate	15:59	6.5	Surface	1.0	0.8	29	28.0	28.0	7.8	7.8	7.6	7.6	71.4	70.8	5.4	5.0	15.3	16.1	12	12	63	69	818837	806181	<0.2	<0.2	2.9	2.7
						1.0	0.8	30	28.0		7.8		7.6		70.2		5.3		15.4		12		64				<0.2		2.8	
					Middle	3.3	0.6	23	28.0	28.0	7.9	7.9	8.3	8.4	63.2	61.9	4.7		16.4		12		66				<0.2		2.9	
						3.3	0.6	24	28.0		7.9		8.4		60.5		4.5		17.0		12		65				<0.2		2.8	
					Bottom	5.5	0.2	23	26.6	26.7	7.7	7.7	22.3	22.2	75.0	75.3	5.3	5.4	16.2		12		76				<0.2		2.4	
						5.5	0.2	23	26.7		7.7		22.0		75.5		5.4		16.2		13		77				<0.2		2.4	
IM3	Rainy	Moderate	15:50	6.4	Surface	1.0	0.7	24	28.0	28.0	7.8	7.8	6.7	6.7	76.3	76.3	5.8	5.7	15.5	11.1	12	12	61	67	819416	806025	<0.2	<0.2	2.8	2.6
						1.0	0.8	24	28.0		7.8		6.7		76.2		5.8		15.5		12		62				<0.2		2.7	
					Middle	3.2	0.6	27	28.0	28.0	7.8	7.8	8.2	8.2	74.7	74.7	5.6		16.5		12		64				<0.2		2.9	
						3.2	0.6	28	28.0		7.8		8.1		74.6		5.6		16.8		12		64				<0.2		2.8	
					Bottom	5.4	0.1	22	27.1	27.5	7.8	7.8	20.3	19.9	91.4	91.4	6.5	6.5	1.2		10		76				<0.2		2.2	
						5.4	0.1	22	27.9		7.8		19.5		91.3		6.4		1.2		12		77				<0.2		2.4	
IM4	Rainy	Moderate	15:43	6.5	Surface	1.0	0.4	23	28.0	28.0	7.8	7.8	8.7	8.7	72.2	71.8	5.4	5.3	13.4	14.7	7	10	63	68	819563	805037	<0.2	<0.2	2.5	2.4
						1.0	0.5	24	27.9		7.8		8.6		71.4		5.3		13.6		9		63				<0.2		2.4	
					Middle	3.3	0.2	27	27.8	27.9	7.8	7.8	10.3	10.3	69.6	69.4	5.2		13.5		9		67				<0.2		2.4	
						3.3	0.2	28	27.9		7.8		10.3		69.1		5.1		14.1		11		68				<0.2		2.4	
					Bottom	5.5	0.2	22	27.4	27.4	7.8	7.8	16.0	16.0	54.3	54.3	3.9	3.9	16.8		12		74				<0.2		2.3	
						5.5	0.2	24	27.4		7.8		16.0		54.3		3.9		16.8		11		73				<0.2		2.4	
IM5	Rainy	Moderate	15:33	6.7	Surface	1.0	0.4	25	28.0	28.0	7.8	7.8	8.4	8.4	72.1	72.0	5.4	5.1	12.2	13.1	11	12	63	69	820579	804931	<0.2	<0.2	2.3	2.3
						1.0	0.4	25	28.0		7.8		8.4		71.9		5.4		12.2		11		62				<0.2		2.4	
					Middle	3.4	0.3	45	27.8	27.8	7.9	7.9	10.4	10.5	63.6	63.3	4.7		13.3		12		67				<0.2		2.4	
						3.4	0.3	49	27.7		7.9		10.5		63.0		4.7		13.7		10		68				<0.2		2.4	
					Bottom	5.7	0.2	58	26.4	26.4	7.8	7.8	22.8	23.0	82.2	82.8	5.8	5.9	13.6		13		75				<0.2		2.0	
						5.7	0.2	63	26.4		7.8		23.1		83.4		5.9		13.3		12		76				<0.2		2.2	
IM6	Rainy	Moderate	15:21	7.4	Surface	1.0	0.2	36	27.8	27.8	7.8	7.8	10.5	10.6	69.0	68.9	5.1	4.9	10.5	12.4	10	11	63	68	821058	805815	<0.2	<0.2	2.3	2.3
						1.0	0.2	39	27.8		7.8		10.6		68.8		5.1		10.5		12		64				<0.2		2.4	
					Middle	3.7	0.4	25	27.3	27.3	7.7	7.7	14.6	14.6	63.5	63.5	4.6		12.5		11		69				<0.2		2.3	
						3.7	0.5	25	27.3		7.7		14.6		63.5		4.6		12.6		11		70				<0.2		2.4	
					Bottom	6.4	0.4	29	27.3	27.3	7.7	7.7	15.0	15.0	66.9	67.1	4.9	4.9	14.2		11		71				<0.2		2.2	
						6.4	0.4	30	27.2		7.7		15.0		67.2		4.9		14.3		10		72				<0.2		2.1	
IM7	Rainy	Moderate	15:07	7.3	Surface	1.0	0.5	23	28.0	28.0	7.7	7.7	7.2	7.0	66.3	66.3	5.0	4.9	14.4	15.5	12	12	63	68	821334	806816	<0.2	<0.2	2.9	2.7
						1.0	0.5	24	28.0		7.7		6.8		66.2		5.0		14.5		12		63				<0.2		2.7	
					Middle	3.7	0.6	28	27.6	27.6	7.7	7.7	11.5	11.5	65.3	65.4	4.8		15.5		13		68				<0.2		2.8	
						3.7	0.7	28	27.5		7.7		11.5		65.5		4.9		15.6		12		68				<0.2		2.7	
					Bottom	6.3	0.5	23	27.5	27.5	7.7	7.7	13.3	13.3	71.1	71.3	5.2	5.3	16.4		12		71				<0.2		2.4	
						6.3	0.5	23	27.5		7.7		13.3		71.5		5.3		16.3		11		72				<0.2		2.6	
IM8	Rainy	Moderate	15:24	7.8	Surface	1.0	1.2	199	28.9	28.9	7.7	7.7	2.9	2.9	69.9	69.9	5.3	4.9	10.9	12.7	12	12	61	66	821680	807828	<0.2	<0.2	2.4	2.5
						1.0	1.3	217	28.9		7.7		2.9		69.9		5.3		10.9		12		61				<0.2		2.6	
					Middle	3.9	0.7	210	28.2	28.2	7.7	7.7	11.5	11.5	59.7	59.7	4.4		13.0		12		67				<0.2		2.5	
						3.9	0.8	218	28.2		7.7		11.5		59.7		4.4		13.0		11		68				<0.2		2.5	
					Bottom	6.8	0.3	264	28.0	28.0	7.7	7.7	13.8	13.8	65.2	65.2	4.7	4.7	14.2		12		71				<0.2		2.7	
						6.8	0.4	276	28.0		7.7		13.8		65.2		4.7		14.2		11		70				<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 04 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Rainy	Moderate	15:35	8.2	Surface	1.0	1.1	203	28.5	28.5	7.7	7.7	6.1	6.1	71.7	71.7	5.4	5.1	10.2	11.6	13	12	63	68	822082	808823	<0.2	<0.2	2.4	2.6
						1.0	1.2	217	28.5		7.7		6.1		71.7		5.4		10.2		12		64				<0.2		2.6	
					Middle	4.1	0.6	219	28.2	28.2	7.7	7.7	10.2	10.2	65.6	65.6	4.8		12.2		11		68				<0.2		2.6	
						4.1	0.6	220	28.2		7.7		10.2		65.6		4.8		12.2		12		68				<0.2		2.6	
					Bottom	7.2	0.4	263	28.1	28.1	7.7	7.7	12.5	12.5	69.0	69.0	5.0	5.0	12.5		11		71				<0.2		2.7	
						7.2	0.4	273	28.1		7.7		12.5		69.0		5.0		12.5		10		72				<0.2		2.8	
IM10	Rainy	Moderate	15:44	7.9	Surface	1.0	0.8	188	28.9	28.9	7.8	7.8	5.4	5.4	73.0	73.0	5.5	5.3	10.2	11.1	10	10	65	69	822236	809846	<0.2	<0.2	2.7	2.6
						1.0	0.8	199	28.9		7.8		5.4		73.0		5.5		10.2		9		66				<0.2		2.8	
					Middle	4.0	0.4	199	28.7	28.7	7.7	7.7	11.0	11.0	70.1	70.1	5.1		11.5		10		70				<0.2		2.6	
						4.0	0.5	217	28.7		7.7		11.0		70.1		5.1		11.5		9		69				<0.2		2.8	
					Bottom	6.9	0.1	137	28.5	28.5	7.7	7.7	11.9	11.9	76.9	76.9	5.6	5.6	11.7		10		71				<0.2		2.4	
						6.9	0.1	146	28.5		7.7		11.9		76.9		5.6		11.7		10		71				<0.2		2.4	
IM11	Rainy	Moderate	15:51	7.7	Surface	1.0	0.8	175	29.1	29.1	7.8	7.8	6.9	6.9	75.9	75.9	5.6	5.2	12.4	13.1	7	9	63	66	821506	810532	<0.2	<0.2	2.4	2.5
						1.0	0.8	176	29.1		7.8		6.9		75.9		5.6		12.4		8		62				<0.2		2.4	
					Middle	3.9	0.4	170	28.6	28.6	7.8	7.8	9.8	9.8	65.9	65.9	4.8		12.8		9		63				<0.2		2.4	
						3.9	0.4	181	28.6		7.8		9.8		65.9		4.8		12.8		9		64				<0.2		2.4	
					Bottom	6.7	0.2	84	28.0	28.0	7.8	7.8	17.0	17.0	65.0	65.0	4.6	4.6	14.1		9		72				<0.2		2.5	
						6.7	0.2	87	28.0		7.8		17.0		65.0		4.6		14.1		9		73				<0.2		2.7	
IM12	Cloudy	Moderate	15:57	7.8	Surface	1.0	0.6	166	28.7	28.7	7.8	7.8	8.4	8.4	72.2	72.2	5.3	5.1	10.9	11.3	6	8	63	68	821173	811506	<0.2	<0.2	2.5	2.6
						1.0	0.6	175	28.7		7.8		8.4		72.2		5.3		10.9		8		63				<0.2		2.5	
					Middle	3.9	0.3	130	28.4	28.4	7.8	7.8	10.6	10.6	65.2	65.2	4.8		10.5		8		67				<0.2		2.6	
						3.9	0.3	139	28.4		7.8		10.6		65.2		4.8		10.5		9		66				<0.2		2.6	
					Bottom	6.8	0.1	72	27.6	27.6	7.8	7.8	18.6	18.6	64.5	64.5	4.6	4.6	12.6		9		75				<0.2		2.6	
						6.8	0.1	78	27.6		7.8		18.6		64.5		4.6		12.6		8		75				<0.2		2.6	
SR2	Cloudy	Moderate	16:28	5.5	Surface	1.0	0.2	79	28.7	28.7	7.8	7.8	7.9	7.9	76.7	76.7	5.7	5.7	8.5	8.9	7	7	62	64	821455	814168	<0.2	<0.2	2.6	2.8
						1.0	0.2	79	28.7		7.8		7.9		76.7		5.7		8.5		7		63				<0.2		2.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	292	28.4	28.4	7.8	7.8	11.0	11.0	76.7	76.7	5.6	5.6	9.2		7		65				<0.2		2.8	
						4.5	0.1	319	28.4		7.8		11.0		76.7		5.6		9.2		7		66				<0.2		3.1	
SR3	Rainy	Moderate	15:21	9.2	Surface	1.0	0.4	47	28.6	28.6	7.7	7.7	4.9	4.9	65.6	65.6	5.0	4.7	8.8	11.5	11	11	-	-	822132	807564	-	-	-	-
						1.0	0.4	51	28.6		7.7		4.9		65.6		5.0		8.8		11		-				-		-	
					Middle	4.6	0.3	51	27.7	27.7	7.7	7.7	14.9	14.9	61.4	61.4	4.4		10.9		11		-				-		-	
						4.6	0.4	51	27.7		7.7		14.9		61.4		4.4		10.9		10		-				-		-	
					Bottom	8.2	0.2	327	27.5	27.5	7.7	7.7	16.9	16.9	56.4	56.4	4.1	4.1	14.9		11		-				-		-	
						8.2	0.2	333	27.5		7.7		16.9		56.4		4.1		14.9		11		-				-		-	
SR4A	Cloudy	Moderate	17:03	8.3	Surface	1.0	0.6	260	28.2	28.2	8.0	8.0	12.6	12.6	81.1	80.9	5.9	5.5	12.7	16.8	8	8	-	-	817187	807793	-	-	-	-
						1.0	0.6	263	28.1		8.0		12.5		80.7		5.9		12.8		9		-				-		-	
					Middle	4.2	0.6	250	28.0	28.0	7.9	7.9	14.0	14.1	69.9	68.8	5.1		17.9		8		-				-		-	
						4.2	0.7	261	28.0		7.9		14.1		67.6		4.9		19.7		9		-				-		-	
					Bottom	7.3	0.5	250	26.1	26.2	7.8	7.9	25.2	25.1	89.0	89.7	6.3	6.3	19.0		8		-				-		-	
						7.3	0.5	251	26.2		7.9		25.0		90.3		6.3		18.4		8		-				-		-	
SR5A	Cloudy	Moderate	17:22	4.5	Surface	1.0	0.4	293	28.2	28.2	8.0	8.0	12.4	12.4	86.9	86.3	6.3	6.3	10.3	14.2	5	6	-	-	816612	810688	-	-	-	-
						1.0	0.5	304	28.1		8.0		12.3		85.7		6.3		11.0		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	305	27.8	27.8	7.9	8.0	17.8	17.8	93.2	93.6	6.6	6.7	17.8		6		-				-		-	
						3.5	0.4	316	27.8		8.0		17.7		93.9		6.7		17.6		6		-				-		-	
SR6	Cloudy	Moderate	17:43	4.0	Surface	1.0	0.1	258	28.1	28.1	8.0	8.0	12.4	12.4	86.4	86.4	6.3	6.3	15.1	15.6	11	11	-	-	817908	814674	-	-	-	-
						1.0	0.1	260	28.1		8.0		12.4		86.4		6.3		15.1		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	276	28.0	28.0	7.9	7.9	12.9	12.9	86.0	86.1	6.3	6.3	16.1		10		-				-		-	
						3.0	0.1	276	28.0		7.9		12.9		86.1		6.3		16.2		10		-				-		-	
SR7	Cloudy	Moderate	17:24	16.5	Surface	1.0	0.0	163	28.5	28.5	8.0	8.0	11.9	11.9	83.6	83.6	6.1	5.0	5.6	5.7	2	3	-	-	823620	823749	-	-	-	-
						1.0	0.0	165	28.5		8.0		11.9		83.6		6.1		5.6		2		-				-		-	
					Middle	8.3	0.1	172	27.1	27.1	7.9	7.9	21.2	21.2	55.0	55.0	3.9		5.5		3		-				-		-	
						8.3	0.1	180	27.1		7.9		21.2		55.0		3.9		5.5		2		-				-		-	
					Bottom	15.5	0.1	217	25.3	25.3	7.9	7.9	29.4	29.4	56.2	56.2	3.9	3.9	6.0		3		-				-		-	
						15.5	0.1	219	25.3		7.9		29.4		56.2		3.9		6.0		4		-				-		-	
SR8	Cloudy	Moderate	16:15	5.3	Surface	1.0	0.1	86	28.7	28.7	7.8	7.8	7.9	7.9	78.8	78.8	5.8	5.8	7.7	8.3	4	5	-	-	820246	811418	-	-	-	-
						1.0	0.1	87	28.7		7.8		7.9		78.8		5.8		7.7		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	82	28.5	28.5	7.8	7.8	11.1	11.1	87.8	87.8	6.4	6.4	8.9		4		-				-		-	
						4.3	0.2	86	28.5		7.8		11.1		87.8		6.4		8.9		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 06 July 17 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	10:59	8.4	Surface	1.0	0.8	200	27.6	27.6	7.8	7.8	10.3	10.3	71.6	71.6	5.3	5.0	6.0	8.6	5	6	61	64	815636	804248	<0.2	<0.2	3.1	3.1
						1.0	0.8	213	27.6		7.8		10.3		71.5		5.3		5.9		6		62				<0.2		2.8	
					Middle	4.2	0.6	219	27.3	27.3	7.8	7.8	14.3	14.3	64.8	64.8	4.7		5.5		7		64				<0.2		3.2	
						4.2	0.7	222	27.3		7.8		14.3		64.7		4.7		5.5		6		64				<0.2		3.1	
					Bottom	7.4	0.7	239	26.3	26.3	7.8	7.8	19.9	19.9	50.1	50.1	3.6	3.6	14.3		7		66				<0.2		3.3	
						7.4	0.7	259	26.2		7.8		19.9		50.1		3.6		14.6		6		67				<0.2		3.3	
C2	Cloudy	Moderate	13:16	9.6	Surface	1.0	1.4	186	28.0	28.0	7.6	7.6	3.1	3.1	58.6	58.4	4.5	4.2	20.4	18.4	15	16	61	64	825699	806925	<0.2	<0.2	3.3	2.7
						1.0	1.4	188	28.0		7.6		3.1		58.2		4.5		20.4		15		62				<0.2		2.8	
					Middle	4.8	0.7	178	27.4	27.4	7.6	7.6	10.5	10.5	50.6	50.8	3.8		19.1		15		64				<0.2		3.0	
						4.8	0.8	193	27.3		7.6		10.5		50.9		3.8		18.8		16		65				<0.2		2.7	
					Bottom	8.6	0.2	211	26.7	26.7	7.7	7.7	17.6	17.8	59.7	60.3	4.3	4.4	15.9		18		66				<0.2		2.3	
						8.6	0.3	224	26.7		7.7		18.0		60.9		4.4		15.9		17		67				<0.2		2.2	
C3	Cloudy	Moderate	10:33	12.7	Surface	1.0	0.4	138	27.1	27.1	7.9	7.9	18.2	18.2	67.3	67.3	4.8	4.8	6.2	5.6	6	7	72	75	822123	817789	<0.2	<0.2	2.1	2.3
						1.0	0.4	150	27.1		7.9		18.2		67.2		4.8		6.3		7		72				<0.2		2.2	
					Middle	6.4	0.1	340	26.9	26.9	7.9	7.9	19.9	19.9	66.2	66.3	4.7		5.4		8		75				<0.2		2.6	
						6.4	0.1	346	26.9		7.9		19.9		66.3		4.7		5.4		8		76				<0.2		2.5	
					Bottom	11.7	0.2	4	26.9	26.9	7.9	7.9	20.1	20.1	67.4	67.4	4.8	4.8	5.2		7		78				<0.2		2.3	
						11.7	0.2	4	26.9		7.9		20.1		67.4		4.8		5.2		7		76				<0.2		2.0	
IM1	Cloudy	Moderate	11:24	7.1	Surface	1.0	1.0	175	27.5	27.5	7.8	7.8	11.9	11.9	72.0	72.0	5.3	4.5	7.4	10.8	7	10	64	68	818331	806449	<0.2	<0.2	3.0	3.2
						1.0	1.0	180	27.5		7.8		11.8		72.0		5.3		7.4		8		64				<0.2		3.1	
					Middle	3.6	0.7	179	26.7	26.7	7.8	7.8	18.1	18.1	50.9	50.9	3.7		12.0		10		67				<0.2		3.7	
						3.6	0.8	187	26.7		7.8		18.0		50.9		3.7		12.0		9		67				<0.2		4.1	
					Bottom	6.1	0.1	182	25.6	25.6	7.7	7.7	25.8	25.8	40.5	40.5	2.9	2.9	12.9		14		72				<0.2		2.8	
						6.1	0.1	197	25.6		7.7		25.8		40.5		2.9		12.9		13		71				<0.2		2.7	
IM2	Cloudy	Moderate	11:33	8.6	Surface	1.0	1.1	196	27.6	27.6	7.8	7.8	9.6	9.6	70.8	70.8	5.3	4.7	7.9	11.8	6	9	62	66	818854	806207	<0.2	<0.2	3.1	3.3
						1.0	1.1	207	27.6		7.8		9.6		70.7		5.3		7.9		7		62				<0.2		3.4	
					Middle	4.3	0.8	205	27.0	27.0	7.9	7.9	16.7	16.7	55.5	55.5	4.0		11.1		10		67				<0.2		3.4	
						4.3	0.9	206	27.0		7.9		16.7		55.5		4.0		11.1		11		67				<0.2		3.4	
					Bottom	7.6	0.3	180	25.7	25.7	7.7	7.7	25.3	25.3	40.2	40.3	2.8	2.9	16.3		10		69				<0.2		3.1	
						7.6	0.4	184	25.7		7.7		25.3		40.4		2.9		16.2		10		69				<0.2		3.1	
IM3	Cloudy	Moderate	11:44	8.0	Surface	1.0	0.8	236	27.6	27.6	7.8	7.8	9.5	9.5	69.1	69.1	5.2	4.9	9.1	15.2	9	10	64	68	819421	806030	<0.2	<0.2	3.2	3.4
						1.0	0.9	255	27.6		7.8		9.5		69.0		5.2		9.1		11		64				<0.2		3.4	
					Middle	4.0	0.7	250	27.4	27.4	7.8	7.8	12.6	12.6	61.2	61.2	4.5		9.4		10		69				<0.2		3.6	
						4.0	0.8	263	27.4		7.8		12.6		61.2		4.5		9.4		10		69				<0.2		3.6	
					Bottom	7.0	0.5	243	26.2	26.2	7.8	7.8	21.9	21.9	47.5	47.6	3.4	3.4	27.2		10		72				<0.2		3.3	
						7.0	0.5	249	26.2		7.8		21.9		47.7		3.4		27.2		10		72				<0.2		3.2	
IM4	Cloudy	Moderate	11:52	7.5	Surface	1.0	0.7	181	27.8	27.8	7.7	7.7	7.1	7.1	70.7	70.7	5.3	5.1	9.2	12.0	7	8	62	67	819561	805029	<0.2	<0.2	3.0	2.7
						1.0	0.8	188	27.8		7.7		7.1		70.6		5.3		9.2		9		61				<0.2		2.7	
					Middle	3.8	0.4	199	27.4	27.4	7.8	7.8	11.3	11.3	64.9	64.9	4.8		10.6		7		67				<0.2		2.7	
						3.8	0.5	207	27.4		7.8		11.3		64.8		4.8		10.6		8		68				<0.2		3.0	
					Bottom	6.5	0.1	218	26.7	26.7	7.8	7.8	17.6	17.6	54.9	54.9	4.0	4.0	16.1		9		71				<0.2		2.2	
						6.5	0.2	234	26.7		7.8		17.6		54.9		4.0		16.1		9		71				<0.2		2.4	
IM5	Cloudy	Moderate	12:04	7.1	Surface	1.0	1.0	189	27.7	27.7	7.7	7.7	5.2	5.2	66.7	66.7	5.1	5.0	10.1	13.6	10	11	61	66	820544	804938	<0.2	<0.2	2.3	2.2
						1.0	1.1	201	27.7		7.7		5.2		66.7		5.1		10.2		12		61				<0.2		2.4	
					Middle	3.6	0.9	197	27.5	27.5	7.7	7.7	11.2	11.2	65.1	65.1	4.8		13.1		11		66				<0.2		2.1	
						3.6	1.0	198	27.5		7.7		11.2		65.0		4.8		13.1		11		66				<0.2		2.0	
					Bottom	6.1	0.8	218	26.8	26.8	7.8	7.8	17.5	17.5	53.5	53.6	3.9	3.9	17.5		12		71				<0.2		2.3	
						6.1	0.8	224	26.8		7.8		17.4		53.6		3.9		17.6		11		71				<0.2		2.1	
IM6	Cloudy	Moderate	12:17	6.6	Surface	1.0	0.3	178	27.5	27.5	7.7	7.7	8.3	8.3	64.1	64.1	4.8	4.5	11.2	14.3	8	10	61	64	821051	805821	<0.2	<0.2	2.0	2.1
						1.0	0.3	183	27.5		7.7		8.3		64.1		4.8		11.2		9		62				<0.2		1.9	
					Middle	3.3	0.5	228	27.2	27.2	7.7	7.7	14.3	14.3	56.8	56.8	4.2		8.7		10		63				<0.2		2.0	
						3.3	0.5	247	27.2		7.7		14.3		56.8		4.2		8.8		10		64				<0.2		2.1	
					Bottom	5.6	0.6	235	26.5	26.5	7.8	7.8	20.0	20.0	49.3	49.3	3.5	3.5	22.8		11		65				<0.2		1.9	
						5.6	0.7	242	26.5		7.8		20.0		49.3		3.5		22.8		11		66				<0.2		2.4	
IM7	Cloudy	Moderate	12:27	8.0	Surface	1.0	0.7	241	27.2	27.2	7.6	7.6	10.6	10.8	54.9	54.9	4.1	**3.9**	12.7	14.5	13	14	64	67	821347	806841	<0.2	<0.2	2.6	2.4
						1.0	0.7	248	27.2		7.6		11.0		54.9		4.1		12.7		13		64				<0.2		2.7	
					Middle	4.0	0.5	288	26.8	26.8	7.7	7.7	17.4	17.4	50.3	50.3	3.6		9.8		13		67				<0.2		2.4	
						4.0	0.6	305	26.8		7.7		17.4		50.2		3.6		9.9		14		67				<0.2		2.2	
					Bottom	7.0	0.3	265	26.2	26.2	7.8	7.8	22.9	22.9	45.2	45.3	3.2	3.2	21.2		15		71				<0.2		2.1	
						7.0	0.4	272	26.2		7.8		22.9		45.3		3.2		20.9		15		71				<0.2		2.4	
IM8	Cloudy	Moderate	12:32	7.8	Surface	1.0	0.8	193	28.0	28.0	7.7	7.7	7.6	7.9	64.2	64.3	4.8	4.4	12.5	10.7	10	10	62	65	821699	807839	<0.2	<0.2	2.7	2.5
						1.0	0.8	199	28.0		7.7		8.2		64.3		4.8		12.3		11		63				<0.2		2.8	
					Middle	3.9	0.4	247	27.7	27.7	7.8	7.8	15.8	16.0	55.9	56.2	4.0		9.2		10		64				<0.2		2.5	
						3.9	0.4	269	27.7		7.7		16.1		56.5		4.1		9.4		10		65				<0.2		2.4	
					Bottom	6.8	0.5	288	27.4	27.4	7.7	7.7	18.0	18.0	68.2	68.6	4.9	4.9	10.4		10		68				<0.2		2.3	
						6.8	0.6	306	27.4		7.7		18.0		69.0		4.9		10.4		10		69				<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 06 July 17 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	12:22	7.3	Surface	1.0	0.6	163	27.9	27.9	7.6	7.7	9.3	9.1	61.2	61.2	4.6	4.3	10.4	11.9	9	10	62	67	822079	808817	<0.2	<0.2	3.1	3.2
						1.0	0.6	177	27.9		7.7		8.9		61.2		4.6		10.4		11		63				<0.2		3.2	
					Middle	3.7	0.5	157	27.4	27.4	7.8	7.8	16.2	16.2	54.4	54.4	3.9		9.2		10		67				<0.2		3.2	
						3.7	0.5	159	27.4		7.8		16.2		54.4		3.9		9.2		9		68				<0.2		3.4	
					Bottom	6.3	0.3	174	26.9	26.9	7.7	7.7	20.6	20.6	68.5	68.9	4.9	4.9	16.0		11		72				<0.2		3.1	
						6.3	0.4	177	26.9		7.7		20.6		69.2		4.9		16.0		10		72				<0.2		3.1	
IM10	Cloudy	Moderate	12:14	8.3	Surface	1.0	0.7	128	28.0	28.0	7.7	7.7	10.9	10.8	58.4	58.4	4.3	**4.0**	9.7	11.0	9	8	61	66	822241	809818	<0.2	<0.2	3.0	2.9
						1.0	0.7	132	28.0		7.7		10.7		58.4		4.3		9.7		8		61				<0.2		2.9	
					Middle	4.2	0.5	101	27.4	27.4	7.8	7.8	15.7	15.7	51.2	51.2	3.7		10.7		7		68				<0.2		2.9	
						4.2	0.5	103	27.4		7.8		15.7		51.1		3.7		10.8		9		68				<0.2		3.0	
					Bottom	7.3	0.3	74	27.2	27.2	7.8	7.8	18.6	18.6	53.3	53.4	3.8	3.8	12.5		8		68				<0.2		2.8	
						7.3	0.4	75	27.2		7.8		18.6		53.4		3.8		12.6		8		69				<0.2		2.9	
IM11	Cloudy	Moderate	11:58	8.3	Surface	1.0	0.7	145	28.1	28.1	7.7	7.7	8.5	8.5	69.7	69.6	5.2	4.7	11.8	12.3	6	10	64	68	821486	810550	<0.2	<0.2	3.2	3.2
						1.0	0.7	158	28.1		7.7		8.5		69.5		5.2		11.8		7		65				<0.2		3.2	
					Middle	4.2	0.5	116	27.6	27.6	7.8	7.8	12.8	13.0	56.0	55.9	4.1		11.4		10		68				<0.2		2.8	
						4.2	0.5	126	27.6		7.8		13.2		55.7		4.1		12.0		9		69				<0.2		3.1	
					Bottom	7.3	0.2	117	27.3	27.3	7.8	7.8	17.6	17.6	58.4	58.5	4.2	4.2	13.4		12		72				<0.2		3.3	
						7.3	0.2	126	27.3		7.8		17.6		58.6		4.2		13.3		13		71				<0.2		3.3	
IM12	Cloudy	Moderate	11:41	9.7	Surface	1.0	0.7	102	28.0	28.0	7.8	7.8	8.9	8.9	70.2	70.2	5.2	4.7	9.7	13.1	9	9	64	68	821159	811536	<0.2	<0.2	3.5	<u>3.4</u>
						1.0	0.8	107	28.0		7.8		8.9		70.1		5.2		9.7		9		64				<0.2		3.5	
					Middle	4.9	0.6	70	27.8	27.8	7.8	7.8	12.0	12.2	58.8	58.3	4.3		12.5		8		67				<0.2		3.2	
						4.9	0.6	70	27.8		7.8		12.3		57.8		4.2		13.4		8		67				<0.2		3.3	
					Bottom	8.7	0.3	52	27.3	27.3	7.8	7.8	17.9	17.9	61.7	62.0	4.4	4.5	16.8		10		72				<0.2		3.3	
						8.7	0.3	54	27.3		7.8		17.9		62.2		4.5		16.4		10		72				<0.2		3.5	
SR2	Cloudy	Moderate	11:09	5.2	Surface	1.0	0.6	68	27.9	27.9	7.8	7.8	12.1	12.1	64.8	64.8	4.8	4.8	8.7	9.9	8	9	65	70	821462	814172	<0.2	<0.2	2.9	2.9
						1.0	0.6	73	27.9		7.8		12.0		64.7		4.8		8.7		8		66				<0.2		3.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.4	77	27.2	27.2	7.8	7.8	17.7	17.7	54.5	54.5	3.9	3.9	11.1		10		75				<0.2		2.7	
						4.2	0.4	84	27.2		7.8		17.7		54.5		3.9		11.1		9		74				<0.2		2.8	
SR3	Cloudy	Moderate	12:42	8.2	Surface	1.0	0.7	189	28.0	28.1	7.7	7.7	10.4	10.6	60.8	61.0	4.5	**4.0**	11.5	11.9	9	9	-	-	822151	807582	-	-	-	-
						1.0	0.7	195	28.1		7.7		10.8		61.1		4.5		11.6		9		-				-		-	
					Middle	4.1	0.3	251	27.7	27.7	7.7	7.7	15.4	15.4	49.0	49.0	3.5		12.0		8		-				-		-	
						4.1	0.3	263	27.7		7.7		15.3		48.9		3.5		12.1		9		-				-		-	
					Bottom	7.2	0.3	280	27.5	27.5	7.7	7.7	20.4	20.4	51.5	51.6	3.6	3.6	12.5		10		-				-		-	
						7.2	0.3	286	27.5		7.7		20.4		51.7		3.6		11.9		10		-				-		-	
SR4A	Cloudy	Moderate	10:38	8.7	Surface	1.0	0.1	114	27.3	27.3	7.8	7.8	13.6	13.6	68.9	68.9	5.1	<u>4.4</u>	5.9	11.0	6	8	-	-	817208	807791	-	-	-	-
						1.0	0.1	116	27.3		7.8		13.6		68.9		5.1		5.9		7		-				-		-	
					Middle	4.4	0.1	266	26.7	26.7	7.8	7.8	18.7	18.7	51.3	51.3	3.7		10.9		7		-				-		-	
						4.4	0.1	284	26.7		7.8		18.7		51.3		3.7		11.0		8		-				-		-	
					Bottom	7.7	0.0	69	25.8	25.8	7.7	7.7	24.3	24.3	41.0	41.0	2.9	<u>2.9</u>	16.2		9		-				-		-	
						7.7	0.0	70	25.8		7.7		24.3		41.0		2.9		16.2		9		-				-		-	
SR5A	Cloudy	Moderate	10:21	5.3	Surface	1.0	0.1	324	27.8	27.8	7.9	7.9	13.6	13.6	77.9	77.8	5.7	5.7	8.4	8.9	9	10	-	-	816584	810694	-	-	-	-
						1.0	0.1	339	27.8		7.9		13.6		77.7		5.7		8.4		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	137	27.2	27.2	7.8	7.8	16.0	16.0	66.2	66.2	4.8	4.8	9.4		11		-				-		-	
						4.3	0.1	145	27.2		7.8		16.0		66.2		4.8		9.5		9		-				-		-	
SR6	Cloudy	Moderate	09:55	4.4	Surface	1.0	0.2	91	28.0	28.0	7.8	7.8	13.5	13.5	73.7	73.5	5.4	5.4	11.0	16.9	6	6	-	-	817896	814654	-	-	-	-
						1.0	0.2	97	28.0		7.8		13.5		73.3		5.3		11.2		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	80	27.3	27.4	7.6	7.6	16.5	16.5	60.5	60.6	4.4	4.4	22.8		6		-				-		-	
						3.4	0.0	82	27.4		7.6		16.5		60.6		4.4		22.7		7		-				-		-	
SR7	Cloudy	Moderate	09:49	17.3	Surface	1.0	0.5	109	27.4	27.4	7.9	7.9	17.5	17.5	75.9	75.9	5.4	5.3	3.9	3.9	5	4	-	-	823648	823756	-	-	-	-
						1.0	0.5	114	27.4		7.9		17.5		75.9		5.4		3.9		4		-				-		-	
					Middle	8.7	0.3	289	27.1	27.1	7.9	7.9	19.5	19.5	72.6	72.6	5.2		4.0		3		-				-		-	
						8.7	0.3	310	27.0		7.9		19.5		72.6		5.2		4.0		4		-				-		-	
					Bottom	16.3	0.6	353	26.8	26.8	7.9	7.9	22.1	22.1	74.5	74.6	5.3	5.3	3.9		4		-				-		-	
						16.3	0.6	359	26.8		7.9		22.1		74.7		5.3		3.9		5		-				-		-	
SR8	Cloudy	Moderate	11:30	5.7	Surface	1.0	0.1	95	28.0	28.0	7.9	7.9	11.5	11.5	73.6	73.5	5.4	5.4	7.3	7.6	5	5	-	-	820246	811418	-	-	-	-
						1.0	0.1	103	28.0		7.9		11.5		73.4		5.4		7.3		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.1	8	27.9	27.9	7.9	7.9	13.3	13.3	66.8	66.7	4.9	4.9	7.8		6		-				-		-	
						4.7	0.1	8	27.9		7.9		13.3		66.6		4.9		7.8		5		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 06 July 17 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	18:10	7.6	Surface	1.0	0.7	30	27.4	27.4	7.9	7.9	10.6	10.6	68.5	68.5	5.1	4.3	8.8	13.0	11	11	62	64	815611	804264	<0.2	<0.2	2.6	2.8
						1.0	0.7	32	27.4		7.9		10.6		68.5		5.1		8.8		10		62				<0.2		2.5	
					Middle	3.8	0.2	27	26.6	26.6	7.8	7.8	19.1	19.1	47.1	47.1	3.4		14.2		10		64				<0.2		2.9	
						3.8	0.2	28	26.6		7.8		19.1		47.1		3.4		14.1		11		64				<0.2		3.2	
					Bottom	6.6	0.1	66	26.4	26.4	7.8	7.8	20.5	20.5	50.6	50.6	3.6	3.6	15.9		11		67				<0.2		2.9	
						6.6	0.1	67	26.4		7.8		20.5		50.6		3.6		15.9		10		67				<0.2		2.6	
C2	Rainy	Moderate	16:49	10.1	Surface	1.0	1.3	10	27.8	27.8	7.5	7.5	3.4	3.4	56.0	56.1	4.3	3.8	10.2	13.2	11	14	62	65	825696	806954	<0.2	<0.2	2.2	2.0
						1.0	1.4	10	27.8		7.5		3.4		56.2		4.3		10.2		11		61				<0.2		2.1	
					Middle	5.1	0.8	11	27.3	27.3	7.6	7.7	11.5	11.8	44.3	44.3	3.3		12.8		13		65				<0.2		2.0	
						5.1	0.8	11	27.3		7.7		12.1		44.2		3.3		12.8		13		64				<0.2		1.9	
					Bottom	9.1	0.3	10	27.6	27.6	7.5	7.5	14.9	14.8	50.9	51.0	3.7	3.7	16.6		18		70				<0.2		2.1	
						9.1	0.3	10	27.6		7.4		14.6		51.0		3.7		16.6		17		69				<0.2		1.9	
C3	Cloudy	Moderate	19:23	13.5	Surface	1.0	0.4	254	28.0	28.0	7.9	7.9	13.2	13.2	74.4	74.1	5.4	5.1	6.2	6.8	4	6	64	68	822126	817817	<0.2	<0.2	2.3	2.3
						1.0	0.4	269	28.0		7.9		13.2		73.7		5.4		6.1		4		64				<0.2		2.4	
					Middle	6.8	0.3	260	27.7	27.7	7.9	7.9	14.6	14.6	66.1	65.9	4.8		6.8		6		70				<0.2		2.3	
						6.8	0.3	275	27.7		7.9		14.6		65.7		4.8		6.9		5		69				<0.2		2.2	
					Bottom	12.5	0.5	282	27.2	27.2	7.8	7.8	18.1	18.1	68.4	70.2	4.9	5.1	7.2		8		71				<0.2		2.1	
						12.5	0.5	297	27.2		7.8		18.1		72.0		5.2		7.3		7		72				<0.2		2.3	
IM1	Cloudy	Moderate	17:50	6.8	Surface	1.0	0.5	18	27.4	27.4	7.8	7.8	10.7	10.8	68.3	68.4	5.1	5.2	12.5	16.1	16	16	62	67	818345	806460	<0.2	<0.2	2.1	2.3
						1.0	0.5	19	27.4		7.8		10.8		68.4		5.1		12.4		16		62				<0.2		2.2	
					Middle	3.4	0.1	24	27.4	27.4	7.8	7.8	12.6	12.6	70.0	70.0	5.2		16.8		17		68				<0.2		2.3	
						3.4	0.1	26	27.4		7.8		12.6		70.0		5.2		16.8		16		67				<0.2		2.6	
					Bottom	5.8	0.3	2	27.3	27.3	7.9	7.9	15.3	15.3	45.6	45.6	3.3	3.3	19.1		16		72				<0.2		2.2	
						5.8	0.4	2	27.3		7.9		15.3		45.6		3.3		19.1		16		71				<0.2		2.2	
IM2	Cloudy	Moderate	17:42	8.0	Surface	1.0	1.0	22	27.5	27.5	7.6	7.6	6.9	6.9	61.1	61.1	4.6	4.6	9.8	14.1	16	16	63	67	818865	806181	<0.2	<0.2	2.9	3.1
						1.0	1.1	23	27.5		7.6		6.9		61.1		4.6		9.8		15		63				<0.2		2.9	
					Middle	4.0	0.8	25	27.1	27.1	7.7	7.7	13.3	13.4	60.8	60.8	4.6		14.1		17		67				<0.2		3.1	
						4.0	0.8	26	27.1		7.7		13.4		60.7		4.5		14.2		16		67				<0.2		3.3	
					Bottom	7.0	0.1	29	26.6	26.6	7.8	7.8	18.6	18.6	49.1	49.2	3.6	3.6	18.3		17		71				<0.2		3.1	
						7.0	0.1	30	26.6		7.8		18.6		49.2		3.6		18.3		17		71				<0.2		3.3	
IM3	Cloudy	Moderate	17:36	7.6	Surface	1.0	0.8	25	27.5	27.5	7.6	7.6	7.4	7.4	62.3	62.3	4.7	4.5	14.2	17.3	16	17	64	68	819422	806013	<0.2	<0.2	3.5	3.2
						1.0	0.8	26	27.5		7.6		7.4		62.3		4.7		14.2		17		64				<0.2		3.3	
					Middle	3.8	0.8	25	27.2	27.2	7.7	7.7	11.8	11.8	57.8	57.8	4.3		17.4		16		68				<0.2		3.2	
						3.8	0.8	25	27.2		7.7		11.8		57.7		4.3		17.4		15		68				<0.2		2.9	
					Bottom	6.6	0.4	25	26.4	26.4	7.8	7.8	19.9	19.9	52.1	52.2	3.8	3.8	20.2		18		71				<0.2		3.2	
						6.6	0.5	25	26.4		7.8		19.9		52.2		3.8		20.2		18		72				<0.2		3.3	
IM4	Cloudy	Moderate	17:20	6.9	Surface	1.0	0.1	12	27.2	27.2	7.7	7.7	11.1	11.2	59.4	59.4	4.4	4.5	12.6	15.7	15	16	61	66	819585	805025	<0.2	<0.2	3.0	2.9
						1.0	0.1	12	27.2		7.7		11.2		59.4		4.4		12.5		15		62				<0.2		2.9	
					Middle	3.5	0.1	15	27.1	27.1	7.7	7.7	12.2	12.2	61.1	61.1	4.6		15.7		15		67				<0.2		2.7	
						3.5	0.1	15	27.1		7.7		12.2		61.1		4.6		15.7		16		67				<0.2		2.9	
					Bottom	5.9	0.1	18	27.1	27.1	7.7	7.7	12.9	12.9	57.5	57.6	4.3	4.3	18.9		17		69				<0.2		3.1	
						5.9	0.1	18	27.1		7.7		12.9		57.6		4.3		18.9		19		69				<0.2		2.8	
IM5	Cloudy	Moderate	17:11	6.7	Surface	1.0	0.5	27	27.4	27.4	7.7	7.7	8.3	8.4	64.2	64.2	4.9	4.6	10.7	14.0	12	12	62	67	820565	804910	<0.2	<0.2	2.2	2.2
						1.0	0.6	29	27.4		7.7		8.4		64.1		4.8		10.7		12		63				<0.2		2.3	
					Middle	3.4	0.6	23	27.1	27.1	7.6	7.6	11.1	11.1	57.8	57.8	4.3		14.6		12		67				<0.2		2.1	
						3.4	0.7	24	27.1		7.6		11.1		57.7		4.3		14.6		12		67				<0.2		2.0	
					Bottom	5.7	0.8	23	26.7	26.7	7.7	7.7	16.8	16.8	51.7	51.7	3.8	3.8	16.8		12		71				<0.2		2.5	
						5.7	0.8	24	26.7		7.7		16.8		51.7		3.8		16.8		12		71				<0.2		2.3	
IM6	Cloudy	Moderate	17:02	6.2	Surface	1.0	0.4	21	27.2	27.2	7.7	7.7	10.2	10.3	60.8	60.8	4.6	4.6	13.5	15.8	12	12	65	68	821067	805844	<0.2	<0.2	2.6	2.4
						1.0	0.4	21	27.2		7.7		10.4		60.7		4.5		13.5		13		65				<0.2		2.3	
					Middle	3.1	0.6	23	26.9	26.9	7.6	7.6	13.5	13.5	60.8	60.8	4.6		14.9		12		68				<0.2		2.5	
						3.1	0.6	24	26.9		7.6		13.5		60.7		4.5		14.9		12		68				<0.2		2.4	
					Bottom	5.2	0.7	23	26.7	26.7	7.7	7.7	17.5	17.5	52.9	53.0	3.8	3.9	19.0		12		72				<0.2		2.3	
						5.2	0.7	23	26.7		7.7		17.5		53.0		3.9		19.1		11		72				<0.2		2.2	
IM7	Cloudy	Moderate	16:55	7.4	Surface	1.0	1.0	26	27.1	27.1	7.6	7.6	10.9	10.9	64.1	64.1	4.8	4.6	11.8	14.3	12	13	64	68	821344	806815	<0.2	<0.2	3.5	3.1
						1.0	1.0	26	27.1		7.6		10.9		64.1		4.8		11.8		11		64				<0.2		3.3	
					Middle	3.7	0.7	27	26.8	26.8	7.6	7.6	14.4	14.4	60.5	60.6	4.4		14.1		14		67				<0.2		3.5	
						3.7	0.7	29	26.8		7.6		14.4		60.6		4.4		14.1		14		67				<0.2		3.2	
					Bottom	6.4	0.7	25	26.5	26.5	7.7	7.7	19.5	19.5	51.1	51.2	3.7	3.7	16.9		14		72				<0.2		2.6	
						6.4	0.7	26	26.5		7.7		19.5		51.2		3.7		16.9		13		71				<0.2		2.4	
IM8	Rainy	Moderate	17:34	7.7	Surface	1.0	1.1	291	27.8	27.8	7.6	7.6	2.5	2.5	60.9	60.8	4.7	4.2	10.7	13.4	10	14	62	66	821680	807835	<0.2	<0.2	2.2	2.1
						1.0	1.2	314	27.8		7.6		2.5		60.6		4.7		10.7		10		61				<0.2		2.3	
					Middle	3.9	0.8	300	27.5	27.5	7.6	7.6	11.7	11.8	49.8	49.8	3.7		12.2		13		66				<0.2		2.3	
						3.9	0.8	323	27.5		7.6		11.8		49.8		3.7		12.2		14		67				<0.2		2.0	
					Bottom	6.7	0.5	299	27.5	27.5	7.6	7.6	13.1	13.1	66.2	66.2	4.9	4.9	17.4		19		69				<0.2		2.0	
						6.7	0.6	310	27.5		7.6		13.1		66.2		4.9		17.4		19		69				<0.2		1.9	

DA: Depth-Averaged

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

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

Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring
Water Quality Monitoring Results on 06 July 17 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	17:41	6.2	Surface	1.0	0.7	268	28.1	28.1	7.5	7.5	6.1	6.1	58.6	58.6	4.4	4.4	10.5	13.0	12	13	62	66	822111	808829	<0.2	<0.2	2.2	2.6
						1.0	0.7	285	28.1		7.5		6.1		58.6		4.4		10.5		11		63				<0.2		2.4	
					Middle	3.1	0.4	245	28.1	28.1	7.6	7.6	10.7	10.7	57.6	57.7	4.3		13.8		11		67				<0.2		2.4	
						3.1	0.4	253	28.1		7.6		10.7		57.7		4.3		13.9		11		68				<0.2		2.7	
					Bottom	5.2	0.3	258	28.0	28.0	7.6	7.6	11.2	11.2	59.1	59.5	4.3	4.4	14.6		16		69				<0.2		3.0	
						5.2	0.3	277	28.0		7.6		11.2		59.8		4.4		14.6		15		68				<0.2		2.8	
IM10	Cloudy	Moderate	17:48	6.3	Surface	1.0	0.7	252	28.3	28.4	7.6	7.6	7.2	7.1	66.8	66.9	5.0	4.9	10.2	13.9	11	11	61	64	822224	809834	<0.2	<0.2	4.0	4.3
						1.0	0.7	254	28.4		7.6		7.0		66.9		5.0		10.2		10		62				<0.2		4.1	
					Middle	3.2	0.4	268	28.1	28.1	7.6	7.6	8.5	8.5	63.8	64.0	4.8		14.5		11		64				<0.2		4.2	
						3.2	0.4	277	28.1		7.6		8.5		64.2		4.8		14.5		11		63				<0.2		4.6	
					Bottom	5.3	0.4	291	27.9	27.9	7.6	7.6	9.6	9.6	74.2	74.2	5.5	5.5	17.0		12		67				<0.2		4.5	
						5.3	0.4	318	27.9		7.6		9.6		74.2		5.5		17.0		11		66				<0.2		4.2	
IM11	Cloudy	Moderate	18:03	8.2	Surface	1.0	0.5	322	28.5	28.5	7.6	7.6	6.0	6.0	67.1	66.9	5.0	4.8	11.3	13.9	11	12	61	64	821490	810553	<0.2	<0.2	4.9	4.8
						1.0	0.5	326	28.4		7.6		5.9		66.7		5.0		11.3		12		62				<0.2		4.6	
					Middle	4.1	0.4	301	28.2	28.2	7.6	7.6	8.6	8.7	60.4	60.5	4.5		14.3		12		63				<0.2		4.7	
						4.1	0.4	315	28.2		7.6		8.7		60.6		4.5		14.3		12		64				<0.2		5.1	
					Bottom	7.2	0.2	278	28.1	28.1	7.6	7.6	10.1	10.2	61.2	62.2	4.5	4.6	16.2		11		68				<0.2		4.8	
						7.2	0.3	287	28.1		7.6		10.3		63.1		4.7		16.2		11		67				<0.2		4.6	
IM12	Cloudy	Moderate	18:20	7.0	Surface	1.0	0.4	291	28.3	28.3	7.6	7.6	6.8	6.9	65.9	65.8	4.9	4.7	10.2	12.7	11	12	62	66	821156	811531	<0.2	<0.2	4.2	4.0
						1.0	0.4	313	28.3		7.6		6.9		65.6		4.9		10.2		12		62				<0.2		4.0	
					Middle	3.5	0.3	301	28.1	28.1	7.7	7.7	8.8	8.8	59.4	59.4	4.4		12.3		12		63				<0.2		4.3	
						3.5	0.3	330	28.1		7.7		8.8		59.4		4.4		12.3		11		63				<0.2		3.9	
					Bottom	6.0	0.3	284	27.5	27.5	7.7	7.7	21.0	21.0	72.1	72.1	5.1	5.1	15.7		11		72				<0.2		3.8	
						6.0	0.3	286	27.5		7.7		21.0		72.1		5.1		15.7		12		73				<0.2		3.5	
SR2	Cloudy	Moderate	18:51	5.4	Surface	1.0	0.3	279	28.1	28.1	7.8	7.8	8.5	8.5	69.8	69.9	5.2	5.2	11.6	11.8	9	10	63	66	821448	814166	<0.2	<0.2	3.6	3.8
						1.0	0.3	294	28.1		7.8		8.5		70.0		5.2		11.6		10		63				<0.2		3.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.4	261	28.0	28.0	7.9	7.9	15.3	15.3	72.2	72.2	5.2	5.2	11.9		10		68				<0.2		3.9	
						4.4	0.5	269	28.0		7.9		15.3		72.2		5.2		11.9		11		68				<0.2		3.9	
SR3	Rainy	Moderate	17:23	7.8	Surface	1.0	1.1	17	27.7	27.7	7.6	7.6	2.6	2.6	61.5	61.4	4.8	4.2	11.0	13.1	12	16	-	-	822158	807577	-	-	-	-
						1.0	1.1	17	27.7		7.6		2.6		61.3		4.8		11.0		12		-				-		-	
					Middle	3.9	0.8	18	27.6	27.6	7.6	7.6	11.4	11.2	48.0	47.9	3.6		13.2		16		-				-		-	
						3.9	0.8	19	27.6		7.6		10.9		47.8		3.6		13.2		16		-				-		-	
					Bottom	6.8	0.5	28	27.3	27.3	7.6	7.6	13.6	13.7	46.6	46.8	3.4	3.4	15.2		20		-				-		-	
						6.8	0.5	28	27.3		7.6		13.8		46.9		3.4		15.2		21		-				-		-	
SR4A	Cloudy	Moderate	18:36	8.0	Surface	1.0	0.8	251	27.9	27.9	8.0	8.0	15.0	15.0	79.4	79.4	5.7	5.3	10.8	15.7	12	12	-	-	817180	807793	-	-	-	-
						1.0	0.8	262	27.9		8.0		15.0		79.4		5.7		10.7		12		-				-		-	
					Middle	4.0	0.7	254	27.5	27.5	8.0	8.0	16.1	16.1	66.5	66.3	4.8		14.1		10		-				-		-	
						4.0	0.7	267	27.5		8.0		16.1		66.1		4.8		14.1		12		-				-		-	
					Bottom	7.0	0.6	255	26.6	26.6	7.8	7.8	20.2	20.2	53.7	53.8	3.8	3.9	22.3		12		-				-		-	
						7.0	0.6	268	26.6		7.8		20.2		53.8		3.9		22.3		11		-				-		-	
SR5A	Cloudy	Moderate	18:55	4.8	Surface	1.0	0.6	310	27.7	27.7	8.0	8.0	15.4	15.4	76.1	76.0	5.5	5.5	11.5	14.1	12	13	-	-	816583	810698	-	-	-	-
						1.0	0.6	311	27.7		8.0		15.4		75.8		5.5		11.5		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.5	309	27.0	27.0	7.9	7.9	19.2	19.2	62.8	62.9	4.5	4.5	16.7		14		-				-		-	
						3.8	0.5	326	27.0		7.9		19.2		63.0		4.5		16.7		13		-				-		-	
SR6	Cloudy	Moderate	19:21	3.8	Surface	1.0	0.2	267	27.8	27.8	7.9	7.9	12.2	12.2	77.2	77.1	5.7	5.7	13.5	15.7	7	7	-	-	817908	814658	-	-	-	-
						1.0	0.2	290	27.8		7.9		12.2		77.0		5.7		13.4		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	263	27.6	27.6	7.9	7.9	14.4	14.6	64.4	64.3	4.7	4.7	17.9		7		-				-		-	
						2.8	0.1	280	27.6		7.8		14.8		64.2		4.7		17.9		8		-				-		-	
SR7	Cloudy	Moderate	20:03	19.1	Surface	1.0	0.2	271	28.0	28.0	7.9	7.9	13.6	13.6	76.8	76.8	5.6	5.3	5.7	5.6	5	6	-	-	823652	823725	-	-	-	-
						1.0	0.2	283	28.0		7.9		13.6		76.8		5.6		5.7		4		-				-		-	
					Middle	9.6	0.3	258	27.7	27.7	7.9	7.9	15.2	15.2	68.2	68.0	4.9		5.7		6		-				-		-	
						9.6	0.3	276	27.7		7.9		15.2		67.8		4.9		5.6		6		-				-		-	
					Bottom	18.1	1.0	288	27.0	27.0	7.9	7.9	19.7	19.7	66.5	67.3	4.8	4.9	5.5		8		-				-		-	
						18.1	1.0	314	27.0		7.9		19.7		68.1		4.9		5.6		7		-				-		-	
SR8	Cloudy	Moderate	18:31	5.3	Surface	1.0	0.1	290	28.1	28.1	7.8	7.8	8.3	8.3	72.7	72.8	5.4	5.4	11.8	12.0	11	11	-	-	820246	811418	-	-	-	-
						1.0	0.1	300	28.1		7.8		8.3		72.9		5.4		11.8		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	303	28.1	28.1	7.9	7.9	12.3	12.3	81.3	81.3	5.9	5.9	12.1		10		-				-		-	
						4.3	0.1	321	28.1		7.9		12.3		81.3		5.9		12.1		10		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 08 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	12:02	8.3	Surface	1.0	0.9	180	27.1	27.1	7.6	7.6	8.5	8.5	74.4	74.3	5.6	5.3	6.4	8.3	5	6	61	64	815627	804247	<0.2	<0.2	2.1	2.1
						1.0	0.9	182	27.1		7.6		8.5		74.2		5.6		6.4		5		61				<0.2		2.2	
					Middle	4.2	0.9	203	26.9	26.9	7.7	7.7	11.7	11.7	65.7	65.7	4.9		6.6		8		63				<0.2		2.4	
						4.2	1.0	222	26.9		7.7		11.7		65.7		4.9		6.6		6		63				<0.2		2.3	
					Bottom	7.3	0.8	216	26.0	26.0	7.6	7.6	21.6	21.6	69.4	69.9	5.0	5.1	12.0		6		68				<0.2		1.8	
						7.3	0.8	236	26.0		7.6		21.5		70.3		5.1		11.9		7		68				<0.2		2.0	
C2	Cloudy	Moderate	14:21	11.5	Surface	1.0	1.6	172	28.1	28.1	7.6	7.6	2.0	2.0	65.5	65.5	5.1	4.7	9.1	14.0	9	10	54	62	825683	806949	<0.2	<0.2	2.6	2.6
						1.0	1.8	183	28.1		7.6		2.0		65.5		5.1		9.1		9		55				<0.2		2.7	
					Middle	5.8	0.8	170	27.6	27.6	7.4	7.4	10.8	10.8	56.8	56.8	4.2		14.9		9		63				<0.2		2.6	
						5.8	0.9	180	27.6		7.4		10.8		56.8		4.2		14.9		8		64				<0.2		2.6	
					Bottom	10.5	0.2	150	26.8	26.8	7.6	7.6	18.6	18.6	48.4	48.4	3.5	3.5	18.1		14		68				<0.2		2.4	
						10.5	0.2	156	26.8		7.6		18.6		48.4		3.5		18.1		12		69				<0.2		2.5	
C3	Rainy	Moderate	11:49	13.0	Surface	1.0	0.4	112	27.3	27.3	7.8	7.8	13.9	13.9	66.9	66.9	4.9	4.8	7.6	8.2	3	5	66	71	822114	817819	<0.2	<0.2	1.8	1.7
						1.0	0.4	115	27.3		7.8		13.9		66.9		4.9		7.6		5		67				<0.2		1.7	
					Middle	6.5	0.2	8	27.3	27.3	7.8	7.8	14.5	14.5	63.5	63.5	4.7		8.0		4		69				<0.2		1.6	
						6.5	0.2	8	27.3		7.8		14.5		63.5		4.7		8.0		6		70				<0.2		1.7	
					Bottom	12.0	0.4	53	26.3	26.3	7.8	7.8	24.0	24.0	62.8	62.8	4.4	4.4	9.0		5		76				<0.2		1.8	
						12.0	0.5	56	26.3		7.8		24.0		62.8		4.4		9.0		7		77				<0.2		1.7	
IM1	Cloudy	Moderate	12:28	7.0	Surface	1.0	1.1	188	27.0	27.0	7.7	7.7	9.8	9.8	69.8	69.8	5.3	4.8	9.8	12.2	6	12	65	68	818333	806460	<0.2	<0.2	1.7	2.4
						1.0	1.2	193	27.0		7.7		9.8		69.7		5.3		9.9		7		65				<0.2		1.9	
					Middle	3.5	0.5	187	25.6	25.6	7.7	7.7	23.6	23.6	60.6	60.6	4.3		12.5		7		67				<0.2		3.3	
						3.5	0.5	189	25.6		7.7		23.6		60.5		4.3		12.6		7		67				<0.2		3.2	
					Bottom	6.0	0.3	204	25.3	25.4	7.7	7.7	26.2	26.4	68.0	68.8	4.9	4.9	14.1		22		70				<0.2		2.4	
						6.0	0.3	206	25.4		7.7		26.6		69.6		4.9		14.4		24		71				<0.2		2.1	
IM2	Cloudy	Moderate	12:38	8.1	Surface	1.0	1.2	210	27.0	27.1	7.6	7.6	8.7	8.7	69.4	69.0	5.3	4.8	11.1	18.3	6	11	63	67	818834	806205	<0.2	<0.2	2.7	2.3
						1.0	1.2	228	27.1		7.6		8.6		68.6		5.2		12.1		5		64				<0.2		3.0	
					Middle	4.1	1.0	210	26.4	26.4	7.6	7.6	16.8	16.8	60.4	60.4	4.3		20.9		8		67				<0.2		2.5	
						4.1	1.0	220	26.4		7.6		16.8		60.4		4.3		20.6		8		67				<0.2		2.2	
					Bottom	7.1	0.5	213	25.6	25.6	7.6	7.6	22.5	22.5	60.6	60.6	4.5	4.5	22.4		18		69				<0.2		1.7	
						7.1	0.5	228	25.6		7.6		22.5		60.6		4.5		22.5		19		69				<0.2		1.9	
IM3	Cloudy	Moderate	12:47	8.1	Surface	1.0	1.0	250	27.0	27.0	7.6	7.6	11.7	11.7	64.1	63.9	4.8	4.5	11.6	18.5	12	14	67	71	819394	806009	<0.2	<0.2	2.1	2.2
						1.0	1.1	268	27.0		7.6		11.7		63.7		4.8		11.7		12		67				<0.2		2.2	
					Middle	4.1	0.9	252	26.7	26.7	7.6	7.6	15.0	15.0	56.9	57.1	4.2		21.4		13		69				<0.2		2.2	
						4.1	1.0	272	26.7		7.6		15.0		57.3		4.2		21.4		14		70				<0.2		2.3	
					Bottom	7.1	0.8	249	26.6	26.7	7.7	7.7	16.3	16.2	75.0	77.8	5.5	5.7	22.3		16		76				<0.2		2.0	
						7.1	0.9	264	26.8		7.7		16.1		80.5		5.9		22.5		15		76				<0.2		2.1	
IM4	Cloudy	Moderate	12:55	7.5	Surface	1.0	0.7	233	27.0	27.0	7.7	7.7	11.8	11.9	64.1	64.1	4.8	4.6	14.8	20.4	17	18	63	67	819579	805050	<0.2	<0.2	2.2	1.9
						1.0	0.8	243	27.0		7.7		11.9		64.1		4.8		15.0		16		64				<0.2		2.0	
					Middle	3.8	0.5	225	26.7	26.7	7.7	7.8	14.3	14.4	57.9	57.9	4.3		23.4		17		67				<0.2		1.7	
						3.8	0.5	226	26.6		7.8		14.4		57.8		4.3		23.3		17		67				<0.2		1.7	
					Bottom	6.5	0.3	207	26.4	26.4	7.8	7.8	15.7	15.7	60.6	60.7	4.5	4.5	22.8		19		71				<0.2		1.9	
						6.5	0.4	227	26.4		7.8		15.6		60.8		4.5		22.9		19		71				<0.2		2.0	
IM5	Cloudy	Moderate	13:07	6.2	Surface	1.0	1.0	205	27.0	27.0	7.6	7.6	6.8	6.9	64.3	64.1	4.9	4.7	14.2	19.2	10	11	64	67	820579	804926	<0.2	<0.2	1.9	2.0
						1.0	1.0	217	27.0		7.6		6.9		63.8		4.9		14.7		11		64				<0.2		2.0	
					Middle	3.1	0.9	224	26.7	26.7	7.7	7.7	10.9	10.9	59.7	59.5	4.5		20.8		11		67				<0.2		2.2	
						3.1	0.9	241	26.6		7.7		10.8		59.2		4.5		20.8		11		67				<0.2		2.0	
					Bottom	5.2	0.7	245	26.4	26.4	7.7	7.7	17.8	18.0	66.1	66.4	4.8	4.8	22.7		12		69				<0.2		1.9	
						5.2	0.8	265	26.4		7.7		18.1		66.6		4.8		22.1		13		70				<0.2		1.9	
IM6	Cloudy	Moderate	13:17	6.8	Surface	1.0	0.5	198	27.0	27.0	7.6	7.6	9.2	9.2	67.2	67.2	5.1	5.0	10.1	12.4	9	9	64	67	821040	805832	<0.2	<0.2	2.0	2.1
						1.0	0.5	207	27.0		7.6		9.2		67.2		5.1		10.1		8		64				<0.2		2.1	
					Middle	3.4	0.4	241	26.8	26.8	7.7	7.7	10.4	10.5	65.1	65.1	4.9		11.5		10		67				<0.2		2.0	
						3.4	0.4	254	26.7		7.7		10.5		65.0		4.9		12.2		9		68				<0.2		2.0	
					Bottom	5.8	0.6	257	26.4	26.5	7.6	7.6	19.0	19.7	73.7	76.4	5.3	5.5	15.5		9		70				<0.2		2.1	
						5.8	0.7	258	26.5		7.6		20.4		79.1		5.7		14.8		10		70				<0.2		2.6	
IM7	Cloudy	Moderate	13:26	7.5	Surface	1.0	1.2	225	27.2	27.2	7.6	7.6	5.9	5.9	68.2	67.9	5.2	4.6	12.8	18.4	9	11	64	68	821329	806848	<0.2	<0.2	2.2	2.1
						1.0	1.3	234	27.2		7.6		5.9		67.5		5.2		12.9		9		64				<0.2		2.2	
					Middle	3.8	0.8	252	26.5	26.5	7.6	7.6	15.7	15.7	54.9	55.1	4.0		21.6		9		67				<0.2		2.1	
						3.8	0.8	255	26.5		7.6		15.7		55.2		4.1		21.7		8		67				<0.2		1.9	
					Bottom	6.5	0.6	267	26.5	26.5	7.6	7.6	16.5	16.7	63.8	65.2	4.7	4.8	20.9		16		72				<0.2		1.8	
						6.5	0.6	291	26.5		7.6		16.8		66.5		4.9		20.6		16		72				<0.2		2.1	
IM8	Cloudy	Moderate	13:34	7.9	Surface	1.0	1.0	188	27.4	27.4	7.7	7.7	7.7	7.7	63.0	63.0	4.8	4.6	11.3	14.5	6	7	63	67	821693	807846	<0.2	<0.2	2.1	2.1
						1.0	1.1	195	27.4		7.7		7.7		63.0		4.8		11.3		6		64				<0.2		2.0	
					Middle	4.0	0.9	188	27.3	27.3	7.7	7.7	11.3	11.3	57.9	57.9	4.3		13.0		6		66				<0.2		2.3	
						4.0	1.0	198	27.3		7.7		11.3		57.9		4.3		13.0		7		67				<0.2		2.0	
					Bottom	6.9	0.5	232	26.9	26.9	7.8	7.8	17.0	17.0	50.0	50.0	3.6	3.6	19.1		8		69				<0.2		1.9	
						6.9	0.5	251	26.9		7.8		17.0		50.0		3.6		19.1		9		70				<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 08 July 17 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	13:25	7.1	Surface	1.0	0.6	157	27.4	27.4	7.7	7.7	7.0	7.0	66.8	66.8	5.1	4.8	10.3	11.8	6	6	64	67	822091	808804	<0.2	<0.2	2.3	2.2
						1.0	0.6	157	27.4		7.7		7.0		66.8		5.1		10.3		5		63				<0.2		2.3	
					Middle	3.6	0.7	161	27.3	27.3	7.7	7.7	9.1	9.1	59.7	59.7	4.5		11.4		6		68				<0.2		2.2	
						3.6	0.8	163	27.3		7.7		9.1		59.7		4.5		11.4		8		67				<0.2		1.9	
					Bottom	6.1	0.2	336	26.7	26.7	7.7	7.7	19.8	19.8	65.0	65.0	4.7	4.7	13.8		6		70				<0.2		2.4	
						6.1	0.2	337	26.7		7.7		19.8		65.0		4.7		13.8		6		70				<0.2		2.3	
IM10	Rainy	Moderate	13:16	7.0	Surface	1.0	0.8	129	27.4	27.4	7.7	7.7	8.4	8.4	65.6	65.6	5.0	4.8	10.9	12.8	6	6	64	66	822257	809821	<0.2	<0.2	2.4	2.4
						1.0	0.9	138	27.4		7.7		8.4		65.6		5.0		10.9		6		63				<0.2		2.4	
					Middle	3.5	0.6	109	27.4	27.4	7.7	7.7	8.5	8.5	61.3	61.3	4.6		12.0		7		64				<0.2		2.4	
						3.5	0.6	118	27.4		7.7		8.5		61.3		4.6		12.0		6		65				<0.2		2.4	
					Bottom	6.0	0.3	79	26.8	26.8	7.8	7.8	19.2	19.2	59.8	59.8	4.3	4.3	15.6		7		70				<0.2		2.3	
						6.0	0.3	82	26.8		7.8		19.2		59.8		4.3		15.6		6		71				<0.2		2.3	
IM11	Rainy	Moderate	13:02	8.4	Surface	1.0	0.7	134	27.5	27.5	7.7	7.7	9.8	9.8	70.0	70.0	5.2	4.6	8.4	11.7	6	6	64	67	821504	810532	<0.2	<0.2	2.2	2.3
						1.0	0.8	146	27.5		7.7		9.8		70.0		5.2		8.4		6		64				<0.2		2.2	
					Middle	4.2	0.7	109	27.2	27.2	7.7	7.7	13.7	13.7	53.6	53.6	3.9		11.2		6		67				<0.2		2.4	
						4.2	0.7	109	27.2		7.7		13.7		53.6		3.9		11.2		6		67				<0.2		2.5	
					Bottom	7.4	0.5	106	27.1	27.1	7.7	7.7	15.3	15.3	52.7	52.7	3.9	3.9	15.6		6		69				<0.2		2.2	
						7.4	0.5	113	27.1		7.7		15.3		52.7		3.9		15.6		6		69				<0.2		2.2	
IM12	Rainy	Moderate	12:49	9.1	Surface	1.0	0.7	116	27.5	27.5	7.7	7.7	9.2	9.2	67.6	67.6	5.1	4.6	9.0	12.2	5	4	64	66	821165	811526	<0.2	<0.2	2.9	2.6
						1.0	0.7	126	27.5		7.7		9.2		67.6		5.1		9.0		4		63				<0.2		2.3	
					Middle	4.6	0.6	123	27.3	27.3	7.7	7.7	13.0	13.0	55.2	55.2	4.1		10.1		4		66				<0.2		2.5	
						4.6	0.6	129	27.3		7.7		13.0		55.2		4.1		10.1		4		67				<0.2		2.6	
					Bottom	8.1	0.4	131	27.1	27.1	7.7	7.7	14.5	14.5	52.0	52.0	3.8	3.8	17.4		5		67				<0.2		2.6	
						8.1	0.4	133	27.1		7.7		14.5		52.0		3.8		17.4		4		68				<0.2		2.7	
SR2	Rainy	Moderate	12:23	5.3	Surface	1.0	0.9	71	27.3	27.3	7.8	7.8	10.4	10.4	65.1	65.1	4.9	4.9	9.9	11.2	5	6	67	70	821455	814184	<0.2	<0.2	2.4	2.4
						1.0	0.9	73	27.3		7.8		10.4		65.1		4.9		9.9		5		67				<0.2		2.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.5	63	27.0	27.0	7.8	7.8	16.1	16.1	55.4	55.4	4.0	4.0	12.5		6		74				<0.2		2.4	
						4.3	0.6	66	27.0		7.8		16.1		55.4		4.0		12.5		7		73				<0.2		2.5	
SR3	Cloudy	Moderate	13:40	8.3	Surface	1.0	1.1	170	27.7	27.7	7.7	7.7	6.6	6.6	67.6	67.6	5.1	4.6	10.6	12.0	7	7	-	-	822142	807585	-	-	-	-
						1.0	1.1	170	27.7		7.7		6.6		67.6		5.1		10.6		6		-				-		-	
					Middle	4.2	0.7	190	27.3	27.3	7.7	7.7	13.5	13.5	56.3	56.3	4.1		11.2		6		-				-		-	
						4.2	0.7	190	27.3		7.7		13.5		56.3		4.1		11.2		7		-				-		-	
					Bottom	7.3	0.3	257	27.1	27.1	7.7	7.7	16.4	16.4	56.1	56.1	4.1	4.1	14.3		8		-				-		-	
						7.3	0.3	281	27.1		7.7		16.4		56.1		4.1		14.3		10		-				-		-	
SR4A	Cloudy	Moderate	11:42	9.2	Surface	1.0	0.2	275	27.0	27.0	7.7	7.7	11.3	11.3	72.6	72.6	5.5	5.3	6.5	8.5	6	9	-	-	817202	807810	-	-	-	-
						1.0	0.2	295	26.9		7.7		11.3		72.5		5.4		6.5		6		-				-		-	
					Middle	4.6	0.2	276	26.7	26.8	7.6	7.6	21.6	21.0	71.5	71.7	5.1		7.8		6		-				-		-	
						4.6	0.2	285	26.8		7.6		20.3		71.9		5.1		7.6		6		-				-		-	
					Bottom	8.2	0.1	267	25.1	25.1	7.6	7.6	28.0	28.0	53.6	53.9	3.8	3.8	11.5		16		-				-		-	
						8.2	0.1	279	25.1		7.6		27.9		54.2		3.8		11.2		14		-				-		-	
SR5A	Cloudy	Moderate	11:25	5.1	Surface	1.0	0.1	-	27.3	27.3	7.7	7.7	12.3	12.4	81.6	81.5	6.0	6.0	7.4	9.5	6	5	-	-	816577	810682	-	-	-	-
						1.0	0.1	-	27.3		7.7		12.4		81.3		6.0		7.6		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.1	53	27.1	27.1	7.6	7.7	14.2	14.2	69.6	69.7	5.1	5.1	11.1		5		-				-		-	
						4.1	0.1	55	27.1		7.7		14.1		69.7		5.1		11.7		5		-				-		-	
SR6	Cloudy	Moderate	10:59	4.4	Surface	1.0	0.2	94	27.4	27.4	7.6	7.6	11.1	11.1	76.5	76.5	5.7	5.7	6.9	9.8	4	5	-	-	817887	814659	-	-	-	-
						1.0	0.2	102	27.4		7.6		11.1		76.4		5.7		6.9		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.0	331	27.2	27.2	7.5	7.5	14.7	14.7	66.0	66.2	4.8	4.9	12.6		5		-				-		-	
						3.4	0.0	332	27.2		7.5		14.7		66.3		4.9		12.7		5		-				-		-	
SR7	Rainy	Moderate	11:01	16.2	Surface	1.0	0.8	85	27.4	27.4	7.8	7.8	13.9	13.9	72.9	72.9	5.3	5.1	6.4	5.8	4	4	-	-	823620	823738	-	-	-	-
						1.0	0.9	85	27.4		7.8		13.9		72.9		5.3		6.4		4		-				-		-	
					Middle	8.1	0.3	62	26.8	26.8	7.9	7.9	17.9	17.9	66.6	66.6	4.8		5.5		4		-				-		-	
						8.1	0.4	66	26.8		7.9		17.9		66.6		4.8		5.5		4		-				-		-	
					Bottom	15.2	1.2	347	25.4	25.4	7.8	7.8	27.2	27.2	52.3	52.3	3.7	3.7	5.6		5		-				-		-	
						15.2	1.3	349	25.4		7.8		27.2		52.3		3.7		5.6		5		-				-		-	
SR8	Rainy	Moderate	12:40	5.6	Surface	1.0	0.1	70	27.4	27.4	7.7	7.7	10.0	10.0	70.5	70.5	5.3	5.3	10.4	10.0	6	7	-	-	820246	811418	-	-	-	-
						1.0	0.1	75	27.4		7.7		10.0		70.5		5.3		10.4		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.4	77	27.4	27.4	7.7	7.7	10.7	10.7	72.1	72.1	5.4	5.4	9.5		7		-				-		-	
						4.6	0.5	83	27.4		7.7		10.7		72.1		5.4		9.5		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 08 July 17 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	19:06	7.2	Surface	1.0	0.4	21	27.1	27.1	7.6	7.6	8.7	8.9	68.6	68.5	5.2	5.0	19.1	19.9	18	19	67	68	815617	804263	<0.2	<0.2	2.9	2.7
						1.0	0.4	21	27.1		7.6		9.0		68.4		5.2		19.2		19		68				<0.2		2.9	
					Middle	3.6	0.3	27	26.9	26.9	7.7	7.7	10.9	10.9	64.7	64.5	4.9		20.1		18		69				<0.2		2.4	
						3.6	0.3	28	26.9		7.7		10.8		64.2		4.8		20.0		19		70				<0.2		2.5	
					Bottom	6.2	0.2	38	26.4	26.4	7.7	7.7	15.5	16.2	64.2	65.3	4.7	4.8	20.5		19		67				<0.2		2.6	
						6.2	0.2	38	26.3		7.7		16.8		66.3		4.9		20.7		18		68				<0.2		2.6	
C2	Cloudy	Moderate	18:12	10.7	Surface	1.0	1.2	15	27.8	27.8	7.6	7.6	2.6	2.6	64.7	64.7	5.0	4.8	12.1	15.4	8	10	62	65	825688	806931	<0.2	<0.2	2.9	2.7
						1.0	1.3	15	27.8		7.6		2.6		64.7		5.0		12.1		7		61				<0.2		3.0	
					Middle	5.4	0.6	16	27.7	27.7	7.4	7.4	7.1	7.1	59.9	59.9	4.5		15.4		9		63				<0.2		3.0	
						5.4	0.6	16	27.7		7.4		7.1		59.9		4.5		15.4		8		64				<0.2		2.6	
					Bottom	9.7	0.1	13	26.6	26.6	7.6	7.6	19.6	19.6	48.0	48.0	3.5	3.5	18.8		13		69				<0.2		2.5	
						9.7	0.1	13	26.6		7.6		19.6		48.0		3.5		18.8		13		70				<0.2		2.3	
C3	Rainy	Moderate	20:04	12.8	Surface	1.0	0.4	288	27.9	27.9	7.7	7.7	9.9	9.9	66.9	66.9	5.0	4.6	8.5	8.7	4	5	66	71	822124	817787	<0.2	<0.2	2.1	2.0
						1.0	0.4	290	27.9		7.7		9.9		66.9		5.0		8.5		5		65				<0.2		1.9	
					Middle	6.4	0.4	285	27.4	27.4	7.7	7.7	13.2	13.2	57.2	57.2	4.2		8.6		4		70				<0.2		2.3	
						6.4	0.5	305	27.4		7.7		13.2		57.2		4.2		8.6		5		69				<0.2		2.0	
					Bottom	11.8	0.9	289	26.5	26.5	7.8	7.8	21.9	21.9	48.1	48.1	3.4	3.4	8.9		4		77				<0.2		1.8	
						11.8	0.9	309	26.5		7.8		21.9		48.1		3.4		8.9		6		76				<0.2		1.8	
IM1	Cloudy	Moderate	18:50	6.6	Surface	1.0	0.7	16	27.1	27.1	7.6	7.6	8.4	8.4	68.0	68.0	5.2	5.2	18.3	20.2	14	14	62	64	818365	806469	<0.2	<0.2	2.2	2.6
						1.0	0.7	17	27.1		7.6		8.3		67.9		5.2		18.8		14		62				<0.2		2.5	
					Middle	3.3	0.4	18	27.0	27.0	7.6	7.6	9.2	9.2	68.8	68.8	5.2		20.6		14		64				<0.2		2.8	
						3.3	0.4	18	27.0		7.6		9.2		68.8		5.2		20.6		14		64				<0.2		3.0	
					Bottom	5.6	0.2	21	26.8	26.8	7.7	7.7	13.2	13.2	76.6	76.8	5.7	5.7	21.3		15		67				<0.2		2.5	
						5.6	0.2	21	26.8		7.7		13.2		77.0		5.7		21.4		15		67				<0.2		2.4	
IM2	Cloudy	Moderate	18:46	7.1	Surface	1.0	0.8	23	27.1	27.1	7.6	7.6	7.2	7.2	66.9	66.9	5.1	5.1	20.7	21.6	14	16	63	67	818867	806204	<0.2	<0.2	2.4	2.3
						1.0	0.8	24	27.1		7.6		7.2		66.9		5.1		20.9		14		63				<0.2		2.2	
					Middle	3.6	0.6	27	27.0	27.0	7.6	7.6	8.1	8.1	66.7	66.7	5.1		22.0		18		67				<0.2		2.3	
						3.6	0.6	29	27.0		7.6		8.1		66.7		5.1		22.2		17		68				<0.2		2.5	
					Bottom	6.1	0.5	25	27.0	27.0	7.6	7.6	8.9	8.9	67.8	67.9	5.1	5.1	21.8		17		69				<0.2		2.3	
						6.1	0.5	25	27.0		7.6		8.9		67.9		5.1		21.8		16		69				<0.2		2.2	
IM3	Cloudy	Moderate	18:38	7.3	Surface	1.0	0.5	25	27.1	27.1	7.6	7.6	7.6	7.6	65.6	65.7	5.0	5.1	14.3	18.2	15	15	63	66	819405	806028	<0.2	<0.2	2.1	2.1
						1.0	0.6	26	27.1		7.6		7.6		65.7		5.0		14.2		14		64				<0.2		2.0	
					Middle	3.7	0.5	22	27.0	27.0	7.6	7.6	7.7	7.8	67.6	67.9	5.2		19.6		13		66				<0.2		2.2	
						3.7	0.5	24	27.0		7.6		7.8		68.2		5.2		19.7		13		66				<0.2		2.1	
					Bottom	6.3	0.4	22	27.0	27.0	7.6	7.6	8.3	8.3	75.2	76.6	5.7	5.8	20.7		16		67				<0.2		2.2	
						6.3	0.4	23	27.0		7.6		8.2		77.9		5.9		20.5		16		67				<0.2		2.0	
IM4	Cloudy	Moderate	18:29	7.0	Surface	1.0	0.1	24	27.0	27.0	7.6	7.6	9.9	9.9	63.4	63.5	4.8	5.0	17.6	20.0	16	17	68	66	819584	805035	<0.2	<0.2	2.3	2.3
						1.0	0.2	25	27.0		7.6		9.9		63.5		4.8		17.6		16		68				<0.2		2.2	
					Middle	3.5	0.1	27	26.9	26.9	7.7	7.7	10.3	10.3	68.4	68.5	5.2		20.3		16		67				<0.2		2.1	
						3.5	0.1	29	26.9		7.7		10.3		68.5		5.2		20.3		16		67				<0.2		2.3	
					Bottom	6.0	0.1	26	27.0	27.0	7.7	7.7	10.4	10.4	89.9	90.4	6.8	6.8	22.1		18		64				<0.2		2.3	
						6.0	0.1	28	27.0		7.7		10.4		90.9		6.8		22.1		17		64				<0.2		2.3	
IM5	Cloudy	Moderate	18:19	6.1	Surface	1.0	0.8	24	26.9	27.0	7.5	7.5	10.0	10.0	64.8	65.0	4.9	4.7	16.6	18.3	16	16	68	66	820545	804906	<0.2	<0.2	1.9	2.0
						1.0	0.8	24	27.0		7.5		9.9		65.1		4.9		16.6		16		68				<0.2		2.0	
					Middle	3.1	0.8	25	26.7	26.7	7.6	7.6	12.9	12.9	59.8	60.1	4.5		18.2		16		66				<0.2		2.1	
						3.1	0.8	25	26.7		7.6		12.9		60.3		4.5		18.1		17		66				<0.2		1.9	
					Bottom	5.1	0.6	24	26.7	26.7	7.6	7.6	13.5	13.5	71.1	71.4	5.3	5.3	20.1		16		63				<0.2		2.2	
						5.1	0.7	24	26.7		7.6		13.5		71.6		5.3		20.1		16		63				<0.2		1.9	
IM6	Cloudy	Moderate	18:13	6.0	Surface	1.0	0.7	26	26.7	26.7	7.5	7.5	11.6	11.6	62.2	62.2	4.8	4.6	19.8	21.0	15	16	63	65	821049	805823	<0.2	<0.2	2.0	2.2
						1.0	0.7	27	26.7		7.5		11.6		62.2		4.8		19.8		15		63				<0.2		2.3	
					Middle	3.0	0.6	27	26.7	26.7	7.5	7.5	12.0	12.0	57.9	58.1	4.3		21.4		17		65				<0.2		2.2	
						3.0	0.7	27	26.7		7.5		12.0		58.3		4.4		21.3		18		65				<0.2		2.0	
					Bottom	5.0	0.5	27	26.6	26.6	7.6	7.6	14.7	14.7	67.0	67.2	5.0	5.0	21.9		16		67				<0.2		2.4	
						5.0	0.6	28	26.6		7.6		14.7		67.4		5.0		21.9		17		67				<0.2		2.3	
IM7	Cloudy	Moderate	18:06	7.2	Surface	1.0	0.9	24	26.8	26.8	7.5	7.5	9.7	9.7	66.4	67.4	5.2	4.7	17.5	19.4	16	17	65	66	821334	806837	<0.2	<0.2	2.2	2.2
						1.0	0.9	25	26.8		7.5		9.7		68.4		5.3		17.7		16		65				<0.2		2.1	
					Middle	3.6	0.7	25	26.7	26.7	7.5	7.5	11.5	11.6	55.4	55.6	4.2		18.2		17		63				<0.2		2.1	
						3.6	0.7	25	26.7		7.5		11.6		55.7		4.2		18.7		17		64				<0.2		2.1	
					Bottom	6.2	0.6	26	26.7	26.7	7.5	7.5	11.8	11.8	61.7	61.7	4.7	4.7	22.2		18		69				<0.2		2.4	
						6.2	0.7	26	26.7		7.5		11.8		61.6		4.6		22.3		16		69				<0.2		2.3	
IM8	Cloudy	Moderate	18:33	7.8	Surface	1.0	0.4	283	27.7	27.7	7.5	7.5	8.3	8.3	63.8	63.8	4.8	4.6	11.3	14.2	8	10	63	66	821680	807850	<0.2	<0.2	2.9	2.8
						1.0	0.4	294	27.7		7.5		8.3		63.8		4.8		11.3		9		64				<0.2		2.6	
					Middle	3.9	0.2	285	27.6	27.6	7.5	7.5	11.5	11.5	59.8	59.8	4.4		14.0		8		66				<0.2		2.9	
						3.9	0.2	308	27.6		7.5		11.5		59.8		4.4		14.0		9		66				<0.2		2.8	
					Bottom	6.8	0.2	281	27.3	27.3	7.6	7.6	12.3	12.3	52.7	52.7	3.9	3.9	17.2		14		67				<0.2		2.5	
						6.8	0.2	289	27.3		7.6		12.3		52.7		3.9		17.2		14		67				<0.2		2.8	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 08 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Cloudy	Moderate	18:44	7.3	Surface	1.0	0.7	274	27.5	27.5	7.6	7.6	3.3	3.3	62.7	62.7	4.9	4.5	10.1	12.6	9	9	62	65	822084	808823	<0.2	<0.2	2.6	2.5
						1.0	0.8	301	27.5		7.6		3.3		62.7		4.9		10.1		8		63				<0.2		2.5	
					Middle	3.7	0.4	279	27.4	27.4	7.6	7.6	8.7	8.7	54.3	54.3	4.1		12.7		8		64				<0.2		2.3	
						3.7	0.4	284	27.4		7.6		8.7		54.3		4.1		12.7		7		64				<0.2		2.5	
					Bottom	6.3	0.1	295	27.4	27.4	7.6	7.6	9.9	9.9	55.4	55.4	4.1	4.1	14.9		12		67				<0.2		2.4	
						6.3	0.1	321	27.4		7.6		9.9		55.4		4.1		14.9		10		67				<0.2		2.4	
IM10	Cloudy	Moderate	18:54	7.4	Surface	1.0	0.8	284	28.0	28.0	7.6	7.6	3.6	3.6	69.3	69.3	5.3	4.8	10.9	14.0	8	10	63	65	822235	809839	<0.2	<0.2	2.6	2.7
						1.0	0.8	305	28.0		7.6		3.6		69.3		5.3		10.9		9		64				<0.2		2.9	
					Middle	3.7	0.5	286	27.7	27.7	7.6	7.6	8.6	8.6	55.8	55.8	4.2		13.2		9		65				<0.2		2.8	
						3.7	0.5	312	27.7		7.6		8.6		55.8		4.2		13.2		8		65				<0.2		2.6	
					Bottom	6.4	0.3	288	27.6	27.6	7.6	7.6	10.0	10.0	56.0	56.0	4.2	4.2	18.0		12		67				<0.2		2.7	
						6.4	0.4	292	27.6		7.6		10.0		56.0		4.2		18.0		14		66				<0.2		2.5	
IM11	Cloudy	Moderate	19:05	8.0	Surface	1.0	0.5	278	27.9	27.9	7.6	7.6	5.8	5.8	63.4	63.4	4.8	4.8	9.8	14.0	9	11	63	65	821500	810557	<0.2	<0.2	3.2	3.0
						1.0	0.6	304	27.9		7.6		5.8		63.4		4.8		9.8		9		62				<0.2		3.1	
					Middle	4.0	0.5	294	27.8	27.8	7.5	7.5	7.7	7.7	64.4	64.4	4.8		13.4		10		65				<0.2		2.8	
						4.0	0.5	306	27.8		7.5		7.7		64.4		4.8		13.4		10		66				<0.2		2.8	
					Bottom	7.0	0.2	276	27.6	27.6	7.6	7.6	9.1	9.1	58.4	58.4	4.4	4.4	18.8		15		67				<0.2		2.8	
						7.0	0.2	284	27.6		7.6		9.1		58.4		4.4		18.8		15		68				<0.2		3.1	
IM12	Cloudy	Moderate	19:13	7.8	Surface	1.0	0.3	300	28.1	28.1	7.6	7.6	5.9	5.9	66.6	66.6	5.0	4.8	10.8	12.9	10	12	63	66	821172	811513	<0.2	<0.2	2.6	2.7
						1.0	0.3	323	28.1		7.6		5.9		66.6		5.0		10.8		10		63				<0.2		2.6	
					Middle	3.9	0.3	307	27.8	27.8	7.6	7.6	8.1	8.1	59.6	59.6	4.5		12.3		10		65				<0.2		2.7	
						3.9	0.3	314	27.8		7.6		8.1		59.6		4.5		12.3		9		66				<0.2		2.6	
					Bottom	6.8	0.1	332	27.7	27.7	7.6	7.6	9.1	9.1	59.4	59.4	4.5	4.5	15.5		15		68				<0.2		2.8	
						6.8	0.1	305	27.7		7.6		9.1		59.4		4.5		15.5		15		68				<0.2		3.1	
SR2	Rainy	Moderate	19:36	5.3	Surface	1.0	0.1	333	27.9	27.9	7.7	7.7	6.6	6.6	73.1	73.1	5.5	5.5	11.4	12.2	8	8	63	65	821469	814164	<0.2	<0.2	2.2	2.5
						1.0	0.1	342	27.9		7.7		6.6		73.1		5.5		11.4		8		63				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.3	327	27.6	27.6	7.7	7.7	9.0	9.0	70.8	70.8	5.3	5.3	12.9		7		66				<0.2		2.7	
						4.3	0.3	329	27.6		7.7		9.0		70.8		5.3		12.9		8		67				<0.2		2.8	
SR3	Cloudy	Moderate	18:28	7.6	Surface	1.0	0.9	19	27.8	27.8	7.5	7.5	7.7	7.7	66.6	66.6	4.9	4.8	10.4	13.6	7	9	-	-	822132	807583	-	-	-	-
						1.0	0.9	19	27.8		7.5		7.7		66.6		4.9		10.4		7		-				-		-	
					Middle	3.8	0.6	19	27.6	27.6	7.5	7.5	11.1	11.1	62.4	62.4	4.6		13.3		8		-				-		-	
						3.8	0.7	19	27.6		7.5		11.1		62.4		4.6		13.3		8		-				-		-	
					Bottom	6.6	0.5	23	27.1	27.1	7.6	7.6	13.0	13.0	50.1	50.2	3.7	3.7	17.2		12		-				-		-	
						6.6	0.5	23	27.1		7.6		13.0		50.3		3.7		17.2		12		-				-		-	
SR4A	Cloudy	Moderate	19:40	8.2	Surface	1.0	0.5	244	27.2	27.2	7.8	7.8	14.4	14.4	79.6	79.6	5.8	5.6	16.7	18.8	14	14	-	-	817201	807811	-	-	-	-
						1.0	0.6	248	27.2		7.8		14.3		79.6		5.8		16.5		13		-				-		-	
					Middle	4.1	0.5	243	27.2	27.2	7.8	7.8	14.7	14.7	74.8	74.3	5.5		17.5		14		-				-		-	
						4.1	0.5	266	27.1		7.8		14.7		73.8		5.4		17.4		13		-				-		-	
					Bottom	7.2	0.4	238	26.8	26.9	7.7	7.7	17.3	17.6	77.0	79.2	5.6	5.8	22.4		13		-				-		-	
						7.2	0.5	258	26.9		7.7		17.9		81.3		5.9		22.3		14		-				-		-	
SR5A	Cloudy	Moderate	19:58	5.7	Surface	1.0	0.3	317	27.4	27.4	7.8	7.8	13.1	13.1	82.1	81.9	6.0	6.0	13.5	14.9	11	12	-	-	816598	810687	-	-	-	-
						1.0	0.3	321	27.4		7.8		13.1		81.6		6.0		13.2		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.2	307	27.1	27.2	7.8	7.8	14.9	14.9	85.5	87.2	6.3	6.4	16.4		12		-				-		-	
						4.7	0.2	308	27.2		7.8		14.8		88.9		6.5		16.4		11		-				-		-	
SR6	Cloudy	Moderate	20:00	4.2	Surface	1.0	0.4	337	27.5	27.5	7.9	7.9	12.9	12.9	81.8	81.4	6.0	6.0	11.2	13.6	7	8	-	-	817885	814682	-	-	-	-
						1.0	0.4	338	27.4		7.9		12.9		80.9		6.0		11.1		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.2	355	27.1	27.1	7.8	7.8	14.8	14.8	74.6	74.7	5.5	5.5	16.0		7		-				-		-	
						3.2	0.2	327	27.1		7.8		14.7		74.7		5.5		16.1		8		-				-		-	
SR7	Rainy	Moderate	20:29	16.5	Surface	1.0	0.1	278	27.6	27.6	7.8	7.8	12.2	12.2	72.1	72.1	5.3	5.1	6.1	6.8	2	3	-	-	823631	823760	-	-	-	-
						1.0	0.1	300	27.6		7.8		12.2		72.1		5.3		6.1		3		-				-		-	
					Middle	8.3	0.2	337	27.2	27.2	7.8	7.8	19.6	19.6	66.9	66.9	4.8		6.5		3		-				-		-	
						8.3	0.2	354	27.2		7.8		19.6		66.9		4.8		6.5		3		-				-		-	
					Bottom	15.5	0.8	217	26.0	26.0	7.8	7.8	24.0	24.0	60.0	60.0	4.3	4.3	7.7		3		-				-		-	
						15.5	0.8	229	26.0		7.8		24.0		60.0		4.3		7.7		2		-				-		-	
SR8	Cloudy	Moderate	19:24	5.5	Surface	1.0	0.2	308	28.0	28.0	7.6	7.6	5.2	5.2	69.9	69.9	5.3	5.3	9.8	11.0	7	10	-	-	820246	811418	-	-	-	-
						1.0	0.2	309	28.0		7.6		5.2		69.9		5.3		9.8		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	357	27.8	27.8	7.6	7.6	6.4	6.4	72.1	72.1	5.5	5.5	12.1		12		-				-		-	
						4.5	0.1	359	27.8		7.6		6.4		72.1		5.5		12.1		12		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Sunny	Moderate	13:54	9.2	Surface	1.0	0.3	238	27.6	27.6	7.9	7.9	11.3	11.3	70.1	70.0	5.2	4.2	4.2	4.9	3	3	67	74	815636	804254	<0.2	<0.2	1.5	1.7
						1.0	0.3	246	27.6		7.9		11.3		69.9		5.2		4.2		4		68				<0.2		1.6	
					Middle	4.6	0.2	166	25.3	25.3	7.9	7.9	27.5	27.6	46.5	46.4	3.3		4.5		3		75				<0.2		1.8	
						4.6	0.2	182	25.3		7.9		27.6		46.2		3.2		4.6		3		75				<0.2		1.8	
					Bottom	8.2	0.3	221	24.7	24.7	7.7	7.7	30.9	30.9	61.6	62.7	4.3	4.4	6.1		3		78				<0.2		1.7	
						8.2	0.3	223	24.7		7.7		30.9		63.8		4.4		6.0		3		79				<0.2		1.6	
C2	Sunny	Moderate	12:46	12.3	Surface	1.0	0.2	49	28.3	28.3	7.7	7.7	8.3	8.3	64.5	64.5	4.8	4.5	8.5	11.7	4	4	66	71	825672	806960	<0.2	<0.2	2.1	2.2
						1.0	0.2	52	28.3		7.7		8.3		64.5		4.8		8.5		5		67				<0.2		2.2	
					Middle	6.2	0.3	70	27.4	27.4	7.8	7.8	13.4	13.4	55.5	55.5	4.1		10.8		4		70				<0.2		2.2	
						6.2	0.3	70	27.4		7.8		13.4		55.5		4.1		10.8		4		70				<0.2		2.1	
					Bottom	11.3	0.6	145	26.4	26.4	7.8	7.8	23.0	23.0	50.7	50.7	3.6	3.6	15.9		4		75				<0.2		2.2	
						11.3	0.6	151	26.4		7.8		23.0		50.7		3.6		15.9		4		76				<0.2		2.4	
C3	Sunny	Moderate	14:35	12.1	Surface	1.0	0.7	102	28.3	28.3	8.0	8.0	11.9	11.9	74.5	74.5	5.4	5.1	6.4	6.5	5	5	70	74	822104	817804	<0.2	<0.2	2.1	2.3
						1.0	0.7	103	28.3		8.0		11.9		74.5		5.4		6.4		4		69				<0.2		2.3	
					Middle	6.1	0.6	103	27.3	27.3	8.0	8.0	16.0	16.0	65.4	65.4	4.7		6.2		5		75				<0.2		2.3	
						6.1	0.6	108	27.3		8.0		16.0		65.4		4.7		6.2		6		74				<0.2		2.3	
					Bottom	11.1	0.3	131	26.5	26.5	7.9	7.9	21.3	21.3	61.9	61.9	4.4	4.4	6.9		4		77				<0.2		2.4	
						11.1	0.3	133	26.5		7.9		21.3		61.9		4.4		6.9		5		77				<0.2		2.2	
IM1	Sunny	Moderate	13:36	8.4	Surface	1.0	0.1	184	26.9	27.0	7.8	7.8	16.5	16.5	64.4	64.5	4.7	4.6	8.3	12.3	4	5	71	75	818340	806457	<0.2	<0.2	2.0	2.0
						1.0	0.1	200	27.0		7.8		16.5		64.5		4.7		8.4		4		72				<0.2		2.0	
					Middle	4.2	0.2	123	25.2	25.2	7.8	7.8	27.5	27.5	62.8	62.8	4.4		12.9		5		76				<0.2		1.9	
						4.2	0.2	127	25.2		7.8		27.4		62.8		4.4		12.9		5		77				<0.2		2.1	
					Bottom	7.4	0.1	155	25.2	25.2	7.8	7.8	27.8	27.8	74.5	74.5	5.2	5.2	15.7		4		78				<0.2		1.9	
						7.4	0.1	157	25.2		7.8		27.8		74.5		5.2		15.7		5		77				<0.2		2.0	
IM2	Sunny	Moderate	13:31	9.8	Surface	1.0	0.1	158	26.9	26.9	7.8	7.8	15.7	15.7	63.4	63.4	4.6	4.6	4.6	7.7	4	4	72	74	818837	806183	<0.2	<0.2	1.8	1.9
						1.0	0.1	158	26.9		7.8		15.7		63.4		4.6		4.6		4		71				<0.2		1.7	
					Middle	4.9	0.1	102	26.7	26.7	7.8	7.8	16.8	16.8	62.2	62.2	4.5		5.4		5		73				<0.2		2.0	
						4.9	0.1	103	26.7		7.8		16.7		62.2		4.5		5.4		4		74				<0.2		2.0	
					Bottom	8.8	0.0	311	25.1	25.1	7.8	7.8	27.8	27.8	52.2	52.2	3.7	3.7	13.2		5		77				<0.2		2.0	
						8.8	0.0	311	25.1		7.8		27.8		52.2		3.7		13.2		4		78				<0.2		2.1	
IM3	Sunny	Moderate	13:24	9.7	Surface	1.0	0.0	92	28.0	28.0	7.8	7.8	10.3	10.4	72.0	71.9	5.3	5.1	4.8	9.9	4	4	68	74	819402	806004	<0.2	<0.2	2.0	2.0
						1.0	0.0	93	27.9		7.8		10.4		71.8		5.3		4.8		3		67				<0.2		1.9	
					Middle	4.9	0.3	86	25.7	25.8	7.8	7.8	24.2	24.2	67.5	67.5	4.8		11.8		3		75				<0.2		2.2	
						4.9	0.3	89	25.8		7.8		24.1		67.5		4.8		11.8		3		76				<0.2		2.1	
					Bottom	8.7	0.2	86	25.1	25.1	7.7	7.7	27.9	27.9	57.4	57.4	4.0	4.0	13.2		4		78				<0.2		1.9	
						8.7	0.2	90	25.1		7.7		27.9		57.4		4.0		13.2		4		77				<0.2		2.0	
IM4	Sunny	Moderate	13:16	8.8	Surface	1.0	0.1	310	27.4	27.4	7.8	7.8	12.0	12.0	72.1	72.0	5.3	5.0	4.4	10.4	3	4	67	73	819581	805023	<0.2	<0.2	1.7	1.7
						1.0	0.1	320	27.3		7.8		12.0		71.9		5.3		4.4		3		68				<0.2		1.7	
					Middle	4.4	0.3	88	25.6	25.6	7.8	7.8	25.7	25.7	66.2	66.2	4.7		10.5		3		75				<0.2		1.8	
						4.4	0.3	93	25.6		7.8		25.7		66.2		4.7		10.5		3		76				<0.2		1.8	
					Bottom	7.8	0.3	139	25.1	25.1	7.7	7.7	28.0	28.0	49.8	49.8	3.5	3.5	16.4		5		77				<0.2		1.6	
						7.8	0.3	151	25.1		7.7		28.0		49.8		3.5		16.4		5		76				<0.2		1.6	
IM5	Sunny	Moderate	13:08	8.2	Surface	1.0	0.1	23	27.1	27.1	7.8	7.8	13.6	13.6	69.4	69.3	5.1	4.9	4.1	7.7	2	3	70	75	820545	804906	<0.2	<0.2	1.9	1.8
						1.0	0.1	24	27.1		7.8		13.6		69.1		5.1		4.2		2		70				<0.2		1.8	
					Middle	4.1	0.1	69	25.6	25.6	7.7	7.7	24.8	24.8	65.2	65.2	4.6		9.5		2		76				<0.2		1.8	
						4.1	0.1	71	25.6		7.7		24.8		65.2		4.6		9.5		2		77				<0.2		2.0	
					Bottom	7.2	0.0	348	25.6	25.6	7.7	7.7	25.2	25.2	66.7	66.7	4.7	4.7	9.5		3		78				<0.2		1.7	
						7.2	0.0	355	25.6		7.7		25.2		66.7		4.7		9.5		4		77				<0.2		1.8	
IM6	Sunny	Moderate	12:58	7.9	Surface	1.0	0.1	222	27.5	27.5	7.8	7.8	11.8	11.9	68.8	68.6	5.1	4.6	6.1	10.3	4	4	69	74	821060	805835	<0.2	<0.2	2.1	2.3
						1.0	0.1	230	27.5		7.8		11.9		68.3		5.0		6.1		4		70				<0.2		2.3	
					Middle	4.0	0.0	103	26.6	26.6	7.8	7.8	17.2	17.3	56.0	56.0	4.1		9.5		4		75				<0.2		2.4	
						4.0	0.0	105	26.6		7.8		17.4		56.0		4.1		9.5		4		75				<0.2		2.2	
					Bottom	6.9	0.3	94	26.0	26.0	7.8	7.8	22.0	22.0	56.7	56.9	4.1	4.1	15.2		4		77				<0.2		2.3	
						6.9	0.3	95	26.0		7.8		22.0		57.0		4.1		15.2		4		78				<0.2		2.2	
IM7	Sunny	Moderate	12:47	7.3	Surface	1.0	0.4	90	27.9	27.9	7.7	7.7	10.4	10.4	68.0	67.8	5.0	4.8	6.1	6.6	4	5	69	73	821353	806818	<0.2	<0.2	2.4	2.2
						1.0	0.4	94	27.9		7.7		10.4		67.5		5.0		6.1		4		70				<0.2		2.2	
					Middle	3.7	0.4	84	27.2	27.2	7.8	7.8	13.4	13.4	63.0	63.0	4.7		6.5		4		73				<0.2		2.2	
						3.7	0.4	91	27.2		7.8		13.4		62.9		4.6		6.5		5		73				<0.2		2.2	
					Bottom	6.3	0.3	109	27.0	27.0	7.8	7.8	15.5	15.5	65.2	65.3	4.8	4.8	7.3		5		75				<0.2		1.9	
						6.3	0.3	118	27.0		7.7		15.5		65.4		4.8		7.3		5		76				<0.2		2.1	
IM8	Sunny	Moderate	13:22	8.6	Surface	1.0	0.4	91	27.9	27.9	7.8	7.8	10.5	10.5	66.7	66.7	4.9	4.8	8.5	11.1	5	5	67	72	821704	807833	<0.2	<0.2	2.3	2.4
						1.0	0.5	93	27.9		7.8		10.5		66.7		4.9		8.5		5		68				<0.2		2.5	
					Middle	4.3	0.4	52	27.1	27.1	7.9	7.9	16.0	16.0	63.1	63.1	4.6		9.3		5		71				<0.2		2.4	
						4.3	0.5	52	27.1		7.9		16.0		63.1		4.6		9.3		4		72				<0.2		2.4	
					Bottom	7.6	0.3	73	26.6	26.6	7.9	7.9	20.5	20.5	50.6	50.6	3.6	3.6	15.5		5		75				<0.2		2.3	
						7.6	0.4	74	26.6		7.9		20.5		50.6		3.6		15.5		5		76				<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 11 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	13:29	6.8	Surface	1.0	0.5	97	28.1	28.1	7.8	7.8	10.9	10.9	67.5	67.5	5.0	4.8	7.5	10.6	4	4	67	71	822110	808829	<0.2	<0.2	2.6	2.4
						1.0	0.5	99	28.1		7.8		10.9		67.5		5.0		7.5		4		68				<0.2		2.4	
					Middle	3.4	0.5	68	27.8	27.8	7.8	7.8	13.0	13.0	62.5	62.5	4.6		8.2		4		71				<0.2		2.4	
						3.4	0.5	74	27.8		7.8		13.0		62.5		4.6		8.2		5		72				<0.2		2.6	
					Bottom	5.8	0.3	84	26.9	26.9	7.9	7.9	18.6	18.6	48.0	48.0	3.5	3.5	16.1		4		75				<0.2		2.2	
						5.8	0.3	91	26.9		7.9		18.6		48.0		3.5		16.1		4		74				<0.2		2.3	
IM10	Sunny	Moderate	13:36	7.4	Surface	1.0	0.6	106	27.8	27.8	7.8	7.8	11.2	11.2	67.3	67.3	5.0	4.6	8.3	10.1	4	4	68	72	822221	809834	<0.2	<0.2	2.0	2.1
						1.0	0.7	114	27.8		7.8		11.2		67.3		5.0		8.3		3		69				<0.2		2.0	
					Middle	3.7	0.4	100	27.3	27.3	7.8	7.8	14.5	14.5	56.8	56.8	4.2		8.8		4		71				<0.2		2.2	
						3.7	0.4	104	27.3		7.8		14.5		56.8		4.2		8.8		4		72				<0.2		2.3	
					Bottom	6.4	0.7	126	26.8	26.8	7.8	7.8	17.7	17.7	53.4	53.4	3.9	3.9	13.2		3		75				<0.2		2.1	
						6.4	0.8	128	26.8		7.8		17.7		53.4		3.9		13.2		4		74				<0.2		1.9	
IM11	Sunny	Moderate	13:47	9.2	Surface	1.0	0.6	112	27.9	27.9	7.9	7.9	11.6	11.6	67.4	67.4	5.0	4.6	7.2	8.5	4	4	70	73	821495	810564	<0.2	<0.2	2.3	2.1
						1.0	0.6	114	27.9		7.9		11.6		67.4		5.0		7.2		4		69				<0.2		2.1	
					Middle	4.6	0.5	114	27.2	27.2	7.9	7.9	15.3	15.3	57.1	57.1	4.2		9.2		4		73				<0.2		2.0	
						4.6	0.6	116	27.2		7.9		15.3		57.1		4.2		9.2		4		74				<0.2		2.0	
					Bottom	8.2	0.3	116	26.9	26.9	7.9	7.9	18.2	18.2	60.1	60.1	4.3	4.3	9.0		4		76				<0.2		2.2	
						8.2	0.3	126	26.9		7.9		18.2		60.1		4.3		9.0		5		76				<0.2		2.0	
IM12	Sunny	Moderate	13:53	9.3	Surface	1.0	0.8	105	27.8	27.8	7.9	7.9	12.2	12.2	68.9	68.9	5.1	4.7	7.1	7.7	4	4	70	73	821148	811532	<0.2	<0.2	2.0	2.0
						1.0	0.8	112	27.8		7.9		12.2		68.9		5.1		7.1		5		69				<0.2		2.0	
					Middle	4.7	0.6	104	27.4	27.4	7.9	7.9	15.3	15.3	58.6	58.6	4.3		7.5		4		73				<0.2		1.9	
						4.7	0.6	105	27.4		7.9		15.3		58.6		4.3		7.5		5		73				<0.2		2.0	
					Bottom	8.3	0.2	149	26.1	26.1	7.8	7.8	21.5	21.5	57.3	57.3	4.1	4.1	8.5		3		76				<0.2		2.0	
						8.3	0.2	155	26.1		7.8		21.5		57.3		4.1		8.5		5		76				<0.2		2.0	
SR2	Sunny	Moderate	14:15	5.2	Surface	1.0	0.9	98	28.1	28.1	8.0	8.0	12.3	12.3	77.1	77.1	5.6	5.6	7.3	6.8	5	4	70	73	821454	814167	<0.2	<0.2	2.1	2.1
						1.0	0.9	99	28.1		8.0		12.3		77.1		5.6		7.3		4		71				<0.2		2.3	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	133	27.2	27.2	7.9	7.9	16.2	16.2	76.8	76.8	5.6	5.6	6.3		4		74				<0.2		2.1	
						4.2	0.4	145	27.2		7.9		16.2		76.8		5.6		6.3		4		75				<0.2		2.0	
SR3	Sunny	Moderate	13:15	9.3	Surface	1.0	0.5	72	27.7	27.7	7.8	7.8	11.0	11.0	64.0	64.0	4.7	4.5	7.6	10.3	5	5	-	-	822139	807551	-	-	-	-
						1.0	0.5	73	27.7		7.8		11.0		64.0		4.7		7.6		4		-				-		-	
					Middle	4.7	0.5	60	27.4	27.4	7.8	7.8	13.8	13.8	58.4	58.4	4.3		9.0		6		-				-		-	
						4.7	0.5	61	27.4		7.8		13.8		58.4		4.3		9.0		5		-				-		-	
					Bottom	8.3	0.3	16	26.8	26.8	7.9	7.9	17.4	17.4	51.1	51.1	3.7	3.7	14.4		6		-				-		-	
						8.3	0.3	16	26.8		7.9		17.4		51.1		3.7		14.4		6		-				-		-	
SR4A	Sunny	Moderate	14:17	9.4	Surface	1.0	0.4	58	27.1	27.1	7.8	7.8	15.3	15.3	71.2	71.2	5.2	5.0	7.2	11.3	5	5	-	-	817186	807828	-	-	-	-
						1.0	0.4	61	27.1		7.8		15.3		71.2		5.2		7.3		4		-				-		-	
					Middle	4.7	0.5	55	25.5	25.5	7.8	7.8	25.3	25.4	68.4	68.4	4.8		12.3		6		-				-		-	
						4.7	0.5	57	25.5		7.8		25.4		68.4		4.8		12.3		5		-				-		-	
					Bottom	8.4	0.4	45	25.3	25.3	7.8	7.8	27.4	27.4	69.6	69.6	4.9	4.9	14.3		5		-				-		-	
						8.4	0.4	48	25.3		7.8		27.4		69.6		4.9		14.3		6		-				-		-	
SR5A	Sunny	Moderate	14:33	5.4	Surface	1.0	0.1	69	28.5	28.5	8.4	8.4	14.6	14.6	128.0	127.8	9.2	9.2	6.8	7.1	8	8	-	-	816592	810680	-	-	-	-
						1.0	0.1	69	28.5		8.4		14.6		127.6		9.1		6.9		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.2	112	28.2	28.2	8.3	8.3	15.0	15.0	117.4	117.3	8.4	8.4	7.2		8		-				-		-	
						4.4	0.2	113	28.2		8.3		15.0		117.2		8.4		7.3		8		-				-		-	
SR6	Sunny	Moderate	14:34	5.6	Surface	1.0	0.1	8	28.6	28.6	8.4	8.4	14.5	14.5	124.6	123.1	8.9	8.8	7.8	9.6	8	9	-	-	817907	814679	-	-	-	-
						1.0	0.1	8	28.6		8.4		14.5		121.5		8.7		7.8		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.5	100	27.1	27.1	8.0	8.1	17.2	17.7	111.5	116.1	8.1	8.4	11.4		9		-				-		-	
						4.6	0.5	106	27.1		8.1		18.1		120.7		8.7		11.4		9		-				-		-	
SR7	Sunny	Moderate	15:05	16.5	Surface	1.0	0.8	104	28.4	28.4	8.0	8.0	12.4	12.4	77.3	77.3	5.6	5.3	6.7	6.9	6	6	-	-	823617	823737	-	-	-	-
						1.0	0.8	110	28.4		8.0		12.4		77.3		5.6		6.7		6		-				-		-	
					Middle	8.3	0.5	105	27.3	27.3	8.0	8.0	16.1	16.1	67.0	67.0	4.9		6.0		5		-				-		-	
						8.3	0.6	114	27.3		8.0		16.1		67.0		4.9		6.0		5		-				-		-	
					Bottom	15.5	0.3	137	26.5	26.5	7.9	7.9	20.5	20.5	56.6	56.6	4.1	4.1	8.1		7		-				-		-	
						15.5	0.3	148	26.5		7.9		20.5		56.6		4.1		8.1		6		-				-		-	
SR8	Sunny	Moderate	14:04	5.6	Surface	1.0	0.2	122	27.7	27.7	7.9	7.9	13.6	13.6	70.6	70.6	5.2	5.2	9.9	9.4	6	6	-	-	820246	811418	-	-	-	-
						1.0	0.2	122	27.7		7.9		13.6		70.6		5.2		9.9		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.1	265	27.6	27.6	7.9	7.9	13.9	13.9	72.8	72.8	5.3	5.3	8.9		6		-				-		-	
						4.6	0.1	275	27.6		7.9		13.9		72.8		5.3		8.9		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 11 July 17 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	07:07	8.7	Surface	1.0	0.6	41	26.9	26.9	7.7	7.7	10.2	10.3	68.7	68.5	5.2	4.1	5.3	10.6	2	4	68	74	815606	804254	<0.2	<0.2	1.6	1.6
						1.0	0.6	44	26.9		7.7		10.3		68.3		5.2		5.3		3		68				<0.2		1.6	
					Middle	4.4	0.4	42	25.4	25.4	7.7	7.7	25.5	25.6	42.6	42.6	3.0		11.3		4		74				<0.2		1.7	
						4.4	0.4	42	25.3		7.7		25.6		42.6		3.0		11.3		4		75				<0.2		1.7	
					Bottom	7.7	0.4	31	24.7	24.7	7.7	7.7	30.5	30.5	57.7	62.0	4.0	4.3	15.2		5		78				<0.2		1.7	
						7.7	0.4	31	24.7		7.7		30.5		66.2		4.6		15.2		4		78				<0.2		1.5	
C2	Sunny	Moderate	08:15	12.5	Surface	1.0	0.2	43	28.0	28.0	7.7	7.7	8.2	8.2	64.5	64.5	4.8	4.5	7.3	10.4	5	5	66	70	825688	806937	<0.2	<0.2	1.8	1.6
						1.0	0.2	44	28.0		7.7		8.2		64.5		4.8		7.3		4		65				<0.2		1.6	
					Middle	6.3	0.2	104	27.5	27.5	7.7	7.7	12.1	12.1	56.7	56.7	4.2		8.6		4		68				<0.2		1.5	
						6.3	0.2	113	27.5		7.7		12.1		56.7		4.2		8.6		4		68				<0.2		1.7	
					Bottom	11.5	0.3	114	26.3	26.3	7.8	7.8	23.5	23.5	49.3	49.3	3.5	3.5	15.2		5		77				<0.2		1.6	
						11.5	0.3	115	26.3		7.8		23.5		49.3		3.5		15.2		5		76				<0.2		1.5	
C3	Cloudy	Moderate	06:25	12.1	Surface	1.0	0.5	242	26.9	26.9	7.9	7.9	18.0	18.0	63.9	63.9	4.6	4.3	5.2	7.5	4	10	72	75	822126	817788	<0.2	<0.2	1.4	1.3
						1.0	0.6	247	26.9		7.9		18.0		63.9		4.6		5.2		4		71				<0.2		1.3	
					Middle	6.1	0.7	250	25.6	25.6	7.9	7.9	25.2	25.2	56.1	56.1	4.0		6.3		6		74				<0.2		1.3	
						6.1	0.8	271	25.6		7.9		25.2		56.1		4.0		6.3		4		75				<0.2		1.3	
					Bottom	11.1	0.1	109	24.9	24.9	7.8	7.8	29.3	29.3	50.7	50.7	3.6	3.6	10.9		20		77				<0.2		1.3	
						11.1	0.1	116	24.9		7.8		29.3		50.7		3.6		10.9		19		78				<0.2		1.3	
IM1	Sunny	Moderate	07:23	8.4	Surface	1.0	0.2	312	27.3	27.3	7.7	7.7	11.3	11.3	71.9	71.9	5.4	5.2	4.8	5.3	7	9	69	72	818346	806444	<0.2	<0.2	1.8	1.6
						1.0	0.2	332	27.3		7.7		11.3		71.8		5.4		4.8		7		68				<0.2		1.6	
					Middle	4.2	0.2	-	27.0	27.0	7.7	7.7	12.5	12.5	67.1	67.1	5.0		5.4		11		70				<0.2		1.6	
						4.2	0.2	-	27.0		7.7		12.5		67.1		5.0		5.4		9		69				<0.2		1.6	
					Bottom	7.4	0.5	33	26.6	26.7	7.7	7.7	19.1	19.1	75.4	77.5	5.4	5.6	5.8		9		76				<0.2		1.6	
						7.4	0.5	33	26.8		7.7		19.1		79.6		5.7		5.8		9		77				<0.2		1.6	
IM2	Sunny	Moderate	07:28	9.4	Surface	1.0	0.3	347	27.4	27.4	7.7	7.7	11.3	11.3	72.9	72.8	5.4	5.0	4.5	4.8	7	10	69	73	818841	806188	<0.2	<0.2	1.6	1.6
						1.0	0.3	355	27.3		7.7		11.3		72.6		5.4		4.5		7		70				<0.2		1.7	
					Middle	4.7	0.3	356	26.9	27.0	7.7	7.7	14.9	14.9	62.3	62.2	4.6		4.6		10		73				<0.2		1.9	
						4.7	0.3	328	27.0		7.7		14.8		62.1		4.6		4.6		9		74				<0.2		1.5	
					Bottom	8.4	0.6	53	26.4	26.4	7.7	7.7	18.1	18.1	60.8	61.3	4.4	4.5	5.2		14		76				<0.2		1.5	
						8.4	0.7	55	26.3		7.7		18.1		61.8		4.5		5.2		14		77				<0.2		1.5	
IM3	Sunny	Moderate	07:35	9.3	Surface	1.0	0.3	359	27.2	27.2	7.7	7.7	11.8	11.8	68.0	67.9	5.1	4.9	4.5	4.7	4	7	69	73	819396	806027	<0.2	<0.2	1.5	1.6
						1.0	0.3	330	27.2		7.7		11.8		67.7		5.0		4.5		4		70				<0.2		1.7	
					Middle	4.7	0.4	33	27.0	27.0	7.7	7.7	14.2	14.2	63.2	63.2	4.7		4.6		4		73				<0.2		1.5	
						4.7	0.5	34	26.9		7.7		14.2		63.2		4.7		4.6		4		74				<0.2		1.8	
					Bottom	8.3	0.5	75	26.6	26.6	7.8	7.8	16.9	17.1	62.7	62.9	4.6	4.6	4.9		14		75				<0.2		1.5	
						8.3	0.5	76	26.5		7.8		17.3		63.1		4.6		4.9		14		76				<0.2		1.8	
IM4	Sunny	Moderate	07:42	8.8	Surface	1.0	0.3	351	27.3	27.3	7.8	7.8	12.1	12.1	65.8	65.8	4.9	4.7	4.5	8.3	8	10	70	74	819570	805047	<0.2	<0.2	1.6	1.6
						1.0	0.4	323	27.3		7.8		12.1		65.8		4.9		4.5		9		69				<0.2		1.6	
					Middle	4.4	0.6	41	25.8	25.8	7.8	7.8	23.1	23.1	62.2	62.2	4.4		7.5		10		76				<0.2		1.5	
						4.4	0.6	42	25.8		7.8		23.1		62.2		4.4		7.5		10		75				<0.2		1.6	
					Bottom	7.8	0.2	54	25.2	25.3	7.7	7.7	27.5	27.6	49.5	49.5	3.5	3.5	12.9		10		78				<0.2		1.8	
						7.8	0.2	57	25.3		7.7		27.6		49.5		3.5		12.9		10		78				<0.2		1.5	
IM5	Sunny	Moderate	07:48	8.2	Surface	1.0	0.6	358	27.5	27.5	7.8	7.8	12.2	12.2	69.2	69.0	5.1	4.7	5.2	11.2	10	10	69	74	820545	804936	<0.2	<0.2	1.7	1.6
						1.0	0.7	329	27.5		7.8		12.1		68.8		5.1		5.2		11		69				<0.2		1.7	
					Middle	4.1	0.5	21	25.5	25.5	7.8	7.8	25.8	25.8	60.8	60.8	4.3		13.2		10		76				<0.2		1.6	
						4.1	0.5	21	25.5		7.8		25.8		60.8		4.3		13.2		9		75				<0.2		1.6	
					Bottom	7.2	0.4	24	25.5	25.5	7.8	7.8	25.4	25.4	48.8	48.8	3.5	3.5	15.2		10		78				<0.2		1.6	
						7.2	0.5	25	25.5		7.8		25.4		48.8		3.5		15.2		9		77				<0.2		1.4	
IM6	Sunny	Moderate	07:57	7.5	Surface	1.0	0.0	359	27.3	27.3	7.8	7.8	12.1	12.1	64.5	64.3	4.8	4.6	7.2	12.3	8	8	69	73	821060	805818	<0.2	<0.2	1.6	1.6
						1.0	0.0	330	27.3		7.8		12.1		64.0		4.7		7.2		6		70				<0.2		1.5	
					Middle	3.8	0.2	27	26.7	26.7	7.8	7.8	16.3	16.3	61.8	61.8	4.5		13.3		6		73				<0.2		1.6	
						3.8	0.2	28	26.7		7.8		16.3		61.8		4.5		13.3		6		73				<0.2		1.4	
					Bottom	6.5	0.4	85	25.7	25.7	7.8	7.8	23.1	23.1	54.0	54.2	3.9	3.9	16.5		10		76				<0.2		1.6	
						6.5	0.4	91	25.7		7.8		23.1		54.4		3.9		16.5		11		76				<0.2		1.6	
IM7	Sunny	Moderate	08:05	9.5	Surface	1.0	0.4	96	27.8	27.8	7.7	7.7	10.2	10.2	68.3	68.2	5.1	4.8	5.8	6.2	7	8	68	72	821343	806829	<0.2	<0.2	1.7	1.7
						1.0	0.4	99	27.8		7.7		10.2		68.0		5.0		5.8		5		69				<0.2		1.7	
					Middle	4.8	0.5	67	27.1	27.1	7.7	7.7	14.4	14.4	63.2	63.2	4.6		6.3		10		73				<0.2		1.7	
						4.8	0.5	67	27.1		7.7		14.3		63.2		4.6		6.3		8		74				<0.2		1.7	
					Bottom	8.5	0.3	87	26.9	26.9	7.8	7.8	15.1	15.1	64.1	64.6	4.7	4.8	6.5		10		75				<0.2		1.8	
						8.5	0.3	91	26.9		7.8		15.1		65.1		4.8		6.5		10		74				<0.2		1.6	
IM8	Sunny	Moderate	07:52	8.7	Surface	1.0	0.5	70	27.8	27.8	7.8	7.8	11.0	11.0	63.8	63.8	4.7	4.5	7.5	10.5	10	10	67	70	821706	807828	<0.2	<0.2	1.7	1.7
						1.0	0.5	71	27.8		7.8		11.0		63.8		4.7		7.5		10		68				<0.2		1.7	
					Middle	4.4	0.6	97	27.4	27.4	7.8	7.8	13.0	13.0	57.8	57.8	4.3		8.6		11		69				<0.2		1.7	
						4.4	0.6	103	27.4		7.8		13.0		57.8		4.3		8.6		10		69				<0.2		1.6	
					Bottom	7.7	1.0	117	26.9	26.9	7.8	7.8	17.1	17.1	53.7	53.7	3.9	3.9	15.4		10		75				<0.2		1.6	
						7.7	1.1	118	26.9		7.8		17.1		53.7		3.9		15.4		10		74				<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 11 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	07:40	7.7	Surface	1.0	0.1	18	27.6	27.6	8.0	8.0	12.4	12.4	63.7	63.7	4.7	4.5	8.5	11.9	10	11	68	72	822109	808812	<0.2	<0.2	1.6	1.5
						1.0	0.1	19	27.6		8.0		12.4		63.7		4.7		8.5		9		69				<0.2		1.4	
					Middle	3.9	0.3	44	27.4	27.4	7.9	7.9	14.5	14.5	58.6	58.6	4.3		10.9		12		71				<0.2		1.5	
						3.9	0.3	47	27.4		7.9		14.5		58.6		4.3		10.9		11		72				<0.2		1.5	
					Bottom	6.7	0.6	67	26.9	26.9	7.7	7.7	17.4	17.4	47.3	47.3	3.4	3.4	16.3		13		75				<0.2		1.4	
						6.7	0.7	71	26.9		7.7		17.4		47.3		3.4		16.3		12		75				<0.2		1.4	
IM10	Sunny	Moderate	07:33	8.5	Surface	1.0	0.3	273	27.5	27.5	7.8	7.8	13.4	13.4	64.0	64.0	4.7	4.6	6.3	8.0	2	6	69	73	822250	809846	<0.2	<0.2	1.4	1.4
						1.0	0.4	276	27.5		7.8		13.4		64.0		4.7		6.3		4		70				<0.2		1.4	
					Middle	4.3	0.1	314	27.3	27.3	7.9	7.9	15.1	15.1	61.1	61.1	4.5		7.7		3		72				<0.2		1.4	
						4.3	0.1	335	27.3		7.9		15.1		61.1		4.5		7.7		4		72				<0.2		1.4	
					Bottom	7.5	0.5	89	26.9	26.9	7.8	7.8	18.1	18.1	58.0	58.0	4.2	4.2	9.9		10		76				<0.2		1.4	
						7.5	0.5	96	26.9		7.8		18.1		58.0		4.2		9.9		10		76				<0.2		1.5	
IM11	Sunny	Moderate	07:23	9.3	Surface	1.0	0.1	277	27.7	27.7	7.8	7.8	13.6	13.6	67.2	67.2	4.9	4.6	8.3	8.5	6	10	70	72	821510	810533	<0.2	<0.2	1.2	1.3
						1.0	0.1	296	27.7		7.8		13.6		67.2		4.9		8.3		6		69				<0.2		1.3	
					Middle	4.7	0.2	18	27.3	27.3	7.8	7.8	15.3	15.3	59.3	59.3	4.3		7.4		11		72				<0.2		1.3	
						4.7	0.2	19	27.3		7.8		15.3		59.3		4.3		7.4		11		72				<0.2		1.2	
					Bottom	8.3	1.2	56	26.6	26.6	7.8	7.8	20.0	20.0	55.1	55.1	4.0	4.0	9.8		13		75				<0.2		1.5	
						8.3	1.3	56	26.6		7.8		20.0		55.1		4.0		9.8		13		74				<0.2		1.4	
IM12	Sunny	Moderate	07:11	8.6	Surface	1.0	0.2	255	27.7	27.7	7.9	7.9	13.9	13.9	71.2	71.2	5.2	4.5	7.7	9.3	13	12	69	73	821157	811514	<0.2	<0.2	1.3	1.4
						1.0	0.2	264	27.7		7.9		13.9		71.2		5.2		7.7		13		69				<0.2		1.1	
					Middle	4.3	0.1	320	26.8	26.8	7.9	7.9	18.7	18.7	53.3	53.3	3.8		9.8		11		73				<0.2		1.6	
						4.3	0.1	348	26.8		7.9		18.7		53.3		3.8		9.8		11		74				<0.2		1.6	
					Bottom	7.6	0.2	33	26.2	26.2	7.8	7.8	22.2	22.2	52.7	52.7	3.8	3.8	10.4		11		77				<0.2		1.2	
						7.6	0.2	34	26.2		7.8		22.2		52.7		3.8		10.4		13		77				<0.2		1.3	
SR2	Cloudy	Moderate	06:49	4.6	Surface	1.0	0.4	301	27.4	27.4	7.8	7.8	12.5	12.5	60.5	60.5	4.5	4.5	8.8	8.9	7	8	69	71	821473	814148	<0.2	<0.2	1.6	1.6
						1.0	0.4	318	27.4		7.8		12.5		60.5		4.5		8.8		9		70				<0.2		1.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	228	27.4	27.4	7.7	7.7	17.8	17.8	61.7	61.7	4.4	4.4	8.9		7		72				<0.2		1.6	
						3.6	0.2	247	27.4		7.7		17.8		61.7		4.4		8.9		7		73				<0.2		1.6	
SR3	Sunny	Moderate	07:58	8.6	Surface	1.0	0.3	68	28.1	28.1	7.7	7.7	10.1	10.1	65.2	65.2	4.8	4.7	8.4	11.3	5	7	-	-	822159	807579	-	-	-	-
						1.0	0.3	68	28.1		7.7		10.1		65.2		4.8		8.4		4		-				-		-	
					Middle	4.3	0.9	95	27.6	27.6	7.7	7.7	12.6	12.6	62.2	62.2	4.6		9.1		5		-				-		-	
						4.3	0.9	100	27.6		7.7		12.6		62.2		4.6		9.1		6		-				-		-	
					Bottom	7.6	0.5	121	27.1	27.1	7.8	7.8	18.0	18.0	48.8	48.8	3.5	3.5	16.3		11		-				-		-	
						7.6	0.5	124	27.1		7.8		18.0		48.8		3.5		16.3		10		-				-		-	
SR4A	Cloudy	Moderate	06:45	10.5	Surface	1.0	0.3	78	27.2	27.2	7.7	7.7	12.6	12.6	70.9	70.9	5.3	5.3	7.6	11.1	5	7	-	-	817193	807827	-	-	-	-
						1.0	0.3	82	27.2		7.7		12.5		70.9		5.3		7.8		4		-				-		-	
					Middle	5.3	0.1	67	27.2	27.2	7.8	7.8	14.0	14.0	70.9	70.9	5.2		11.3		8		-				-		-	
						5.3	0.1	69	27.2		7.8		14.0		70.8		5.2		11.3		7		-				-		-	
					Bottom	9.5	0.1	86	26.0	26.0	7.7	7.7	22.6	22.5	48.8	49.0	3.5	3.5	14.4		9		-				-		-	
						9.5	0.1	93	26.0		7.7		22.4		49.1		3.5		14.3		9		-				-		-	
SR5A	Cloudy	Moderate	06:28	5.7	Surface	1.0	0.0	8	27.7	27.7	8.0	8.0	15.4	15.4	93.7	93.2	6.8	6.8	6.6	9.1	8	9	-	-	816579	810681	-	-	-	-
						1.0	0.0	8	27.7		8.0		15.4		92.6		6.7		6.7		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.7	0.0	148	27.0	27.0	7.8	7.8	18.2	18.4	77.2	79.1	5.6	5.7	11.5		9		-				-		-	
						4.7	0.0	150	27.0		7.8		18.5		81.0		5.8		11.4		9		-				-		-	
SR6	Cloudy	Moderate	06:05	5.2	Surface	1.0	0.1	244	27.3	27.3	7.7	7.7	13.2	13.2	63.9	63.8	4.7	4.7	12.9	14.7	12	13	-	-	817917	814666	-	-	-	-
						1.0	0.1	251	27.2		7.7		13.2		63.7		4.7		13.0		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	207	26.9	26.9	7.6	7.6	16.2	16.2	61.8	62.0	4.5	4.5	16.1		13		-				-		-	
						4.2	0.0	213	26.9		7.6		16.2		62.1		4.5		16.8		12		-				-		-	
SR7	Cloudy	Moderate	05:55	15.8	Surface	1.0	0.2	289	27.1	27.1	7.9	7.9	15.8	15.8	73.5	73.5	5.4	5.1	5.4	6.4	5	8	-	-	823633	823725	-	-	-	-
						1.0	0.2	315	27.1		7.9		15.8		73.5		5.4		5.4		4		-				-		-	
					Middle	7.9	0.4	69	25.5	25.5	7.8	7.8	25.9	25.9	66.2	66.2	4.7		6.6		8		-				-		-	
						7.9	0.4	73	25.5		7.8		25.9		66.2		4.7		6.6		8		-				-		-	
					Bottom	14.8	2.6	57	25.0	25.0	7.8	7.8	29.9	29.9	51.7	51.7	3.6	3.6	7.2		10		-				-		-	
						14.8	2.7	61	25.0		7.8		29.9		51.7		3.6		7.2		10		-				-		-	
SR8	Cloudy	Moderate	07:04	5.2	Surface	1.0	0.3	78	28.1	28.1	7.9	7.9	12.4	12.4	71.5	71.5	5.2	5.2	8.6	10.1	12	12	-	-	820246	811418	-	-	-	-
						1.0	0.3	84	28.1		7.9		12.4		71.5		5.2		8.6		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.4	111	26.9	26.9	7.8	7.8	17.7	17.7	68.9	68.9	5.0	5.0	11.5		12		-				-		-	
						4.2	0.4	118	26.9		7.8		17.7		68.9		5.0		11.5		12		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 July 17 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	14:53	8.9	Surface	1.0	0.6	233	29.5	29.5	8.3	8.3	13.4	13.4	111.3	110.9	7.9	6.9	3.3	5.0	10	11	86	92	815602	804255	<0.2	<0.2	2.1	1.8
						1.0	0.7	243	29.4		8.3		13.4		110.5		7.8		3.3		8		87				<0.2		1.9	
					Middle	4.5	0.5	225	26.6	26.6	8.1	8.1	22.0	22.0	84.8	84.8	6.0		3.2		9		92				<0.2		1.8	
						4.5	0.5	246	26.6		8.1		21.9		84.7		6.0		3.2		11		93				<0.2		2.0	
					Bottom	7.9	0.6	233	25.5	25.5	7.9	7.9	26.4	26.4	67.9	68.2	4.8	4.8	8.4		13		96				<0.2		1.5	
						7.9	0.6	242	25.5		7.9		26.4		68.5		4.8		8.6		14		96				<0.2		1.7	
C2	Sunny	Moderate	13:54	12.1	Surface	1.0	0.2	179	28.8	28.8	7.9	7.9	11.5	11.5	76.3	76.3	5.5	4.7	6.8	11.3	13	13	83	92	825674	806937	<0.2	<0.2	2.7	2.6
						1.0	0.3	182	28.8		7.9		11.5		76.3		5.5		6.8		14		84				<0.2		2.7	
					Middle	6.1	0.6	174	27.1	27.1	7.8	7.8	17.7	17.7	52.9	52.9	3.8		12.0		12		92				<0.2		2.6	
						6.1	0.6	183	27.1		7.8		17.7		52.9		3.8		12.0		13		93				<0.2		2.6	
					Bottom	11.1	0.4	159	25.7	25.7	7.8	7.8	27.0	27.1	57.5	57.8	4.0	4.1	15.2		14		98				<0.2		2.4	
						11.1	0.4	162	25.7		7.8		27.1		58.1		4.1		15.2		14		99				<0.2		2.6	
C3	Sunny	Moderate	15:43	16.3	Surface	1.0	0.6	103	27.7	27.8	8.0	8.0	19.4	19.3	79.3	79.3	5.6	5.4	5.8	7.2	14	15	91	94	822127	817818	<0.2	<0.2	1.7	1.7
						1.0	0.6	106	27.9		8.0		19.2		79.3		5.6		5.8		15		91				<0.2		1.6	
					Middle	8.2	0.0	244	27.2	27.2	8.1	8.1	21.7	21.7	73.0	73.0	5.1		6.6		16		95				<0.2		1.6	
						8.2	0.0	255	27.2		8.1		21.7		73.0		5.1		6.6		16		94				<0.2		1.8	
					Bottom	15.3	1.2	154	25.6	25.6	7.9	7.9	28.2	28.2	62.3	62.3	4.4	4.4	9.2		15		98				<0.2		1.6	
						15.3	1.4	164	25.6		7.9		28.2		62.3		4.4		9.2		15		97				<0.2		1.7	
IM1	Sunny	Moderate	14:37	7.7	Surface	1.0	0.4	198	26.4	26.4	7.9	7.9	21.9	21.9	68.2	68.2	4.9	4.6	6.2	7.6	8	11	92	94	818346	806438	<0.2	<0.2	1.8	2.2
						1.0	0.5	198	26.4		7.9		21.9		68.2		4.9		6.2		6		91				<0.2		2.1	
					Middle	3.9	0.4	203	25.9	25.9	7.9	7.9	24.9	24.9	60.3	60.3	4.3		8.6		11		94				<0.2		2.4	
						3.9	0.4	204	25.9		7.9		24.8		60.2		4.3		8.5		12		94				<0.2		2.1	
					Bottom	6.7	0.3	172	25.6	25.6	7.9	7.9	26.2	26.2	52.4	52.4	3.7	3.7	8.1		15		95				<0.2		2.3	
						6.7	0.3	186	25.6		7.9		26.2		52.4		3.7		8.1		14		96				<0.2		2.2	
IM2	Sunny	Moderate	14:31	9.2	Surface	1.0	0.5	210	28.1	28.1	8.2	8.2	15.6	15.6	100.9	101.0	7.2	5.5	4.3	7.4	8	12	89	93	818851	806176	<0.2	<0.2	2.1	2.1
						1.0	0.6	218	28.1		8.2		15.6		101.0		7.2		4.4		7		88				<0.2		2.1	
					Middle	4.6	0.4	221	25.8	25.8	7.9	7.9	25.2	25.2	52.6	52.7	3.7		9.2		10		93				<0.2		2.1	
						4.6	0.4	224	25.8		7.9		25.2		52.7		3.7		9.3		9		94				<0.2		2.0	
					Bottom	8.2	0.2	171	25.7	25.7	7.9	7.9	25.8	25.8	58.1	58.3	4.1	4.1	8.6		17		96				<0.2		2.0	
						8.2	0.2	174	25.7		7.9		25.8		58.4		4.1		8.6		18		95				<0.2		2.1	
IM3	Sunny	Moderate	14:23	8.9	Surface	1.0	0.4	187	28.0	28.0	8.2	8.2	14.6	14.6	90.8	90.6	6.6	5.3	3.8	7.0	9	11	83	90	819408	806006	<0.2	<0.2	2.1	2.1
						1.0	0.4	196	28.0		8.2		14.6		90.4		6.5		3.8		8		84				<0.2		2.2	
					Middle	4.5	0.4	187	26.1	26.1	7.9	7.9	23.5	23.5	58.4	58.4	4.1		6.4		12		92				<0.2		2.2	
						4.5	0.4	196	26.1		7.9		23.5		58.4		4.1		6.5		12		93				<0.2		2.2	
					Bottom	7.9	0.1	158	25.7	25.7	7.9	7.9	25.4	25.4	59.7	59.9	4.2	4.2	10.7		12		95				<0.2		1.9	
						7.9	0.1	166	25.7		7.9		25.4		60.0		4.2		10.8		13		94				<0.2		2.1	
IM4	Sunny	Moderate	14:15	8.6	Surface	1.0	0.3	179	28.6	28.6	8.2	8.2	13.2	13.3	88.5	88.2	6.4	5.2	4.8	8.4	7	9	83	90	819579	805053	<0.2	<0.2	1.7	1.9
						1.0	0.3	190	28.6		8.2		13.3		87.8		6.3		4.8		8		84				<0.2		1.9	
					Middle	4.3	0.4	169	26.3	26.3	7.9	7.9	22.4	22.4	58.1	58.1	4.1		8.7		10		91				<0.2		1.8	
						4.3	0.4	183	26.3		7.9		22.3		58.1		4.1		8.7		10		92				<0.2		1.8	
					Bottom	7.6	0.4	154	25.6	25.6	7.8	7.8	26.3	26.3	61.0	61.3	4.3	4.3	11.8		10		93				<0.2		2.1	
						7.6	0.4	161	25.6		7.8		26.3		61.6		4.3		11.8		11		94				<0.2		2.1	
IM5	Sunny	Moderate	14:09	7.7	Surface	1.0	0.4	177	29.0	29.1	8.1	8.1	13.1	12.7	93.5	93.0	6.7	5.7	4.1	5.5	8	10	84	91	820573	804939	<0.2	<0.2	2.5	2.2
						1.0	0.4	190	29.2		8.1		12.2		92.4		6.6		4.2		10		84				<0.2		2.3	
					Middle	3.9	0.3	173	26.4	26.4	8.0	8.0	21.7	21.9	67.5	67.1	4.8		5.5		9		93				<0.2		2.2	
						3.9	0.4	185	26.3		7.9		22.0		66.7		4.8		5.6		9		94				<0.2		2.2	
					Bottom	6.7	0.3	200	26.0	26.0	7.9	7.9	23.9	24.0	69.7	71.0	4.9	5.0	6.8		13		94				<0.2		2.0	
						6.7	0.3	211	26.0		7.9		24.0		72.3		5.1		6.9		13		94				<0.2		2.0	
IM6	Sunny	Moderate	14:00	7.6	Surface	1.0	0.2	213	28.3	28.3	8.1	8.1	13.2	13.2	93.4	93.4	6.8	5.1	4.4	12.8	8	10	86	91	821054	805828	<0.2	<0.2	1.9	2.0
						1.0	0.2	213	28.3		8.1		13.2		93.4		6.8		4.4		7		85				<0.2		2.0	
					Middle	3.8	0.3	191	25.9	25.9	7.8	7.8	24.4	24.4	47.9	48.1	3.4		17.3		7		93				<0.2		2.0	
						3.8	0.3	193	25.9		7.8		24.4		48.3		3.4		17.6		7		94				<0.2		2.2	
					Bottom	6.6	0.3	178	25.8	25.8	7.8	7.8	24.6	24.6	53.4	54.3	3.8	3.9	16.4		14		95				<0.2		2.0	
						6.6	0.3	189	25.8		7.8		24.6		55.1		3.9		16.5		14		94				<0.2		1.9	
IM7	Sunny	Moderate	13:52	8.8	Surface	1.0	0.3	192	27.9	28.0	8.0	8.0	14.9	14.8	84.2	84.3	6.1	5.4	4.5	7.0	9	10	83	89	821359	806839	<0.2	<0.2	2.2	2.3
						1.0	0.3	194	28.0		8.0		14.7		84.4		6.1		4.5		10		83				<0.2		2.6	
					Middle	4.4	0.3	185	26.8	26.8	7.9	7.9	19.4	19.3	66.1	66.2	4.7		5.9		11		91				<0.2		2.8	
						4.4	0.3	194	26.8		7.9		19.2		66.3		4.8		5.8		9		90				<0.2		2.7	
					Bottom	7.8	0.2	144	26.2	26.2	7.8	7.8	22.8	22.8	58.6	58.8	4.2	4.2	10.7		10		94				<0.2		1.7	
						7.8	0.2	150	26.2		7.8		22.8		58.9		4.2		10.5		10		94				<0.2		1.6	
IM8	Sunny	Moderate	14:19	9.0	Surface	1.0	0.5	172	28.5	28.5	7.9	7.9	11.1	11.1	81.7	81.7	6.0	5.0	7.6	10.7	11	13	84	90	821681	807842	<0.2	<0.2	2.4	2.5
						1.0	0.5	188	28.5		7.9		11.1		81.7		6.0		7.6		13		83				<0.2		2.6	
					Middle	4.5	0.2	161	27.4	27.4	7.8	7.8	18.3	18.3	55.5	55.5	4.0		11.1		13		92				<0.2		2.8	
						4.5	0.3	166	27.4		7.8		18.3		55.5		4.0		11.1		14		91				<0.2		2.4	
					Bottom	8.0	0.2	36	26.5	26.5	7.8	7.8	23.3	23.3	51.7	51.7	3.7	3.7	13.3		13		96				<0.2		2.6	
						8.0	0.2	36	26.5		7.8		23.3		51.7		3.7		13.3		14		95				<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 13 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	14:28	8.2	Surface	1.0	0.6	154	28.6	28.6	7.9	7.9	11.5	11.5	81.3	81.3	5.9	5.0	7.7	10.3	7	11	83	91	822083	808796	<0.2	<0.2	2.6	2.6
						1.0	0.7	162	28.6		7.9		11.5		81.3		5.9		7.7		8		84				<0.2		2.6	
					Middle	4.1	0.3	126	27.6	27.6	7.8	7.8	18.9	18.9	57.0	57.0	4.0		10.1		10		95				<0.2		2.4	
						4.1	0.3	135	27.6		7.8		18.9		57.0		4.0		10.1		11		94				<0.2		2.9	
					Bottom	7.2	0.2	51	26.9	26.9	7.8	7.8	21.1	21.1	51.6	51.6	3.7	3.7	13.2		13		96				<0.2		2.6	
						7.2	0.2	52	26.9		7.8		21.1		51.6		3.7		13.2		14		96				<0.2		2.2	
IM10	Sunny	Moderate	14:38	7.6	Surface	1.0	0.4	124	29.4	29.4	8.0	8.0	11.4	11.4	90.0	90.0	6.5	5.5	6.0	10.3	8	11	83	89	822239	809855	<0.2	<0.2	2.4	2.4
						1.0	0.4	126	29.4		8.0		11.4		90.0		6.5		6.0		8		84				<0.2		2.5	
					Middle	3.8	0.6	123	28.2	28.2	7.8	7.8	15.4	15.4	61.8	61.8	4.4		10.3		10		89				<0.2		2.2	
						3.8	0.7	127	28.2		7.8		15.4		61.8		4.4		10.3		10		89				<0.2		2.5	
					Bottom	6.6	0.5	105	27.5	27.5	7.8	7.8	19.5	19.5	59.1	59.1	4.2	4.2	14.5		16		94				<0.2		2.6	
						6.6	0.5	108	27.5		7.8		19.5		59.1		4.2		14.5		14		95				<0.2		2.3	
IM11	Sunny	Moderate	14:49	8.0	Surface	1.0	0.5	123	30.1	30.1	8.1	8.1	11.1	11.1	98.4	98.4	7.0	6.0	6.7	8.4	11	11	84	89	821482	810545	<0.2	<0.2	2.4	2.5
						1.0	0.5	129	30.1		8.1		11.1		98.4		7.0		6.7		10		83				<0.2		2.2	
					Middle	4.0	0.7	112	28.4	28.4	7.9	7.9	14.7	14.7	69.2	69.2	5.0		8.3		9		89				<0.2		2.3	
						4.0	0.7	115	28.4		7.9		14.7		69.2		5.0		8.3		9		89				<0.2		2.4	
					Bottom	7.0	0.5	94	27.6	27.6	7.8	7.8	18.8	18.8	55.9	55.9	4.0	4.0	10.2		14		93				<0.2		2.8	
						7.0	0.5	98	27.6		7.8		18.8		55.9		4.0		10.2		15		93				<0.2		2.7	
IM12	Sunny	Moderate	14:58	7.9	Surface	1.0	0.6	108	29.3	29.3	8.0	8.0	13.6	13.6	91.2	91.2	6.5	5.7	6.8	9.5	10	12	85	91	821172	811525	<0.2	<0.2	2.3	2.3
						1.0	0.7	111	29.3		8.0		13.6		91.2		6.5		6.8		10		86				<0.2		2.2	
					Middle	4.0	0.6	97	28.3	28.3	7.9	7.9	17.4	17.4	69.7	69.7	4.9		8.8		13		92				<0.2		2.1	
						4.0	0.6	105	28.3		7.9		17.4		69.7		4.9		8.8		13		94				<0.2		2.0	
					Bottom	6.9	0.3	83	27.8	27.8	7.9	7.9	18.2	18.2	63.9	63.9	4.5	4.5	12.9		14		95				<0.2		2.4	
						6.9	0.3	84	27.8		7.9		18.2		63.9		4.5		12.9		13		96				<0.2		2.6	
SR2	Sunny	Moderate	15:23	5.1	Surface	1.0	0.7	83	28.5	28.5	8.1	8.1	14.6	14.6	83.0	83.0	5.9	5.9	7.2	9.0	9	14	88	92	821481	814152	<0.2	<0.2	2.4	2.3
						1.0	0.7	88	28.5		8.1		14.6		83.0		5.9		7.2		10		89				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.2	67	27.2	27.2	7.9	7.9	19.7	19.7	64.1	64.1	4.6	4.6	10.7		20		94				<0.2		2.1	
						4.1	0.3	69	27.2		7.9		19.7		64.1		4.6		10.7		18		95				<0.2		2.1	
SR3	Sunny	Moderate	14:13	9.4	Surface	1.0	0.6	171	28.3	28.3	7.9	7.9	11.6	11.6	75.9	75.9	5.5	4.8	7.8	11.1	11	11	-	-	822132	807560	-	-	-	-
						1.0	0.6	171	28.3		7.9		11.6		75.9		5.5		7.8		10		-				-		-	
					Middle	4.7	0.2	172	27.0	27.0	7.8	7.8	19.5	19.5	57.0	57.0	4.1		10.2		11		-				-		-	
						4.7	0.2	173	27.0		7.8		19.5		57.0		4.1		10.2		11		-				-		-	
					Bottom	8.4	0.2	36	26.8	26.8	7.8	7.8	20.5	20.5	60.8	60.8	4.3	4.3	15.3		11		-				-		-	
						8.4	0.2	37	26.8		7.8		20.5		60.8		4.3		15.3		12		-				-		-	
SR4A	Sunny	Moderate	15:18	8.7	Surface	1.0	0.1	39	28.0	28.0	8.1	8.1	17.4	17.4	90.8	90.1	6.5	5.0	6.4	13.5	19	18	-	-	817175	807816	-	-	-	-
						1.0	0.1	41	28.0		8.1		17.4		89.3		6.4		6.4		17		-				-		-	
					Middle	4.4	0.2	89	25.6	25.6	7.8	7.8	26.5	26.5	50.2	50.3	3.5		16.3		18		-				-		-	
						4.4	0.2	94	25.6		7.8		26.5		50.3		3.5		16.4		17		-				-		-	
					Bottom	7.7	0.2	89	25.5	25.5	7.8	7.8	27.1	27.1	58.7	58.9	4.1	4.2	17.8		17		-				-		-	
						7.7	0.2	90	25.5		7.8		27.1		59.1		4.2		17.8		18		-				-		-	
SR5A	Sunny	Moderate	15:35	5.0	Surface	1.0	0.0	344	28.9	28.9	8.6	8.6	17.1	17.1	168.2	167.8	11.8	11.8	7.5	8.5	13	13	-	-	816596	810711	-	-	-	-
						1.0	0.0	351	28.9		8.6		17.1		167.4		11.7		7.5		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	160	28.4	28.4	8.2	8.2	17.8	17.8	134.6	133.8	9.5	9.5	9.8		13		-				-		-	
						4.0	0.1	166	28.4		8.2		17.8		133.0		9.4		9.2		15		-				-		-	
SR6	Sunny	Moderate	15:59	4.4	Surface	1.0	0.1	152	28.7	28.7	8.6	8.6	16.5	16.5	156.5	154.1	11.1	10.9	6.0	8.2	24	25	-	-	817902	814661	-	-	-	-
						1.0	0.1	165	28.6		8.6		16.5		151.6		10.7		6.3		25		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.2	119	27.8	27.8	8.3	8.3	17.6	17.6	120.1	120.4	8.6	8.6	10.2		26		-				-		-	
						3.4	0.2	122	27.7		8.3		17.6		120.7		8.6		10.4		24		-				-		-	
SR7	Sunny	Moderate	16:12	17.8	Surface	1.0	0.7	73	28.7	28.7	8.3	8.3	16.6	16.6	124.2	124.2	8.8	8.0	4.9	5.2	14	19	-	-	823621	823740	-	-	-	-
						1.0	0.7	80	28.7		8.3		16.6		124.2		8.8		4.9		16		-				-		-	
					Middle	8.9	0.3	80	28.2	28.2	8.2	8.2	17.8	17.8	102.2	102.2	7.2		5.2		21		-				-		-	
						8.9	0.4	87	28.2		8.2		17.8		102.2		7.2		5.2		20		-				-		-	
					Bottom	16.8	2.2	80	27.7	27.7	8.1	8.1	19.5	19.5	94.7	94.7	6.7	6.7	5.6		20		-				-		-	
						16.8	2.2	87	27.7		8.1		19.5		94.7		6.7		5.6		21		-				-		-	
SR8	Sunny	Moderate	15:10	5.2	Surface	1.0	0.1	67	29.3	29.3	8.2	8.2	14.4	14.4	108.1	108.1	7.6	7.6	6.4	7.7	18	18	-	-	820246	811418	-	-	-	-
						1.0	0.1	73	29.3		8.2		14.4		108.1		7.6		6.4		17		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	33	28.9	28.9	8.1	8.1	15.4	15.4	98.1	98.1	7.0	7.0	8.9		17		-				-		-	
						4.2	0.1	35	28.9		8.1		15.4		98.1		7.0		8.9		19		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 July 17 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	08:18	8.6	Surface	1.0	0.6	20	27.3	27.3	7.8	7.8	14.5	14.6	67.2	67.1	4.9	4.3	4.8	8.9	16	16	86	92	815610	804236	<0.2	<0.2	2.2	2.2
						1.0	0.6	20	27.2		7.8		14.7		66.9		4.9		4.8		16		86				<0.2		2.0	
					Middle	4.3	0.6	30	25.9	25.9	7.8	7.8	24.1	24.1	52.8	52.9	3.7		10.3		16		93				<0.2		2.6	
						4.3	0.6	32	25.9		7.8		24.1		52.9		3.8		10.3		16		94				<0.2		2.4	
					Bottom	7.6	0.5	26	25.3	25.3	7.8	7.8	27.8	27.8	54.0	54.2	3.8	3.8	11.7		17		96				<0.2		1.8	
						7.6	0.5	28	25.3		7.8		27.8		54.4		3.8		11.7		16		97				<0.2		1.9	
C2	Sunny	Moderate	09:42	12.2	Surface	1.0	0.5	356	29.2	29.2	7.7	7.7	8.9	8.9	67.2	67.2	4.9	4.6	8.8	10.4	15	14	82	89	825676	806938	<0.2	<0.2	2.5	2.4
						1.0	0.5	328	29.2		7.7		8.9		67.2		4.9		8.8		14		81				<0.2		2.4	
					Middle	6.1	2.6	9	27.9	27.9	7.8	7.8	16.8	16.8	60.2	60.2	4.3		9.2		15		89				<0.2		2.6	
						6.1	2.7	9	27.9		7.8		16.8		60.2		4.3		9.2		15		88				<0.2		2.6	
					Bottom	11.2	2.5	21	27.2	27.2	7.8	7.8	20.0	20.0	56.2	56.2	4.0	4.0	13.2		14		95				<0.2		2.4	
						11.2	2.7	21	27.2		7.8		20.0		56.2		4.0		13.2		13		96				<0.2		2.1	
C3	Sunny	Moderate	07:50	13.2	Surface	1.0	0.5	268	27.9	27.9	7.9	7.9	14.5	14.5	73.8	73.8	5.3	4.9	5.9	7.5	10	12	85	92	822109	817788	<0.2	<0.2	2.3	2.2
						1.0	0.6	284	27.9		7.9		14.5		73.8		5.3		5.9		8		86				<0.2		2.2	
					Middle	6.6	2.4	294	26.5	26.5	8.0	8.0	22.8	22.8	63.0	63.0	4.5		6.2		9		94				<0.2		2.2	
						6.6	2.6	304	26.5		8.0		22.8		63.0		4.5		6.2		9		94				<0.2		2.2	
					Bottom	12.2	2.5	300	25.2	25.2	7.9	7.9	29.1	29.1	56.8	56.8	4.0	4.0	10.5		18		97				<0.2		2.0	
						12.2	2.7	323	25.2		7.9		29.1		56.8		4.0		10.5		18		96				<0.2		2.1	
IM1	Sunny	Moderate	08:34	8.7	Surface	1.0	0.5	10	27.9	27.9	7.9	7.9	12.9	12.9	77.7	77.6	5.7	5.3	4.0	5.7	8	13	82	87	818339	806472	<0.2	<0.2	2.2	1.9
						1.0	0.5	10	27.9		7.9		12.9		77.4		5.7		4.0		7		83				<0.2		2.0	
					Middle	4.4	0.5	359	27.3	27.3	7.8	7.8	15.9	15.9	67.4	67.5	4.9		5.7		16		88				<0.2		1.9	
						4.4	0.6	330	27.3		7.8		15.9		67.6		4.9		5.9		14		87				<0.2		1.9	
					Bottom	7.7	0.4	337	27.2	27.2	7.8	7.8	17.0	17.0	70.7	71.0	5.1	5.1	7.0		17		92				<0.2		1.8	
						7.7	0.4	337	27.2		7.8		17.0		71.2		5.1		7.3		16		91				<0.2		1.8	
IM2	Sunny	Moderate	08:39	10.2	Surface	1.0	0.4	3	27.9	27.9	7.9	7.9	12.9	12.9	75.0	74.8	5.5	5.1	4.3	6.1	10	10	82	88	818845	806212	<0.2	<0.2	1.9	2.0
						1.0	0.4	3	27.9		7.9		12.9		74.5		5.4		4.4		9		83				<0.2		1.9	
					Middle	5.1	0.6	357	27.3	27.3	7.8	7.8	16.0	16.0	65.3	65.3	4.7		6.0		9		88				<0.2		1.9	
						5.1	0.6	328	27.3		7.8		16.0		65.3		4.7		6.2		9		89				<0.2		2.2	
					Bottom	9.2	0.4	346	27.1	27.1	7.8	7.8	17.1	17.1	68.8	68.9	5.0	5.0	7.9		13		92				<0.2		2.1	
						9.2	0.5	355	27.1		7.8		17.1		69.0		5.0		7.9		12		92				<0.2		2.0	
IM3	Sunny	Moderate	08:47	8.4	Surface	1.0	0.5	17	27.7	27.7	7.9	7.9	12.7	12.7	76.3	76.3	5.6	5.2	4.1	5.3	8	9	83	89	819406	806020	<0.2	<0.2	2.1	2.3
						1.0	0.5	18	27.7		7.9		12.6		76.3		5.6		4.1		8		83				<0.2		2.2	
					Middle	4.2	0.6	27	27.2	27.2	7.8	7.8	16.3	16.3	66.4	66.4	4.8		4.4		10		90				<0.2		2.6	
						4.2	0.6	27	27.2		7.8		16.3		66.3		4.8		4.5		10		91				<0.2		2.3	
					Bottom	7.4	0.5	30	27.0	27.0	7.9	7.9	17.2	17.3	64.1	64.1	4.6	4.6	7.3		8		94				<0.2		2.3	
						7.4	0.5	32	26.9		7.9		17.4		64.1		4.6		7.2		9		94				<0.2		2.2	
IM4	Sunny	Moderate	08:55	8.9	Surface	1.0	0.6	8	27.6	27.6	7.9	7.9	12.7	12.7	77.0	76.9	5.7	5.1	3.9	8.3	10	10	83	88	819563	805046	<0.2	<0.2	2.3	2.1
						1.0	0.6	8	27.6		7.9		12.7		76.8		5.6		3.9		10		84				<0.2		2.2	
					Middle	4.5	0.6	13	27.2	27.2	7.8	7.8	15.5	15.5	61.8	61.7	4.5		6.8		9		86				<0.2		2.0	
						4.5	0.6	13	27.2		7.8		15.5		61.6		4.5		6.9		9		86				<0.2		2.1	
					Bottom	7.9	0.3	17	26.1	26.1	7.8	7.8	23.8	23.8	62.0	62.2	4.4	4.4	14.0		9		94				<0.2		1.8	
						7.9	0.3	18	26.1		7.8		23.8		62.3		4.4		14.1		11		94				<0.2		2.2	
IM5	Sunny	Moderate	09:01	8.1	Surface	1.0	0.8	13	27.7	27.7	7.8	7.8	12.8	12.8	72.2	72.1	5.3	4.7	4.0	9.3	10	10	83	90	820549	804904	<0.2	<0.2	2.4	2.0
						1.0	0.8	13	27.7		7.8		12.8		71.9		5.3		4.1		9		84				<0.2		2.2	
					Middle	4.1	0.6	17	26.4	26.4	7.9	7.9	21.4	21.4	55.9	55.8	4.0		10.6		9		92				<0.2		2.0	
						4.1	0.7	17	26.4		7.9		21.4		55.7		4.0		10.9		10		93				<0.2		2.1	
					Bottom	7.1	0.4	22	26.2	26.2	7.9	7.9	23.1	23.1	59.0	59.8	4.2	4.3	13.0		12		94				<0.2		1.7	
						7.1	0.4	23	26.2		7.9		23.1		60.6		4.3		13.0		12		95				<0.2		1.8	
IM6	Sunny	Moderate	09:09	8.0	Surface	1.0	0.2	26	28.1	28.1	7.9	7.9	12.8	12.8	73.7	73.6	5.4	5.0	4.8	7.1	9	11	83	89	821062	805823	<0.2	<0.2	1.8	1.9
						1.0	0.2	27	28.1		7.9		12.8		73.4		5.4		4.8		10		84				<0.2		2.1	
					Middle	4.0	0.3	36	27.3	27.4	7.8	7.8	16.2	16.2	63.8	63.8	4.6		6.3		11		88				<0.2		2.1	
						4.0	0.3	37	27.4		7.8		16.2		63.7		4.6		6.1		11		87				<0.2		1.8	
					Bottom	7.0	0.2	68	26.1	26.1	7.9	7.9	23.4	23.5	55.2	55.9	3.9	4.0	10.4		11		94				<0.2		1.8	
						7.0	0.2	70	26.1		7.9		23.5		56.5		4.0		10.1		13		95				<0.2		1.9	
IM7	Sunny	Moderate	09:17	9.1	Surface	1.0	0.6	51	28.1	28.1	7.9	7.9	12.7	12.7	75.9	75.9	5.5	5.2	4.7	5.8	11	13	83	87	821342	806838	<0.2	<0.2	2.0	1.8
						1.0	0.6	53	28.1		7.9		12.7		75.9		5.5		4.8		10		84				<0.2		1.8	
					Middle	4.6	0.7	36	27.6	27.6	7.8	7.8	14.2	14.3	67.6	67.6	4.9		4.7		14		86				<0.2		1.8	
						4.6	0.7	37	27.6		7.8		14.3		67.5		4.9		4.7		14		87				<0.2		1.8	
					Bottom	8.1	0.4	49	26.7	26.7	7.9	7.9	20.1	20.1	61.0	61.1	4.4	4.4	7.9		14		92				<0.2		1.8	
						8.1	0.4	52	26.7		7.9		20.1		61.2		4.4		7.9		14		92				<0.2		1.7	
IM8	Sunny	Moderate	09:17	8.8	Surface	1.0	0.3	13	28.5	28.5	7.7	7.7	10.8	10.8	64.7	64.7	4.7	4.6	8.6	11.8	8	9	83	88	821678	807830	<0.2	<0.2	2.2	2.1
						1.0	0.3	14	28.5		7.7		10.8		64.7		4.7		8.6		9		84				<0.2		2.2	
					Middle	4.4	0.8	31	27.9	27.9	7.8	7.8	14.8	14.8	62.5	62.5	4.5		11.2		8		87				<0.2		2.2	
						4.4	0.9	32	27.9		7.8		14.8		62.5		4.5		11.2		8		86				<0.2		2.1	
					Bottom	7.8	1.3	31	27.2	27.2	7.8	7.8	19.5	19.5	51.5	51.5	3.7	3.7	15.5		11		93				<0.2		2.0	
						7.8	1.4	32	27.2		7.8		19.5		51.5		3.7		15.5		12		92				<0.2		1.9	

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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 13 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	09:08	8.0	Surface	1.0	0.3	358	28.8	28.8	7.8	7.8	11.5	11.5	68.2	68.2	4.9	4.8	10.0	12.8	13	13	83	87	822094	808813	<0.2	<0.2	1.6	1.9
						1.0	0.4	329	28.8		7.8		11.5		68.2		4.9		10.0		12		83				<0.2		2.1	
					Middle	4.0	1.0	350	28.3	28.3	7.8	7.8	13.2	13.2	64.0	64.0	4.6		13.2		12		85				<0.2		1.8	
						4.0	1.1	350	28.3		7.8		13.2		64.0		4.6		13.2		13		86				<0.2		1.8	
					Bottom	7.0	0.8	357	27.5	27.5	7.9	7.9	18.8	18.8	63.0	63.0	4.5	4.5	15.2		13		94				<0.2		2.2	
						7.0	0.8	359	27.5		7.9		18.8		63.0		4.5		15.2		13		93				<0.2		1.8	
IM10	Sunny	Moderate	09:01	7.8	Surface	1.0	0.6	312	28.3	28.3	7.9	7.9	12.7	12.7	72.6	72.6	5.3	5.1	8.6	11.8	12	14	84	89	822226	809836	<0.2	<0.2	2.0	1.9
						1.0	0.7	334	28.3		7.9		12.7		72.6		5.3		8.6		12		85				<0.2		2.1	
					Middle	3.9	1.3	327	28.0	28.0	8.0	8.0	15.5	15.5	68.6	68.6	4.9		11.0		14		88				<0.2		2.0	
						3.9	1.4	351	28.0		8.0		15.5		68.6		4.9		11.0		13		89				<0.2		1.8	
					Bottom	6.8	1.3	323	27.2	27.2	7.9	7.9	19.9	19.9	61.0	61.0	4.3	4.3	15.8		15		93				<0.2		1.6	
						6.8	1.4	330	27.2		7.9		19.9		61.0		4.3		15.8		15		93				<0.2		1.6	
IM11	Sunny	Moderate	08:50	8.0	Surface	1.0	0.6	283	28.2	28.2	8.0	8.0	13.0	13.0	75.8	75.8	5.5	5.2	8.5	12.2	12	12	84	90	821499	810548	<0.2	<0.2	2.1	2.0
						1.0	0.7	300	28.2		8.0		13.0		75.8		5.5		8.5		12		85				<0.2		2.0	
					Middle	4.0	0.7	350	27.5	27.5	8.0	8.0	16.9	17.0	67.8	67.7	4.9		12.2		13		92				<0.2		2.0	
						4.0	0.7	322	27.5		8.0		17.0		67.5		4.9		12.4		12		92				<0.2		2.0	
					Bottom	7.0	1.1	354	26.9	26.9	7.9	7.9	20.9	20.9	68.0	68.0	4.8	4.8	15.7		12		93				<0.2		2.2	
						7.0	1.1	359	26.9		7.9		20.9		68.0		4.8		15.7		12		94				<0.2		1.9	
IM12	Sunny	Moderate	08:40	9.4	Surface	1.0	0.9	283	27.8	27.8	8.0	8.0	15.6	15.6	77.3	77.3	5.6	5.2	7.2	10.6	14	15	88	91	821167	811502	<0.2	<0.2	1.8	1.8
						1.0	0.9	301	27.8		8.0		15.6		77.3		5.6		7.2		12		87				<0.2		1.7	
					Middle	4.7	0.6	303	27.4	27.4	8.0	8.0	17.5	17.5	66.0	66.0	4.7		9.6		17		91				<0.2		1.7	
						4.7	0.6	324	27.4		8.0		17.5		66.0		4.7		9.6		17		91				<0.2		1.7	
					Bottom	8.4	0.6	48	26.5	26.5	7.9	7.9	22.2	22.2	57.7	57.7	4.1	4.1	14.9		15		95				<0.2		1.8	
						8.4	0.6	51	26.5		7.9		22.2		57.7		4.1		14.9		16		94				<0.2		1.9	
SR2	Sunny	Moderate	08:14	5.2	Surface	1.0	0.2	119	27.7	27.7	7.9	7.9	13.7	13.7	67.0	67.0	4.9	4.9	8.1	8.4	4	6	84	88	821479	814179	<0.2	<0.2	2.2	2.1
						1.0	0.2	125	27.7		7.9		13.7		67.0		4.9		8.1		3		85				<0.2		2.1	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	168	27.4	27.4	7.9	7.9	17.2	17.2	67.2	67.2	4.8	4.8	8.6		8		91				<0.2		2.0	
						4.2	0.1	182	27.4		7.9		17.2		67.2		4.8		8.6		9		92				<0.2		1.9	
SR3	Sunny	Moderate	09:22	9.1	Surface	1.0	0.3	345	28.6	28.6	7.7	7.7	10.5	10.5	64.1	64.1	4.7	4.6	7.9	9.8	6	8	-	-	822127	807578	-	-	-	-
						1.0	0.3	317	28.6		7.7		10.5		64.0		4.7		8.0		5		-				-		-	
					Middle	4.6	0.5	338	28.1	28.1	7.8	7.8	13.9	13.9	62.5	62.5	4.5		11.2		6		-				-		-	
						4.6	0.5	357	28.1		7.8		13.9		62.5		4.5		11.2		6		-				-		-	
					Bottom	8.1	0.7	10	27.8	27.8	7.8	7.8	16.4	16.4	58.4	58.4	4.2	4.2	10.1		11		-				-		-	
						8.1	0.8	10	27.8		7.8		16.4		58.4		4.2		10.1		11		-				-		-	
SR4A	Sunny	Moderate	07:56	9.9	Surface	1.0	0.2	211	27.7	27.7	8.2	8.2	17.7	17.7	103.5	103.5	7.4	7.0	6.9	9.2	17	18	-	-	817184	807794	-	-	-	-
						1.0	0.2	225	27.7		8.2		17.7		103.5		7.4		6.9		16		-				-		-	
					Middle	5.0	0.1	239	27.5	27.5	8.1	8.1	18.0	18.0	92.8	92.7	6.6		7.9		18		-				-		-	
						5.0	0.1	245	27.5		8.1		18.0		92.6		6.6		8.1		17		-				-		-	
					Bottom	8.9	0.2	232	26.5	26.5	7.8	7.8	21.4	21.4	67.9	68.1	4.8	4.9	12.5		20		-				-		-	
						8.9	0.2	249	26.5		7.8		21.4		68.2		4.9		12.6		20		-				-		-	
SR5A	Sunny	Moderate	07:39	5.6	Surface	1.0	0.2	314	27.6	27.6	8.1	8.1	18.0	18.0	103.2	103.2	7.4	7.4	7.6	9.6	19	19	-	-	816591	810700	-	-	-	-
						1.0	0.2	337	27.6		8.1		18.0		103.1		7.4		7.6		19		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.2	338	27.0	27.0	7.9	7.9	19.7	19.7	77.4	77.5	5.5	5.5	11.5		18		-				-		-	
						4.6	0.2	342	27.0		7.9		19.7		77.5		5.5		11.6		18		-				-		-	
SR6	Sunny	Moderate	07:17	4.7	Surface	1.0	0.2	232	27.7	27.7	7.9	7.9	14.7	14.7	83.5	83.3	6.1	6.1	5.6	7.4	13	12	-	-	817900	814657	-	-	-	-
						1.0	0.2	249	27.7		7.9		14.6		83.1		6.0		5.7		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.1	244	27.3	27.3	7.8	7.8	16.3	16.3	75.1	75.3	5.4	5.5	9.0		11		-				-		-	
						3.7	0.1	247	27.3		7.8		16.2		75.4		5.5		9.2		12		-				-		-	
SR7	Sunny	Moderate	07:22	16.4	Surface	1.0	0.4	198	27.9	27.9	8.0	8.0	14.9	14.9	82.3	82.3	6.0	5.3	5.5	5.2	11	11	-	-	823621	823730	-	-	-	-
						1.0	0.4	204	27.9		8.0		14.9		82.3		6.0		5.5		10		-				-		-	
					Middle	8.2	0.6	203	26.6	26.6	7.9	7.9	22.2	22.2	63.6	63.6	4.5		5.1		12		-				-		-	
						8.2	0.6	217	26.6		7.9		22.2		63.6		4.5		5.1		11		-				-		-	
					Bottom	15.4	0.9	200	25.6	25.6	7.9	7.9	27.9	27.9	52.4	52.4	3.7	3.7	5.1		12		-				-		-	
						15.4	1.0	208	25.6		7.9		27.9		52.4		3.7		5.1		12		-				-		-	
SR8	Sunny	Moderate	08:32	5.8	Surface	1.0	0.3	60	28.3	28.3	7.9	7.9	12.4	12.4	75.5	75.5	5.5	5.5	8.7	9.8	11	11	-	-	820246	811418	-	-	-	-
						1.0	0.3	65	28.3		7.9		12.4		75.5		5.5		8.7		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.9	29	27.5	27.5	7.9	7.9	17.5	17.5	74.2	74.2	5.3	5.3	10.8		11		-				-		-	
						4.8	0.9	29	27.5		7.9		17.5		74.2		5.3		10.8		10		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 15 July 17 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	16:26	8.5	Surface	1.0	0.4	243	27.7	27.7	8.3	8.3	16.6	16.6	108.5	108.3	7.8	6.7	3.5	4.4	5	5	91	94	815610	804264	<0.2	<0.2	1.5	1.6
						1.0	0.5	246	27.7		8.3		16.6		108.1		7.8		3.6		5		91				<0.2		1.6	
					Middle	4.3	0.5	214	27.5	27.5	8.1	8.1	16.9	16.9	79.5	78.2	5.7		4.5		6		93				<0.2		1.8	
						4.3	0.5	216	27.5		8.1		16.9		76.8		5.5		4.5		5		93				<0.2		1.7	
					Bottom	7.5	0.4	240	26.3	26.4	8.0	8.0	24.4	24.3	80.6	82.3	5.7	5.8	5.0		6		96				<0.2		1.6	
						7.5	0.5	263	26.5		8.0		24.1		84.0		5.9		5.0		5		97				<0.2		1.6	
C2	Sunny	Moderate	15:15	11.8	Surface	1.0	0.1	162	28.8	28.8	8.1	8.1	12.3	12.3	89.3	89.3	6.4	6.0	6.3	11.2	4	5	87	90	825665	806927	<0.2	<0.2	2.6	2.4
						1.0	0.1	162	28.8		8.1		12.3		89.3		6.4		6.3		5		86				<0.2		2.6	
					Middle	5.9	0.4	152	28.4	28.4	8.0	8.0	13.2	13.2	75.4	75.4	5.5		8.2		5		87				<0.2		2.4	
						5.9	0.4	163	28.4		8.0		13.2		75.4		5.5		8.2		4		88				<0.2		2.4	
					Bottom	10.8	0.4	169	27.4	27.4	8.0	8.0	18.1	18.1	67.1	67.1	4.8	4.8	19.0		5		94				<0.2		2.2	
						10.8	0.4	180	27.4		8.0		18.1		67.1		4.8		19.0		6		95				<0.2		2.3	
C3	Sunny	Moderate	17:32	13.2	Surface	1.0	0.3	54	28.4	28.4	8.3	8.3	17.9	17.9	98.7	98.7	6.9	6.1	5.3	6.4	6	6	93	96	822099	817816	<0.2	<0.2	1.7	1.6
						1.0	0.3	57	28.4		8.3		17.9		98.7		6.9		5.3		6		94				<0.2		1.6	
					Middle	6.6	0.1	334	27.3	27.3	8.2	8.2	21.9	21.9	74.8	74.8	5.2		6.3		6		96				<0.2		1.4	
						6.6	0.1	307	27.3		8.2		21.9		74.8		5.2		6.3		6		95				<0.2		1.6	
					Bottom	12.2	0.3	136	26.8	26.8	8.1	8.1	25.3	25.3	83.8	83.8	5.8	5.8	7.5		6		98				<0.2		1.6	
						12.2	0.3	141	26.8		8.1		25.3		83.8		5.8		7.5		6		99				<0.2		1.7	
IM1	Sunny	Moderate	16:11	7.7	Surface	1.0	0.7	226	27.9	27.9	8.2	8.2	15.6	15.6	96.2	96.0	6.9	5.8	4.8	9.3	6	6	90	93	818351	806448	<0.2	<0.2	1.6	1.8
						1.0	0.7	229	27.9		8.2		15.6		95.8		6.9		4.9		7		89				<0.2		1.7	
					Middle	3.9	0.5	211	26.7	26.7	8.0	8.0	21.1	21.1	64.2	64.1	4.6		7.9		6		93				<0.2		1.8	
						3.9	0.5	231	26.7		8.0		21.1		64.0		4.6		8.1		7		93				<0.2		1.9	
					Bottom	6.7	0.1	202	25.9	25.9	7.9	7.9	25.3	25.3	59.6	59.8	4.2	4.2	15.1		6		96				<0.2		2.0	
						6.7	0.1	214	25.9		7.9		25.3		59.9		4.2		15.1		6		97				<0.2		1.8	
IM2	Sunny	Moderate	16:05	8.8	Surface	1.0	0.7	244	28.0	28.0	8.2	8.2	15.2	15.2	98.0	97.6	7.1	5.9	4.4	8.2	6	6	92	94	818841	806175	<0.2	<0.2	1.8	1.8
						1.0	0.7	260	28.0		8.2		15.2		97.2		7.0		4.5		4		91				<0.2		2.0	
					Middle	4.4	0.4	238	26.6	26.6	8.0	8.0	21.9	22.0	65.9	65.7	4.7		7.3		6		95				<0.2		2.2	
						4.4	0.4	250	26.6		8.0		22.0		65.5		4.7		7.5		5		94				<0.2		1.9	
					Bottom	7.8	0.1	189	26.0	26.0	7.9	7.9	24.0	24.2	63.0	64.2	4.5	4.6	12.8		6		97				<0.2		1.3	
						7.8	0.1	195	26.0		7.9		24.3		65.4		4.6		12.8		6		96				<0.2		1.3	
IM3	Sunny	Moderate	15:57	8.9	Surface	1.0	0.6	239	28.0	28.0	8.2	8.2	15.2	15.2	99.4	99.1	7.2	5.8	4.3	9.2	5	7	91	94	819400	806017	<0.2	<0.2	1.8	1.7
						1.0	0.7	258	28.0		8.2		15.2		98.7		7.1		4.5		5		92				<0.2		1.8	
					Middle	4.5	0.5	246	26.6	26.6	8.0	8.0	21.8	21.8	62.8	62.9	4.5		9.9		5		94				<0.2		1.7	
						4.5	0.5	253	26.6		8.0		21.8		63.0		4.5		10.0		5		95				<0.2		1.7	
					Bottom	7.9	0.3	244	26.2	26.2	7.9	7.9	23.4	23.6	65.8	66.9	4.7	4.8	12.9		11		96				<0.2		1.5	
						7.9	0.3	254	26.2		7.9		23.7		67.9		4.8		13.3		10		95				<0.2		1.4	
IM4	Sunny	Moderate	15:47	8.4	Surface	1.0	0.3	237	28.0	28.0	8.2	8.2	15.3	15.3	102.2	102.1	7.4	6.7	4.6	6.5	5	5	91	93	819568	805022	<0.2	<0.2	1.6	1.8
						1.0	0.3	248	28.0		8.2		15.3		102.0		7.3		4.6		5		91				<0.2		2.0	
					Middle	4.2	0.5	215	27.5	27.5	8.1	8.1	17.6	17.6	84.6	84.5	6.1		6.0		4		94				<0.2		2.0	
						4.2	0.5	226	27.4		8.1		17.6		84.4		6.1		6.0		6		93				<0.2		2.0	
					Bottom	7.4	0.3	221	27.0	27.0	8.0	8.0	19.6	19.6	74.7	74.5	5.3	5.3	8.8		6		94				<0.2		1.6	
						7.4	0.3	227	26.9		8.0		19.6		74.2		5.3		8.9		6		95				<0.2		1.8	
IM5	Sunny	Moderate	15:35	7.1	Surface	1.0	0.4	232	28.2	28.2	8.1	8.1	14.3	14.4	100.2	99.9	7.2	6.6	3.8	7.8	5	5	88	93	820571	804915	<0.2	<0.2	1.8	2.0
						1.0	0.5	241	28.1		8.1		14.4		99.5		7.2		3.7		4		89				<0.2		2.0	
					Middle	3.6	0.4	208	27.4	27.4	8.0	8.0	17.9	18.0	84.4	84.5	6.0		6.2		5		95				<0.2		1.9	
						3.6	0.4	213	27.4		8.0		18.0		84.5		6.1		6.2		4		94				<0.2		1.9	
					Bottom	6.1	0.2	213	26.6	26.6	8.0	8.0	21.8	21.9	72.2	72.9	5.1	5.2	13.3		5		96				<0.2		2.0	
						6.1	0.2	225	26.5		8.0		22.0		73.6		5.2		13.6		5		96				<0.2		2.2	
IM6	Sunny	Moderate	15:28	7.4	Surface	1.0	0.2	235	28.1	28.1	8.1	8.1	14.4	14.4	96.5	96.2	7.0	6.5	4.1	6.8	4	5	89	93	821069	805825	<0.2	<0.2	2.1	2.0
						1.0	0.3	254	28.1		8.1		14.4		95.9		6.9		4.1		4		89				<0.2		2.1	
					Middle	3.7	0.3	202	27.4	27.4	8.1	8.1	17.6	17.6	83.3	83.2	6.0		5.4		6		93				<0.2		2.0	
						3.7	0.3	212	27.4		8.1		17.5		83.1		6.0		5.7		5		93				<0.2		1.9	
					Bottom	6.4	0.2	179	26.7	26.7	7.9	7.9	21.1	21.1	70.7	71.3	5.0	5.1	10.7		5		96				<0.2		1.8	
						6.4	0.2	190	26.7		7.9		21.1		71.8		5.1		10.6		4		96				<0.2		1.8	
IM7	Sunny	Moderate	15:18	8.5	Surface	1.0	0.3	255	28.1	28.1	8.1	8.1	14.6	14.6	93.1	92.8	6.7	5.9	4.2	9.5	4	6	87	92	821357	806844	<0.2	<0.2	2.1	1.9
						1.0	0.3	262	28.1		8.1		14.6		92.4		6.7		4.3		5		86				<0.2		1.9	
					Middle	4.3	0.1	188	27.0	27.0	7.9	7.9	19.5	19.5	71.8	71.9	5.1		11.7		5		95				<0.2		1.9	
						4.3	0.1	199	27.0		7.9		19.4		72.0		5.1		11.3		6		94				<0.2		1.8	
					Bottom	7.5	0.2	168	26.9	26.9	7.9	7.9	19.5	19.5	72.2	72.3	5.2	5.2	12.8		7		96				<0.2		1.8	
						7.5	0.2	178	26.9		7.9		19.5		72.3		5.2		12.7		7		96				<0.2		1.9	
IM8	Sunny	Moderate	15:58	8.9	Surface	1.0	0.3	188	28.2	28.2	8.1	8.1	14.7	14.7	76.6	76.6	5.5	5.0	7.7	13.1	4	5	88	93	821696	807856	<0.2	<0.2	2.1	2.1
						1.0	0.3	198	28.2		8.1		14.7		76.6		5.5		7.7		4		89				<0.2		2.1	
					Middle	4.5	0.2	199	27.4	27.4	8.0	8.0	18.4	18.4	63.1	63.1	4.5		14.2		6		94				<0.2		1.9	
						4.5	0.2	208	27.4		8.0		18.4		63.1		4.5		14.2		4		93				<0.2		2.0	
					Bottom	7.9	0.0	208	27.4	27.4	8.0	8.0	18.5	18.5	65.4	65.4	4.7	4.7	17.4		5		95				<0.2		2.0	
						7.9	0.0	216	27.4		8.0		18.5		65.4		4.7		17.4		5		96				<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 15 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	16:05	7.8	Surface	1.0	0.4	149	28.2	28.2	8.1	8.1	14.5	14.5	77.9	77.9	5.6	5.3	6.7	12.4	5	5	89	92	822086	808826	<0.2	<0.2	2.1	2.1
						1.0	0.4	162	28.2		8.1		14.5		77.9		5.6		6.7		3		88				<0.2		2.1	
					Middle	3.9	0.5	154	27.6	27.6	8.1	8.1	16.8	16.8	68.6	68.6	4.9		9.7		4		92				<0.2		2.1	
						3.9	0.5	157	27.6		8.1		16.8		68.6		4.9		9.7		5		91				<0.2		2.0	
					Bottom	6.8	0.2	116	27.4	27.4	8.0	8.0	18.4	18.4	65.1	65.1	4.7	4.7	20.8		6		95				<0.2		1.9	
						6.8	0.2	117	27.4		8.0		18.4		65.1		4.7		20.8		5		94				<0.2		2.1	
IM10	Sunny	Moderate	16:18	8.8	Surface	1.0	0.5	123	28.6	28.6	8.1	8.1	13.9	13.9	81.6	81.6	5.9	5.5	5.6	9.5	3	5	86	90	822225	809835	<0.2	<0.2	2.2	2.3
						1.0	0.5	127	28.6		8.1		13.9		81.6		5.9		5.6		4		86				<0.2		2.1	
					Middle	4.4	0.4	120	28.0	28.0	8.0	8.0	16.4	16.4	71.5	71.5	5.1		7.1		5		91				<0.2		2.3	
						4.4	0.4	122	28.0		8.0		16.4		71.5		5.1		7.1		5		91				<0.2		2.1	
					Bottom	7.8	0.3	114	27.7	27.7	8.0	8.0	18.4	18.4	60.7	60.7	4.3	4.3	15.8		5		94				<0.2		2.3	
						7.8	0.3	119	27.7		8.0		18.4		60.7		4.3		15.8		5		94				<0.2		2.5	
IM11	Sunny	Moderate	16:32	8.6	Surface	1.0	0.4	99	28.6	28.6	8.3	8.3	14.2	14.2	93.7	93.7	6.7	6.0	6.5	9.8	4	5	89	91	821506	810551	<0.2	<0.2	2.2	2.3
						1.0	0.4	102	28.6		8.3		14.2		93.7		6.7		6.5		5		88				<0.2		2.4	
					Middle	4.3	0.4	97	27.9	27.9	8.1	8.1	15.8	15.8	73.8	73.8	5.3		9.4		5		91				<0.2		2.2	
						4.3	0.4	103	27.9		8.1		15.8		73.8		5.3		9.4		5		92				<0.2		2.2	
					Bottom	7.6	0.3	98	27.7	27.7	8.1	8.1	17.2	17.2	73.1	73.1	5.2	5.2	13.4		4		94				<0.2		2.3	
						7.6	0.3	104	27.7		8.1		17.2		73.1		5.2		13.4		5		94				<0.2		2.2	
IM12	Sunny	Moderate	16:41	9.4	Surface	1.0	0.4	89	29.1	29.1	8.3	8.3	13.2	13.2	99.5	99.5	7.1	6.3	6.9	12.9	3	4	87	90	821149	811523	<0.2	<0.2	2.3	2.2
						1.0	0.4	91	29.1		8.3		13.2		99.5		7.1		6.9		4		87				<0.2		2.3	
					Middle	4.7	0.5	87	28.2	28.2	8.1	8.1	15.6	15.6	75.1	75.1	5.4		11.3		4		88				<0.2		2.1	
						4.7	0.5	93	28.2		8.1		15.6		75.1		5.4		11.3		4		89				<0.2		2.0	
					Bottom	8.4	0.2	100	27.8	27.8	8.0	8.0	17.8	17.8	62.7	62.7	4.5	4.5	20.6		5		93				<0.2		2.1	
						8.4	0.2	105	27.8		8.0		17.8		62.7		4.5		20.6		4		93				<0.2		2.2	
SR2	Sunny	Moderate	17:07	4.9	Surface	1.0	0.7	68	28.8	28.8	8.2	8.2	13.9	13.9	97.9	97.9	7.0	7.0	6.3	7.5	4	4	86	91	821477	814181	<0.2	<0.2	2.3	2.3
						1.0	0.7	72	28.8		8.2		13.9		97.8		7.0		6.1		4		88				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.4	62	27.9	27.9	8.1	8.1	17.3	17.3	74.6	74.6	5.3	5.3	8.7		4		94				<0.2		2.0	
						3.9	0.4	63	27.9		8.1		17.3		74.6		5.3		8.8		4		94				<0.2		2.3	
SR3	Sunny	Moderate	15:45	9.5	Surface	1.0	0.1	181	28.8	28.8	8.1	8.1	12.3	12.3	89.9	89.9	6.5	5.9	6.7	12.5	4	4	-	-	822161	807567	-	-	-	-
						1.0	0.1	184	28.8		8.1		12.3		89.9		6.5		6.7		4		-				-		-	
					Middle	4.8	0.4	150	28.2	28.2	8.0	8.0	14.5	14.5	72.5	72.5	5.2		9.1		4		-				-		-	
						4.8	0.4	153	28.2		8.0		14.5		72.5		5.2		9.1		4		-				-		-	
					Bottom	8.5	0.3	175	27.6	27.6	8.0	8.0	19.0	19.0	79.2	79.2	5.6	5.6	21.8		3		-				-		-	
						8.5	0.3	178	27.6		8.0		19.0		79.2		5.6		21.8		4		-				-		-	
SR4A	Sunny	Moderate	16:49	7.7	Surface	1.0	0.1	318	27.8	27.8	8.2	8.2	17.4	17.4	98.3	98.3	7.0	5.7	6.7	14.0	5	5	-	-	817188	807798	-	-	-	-
						1.0	0.1	333	27.8		8.2		17.4		98.2		7.0		6.7		6		-				-		-	
					Middle	3.9	0.2	71	26.4	26.4	7.9	7.9	23.3	23.3	62.1	62.2	4.4		14.3		6		-				-		-	
						3.9	0.2	76	26.4		7.9		23.3		62.2		4.4		14.0		5		-				-		-	
					Bottom	6.7	0.1	74	26.0	26.0	7.9	7.9	25.1	25.1	61.8	61.9	4.4	4.4	21.3		6		-				-		-	
						6.7	0.1	77	26.0		7.9		25.1		62.0		4.4		21.2		4		-				-		-	
SR5A	Sunny	Moderate	17:10	5.4	Surface	1.0	0.1	316	28.5	28.5	8.4	8.4	17.1	17.1	126.4	126.3	8.9	8.9	7.8	14.6	7	7	-	-	816603	810706	-	-	-	-
						1.0	0.1	345	28.5		8.4		17.1		126.1		8.9		7.8		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	204	27.3	27.3	8.0	8.0	19.6	19.6	80.7	80.9	5.7	5.8	21.4		6		-				-		-	
						4.4	0.1	219	27.3		8.0		19.6		81.0		5.8		21.3		7		-				-		-	
SR6	Sunny	Moderate	17:33	5.2	Surface	1.0	0.1	23	28.8	28.8	8.5	8.5	16.8	16.8	143.8	143.8	10.1	10.1	5.3	5.6	5	6	-	-	817889	814661	-	-	-	-
						1.0	0.1	23	28.7		8.5		16.8		143.8		10.1		5.4		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.2	61	28.6	28.6	8.4	8.4	17.2	17.2	143.9	144.0	10.1	10.2	5.9		5		-				-		-	
						4.2	0.2	62	28.6		8.4		17.2		144.0		10.2		5.9		6		-				-		-	
SR7	Sunny	Moderate	17:57	16.8	Surface	1.0	0.8	100	28.8	28.8	8.4	8.4	16.5	16.5	124.0	124.0	8.7	8.1	4.6	4.8	4	4	-	-	823647	823749	-	-	-	-
						1.0	0.8	106	28.8		8.4		16.5		124.0		8.7		4.6		4		-				-		-	
					Middle	8.4	0.2	145	28.2	28.2	8.3	8.3	18.5	18.5	106.8	106.8	7.5		4.8		4		-				-		-	
						8.4	0.2	159	28.2		8.3		18.5		106.8		7.5		4.8		4		-				-		-	
					Bottom	15.8	0.4	173	27.8	27.8	8.2	8.2	19.9	19.9	100.0	100.0	7.0	7.0	5.1		4		-				-		-	
						15.8	0.4	179	27.8		8.2		19.9		100.0		7.0		5.1		3		-				-		-	
SR8	Sunny	Moderate	16:52	5.8	Surface	1.0	0.1	285	29.2	29.2	8.2	8.2	14.8	14.8	101.0	101.0	7.1	7.1	6.2	6.9	4	4	-	-	820246	811418	-	-	-	-
						1.0	0.1	305	29.2		8.2		14.8		101.0		7.1		6.2		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.1	276	29.0	29.0	8.2	8.2	15.6	15.6	94.8	94.8	6.7	6.7	7.6		3		-				-		-	
						4.8	0.1	303	29.0		8.2		15.6		94.8		6.7		7.6		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 15 July 17 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	10:03	8.4	Surface	1.0	0.3	80	27.7	27.7	7.8	7.8	13.0	13.0	77.8	77.8	5.7	5.7	4.3	4.1	6	5	89	91	815628	804230	<0.2	<0.2	1.6	1.6
						1.0	0.3	81	27.7		7.8		13.0		77.8		5.7		4.2		5		89				<0.2		1.5	
					Middle	4.2	0.5	65	27.4	27.4	7.9	7.9	14.1	14.1	76.0	76.0	5.6		3.8		5		90				<0.2		1.6	
						4.2	0.5	71	27.4		7.9		14.1		76.0		5.6		3.8		5		92				<0.2		1.7	
					Bottom	7.4	0.3	64	27.2	27.2	7.9	7.9	17.5	17.5	76.5	76.6	5.5	5.5	4.1		5		93				<0.2		1.6	
						7.4	0.4	64	27.2		7.9		17.5		76.6		5.5		4.1		4		94				<0.2		1.5	
C2	Sunny	Moderate	11:22	12.5	Surface	1.0	0.2	353	29.0	29.0	7.8	7.8	8.7	8.7	68.2	68.2	5.0	4.7	8.5	10.6	7	6	80	87	825685	806952	<0.2	<0.2	2.2	2.3
						1.0	0.2	325	29.0		7.8		8.7		68.2		5.0		8.5		5		81				<0.2		2.3	
					Middle	6.3	0.5	345	27.8	27.8	7.9	7.9	16.9	16.9	61.5	61.5	4.4		6.7		6		89				<0.2		2.3	
						6.3	0.5	317	27.8		7.9		16.9		61.5		4.4		6.7		5		90				<0.2		2.3	
					Bottom	11.5	0.5	330	27.5	27.5	8.0	8.0	19.7	19.7	59.6	59.6	4.2	4.2	16.6		6		91				<0.2		2.3	
						11.5	0.5	351	27.5		8.0		19.7		59.6		4.2		16.6		6		92				<0.2		2.5	
C3	Sunny	Moderate	09:25	11.8	Surface	1.0	0.4	253	28.1	28.1	8.1	8.1	15.2	15.2	86.2	86.2	6.2	5.8	4.9	4.9	3	4	92	94	822114	817790	<0.2	<0.2	2.0	2.1
						1.0	0.4	261	28.1		8.1		15.2		86.2		6.2		4.9		4		90				<0.2		2.1	
					Middle	5.9	0.5	251	27.1	27.1	8.1	8.1	21.3	21.3	75.4	75.4	5.3		4.6		3		94				<0.2		2.2	
						5.9	0.5	271	27.1		8.1		21.3		75.4		5.3		4.6		4		94				<0.2		2.0	
					Bottom	10.8	0.5	252	26.7	26.7	8.1	8.1	23.8	23.8	74.2	74.2	5.2	5.2	5.1		4		96				<0.2		2.1	
						10.8	0.5	268	26.7		8.1		23.8		74.2		5.2		5.1		4		96				<0.2		2.1	
IM1	Sunny	Moderate	10:20	8.2	Surface	1.0	0.5	15	27.6	27.6	7.9	7.9	14.9	14.9	76.1	76.0	5.5	5.4	5.0	12.4	3	3	87	92	818345	806464	<0.2	<0.2	1.8	2.0
						1.0	0.5	15	27.6		7.9		14.9		75.9		5.5		5.3		3		88				<0.2		1.9	
					Middle	4.1	0.5	359	27.2	27.2	7.9	7.9	17.0	17.0	71.5	71.5	5.2		13.8		3		92				<0.2		2.0	
						4.1	0.5	330	27.2		7.9		16.9		71.5		5.2		14.1		4		92				<0.2		2.2	
					Bottom	7.2	0.4	324	27.0	27.0	7.9	7.9	19.3	19.3	73.3	73.4	5.3	5.3	18.2		4		95				<0.2		2.0	
						7.2	0.4	334	27.0		7.9		19.3		73.5		5.3		18.1		3		96				<0.2		1.9	
IM2	Sunny	Moderate	10:26	8.7	Surface	1.0	0.5	15	27.6	27.6	7.9	7.9	14.4	14.4	76.0	76.0	5.5	5.3	4.2	9.9	4	4	89	92	818834	806175	<0.2	<0.2	2.1	1.9
						1.0	0.5	15	27.6		7.9		14.4		75.9		5.5		4.3		3		89				<0.2		1.8	
					Middle	4.4	0.4	5	27.3	27.3	7.9	7.9	16.9	16.9	70.5	70.4	5.1		9.0		4		92				<0.2		1.8	
						4.4	0.4	5	27.3		7.9		16.9		70.3		5.1		8.9		4		92				<0.2		1.8	
					Bottom	7.7	0.4	334	26.9	26.9	7.9	7.9	20.2	20.3	69.6	70.3	5.0	5.1	16.6		4		95				<0.2		1.8	
						7.7	0.4	337	26.8		7.9		20.3		70.9		5.1		16.1		5		95				<0.2		1.8	
IM3	Sunny	Moderate	10:33	8.9	Surface	1.0	0.5	352	27.9	27.9	8.0	8.0	15.8	15.8	84.1	83.6	6.0	5.5	4.1	6.0	3	4	90	92	819415	806014	<0.2	<0.2	1.6	1.6
						1.0	0.5	324	27.9		8.0		15.8		83.1		6.0		4.0		3		91				<0.2		1.8	
					Middle	4.5	0.4	358	27.2	27.2	7.9	7.9	17.6	17.6	68.6	68.6	4.9		6.0		4		92				<0.2		1.6	
						4.5	0.5	329	27.2		7.9		17.6		68.6		4.9		6.1		3		92				<0.2		1.7	
					Bottom	7.9	0.3	1	26.8	26.8	7.9	7.9	20.9	20.9	71.0	71.8	5.1	5.2	7.9		4		93				<0.2		1.5	
						7.9	0.3	1	26.8		7.9		20.9		72.6		5.2		8.0		4		94				<0.2		1.6	
IM4	Sunny	Moderate	10:41	8.3	Surface	1.0	0.3	42	28.1	28.1	7.9	7.9	12.7	12.7	76.0	75.8	5.5	5.2	4.9	6.6	2	4	89	93	819558	805032	<0.2	<0.2	2.2	2.1
						1.0	0.3	45	28.1		7.9		12.7		75.6		5.5		4.9		3		89				<0.2		2.2	
					Middle	4.2	0.4	39	27.3	27.3	7.9	7.9	16.1	16.1	68.0	68.0	4.9		6.4		4		93				<0.2		2.2	
						4.2	0.4	40	27.3		7.9		16.1		68.0		4.9		6.5		3		94				<0.2		2.1	
					Bottom	7.3	0.3	22	26.7	26.8	7.9	7.9	20.8	20.8	71.1	71.2	5.1	5.1	8.4		5		96				<0.2		2.0	
						7.3	0.3	22	26.8		7.9		20.8		71.3		5.1		8.2		4		97				<0.2		2.1	
IM5	Sunny	Moderate	10:51	7.2	Surface	1.0	0.4	27	28.1	28.1	7.8	7.8	11.2	11.2	71.7	71.7	5.3	5.0	5.0	6.3	5	5	87	92	820557	804932	<0.2	<0.2	2.0	2.0
						1.0	0.5	28	28.1		7.8		11.2		71.6		5.3		5.0		6		88				<0.2		2.0	
					Middle	3.6	0.5	31	27.0	27.0	7.9	7.9	18.1	18.2	65.4	65.3	4.7		5.0		5		93				<0.2		2.1	
						3.6	0.5	34	26.9		7.9		18.2		65.2		4.7		5.2		5		94				<0.2		1.9	
					Bottom	6.2	0.3	36	26.4	26.4	7.9	7.9	22.9	22.9	70.6	70.9	5.0	5.0	8.8		5		96				<0.2		2.1	
						6.2	0.4	38	26.4		7.9		22.9		71.1		5.0		8.8		6		96				<0.2		1.9	
IM6	Sunny	Moderate	11:01	7.1	Surface	1.0	0.3	353	28.1	28.1	7.9	7.9	12.2	12.3	80.9	81.0	5.9	5.9	5.3	7.4	6	7	88	91	821044	805831	<0.2	<0.2	2.0	2.0
						1.0	0.3	325	28.1		7.9		12.3		81.1		5.9		5.3		8		89				<0.2		2.0	
					Middle	3.6	0.5	4	27.6	27.6	8.0	8.0	17.1	17.1	81.3	81.1	5.8		5.4		7		91				<0.2		1.9	
						3.6	0.5	4	27.6		8.0		17.1		80.8		5.8		5.4		6		91				<0.2		2.2	
					Bottom	6.1	0.2	57	26.6	26.6	7.9	7.9	21.2	21.2	68.3	68.4	4.9	4.9	11.5		7		94				<0.2		2.1	
						6.1	0.2	58	26.6		7.9		21.2		68.5		4.9		11.7		8		93				<0.2		1.9	
IM7	Sunny	Moderate	11:10	8.3	Surface	1.0	0.2	25	28.2	28.2	7.8	7.8	11.1	11.1	77.3	77.4	5.7	5.7	6.1	9.8	7	8	86	91	821341	806841	<0.2	<0.2	2.1	2.1
						1.0	0.2	26	28.2		7.8		11.0		77.4		5.7		6.1		6		87				<0.2		2.1	
					Middle	4.2	0.4	36	27.5	27.5	8.0	8.0	17.2	17.4	78.0	78.0	5.6		7.4		8		93				<0.2		2.1	
						4.2	0.4	37	27.5		8.0		17.5		77.9		5.6		7.9		8		92				<0.2		2.2	
					Bottom	7.3	0.2	34	27.1	27.1	8.0	8.0	18.3	18.8	77.0	77.6	5.5	5.6	15.2		8		94				<0.2		2.1	
						7.3	0.2	34	27.1		8.0		19.3		78.1		5.6		15.9		8		93				<0.2		2.1	
IM8	Sunny	Moderate	10:56	8.8	Surface	1.0	0.2	290	28.9	28.9	7.8	7.8	9.8	9.8	69.3	69.3	5.1	4.9	7.6	8.9	5	5	81	87	821700	807829	<0.2	<0.2	2.5	2.6
						1.0	0.2	311	28.9		7.8		9.8		69.3		5.1		7.6		4		82				<0.2		2.4	
					Middle	4.4	0.3	332	28.6	28.6	7.8	7.8	12.5	12.5	64.1	64.1	4.6		8.8		5		87				<0.2		2.5	
						4.4	0.3	358	28.6		7.8		12.5		64.1		4.6		8.8		5		87				<0.2		2.5	
					Bottom	7.8	0.1	303	27.9	27.9	7.9	7.9	18.9	18.9	64.2	64.2	4.5	4.5	10.2		6		92				<0.2		2.6	
						7.8	0.1	331	27.9		7.9		18.9		64.2		4.5		10.2		5		93				<0.2		2.8	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 15 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	10:48	7.6	Surface	1.0	0.2	289	29.0	29.0	7.8	7.8	10.2	10.2	71.7	71.7	5.2	5.0	7.5	8.8	4	4	84	87	822097	808795	<0.2	<0.2	2.3	2.2
						1.0	0.2	317	29.0		7.8		10.2		71.7		5.2		7.5		3		85				<0.2		2.2	
					Middle	3.8	0.2	310	28.6	28.6	7.9	7.9	12.5	12.5	65.4	65.4	4.7		8.4		4		86				<0.2		2.1	
						3.8	0.2	323	28.6		7.9		12.5		65.4		4.7		8.4		4		87				<0.2		2.0	
					Bottom	6.6	0.3	278	28.3	28.3	7.9	7.9	14.9	14.9	62.6	62.6	4.5	4.5	10.6		4		91				<0.2		2.1	
						6.6	0.3	300	28.3		7.9		14.9		62.6		4.5		10.6		6		91				<0.2		2.2	
IM10	Sunny	Moderate	10:41	7.0	Surface	1.0	0.4	285	28.7	28.7	7.9	7.9	11.2	11.2	75.2	75.2	5.5	5.4	7.1	8.0	3	3	86	89	822222	809857	<0.2	<0.2	2.2	2.0
						1.0	0.5	294	28.7		7.9		11.2		75.2		5.5		7.1		2		87				<0.2		2.0	
					Middle	3.5	0.4	287	28.4	28.4	7.9	7.9	12.7	12.7	71.2	71.2	5.2		7.2		4		88				<0.2		2.0	
						3.5	0.4	293	28.4		7.9		12.7		71.2		5.2		7.2		4		89				<0.2		1.9	
					Bottom	6.0	0.4	294	28.2	28.2	8.0	8.0	14.5	14.5	66.6	66.6	4.8	4.8	9.6		4		92				<0.2		1.8	
						6.0	0.4	320	28.2		8.0		14.5		66.6		4.8		9.6		3		92				<0.2		2.0	
IM11	Sunny	Moderate	10:30	8.1	Surface	1.0	0.4	272	28.5	28.5	8.1	8.1	12.3	12.3	75.3	75.3	5.5	5.3	7.0	10.0	4	3	88	91	821519	810561	<0.2	<0.2	2.2	2.3
						1.0	0.5	291	28.5		8.1		12.3		75.3		5.5		7.0		3		89				<0.2		2.2	
					Middle	4.1	0.3	290	27.8	27.8	8.0	8.0	14.5	14.5	69.2	69.2	5.0		8.7		4		91				<0.2		2.3	
						4.1	0.3	298	27.8		8.0		14.5		69.2		5.0		8.7		3		92				<0.2		2.2	
					Bottom	7.1	0.4	286	27.5	27.5	8.0	8.0	18.1	18.1	65.9	65.9	4.7	4.7	14.4		3		94				<0.2		2.5	
						7.1	0.5	289	27.5		8.0		18.1		65.9		4.7		14.4		2		93				<0.2		2.5	
IM12	Sunny	Moderate	10:19	8.8	Surface	1.0	0.3	296	28.1	28.1	8.0	8.0	12.8	12.8	72.0	72.0	5.2	5.0	6.8	8.4	3	4	88	92	821145	811504	<0.2	<0.2	2.2	2.2
						1.0	0.3	316	28.1		8.0		12.8		72.0		5.2		6.8		4		89				<0.2		2.1	
					Middle	4.4	0.6	274	27.7	27.7	8.1	8.1	17.1	17.1	66.0	66.0	4.7		7.8		4		91				<0.2		2.1	
						4.4	0.6	280	27.7		8.1		17.1		66.0		4.7		7.8		4		91				<0.2		2.0	
					Bottom	7.8	0.3	269	26.6	26.6	8.0	8.0	23.2	23.2	59.3	59.3	4.2	4.2	10.5		4		96				<0.2		2.3	
						7.8	0.3	272	26.6		8.0		23.2		59.3		4.2		10.5		3		95				<0.2		2.4	
SR2	Sunny	Moderate	09:49	4.8	Surface	1.0	0.1	310	28.0	28.0	8.0	8.0	12.5	12.5	73.2	73.2	5.3	5.3	7.2	7.7	4	4	87	90	821472	814171	<0.2	<0.2	2.3	2.5
						1.0	0.1	324	28.0		8.0		12.5		73.2		5.3		7.2		4		88				<0.2		2.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.3	310	27.8	27.8	8.0	8.0	14.2	14.2	75.2	75.2	5.5	5.5	8.1		4		92				<0.2		2.5	
						3.8	0.3	320	27.8		8.0		14.2		75.2		5.5		8.1		4		91				<0.2		2.6	
SR3	Sunny	Moderate	11:01	9.2	Surface	1.0	0.1	315	28.9	28.9	7.7	7.7	9.6	9.6	63.2	63.2	4.6	4.6	8.2	7.8	4	5	-	-	822157	807561	-	-	-	-
						1.0	0.1	319	28.9		7.7		9.6		63.2		4.6		8.2		4		-				-		-	
					Middle	4.6	0.2	308	28.5	28.5	7.8	7.8	12.1	12.1	62.2	62.2	4.5		7.0		5		-				-		-	
						4.6	0.2	317	28.5		7.8		12.1		62.2		4.5		7.0		4		-				-		-	
					Bottom	8.2	0.2	39	28.0	28.0	7.9	7.9	17.6	17.6	64.0	64.0	4.5	4.5	8.3		5		-				-		-	
						8.2	0.2	39	28.0		7.9		17.6		64.0		4.5		8.3		5		-				-		-	
SR4A	Sunny	Calm	09:41	8.5	Surface	1.0	0.3	232	27.7	27.7	8.1	8.1	17.7	17.7	95.8	95.8	6.8	6.4	6.1	7.5	5	6	-	-	817170	807824	-	-	-	-
						1.0	0.3	242	27.7		8.1		17.7		95.8		6.8		6.1		5		-				-		-	
					Middle	4.3	0.2	261	27.5	27.5	8.0	8.0	18.0	18.0	84.6	84.5	6.0		6.8		6		-				-		-	
						4.3	0.2	276	27.5		8.0		18.0		84.3		6.0		6.9		6		-				-		-	
					Bottom	7.5	0.2	249	26.7	26.7	7.9	7.9	21.3	21.3	69.5	69.6	4.9	5.0	9.6		6		-				-		-	
						7.5	0.2	258	26.7		7.9		21.3		69.7		5.0		9.7		6		-				-		-	
SR5A	Sunny	Calm	09:23	5.8	Surface	1.0	0.3	320	27.8	27.8	8.0	8.0	18.2	18.2	89.3	89.3	6.3	6.3	7.4	11.5	5	7	-	-	816584	810682	-	-	-	-
						1.0	0.3	328	27.8		8.0		18.2		89.2		6.3		7.3		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.8	0.2	321	27.1	27.1	7.9	7.9	20.0	20.0	75.1	75.4	5.3	5.4	15.4		7		-				-		-	
						4.8	0.2	332	27.1		7.9		20.0		75.6		5.4		15.8		8		-				-		-	
SR6	Sunny	Calm	09:00	4.2	Surface	1.0	0.2	262	27.9	27.9	7.9	7.9	15.6	15.6	90.3	90.5	6.5	6.5	6.4	8.0	6	8	-	-	817882	814673	-	-	-	-
						1.0	0.2	282	27.9		7.9		15.6		90.7		6.5		6.6		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	277	27.8	27.8	8.0	8.0	16.4	16.5	98.4	97.9	7.1	7.1	9.5		10		-				-		-	
						3.2	0.1	281	27.8		8.0		16.5		97.3		7.0		9.5		8		-				-		-	
SR7	Sunny	Moderate	08:50	17.1	Surface	1.0	0.1	152	27.8	27.8	8.1	8.1	15.8	15.8	81.8	81.8	5.9	5.5	5.2		3		-				-		-	
						1.0	0.1	152	27.8		8.1		15.8		81.8		5.9		5.2		3		-				-		-	
					Middle	8.6	0.1	289	26.9	26.9	8.1	8.1	22.8	22.8	72.6	72.6	5.1		4.6		4	3	-	-	823620	823731	-	-	-	-
						8.6	0.1	306	26.9		8.1		22.8		72.6		5.1		4.6		3		-				-		-	
					Bottom	16.1	0.1	148	25.5	25.5	8.0	8.0	28.2	28.2	52.1	52.1	3.6	3.6	5.8		3		-				-		-	
						16.1	0.1	148	25.5		8.0		28.2		52.1		3.6		5.8		3		-				-		-	
SR8	Sunny	Moderate	10:09	5.1	Surface	1.0	0.0	316	28.4	28.4	7.9	7.9	12.0	12.0	74.9	74.9	5.4	5.4	8.3	9.0	5	5	-	-	820246	811418	-	-	-	-
						1.0	0.0	342	28.4		7.9		12.0		74.9		5.4		8.3		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.2	259	28.0	28.0	7.9	7.9	13.0	13.0	74.3	74.3	5.4	5.4	9.7		4		-				-		-	
						4.1	0.2	272	28.0		7.9		13.0		74.3		5.4		9.7		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 18 July 17 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	07:46	7.7	Surface	1.0	0.9	185	27.3	27.3	7.8	7.8	9.5	9.5	79.0	79.0	6.0	5.7	5.5	6.4	16	15	63	70	815620	804227	<0.2	<0.2	2.0	2.1
						1.0	0.9	198	27.3		7.8		9.5		79.0		5.9		5.5		14		63				<0.2		2.3	
					Middle	3.9	0.6	205	27.3	27.3	7.9	7.9	10.3	10.3	73.3	73.3	5.5		5.1		14		70				<0.2		2.0	
						3.9	0.6	224	27.3		7.9		10.3		73.2		5.5		5.1		15		70				<0.2		2.2	
					Bottom	6.7	0.5	242	26.9	26.9	7.9	7.9	17.1	17.1	61.4	61.4	4.5	4.5	8.6		16		78				<0.2		2.0	
						6.7	0.5	256	26.9		7.9		17.1		61.4		4.5		8.6		16		78				<0.2		1.9	
C2	Rainy	Moderate	09:56	11.1	Surface	1.0	1.0	166	28.0	28.0	7.8	7.8	4.8	4.8	66.1	66.1	5.0	4.5	13.3	15.3	15	15	75	83	825678	806947	<0.2	<0.2	2.6	2.6
						1.0	1.1	166	28.0		7.8		4.8		66.1		5.0		13.3		15		74				<0.2		2.8	
					Middle	5.6	0.5	167	27.6	27.6	7.7	7.7	13.9	13.9	53.1	53.1	3.9		15.2		16		84				<0.2		2.6	
						5.6	0.5	181	27.6		7.7		13.9		53.1		3.9		15.2		15		83				<0.2		2.4	
					Bottom	10.1	0.2	28	27.4	27.4	7.7	7.7	16.8	16.8	53.3	53.3	3.8	3.8	17.4		16		89				<0.2		2.5	
						10.1	0.2	29	27.4		7.7		16.8		53.3		3.8		17.4		15		90				<0.2		2.8	
C3	Rainy	Moderate	07:27	11.8	Surface	1.0	0.3	257	27.3	27.3	8.0	8.0	14.7	14.7	75.4	75.4	5.5	5.3	4.1	4.4	8	11	85	91	822093	817813	<0.2	<0.2	2.0	2.3
						1.0	0.3	270	27.3		8.0		14.7		75.4		5.5		4.1		10		86				<0.2		2.2	
					Middle	5.9	0.1	335	27.2	27.2	8.0	8.0	18.7	18.7	69.6	69.6	5.0		4.4		12		92				<0.2		2.5	
						5.9	0.1	308	27.2		8.0		18.7		69.6		5.0		4.4		12		93				<0.2		2.3	
					Bottom	10.8	0.1	47	27.0	27.0	8.0	8.0	20.6	20.6	70.7	70.7	5.0	5.0	4.8		12		96				<0.2		2.4	
						10.8	0.1	47	27.0		8.0		20.6		70.7		5.0		4.8		13		96				<0.2		2.1	
IM1	Cloudy	Moderate	08:18	6.9	Surface	1.0	0.6	216	27.1	27.1	7.9	7.9	13.1	13.1	67.1	67.1	5.0	4.6	9.5	11.1	22	23	69	76	818366	806473	<0.2	<0.2	2.2	2.0
						1.0	0.6	226	27.1		7.9		13.1		67.1		5.0		9.5		22		69				<0.2		2.0	
					Middle	3.5	0.3	232	26.9	26.9	7.9	7.9	17.3	17.3	56.4	56.4	4.1		12.2		22		77				<0.2		2.0	
						3.5	0.3	254	26.9		7.9		17.3		56.4		4.1		12.2		22		76				<0.2		2.0	
					Bottom	5.9	0.0	296	26.6	26.6	7.9	7.9	20.4	20.4	49.8	49.9	3.6	3.6	11.7		24		81				<0.2		2.0	
						5.9	0.0	302	26.6		7.9		20.4		49.9		3.6		11.7		24		81				<0.2		1.8	
IM2	Cloudy	Moderate	08:29	7.9	Surface	1.0	1.1	199	27.3	27.3	7.8	7.8	8.3	8.3	72.2	72.2	5.5	5.2	8.0	12.3	9	14	69	76	818846	806191	<0.2	<0.2	2.1	2.0
						1.0	1.1	218	27.3		7.8		8.3		72.1		5.5		8.0		10		69				<0.2		1.9	
					Middle	4.0	0.7	199	27.2	27.2	7.8	7.8	12.5	12.6	64.7	64.7	4.8		13.1		16		77				<0.2		2.0	
						4.0	0.7	205	27.2		7.8		12.6		64.6		4.8		13.1		15		77				<0.2		2.2	
					Bottom	6.9	0.1	255	26.6	26.6	7.9	7.9	20.1	20.1	50.0	50.0	3.6	3.6	15.7		16		81				<0.2		2.0	
						6.9	0.2	276	26.6		7.9		20.1		50.0		3.6		15.7		18		81				<0.2		2.0	
IM3	Cloudy	Moderate	08:40	8.0	Surface	1.0	0.7	235	27.3	27.3	7.8	7.8	10.0	10.0	68.2	68.2	5.1	5.0	9.0	13.2	14	17	77	81	819417	806012	<0.2	<0.2	2.1	2.3
						1.0	0.7	256	27.3		7.8		10.0		68.1		5.1		9.0		15		77				<0.2		2.1	
					Middle	4.0	0.6	229	27.3	27.3	7.8	7.8	11.8	11.8	65.6	65.6	4.9		12.3		16		80				<0.2		2.0	
						4.0	0.6	239	27.3		7.8		11.8		65.6		4.9		12.3		17		81				<0.2		2.3	
					Bottom	7.0	0.5	217	27.2	27.2	7.8	7.8	14.8	14.8	59.5	59.5	4.4	4.4	18.4		20		84				<0.2		2.5	
						7.0	0.5	235	27.2		7.8		14.8		59.5		4.4		18.4		18		84				<0.2		2.6	
IM4	Cloudy	Moderate	08:50	7.3	Surface	1.0	0.1	9	27.3	27.3	7.9	7.9	11.0	11.0	68.8	68.8	5.1	5.1	9.9	11.7	12	17	75	80	819551	805051	<0.2	<0.2	2.5	2.3
						1.0	0.1	9	27.3		7.9		11.0		68.8		5.1		9.9		14		75				<0.2		2.3	
					Middle	3.7	0.0	98	27.3	27.3	7.9	7.9	11.4	11.4	66.9	66.9	5.0		10.7		12		81				<0.2		2.4	
						3.7	0.0	103	27.3		7.9		11.4		66.8		5.0		10.7		13		81				<0.2		2.5	
					Bottom	6.3	0.1	169	27.2	27.2	7.9	7.9	12.6	12.6	64.8	64.8	4.8	4.8	14.4		26		84				<0.2		2.1	
						6.3	0.1	176	27.2		7.9		12.6		64.8		4.8		14.4		27		83				<0.2		2.0	
IM5	Cloudy	Moderate	08:57	6.8	Surface	1.0	0.6	231	27.5	27.5	7.7	7.7	7.5	7.5	68.8	68.8	5.2	5.2	10.4	11.4	13	14	72	78	820544	804937	<0.2	<0.2	2.5	2.3
						1.0	0.6	251	27.5		7.7		7.5		68.8		5.2		10.4		13		71				<0.2		2.4	
					Middle	3.4	0.5	246	27.4	27.4	7.7	7.7	8.7	8.7	68.6	68.6	5.2		9.0		13		82				<0.2		2.5	
						3.4	0.5	254	27.4		7.7		8.7		68.5		5.2		9.3		13		81				<0.2		2.2	
					Bottom	5.8	0.5	249	27.3	27.3	7.8	7.8	13.3	13.3	62.1	62.1	4.6	4.6	14.5		16		82				<0.2		1.9	
						5.8	0.5	259	27.3		7.8		13.3		62.1		4.6		14.5		17		82				<0.2		2.1	
IM6	Cloudy	Moderate	09:09	6.4	Surface	1.0	0.6	234	27.4	27.4	7.7	7.7	11.7	12.0	62.5	62.5	4.6	4.6	10.0	10.9	12	15	77	81	821066	805837	<0.2	<0.2	2.3	2.3
						1.0	0.7	235	27.4		7.7		12.2		62.4		4.6		10.1		10		78				<0.2		2.0	
					Middle	3.2	0.6	240	27.3	27.3	7.8	7.8	13.8	13.8	61.5	61.5	4.6		10.0		16		81				<0.2		2.4	
						3.2	0.6	249	27.3		7.8		13.8		61.5		4.6		10.0		15		81				<0.2		2.3	
					Bottom	5.4	0.4	245	27.3	27.3	7.8	7.8	14.6	14.6	58.6	58.6	4.3	4.3	12.7		17		84				<0.2		2.3	
						5.4	0.4	253	27.3		7.8		14.6		58.6		4.3		12.7		18		83				<0.2		2.3	
IM7	Cloudy	Moderate	09:19	7.7	Surface	1.0	0.6	257	27.4	27.4	7.7	7.7	10.0	10.0	61.9	62.0	4.6	4.6	11.8	14.4	10	19	75	80	821360	806821	<0.2	<0.2	2.2	2.2
						1.0	0.6	266	27.4		7.7		10.0		62.0		4.6		11.8		11		75				<0.2		2.2	
					Middle	3.9	0.5	282	27.4	27.4	7.7	7.7	12.7	12.7	62.1	62.1	4.6		14.2		17		81				<0.2		2.0	
						3.9	0.6	297	27.4		7.7		12.7		62.1		4.6		14.2		18		81				<0.2		2.4	
					Bottom	6.7	0.4	276	27.3	27.3	7.8	7.8	14.5	14.5	56.5	56.5	4.1	4.1	17.3		28		84				<0.2		2.2	
						6.7	0.4	276	27.3		7.8		14.5		56.5		4.1		17.2		27		83				<0.2		2.2	
IM8	Rainy	Moderate	09:14	7.6	Surface	1.0	0.8	187	27.8	27.8	7.7	7.7	9.3	9.3	60.5	60.5	4.5	4.6	13.7	13.7	13	13	78	84	821691	807834	<0.2	<0.2	2.7	2.8
						1.0	0.9	200	27.8		7.7		9.3		60.5		4.5		13.7		13		79				<0.2		2.8	
					Middle	3.8	0.6	198	27.6	27.6	7.7	7.7	11.4	11.4	64.2	64.2	4.7		14.1		12		85				<0.2		2.8	
						3.8	0.6	199	27.6		7.7		11.4		64.2		4.7		14.1		13		84				<0.2		2.8	
					Bottom	6.6	0.4	245	27.6	27.6	7.6	7.6	13.3	13.3	66.4	66.4	4.9	4.9	13.2		14		89				<0.2		2.8	
						6.6	0.4	267	27.6		7.6		13.3		66.4		4.9		13.2		14		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 18 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Rainy	Moderate	09:06	7.0	Surface	1.0	0.8	166	27.8	27.8	7.9	7.9	5.0	5.0	65.4	65.4	5.0	4.7	12.1	12.1	10	11	74	82	822094	808793	<0.2	<0.2	3.4	3.3
						1.0	0.8	181	27.8		7.9		5.0		65.4		5.0		12.1		10		76				<0.2		3.3	
					Middle	3.5	0.4	166	27.7	27.7	7.8	7.8	11.7	11.7	59.9	59.9	4.4		12.5		10		83				<0.2		3.3	
						3.5	0.4	182	27.7		7.8		11.7		59.9		4.4		12.5		10		84				<0.2		3.1	
					Bottom	6.0	0.1	156	27.6	27.6	7.8	7.8	14.5	14.5	60.8	60.8	4.4	4.4	11.6		12		86				<0.2		3.1	
						6.0	0.1	157	27.6		7.8		14.5		60.8		4.4		11.6		12		86				<0.2		3.3	
IM10	Rainy	Moderate	08:57	7.4	Surface	1.0	0.8	147	27.7	27.7	7.9	7.9	4.9	4.9	67.5	67.5	5.2	5.0	11.5	9.6	7	9	79	84	822247	809842	<0.2	<0.2	2.8	2.7
						1.0	0.9	160	27.7		7.9		4.9		67.5		5.2		11.5		8		79				<0.2		2.7	
					Middle	3.7	0.5	136	27.7	27.7	7.8	7.8	13.1	13.1	64.2	64.2	4.7		8.6		8		83				<0.2		2.8	
						3.7	0.6	139	27.7		7.8		13.1		64.2		4.7		8.6		9		84				<0.2		2.7	
					Bottom	6.4	0.3	109	27.6	27.6	7.7	7.7	15.0	15.0	66.4	66.4	4.8	4.8	8.7		12		89				<0.2		2.6	
						6.4	0.3	118	27.6		7.7		15.0		66.4		4.8		8.7		12		88				<0.2		2.5	
IM11	Rainy	Moderate	08:40	8.1	Surface	1.0	0.6	122	27.8	27.8	7.8	7.8	9.1	9.1	66.0	66.0	4.9	4.9	10.5	9.3	10	11	82	83	821512	810562	<0.2	<0.2	2.6	2.4
						1.0	0.6	133	27.8		7.8		9.1		66.0		4.9		10.5		10		81				<0.2		2.4	
					Middle	4.1	0.3	120	27.8	27.8	7.9	7.9	11.7	11.7	66.7	66.7	4.9		8.7		12		84				<0.2		2.3	
						4.1	0.3	121	27.8		7.9		11.7		66.7		4.9		8.7		11		83				<0.2		2.3	
					Bottom	7.1	0.1	135	27.7	27.7	7.8	7.8	12.2	12.2	67.8	67.8	5.0	5.0	8.6		12		85				<0.2		2.4	
						7.1	0.1	142	27.7		7.8		12.2		67.8		5.0		8.6		12		85				<0.2		2.3	
IM12	Rainy	Moderate	08:26	8.5	Surface	1.0	0.6	121	27.7	27.7	7.9	7.9	8.4	8.4	71.6	71.6	5.4	5.2	8.5	10.4	9	9	81	84	821173	811520	<0.2	<0.2	2.3	2.5
						1.0	0.7	125	27.7		7.9		8.4		71.6		5.4		8.5		8		82				<0.2		2.6	
					Middle	4.3	0.5	84	27.6	27.6	7.9	7.9	11.0	11.0	66.9	66.9	5.0		10.1		10		85				<0.2		2.5	
						4.3	0.5	85	27.6		7.9		11.0		66.9		5.0		10.1		9		84				<0.2		2.4	
					Bottom	7.5	0.2	67	27.5	27.5	7.9	7.9	13.4	13.4	65.4	65.4	4.8	4.8	12.6		10		86				<0.2		2.5	
						7.5	0.2	69	27.5		7.9		13.4		65.4		4.8		12.6		10		87				<0.2		2.7	
SR2	Rainy	Moderate	07:55	4.2	Surface	1.0	0.3	77	27.6	27.6	7.9	7.9	10.5	10.5	67.3	67.3	5.0	5.0	6.7	7.0	6	7	82	84	821470	814159	<0.2	<0.2	2.7	2.9
						1.0	0.3	77	27.6		7.9		10.5		67.3		5.0		6.7		6		83				<0.2		2.8	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.1	30	27.6	27.6	7.9	7.9	14.0	14.0	66.3	66.3	4.8	4.8	7.3		9		85				<0.2		3.0	
						3.2	0.1	32	27.6		7.9		14.0		66.3		4.8		7.3		8		86				<0.2		3.0	
SR3	Rainy	Moderate	09:23	8.9	Surface	1.0	1.1	177	27.9	27.9	7.8	7.8	5.1	5.1	64.5	64.5	4.9	4.6	12.4	13.4	9	10	-	-	822128	807585	-	-	-	-
						1.0	1.2	179	27.9		7.8		5.1		64.5		4.9		12.4		9		-				-		-	
					Middle	4.5	0.5	210	27.7	27.7	7.7	7.7	11.2	11.2	56.7	56.7	4.2		14.0		10		-				-		-	
						4.5	0.5	228	27.7		7.7		11.2		56.7		4.2		14.0		11		-				-		-	
					Bottom	7.9	0.4	242	27.5	27.5	7.8	7.8	15.1	15.1	57.7	57.7	4.2	4.2	13.8		9		-				-		-	
						7.9	0.4	261	27.5		7.8		15.1		57.7		4.2		13.8		9		-				-		-	
SR4A	Rainy	Moderate	07:25	8.4	Surface	1.0	0.2	270	27.0	27.0	7.9	7.9	13.1	13.1	74.6	74.6	5.5	4.7	3.3	10.7	11	17	-	-	817186	807827	-	-	-	-
						1.0	0.2	288	27.0		7.9		13.1		74.5		5.5		3.3		11		-				-		-	
					Middle	4.2	0.1	268	26.7	26.7	7.9	7.9	19.4	19.4	54.4	54.4	3.9		8.8		19		-				-		-	
						4.2	0.1	288	26.7		7.9		19.4		54.4		3.9		8.8		18		-				-		-	
					Bottom	7.4	0.1	268	26.3	26.3	7.9	7.9	22.3	22.3	49.2	49.2	3.5	3.5	19.9		22		-				-		-	
						7.4	0.1	290	26.3		7.9		22.3		49.2		3.5		19.9		22		-				-		-	
SR5A	Rainy	Moderate	07:09	5.0	Surface	1.0	0.1	16	26.9	26.9	7.9	7.9	13.6	13.6	81.3	81.3	6.0	6.0	3.9	9.1	9	11	-	-	816578	810692	-	-	-	-
						1.0	0.1	16	26.9		7.9		13.6		81.3		6.0		3.9		10		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.1	27	26.9	26.9	7.8	7.8	18.0	18.0	60.6	60.6	4.4	4.4	14.3		12		-				-		-	
						4.0	0.1	27	26.9		7.8		18.0		60.6		4.4		14.3		12		-				-		-	
SR6	Rainy	Moderate	06:42	4.0	Surface	1.0	0.1	85	27.0	27.0	7.9	7.9	13.5	13.5	84.4	84.4	6.2	6.2	3.7	7.9	9	10	-	-	817914	814666	-	-	-	-
						1.0	0.1	92	27.0		7.9		13.5		84.3		6.2		3.8		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.0	73	27.4	27.4	7.8	7.8	15.9	15.9	72.9	73.0	5.3	5.3	12.1		11		-				-		-	
						3.0	0.0	77	27.4		7.8		15.9		73.0		5.3		12.1		12		-				-		-	
SR7	Rainy	Moderate	06:46	17.2	Surface	1.0	0.8	96	27.3	27.3	8.0	8.0	14.6	14.6	80.3	80.3	5.9	5.7	4.8	4.0	7	10	-	-	823619	823740	-	-	-	-
						1.0	0.8	103	27.3		8.0		14.6		80.3		5.9		4.8		9		-				-		-	
					Middle	8.6	0.2	113	27.2	27.2	8.0	8.0	18.4	18.4	74.9	74.9	5.4		3.8		11		-				-		-	
						8.6	0.3	121	27.2		8.0		18.4		74.9		5.4		3.8		10		-				-		-	
					Bottom	16.2	0.1	182	26.8	26.8	8.1	8.1	21.1	21.1	69.3	69.3	4.9	4.9	3.3		11		-				-		-	
						16.2	0.1	182	26.8		8.1		21.1		69.3		4.9		3.3		11		-				-		-	
SR8	Rainy	Moderate	08:15	4.8	Surface	1.0	0.2	98	27.6	27.6	7.9	7.9	10.4	10.4	75.5	75.5	5.6	5.6	7.8	7.7	9	8	-	-	820246	811418	-	-	-	-
						1.0	0.2	104	27.6		7.9		10.4		75.5		5.6		7.8		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	130	27.6	27.6	7.8	7.8	11.2	11.2	74.9	74.9	5.6	5.6	7.5		8		-				-		-	
						3.8	0.1	132	27.6		7.8		11.2		74.9		5.6		7.5		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 18 July 17 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	13:53	7.9	Surface	1.0	0.3	104	27.4	27.4	7.8	7.8	10.1	10.1	70.9	70.9	5.3	5.2	6.3	12.5	10	11	68	75	815629	804261	<0.2	<0.2	2.5	2.5
						1.0	0.3	106	27.4		7.8		10.1		70.9		5.3		6.3		10		69				<0.2		2.5	
					Middle	4.0	0.3	110	27.4	27.4	7.8	7.9	10.3	10.3	69.5	69.2	5.2		6.9		11		74				<0.2		2.7	
						4.0	0.3	114	27.4		7.9		10.3		68.8		5.1		7.5		11		75				<0.2		2.4	
					Bottom	6.9	0.4	64	27.0	27.0	7.9	7.9	15.6	15.6	60.7	60.7	4.4	4.4	24.1		10		83				<0.2		2.4	
						6.9	0.4	70	27.0		7.9		15.6		60.7		4.4		24.0		11		82				<0.2		2.7	
C2	Cloudy	Moderate	12:51	11.4	Surface	1.0	0.8	165	27.9	27.9	7.7	7.7	3.7	3.7	67.9	67.9	5.2	4.5	14.8	15.6	15	16	79	85	825700	806945	<0.2	<0.2	1.6	1.7
						1.0	0.8	180	27.9		7.7		3.6		67.9		5.2		14.8		14		79				<0.2		1.8	
					Middle	5.7	0.3	173	27.6	27.6	7.8	7.8	13.4	13.4	52.1	52.1	3.8		15.5		16		84				<0.2		1.7	
						5.7	0.3	185	27.6		7.8		13.4		52.1		3.8		15.5		16		83				<0.2		1.8	
					Bottom	10.4	0.2	351	27.3	27.3	7.7	7.7	17.1	17.1	54.8	54.8	3.9	3.9	16.6		16		92				<0.2		1.7	
						10.4	0.2	323	27.3		7.7		17.1		54.8		3.9		16.6		16		91				<0.2		1.6	
C3	Rainy	Moderate	14:53	12.1	Surface	1.0	0.1	251	27.6	27.6	8.1	8.1	12.8	12.8	70.8	70.8	5.2	4.8	3.9	4.7	8	8	84	91	822112	817818	<0.2	<0.2	2.3	2.3
						1.0	0.2	262	27.6		8.1		12.8		70.8		5.2		3.9		8		85				<0.2		2.2	
					Middle	6.1	0.4	243	27.0	27.0	8.1	8.1	20.5	20.5	60.5	60.5	4.3		4.4		9		94				<0.2		2.2	
						6.1	0.4	250	27.0		8.1		20.5		60.5		4.3		4.4		8		93				<0.2		2.4	
					Bottom	11.1	0.3	283	26.4	26.4	8.0	8.0	24.4	24.4	59.8	59.8	4.2	4.2	5.8		8		96				<0.2		2.4	
						11.1	0.4	301	26.4		8.0		24.4		59.8		4.2		5.8		9		96				<0.2		2.4	
IM1	Cloudy	Moderate	13:35	7.3	Surface	1.0	0.4	351	27.3	27.3	7.9	7.9	12.9	12.9	71.6	71.6	5.3	5.2	5.4	6.9	10	13	72	78	818336	806440	<0.2	<0.2	2.0	2.1
						1.0	0.4	323	27.3		7.9		12.9		71.6		5.3		5.4		10		72				<0.2		2.2	
					Middle	3.7	0.4	347	27.1	27.1	7.9	7.9	14.5	14.5	68.5	68.5	5.0		6.2		11		80				<0.2		2.3	
						3.7	0.5	319	27.1		7.9		14.5		68.5		5.0		6.2		12		79				<0.2		2.3	
					Bottom	6.3	0.3	348	27.0	27.0	7.9	7.9	16.6	16.6	58.1	58.1	4.2	4.2	9.0		19		82				<0.2		1.9	
						6.3	0.3	350	27.0		7.9		16.6		58.0		4.2		9.1		18		82				<0.2		2.0	
IM2	Cloudy	Moderate	13:28	8.1	Surface	1.0	0.4	255	27.4	27.4	7.8	7.8	9.7	9.7	72.0	72.0	5.4	5.3	7.3	11.6	12	16	75	79	818833	806188	<0.2	<0.2	2.4	2.3
						1.0	0.4	272	27.4		7.8		9.7		72.0		5.4		7.4		10		75				<0.2		2.3	
					Middle	4.1	0.2	322	27.3	27.3	7.9	7.9	12.3	12.3	70.3	70.3	5.2		6.4		17		78				<0.2		2.1	
						4.1	0.3	334	27.3		7.9		12.3		70.2		5.2		6.4		17		79				<0.2		2.2	
					Bottom	7.1	0.5	9	26.8	26.8	7.9	7.9	18.8	18.8	57.3	57.4	4.1	4.1	21.0		21		82				<0.2		2.4	
						7.1	0.5	9	26.8		7.9		18.8		57.4		4.1		20.9		19		82				<0.2		2.6	
IM3	Cloudy	Moderate	13:19	8.3	Surface	1.0	0.1	-	27.5	27.5	7.8	7.8	7.6	7.6	69.3	69.3	5.2	5.1	9.7	7.1	14	15	78	81	819395	806007	<0.2	<0.2	2.6	2.5
						1.0	0.1	-	27.5		7.8		7.6		69.3		5.2		9.7		14		78				<0.2		2.5	
					Middle	4.2	0.4	259	27.1	27.1	7.9	7.9	13.8	13.8	67.2	67.2	5.0		5.9		17		82				<0.2		2.1	
						4.2	0.5	270	27.1		7.9		13.8		67.1		4.9		5.9		16		82				<0.2		2.4	
					Bottom	7.3	0.2	318	27.0	27.0	7.9	7.9	16.0	16.0	62.4	62.4	4.6	4.6	5.6		15		84				<0.2		2.8	
						7.3	0.2	318	27.0		7.9		16.0		62.4		4.6		5.6		15		83				<0.2		2.7	
IM4	Cloudy	Moderate	13:10	7.8	Surface	1.0	0.5	237	27.5	27.5	7.9	7.9	9.2	9.2	64.8	64.8	4.9	4.8	11.6	14.5	15	22	75	79	819572	805020	<0.2	<0.2	2.6	2.4
						1.0	0.5	244	27.5		7.9		9.2		64.8		4.9		11.7		14		75				<0.2		2.5	
					Middle	3.9	0.3	253	27.3	27.3	8.0	8.0	11.3	11.3	62.5	62.5	4.6		14.8		21		80				<0.2		2.4	
						3.9	0.3	276	27.3		8.0		11.3		62.4		4.6		14.8		20		80				<0.2		2.5	
					Bottom	6.8	0.2	-	26.7	26.7	7.9	7.9	18.2	18.2	50.9	51.0	3.7	3.7	16.9		31		82				<0.2		2.3	
						6.8	0.2	-	26.7		7.9		18.2		51.0		3.7		17.1		29		81				<0.2		2.3	
IM5	Cloudy	Moderate	13:02	6.9	Surface	1.0	0.5	265	27.6	27.6	7.8	7.8	7.8	7.8	66.5	66.5	5.0	5.0	11.6	11.2	14	15	74	80	820551	804912	<0.2	<0.2	2.7	2.5
						1.0	0.5	290	27.6		7.8		7.8		66.5		5.0		11.6		13		74				<0.2		2.6	
					Middle	3.5	0.4	268	27.4	27.4	7.8	7.8	10.0	10.0	65.8	65.8	4.9		9.5		14		82				<0.2		2.5	
						3.5	0.4	292	27.4		7.8		10.0		65.8		4.9		9.5		15		82				<0.2		2.7	
					Bottom	5.9	0.3	302	27.4	27.4	7.8	7.8	12.1	12.2	60.4	60.4	4.5	4.5	12.5		17		83				<0.2		2.2	
						5.9	0.3	322	27.4		7.8		12.2		60.4		4.5		12.6		17		84				<0.2		2.2	
IM6	Cloudy	Moderate	12:53	6.3	Surface	1.0	0.6	299	27.5	27.5	7.7	7.7	10.3	10.3	60.7	60.7	4.5	5.0	13.2	13.8	14	18	76	81	821076	805835	<0.2	<0.2	2.1	2.3
						1.0	0.6	322	27.5		7.7		10.3		60.7		4.5		13.3		13		77				<0.2		2.1	
					Middle	3.2	0.5	302	27.4	27.4	7.7	7.7	11.6	11.7	73.3	73.3	5.5		14.2		18		82				<0.2		2.3	
						3.2	0.5	315	27.4		7.7		11.7		73.2		5.5		14.1		19		83				<0.2		2.4	
					Bottom	5.3	0.2	316	27.3	27.3	7.8	7.8	14.1	14.1	58.8	58.8	4.3	4.3	14.1		22		84				<0.2		2.2	
						5.3	0.2	326	27.3		7.8		14.0		58.8		4.3		14.1		21		84				<0.2		2.4	
IM7	Cloudy	Moderate	12:46	7.8	Surface	1.0	0.6	236	27.6	27.6	7.7	7.7	7.1	7.5	64.1	63.8	4.9	4.7	11.9	13.7	16	17	77	81	821345	806850	<0.2	<0.2	2.4	2.6
						1.0	0.7	243	27.5		7.7		7.8		63.5		4.8		11.8		15		77				<0.2		2.7	
					Middle	3.9	0.5	272	27.5	27.5	7.7	7.7	10.5	10.5	61.1	61.1	4.6		13.7		18		83				<0.2		2.5	
						3.9	0.5	298	27.5		7.7		10.5		61.1		4.6		13.6		18		83				<0.2		2.8	
					Bottom	6.8	0.4	280	27.3	27.3	7.8	7.8	13.5	13.5	57.4	57.4	4.2	4.2	15.7		18		84				<0.2		2.7	
						6.8	0.4	304	27.3		7.8		13.5		57.4		4.2		15.6		18		84				<0.2		2.5	
IM8	Cloudy	Moderate	13:15	8.4	Surface	1.0	0.6	190	28.0	28.0	7.9	7.9	3.8	3.8	67.6	67.6	5.2	5.0	14.3	13.3	15	14	75	80	821701	807822	<0.2	<0.2	3.0	3.0
						1.0	0.7	193	28.0		7.9		3.8		67.6		5.2		14.3		14		76				<0.2		2.9	
					Middle	4.2	0.4	228	28.0	28.0	7.8	7.8	8.6	8.6	63.3	63.3	4.7		13.2		14		80				<0.2		2.8	
						4.2	0.4	238	28.0		7.8		8.6		63.3		4.7		13.2		14		79				<0.2		3.0	
					Bottom	7.4	0.2	214	27.9	27.9	7.6	7.6	10.5	10.5	66.1	66.1	4.9	4.9	12.5		13		84				<0.2		3.0	
						7.4	0.2	216	27.9		7.6		10.5		66.1		4.9		12.5		15		83				<0.2		3.2	

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 18 July 17 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	13:26	7.3	Surface	1.0	0.3	166	28.0	28.0	7.8	7.8	4.0	4.0	74.5	74.5	5.7	5.5	14.7	13.9	13	14	77	79	822087	808827	<0.2	<0.2	3.2	3.0
						1.0	0.4	179	28.0		7.8		4.0		74.5		5.7		14.7		13		76				<0.2		3.0	
					Middle	3.7	0.1	115	28.0	28.0	7.8	7.8	7.3	7.3	69.6	69.6	5.2		13.1		14		80				<0.2		3.1	
						3.7	0.1	115	28.0		7.8		7.3		69.6		5.2		13.1		14		79				<0.2		2.9	
					Bottom	6.3	0.2	15	27.9	27.9	7.8	7.8	7.9	7.9	66.9	66.9	5.0	5.0	13.8		14		82				<0.2		2.9	
						6.3	0.2	15	27.9		7.8		7.9		66.9		5.0		13.8		14		81				<0.2		3.0	
IM10	Cloudy	Moderate	13:36	6.6	Surface	1.0	0.0	44	28.0	28.0	7.8	7.8	7.0	7.0	74.7	74.7	5.6	5.4	10.7	10.7	10	12	79	82	822230	809856	<0.2	<0.2	3.3	3.2
						1.0	0.0	45	28.0		7.8		7.0		74.7		5.6		10.7		11		80				<0.2		3.2	
					Middle	3.3	0.2	8	28.0	28.0	7.8	7.8	8.2	8.2	69.6	69.6	5.2		10.3		11		82				<0.2		3.2	
						3.3	0.2	8	28.0		7.8		8.2		69.6		5.2		10.3		11		82				<0.2		3.2	
					Bottom	5.6	0.2	351	27.7	27.7	7.8	7.8	11.5	11.5	64.5	64.5	4.8	4.8	11.2		13		84				<0.2		3.2	
						5.6	0.2	323	27.7		7.8		11.5		64.5		4.8		11.2		13		84				<0.2		3.3	
IM11	Cloudy	Moderate	13:51	8.2	Surface	1.0	0.1	108	28.0	28.0	7.8	7.8	7.2	7.2	75.7	75.7	5.7	5.6	9.6	10.3	10	11	81	82	821492	810552	<0.2	<0.2	3.4	3.3
						1.0	0.1	109	28.0		7.8		7.2		75.7		5.7		9.6		10		81				<0.2		3.6	
					Middle	4.1	0.0	169	27.9	27.9	7.8	7.8	8.1	8.1	71.7	71.7	5.4		9.8		10		83				<0.2		3.3	
						4.1	0.0	170	27.9		7.8		8.1		71.7		5.4		9.8		11		82				<0.2		3.2	
					Bottom	7.2	0.3	324	27.6	27.6	7.8	7.8	10.7	10.7	70.9	70.9	5.3	5.3	11.5		11		84				<0.2		3.4	
						7.2	0.3	338	27.6		7.8		10.7		70.9		5.3		11.5		11		83				<0.2		3.1	
IM12	Cloudy	Moderate	14:00	8.6	Surface	1.0	0.2	296	27.8	27.8	8.0	8.0	7.2	7.2	73.0	73.0	5.5	5.3	8.3	9.3	10	11	80	86	821166	811526	<0.2	<0.2	2.9	2.6
						1.0	0.2	297	27.8		8.0		7.2		73.0		5.5		8.3		10		81				<0.2		2.9	
					Middle	4.3	0.7	281	27.5	27.5	8.0	8.0	13.0	13.0	68.3	68.3	5.0		7.7		12		85				<0.2		2.5	
						4.3	0.7	295	27.5		8.0		13.0		68.3		5.0		7.7		10		84				<0.2		2.4	
					Bottom	7.6	0.3	269	27.1	27.1	8.0	8.0	19.4	19.4	64.7	64.7	4.6	4.6	11.8		10		93				<0.2		2.5	
						7.6	0.3	279	27.1		8.0		19.4		64.7		4.6		11.8		11		92				<0.2		2.4	
SR2	Rainy	Moderate	14:29	4.6	Surface	1.0	0.1	79	27.6	27.6	7.9	7.9	11.0	11.0	73.9	73.9	5.5	5.5	6.2	6.5	4	4	84	87	821481	814159	<0.2	<0.2	2.0	2.3
						1.0	0.1	83	27.6		7.9		11.0		73.9		5.5		6.2		3		83				<0.2		2.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.0	66	27.4	27.4	7.7	7.7	14.7	14.7	76.3	76.3	5.6	5.6	6.8		5		90				<0.2		2.6	
						3.6	0.0	68	27.4		7.7		14.7		76.3		5.6		6.8		5		89				<0.2		2.4	
SR3	Cloudy	Moderate	13:08	8.5	Surface	1.0	0.6	182	28.0	28.0	7.7	7.7	6.2	6.2	64.0	64.0	4.8	4.5	15.6	14.6	11	11	-	-	822152	807559	-	-	-	-
						1.0	0.6	188	28.0		7.7		6.2		64.0		4.8		15.6		10		-				-		-	
					Middle	4.3	0.2	239	27.7	27.7	7.7	7.7	11.7	11.7	57.4	57.4	4.2		13.7		10		-				-		-	
						4.3	0.2	250	27.7		7.7		11.7		57.4		4.2		13.7		10		-				-		-	
					Bottom	7.5	0.2	258	27.7	27.7	7.7	7.7	12.3	12.3	58.8	58.8	4.3	4.3	14.6		11		-				-		-	
						7.5	0.2	274	27.7		7.7		12.3		58.8		4.3		14.6		11		-				-		-	
SR4A	Cloudy	Moderate	14:19	8.5	Surface	1.0	0.2	235	27.1	27.1	7.9	7.9	14.3	14.3	78.1	78.1	5.7	5.3	5.0	9.7	6	7	-	-	817178	807818	-	-	-	-
						1.0	0.2	249	27.1		7.9		14.3		78.0		5.7		5.0		6		-				-		-	
					Middle	4.3	0.3	241	27.0	27.0	7.9	7.9	16.0	16.0	67.7	67.6	4.9		8.5		6		-				-		-	
						4.3	0.3	244	27.0		7.9		16.0		67.5		4.9		8.6		7		-				-		-	
					Bottom	7.5	0.2	223	26.8	26.8	7.9	7.9	18.6	18.6	56.3	56.3	4.1	4.1	15.5		9		-				-		-	
						7.5	0.2	244	26.8		7.9		18.6		56.3		4.1		15.6		9		-				-		-	
SR5A	Rainy	Moderate	14:54	4.9	Surface	1.0	0.0	313	27.3	27.3	7.9	7.9	12.7	12.7	79.3	79.3	5.9	5.9	7.0	7.3	5	9	-	-	816576	810704	-	-	-	-
						1.0	0.0	316	27.3		7.9		12.7		79.3		5.9		7.0		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.9	0.1	329	27.3	27.3	8.0	8.0	14.9	14.9	79.6	79.6	5.8	5.8	7.6		13		-				-		-	
						3.9	0.1	345	27.3		8.0		14.9		79.6		5.8		7.6		14		-				-		-	
SR6	Rainy	Moderate	15:21	4.4	Surface	1.0	0.1	240	27.3	27.3	7.9	7.9	12.7	12.7	79.1	79.1	5.8	5.8	6.7	7.4	4	6	-	-	817906	814678	-	-	-	-
						1.0	0.1	243	27.3		7.9		12.7		79.1		5.8		6.8		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	56	27.3	27.3	8.0	8.0	14.9	14.9	78.6	78.6	5.7	5.7	8.3		8		-				-		-	
						3.4	0.1	60	27.3		8.0		14.9		78.6		5.7		7.6		8		-				-		-	
SR7	Rainy	Moderate	15:39	17.6	Surface	1.0	0.3	-	27.3	27.3	8.1	8.1	15.4	15.4	76.1	76.1	5.5	5.1	3.9	4.6	3	4	-	-	823623	823748	-	-	-	-
						1.0	0.3	-	27.3		8.1		15.4		76.1		5.5		3.9		3		-				-		-	
					Middle	8.8	0.2	58	26.7	26.7	8.1	8.1	21.7	21.7	64.6	64.6	4.6		4.7		4		-				-		-	
						8.8	0.2	59	26.7		8.1		21.7		64.6		4.6		4.7		4		-				-		-	
					Bottom	16.6	0.1	17	25.9	25.9	8.0	8.0	25.9	25.9	59.3	59.3	4.2	4.2	5.3		4		-				-		-	
						16.6	0.1	18	25.9		8.0		25.9		59.3		4.2		5.3		4		-				-		-	
SR8	Cloudy	Moderate	14:14	5.6	Surface	1.0	0.1	230	28.2	28.2	7.9	7.9	7.2	7.2	75.1	75.1	5.6	5.6	10.5	9.4	7	7	-	-	820246	811418	-	-	-	-
						1.0	0.1	241	28.2		7.9		7.2		75.1		5.6		10.5		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.6	0.0	30	27.5	27.5	7.8	7.8	13.2	13.2	74.9	74.9	5.5	5.5	8.2		7		-				-		-	
						4.6	0.0	30	27.5		7.8		13.2		74.9		5.5		8.2		7		-				-		-	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 July 17 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	10:49	8.5	Surface	1.0	0.8	186	27.8	27.8	7.9	7.9	11.4	11.4	69.9	69.8	5.2	4.9	4.4	6.5	4	6	79	81	815633	804246	<0.2	<0.2	2.0	1.6
						1.0	0.8	204	27.8		7.9		11.4		69.7		5.1		4.4		3		79				<0.2		2.3	
					Middle	4.3	0.7	211	27.2	27.2	8.0	8.0	18.4	18.4	64.6	64.6	4.6		6.5		4		81				<0.2		1.9	
						4.3	0.8	226	27.2		8.0		18.3		64.5		4.6		6.5		4		81				<0.2		1.9	
					Bottom	7.5	0.6	226	26.8	26.9	7.9	7.9	25.2	25.2	69.6	69.9	4.8	4.9	8.8		12		83				<0.2		0.7	
						7.5	0.6	246	26.9		7.9		25.2		70.1		4.9		8.4		10		83				<0.2		0.8	
C2	Cloudy	Moderate	11:22	10.5	Surface	1.0	1.1	172	28.0	28.0	7.7	7.7	5.6	5.6	59.4	59.4	4.5	3.9	19.4	32.4	6	6	74	79	825675	806962	<0.2	<0.2	3.6	3.6
						1.0	1.2	188	28.0		7.7		5.6		59.4		4.5		19.4		6		74				<0.2		3.3	
					Middle	5.3	0.5	162	27.1	27.1	7.8	7.8	16.6	16.6	45.8	45.8	3.3		32.8		5		82				<0.2		3.9	
						5.3	0.5	163	27.1		7.8		16.6		45.8		3.3		32.8		6		81				<0.2		3.7	
					Bottom	9.5	0.2	125	26.8	26.8	7.5	7.5	20.1	20.1	53.6	53.6	3.8	3.8	45.0		6		81				<0.2		3.5	
						9.5	0.2	130	26.8		7.5		20.1		53.6		3.8		45.0		6		82				<0.2		3.3	
C3	Cloudy	Moderate	09:16	14.3	Surface	1.0	0.5	83	27.7	27.7	7.9	7.9	11.3	11.3	77.2	76.9	5.7	5.4	2.0	1.5	2	2	81	87	822091	817818	<0.2	<0.2	2.5	2.0
						1.0	0.6	89	27.7		7.9		11.3		76.5		5.7		1.9		2		82				<0.2		2.4	
					Middle	7.2	0.1	21	27.0	27.0	7.9	7.9	17.2	17.2	70.2	70.1	5.1		1.2		2		87				<0.2		2.1	
						7.2	0.1	22	27.0		7.9		17.2		70.0		5.1		1.2		2		86				<0.2		1.9	
					Bottom	13.3	0.2	48	26.4	26.5	7.9	7.9	23.1	23.7	71.9	73.5	5.1	5.2	1.3		2		94				<0.2		1.6	
						13.3	0.2	50	26.6		7.9		24.3		75.0		5.3		1.4		2		94				<0.2		1.6	
IM1	Cloudy	Moderate	11:16	7.1	Surface	1.0	0.8	186	27.2	27.2	7.9	7.9	14.0	14.0	66.8	66.8	4.9	4.6	7.5	9.4	3	6	78	82	818331	806449	<0.2	<0.2	2.2	1.4
						1.0	0.9	200	27.2		7.9		14.0		66.8		4.9		7.5		4		79				<0.2		2.0	
					Middle	3.6	0.4	192	26.7	26.7	8.0	8.0	22.6	22.6	60.8	60.8	4.3		10.6		4		81				<0.2		1.3	
						3.6	0.5	201	26.7		8.0		22.6		60.8		4.3		10.5		5		81				<0.2		1.3	
					Bottom	6.1	0.2	200	26.7	26.7	8.0	8.0	25.2	25.2	56.4	56.5	3.9	3.9	10.0		12		85				<0.2		0.8	
						6.1	0.2	216	26.7		8.0		25.2		56.5		3.9		10.1		10		85				<0.2		0.8	
IM2	Cloudy	Moderate	11:25	8.0	Surface	1.0	1.1	202	28.4	28.4	7.8	7.8	8.9	8.9	66.3	66.2	4.9	4.6	6.6	10.2	3	5	78	83	818843	806176	<0.2	<0.2	2.3	1.8
						1.0	1.1	217	28.4		7.8		8.9		66.0		4.9		6.6		3		78				<0.2		2.4	
					Middle	4.0	0.7	181	27.1	27.1	7.9	7.9	17.2	17.4	58.5	58.5	4.2		8.7		3		85				<0.2		2.1	
						4.0	0.8	183	27.1		7.9		17.6		58.5		4.2		8.8		4		85				<0.2		1.9	
					Bottom	7.0	0.4	172	26.8	26.8	8.0	8.0	22.9	23.0	60.0	60.1	4.2	4.2	15.4		10		86				<0.2		1.1	
						7.0	0.4	172	26.8		8.0		23.0		60.1		4.2		15.3		9		87				<0.2		1.0	
IM3	Cloudy	Moderate	11:35	7.1	Surface	1.0	0.7	212	27.9	27.9	7.8	7.8	12.1	12.2	66.3	65.9	4.9	4.8	6.7	8.7	4	6	78	82	819409	806033	<0.2	<0.2	1.9	1.7
						1.0	0.8	228	27.9		7.8		12.2		65.5		4.8		7.0		5		79				<0.2		1.9	
					Middle	3.6	0.8	207	27.4	27.4	7.9	7.9	14.9	14.9	63.7	63.8	4.6		9.3		4		83				<0.2		1.7	
						3.6	0.8	213	27.3		7.9		14.8		63.9		4.7		9.3		4		83				<0.2		1.7	
					Bottom	6.1	0.8	204	27.1	27.2	7.9	7.9	19.9	19.8	67.6	68.8	4.8	4.9	9.7		11		86				<0.2		1.5	
						6.1	0.8	205	27.2		7.9		19.7		70.0		5.0		9.9		10		85				<0.2		1.5	
IM4	Cloudy	Moderate	11:41	7.4	Surface	1.0	0.4	198	28.0	28.0	7.9	7.9	11.3	11.3	68.7	68.7	5.1	5.0	11.3	10.5	8	11	80	82	819588	805041	<0.2	<0.2	2.1	1.8
						1.0	0.5	209	27.9		7.9		11.3		68.6		5.1		11.4		7		79				<0.2		2.0	
					Middle	3.7	0.3	202	27.6	27.6	8.0	8.0	13.8	13.8	66.9	67.0	4.9		10.8		10		81				<0.2		1.7	
						3.7	0.4	209	27.5		8.0		13.7		67.0		4.9		10.3		11		82				<0.2		1.8	
					Bottom	6.4	0.3	222	27.3	27.3	7.9	7.9	17.9	17.9	71.2	71.4	5.1	5.1	9.6		15		85				<0.2		1.6	
						6.4	0.3	243	27.3		7.9		17.8		71.5		5.1		9.8		15		85				<0.2		1.6	
IM5	Cloudy	Moderate	11:51	6.5	Surface	1.0	0.7	206	27.8	27.8	7.9	7.9	14.3	14.3	76.4	76.6	5.5	5.0	6.3	12.5	4	4	77	79	820560	804920	<0.2	<0.2	1.7	1.5
						1.0	0.8	222	27.8		7.9		14.3		76.7		5.6		6.2		2		77				<0.2		1.7	
					Middle	3.3	0.8	210	27.5	27.5	7.9	7.9	15.0	15.0	61.6	61.6	4.5		9.4		3		79				<0.2		1.6	
						3.3	0.9	216	27.5		7.9		15.0		61.5		4.5		9.6		4		80				<0.2		1.6	
					Bottom	5.5	0.8	208	27.0	27.0	7.9	7.9	20.1	20.1	56.9	57.0	4.1	4.1	22.1		6		82				<0.2		1.2	
						5.5	0.8	227	27.0		7.9		20.1		57.0		4.1		21.5		6		81				<0.2		1.2	
IM6	Cloudy	Moderate	12:00	6.4	Surface	1.0	0.5	202	27.4	27.4	7.9	7.9	15.7	15.7	68.4	68.4	5.0	4.7	8.9	10.3	3	6	80	82	821066	805822	<0.2	<0.2	1.7	1.6
						1.0	0.5	217	27.4		7.9		15.7		68.4		5.0		8.9		4		80				<0.2		2.0	
					Middle	3.2	0.5	215	26.9	26.9	7.9	7.9	18.2	18.3	61.1	61.2	4.4		10.9		5		81				<0.2		1.6	
						3.2	0.5	233	26.9		7.9		18.3		61.3		4.4		11.1		6		81				<0.2		1.5	
					Bottom	5.4	0.5	216	26.9	26.9	7.9	7.9	21.6	21.6	71.3	71.7	5.1	5.1	11.1		9		85				<0.2		1.4	
						5.4	0.5	234	26.9		7.9		21.5		72.0		5.1		11.0		7		86				<0.2		1.4	
IM7	Cloudy	Moderate	12:06	7.3	Surface	1.0	0.7	249	27.3	27.3	7.8	7.8	15.0	15.0	67.8	67.8	4.9	4.6	7.2	8.1	5	5	79	82	821361	806827	<0.2	<0.2	1.8	1.7
						1.0	0.7	272	27.3		7.8		15.0		67.8		4.9		7.1		4		79				<0.2		1.7	
					Middle	3.7	0.6	265	26.9	26.9	7.8	7.8	19.1	19.1	59.4	59.5	4.3		8.7		6		82				<0.2		1.5	
						3.7	0.6	271	26.9		7.8		19.1		59.5		4.3		8.7		5		82				<0.2		1.6	
					Bottom	6.3	0.6	272	26.9	26.9	7.8	7.8	19.3	19.3	63.1	63.3	4.5	4.5	8.6		6		85				<0.2		1.7	
						6.3	0.6	289	26.9		7.8		19.3		63.4		4.5		8.5		6		85				<0.2		1.6	
IM8	Cloudy	Moderate	10:36	7.2	Surface	1.0	0.9	194	28.3	28.3	7.9	7.9	8.2	8.2	64.9	64.9	4.8	4.5	10.3	10.3	9	9	76	79	821690	807843	<0.2	<0.2	2.4	2.4
						1.0	0.9	209	28.3		7.9		8.2		64.9		4.8		10.3		8		77				<0.2		2.4	
					Middle	3.6	0.7	210	27.5	27.5	7.9	7.9	13.5	13.5	56.7	56.7	4.2		10.0		9		79				<0.2		2.6	
						3.6	0.7	220	27.5		7.9		13.5		56.7		4.2		10.0		9		79				<0.2		2.5	
					Bottom	6.2	0.5	244	27.2	27.2	7.9	7.9	16.4	16.4	56.2	56.2	4.1	4.1	10.5		8		82				<0.2		2.4	
						6.2	0.5	256	27.2		7.9		16.4		56.2		4.1		10.5		8		83				<0.2		2.1	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 July 17 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	10:28	6.8	Surface	1.0	0.6	164	28.0	28.0	7.8	7.8	11.2	11.2	63.4	63.4	4.7	4.6	9.8	10.6	6	7	78	81	822075	808813	<0.2	<0.2	2.2	2.1
						1.0	0.7	169	28.0		7.8		11.2		63.4		4.7		9.8		6		79				<0.2		2.1	
					Middle	3.4	0.3	167	27.3	27.3	7.9	7.9	15.9	15.9	60.2	60.2	4.4		11.0		6		82				<0.2		2.1	
						3.4	0.3	167	27.3		7.9		15.9		60.2		4.4		11.0		6		82				<0.2		2.2	
					Bottom	5.8	0.1	168	27.2	27.2	7.9	7.9	16.9	16.9	57.6	57.6	4.2	4.2	10.9		8		83				<0.2		2.1	
						5.8	0.1	170	27.2		7.9		16.9		57.6		4.2		10.9		9		84				<0.2		2.1	
IM10	Cloudy	Moderate	10:15	6.3	Surface	1.0	0.7	139	28.2	28.2	7.9	7.9	10.0	10.0	73.0	73.0	5.4	4.8	7.5	8.4	4	4	79	83	822249	809839	<0.2	<0.2	2.6	2.4
						1.0	0.7	146	28.2		7.9		10.0		73.0		5.4		7.5		4		79				<0.2		2.5	
					Middle	3.2	0.5	117	27.2	27.2	7.9	7.9	16.9	16.9	56.2	56.2	4.1		8.7		4		82				<0.2		2.2	
						3.2	0.5	127	27.2		7.9		16.9		56.2		4.1		8.7		3		83				<0.2		2.2	
					Bottom	5.3	0.3	109	27.2	27.2	7.8	7.8	18.7	18.7	58.2	58.2	4.2	4.2	9.1		4		89				<0.2		2.3	
						5.3	0.3	119	27.2		7.8		18.7		58.2		4.2		9.1		5		88				<0.2		2.4	
IM11	Cloudy	Moderate	10:03	7.8	Surface	1.0	0.6	137	28.1	28.1	7.9	7.9	10.1	10.2	68.1	68.1	5.0	4.8	6.5	6.9	4	4	79	82	821520	810526	<0.2	<0.2	2.2	2.0
						1.0	0.7	138	28.1		7.9		10.2		68.0		5.0		6.5		4		79				<0.2		2.0	
					Middle	3.9	0.6	128	27.5	27.5	7.9	7.9	14.5	14.5	61.8	61.8	4.5		6.5		3		81				<0.2		2.1	
						3.9	0.6	128	27.5		7.9		14.5		61.8		4.5		6.5		4		82				<0.2		1.9	
					Bottom	6.8	0.3	110	27.4	27.4	7.9	7.9	15.7	15.7	61.2	61.2	4.4	4.4	7.7		4		84				<0.2		2.1	
						6.8	0.3	114	27.4		7.9		15.7		61.2		4.4		7.7		4		85				<0.2		1.9	
IM12	Cloudy	Moderate	09:54	8.3	Surface	1.0	0.5	116	28.4	28.4	7.9	7.9	9.1	9.1	71.6	71.6	5.3	4.9	6.6	7.8	3	3	80	82	821172	811522	<0.2	<0.2	2.0	2.3
						1.0	0.6	123	28.4		7.9		9.1		71.6		5.3		6.6		3		79				<0.2		2.0	
					Middle	4.2	0.4	87	27.7	27.7	7.9	7.9	13.6	13.6	62.1	62.1	4.5		7.1		4		82				<0.2		2.4	
						4.2	0.5	90	27.7		7.9		13.6		62.1		4.5		7.1		3		82				<0.2		2.3	
					Bottom	7.3	0.3	86	27.5	27.5	7.9	7.9	15.4	15.4	58.8	58.8	4.3	4.3	9.6		4		84				<0.2		2.7	
						7.3	0.3	86	27.5		7.9		15.4		58.8		4.3		9.6		3		84				<0.2		2.5	
SR2	Cloudy	Moderate	08:41	4.8	Surface	1.0	0.6	101	27.8	27.8	7.8	7.8	11.4	11.4	72.0	72.0	5.3	5.3	5.1	4.7	4	4	72	77	821479	814159	<0.2	<0.2	2.5	2.4
						1.0	0.6	106	27.8		7.8		11.4		72.0		5.3		5.1		3		74				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	91	27.6	27.6	7.8	7.8	14.0	14.0	72.2	72.3	5.3	5.3	4.4		3		81				<0.2		2.3	
						3.8	0.2	97	27.6		7.8		14.0		72.3		5.3		4.3		4		82				<0.2		2.4	
SR3	Cloudy	Moderate	10:43	8.0	Surface	1.0	1.1	172	27.8	27.8	7.9	7.9	6.8	6.8	65.8	65.8	5.0	4.7	10.5	12.0	7	7	-	-	822138	807575	-	-	-	-
						1.0	1.2	181	27.8		7.9		6.8		65.8		5.0		10.5		7		-				-		-	
					Middle	4.0	0.8	186	27.3	27.3	7.9	7.9	14.7	14.7	58.2	58.2	4.3		11.4		6		-				-		-	
						4.0	0.9	202	27.3		7.9		14.7		58.2		4.3		11.4		6		-				-		-	
					Bottom	7.0	0.5	234	27.1	27.1	7.8	7.8	17.2	17.2	54.9	54.9	4.0	4.0	14.0		8		-				-		-	
						7.0	0.6	254	27.1		7.8		17.2		54.9		4.0		14.0		7		-				-		-	
SR4A	Sunny	Calm	10:29	9.3	Surface	1.0	0.2	242	27.3	27.3	7.9	7.9	16.0	16.0	68.2	68.2	4.9	4.6	7.0	8.1	6	7	-	-	817208	807794	-	-	-	-
						1.0	0.2	261	27.3		7.9		16.0		68.2		4.9		7.0		4		-				-		-	
					Middle	4.7	0.0	134	26.6	26.6	8.0	8.0	24.3	24.3	60.3	60.3	4.2		8.3		6		-				-		-	
						4.7	0.0	134	26.6		8.0		24.3		60.3		4.2		8.3		7		-				-		-	
					Bottom	8.3	0.0	101	26.7	26.7	8.0	8.0	24.7	24.7	55.0	55.1	3.8	3.8	8.9		11		-				-		-	
						8.3	0.0	105	26.7		8.0		24.7		55.1		3.8		8.9		8		-				-		-	
SR5A	Sunny	Calm	10:13	5.0	Surface	1.0	0.1	302	27.6	27.6	7.9	7.9	11.6	11.6	77.8	77.1	5.8	5.8	4.9	5.3	4	4	-	-	816612	810700	-	-	-	-
						1.0	0.1	328	27.6		7.9		11.6		76.4		5.7		4.7		2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.0	314	27.4	27.4	7.8	7.8	14.8	14.7	78.1	79.2	5.7	5.8	5.6		4		-				-		-	
						4.0	0.0	319	27.4		7.8		14.6		80.3		5.9		5.8		5		-				-		-	
SR6	Sunny	Calm	09:48	4.6	Surface	1.0	0.3	82	27.8	27.8	7.9	7.9	12.2	12.2	78.5	78.3	5.8	5.8	4.6	6.1	4	8	-	-	817891	814644	-	-	-	-
						1.0	0.3	89	27.7		7.9		12.2		78.1		5.7		4.7		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.0	353	27.3	27.3	7.8	7.8	15.5	15.5	77.8	78.1	5.7	5.7	7.5		10		-				-		-	
						3.6	0.0	325	27.3		7.8		15.5		78.3		5.7		7.5		11		-				-		-	
SR7	Cloudy	Moderate	08:40	18.6	Surface	1.0	0.5	136	27.3	27.3	7.8	7.8	14.2	14.2	74.0	73.9	5.4	5.3	1.6	1.8	3	3	-	-	823638	823734	-	-	-	-
						1.0	0.5	148	27.3		7.8		14.2		73.8		5.4		1.6		2		-				-		-	
					Middle	9.3	0.1	221	27.0	27.0	7.8	7.8	17.4	17.4	71.9	71.9	5.2		2.1		3		-				-		-	
						9.3	0.1	231	27.0		7.8		17.4		71.9		5.2		2.1		4		-				-		-	
					Bottom	17.6	0.2	138	27.0	27.0	7.8	7.8	18.0	18.1	73.1	74.0	5.3	5.4	1.7		4		-				-		-	
						17.6	0.2	140	27.0		7.8		18.1		74.9		5.4		1.7		3		-				-		-	
SR8	Cloudy	Moderate	09:42	5.3	Surface	1.0	0.4	55	28.3	28.3	7.7	7.7	11.1	11.1	71.4	71.4	5.2	5.2	6.8	7.6	4	3	-	-	820246	811418	-	-	-	-
						1.0	0.4	58	28.3		7.7		11.1		71.4		5.2		6.8		3		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.5	92	27.9	27.9	7.4	7.4	12.5	12.5	69.0	69.0	5.0	5.0	8.4		2		-				-		-	
						4.3	0.5	98	27.9		7.4		12.5		69.0		5.0		8.4		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 20 July 17 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	16:30	8.0	Surface	1.0	0.2	91	28.1	28.1	7.9	7.9	11.5	11.6	70.3	70.0	5.2	5.1	6.9	7.7	6	5	80	82	815606	804264	<0.2	<0.2	2.2	1.8
						1.0	0.2	97	28.1		7.9		11.6		69.7		5.1		6.9		4		80				<0.2		2.1	
					Middle	4.0	0.3	46	27.7	27.7	7.9	8.0	13.4	13.0	67.6	67.6	4.9		7.8		4		82				<0.2		2.1	
						4.0	0.3	46	27.7		8.0		12.5		67.6		5.0		7.9		4		82				<0.2		2.2	
					Bottom	7.0	0.3	24	27.2	27.3	7.9	7.9	21.9	21.9	76.3	76.7	5.4	5.4	8.6		6		85				<0.2		1.1	
						7.0	0.3	25	27.3		7.9		21.8		77.0		5.4		8.1		7		85				<0.2		1.2	
C2	Cloudy	Moderate	15:50	10.9	Surface	1.0	0.5	181	28.3	28.3	7.7	7.7	5.3	5.3	68.7	68.7	5.2	4.4	17.6	18.2	13	13	74	79	825700	806929	<0.2	<0.2	2.8	2.9
						1.0	0.5	186	28.3		7.7		5.3		68.7		5.2		17.6		13		74				<0.2		2.9	
					Middle	5.5	0.2	212	27.5	27.5	7.8	7.8	14.4	14.4	49.7	49.7	3.6		13.1		12		79				<0.2		2.9	
						5.5	0.2	221	27.5		7.8		14.4		49.7		3.6		13.1		14		79				<0.2		2.9	
					Bottom	9.9	0.4	341	26.8	26.8	7.8	7.8	19.7	19.7	46.6	46.6	3.3	3.3	23.9		13		83				<0.2		2.8	
						9.9	0.4	341	26.8		7.8		19.7		46.6		3.3		23.9		12		84				<0.2		3.1	
C3	Cloudy	Moderate	18:15	12.1	Surface	1.0	0.3	223	27.5	27.5	8.1	8.1	17.0	17.1	86.6	86.6	6.2	6.0	1.7	1.6	4	5	87	90	822098	817783	<0.2	<0.2	1.8	1.9
						1.0	0.3	241	27.5		8.1		17.1		86.6		6.2		1.8		4		88				<0.2		1.9	
					Middle	6.1	0.7	222	27.2	27.2	8.1	8.1	20.2	20.2	81.9	81.9	5.8		1.5		3		91				<0.2		1.9	
						6.1	0.8	225	27.2		8.1		20.2		81.8		5.8		1.5		3		90				<0.2		1.8	
					Bottom	11.1	0.4	242	26.8	26.8	8.1	8.1	23.8	23.8	82.4	82.6	5.8	5.8	1.4		10		92				<0.2		2.0	
						11.1	0.4	251	26.8		8.1		23.7		82.8		5.8		1.4		8		93				<0.2		1.8	
IM1	Cloudy	Moderate	16:10	7.1	Surface	1.0	0.2	-	28.3	28.3	7.9	8.0	12.4	12.5	75.8	75.8	5.5	5.4	6.5	8.2	7	10	78	81	818350	806471	<0.2	<0.2	1.9	1.9
						1.0	0.2	2	28.3		8.0		12.5		75.8		5.5		6.4		8		78				<0.2		2.3	
					Middle	3.6	0.4	-	28.2	28.2	8.0	8.0	15.4	15.4	73.7	73.7	5.3		8.0		8		80				<0.2		2.0	
						3.6	0.4	351	28.2		8.0		15.4		73.6		5.3		8.1		9		81				<0.2		2.0	
					Bottom	6.1	0.1	1	27.8	27.8	8.0	8.0	18.0	18.0	80.2	80.5	5.7	5.7	10.1		14		83				<0.2		1.5	
						6.1	0.1	358	27.8		8.0		18.0		80.8		5.7		10.0		12		84				<0.2		1.6	
IM2	Cloudy	Moderate	16:04	7.9	Surface	1.0	0.2	315	28.4	28.4	7.9	7.9	9.0	8.8	72.5	72.3	5.3	5.2	7.4	6.9	8	8	79	83	818854	806200	<0.2	<0.2	2.8	2.0
						1.0	0.3	336	28.4		7.9		8.6		72.0		5.3		7.4		7		80				<0.2		2.6	
					Middle	4.0	0.4	318	27.9	27.9	7.9	7.9	14.7	14.7	70.0	70.0	5.1		6.3		10		83				<0.2		1.7	
						4.0	0.4	324	27.9		7.9		14.7		70.0		5.1		6.3		7		83				<0.2		1.5	
					Bottom	6.9	0.5	314	27.6	27.7	7.9	7.9	16.7	16.7	74.5	74.7	5.4	5.4	7.0		9		86				<0.2		1.8	
						6.9	0.5	335	27.7		7.9		16.6		74.9		5.4		7.0		9		86				<0.2		1.8	
IM3	Cloudy	Moderate	15:57	7.9	Surface	1.0	0.4	235	28.0	28.0	7.8	7.8	8.7	8.7	68.6	68.6	5.1	5.1	9.9	9.9	7	9	80	82	819410	806036	<0.2	<0.2	2.8	2.2
						1.0	0.4	245	28.0		7.8		8.7		68.6		5.1		9.9		9		80				<0.2		2.7	
					Middle	4.0	0.2	269	27.8	27.8	7.9	7.9	12.9	12.9	67.9	67.9	5.0		10.0		9		82				<0.2		2.2	
						4.0	0.2	292	27.8		7.9		12.9		67.9		5.0		9.9		7		81				<0.2		2.1	
					Bottom	6.9	0.3	334	27.5	27.5	7.9	7.9	19.3	19.4	79.0	79.4	5.6	5.7	10.0		10		83				<0.2		1.7	
						6.9	0.3	358	27.5		7.9		19.4		79.7		5.7		9.9		12		83				<0.2		1.6	
IM4	Cloudy	Moderate	15:49	7.4	Surface	1.0	0.4	259	27.9	27.9	7.8	7.8	9.4	9.4	65.3	65.3	4.9	4.8	12.1	13.7	7	10	78	81	819572	805053	<0.2	<0.2	3.1	2.5
						1.0	0.4	264	27.9		7.8		9.4		65.2		4.9		12.2		9		78				<0.2		3.2	
					Middle	3.7	0.3	289	27.6	27.6	7.9	7.9	12.8	12.8	63.3	63.3	4.7		13.1		10		80				<0.2		2.4	
						3.7	0.3	291	27.6		7.9		12.8		63.2		4.6		13.0		10		80				<0.2		2.2	
					Bottom	6.4	0.4	350	27.3	27.3	7.9	7.9	17.0	17.0	63.9	64.0	4.6	4.6	15.8		12		84				<0.2		1.8	
						6.4	0.4	353	27.3		7.9		16.9		64.0		4.6		15.9		12		84				<0.2		2.1	
IM5	Cloudy	Moderate	15:40	6.5	Surface	1.0	0.3	285	27.8	27.8	7.8	7.8	9.7	9.7	65.7	65.7	4.9	4.9	14.3	15.6	16	18	79	83	820553	804907	<0.2	<0.2	2.6	2.5
						1.0	0.3	307	27.8		7.8		9.7		65.7		4.9		14.4		17		79				<0.2		2.7	
					Middle	3.3	0.2	319	27.7	27.7	7.8	7.8	10.8	10.8	64.9	64.9	4.8		16.4		17		83				<0.2		2.5	
						3.3	0.2	327	27.7		7.8		10.8		64.9		4.8		16.4		16		83				<0.2		2.6	
					Bottom	5.5	0.3	335	27.4	27.4	7.8	7.8	13.3	13.3	68.8	69.0	5.1	5.1	16.0		20		87				<0.2		2.1	
						5.5	0.3	308	27.4		7.8		13.3		69.1		5.1		16.0		20		86				<0.2		2.6	
IM6	Cloudy	Moderate	15:30	6.2	Surface	1.0	0.6	280	27.5	27.5	7.6	7.6	10.5	10.5	60.8	60.8	4.5	4.5	12.5	12.7	11	15	78	83	821065	805838	<0.2	<0.2	3.5	3.4
						1.0	0.6	286	27.5		7.6		10.5		60.8		4.5		12.6		11		78				<0.2		3.5	
					Middle	3.1	0.4	294	27.4	27.4	7.6	7.6	11.8	11.8	60.6	60.6	4.5		12.7		16		84				<0.2		3.3	
						3.1	0.4	299	27.4		7.6		11.8		60.6		4.5		12.7		15		84				<0.2		3.6	
					Bottom	5.2	0.3	314	27.3	27.3	7.6	7.6	12.8	12.8	62.1	62.2	4.6	4.6	12.9		16		86				<0.2		3.3	
						5.2	0.3	317	27.3		7.6		12.8		62.2		4.6		12.9		18		87				<0.2		2.9	
IM7	Cloudy	Moderate	16:19	7.1	Surface	1.0	0.3	254	28.1	28.1	7.7	7.7	6.4	6.4	62.2	62.2	4.7	4.5	14.8	13.1	12	13	79	81	821360	806815	<0.2	<0.2	3.9	**3.9**
						1.0	0.3	264	28.1		7.7		6.4		62.2		4.7		14.8		12		78				<0.2		3.9	
					Middle	3.6	0.3	296	27.8	27.8	7.7	7.7	9.7	9.7	57.7	57.7	4.3		12.2		13		81				<0.2		3.8	
						3.6	0.4	314	27.8		7.7		9.7		57.7		4.3		12.2		14		81				<0.2		4.0	
					Bottom	6.1	0.2	298	27.8	27.8	7.6	7.6	10.4	10.4	59.0	59.0	4.4	4.4	12.4		14		83				<0.2		3.9	
						6.1	0.2	312	27.8		7.6		10.4		59.0		4.4		12.4		14		84				<0.2		4.0	
IM8	Cloudy	Moderate	16:36	7.8	Surface	1.0	0.4	177	28.1	28.1	7.7	7.7	6.3	6.3	61.2	61.2	4.6	4.6	13.9	12.5	15	14	77	80	821681	807850	<0.2	<0.2	4.4	**4.4**
						1.0	0.4	190	28.1		7.7		6.3		61.2		4.6		13.9		14		78				<0.2		4.6	
					Middle	3.9	0.1	224	28.1	28.1	7.7	7.7	8.7	8.7	60.3	60.3	4.5		11.7		13		80				<0.2		4.4	
						3.9	0.1	230	28.1		7.7		8.7		60.3		4.5		11.7		13		79				<0.2		4.7	
					Bottom	6.8	0.1	315	27.9	27.9	7.7	7.7	10.0	10.0	59.8	59.8	4.4	4.4	11.9		13		81				<0.2		4.1	
						6.8	0.1	346	27.9		7.7		10.0		59.8		4.4		11.9		13		82				<0.2		4.1	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 July 17 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	16:45	7.1	Surface	1.0	0.3	198	28.8	28.8	7.8	7.8	7.4	7.4	74.1	74.1	5.5	5.1	10.9	14.7	12	11	78	80	822097	808804	<0.2	<0.2	3.2	2.9
						1.0	0.3	198	28.8		7.8		7.4		74.1		5.5		10.9		11		79				<0.2		3.2	
					Middle	3.6	0.1	220	28.2	28.2	7.7	7.7	9.6	9.6	61.9	61.9	4.6		13.8		11		80				<0.2		2.9	
						3.6	0.1	228	28.2		7.7		9.6		61.9		4.6		13.8		12		80				<0.2		2.7	
					Bottom	6.1	0.1	331	27.8	27.8	7.6	7.6	12.3	12.3	61.5	61.5	4.5	4.5	19.4		11		83				<0.2		2.9	
						6.1	0.1	305	27.8		7.6		12.3		61.5		4.5		19.4		11		82				<0.2		2.7	
IM10	Cloudy	Moderate	16:57	6.2	Surface	1.0	0.2	314	28.6	28.6	7.9	7.9	8.0	8.0	70.5	70.5	5.2	4.9	8.6	13.1	11	12	79	82	822230	809843	<0.2	<0.2	2.5	2.6
						1.0	0.2	317	28.6		7.9		8.0		70.5		5.2		8.6		10		79				<0.2		2.5	
					Middle	3.1	0.1	353	28.0	28.0	7.9	7.9	10.9	10.9	60.5	60.5	4.5		8.8		10		82				<0.2		2.6	
						3.1	0.1	325	28.0		7.9		10.9		60.5		4.5		8.8		12		82				<0.2		2.9	
					Bottom	5.2	0.1	89	27.5	27.5	7.9	7.9	15.1	15.1	57.5	57.5	4.2	4.2	21.9		13		84				<0.2		2.7	
						5.2	0.1	97	27.5		7.9		15.1		57.5		4.2		21.9		13		85				<0.2		2.6	
IM11	Cloudy	Moderate	17:08	8.2	Surface	1.0	0.4	340	28.4	28.4	7.9	7.9	10.5	10.5	73.8	73.8	5.4	5.2	6.2	7.3	10	10	81	85	821485	810545	<0.2	<0.2	3.0	3.1
						1.0	0.4	313	28.4		7.9		10.5		73.8		5.4		6.2		9		82				<0.2		3.1	
					Middle	4.1	0.4	333	28.0	28.0	8.0	8.0	13.4	13.4	68.4	68.4	5.0		5.4		10		84				<0.2		3.0	
						4.1	0.4	349	28.0		8.0		13.4		68.4		5.0		5.4		10		83				<0.2		3.3	
					Bottom	7.2	0.3	323	27.2	27.2	8.0	8.0	18.0	18.0	60.4	60.4	4.3	4.3	10.4		11		89				<0.2		3.2	
						7.2	0.4	334	27.2		8.0		18.0		60.4		4.3		10.4		11		88				<0.2		2.9	
IM12	Cloudy	Moderate	17:17	7.9	Surface	1.0	0.5	270	28.3	28.3	8.0	8.0	12.1	12.1	79.1	79.1	5.8	5.5	4.6	6.4	9	10	82	85	821149	811500	<0.2	<0.2	2.4	2.2
						1.0	0.5	292	28.3		8.0		12.1		79.1		5.8		4.6		9		81				<0.2		2.2	
					Middle	4.0	0.6	274	27.9	27.9	8.0	8.0	14.5	14.5	71.3	71.3	5.2		4.6		10		85				<0.2		2.2	
						4.0	0.6	295	27.9		8.0		14.5		71.3		5.2		4.6		10		84				<0.2		2.2	
					Bottom	6.9	0.3	296	26.9	26.9	8.0	8.0	20.0	20.0	57.3	57.3	4.1	4.1	10.0		10		89				<0.2		2.0	
						6.9	0.3	308	26.9		8.0		20.0		57.3		4.1		10.0		10		88				<0.2		2.2	
SR2	Cloudy	Moderate	18:03	5.1	Surface	1.0	0.7	321	28.4	28.4	8.2	8.2	13.5	13.5	81.6	81.6	5.9	5.9	4.4	10.4	10	10	83	85	821456	814182	<0.2	<0.2	1.7	1.8
						1.0	0.7	329	28.4		8.2		13.5		81.6		5.9		4.4		10		82				<0.2		1.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.1	0.5	316	26.9	26.9	8.0	8.0	19.7	19.7	63.6	63.6	4.5	4.5	16.4		10		87				<0.2		1.7	
						4.1	0.5	344	26.9		8.0		19.7		63.6		4.5		16.4		10		87				<0.2		1.7	
SR3	Cloudy	Moderate	16:29	8.3	Surface	1.0	0.5	188	28.0	28.0	7.7	7.7	6.4	6.5	61.8	61.8	4.7	4.6	15.2	13.1	12	15	-	-	822155	807578	-	-	-	-
						1.0	0.5	194	28.0		7.7		6.5		61.8		4.7		15.1		13		-				-		-	
					Middle	4.2	0.2	222	27.7	27.7	7.7	7.7	11.3	11.3	59.8	59.8	4.4		11.7		16		-				-		-	
						4.2	0.2	234	27.7		7.7		11.3		59.8		4.4		11.7		15		-				-		-	
					Bottom	7.3	0.4	344	27.7	27.7	7.6	7.6	12.0	12.0	57.9	58.0	4.3	4.3	12.5		17		-				-		-	
						7.3	0.4	353	27.7		7.6		12.0		58.1		4.3		12.5		17		-				-		-	
SR4A	Cloudy	Moderate	17:00	8.2	Surface	1.0	0.2	271	28.2	28.2	7.9	7.9	15.0	15.0	81.0	80.4	5.8	5.6	6.2	6.7	10	13	-	-	817196	807804	-	-	-	-
						1.0	0.2	295	28.2		7.9		15.0		79.8		5.7		6.3		11		-				-		-	
					Middle	4.1	0.1	288	28.0	28.0	7.9	7.9	15.3	15.4	76.7	76.5	5.5		6.8		11		-				-		-	
						4.1	0.1	307	27.9		7.9		15.4		76.2		5.5		7.0		12		-				-		-	
					Bottom	7.2	0.1	238	27.7	27.8	7.9	7.9	18.3	18.3	83.7	84.0	5.9	6.0	6.9		17		-				-		-	
						7.2	0.1	245	27.8		7.9		18.3		84.2		6.0		6.9		19		-				-		-	
SR5A	Cloudy	Calm	17:17	5.2	Surface	1.0	0.1	10	28.0	28.0	7.9	7.9	15.7	15.7	78.9	78.9	5.7	5.7	6.9	7.6	11	11	-	-	816609	810679	-	-	-	-
						1.0	0.1	10	28.0		7.9		15.7		78.8		5.7		7.2		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.1	341	27.8	27.8	7.9	7.9	16.3	16.3	81.9	82.1	5.9	5.9	8.1		11		-				-		-	
						4.2	0.1	314	27.8		7.9		16.3		82.2		5.9		8.1		11		-				-		-	
SR6	Cloudy	Calm	17:45	3.8	Surface	1.0	0.1	222	27.6	27.6	8.1	8.1	17.2	17.2	89.3	89.4	6.4	6.4	1.8	2.1	10	12	-	-	817914	814644	-	-	-	-
						1.0	0.1	239	27.6		8.1		17.2		89.4		6.4		1.8		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	225	27.4	27.4	8.1	8.1	19.2	19.2	91.7	91.8	6.5	6.5	2.3		12		-				-		-	
						2.8	0.1	225	27.4		8.1		19.2		91.8		6.5		2.3		14		-				-		-	
SR7	Cloudy	Moderate	18:47	17.7	Surface	1.0	0.0	296	26.9	26.9	8.0	8.0	21.0	21.0	78.6	78.6	5.6	5.2	1.5	2.0	12	16	-	-	823631	823730	-	-	-	-
						1.0	0.0	296	26.9		8.0		21.0		78.6		5.6		1.5		14		-				-		-	
					Middle	8.9	0.0	263	26.2	26.2	8.0	8.0	24.2	24.2	66.2	66.2	4.7		2.1		18		-				-		-	
						8.9	0.0	276	26.2		8.0		24.2		66.2		4.7		2.1		16		-				-		-	
					Bottom	16.7	0.1	244	25.7	25.7	7.9	7.9	27.9	27.9	49.2	49.7	3.4	3.5	2.4		16		-				-		-	
						16.7	0.1	245	25.7		7.9		27.9		50.1		3.5		2.4		17		-				-		-	
SR8	Cloudy	Moderate	17:28	4.8	Surface	1.0	0.4	270	28.3	28.3	8.1	8.1	12.4	12.4	108.1	108.1	7.6	7.6	6.4	7.7	13	13	-	-	820246	811418	-	-	-	-
						1.0	0.4	275	28.3		8.1		12.4		108.1		7.6		6.4		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.6	277	27.2	27.2	8.0	8.0	19.2	19.2	98.1	98.1	7.0	7.0	8.9		13		-				-		-	
						3.8	0.7	300	27.2		8.0		19.2		98.1		7.0		8.9		12		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 22 July 17 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	12:35	8.4	Surface	1.0	1.1	213	28.4	28.4	8.1	8.1	16.8	16.8	95.3	95.3	6.8	6.1	1.9	4.3	15	19	78	83	815639	804251	<0.2	<0.2	1.4	1.3
						1.0	1.1	220	28.4		8.1		16.8		95.2		6.7		2.0		15		78				<0.2		1.5	
					Middle	4.2	0.8	225	27.5	27.5	8.1	8.1	22.3	22.2	77.6	77.6	5.4		4.4		19		84				<0.2		1.6	
						4.2	0.9	236	27.5		8.1		22.1		77.5		5.4		4.6		18		84				<0.2		1.7	
					Bottom	7.4	0.7	228	27.4	27.4	8.0	8.0	24.5	24.5	81.3	81.5	5.6	5.6	6.5		24		86				<0.2		0.8	
						7.4	0.7	246	27.4		8.0		24.5		81.6		5.6		6.6		24		85				<0.2		0.7	
C2	Sunny	Moderate	13:23	10.8	Surface	1.0	1.4	166	29.0	29.0	7.9	7.9	11.3	11.3	77.9	77.9	5.6	4.8	5.5	11.5	11	13	86	89	825688	806953	<0.2	<0.2	2.4	2.5
						1.0	1.5	169	29.0		7.9		11.3		77.9		5.6		5.5		10		85				<0.2		2.5	
					Middle	5.4	1.1	173	27.5	27.5	7.9	7.9	16.0	16.0	54.2	54.2	3.9		10.7		13		88				<0.2		2.6	
						5.4	1.2	182	27.5		7.9		16.0		54.2		3.9		10.7		12		89				<0.2		2.5	
					Bottom	9.8	0.4	190	27.2	27.2	7.9	7.9	20.1	20.1	54.3	54.3	3.9	3.9	18.4		16		91				<0.2		2.5	
						9.8	0.5	190	27.2		7.9		20.1		54.3		3.9		18.4		16		92				<0.2		2.3	
C3	Sunny	Moderate	10:21	12.8	Surface	1.0	0.4	99	27.8	27.8	8.2	8.2	19.1	19.1	83.6	83.6	5.9	5.4	3.9	4.8	10	14	91	94	822118	817811	<0.2	<0.2	1.6	1.4
						1.0	0.4	101	27.8		8.2		19.1		83.6		5.9		3.9		11		92				<0.2		1.4	
					Middle	6.4	0.3	64	27.1	27.1	8.1	8.1	22.5	22.5	70.3	70.3	4.9		3.7		15		94				<0.2		1.4	
						6.4	0.3	66	27.1		8.1		22.5		70.3		4.9		3.7		15		93				<0.2		1.4	
					Bottom	11.8	1.0	73	26.6	26.6	8.0	8.0	25.2	25.2	62.5	62.5	4.4	4.4	6.9		18		96				<0.2		1.4	
						11.8	1.0	75	26.6		8.0		25.2		62.5		4.4		6.9		16		96				<0.2		1.4	
IM1	Sunny	Moderate	13:06	6.8	Surface	1.0	0.8	196	28.0	28.0	8.0	8.0	17.2	17.2	76.8	76.7	5.5	5.5	9.7	12.0	15	17	76	80	818337	806451	<0.2	<0.2	1.6	1.6
						1.0	0.8	201	28.0		8.0		17.2		76.6		5.5		9.2		14		77				<0.2		1.6	
					Middle	3.4	0.7	193	27.9	27.9	8.0	8.0	17.7	17.8	75.6	75.6	5.4		11.4		14		79				<0.2		1.6	
						3.4	0.7	196	27.9		8.0		17.8		75.6		5.4		11.6		14		79				<0.2		1.6	
					Bottom	5.8	0.6	192	27.8	27.8	8.0	8.0	18.5	18.5	75.5	75.6	5.4	5.4	14.8		21		85				<0.2		1.3	
						5.8	0.6	196	27.8		8.0		18.5		75.6		5.4		15.1		22		85				<0.2		1.6	
IM2	Sunny	Moderate	13:14	7.9	Surface	1.0	1.3	210	28.2	28.2	7.9	7.9	15.7	15.7	75.0	75.0	5.4	5.4	4.2	5.8	17	20	75	79	818859	806191	<0.2	<0.2	2.2	1.8
						1.0	1.4	221	28.2		7.9		15.7		74.9		5.4		4.5		16		76				<0.2		2.0	
					Middle	4.0	1.0	210	27.8	27.8	8.0	8.0	18.0	18.0	74.9	75.1	5.3		6.6		18		79				<0.2		2.0	
						4.0	1.1	216	27.8		8.0		17.9		75.2		5.4		6.4		20		79				<0.2		1.9	
					Bottom	6.9	0.8	207	27.8	27.8	8.0	8.0	18.6	18.6	81.6	82.7	5.8	5.9	6.9		23		82				<0.2		1.3	
						6.9	0.9	224	27.8		8.0		18.6		83.8		5.9		6.4		24		83				<0.2		1.4	
IM3	Sunny	Moderate	13:25	7.2	Surface	1.0	1.2	220	27.9	27.9	7.9	7.9	16.9	16.9	73.5	73.5	5.3	5.2	5.9	6.5	16	18	80	85	819402	806015	<0.2	<0.2	1.8	1.7
						1.0	1.3	220	27.9		7.9		16.9		73.5		5.2		6.0		15		80				<0.2		1.7	
					Middle	3.6	1.0	219	27.9	27.9	8.0	8.0	17.1	17.1	73.0	73.0	5.2		6.3		17		84				<0.2		1.6	
						3.6	1.0	238	27.9		8.0		17.0		72.9		5.2		6.6		15		85				<0.2		1.7	
					Bottom	6.2	0.8	213	27.5	27.5	8.0	8.0	20.3	20.3	75.6	75.7	5.3	5.3	7.2		21		90				<0.2		1.6	
						6.2	0.9	220	27.5		8.0		20.2		75.8		5.3		7.0		22		89				<0.2		1.5	
IM4	Sunny	Moderate	13:32	7.1	Surface	1.0	0.7	197	28.4	28.4	8.0	8.0	14.9	14.9	83.3	83.4	6.0	6.0	6.7	7.8	12	13	78	83	819551	805033	<0.2	<0.2	1.8	1.7
						1.0	0.7	211	28.4		8.0		14.9		83.4		6.0		6.3		11		78				<0.2		1.8	
					Middle	3.6	0.6	203	28.2	28.2	8.0	8.0	16.2	15.8	83.5	83.7	6.0		6.4		11		83				<0.2		1.9	
						3.6	0.7	208	28.2		8.0		15.3		83.9		6.0		6.8		10		84				<0.2		1.7	
					Bottom	6.1	0.5	205	27.9	27.9	8.1	8.1	18.3	18.3	89.0	89.2	6.3	6.3	10.3		18		88				<0.2		1.5	
						6.1	0.5	223	27.9		8.1		18.3		89.4		6.3		10.3		17		87				<0.2		1.4	
IM5	Sunny	Moderate	13:41	6.2	Surface	1.0	1.2	207	28.4	28.4	7.9	7.9	13.9	13.9	78.7	78.7	5.7	5.6	4.7	9.6	6	12	80	84	820560	804904	<0.2	<0.2	2.0	1.9
						1.0	1.2	225	28.4		7.9		13.9		78.6		5.7		4.8		7		79				<0.2		1.9	
					Middle	3.1	1.1	212	28.2	28.2	8.0	8.0	15.1	15.1	76.7	76.5	5.5		8.1		13		84				<0.2		1.9	
						3.1	1.1	218	28.2		8.0		15.0		76.2		5.5		9.0		15		83				<0.2		1.9	
					Bottom	5.2	1.0	220	27.8	27.8	8.0	8.0	18.2	18.2	75.1	75.2	5.3	5.3	15.3		14		88				<0.2		1.8	
						5.2	1.0	226	27.8		8.0		18.2		75.2		5.3		15.6		15		88				<0.2		1.7	
IM6	Sunny	Moderate	13:48	6.1	Surface	1.0	0.8	234	27.6	27.6	8.0	8.0	18.8	18.8	69.8	69.9	5.0	5.0	6.3	7.3	18	22	81	87	821040	805834	<0.2	<0.2	1.7	1.5
						1.0	0.8	246	27.6		8.0		18.7		69.9		5.0		6.4		20		82				<0.2		1.5	
					Middle	3.1	0.7	233	27.5	27.5	8.0	8.0	19.5	19.4	70.2	70.4	5.0		7.3		23		87				<0.2		1.5	
						3.1	0.7	241	27.5		8.0		19.2		70.6		5.0		7.6		21		87				<0.2		1.5	
					Bottom	5.1	0.6	230	27.4	27.4	8.0	8.0	21.1	21.1	72.6	72.7	5.1	5.1	8.2		24		90				<0.2		1.4	
						5.1	0.6	243	27.4		8.0		21.1		72.8		5.1		8.0		26		92				<0.2		1.4	
IM7	Sunny	Moderate	12:43	7.9	Surface	1.0	0.7	213	27.8	27.8	8.1	8.1	18.1	18.1	66.4	66.4	4.7	4.7	4.8	5.3	22	21	85	89	821352	806816	<0.2	<0.2	1.5	1.6
						1.0	0.8	224	27.8		8.1		18.1		66.4		4.7		4.8		22		87				<0.2		1.7	
					Middle	4.0	0.6	224	27.7	27.7	8.1	8.1	19.3	19.3	65.3	65.3	4.6		5.3		22		90				<0.2		1.7	
						4.0	0.6	233	27.7		8.1		19.3		65.3		4.6		5.3		20		89				<0.2		1.7	
					Bottom	6.9	0.4	207	27.6	27.6	8.1	8.1	22.0	22.0	67.5	67.5	4.7	4.7	5.7		20		91				<0.2		1.6	
						6.9	0.4	216	27.6		8.1		22.0		67.5		4.7		5.7		20		91				<0.2		1.4	
IM8	Sunny	Moderate	12:31	7.9	Surface	1.0	0.9	189	28.6	28.6	8.0	8.0	14.1	14.1	75.6	75.6	5.4	5.1	3.9	5.7	10	9	82	86	821688	807821	<0.2	<0.2	2.3	2.3
						1.0	1.0	202	28.6		8.0		14.1		75.6		5.4		3.9		8		83				<0.2		2.4	
					Middle	4.0	0.6	207	27.9	27.9	8.0	8.0	16.2	16.2	66.8	66.8	4.8		5.6		10		85				<0.2		2.2	
						4.0	0.6	224	27.9		8.0		16.2		66.8		4.8		5.6		9		86				<0.2		2.3	
					Bottom	6.9	0.5	243	27.6	27.6	8.1	8.1	19.7	19.7	66.5	66.5	4.7	4.7	7.7		10		89				<0.2		2.4	
						6.9	0.5	249	27.6		8.1		19.7		66.5		4.7		7.7		9		90				<0.2		2.1	

DA: Depth-Averaged

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

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

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Water Quality Monitoring

Water Quality Monitoring Results on 22 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	12:22	7.6	Surface	1.0	1.0	164	28.5	28.5	8.0	8.0	14.2	14.2	71.4	71.4	5.1	4.7	4.1	9.1	11	13	84	90	822109	808791	<0.2	<0.2	2.3	2.3
						1.0	1.0	172	28.5		8.0		14.2		71.4		5.1		4.1		11		84				<0.2		2.4	
					Middle	3.8	0.6	152	27.5	27.5	8.0	8.0	19.4	19.4	59.2	59.2	4.2		10.7		13		91				<0.2		2.5	
						3.8	0.7	156	27.5		8.0		19.4		59.2		4.2		10.7		13		92				<0.2		2.5	
					Bottom	6.6	0.2	132	27.5	27.5	8.1	8.1	20.3	20.3	60.6	60.6	4.3	4.3	12.6		15		93				<0.2		2.1	
						6.6	0.2	133	27.5		8.1		20.3		60.6		4.3		12.6		15		94				<0.2		2.0	
IM10	Sunny	Moderate	12:11	7.7	Surface	1.0	1.0	138	28.3	28.3	8.0	8.0	13.9	13.9	65.1	65.1	4.7	4.6	6.5	8.3	13	14	83	88	822252	809855	<0.2	<0.2	2.4	2.2
						1.0	1.0	142	28.3		8.0		13.9		65.1		4.7		6.5		13		84				<0.2		2.4	
					Middle	3.9	0.8	128	27.6	27.6	8.0	8.0	18.9	18.9	61.7	61.7	4.4		8.9		14		89				<0.2		2.1	
						3.9	0.8	131	27.6		8.0		18.9		61.7		4.4		8.9		13		88				<0.2		2.2	
					Bottom	6.7	0.6	116	27.6	27.6	8.0	8.0	20.3	20.3	65.9	65.9	4.6	4.6	9.4		14		91				<0.2		2.0	
						6.7	0.6	119	27.6		8.0		20.3		65.9		4.6		9.4		15		92				<0.2		2.0	
IM11	Sunny	Moderate	11:58	7.4	Surface	1.0	0.7	112	28.2	28.2	8.0	8.0	14.7	14.7	71.0	71.0	5.1	5.0	4.5	5.5	13	14	84	88	821512	810534	<0.2	<0.2	2.1	1.8
						1.0	0.8	116	28.2		8.0		14.7		71.0		5.1		4.5		11		83				<0.2		2.0	
					Middle	3.7	0.5	112	27.8	27.8	8.1	8.1	18.1	18.1	69.0	69.0	4.9		5.6		17		88				<0.2		1.8	
						3.7	0.5	116	27.8		8.1		18.1		69.0		4.9		5.6		15		88				<0.2		1.9	
					Bottom	6.4	0.3	98	27.8	27.8	8.1	8.1	18.5	18.5	71.1	71.1	5.0	5.0	6.3		15		93				<0.2		1.6	
						6.4	0.4	100	27.8		8.1		18.5		71.1		5.0		6.3		15		92				<0.2		1.5	
IM12	Sunny	Moderate	11:49	8.9	Surface	1.0	0.8	127	28.3	28.3	8.0	8.0	14.5	14.5	73.3	73.3	5.3	5.2	4.2	5.3	10	11	80	84	821142	811523	<0.2	<0.2	2.1	2.0
						1.0	0.9	130	28.3		8.0		14.5		73.3		5.3		4.2		10		81				<0.2		2.0	
					Middle	4.5	0.7	102	27.9	27.9	8.1	8.1	16.8	16.8	71.2	71.2	5.1		5.0		11		83				<0.2		2.2	
						4.5	0.7	106	27.9		8.1		16.8		71.2		5.1		5.0		10		84				<0.2		2.2	
					Bottom	7.9	0.4	91	27.9	27.9	8.1	8.1	18.0	18.0	72.2	72.2	5.1	5.1	6.7		11		86				<0.2		2.0	
						7.9	0.5	92	27.9		8.1		18.0		72.2		5.1		6.7		13		87				<0.2		1.7	
SR2	Sunny	Moderate	10:53	5.4	Surface	1.0	0.1	133	28.0	28.0	8.0	8.0	16.2	16.2	75.8	75.8	5.4	5.4	4.9	4.7	16	16	88	90	821477	814146	<0.2	<0.2	1.5	1.7
						1.0	0.1	145	28.0		8.0		16.2		75.8		5.4		4.9		16		89				<0.2		1.7	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.4	0.1	180	27.9	27.9	8.0	8.0	16.8	16.8	76.5	76.5	5.5	5.5	4.4		16		91				<0.2		1.7	
						4.4	0.1	186	27.9		8.0		16.8		76.5		5.5		4.4		17		91				<0.2		1.8	
SR3	Sunny	Moderate	12:37	8.8	Surface	1.0	1.0	189	28.7	28.7	8.0	8.0	14.3	14.3	76.6	76.6	5.5	5.3	3.8	7.4	9	12	-	-	822140	807571	-	-	-	-
						1.0	1.0	200	28.7		8.0		14.3		76.6		5.5		3.8		8		-				-		-	
					Middle	4.4	0.6	192	27.8	27.8	8.1	8.1	17.2	17.2	70.2	70.2	5.0		6.8		11		-				-		-	
						4.4	0.6	204	27.8		8.1		17.2		70.2		5.0		6.8		12		-				-		-	
					Bottom	7.8	0.3	233	27.6	27.6	8.1	8.1	20.3	20.3	67.8	67.8	4.8	4.8	11.7		16		-				-		-	
						7.8	0.3	240	27.6		8.1		20.3		67.8		4.8		11.7		15		-				-		-	
SR4A	Sunny	Moderate	12:15	7.9	Surface	1.0	0.2	251	28.5	28.5	8.0	8.0	18.6	18.6	88.7	88.8	6.2	5.8	2.4	3.3	10	20	-	-	817172	807800	-	-	-	-
						1.0	0.2	255	28.5		8.0		18.6		88.9		6.2		2.3		10		-				-		-	
					Middle	4.0	0.1	254	27.5	27.5	8.0	8.0	23.4	23.4	75.8	75.8	5.3		4.1		23		-				-		-	
						4.0	0.1	270	27.5		8.0		23.3		75.7		5.3		3.6		23		-				-		-	
					Bottom	6.9	0.1	257	27.3	27.3	8.0	8.0	24.3	24.3	78.9	79.1	5.5	5.5	3.8		26		-				-		-	
						6.9	0.1	280	27.3		8.0		24.3		79.2		5.5		3.8		28		-				-		-	
SR5A	Sunny	Calm	11:58	5.5	Surface	1.0	0.0	18	28.7	28.8	8.0	8.0	17.0	17.0	85.1	84.9	6.0	6.0	3.1	3.4	10	11	-	-	816602	810680	-	-	-	-
						1.0	0.0	19	28.8		8.0		17.0		84.7		6.0		3.2		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.5	0.1	100	28.1	28.1	8.0	8.0	17.9	17.9	85.8	86.0	6.1	6.1	3.6		14		-				-		-	
						4.5	0.1	103	28.1		8.0		17.9		86.1		6.1		3.6		12		-				-		-	
SR6	Sunny	Calm	11:33	4.3	Surface	1.0	0.1	86	28.5	28.5	8.0	8.0	15.7	15.7	88.2	87.9	6.3	6.3	4.6	4.9	12	13	-	-	817902	814647	-	-	-	-
						1.0	0.1	92	28.5		8.0		15.7		87.5		6.2		5.2		12		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	73	28.4	28.4	7.9	7.9	16.8	16.8	91.7	91.9	6.5	6.5	4.9		14		-				-		-	
						3.3	0.2	74	28.4		7.9		16.8		92.1		6.5		4.8		12		-				-		-	
SR7	Sunny	Moderate	10:22	16.7	Surface	1.0	0.4	63	27.2	27.2	8.0	8.0	20.2	20.2	80.1	80.1	5.7	5.8	1.5	1.8	12	16	-	-	823645	823754	-	-	-	-
						1.0	0.4	63	27.2		8.0		20.2		80.0		5.7		1.5		12		-				-		-	
					Middle	8.4	0.1	319	26.8	26.8	7.9	7.9	23.5	23.5	82.5	82.8	5.8		2.2		16		-				-		-	
						8.4	0.1	321	26.8		7.9		23.5		83.0		5.8		2.3		15		-				-		-	
					Bottom	15.7	0.1	50	26.6	26.7	7.6	7.6	24.6	24.5	71.3	72.1	5.0	5.1	1.4		19		-				-		-	
						15.7	0.1	54	26.7		7.6		24.4		72.9		5.1		1.6		21		-				-		-	
SR8	Sunny	Moderate	11:26	5.3	Surface	1.0	0.2	263	28.5	28.5	8.1	8.1	16.0	16.0	80.7	80.7	5.7	5.7	4.0	4.0	11	13	-	-	820246	811418	-	-	-	-
						1.0	0.2	275	28.5		8.1		16.0		80.7		5.7		4.0		13		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.2	273	28.4	28.4	8.1	8.1	16.3	16.3	83.6	83.6	5.9	5.9	4.0		14		-				-		-	
						4.3	0.2	283	28.4		8.1		16.3		83.6		5.9		4.0		15		-				-		-	

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 22 July 17 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	18:26	7.8	Surface	1.0	0.5	18	28.0	28.0	8.0	8.0	16.7	16.7	77.4	77.5	5.5	5.6	7.5	10.3	18	18	80	85	815635	804258	<0.2	<0.2	1.4	1.5
						1.0	0.5	18	28.0		8.0		16.7		77.5		5.5		7.6		18		79				<0.2		1.6	
					Middle	3.9	0.5	26	28.0	28.0	8.0	8.0	17.2	17.2	80.4	80.5	5.7		9.9		19		86				<0.2		1.4	
						3.9	0.5	27	28.0		8.0		17.2		80.5		5.7		10.1		18		86				<0.2		1.6	
					Bottom	6.8	0.4	34	28.0	28.0	8.0	8.0	18.8	18.8	85.6	85.7	6.0	6.1	13.4		18		89				<0.2		1.3	
						6.8	0.4	34	28.0		8.0		18.8		85.8		6.1		13.5		18		89				<0.2		1.4	
C2	Fine	Moderate	17:49	11.0	Surface	1.0	0.5	193	28.5	28.5	7.8	7.8	8.5	8.5	59.5	59.5	4.4	4.1	13.6	14.7	12	15	79	84	825698	806955	<0.2	<0.2	4.5	4.7
						1.0	0.5	205	28.5		7.8		8.5		59.5		4.4		13.6		14		80				<0.2		4.7	
					Middle	5.5	0.1	217	27.7	27.7	7.8	7.8	14.3	14.3	50.2	50.2	3.7		14.2		13		83				<0.2		5.0	
						5.5	0.1	227	27.7		7.8		14.3		50.2		3.7		14.2		13		84				<0.2		5.0	
					Bottom	10.0	0.2	278	27.4	27.4	7.9	7.9	17.8	17.8	52.0	52.0	3.7	3.7	16.4		17		89				<0.2		4.5	
						10.0	0.2	288	27.4		7.9		17.8		52.0		3.7		16.4		18		89				<0.2		4.5	
C3	Fine	Moderate	20:19	11.4	Surface	1.0	0.5	246	27.3	27.3	8.2	8.2	22.1	22.1	75.6	75.5	5.3	5.0	3.6	4.1	10	13	92	96	822093	817822	<0.2	<0.2	2.0	1.5
						1.0	0.5	270	27.3		8.2		22.1		75.4		5.3		3.6		9		93				<0.2		1.9	
					Middle	5.7	0.4	235	26.9	26.9	8.2	8.2	24.1	24.1	67.3	67.3	4.7		4.2		15		96				<0.2		1.3	
						5.7	0.4	235	26.9		8.2		24.1		67.3		4.7		4.2		15		97				<0.2		1.2	
					Bottom	10.4	0.2	243	26.8	26.8	8.1	8.1	24.5	24.5	67.9	67.9	4.7	4.7	4.5		15		98				<0.2		1.3	
						10.4	0.2	266	26.8		8.1		24.5		67.9		4.7		4.5		14		97				<0.2		1.3	
IM1	Fine	Moderate	18:07	6.7	Surface	1.0	0.4	29	28.2	28.2	8.0	8.1	16.5	16.6	88.8	89.3	6.3	6.4	5.0	7.9	11	14	81	86	818359	806449	<0.2	<0.2	2.2	1.8
						1.0	0.4	30	28.2		8.1		16.6		89.8		6.4		5.3		12		81				<0.2		1.9	
					Middle	3.4	0.5	359	28.3	28.3	8.1	8.1	18.3	18.3	91.3	91.3	6.4		7.3		13		86				<0.2		1.8	
						3.4	0.5	330	28.3		8.1		18.3		91.3		6.4		7.5		13		86				<0.2		1.9	
					Bottom	5.7	0.5	348	28.2	28.2	8.1	8.1	20.9	20.9	93.1	93.2	6.5	6.5	11.2		16		91				<0.2		1.7	
						5.7	0.6	352	28.2		8.1		20.9		93.2		6.5		11.1		17		91				<0.2		1.5	
IM2	Fine	Moderate	18:01	7.5	Surface	1.0	0.2	317	28.3	28.3	8.0	8.0	15.1	15.1	85.8	85.9	6.2	6.3	5.4	5.8	12	15	84	89	818838	806186	<0.2	<0.2	2.6	2.1
						1.0	0.2	325	28.3		8.0		15.1		85.9		6.2		5.5		12		85				<0.2		2.3	
					Middle	3.8	0.3	350	28.3	28.3	8.0	8.0	16.5	16.5	88.7	89.2	6.3		5.6		16		88				<0.2		2.2	
						3.8	0.3	322	28.3		8.0		16.4		89.6		6.4		6.3		16		88				<0.2		2.3	
					Bottom	6.5	0.4	342	28.4	28.4	8.1	8.1	18.7	18.7	91.5	91.5	6.4	6.4	6.1		17		93				<0.2		1.6	
						6.5	0.4	344	28.4		8.1		18.7		91.5		6.4		6.0		17		93				<0.2		1.8	
IM3	Fine	Moderate	17:54	7.7	Surface	1.0	0.3	276	28.2	28.2	7.9	7.9	13.3	13.3	76.3	76.4	5.5	5.6	4.5	4.2	14	13	82	85	819402	806027	<0.2	<0.2	2.7	2.7
						1.0	0.3	276	28.2		7.9		13.3		76.4		5.5		4.5		13		82				<0.2		2.7	
					Middle	3.9	0.3	291	28.2	28.2	7.9	7.9	14.5	14.6	78.0	78.2	5.6		4.2		12		85				<0.2		2.7	
						3.9	0.3	298	28.2		7.9		14.6		78.4		5.6		4.2		12		85				<0.2		3.0	
					Bottom	6.7	0.3	318	28.2	28.2	8.0	8.0	16.4	16.4	80.5	80.5	5.7	5.7	3.8		12		88				<0.2		2.5	
						6.7	0.3	322	28.2		8.0		16.4		80.5		5.7		3.9		12		88				<0.2		2.6	
IM4	Fine	Moderate	17:47	7.0	Surface	1.0	0.4	296	27.9	27.9	7.8	7.8	12.9	12.9	66.4	66.5	4.9	5.0	6.2	6.9	11	12	80	87	819575	805043	<0.2	<0.2	3.0	2.9
						1.0	0.4	325	27.9		7.8		12.9		66.5		4.9		6.3		12		80				<0.2		3.0	
					Middle	3.5	0.3	328	27.9	27.9	7.8	7.8	13.3	13.3	68.3	68.4	5.0		6.8		12		87				<0.2		3.0	
						3.5	0.3	339	27.9		7.8		13.3		68.4		5.0		6.9		12		87				<0.2		3.2	
					Bottom	6.0	0.3	10	27.9	27.9	7.9	7.9	15.2	15.2	73.0	73.1	5.3	5.3	7.6		13		93				<0.2		2.6	
						6.0	0.3	10	27.9		7.9		15.2		73.2		5.3		7.6		13		92				<0.2		2.7	
IM5	Fine	Moderate	17:34	6.1	Surface	1.0	0.4	297	27.9	27.9	7.7	7.7	12.4	12.4	64.4	64.5	4.7	4.8	9.2	9.7	13	14	82	85	820583	804935	<0.2	<0.2	2.8	2.9
						1.0	0.5	325	27.9		7.7		12.4		64.5		4.7		9.2		14		82				<0.2		3.0	
					Middle	3.1	0.4	294	27.9	27.9	7.7	7.7	12.4	12.4	66.8	66.9	4.9		9.8		12		84				<0.2		2.8	
						3.1	0.4	311	27.9		7.7		12.4		67.0		4.9		9.8		14		85				<0.2		2.8	
					Bottom	5.1	0.4	318	27.9	27.9	7.7	7.7	12.4	12.4	75.6	75.9	5.5	5.6	10.0		17		88				<0.2		3.3	
						5.1	0.4	341	27.9		7.7		12.4		76.2		5.6		10.1		16		88				<0.2		2.9	
IM6	Fine	Moderate	17:28	6.0	Surface	1.0	0.6	293	27.8	27.8	7.6	7.6	12.0	12.0	66.4	66.4	4.9	4.6	12.3	15.3	15	17	79	82	821049	805811	<0.2	<0.2	3.2	3.1
						1.0	0.6	301	27.8		7.6		12.0		66.4		4.9		12.3		14		79				<0.2		3.1	
					Middle	3.0	0.5	297	27.8	27.8	7.6	7.6	12.4	12.4	58.8	58.8	4.3		15.4		15		81				<0.2		3.0	
						3.0	0.5	309	27.8		7.6		12.4		58.8		4.3		15.6		16		81				<0.2		3.0	
					Bottom	5.0	0.5	296	27.7	27.7	7.6	7.6	12.6	12.6	60.5	61.0	4.4	4.5	18.4		20		85				<0.2		3.0	
						5.0	0.5	324	27.7		7.6		12.6		61.4		4.5		17.7		21		85				<0.2		3.1	
IM7	Fine	Moderate	18:21	7.6	Surface	1.0	0.2	283	28.3	28.3	7.8	7.8	9.7	9.7	66.8	66.8	4.9	4.7	11.7	11.4	11	12	81	84	821346	806832	<0.2	<0.2	3.2	3.2
						1.0	0.2	292	28.3		7.8		9.7		66.8		4.9		11.7		10		81				<0.2		3.2	
					Middle	3.8	0.2	314	28.2	28.2	7.8	7.8	10.4	10.4	59.8	59.8	4.4		10.7		14		84				<0.2		3.3	
						3.8	0.2	323	28.2		7.8		10.4		59.8		4.4		10.7		13		83				<0.2		3.0	
					Bottom	6.6	0.2	328	28.0	28.0	7.8	7.8	12.1	12.1	57.5	57.5	4.2	4.2	11.8		13		88				<0.2		3.3	
						6.6	0.2	348	28.0		7.8		12.1		57.5		4.2		11.8		13		87				<0.2		3.2	
IM8	Fine	Moderate	18:35	7.5	Surface	1.0	0.2	149	28.3	28.3	7.8	7.8	10.1	10.1	66.8	66.8	4.9	4.7	11.4	12.2	13	13	81	84	821696	807828	<0.2	<0.2	4.1	**<u>3.8</u>**
						1.0	0.2	159	28.3		7.8		10.1		66.8		4.9		11.4		13		81				<0.2		3.7	
					Middle	3.8	0.0	126	28.1	28.1	7.8	7.8	11.4	11.4	60.2	60.2	4.4		12.7		12		84				<0.2		3.8	
						3.8	0.0	128	28.1		7.8		11.4		60.2		4.4		12.7		12		84				<0.2		3.8	
					Bottom	6.5	0.1	354	28.1	28.1	7.8	7.8	12.0	12.0	56.3	56.3	4.1	4.1	12.6		15		87				<0.2		3.7	
						6.5	0.1	326	28.1		7.8		12.0		56.3		4.1		12.6		14		87				<0.2		3.6	

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 22 July 17 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	18:43	7.3	Surface	1.0	0.1	13	28.7	28.7	7.9	7.9	9.9	9.9	66.3	66.3	4.9	4.6	8.4	9.3	12	12	78	82	822083	808830	<0.2	<0.2	3.9	**3.9**
						1.0	0.1	13	28.7		7.9		9.9		66.3		4.9		8.4		12		79				<0.2		4.0	
					Middle	3.7	0.1	36	28.4	28.4	7.8	7.8	11.2	11.2	58.6	58.6	4.3		9.2		11		81				<0.2		4.1	
						3.7	0.1	37	28.4		7.8		11.2		58.6		4.3		9.2		12		82				<0.2		4.2	
					Bottom	6.3	0.2	28	28.2	28.2	7.8	7.8	12.2	12.2	59.7	59.7	4.4	4.4	10.3		13		85				<0.2		3.5	
						6.3	0.2	30	28.2		7.8		12.2		59.7		4.4		10.3		14		85				<0.2		3.7	
IM10	Fine	Moderate	18:55	6.2	Surface	1.0	0.3	349	28.6	28.6	7.9	7.9	10.8	10.8	66.1	66.1	4.8	4.7	8.7	12.6	10	11	82	84	822225	809853	<0.2	<0.2	3.4	3.5
						1.0	0.3	358	28.6		7.9		10.8		66.1		4.8		8.7		10		81				<0.2		3.6	
					Middle	3.1	0.3	320	28.4	28.4	7.9	7.9	12.6	12.6	63.5	63.5	4.6		11.8		10		84				<0.2		3.5	
						3.1	0.3	346	28.4		7.9		12.6		63.5		4.6		11.8		9		84				<0.2		3.6	
					Bottom	5.2	0.4	307	28.2	28.2	8.0	8.0	14.2	14.2	65.7	65.7	4.7	4.7	17.2		12		87				<0.2		3.5	
						5.2	0.4	310	28.2		8.0		14.2		65.7		4.7		17.2		12		88				<0.2		3.4	
IM11	Fine	Moderate	19:08	7.9	Surface	1.0	0.3	324	28.6	28.6	8.1	8.1	12.1	12.1	82.6	82.6	6.0	6.1	5.2	6.6	9	10	83	86	821490	810551	<0.2	<0.2	3.0	3.1
						1.0	0.3	331	28.6		8.1		12.1		82.6		6.0		5.2		11		84				<0.2		2.9	
					Middle	4.0	0.4	305	28.7	28.7	8.2	8.2	14.8	14.8	86.0	86.0	6.1		6.1		9		86				<0.2		3.3	
						4.0	0.4	318	28.7		8.2		14.8		86.0		6.1		6.1		9		86				<0.2		3.3	
					Bottom	6.9	0.3	293	28.3	28.3	8.1	8.1	16.4	16.4	80.7	80.7	5.7	5.7	8.6		9		89				<0.2		3.0	
						6.9	0.4	310	28.3		8.1		16.4		80.7		5.7		8.6		11		89				<0.2		3.2	
IM12	Fine	Moderate	19:16	7.4	Surface	1.0	0.4	262	28.6	28.6	8.2	8.2	13.9	13.9	83.1	83.1	6.0	5.8	7.7	12.0	11	9	85	91	821174	811499	<0.2	<0.2	2.2	2.5
						1.0	0.5	275	28.6		8.2		13.9		83.1		6.0		7.7		10		86				<0.2		2.3	
					Middle	3.7	0.5	264	28.0	28.0	8.2	8.2	18.3	18.3	77.5	77.5	5.5		10.2		11		93				<0.2		2.4	
						3.7	0.5	287	28.0		8.2		18.3		77.5		5.5		10.2		10		92				<0.2		2.9	
					Bottom	6.4	0.3	273	27.9	27.9	8.2	8.2	18.6	18.6	76.6	76.6	5.4	5.4	18.2		5		94				<0.2		2.5	
						6.4	0.3	290	27.9		8.2		18.6		76.6		5.4		18.2		5		94				<0.2		2.6	
SR2	Fine	Moderate	19:51	4.8	Surface	1.0	0.4	325	28.1	28.1	8.2	8.2	16.8	16.8	78.4	78.4	5.6	5.6	5.8	6.6	4	4	89	91	821477	814169	<0.2	<0.2	1.3	1.3
						1.0	0.4	345	28.1		8.2		16.8		78.4		5.6		5.8		5		89				<0.2		1.6	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.2	315	28.0	28.0	8.2	8.2	17.5	17.5	77.3	77.3	5.5	5.5	7.4		4		94				<0.2		1.2	
						3.8	0.2	331	28.0		8.2		17.5		77.3		5.5		7.4		3		93				<0.2		1.1	
SR3	Fine	Moderate	18:29	8.5	Surface	1.0	0.2	188	28.5	28.5	7.8	7.8	8.5	8.5	62.9	62.9	4.7	4.6	11.6	10.6	7	7	-	-	822140	807583	-	-	-	-
						1.0	0.2	198	28.5		7.8		8.5		62.9		4.7		11.6		6		-				-		-	
					Middle	4.3	0.1	303	27.9	27.9	7.8	7.8	12.2	12.2	59.8	59.8	4.5		10.1		8		-				-		-	
						4.3	0.1	320	27.9		7.8		12.2		59.8		4.5		10.1		7		-				-		-	
					Bottom	7.5	0.2	280	27.9	27.9	7.8	7.8	12.7	12.7	55.9	55.9	4.1	4.1	10.1		7		-				-		-	
						7.5	0.2	286	27.9		7.8		12.7		55.9		4.1		10.1		9		-				-		-	
SR4A	Fine	Moderate	18:45	7.5	Surface	1.0	0.2	86	28.6	28.6	8.1	8.1	17.7	17.7	97.3	97.3	6.8	6.8	4.4	4.5	4	4	-	-	817193	807808	-	-	-	-
						1.0	0.2	92	28.6		8.1		17.7		97.3		6.8		4.5		4		-				-		-	
					Middle	3.8	0.1	105	28.6	28.6	8.1	8.1	17.7	17.7	96.6	96.6	6.8		4.6		5		-				-		-	
						3.8	0.1	113	28.6		8.1		17.7		96.5		6.8		4.4		5		-				-		-	
					Bottom	6.5	0.1	102	28.6	28.6	8.1	8.1	17.9	17.9	96.7	96.8	6.8	6.8	4.4		4		-				-		-	
						6.5	0.1	105	28.6		8.1		17.9		96.9		6.8		4.5		4		-				-		-	
SR5A	Fine	Moderate	19:03	3.8	Surface	1.0	0.1	236	28.6	28.6	8.1	8.1	17.4	17.4	96.6	96.5	6.8	6.8	5.9	5.0	2	3	-	-	816586	810708	-	-	-	-
						1.0	0.1	255	28.6		8.1		17.4		96.4		6.8		6.3		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.8	0.1	232	28.5	28.5	8.1	8.1	17.7	17.7	96.9	97.0	6.8	6.8	3.9		3		-				-		-	
						2.8	0.1	237	28.5		8.1		17.7		97.0		6.8		3.9		3		-				-		-	
SR6	Fine	Moderate	19:25	4.3	Surface	1.0	0.1	173	28.0	28.0	8.0	8.0	16.8	16.8	83.2	83.3	5.9	6.0	4.6	5.1	<2	2	-	-	817897	814676	-	-	-	-
						1.0	0.1	184	28.0		8.0		16.8		83.4		6.0		5.1		<2		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.1	143	28.0	28.0	8.0	8.0	18.1	18.1	84.4	84.4	6.0	6.0	5.4		2		-				-		-	
						3.3	0.1	149	28.0		8.0		18.1		84.4		6.0		5.4		3		-				-		-	
SR7	Fine	Moderate	20:21	15.6	Surface	1.0	0.1	217	27.1	27.1	8.0	8.0	22.5	22.5	73.1	73.1	5.1	5.1	2.2	2.3	<2	3	-	-	823627	823756	-	-	-	-
						1.0	0.1	236	27.1		8.0		22.5		73.1		5.1		2.2		<2		-				-		-	
					Middle	7.8	0.1	86	27.1	27.1	8.0	8.0	22.6	22.6	72.9	72.9	5.1		2.2		2		-				-		-	
						7.8	0.2	92	27.1		8.0		22.6		72.9		5.1		2.2		4		-				-		-	
					Bottom	14.6	0.1	172	27.0	27.0	8.0	8.0	23.0	23.0	72.7	72.8	5.1	5.1	2.5		2		-				-		-	
						14.6	0.1	173	27.0		8.0		22.9		72.8		5.1		2.6		3		-				-		-	
SR8	Fine	Moderate	19:24	5.3	Surface	1.0	0.0	313	28.5	28.5	8.2	8.2	16.0	16.0	83.8	83.8	6.0	6.0	8.4	8.0	5	4	-	-	820246	811418	-	-	-	-
						1.0	0.0	328	28.5		8.2		16.0		83.8		6.0		8.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.3	0.1	219	28.0	28.0	8.2	8.2	18.5	18.5	85.4	85.4	6.0	6.0	7.6		4		-				-		-	
						4.3	0.1	225	28.0		8.2		18.5		85.4		6.0		7.6		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 25 July 17 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	13:42	9.3	Surface	1.0	0.7	196	28.4	28.4	8.1	8.1	21.5	21.6	84.9	84.9	5.9	5.8	5.6	7.4	5	15	81	87	815604	804260	<0.2	<0.2	1.3	1.0
						1.0	0.7	213	28.4		8.1		21.6		84.8		5.8		5.8		5		81				<0.2		1.3	
					Middle	4.7	0.7	193	28.3	28.3	8.1	8.1	24.1	24.1	84.4	84.4	5.8		8.0		9		87				<0.2		1.1	
						4.7	0.8	206	28.3		8.1		24.1		84.4		5.8		8.1		10		87				<0.2		1.3	
					Bottom	8.3	0.6	199	28.1	28.1	8.1	8.1	25.2	25.2	86.8	86.9	5.9	5.9	8.5		30		92				<0.2		0.6	
						8.3	0.6	204	28.1		8.1		25.1		87.0		5.9		8.3		29		92				<0.2		0.5	
C2	Sunny	Moderate	13:18	11.2	Surface	1.0	0.7	194	29.0	29.0	7.9	7.9	15.0	15.0	69.8	69.8	4.9	4.9	8.2	12.0	14	14	85	87	825689	806957	<0.2	<0.2	2.2	2.3
						1.0	0.7	194	29.0		7.9		15.0		69.8		4.9		8.2		14		85				<0.2		2.3	
					Middle	5.6	0.7	175	28.4	28.4	8.0	8.0	17.7	17.7	68.3	68.3	4.8		12.2		15		87				<0.2		2.2	
						5.6	0.7	190	28.4		8.0		17.7		68.3		4.8		12.2		13		87				<0.2		2.2	
					Bottom	10.2	0.4	155	27.7	27.7	8.0	8.0	20.7	20.7	66.1	66.2	4.6	4.6	15.6		15		89				<0.2		2.4	
						10.2	0.4	158	27.7		8.0		20.7		66.2		4.6		15.6		15		89				<0.2		2.3	
C3	Sunny	Moderate	15:29	12.4	Surface	1.0	0.1	133	28.5	28.5	8.1	8.1	20.2	20.2	72.0	72.0	5.0	4.8	5.2	7.4	10	9	90	92	822118	817805	<0.2	<0.2	1.4	1.4
						1.0	0.1	145	28.5		8.1		20.2		72.0		5.0		5.2		9		91				<0.2		1.4	
					Middle	6.2	0.1	97	27.9	27.9	8.1	8.1	21.3	21.3	64.2	64.2	4.5		6.8		8		92				<0.2		1.4	
						6.2	0.1	101	27.9		8.1		21.3		64.2		4.5		6.8		8		91				<0.2		1.5	
					Bottom	11.4	0.2	101	26.9	26.9	8.0	8.0	25.4	25.4	60.7	60.7	4.2	4.2	10.3		9		94				<0.2		1.6	
						11.4	0.2	110	26.9		8.0		25.4		60.7		4.2		10.3		8		94				<0.2		1.3	
IM1	Fine	Moderate	13:25	8.0	Surface	1.0	0.2	172	28.4	28.4	8.1	8.1	21.5	21.5	82.2	82.3	5.7	5.7	6.7	6.9	6	8	82	88	818352	806464	<0.2	<0.2	1.0	1.0
						1.0	0.2	183	28.4		8.1		21.4		82.3		5.7		6.8		6		83				<0.2		1.1	
					Middle	4.0	0.2	164	28.2	28.2	8.1	8.1	23.8	23.8	83.8	84.2	5.7		7.0		10		89				<0.2		1.2	
						4.0	0.2	171	28.2		8.1		23.7		84.5		5.8		7.0		9		89				<0.2		1.0	
					Bottom	7.0	0.0	133	28.1	28.1	8.1	8.1	24.9	24.9	86.9	87.0	5.9	5.9	7.1		9		93				<0.2		0.8	
						7.0	0.0	138	28.1		8.1		24.8		87.1		5.9		7.0		10		92				<0.2		0.8	
IM2	Fine	Moderate	13:20	8.9	Surface	1.0	0.3	179	28.4	28.4	8.1	8.1	21.7	21.4	83.0	83.0	5.7	5.7	5.1	5.2	6	11	79	85	818832	806199	<0.2	<0.2	1.2	1.0
						1.0	0.3	192	28.4		8.1		21.1		83.0		5.7		5.2		4		80				<0.2		1.3	
					Middle	4.5	0.2	164	28.2	28.2	8.1	8.1	23.1	23.1	83.7	83.7	5.7		5.5		13		84				<0.2		1.1	
						4.5	0.2	169	28.2		8.1		23.1		83.7		5.8		5.5		13		85				<0.2		0.9	
					Bottom	7.9	0.2	148	28.1	28.1	8.1	8.1	24.2	24.2	86.1	86.2	5.9	5.9	5.0		16		90				<0.2		0.7	
						7.9	0.2	156	28.1		8.1		24.2		86.3		5.9		5.0		15		90				<0.2		0.9	
IM3	Fine	Moderate	13:13	9.4	Surface	1.0	0.4	222	28.3	28.3	8.1	8.1	21.5	21.5	82.9	82.9	5.7	5.7	5.1	6.3	10	9	81	87	819428	806012	<0.2	<0.2	1.6	1.2
						1.0	0.4	239	28.3		8.1		21.5		82.8		5.7		5.2		8		82				<0.2		1.6	
					Middle	4.7	0.4	227	28.2	28.2	8.1	8.1	22.9	22.9	82.3	82.3	5.7		6.8		9		87				<0.2		1.1	
						4.7	0.4	238	28.2		8.1		22.9		82.3		5.7		6.7		9		87				<0.2		1.1	
					Bottom	8.4	0.3	216	28.1	28.1	8.1	8.1	24.1	24.1	85.5	85.6	5.8	5.9	6.9		9		92				<0.2		0.8	
						8.4	0.4	226	28.1		8.1		24.1		85.7		5.9		6.8		9		92				<0.2		0.9	
IM4	Fine	Moderate	13:06	8.5	Surface	1.0	0.3	195	28.5	28.5	8.1	8.1	21.2	21.2	82.9	82.9	5.7	5.7	6.1	9.3	3	9	77	81	819569	805028	<0.2	<0.2	1.5	1.2
						1.0	0.4	213	28.5		8.1		21.2		82.8		5.7		6.2		3		77				<0.2		1.3	
					Middle	4.3	0.5	194	28.1	28.1	8.1	8.1	23.4	23.4	81.2	81.3	5.6		10.8		4		80				<0.2		1.2	
						4.3	0.5	205	28.1		8.1		23.4		81.3		5.6		11.0		4		80				<0.2		1.2	
					Bottom	7.5	0.3	207	28.1	28.1	8.1	8.1	24.6	24.6	85.8	86.0	5.9	5.9	11.0		21		86				<0.2		0.9	
						7.5	0.3	211	28.1		8.1		24.6		86.1		5.9		10.7		19		86				<0.2		0.9	
IM5	Fine	Moderate	12:54	7.7	Surface	1.0	0.3	202	28.4	28.4	8.1	8.1	22.1	22.1	85.9	86.2	5.9	6.0	4.0	5.5	7	7	76	80	820549	804910	<0.2	<0.2	1.7	1.3
						1.0	0.3	221	28.4		8.1		22.1		86.4		6.0		4.0		7		76				<0.2		1.6	
					Middle	3.9	0.5	163	28.3	28.3	8.1	8.1	23.7	23.7	87.6	87.6	6.0		3.8		7		80				<0.2		1.0	
						3.9	0.5	175	28.3		8.1		23.7		87.5		6.0		3.8		7		81				<0.2		1.1	
					Bottom	6.7	0.4	164	28.2	28.2	8.1	8.1	25.0	25.0	87.8	87.9	6.0	6.0	8.5		7		85				<0.2		1.0	
						6.7	0.4	173	28.2		8.1		25.0		87.9		6.0		8.6		8		84				<0.2		1.2	
IM6	Fine	Moderate	12:42	7.9	Surface	1.0	0.2	191	28.5	28.5	8.0	8.0	19.5	19.4	80.4	80.4	5.6	5.6	8.2	11.8	4	8	78	82	821051	805808	<0.2	<0.2	2.3	1.7
						1.0	0.2	193	28.4		8.0		19.2		80.3		5.6		8.4		5		78				<0.2		2.2	
					Middle	4.0	0.4	184	28.2	28.2	8.1	8.1	22.6	22.6	79.2	79.2	5.5		12.2		5		82				<0.2		1.8	
						4.0	0.4	187	28.2		8.1		22.6		79.1		5.5		12.4		4		82				<0.2		1.6	
					Bottom	6.9	0.3	153	28.0	28.1	8.1	8.1	24.1	24.1	79.6	80.0	5.5	5.5	15.6		13		86				<0.2		1.0	
						6.9	0.4	157	28.1		8.1		24.1		80.4		5.5		13.7		14		86				<0.2		1.0	
IM7	Sunny	Moderate	13:44	8.4	Surface	1.0	0.4	205	28.7	28.7	8.1	8.1	18.3	18.3	76.8	76.8	5.4	5.4	9.0	11.2	5	7	83	88	821347	806836	<0.2	<0.2	2.1	2.0
						1.0	0.4	221	28.7		8.1		18.3		76.8		5.4		9.0		5		84				<0.2		2.2	
					Middle	4.2	0.3	168	28.5	28.5	8.2	8.2	21.1	21.1	76.1	76.1	5.3		10.8		6		89				<0.2		2.1	
						4.2	0.3	177	28.5		8.2		21.1		76.1		5.3		10.8		6		90				<0.2		2.0	
					Bottom	7.4	0.1	148	28.3	28.3	8.2	8.2	23.4	23.4	75.7	75.7	5.2	5.2	13.7		9		91				<0.2		1.8	
						7.4	0.1	152	28.3		8.2		23.4		75.7		5.2		13.7		10		92				<0.2		1.7	
IM8	Sunny	Moderate	13:59	8.4	Surface	1.0	0.6	174	28.6	28.6	8.1	8.1	16.1	16.1	72.6	72.6	5.2	5.2	7.1	8.1	5	8	86	90	821678	807820	<0.2	<0.2	1.8	1.8
						1.0	0.6	186	28.6		8.1		16.1		72.6		5.2		7.1		7		86				<0.2		1.9	
					Middle	4.2	0.1	192	28.3	28.3	8.2	8.2	19.1	19.1	73.8	73.8	5.2		7.5		7		91				<0.2		1.9	
						4.2	0.1	199	28.3		8.2		19.1		73.8		5.2		7.5		9		91				<0.2		1.8	
					Bottom	7.4	0.1	51	28.3	28.3	8.2	8.2	23.2	23.2	76.1	76.1	5.2	5.2	9.7		10		93				<0.2		1.7	
						7.4	0.1	52	28.3		8.2		23.2		76.1		5.2		9.7		9		94				<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 25 July 17 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	14:13	8.1	Surface	1.0	0.8	152	29.0	29.0	8.1	8.1	15.5	15.5	72.4	72.4	5.1	5.1	8.0	12.4	6	7	86	90	822112	808814	<0.2	<0.2	1.9	1.8
						1.0	0.9	165	29.0		8.1		15.5		72.4		5.1		8.0		7		86				<0.2		1.7	
					Middle	4.1	0.7	142	28.1	28.1	8.1	8.1	19.9	19.9	71.8	71.8	5.0		13.0		7		91				<0.2		1.8	
						4.1	0.7	155	28.1		8.1		19.9		71.8		5.0		13.0		7		90				<0.2		1.8	
					Bottom	7.1	0.3	87	28.3	28.3	8.2	8.2	22.7	22.7	73.7	73.7	5.1	5.1	16.3		9		94				<0.2		1.9	
						7.1	0.3	89	28.3		8.2		22.7		73.7		5.1		16.3		8		92				<0.2		1.6	
IM10	Sunny	Moderate	14:19	8.5	Surface	1.0	0.9	137	29.0	29.0	8.0	8.0	15.6	15.6	73.3	73.3	5.2	5.2	8.2	12.1	10	11	86	90	822236	809852	<0.2	<0.2	2.3	2.4
						1.0	0.9	143	29.0		8.0		15.6		73.3		5.2		8.2		9		85				<0.2		2.3	
					Middle	4.3	0.6	112	28.2	28.2	8.2	8.2	20.5	20.5	73.7	73.7	5.1		12.2		10		92				<0.2		2.3	
						4.3	0.6	119	28.2		8.2		20.5		73.7		5.1		12.2		9		92				<0.2		2.6	
					Bottom	7.5	0.5	97	28.3	28.3	8.2	8.2	21.5	21.5	74.8	74.8	5.2	5.2	15.8		13		94				<0.2		2.4	
						7.5	0.5	104	28.3		8.2		21.5		74.8		5.2		15.8		12		93				<0.2		2.5	
IM11	Sunny	Moderate	14:28	8.8	Surface	1.0	0.8	114	28.7	28.7	8.1	8.1	15.8	15.8	73.6	73.6	5.2	5.2	8.9	10.9	7	11	86	89	821491	810539	<0.2	<0.2	2.7	2.3
						1.0	0.8	123	28.7		8.1		15.8		73.6		5.2		8.9		9		86				<0.2		2.7	
					Middle	4.4	0.6	107	28.3	28.3	8.2	8.2	19.7	19.7	73.9	73.9	5.2		11.3		11		90				<0.2		2.4	
						4.4	0.7	113	28.3		8.2		19.7		73.9		5.2		11.3		12		91				<0.2		2.3	
					Bottom	7.8	0.4	90	28.4	28.4	8.2	8.2	20.7	20.7	76.3	76.4	5.3	5.3	12.8		14		92				<0.2		1.9	
						7.8	0.4	91	28.4		8.2		20.7		76.4		5.3		12.3		15		91				<0.2		1.9	
IM12	Sunny	Moderate	14:34	8.0	Surface	1.0	0.9	111	28.8	28.8	8.1	8.1	16.0	16.0	74.4	74.4	5.3	5.3	6.8	9.2	6	9	87	88	821180	811500	<0.2	<0.2	2.1	2.5
						1.0	0.9	115	28.8		8.1		16.0		74.4		5.3		6.8		7		86				<0.2		1.9	
					Middle	4.0	0.7	100	28.5	28.5	8.2	8.2	19.1	19.1	75.2	75.2	5.3		9.4		7		88				<0.2		2.6	
						4.0	0.7	108	28.5		8.2		19.1		75.2		5.3		9.4		6		88				<0.2		3.0	
					Bottom	7.0	0.4	92	28.6	28.6	8.2	8.2	19.6	19.6	76.5	76.5	5.3	5.3	11.5		12		90				<0.2		2.6	
						7.0	0.4	97	28.6		8.2		19.6		76.5		5.3		11.5		14		91				<0.2		2.5	
SR2	Sunny	Moderate	15:10	5.0	Surface	1.0	0.6	63	28.5	28.5	8.2	8.2	19.1	19.1	73.6	73.6	5.1	5.1	13.7	15.0	17	20	89	90	821451	814166	<0.2	<0.2	1.9	2.0
						1.0	0.7	66	28.5		8.2		19.1		73.6		5.1		13.7		17		90				<0.2		2.2	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.0	0.5	50	28.4	28.4	8.2	8.2	19.9	19.9	73.6	73.6	5.1	5.1	16.3		22		91				<0.2		1.8	
						4.0	0.5	50	28.4		8.2		19.9		73.6		5.1		16.3		22		91				<0.2		1.9	
SR3	Sunny	Moderate	13:54	9.2	Surface	1.0	0.6	173	28.4	28.4	8.0	8.0	16.3	16.3	69.8	69.8	5.0	5.1	7.8	10.2	14	14	-	-	822137	807568	-	-	-	-
						1.0	0.6	178	28.4		8.0		16.3		69.8		5.0		7.8		15		-				-		-	
					Middle	4.6	0.2	188	28.3	28.3	8.2	8.2	20.4	20.4	73.6	73.6	5.1		9.3		13		-				-		-	
						4.6	0.2	191	28.3		8.2		20.4		73.6		5.1		9.3		13		-				-		-	
					Bottom	8.2	0.1	6	28.3	28.3	8.2	8.2	22.8	22.8	75.8	75.8	5.2	5.2	13.4		14		-				-		-	
						8.2	0.1	6	28.3		8.2		22.8		75.8		5.2		13.4		14		-				-		-	
SR4A	Fine	Calm	14:08	8.5	Surface	1.0	0.2	50	28.5	28.5	8.1	8.1	22.4	22.4	79.2	79.2	5.4	5.4	9.6	10.8	15	18	-	-	817200	807818	-	-	-	-
						1.0	0.2	54	28.5		8.1		22.4		79.2		5.4		9.7		14		-				-		-	
					Middle	4.3	0.3	59	28.2	28.2	8.1	8.1	24.0	24.0	78.7	78.7	5.4		10.8		17		-				-		-	
						4.3	0.3	60	28.2		8.1		24.0		78.6		5.4		10.8		18		-				-		-	
					Bottom	7.5	0.2	62	28.1	28.2	8.1	8.1	24.4	24.4	79.1	79.3	5.4	5.4	11.9		21		-				-		-	
						7.5	0.2	65	28.2		8.1		24.3		79.5		5.4		11.7		23		-				-		-	
SR5A	Fine	Calm	14:24	4.3	Surface	1.0	0.1	293	28.5	28.5	8.0	8.0	19.5	19.5	81.4	81.6	5.7	5.7	10.0	9.3	12	13	-	-	816599	810703	-	-	-	-
						1.0	0.1	306	28.5		8.0		19.5		81.8		5.7		10.0		14		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.0	31	28.6	28.6	8.0	8.0	19.7	19.7	87.9	88.1	6.1	6.1	8.7		12		-				-		-	
						3.3	0.0	32	28.6		8.0		19.7		88.3		6.1		8.6		13		-				-		-	
SR6	Fine	Calm	14:52	4.3	Surface	1.0	0.1	140	28.5	28.5	8.0	8.0	18.4	18.4	86.0	86.1	6.0	6.0	10.2	9.9	18	19	-	-	817917	814653	-	-	-	-
						1.0	0.1	143	28.5		8.0		18.4		86.1		6.0		10.2		18		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.1	90	28.5	28.5	8.0	8.0	18.5	18.5	89.6	90.6	6.3	6.4	9.9		18		-				-		-	
						3.3	0.1	94	28.5		8.0		18.5		91.6		6.4		9.2		20		-				-		-	
SR7	Fine	Calm	15:38	18.9	Surface	1.0	0.7	50	28.2	28.2	8.0	8.0	19.4	19.4	76.7	76.8	5.4	5.6	5.2	5.6	6	10	-	-	823640	823733	-	-	-	-
						1.0	0.7	52	28.2		8.0		19.4		76.8		5.4		5.2		6		-				-		-	
					Middle	9.5	0.4	15	28.0	28.0	8.0	8.0	20.1	20.1	82.2	83.2	5.8		5.4		9		-				-		-	
						9.5	0.4	15	28.0		8.0		20.1		84.2		5.9		5.5		9		-				-		-	
					Bottom	17.9	0.3	351	27.6	27.6	8.0	8.0	21.1	21.1	71.2	71.3	5.0	5.0	6.0		13		-				-		-	
						17.9	0.4	323	27.6		8.0		21.1		71.4		5.0		6.0		14		-				-		-	

DA: Depth-Averaged

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

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

Note: Water quality monitoring at SR8 on 25 and 27 July 2017 were cancelled as the location was inaccessible due to safety constraints.

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

Water Quality Monitoring

Water Quality Monitoring Results on 25 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	07:39	8.9	Surface	1.0	0.7	37	28.0	28.0	8.0	8.0	20.6	20.6	78.0	78.1	5.4	5.5	6.5	9.4	9	14	78	82	815624	804255	<0.2	<0.2	1.9	1.5
						1.0	0.7	40	28.0		8.0		20.5		78.2		5.5		6.7		8		77				<0.2		1.8	
					Middle	4.5	0.9	43	28.1	28.1	8.1	8.1	23.5	23.6	79.5	79.6	5.5		9.4		12		81				<0.2		1.5	
						4.5	0.9	46	28.1		8.1		23.6		79.6		5.5		9.8		13		81				<0.2		1.6	
					Bottom	7.9	0.8	35	28.1	28.1	8.1	8.1	24.0	24.0	80.2	80.2	5.5	5.5	11.9		21		87				<0.2		1.0	
						7.9	0.8	36	28.1		8.1		24.0		80.2		5.5		11.8		23		87				<0.2		1.0	
C2	Sunny	Moderate	08:14	11.2	Surface	1.0	0.6	356	28.0	28.0	7.9	7.9	14.6	14.6	58.9	58.9	4.3	4.4	9.6	13.1	14	14	85	87	825666	806930	<0.2	<0.2	2.4	2.3
						1.0	0.7	328	28.0		7.9		14.6		58.9		4.3		9.6		14		85				<0.2		2.4	
					Middle	5.6	0.5	2	27.9	27.9	8.0	8.0	17.4	17.4	61.5	61.5	4.4		12.1		14		86				<0.2		2.3	
						5.6	0.5	2	27.9		8.0		17.4		61.5		4.4		12.1		14		87				<0.2		2.2	
					Bottom	10.2	0.6	329	27.7	27.7	7.9	7.9	20.4	20.4	65.3	65.3	4.6	4.6	17.5		13		90				<0.2		2.3	
						10.2	0.6	331	27.7		7.9		20.4		65.3		4.6		17.5		13		89				<0.2		2.1	
C3	Sunny	Moderate	05:51	11.4	Surface	1.0	0.6	277	27.9	27.9	7.9	7.9	17.1	17.1	66.4	66.4	4.7	4.6	6.3	6.2	12	11	89	92	822108	817788	<0.2	<0.2	2.4	2.1
						1.0	0.7	281	27.9		7.9		17.1		66.4		4.7		6.3		10		90				<0.2		2.3	
					Middle	5.7	0.5	274	27.8	27.8	7.9	7.9	19.6	19.6	64.4	64.4	4.5		6.3		11		91				<0.2		2.2	
						5.7	0.5	281	27.8		7.9		19.6		64.4		4.5		6.3		10		91				<0.2		2.2	
					Bottom	10.4	0.3	270	27.2	27.2	7.9	7.9	23.6	23.6	64.9	64.9	4.5	4.5	6.1		13		94				<0.2		1.8	
						10.4	0.3	276	27.2		7.9		23.6		64.9		4.5		6.1		12		94				<0.2		1.9	
IM1	Fine	Moderate	07:55	8.1	Surface	1.0	0.6	4	28.0	28.0	8.0	8.0	18.4	18.4	77.9	78.0	5.5	5.6	8.7	12.0	5	9	81	84	818357	806471	<0.2	<0.2	1.5	1.4
						1.0	0.6	4	28.0		8.0		18.4		78.0		5.5		8.9		4		81				<0.2		1.4	
					Middle	4.1	0.6	3	28.1	28.1	8.0	8.0	19.4	19.4	79.4	79.7	5.6		11.8		4		84				<0.2		1.4	
						4.1	0.7	3	28.1		8.0		19.4		79.9		5.6		13.5		3		84				<0.2		1.6	
					Bottom	7.1	0.6	2	28.1	28.1	8.0	8.0	21.8	21.8	83.8	83.8	5.8	5.8	14.6		18		88				<0.2		1.1	
						7.1	0.6	2	28.1		8.0		21.8		83.8		5.8		14.6		19		88				<0.2		1.1	
IM2	Fine	Moderate	08:00	9.2	Surface	1.0	0.6	24	28.0	28.0	8.0	8.0	18.5	18.5	76.2	76.3	5.4	5.5	7.0	10.6	4	6	77	81	818857	806179	<0.2	<0.2	1.5	1.3
						1.0	0.6	24	28.0		8.0		18.5		76.4		5.4		7.4		4		77				<0.2		1.4	
					Middle	4.6	0.6	36	28.0	28.0	8.0	8.0	18.9	18.9	78.4	78.5	5.5		11.1		3		81				<0.2		1.4	
						4.6	0.7	36	28.0		8.0		18.9		78.6		5.5		11.3		3		81				<0.2		1.3	
					Bottom	8.2	0.6	38	28.1	28.1	8.1	8.1	22.3	22.3	81.4	81.5	5.6	5.6	13.3		10		85				<0.2		1.0	
						8.2	0.6	39	28.1		8.1		22.3		81.5		5.6		13.2		10		85				<0.2		1.2	
IM3	Fine	Moderate	08:07	9.5	Surface	1.0	0.6	23	28.0	28.0	8.0	8.0	18.5	18.5	75.8	75.9	5.4	5.5	6.7	12.3	4	10	78	83	819391	806001	<0.2	<0.2	1.6	1.4
						1.0	0.6	23	28.0		8.0		18.5		75.9		5.4		6.9		4		78				<0.2		1.8	
					Middle	4.8	0.6	36	28.0	28.0	8.0	8.1	19.3	19.3	77.6	77.8	5.5		12.4		3		85				<0.2		1.5	
						4.8	0.6	38	28.0		8.1		19.3		77.9		5.5		13.7		3		84				<0.2		1.4	
					Bottom	8.5	0.6	32	28.1	28.1	8.1	8.1	22.5	22.5	80.0	80.5	5.5	5.6	17.5		22		87				<0.2		0.9	
						8.5	0.6	32	28.1		8.1		22.5		80.9		5.6		16.7		22		88				<0.2		0.9	
IM4	Fine	Moderate	08:15	8.8	Surface	1.0	0.5	349	28.0	28.0	8.0	8.0	17.3	17.3	73.7	73.8	5.2	5.3	5.5	10.0	4	8	75	81	819586	805031	<0.2	<0.2	1.5	1.2
						1.0	0.5	321	28.0		8.0		17.3		73.8		5.3		5.6		3		76				<0.2		1.7	
					Middle	4.4	0.7	8	27.9	27.9	8.0	8.0	17.9	17.9	74.9	75.1	5.3		6.2		5		82				<0.2		1.1	
						4.4	0.7	8	27.9		8.0		17.9		75.2		5.3		6.5		4		81				<0.2		1.1	
					Bottom	7.8	0.6	3	28.0	28.0	8.1	8.1	23.5	23.5	80.0	80.2	5.5	5.5	19.1		16		86				<0.2		0.9	
						7.8	0.6	3	28.0		8.1		23.5		80.3		5.5		16.8		16		85				<0.2		0.8	
IM5	Fine	Moderate	08:23	7.8	Surface	1.0	0.8	23	28.0	28.0	8.0	8.0	17.5	17.5	74.7	74.8	5.3	5.3	8.1	17.0	3	5	75	79	820573	804925	<0.2	<0.2	1.7	1.5
						1.0	0.8	23	28.0		8.0		17.5		74.8		5.3		8.2		4		75				<0.2		1.5	
					Middle	3.9	0.8	24	28.0	28.0	8.1	8.1	23.1	23.1	77.5	77.5	5.3		17.6		6		79				<0.2		1.1	
						3.9	0.9	25	28.0		8.1		23.1		77.5		5.3		17.3		6		79				<0.2		1.4	
					Bottom	6.8	0.7	25	28.0	28.0	8.1	8.1	23.5	23.5	78.0	78.1	5.4	5.4	25.1		5		83				<0.2		1.6	
						6.8	0.8	27	28.0		8.1		23.5		78.1		5.4		25.6		5		83				<0.2		1.8	
IM6	Fine	Moderate	08:32	8.2	Surface	1.0	0.4	19	28.0	28.0	8.0	8.0	19.3	19.4	75.9	75.9	5.3	5.4	7.9	8.7	7	7	77	81	821058	805822	<0.2	<0.2	1.5	1.3
						1.0	0.4	19	28.0		8.0		19.4		75.9		5.3		8.0		6		77				<0.2		1.3	
					Middle	4.1	0.4	26	28.0	28.0	8.1	8.1	19.9	19.9	77.4	77.5	5.4		9.1		8		81				<0.2		1.3	
						4.1	0.4	28	28.0		8.1		19.9		77.5		5.4		9.1		6		80				<0.2		1.3	
					Bottom	7.2	0.4	41	28.0	28.0	8.0	8.0	20.1	20.1	81.8	82.0	5.7	5.8	9.0		8		85				<0.2		1.3	
						7.2	0.5	43	28.0		8.0		20.0		82.1		5.8		9.1		8		86				<0.2		1.3	
IM7	Sunny	Moderate	07:46	7.6	Surface	1.0	0.2	333	28.1	28.1	7.9	7.9	12.1	12.1	63.0	63.0	4.6	4.7	8.7	11.7	5	6	79	83	821352	806820	<0.2	<0.2	2.4	2.4
						1.0	0.2	347	28.1		7.9		12.1		63.0		4.6		8.7		6		80				<0.2		2.4	
					Middle	3.8	0.5	10	28.0	28.0	8.0	8.0	14.7	14.7	65.6	65.6	4.7		10.4		6		81				<0.2		2.4	
						3.8	0.5	10	28.0		8.0		14.7		65.6		4.7		10.4		6		81				<0.2		2.4	
					Bottom	6.6	0.6	18	28.2	28.2	8.2	8.2	20.8	20.8	69.8	69.8	4.9	4.9	16.1		6		88				<0.2		2.4	
						6.6	0.6	18	28.2		8.2		20.8		69.8		4.9		16.1		7		89				<0.2		2.3	
IM8	Sunny	Moderate	07:31	8.7	Surface	1.0	0.2	6	28.0	28.0	7.8	7.8	12.0	12.0	68.2	68.2	4.8	4.6	7.9	9.6	6	6	84	85	821683	807848	<0.2	<0.2	2.6	2.6
						1.0	0.2	6	28.0		7.8		12.0		68.2		4.8		7.9		4		84				<0.2		2.6	
					Middle	4.4	0.2	29	28.0	28.0	7.9	7.9	14.0	14.0	59.7	59.7	4.3		10.1		6		84				<0.2		2.6	
						4.4	0.2	31	28.0		7.9		14.0		59.7		4.3		10.1		5		85				<0.2		2.5	
					Bottom	7.7	0.2	11	28.0	28.0	7.9	7.9	14.3	14.3	60.2	60.2	4.4	4.4	10.7		9		86				<0.2		2.8	
						7.7	0.2	11	28.0		7.9		14.3		60.2		4.4		10.7		8		86				<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 25 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
IM9	Sunny	Moderate	07:17	7.5	Surface	1.0	0.4	329	28.0	28.0	7.9	7.9	13.0	13.0	62.5	62.5	4.6	4.6	8.0	9.7	5	5	84	85	822113	808815	<0.2	<0.2	2.3	2.2
						1.0	0.4	355	28.0		7.9		13.0		62.5		4.6		8.0		5		84				<0.2		2.4	
					Middle	3.8	0.5	319	28.0	28.0	8.0	8.0	14.5	14.5	62.1	62.1	4.5		9.5		5		85				<0.2		2.1	
						3.8	0.6	321	28.0		8.0		14.5		62.1		4.5		9.5		4		85				<0.2		2.1	
					Bottom	6.5	0.2	306	28.1	28.1	8.0	8.0	15.5	15.5	63.9	63.9	4.6	4.6	11.7		4		86				<0.2		2.0	
						6.5	0.2	330	28.1		8.0		15.5		63.9		4.6		11.7		4		87				<0.2		2.3	
IM10	Sunny	Moderate	07:09	7.0	Surface	1.0	0.7	307	28.1	28.1	7.9	7.9	14.8	14.8	63.1	63.1	4.6	4.6	9.2	12.8	3	4	83	85	822236	809843	<0.2	<0.2	2.6	2.4
						1.0	0.7	308	28.1		7.9		14.8		63.1		4.6		9.2		2		84				<0.2		2.4	
					Middle	3.5	0.7	307	28.1	28.1	7.9	7.9	15.6	15.6	63.7	63.7	4.6		11.9		4		85				<0.2		2.5	
						3.5	0.7	320	28.1		7.9		15.6		63.7		4.6		11.9		3		85				<0.2		2.6	
					Bottom	6.0	0.6	300	28.0	28.0	7.9	7.9	16.3	16.3	66.0	66.0	4.7	4.7	17.4		5		88				<0.2		2.2	
						6.0	0.6	300	28.0		7.9		16.3		66.0		4.7		17.4		5		87				<0.2		2.1	
IM11	Sunny	Moderate	06:57	8.3	Surface	1.0	0.6	284	28.0	28.0	7.9	7.9	14.2	14.2	65.0	65.0	4.7	4.8	7.8	11.3	5	4	84	86	821500	810542	<0.2	<0.2	2.3	2.3
						1.0	0.6	310	28.0		7.9		14.2		65.0		4.7		7.8		5		84				<0.2		2.1	
					Middle	4.2	0.8	287	28.0	28.0	8.0	8.0	16.3	16.3	66.7	66.7	4.8		9.9		3		86				<0.2		2.3	
						4.2	0.9	310	28.0		8.0		16.3		66.7		4.8		9.9		3		86				<0.2		2.4	
					Bottom	7.3	0.5	290	27.9	27.9	8.0	8.0	18.9	18.9	70.2	70.2	5.0	5.0	16.1		4		89				<0.2		2.4	
						7.3	0.5	290	27.9		8.0		18.9		70.2		5.0		16.1		4		88				<0.2		2.4	
IM12	Sunny	Moderate	06:51	8.2	Surface	1.0	0.8	286	28.0	28.0	7.9	7.9	14.1	14.1	66.0	66.1	4.8	4.8	7.5	10.7	3	4	83	86	821177	811511	<0.2	<0.2	2.5	2.3
						1.0	0.8	294	28.0		7.9		14.1		66.1		4.8		7.5		4		83				<0.2		2.4	
					Middle	4.1	0.8	278	28.0	28.0	8.0	8.0	16.4	16.4	66.8	66.8	4.8		8.4		5		86				<0.2		2.3	
						4.1	0.8	293	28.0		8.0		16.4		66.8		4.8		8.4		4		86				<0.2		2.4	
					Bottom	7.2	0.5	283	27.7	27.7	8.1	8.1	20.2	20.2	64.9	64.9	4.6	4.6	16.3		4		88				<0.2		2.1	
						7.2	0.5	308	27.7		8.1		20.2		64.9		4.6		16.3		5		89				<0.2		2.0	
SR2	Sunny	Moderate	06:12	4.6	Surface	1.0	0.3	326	27.9	27.9	7.9	7.9	16.6	16.6	66.0	66.0	4.7	4.7	8.5	8.7	3	4	83	85	821468	814150	<0.2	<0.2	2.2	2.2
						1.0	0.3	357	27.9		7.9		16.6		66.0		4.7		8.5		4		84				<0.2		2.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.2	314	27.9	27.9	8.0	8.0	18.6	18.6	66.2	66.2	4.7	4.7	8.9		3		86				<0.2		2.2	
						3.6	0.2	342	27.9		8.0		18.6		66.2		4.7		8.9		4		87				<0.2		2.2	
SR3	Sunny	Moderate	07:37	9.3	Surface	1.0	0.3	336	28.0	28.0	7.8	7.8	12.8	12.8	66.0	66.0	4.8	4.7	7.4	7.8	5	5	-	-	822155	807559	-	-	-	-
						1.0	0.3	339	28.0		7.8		12.8		66.0		4.8		7.4		6		-				-		-	
					Middle	4.7	0.4	345	28.0	28.0	7.8	7.8	13.3	13.3	62.4	62.4	4.5		7.3		4		-				-		-	
						4.7	0.4	348	28.0		7.8		13.3		62.4		4.5		7.3		4		-				-		-	
					Bottom	8.3	0.5	-	28.0	28.0	7.9	7.9	15.1	15.1	61.7	61.7	4.4	4.4	8.7		5		-				-		-	
						8.3	0.5	-	28.0		7.9		15.1		61.7		4.4		8.7		5		-				-		-	
SR4A	Fine	Calm	07:15	9.3	Surface	1.0	0.4	241	28.1	28.1	7.9	7.9	18.3	18.3	76.4	76.4	5.4	5.4	4.5	5.8	2	4	-	-	817206	807813	-	-	-	-
						1.0	0.4	249	28.1		7.9		18.3		76.4		5.4		4.6		2		-				-		-	
					Middle	4.7	0.4	241	28.1	28.1	7.9	8.0	18.6	18.6	77.0	77.1	5.4		6.0		5		-				-		-	
						4.7	0.4	261	28.1		8.0		18.6		77.2		5.4		6.3		5		-				-		-	
					Bottom	8.3	0.2	250	28.1	28.1	8.0	8.0	20.6	20.6	79.1	79.6	5.5	5.6	6.9		6		-				-		-	
						8.3	0.3	258	28.1		8.0		20.6		80.1		5.6		6.4		5		-				-		-	
SR5A	Fine	Calm	07:00	5.2	Surface	1.0	0.4	291	28.0	28.0	7.9	7.9	18.3	18.3	77.1	77.1	5.5	5.5	7.4	8.8	5	7	-	-	816591	810695	-	-	-	-
						1.0	0.4	300	28.0		7.9		18.3		77.1		5.5		7.9		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.3	307	28.0	28.0	7.9	7.9	18.5	18.5	78.0	78.0	5.5	5.5	10.0		8		-				-		-	
						4.2	0.3	331	28.0		7.9		18.5		78.0		5.5		9.7		8		-				-		-	
SR6	Fine	Calm	06:39	4.7	Surface	1.0	0.2	225	27.8	27.8	7.8	7.8	16.5	16.5	72.8	73.0	5.2	5.3	5.2	5.3	4	5	-	-	817893	814675	-	-	-	-
						1.0	0.2	247	27.8		7.8		16.5		73.2		5.3		5.3		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.0	359	27.8	27.8	7.8	7.8	16.6	16.6	76.0	76.1	5.5	5.5	5.4		5		-				-		-	
						3.7	0.0	330	27.8		7.8		16.6		76.2		5.5		5.4		4		-				-		-	
SR7	Fine	Calm	05:49	21.5	Surface	1.0	0.1	262	27.7	27.7	7.8	7.8	17.1	17.1	71.2	71.2	5.1	5.1	3.2	3.0	5	5	-	-	823635	823722	-	-	-	-
						1.0	0.1	269	27.7		7.8		17.1		71.2		5.1		3.0		6		-				-		-	
					Middle	10.8	0.4	197	27.6	27.6	7.8	7.8	19.0	19.0	70.6	70.6	5.0		3.0		5		-				-		-	
						10.8	0.4	198	27.6		7.8		19.0		70.6		5.0		3.0		5		-				-		-	
					Bottom	20.5	0.1	86	27.3	27.3	7.7	7.7	20.5	20.5	74.7	74.9	5.3	5.3	2.8		5		-				-		-	
						20.5	0.1	89	27.3		7.7		20.4		75.0		5.3		2.8		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**

Note: Water quality monitoring at SR8 on 25 and 27 July 2017 were cancelled as the location was inaccessible due to safety constraints.

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

Water Quality Monitoring

Water Quality Monitoring Results on 27 July 17 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	Moderate	15:10	9.4	Surface	1.0	0.4	259	28.6	28.6	8.1	8.1	21.5	21.5	80.5	80.4	5.5	5.5	6.0	6.2	6	6	81	85	815615	804235	<0.2	<0.2	1.4	1.1
						1.0	0.4	279	28.6		8.1		21.5		80.3		5.5		6.0		6		80				<0.2		1.3	
					Middle	4.7	0.5	248	28.4	28.4	8.1	8.1	24.8	24.8	80.3	80.4	5.4		6.0		6		85				<0.2		1.1	
						4.7	0.5	265	28.4		8.1		24.8		80.5		5.5		6.2		5		86				<0.2		1.0	
					Bottom	8.4	0.5	241	28.3	28.3	8.1	8.1	26.0	26.0	82.7	83.3	5.6	5.7	6.5		6		90				<0.2		0.7	
						8.4	0.5	261	28.3		8.1		25.9		83.9		5.7		6.4		6		90				<0.2		0.8	
C2	Cloudy	Moderate	14:32	12.3	Surface	1.0	0.5	181	29.2	29.2	7.9	7.9	14.1	14.1	64.0	64.0	4.5	4.4	8.8	10.7	4	6	84	88	825666	806946	<0.2	<0.2	2.4	2.3
						1.0	0.5	196	29.2		7.9		14.1		64.0		4.5		8.8		5		84				<0.2		2.3	
					Middle	6.2	0.4	172	28.6	28.6	8.0	8.0	18.3	18.3	60.9	60.9	4.3		10.5		4		87				<0.2		2.6	
						6.2	0.4	185	28.6		8.0		18.3		60.9		4.3		10.5		5		88				<0.2		2.4	
					Bottom	11.3	0.4	147	27.9	27.9	7.9	7.9	23.7	23.7	60.0	60.0	4.1	4.1	12.7		8		94				<0.2		2.2	
						11.3	0.4	159	27.9		7.9		23.7		60.0		4.1		12.7		8		93				<0.2		2.1	
C3	Cloudy	Moderate	17:11	12.2	Surface	1.0	0.1	294	28.3	28.3	8.0	8.0	20.7	20.7	62.7	62.7	4.4	4.3	9.6	11.1	9	8	91	93	822097	817810	<0.2	<0.2	1.4	1.3
						1.0	0.1	323	28.3		8.0		20.7		62.7		4.4		9.6		9		90				<0.2		1.3	
					Middle	6.1	0.2	332	28.2	28.2	8.0	8.0	21.1	21.1	60.3	60.3	4.2		10.9		8		91				<0.2		1.4	
						6.1	0.2	352	28.2		8.0		21.1		60.3		4.2		10.9		8		92				<0.2		1.3	
					Bottom	11.2	0.1	143	27.5	27.5	8.0	8.0	25.5	25.5	61.9	61.9	4.2	4.2	12.7		9		96				<0.2		1.2	
						11.2	0.1	148	27.5		8.0		25.5		61.9		4.2		12.7		7		95				<0.2		1.3	
IM1	Cloudy	Moderate	14:49	7.9	Surface	1.0	0.2	210	28.7	28.7	8.1	8.1	21.3	21.3	78.5	78.3	5.4	5.3	8.2	12.2	5	9	80	86	818339	806438	<0.2	<0.2	1.5	1.0
						1.0	0.2	215	28.7		8.1		21.3		78.1		5.4		8.8		6		80				<0.2		1.5	
					Middle	4.0	0.2	188	28.4	28.4	8.1	8.1	24.7	24.7	77.0	77.2	5.2		13.4		6		86				<0.2		0.9	
						4.0	0.2	204	28.4		8.1		24.7		77.3		5.2		13.5		5		87				<0.2		0.9	
					Bottom	6.9	0.2	176	28.4	28.4	8.1	8.1	24.9	24.9	79.5	80.0	5.4	5.4	14.7		14		90				<0.2		0.6	
						6.9	0.2	187	28.4		8.1		24.9		80.5		5.4		14.8		15		90				<0.2		0.6	
IM2	Cloudy	Moderate	14:44	9.2	Surface	1.0	0.2	193	28.8	28.8	8.1	8.1	20.1	20.1	81.0	81.0	5.6	5.5	5.0	6.1	4	6	82	87	818870	806208	<0.2	<0.2	1.7	1.2
						1.0	0.2	200	28.7		8.1		20.1		81.0		5.6		5.1		6		82				<0.2		1.6	
					Middle	4.6	0.1	228	28.5	28.5	8.1	8.1	23.8	23.8	80.1	80.1	5.4		6.0		5		87				<0.2		0.8	
						4.6	0.1	243	28.5		8.1		23.8		80.1		5.4		6.1		5		87				<0.2		1.1	
					Bottom	8.2	0.1	215	28.4	28.4	8.1	8.1	24.6	24.6	83.8	83.9	5.7	5.7	7.1		7		92				<0.2		0.8	
						8.2	0.1	216	28.4		8.1		24.6		84.0		5.7		7.0		6		91				<0.2		0.9	
IM3	Cloudy	Moderate	14:36	9.3	Surface	1.0	0.2	186	29.1	29.1	8.1	8.1	18.8	18.8	79.7	79.7	5.5	5.4	7.8	10.4	7	10	79	83	819427	806026	<0.2	<0.2	1.9	1.4
						1.0	0.2	198	29.0		8.1		18.8		79.7		5.5		8.0		6		79				<0.2		1.9	
					Middle	4.7	0.2	222	28.5	28.5	8.1	8.1	22.8	22.8	78.0	78.1	5.3		11.1		8		83				<0.2		1.4	
						4.7	0.2	230	28.5		8.1		22.8		78.1		5.3		11.5		6		83				<0.2		1.4	
					Bottom	8.3	0.0	160	28.4	28.4	8.1	8.1	24.9	24.9	79.8	80.4	5.4	5.5	12.1		14		86				<0.2		0.9	
						8.3	0.0	164	28.4		8.1		24.8		80.9		5.5		11.9		16		86				<0.2		1.0	
IM4	Cloudy	Moderate	14:28	8.5	Surface	1.0	0.2	205	28.8	28.8	8.1	8.1	19.5	19.6	78.7	78.4	5.4	5.4	9.4	12.7	6	10	83	88	819550	805045	<0.2	<0.2	1.8	1.3
						1.0	0.2	222	28.8		8.1		19.6		78.1		5.4		10.2		5		83				<0.2		1.8	
					Middle	4.3	0.3	186	28.4	28.4	8.1	8.1	24.0	24.0	77.3	77.5	5.3		14.0		7		89				<0.2		1.4	
						4.3	0.3	203	28.4		8.1		23.9		77.6		5.3		14.5		8		89				<0.2		1.4	
					Bottom	7.5	0.3	166	28.3	28.3	8.1	8.1	24.9	24.9	81.4	81.5	5.5	5.5	14.1		16		92				<0.2		0.8	
						7.5	0.3	169	28.3		8.1		24.9		81.6		5.5		14.0		16		92				<0.2		0.7	
IM5	Cloudy	Moderate	14:16	7.8	Surface	1.0	0.3	196	28.8	28.8	8.0	8.0	19.6	19.6	76.8	76.8	5.3	5.2	10.9	17.5	7	13	78	82	820549	804939	<0.2	<0.2	1.6	1.3
						1.0	0.3	196	28.8		8.0		19.6		76.7		5.3		11.2		7		78				<0.2		1.6	
					Middle	3.9	0.3	200	28.4	28.4	8.1	8.1	24.2	24.2	75.6	75.6	5.1		16.2		8		82				<0.2		1.4	
						3.9	0.3	200	28.4		8.1		24.1		75.6		5.1		16.2		9		82				<0.2		1.3	
					Bottom	6.8	0.2	175	28.3	28.3	8.1	8.1	24.7	24.7	77.4	77.7	5.3	5.3	25.1		24		85				<0.2		0.9	
						6.8	0.2	177	28.3		8.1		24.7		78.0		5.3		25.3		24		85				<0.2		0.9	
IM6	Cloudy	Moderate	14:08	7.6	Surface	1.0	0.2	221	29.1	29.1	8.0	8.0	17.5	17.5	78.1	78.0	5.4	5.4	8.7	11.0	8	9	80	85	821078	805838	<0.2	<0.2	2.2	1.7
						1.0	0.2	240	29.0		8.0		17.5		77.8		5.4		9.2		7		80				<0.2		2.2	
					Middle	3.8	0.1	124	28.7	28.7	8.0	8.0	20.7	20.7	76.7	76.6	5.3		11.0		9		86				<0.2		1.7	
						3.8	0.1	132	28.7		8.0		20.6		76.5		5.3		11.6		9		86				<0.2		1.7	
					Bottom	6.6	0.2	145	28.4	28.4	8.0	8.0	24.1	24.1	76.2	76.4	5.2	5.2	13.1		9		89				<0.2		1.2	
						6.6	0.2	148	28.4		8.0		24.1		76.6		5.2		12.6		11		90				<0.2		1.1	
IM7	Cloudy	Moderate	15:01	8.4	Surface	1.0	0.1	182	29.2	29.2	8.1	8.1	16.8	16.8	77.0	77.0	5.4	5.3	8.6	11.9	5	6	86	90	821337	806829	<0.2	<0.2	3.0	2.4
						1.0	0.2	194	29.2		8.1		16.8		77.0		5.4		8.6		4		85				<0.2		2.8	
					Middle	4.2	0.3	123	29.0	29.0	8.2	8.2	20.5	20.5	75.8	75.8	5.2		11.6		7		91				<0.2		2.4	
						4.2	0.3	130	29.0		8.2		20.5		75.8		5.2		11.6		6		90				<0.2		2.2	
					Bottom	7.4	0.2	106	28.6	28.6	8.2	8.2	23.7	23.7	74.2	74.2	5.0	5.0	15.4		6		94				<0.2		2.1	
						7.4	0.2	106	28.6		8.2		23.7		74.2		5.0		15.4		6		93				<0.2		1.9	
IM8	Cloudy	Moderate	15:19	8.5	Surface	1.0	0.3	158	29.0	29.0	8.0	8.0	15.0	15.0	69.2	69.2	4.9	5.0	9.4	11.1	4	5	86	90	821680	807835	<0.2	<0.2	2.3	2.3
						1.0	0.3	171	29.0		8.0		15.0		69.2		4.9		9.4		4		87				<0.2		2.3	
					Middle	4.3	0.2	81	28.9	28.9	8.1	8.1	19.3	19.3	73.6	73.6	5.1		13.1		5		88				<0.2		2.4	
						4.3	0.2	87	28.9		8.1		19.3		73.6		5.1		13.1		6		89				<0.2		2.3	
					Bottom	7.5	0.1	75	28.8	28.8	8.1	8.1	23.7	23.7	75.0	75.0	5.1	5.1	10.9		6		94				<0.2		2.3	
						7.5	0.1	75	28.8		8.1		23.7		75.0		5.1		10.9		6		93				<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 27 July 17 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	15:34	6.7	Surface	1.0	0.5	113	28.9	28.9	8.1	8.1	15.9	15.9	71.1	71.1	5.0	5.0	11.6	14.3	6	6	87	89	822090	808824	<0.2	<0.2	2.0	2.0
						1.0	0.5	117	28.9		8.1		15.9		71.1		5.0		11.6		7		87				<0.2		1.9	
					Middle	3.4	0.4	95	28.8	28.8	8.2	8.2	19.4	19.4	72.2	72.2	5.0		14.4		5		88				<0.2		2.1	
						3.4	0.4	104	28.8		8.2		19.4		72.2		5.0		14.4		5		89				<0.2		1.8	
					Bottom	5.7	0.3	78	28.7	28.7	8.2	8.2	22.8	22.8	74.6	74.6	5.1	5.1	16.8		8		92				<0.2		2.0	
						5.7	0.3	84	28.7		8.2		22.8		74.6		5.1		16.8		7		91				<0.2		2.1	
IM10	Cloudy	Moderate	15:41	6.7	Surface	1.0	0.6	130	29.2	29.2	8.0	8.0	15.0	15.0	71.5	71.5	5.1	5.0	9.2	11.7	5	4	83	87	822252	809848	<0.2	<0.2	2.3	2.3
						1.0	0.7	139	29.2		8.0		15.0		71.5		5.1		9.2		4		84				<0.2		2.2	
					Middle	3.4	0.5	95	28.8	28.8	8.1	8.1	18.8	18.8	69.6	69.7	4.8		11.6		4		87				<0.2		2.4	
						3.4	0.5	96	28.8		8.1		18.8		69.7		4.9		11.6		3		88				<0.2		2.5	
					Bottom	5.7	0.3	83	28.8	28.8	8.2	8.2	20.1	20.1	74.7	74.7	5.2	5.2	14.2		4		91				<0.2		2.2	
						5.7	0.3	85	28.8		8.2		20.1		74.7		5.2		14.2		4		91				<0.2		2.4	
IM11	Cloudy	Moderate	15:50	8.3	Surface	1.0	0.6	126	29.2	29.2	8.0	8.0	15.1	15.1	71.9	71.9	5.1	5.0	8.3	12.2	3	4	86	88	821505	810526	<0.2	<0.2	2.5	2.3
						1.0	0.6	136	29.2		8.0		15.1		71.9		5.1		8.3		2		86				<0.2		2.5	
					Middle	4.2	0.5	111	28.9	28.9	8.1	8.1	17.7	17.7	69.2	69.2	4.8		11.6		4		87				<0.2		2.2	
						4.2	0.5	113	28.9		8.1		17.7		69.2		4.8		11.6		4		87				<0.2		2.1	
					Bottom	7.3	0.3	88	28.8	28.8	8.2	8.2	20.3	20.3	71.7	71.7	4.9	4.9	16.7		5		92				<0.2		2.2	
						7.3	0.3	95	28.8		8.2		20.3		71.7		4.9		16.7		5		91				<0.2		2.3	
IM12	Cloudy	Moderate	15:57	8.6	Surface	1.0	0.7	113	29.2	29.2	8.0	8.0	15.6	15.6	72.1	72.1	5.1	5.0	8.1	12.0	4	6	86	88	821177	811523	<0.2	<0.2	2.2	2.4
						1.0	0.8	121	29.2		8.0		15.6		72.1		5.1		8.1		6		86				<0.2		2.2	
					Middle	4.3	0.6	94	28.9	28.9	8.1	8.1	18.0	18.0	70.5	70.5	4.9		12.0		5		88				<0.2		2.4	
						4.3	0.6	100	28.9		8.1		18.0		70.5		4.9		12.0		6		89				<0.2		2.6	
					Bottom	7.6	0.4	96	29.0	29.0	8.2	8.2	19.1	19.1	71.8	71.8	5.0	5.0	15.9		6		89				<0.2		2.4	
						7.6	0.4	98	29.0		8.2		19.1		71.8		5.0		15.9		6		89				<0.2		2.4	
SR2	Cloudy	Moderate	16:51	4.5	Surface	1.0	0.4	75	28.8	28.8	8.1	8.1	18.5	18.5	68.1	68.1	4.7	4.7	16.2	17.2	4	5	88	89	821459	814174	<0.2	<0.2	2.2	2.3
						1.0	0.5	77	28.8		8.1		18.5		68.1		4.7		16.4		4		89				<0.2		2.4	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	74	28.8	28.8	8.2	8.2	19.5	19.5	68.5	68.5	4.8	4.8	18.1		7		89				<0.2		2.4	
						3.5	0.3	75	28.8		8.2		19.5		68.5		4.8		18.1		6		90				<0.2		2.1	
SR3	Cloudy	Moderate	15:13	9.5	Surface	1.0	0.3	171	28.9	28.9	8.0	8.0	14.6	14.6	69.0	69.0	4.9	5.0	9.5	12.5	5	5	-	-	822140	807566	-	-	-	-
						1.0	0.4	186	28.9		8.0		14.6		69.0		4.9		9.5		5		-				-		-	
					Middle	4.8	0.2	111	28.8	28.8	8.1	8.1	18.9	18.9	72.4	72.4	5.0		12.8		4		-				-		-	
						4.8	0.2	117	28.8		8.1		18.9		72.4		5.0		12.8		4		-				-		-	
					Bottom	8.5	0.2	37	28.7	28.7	8.1	8.1	23.1	23.1	74.0	74.0	5.0	5.0	15.1		5		-				-		-	
						8.5	0.2	37	28.7		8.1		23.1		74.0		5.0		15.1		4		-				-		-	
SR4A	Cloudy	Calm	15:35	9.1	Surface	1.0	0.2	87	28.8	28.8	8.0	8.0	22.0	22.0	78.0	78.0	5.3	5.3	12.5	16.2	8	11	-	-	817169	807814	-	-	-	-
						1.0	0.2	90	28.8		8.0		22.0		77.9		5.3		12.6		9		-				-		-	
					Middle	4.6	0.2	77	28.5	28.5	8.1	8.1	24.1	24.1	76.9	76.9	5.2		17.0		8		-				-		-	
						4.6	0.2	80	28.5		8.1		24.1		76.9		5.2		17.1		8		-				-		-	
					Bottom	8.1	0.2	94	28.4	28.4	8.1	8.1	24.9	24.9	80.5	80.6	5.4	5.5	18.9		15		-				-		-	
						8.1	0.2	95	28.4		8.1		24.9		80.7		5.5		19.0		15		-				-		-	
SR5A	Cloudy	Calm	15:52	5.2	Surface	1.0	0.1	110	29.1	29.1	8.0	8.0	18.5	18.5	75.0	75.0	5.2	5.2	14.0	15.3	6	9	-	-	816607	810691	-	-	-	-
						1.0	0.1	116	29.1		8.0		18.5		74.9		5.2		14.0		7		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	4.2	0.0	93	28.8	28.8	8.0	8.0	20.1	20.2	74.6	74.7	5.1	5.2	16.4		12		-				-		-	
						4.2	0.0	97	28.8		8.0		20.2		74.8		5.2		16.7		12		-				-		-	
SR6	Cloudy	Calm	16:14	4.1	Surface	1.0	0.1	139	28.8	28.8	7.9	7.9	17.9	17.9	73.0	73.0	5.1	5.1	15.7	16.2	12	13	-	-	817906	814665	-	-	-	-
						1.0	0.1	151	28.8		7.9		17.9		73.0		5.1		16.0		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.1	117	28.8	28.8	7.9	7.9	18.2	18.2	74.9	75.0	5.2	5.2	16.6		16		-				-		-	
						3.1	0.1	119	28.8		7.9		18.2		75.1		5.2		16.3		14		-				-		-	
SR7	Cloudy	Calm	17:02	18.5	Surface	1.0	0.7	77	28.7	28.7	7.9	7.9	17.8	17.8	73.3	73.3	5.1	5.1	5.2	5.6	3	5	-	-	823631	823724	-	-	-	-
						1.0	0.7	83	28.7		7.9		17.8		73.2		5.1		5.3		3		-				-		-	
					Middle	9.3	0.3	74	28.3	28.3	7.9	7.9	18.6	18.7	72.1	72.2	5.1		5.6		7		-				-		-	
						9.3	0.3	74	28.3		7.9		18.7		72.2		5.1		5.6		5		-				-		-	
					Bottom	17.5	0.3	60	28.1	28.2	7.9	7.9	20.8	20.8	77.2	79.3	5.4	5.5	6.0		6		-				-		-	
						17.5	0.3	63	28.2		7.9		20.7		81.3		5.6		6.1		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**

Note: Water quality monitoring at SR8 on 25 and 27 July 2017 were cancelled as the location was inaccessible due to safety constraints.

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

Water Quality Monitoring

Water Quality Monitoring Results on 27 July 17 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	09:25	9.3	Surface	1.0	0.4	38	28.5	28.5	8.0	8.0	17.4	17.4	74.8	74.8	5.3	5.2	7.4	13.8	2	4	79	84	815611	804240	<0.2	<0.2	1.8	1.5
						1.0	0.4	38	28.5		8.0		17.4		74.8		5.3		7.5		2		79				<0.2		2.0	
					Middle	4.7	0.5	32	28.5	28.5	8.1	8.1	22.4	22.5	75.1	75.1	5.1		9.9		5		84				<0.2		1.6	
						4.7	0.5	32	28.5		8.1		22.5		75.1		5.1		10.4		6		84				<0.2		1.5	
					Bottom	8.3	0.5	30	28.4	28.4	8.1	8.1	25.2	25.2	76.2	76.2	5.1	5.1	24.1		4		89				<0.2		1.0	
						8.3	0.5	30	28.4		8.1		25.2		76.2		5.1		23.7		6		88				<0.2		1.0	
C2	Cloudy	Moderate	09:57	12.3	Surface	1.0	0.4	359	28.6	28.6	7.8	7.8	13.7	13.7	61.7	61.8	4.4	4.3	9.2	12.4	5	5	83	86	825675	806952	<0.2	<0.2	2.5	2.3
						1.0	0.4	330	28.6		7.8		13.7		61.8		4.4		9.2		6		83				<0.2		2.4	
					Middle	6.2	0.5	348	28.5	28.5	8.0	8.0	17.9	17.9	58.3	58.3	4.1		12.7		4		87				<0.2		2.2	
						6.2	0.5	320	28.5		8.0		17.9		58.3		4.1		12.7		4		87				<0.2		2.2	
					Bottom	11.3	0.5	330	28.4	28.4	8.0	8.0	18.6	18.6	58.0	58.0	4.1	4.1	15.3		4		88				<0.2		2.2	
						11.3	0.5	345	28.4		8.0		18.6		58.0		4.1		15.3		4		89				<0.2		2.5	
C3	Sunny	Moderate	07:26	12.0	Surface	1.0	0.5	270	28.7	28.7	8.0	8.0	16.2	16.2	62.8	62.8	4.4	4.4	9.2	9.7	6	6	90	92	822100	817799	<0.2	<0.2	2.1	2.1
						1.0	0.5	276	28.7		8.0		16.2		62.8		4.4		9.2		4		89				<0.2		2.0	
					Middle	6.0	0.5	256	28.5	28.5	8.0	8.0	19.8	19.8	62.1	62.1	4.3		9.7		6		91				<0.2		2.2	
						6.0	0.5	269	28.5		8.0		19.8		62.1		4.3		9.7		6		92				<0.2		2.1	
					Bottom	11.0	0.7	268	27.8	27.8	8.0	8.0	23.3	23.3	62.1	62.1	4.3	4.3	10.2		6		94				<0.2		2.0	
						11.0	0.7	290	27.8		8.0		23.3		62.1		4.3		10.2		6		95				<0.2		2.0	
IM1	Cloudy	Moderate	09:43	8.1	Surface	1.0	0.6	6	28.7	28.7	8.0	8.0	19.0	19.0	74.4	74.4	5.2	5.2	7.9	14.0	4	9	77	81	818342	806438	<0.2	<0.2	1.6	1.5
						1.0	0.7	6	28.7		8.0		19.0		74.3		5.2		8.0		5		77				<0.2		1.7	
					Middle	4.1	0.6	15	28.7	28.7	8.0	8.0	19.0	19.0	74.2	74.2	5.2		10.6		4		80				<0.2		1.7	
						4.1	0.7	16	28.7		8.0		19.0		74.2		5.2		10.8		6		81				<0.2		1.7	
					Bottom	7.1	0.5	8	28.6	28.6	8.0	8.0	22.5	22.5	74.4	74.4	5.1	5.1	23.6		17		86				<0.2		1.3	
						7.1	0.6	8	28.6		8.0		22.5		74.4		5.1		23.3		15		87				<0.2		1.2	
IM2	Cloudy	Moderate	09:48	8.9	Surface	1.0	0.5	359	28.7	28.7	8.0	8.0	18.9	18.9	74.0	74.0	5.1	5.2	7.5	13.3	5	5	80	85	818838	806186	<0.2	<0.2	1.8	1.6
						1.0	0.5	330	28.7		8.0		18.9		74.0		5.1		7.5		3		80				<0.2		1.5	
					Middle	4.5	0.7	3	28.7	28.7	8.0	8.0	19.7	19.7	74.5	74.6	5.2		11.2		5		85				<0.2		1.7	
						4.5	0.7	3	28.7		8.0		19.7		74.7		5.2		12.0		5		85				<0.2		1.6	
					Bottom	7.9	0.6	13	28.6	28.6	8.1	8.1	22.8	22.8	76.8	76.9	5.2	5.3	20.9		7		90				<0.2		1.5	
						7.9	0.6	14	28.6		8.1		22.8		76.9		5.3		20.9		7		89				<0.2		1.5	
IM3	Cloudy	Moderate	09:55	9.1	Surface	1.0	0.5	28	28.6	28.6	8.0	8.0	18.8	18.8	73.7	73.7	5.1	5.2	7.9	15.0	6	14	76	81	819394	806005	<0.2	<0.2	1.6	1.5
						1.0	0.5	29	28.6		8.0		18.8		73.7		5.1		7.9		6		77				<0.2		1.8	
					Middle	4.6	0.6	25	28.6	28.6	8.0	8.0	19.0	19.0	74.1	74.2	5.2		10.1		6		80				<0.2		1.7	
						4.6	0.6	26	28.6		8.0		19.0		74.2		5.2		10.6		5		81				<0.2		1.6	
					Bottom	8.1	0.5	31	28.5	28.5	8.1	8.1	23.1	23.1	79.7	79.8	5.4	5.4	27.2		32		85				<0.2		1.1	
						8.1	0.5	33	28.5		8.1		23.1		79.9		5.4		26.4		30		85				<0.2		1.1	
IM4	Cloudy	Moderate	10:03	8.6	Surface	1.0	0.5	4	28.6	28.6	8.0	8.0	17.5	17.6	72.3	72.3	5.1	5.1	7.4	15.1	7	8	80	85	819576	805048	<0.2	<0.2	2.1	1.6
						1.0	0.5	4	28.6		8.0		17.6		72.3		5.1		7.6		8		80				<0.2		1.9	
					Middle	4.3	0.7	15	28.5	28.5	8.0	8.0	18.0	18.0	72.8	72.8	5.1		9.3		7		85				<0.2		1.9	
						4.3	0.7	16	28.5		8.0		18.0		72.8		5.1		9.4		9		85				<0.2		1.4	
					Bottom	7.6	0.6	11	28.4	28.4	8.1	8.1	23.9	23.9	76.4	76.5	5.2	5.2	28.6		8		89				<0.2		1.2	
						7.6	0.6	11	28.4		8.1		23.9		76.5		5.2		28.4		9		89				<0.2		1.1	
IM5	Cloudy	Moderate	10:15	7.7	Surface	1.0	0.7	21	28.6	28.6	8.0	8.0	17.2	17.2	72.6	72.7	5.1	5.2	8.3	11.6	6	7	76	80	820558	804931	<0.2	<0.2	2.0	2.0
						1.0	0.7	22	28.6		8.0		17.2		72.7		5.1		8.4		5		76				<0.2		1.8	
					Middle	3.9	0.7	20	28.6	28.6	8.0	8.0	17.3	17.3	73.6	73.6	5.2		10.6		5		79				<0.2		2.2	
						3.9	0.7	21	28.6		8.0		17.3		73.6		5.2		10.8		7		79				<0.2		2.0	
					Bottom	6.7	0.5	21	28.6	28.6	8.0	8.0	17.3	17.3	75.5	75.7	5.3	5.3	15.5		9		83				<0.2		2.0	
						6.7	0.5	22	28.6		8.0		17.3		75.8		5.3		15.9		9		84				<0.2		1.8	
IM6	Cloudy	Moderate	10:22	7.5	Surface	1.0	0.4	35	28.6	28.6	8.1	8.1	18.6	18.6	72.9	72.9	5.1	5.1	11.8	16.2	10	11	78	84	821053	805838	<0.2	<0.2	1.6	1.6
						1.0	0.4	35	28.6		8.1		18.6		72.9		5.1		12.2		9		79				<0.2		1.7	
					Middle	3.8	0.4	42	28.6	28.6	8.1	8.1	19.8	19.8	73.0	73.1	5.1		14.3		8		84				<0.2		1.7	
						3.8	0.4	43	28.6		8.1		19.8		73.1		5.1		15.0		10		85				<0.2		1.5	
					Bottom	6.5	0.3	59	28.5	28.5	8.1	8.1	21.0	21.0	73.8	74.0	5.1	5.1	22.7		14		89				<0.2		1.5	
						6.5	0.4	64	28.5		8.1		21.0		74.1		5.1		21.3		15		90				<0.2		1.5	
IM7	Cloudy	Moderate	09:27	8.5	Surface	1.0	0.2	319	28.7	28.7	7.9	7.9	11.6	11.6	62.6	62.6	4.5	4.5	10.1	12.7	6	6	84	87	821347	806827	<0.2	<0.2	2.9	2.9
						1.0	0.2	334	28.7		7.9		11.6		62.6		4.5		10.1		5		84				<0.2		2.7	
					Middle	4.3	0.5	357	28.8	28.8	8.1	8.1	15.6	15.6	64.0	64.0	4.5		12.4		6		87				<0.2		2.8	
						4.3	0.5	328	28.8		8.1		15.6		64.0		4.5		12.4		8		87				<0.2		2.8	
					Bottom	7.5	0.5	39	28.8	28.8	8.0	8.0	21.3	21.3	63.9	63.9	4.4	4.4	15.5		7		89				<0.2		3.0	
						7.5	0.5	41	28.8		8.0		21.3		63.9		4.4		15.5		6		89				<0.2		3.0	
IM8	Cloudy	Moderate	09:11	8.7	Surface	1.0	0.2	310	28.8	28.8	7.8	7.8	11.3	11.3	63.7	63.7	4.6	4.5	8.2	11.8	5	5	86	89	821691	807843	<0.2	<0.2	3.1	3.2
						1.0	0.2	313	28.8		7.8		11.3		63.7		4.6		8.2		6		87				<0.2		3.2	
					Middle	4.4	0.2	334	28.6	28.6	7.9	7.9	13.3	13.3	60.5	60.6	4.4		11.7		4		89				<0.2		3.2	
						4.4	0.3	354	28.6		7.9		13.3		60.6		4.4		11.7		4		88				<0.2		3.1	
					Bottom	7.7	0.1	324	28.7	28.7	7.9	7.9	13.8	13.8	65.0	65.0	4.7	4.7	15.6		4		90				<0.2		3.2	
						7.7	0.1	338	28.7		7.9		13.8		65.0		4.7		15.6		6		91				<0.2		3.2	

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 17 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	08:56	7.4	Surface	1.0	0.3	271	28.8	28.8	7.8	7.8	13.1	13.1	67.4	67.4	4.8	4.6	8.2	10.0	6	5	83	87	822093	808823	<0.2	<0.2	2.5	2.5
						1.0	0.3	290	28.8		7.8		13.1		67.4		4.8		8.2		5		84				<0.2		2.7	
					Middle	3.7	0.4	285	28.7	28.7	7.9	7.9	13.5	13.5	61.2	61.2	4.4		8.8		5		87				<0.2		2.4	
						3.7	0.4	291	28.7		7.9		13.5		61.2		4.4		8.7		5		86				<0.2		2.5	
					Bottom	6.4	0.4	300	28.8	28.8	8.0	8.0	15.1	15.1	62.8	62.8	4.5	4.5	13.1		6		90				<0.2		2.5	
						6.4	0.4	327	28.8		8.0		15.1		62.8		4.5		13.1		5		89				<0.2		2.6	
IM10	Cloudy	Moderate	08:48	7.4	Surface	1.0	0.6	307	28.9	28.9	7.9	7.9	14.2	14.2	66.5	66.5	4.8	4.6	10.4	12.6	6	5	84	88	822235	809845	<0.2	<0.2	2.3	2.4
						1.0	0.6	331	28.9		7.9		14.2		66.5		4.8		10.4		5		83				<0.2		2.6	
					Middle	3.7	0.6	305	28.8	28.8	7.9	7.9	14.6	14.6	61.7	61.7	4.4		12.6		5		88				<0.2		2.5	
						3.7	0.7	330	28.8		7.9		14.6		61.7		4.4		12.6		4		89				<0.2		2.3	
					Bottom	6.4	0.4	308	28.8	28.8	8.0	8.0	15.8	15.8	62.8	62.8	4.4	4.4	14.8		6		91				<0.2		2.4	
						6.4	0.4	326	28.8		8.0		15.8		62.8		4.4		14.8		6		90				<0.2		2.4	
IM11	Cloudy	Moderate	08:35	7.9	Surface	1.0	0.5	273	28.9	28.9	7.9	7.9	13.7	13.7	63.2	63.2	4.5	4.6	9.1	11.8	5	6	83	88	821503	810546	<0.2	<0.2	2.8	2.8
						1.0	0.5	287	28.9		7.9		13.7		63.2		4.5		9.1		5		84				<0.2		2.7	
					Middle	4.0	0.6	290	28.8	28.8	7.9	7.9	14.7	14.7	64.0	64.0	4.6		11.8		5		88				<0.2		2.8	
						4.0	0.6	311	28.8		7.9		14.7		64.0		4.6		11.8		6		88				<0.2		2.8	
					Bottom	6.9	0.4	300	28.7	28.7	7.9	7.9	18.3	18.3	71.7	71.7	5.0	5.0	14.5		7		91				<0.2		2.9	
						6.9	0.4	325	28.7		7.9		18.3		71.7		5.0		14.5		6		91				<0.2		2.8	
IM12	Cloudy	Moderate	08:27	8.3	Surface	1.0	0.6	283	28.8	28.8	7.9	7.9	13.6	13.6	64.2	64.2	4.6	4.5	10.3	11.4	5	7	85	88	821175	811530	<0.2	<0.2	2.8	2.9
						1.0	0.7	295	28.8		7.9		13.6		64.2		4.6		10.3		4		86				<0.2		2.7	
					Middle	4.2	0.8	280	28.7	28.7	8.0	8.0	19.1	19.1	62.8	62.8	4.4		10.6		7		88				<0.2		2.9	
						4.2	0.8	295	28.7		8.0		19.1		62.8		4.4		10.6		8		89				<0.2		2.8	
					Bottom	7.3	0.5	286	28.6	28.6	8.0	8.0	20.7	20.7	63.3	63.3	4.4	4.4	13.3		9		90				<0.2		3.1	
						7.3	0.6	296	28.6		8.0		20.7		63.3		4.4		13.3		9		91				<0.2		2.8	
SR2	Sunny	Moderate	07:48	4.6	Surface	1.0	0.1	283	28.8	28.8	8.0	8.0	14.1	14.1	62.4	62.4	4.5	4.5	9.9	11.7	6	6	86	89	821482	814156	<0.2	<0.2	3.1	3.0
						1.0	0.1	306	28.8		8.0		14.1		62.4		4.5		9.9		5		87				<0.2		2.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	294	28.5	28.5	8.0	8.0	18.2	18.2	60.9	60.9	4.3	4.3	13.4		5		91				<0.2		3.2	
						3.6	0.1	321	28.5		8.0		18.2		60.9		4.3		13.4		6		90				<0.2		2.8	
SR3	Cloudy	Moderate	09:17	9.2	Surface	1.0	0.2	296	28.7	28.7	7.8	7.8	11.6	11.6	68.2	68.2	4.9	4.6	8.4	10.0	6	6	-	-	822160	807561	-	-	-	-
						1.0	0.2	304	28.7		7.8		11.6		68.2		4.9		8.4		6		-				-		-	
					Middle	4.6	0.3	330	28.6	28.6	7.9	7.9	13.2	13.2	58.4	58.4	4.2		9.4		5		-				-		-	
						4.6	0.4	341	28.6		7.9		13.2		58.4		4.2		9.4		6		-				-		-	
					Bottom	8.2	0.0	323	28.7	28.7	8.0	8.0	15.4	15.4	62.1	62.1	4.4	4.4	12.3		6		-				-		-	
						8.2	0.0	338	28.7		8.0		15.4		62.1		4.4		12.3		6		-				-		-	
SR4A	Fine	Calm	09:02	9.4	Surface	1.0	0.5	265	28.8	28.8	8.0	8.0	18.5	18.6	72.7	72.7	5.1	5.1	12.6	12.8	12	13	-	-	817192	807797	-	-	-	-
						1.0	0.5	283	28.8		8.0		18.6		72.7		5.1		12.6		11		-				-		-	
					Middle	4.7	0.4	265	28.7	28.7	8.0	8.0	18.8	18.8	73.0	73.1	5.1		13.0		13		-				-		-	
						4.7	0.4	284	28.7		8.0		18.8		73.2		5.1		12.9		13		-				-		-	
					Bottom	8.4	0.2	258	28.7	28.7	8.0	8.0	19.4	19.4	74.5	74.8	5.2	5.2	12.9		13		-				-		-	
						8.4	0.2	282	28.7		8.0		19.4		75.1		5.2		13.0		14		-				-		-	
SR5A	Fine	Calm	08:46	4.7	Surface	1.0	0.4	298	28.7	28.7	7.9	7.9	18.0	18.0	73.3	73.4	5.1	5.1	14.2	15.3	9	13	-	-	816598	810689	-	-	-	-
						1.0	0.4	318	28.7		7.9		18.0		73.4		5.1		14.1		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.7	0.3	305	28.7	28.7	7.9	7.9	18.2	18.2	76.5	77.2	5.3	5.4	16.3		15		-				-		-	
						3.7	0.3	321	28.7		7.9		18.2		77.9		5.4		16.4		15		-				-		-	
SR6	Fine	Calm	08:21	4.3	Surface	1.0	0.3	254	28.6	28.6	7.8	7.8	16.2	16.2	69.8	69.8	4.9	4.9	8.3	8.6	7	7	-	-	817897	814663	-	-	-	-
						1.0	0.3	256	28.6		7.8		16.2		69.8		4.9		8.3		5		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.3	0.2	234	28.6	28.6	7.8	7.8	16.5	16.5	71.4	71.8	5.0	5.1	8.8		9		-				-		-	
						3.3	0.2	243	28.6		7.8		16.5		72.2		5.1		8.8		7		-				-		-	
SR7	Fine	Calm	07:24	15.6	Surface	1.0	0.1	190	28.4	28.4	7.7	7.7	16.5	16.5	68.6	68.6	5.1	5.1	5.5	5.5	6	5	-	-	823640	823756	-	-	-	-
						1.0	0.1	203	28.4		7.7		16.5		68.6		5.1		5.3		4		-				-		-	
					Middle	7.8	0.2	188	28.3	28.3	7.7	7.7	16.6	16.6	68.4	68.5	5.1		5.5		6		-				-		-	
						7.8	0.2	192	28.3		7.7		16.6		68.5		5.1		5.4		5		-				-		-	
					Bottom	14.6	0.1	188	28.1	28.1	7.7	7.7	20.0	20.0	72.5	72.7	5.1	5.1	5.5		5		-				-		-	
						14.6	0.1	200	28.1		7.7		19.9		72.8		5.1		5.5		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**

Note: Water quality monitoring at SR8 on 25 and 27 July 2017 were cancelled as the location was inaccessible due to safety constraints.

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

Water Quality Monitoring

Water Quality Monitoring Results on 29 July 17 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	16:27	9.1	Surface	1.0	0.4	246	30.4	30.4	8.1	8.1	16.6	16.6	88.9	88.7	6.1	5.9	5.5	5.8	10	14	80	85	815602	804251	<0.2	<0.2	1.9	1.5
						1.0	0.4	256	30.4		8.1		16.6		88.5		6.1		5.5		12		81				<0.2		2.0	
					Middle	4.6	0.2	186	29.0	29.0	8.1	8.1	20.8	20.7	81.9	81.5	5.6		5.7		14		85				<0.2		1.7	
						4.6	0.2	191	29.0		8.1		20.6		81.1		5.6		5.7		15		85				<0.2		1.9	
					Bottom	8.1	0.2	217	28.4	28.4	8.1	8.1	26.8	26.8	82.4	82.6	5.5	5.5	6.3		15		90				<0.2		0.7	
						8.1	0.2	217	28.4		8.1		26.8		82.7		5.5		6.3		17		90				<0.2		0.6	
C2	Fine	Moderate	15:53	12.3	Surface	1.0	0.1	135	29.5	29.5	7.9	7.9	15.9	15.9	65.7	65.7	4.6	4.4	9.0	13.3	12	13	83	86	825698	806954	<0.2	<0.2	2.3	2.3
						1.0	0.2	140	29.5		7.9		15.9		65.7		4.6		9.0		12		85				<0.2		2.3	
					Middle	6.2	0.4	163	28.8	28.8	8.0	8.0	20.8	20.8	60.6	60.6	4.2		14.2		13		86				<0.2		2.4	
						6.2	0.4	165	28.8		8.0		20.8		60.6		4.2		14.2		12		87				<0.2		2.3	
					Bottom	11.3	0.3	165	28.1	28.1	7.9	7.9	25.5	25.5	60.0	60.2	4.1	4.1	17.6		15		88				<0.2		2.1	
						11.3	0.3	167	28.1		7.9		25.4		60.3		4.1		15.5		16		89				<0.2		2.2	
C3	Fine	Moderate	18:08	12.1	Surface	1.0	0.3	105	28.8	28.8	8.1	8.1	21.1	21.1	69.0	69.0	4.7	4.7	7.3	8.5	12	12	89	91	822126	817820	<0.2	<0.2	1.6	1.7
						1.0	0.3	105	28.8		8.1		21.1		69.0		4.7		7.3		11		90				<0.2		1.6	
					Middle	6.1	0.2	55	28.8	28.8	8.0	8.0	21.5	21.5	66.5	66.5	4.6		8.3		10		92				<0.2		1.7	
						6.1	0.2	56	28.8		8.0		21.5		66.5		4.6		8.3		10		91				<0.2		1.7	
					Bottom	11.1	0.2	43	28.4	28.4	8.0	8.0	25.0	25.0	66.7	66.7	4.5	4.5	9.8		14		92				<0.2		1.8	
						11.1	0.2	45	28.4		8.0		25.0		66.7		4.5		9.8		16		93				<0.2		1.6	
IM1	Sunny	Moderate	16:08	7.8	Surface	1.0	0.2	144	30.4	30.4	8.1	8.1	16.8	16.9	77.0	76.9	5.3	5.2	7.9	9.8	7	11	80	85	818352	806477	<0.2	<0.2	2.5	1.6
						1.0	0.3	148	30.3		8.1		16.9		76.7		5.3		7.9		9		80				<0.2		2.2	
					Middle	3.9	0.3	174	28.6	28.6	8.1	8.1	24.7	24.7	74.0	74.2	5.0		11.2		12		86				<0.2		1.7	
						3.9	0.3	188	28.6		8.1		24.7		74.3		5.0		11.2		13		86				<0.2		1.8	
					Bottom	6.8	0.2	182	28.6	28.6	8.1	8.1	24.8	24.8	77.5	77.6	5.2	5.3	10.2		13		89				<0.2		0.8	
						6.8	0.2	183	28.6		8.1		24.8		77.7		5.3		10.2		13		89				<0.2		0.8	
IM2	Sunny	Moderate	16:03	8.9	Surface	1.0	0.2	209	30.5	30.5	8.1	8.1	16.6	16.6	82.2	81.3	5.6	5.4	6.8	8.7	8	9	81	86	818864	806209	<0.2	<0.2	2.1	1.8
						1.0	0.2	214	30.5		8.1		16.6		80.4		5.5		7.0		7		82				<0.2		2.1	
					Middle	4.5	0.2	215	28.7	28.7	8.1	8.1	20.7	21.8	75.7	75.6	5.2		8.8		7		87				<0.2		2.0	
						4.5	0.2	220	28.6		8.1		22.8		75.4		5.2		9.5		7		87				<0.2		2.2	
					Bottom	7.9	0.2	226	28.6	28.6	8.1	8.1	24.9	24.9	79.2	79.4	5.4	5.4	9.9		12		90				<0.2		1.1	
						7.9	0.2	243	28.6		8.1		24.9		79.5		5.4		9.9		13		91				<0.2		1.2	
IM3	Sunny	Moderate	15:57	9.0	Surface	1.0	0.2	193	29.7	29.7	8.1	8.1	16.8	16.8	89.5	89.1	6.2	6.1	5.2	5.2	7	6	80	83	819407	806038	<0.2	<0.2	2.3	2.1
						1.0	0.3	197	29.6		8.1		16.8		88.6		6.2		5.2		5		80				<0.2		2.3	
					Middle	4.5	0.1	148	29.3	29.3	8.1	8.1	18.1	18.1	85.2	84.8	5.9		5.3		6		83				<0.2		2.2	
						4.5	0.1	155	29.2		8.1		18.0		84.3		5.9		5.2		6		83				<0.2		2.1	
					Bottom	8.0	0.1	63	28.9	28.9	8.1	8.1	22.7	22.6	85.4	86.2	5.8	5.9	5.2		6		87				<0.2		1.7	
						8.0	0.1	68	28.9		8.1		22.4		87.0		5.9		5.1		6		86				<0.2		1.8	
IM4	Sunny	Moderate	15:50	8.4	Surface	1.0	0.0	159	29.5	29.4	8.1	8.1	17.7	17.7	81.7	81.1	5.7	5.5	5.5	6.2	5	7	81	86	819581	805026	<0.2	<0.2	2.2	1.9
						1.0	0.0	169	29.3		8.1		17.7		80.5		5.6		5.6		6		80				<0.2		2.1	
					Middle	4.2	0.1	101	28.9	28.9	8.1	8.1	21.1	21.1	77.7	77.7	5.3		6.3		6		86				<0.2		2.2	
						4.2	0.1	105	28.8		8.1		21.1		77.6		5.3		6.4		5		87				<0.2		1.9	
					Bottom	7.4	0.2	119	28.6	28.6	8.1	8.1	24.5	24.5	80.1	80.1	5.4	5.4	6.7		9		90				<0.2		1.4	
						7.4	0.2	125	28.6		8.1		24.5		80.1		5.4		6.7		9		89				<0.2		1.5	
IM5	Sunny	Moderate	15:39	7.6	Surface	1.0	0.2	244	30.0	30.0	8.0	8.0	16.5	16.5	85.0	84.9	5.9	5.8	6.9	11.7	8	7	79	83	820577	804915	<0.2	<0.2	1.9	1.8
						1.0	0.2	247	29.9		8.0		16.5		84.7		5.9		7.1		7		80				<0.2		1.9	
					Middle	3.8	0.1	206	29.5	29.5	8.0	8.0	18.4	18.4	81.7	81.7	5.6		10.6		6		83				<0.2		1.9	
						3.8	0.1	220	29.4		8.0		18.4		81.6		5.6		10.9		7		84				<0.2		1.9	
					Bottom	6.6	0.3	166	29.2	29.2	8.0	8.0	20.3	20.3	80.4	80.2	5.5	5.5	17.6		7		87				<0.2		1.7	
						6.6	0.3	176	29.2		8.0		20.3		80.0		5.5		17.1		7		87				<0.2		1.7	
IM6	Sunny	Moderate	15:29	7.6	Surface	1.0	0.1	224	30.0	30.0	7.9	7.9	16.2	16.2	79.6	79.6	5.5	5.5	8.7	15.7	9	14	80	84	821047	805834	<0.2	<0.2	2.9	2.2
						1.0	0.2	245	30.0		7.9		16.2		79.6		5.5		8.8		8		80				<0.2		2.7	
					Middle	3.8	0.1	98	29.4	29.4	8.0	8.0	18.0	18.0	77.9	77.9	5.4		16.5		11		84				<0.2		2.6	
						3.8	0.1	103	29.4		8.0		18.0		77.8		5.4		16.9		10		84				<0.2		2.2	
					Bottom	6.6	0.1	127	28.7	28.7	8.0	8.0	24.8	24.8	80.2	80.4	5.4	5.4	21.8		22		89				<0.2		1.3	
						6.6	0.1	135	28.7		8.0		24.8		80.5		5.4		21.2		24		88				<0.2		1.4	
IM7	Fine	Moderate	16:22	8.5	Surface	1.0	0.1	158	29.6	29.6	8.1	8.1	18.1	18.1	75.6	75.6	5.2	5.1	9.6	13.8	9	10	86	90	821353	806840	<0.2	<0.2	1.8	1.8
						1.0	0.1	160	29.6		8.1		18.1		75.6		5.2		9.6		8		86				<0.2		1.8	
					Middle	4.3	0.2	170	29.1	29.1	8.1	8.1	21.3	21.3	72.8	72.8	5.0		15.1		11		90				<0.2		1.8	
						4.3	0.2	171	29.1		8.1		21.3		72.8		5.0		15.1		12		91				<0.2		1.7	
					Bottom	7.5	0.1	74	28.9	28.9	8.1	8.1	23.3	23.3	75.5	75.5	5.1	5.1	16.6		11		95				<0.2		1.9	
						7.5	0.1	77	28.9		8.1		23.3		75.5		5.1		16.6		11		94				<0.2		1.8	
IM8	Fine	Moderate	16:30	8.4	Surface	1.0	0.3	167	29.6	29.6	8.0	8.0	15.6	15.6	67.8	67.8	4.7	4.6	8.6	12.2	6	7	83	88	821706	807842	<0.2	<0.2	2.4	2.4
						1.0	0.3	179	29.6		8.0		15.6		67.8		4.7		8.6		6		84				<0.2		2.3	
					Middle	4.2	0.1	157	28.8	28.8	8.1	8.1	20.3	20.3	64.6	64.6	4.5		12.2		7		90				<0.2		2.4	
						4.2	0.1	171	28.8		8.1		20.3		64.6		4.5		12.2		7		89				<0.2		2.3	
					Bottom	7.4	0.2	29	28.9	28.9	8.2	8.2	22.5	22.5	68.8	68.8	4.7	4.7	15.8		8		91				<0.2		2.4	
						7.4	0.2	29	28.9		8.2		22.5		68.8		4.7		15.8		8		92				<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 29 July 17 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	16:43	7.3	Surface	1.0	0.4	125	29.7	29.7	8.0	8.0	15.3	15.3	67.8	67.8	4.7	4.6	8.6	10.6	7	9	84	89	822079	808804	<0.2	<0.2	2.1	2.3
						1.0	0.4	134	29.7		8.0		15.3		67.8		4.7		8.6		7		85				<0.2		2.0	
					Middle	3.7	0.4	135	28.8	28.8	8.1	8.1	19.4	19.4	65.2	65.2	4.5		10.3		9		89				<0.2		2.4	
						3.7	0.4	144	28.8		8.1		19.4		65.2		4.5		10.3		11		90				<0.2		2.4	
					Bottom	6.3	0.2	79	29.0	29.0	8.1	8.1	21.8	21.8	69.9	69.9	4.8	4.8	13.0		10		92				<0.2		2.7	
						6.3	0.2	85	29.0		8.1		21.8		69.9		4.8		13.0		9		91				<0.2		2.4	
IM10	Fine	Moderate	16:53	7.4	Surface	1.0	0.5	117	30.6	30.6	8.0	8.0	14.3	14.3	74.5	74.5	5.2	4.9	8.8	13.1	7	7	83	87	822223	809846	<0.2	<0.2	2.2	2.4
						1.0	0.6	121	30.6		8.0		14.3		74.5		5.2		8.8		5		84				<0.2		2.3	
					Middle	3.7	0.5	110	28.9	28.9	8.1	8.1	20.3	20.3	65.5	65.5	4.5		13.9		6		88				<0.2		2.4	
						3.7	0.5	113	28.9		8.1		20.3		65.5		4.5		13.9		6		88				<0.2		2.4	
					Bottom	6.4	0.3	85	29.0	29.0	8.2	8.2	21.8	21.8	71.4	71.4	4.9	4.9	16.6		8		89				<0.2		2.4	
						6.4	0.3	87	29.0		8.2		21.8		71.4		4.9		16.6		9		90				<0.2		2.4	
IM11	Fine	Moderate	17:02	8.2	Surface	1.0	0.5	113	29.9	29.9	8.1	8.1	16.2	16.2	74.1	74.1	5.1	5.0	8.0	10.7	6	6	86	89	821501	810560	<0.2	<0.2	2.0	2.1
						1.0	0.5	115	29.9		8.1		16.2		74.1		5.1		8.0		6		86				<0.2		2.0	
					Middle	4.1	0.4	84	29.4	29.4	8.2	8.2	19.3	19.3	70.6	70.6	4.9		10.5		7		89				<0.2		2.2	
						4.1	0.4	90	29.4		8.2		19.3		70.6		4.9		10.5		6		88				<0.2		2.1	
					Bottom	7.2	0.3	104	28.9	28.9	8.2	8.2	21.3	21.3	68.6	68.6	4.7	4.7	13.7		6		91				<0.2		2.1	
						7.2	0.4	106	28.9		8.2		21.3		68.6		4.7		13.7		6		91				<0.2		2.2	
IM12	Fine	Moderate	17:08	8.9	Surface	1.0	0.5	102	30.4	30.4	8.0	8.0	15.0	15.0	78.3	78.3	5.4	5.3	7.5	9.4	5	6	86	90	821181	811522	<0.2	<0.2	2.3	2.2
						1.0	0.6	102	30.4		8.0		15.0		78.3		5.4		7.5		6		87				<0.2		2.3	
					Middle	4.5	0.4	84	29.7	29.7	8.1	8.1	17.4	17.4	74.0	74.0	5.1		9.7		6		91				<0.2		2.3	
						4.5	0.5	89	29.7		8.1		17.4		74.0		5.1		9.7		6		91				<0.2		2.0	
					Bottom	7.9	0.2	102	29.3	29.3	8.2	8.2	19.5	19.5	74.9	74.9	5.2	5.2	11.1		6		92				<0.2		2.1	
						7.9	0.2	103	29.3		8.2		19.5		74.9		5.2		11.1		6		93				<0.2		2.1	
SR2	Fine	Moderate	17:48	3.5	Surface	1.0	0.3	73	29.6	29.6	8.1	8.1	17.6	17.6	71.0	71.0	4.9	4.9	8.6	9.6	6	6	92	93	821480	814155	<0.2	<0.2	1.9	2.0
						1.0	0.3	73	29.6		8.1		17.6		71.0		4.9		8.6		6		91				<0.2		2.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	2.5	0.2	44	29.1	29.1	8.1	8.1	18.7	18.7	67.8	67.8	4.7	4.7	10.5		5		93				<0.2		1.9	
						2.5	0.2	46	29.1		8.1		18.7		67.8		4.7		10.5		6		94				<0.2		2.0	
SR3	Fine	Moderate	16:35	8.8	Surface	1.0	0.2	162	29.7	29.7	8.0	8.0	15.7	15.7	70.2	70.2	4.9	4.8	9.5	12.9	5	6	-	-	822166	807580	-	-	-	-
						1.0	0.2	172	29.7		8.0		15.7		70.2		4.9		9.5		5		-				-		-	
					Middle	4.4	0.1	181	28.9	28.9	8.1	8.1	21.4	21.4	66.9	66.9	4.6		14.6		4		-				-		-	
						4.4	0.1	186	28.9		8.1		21.4		66.9		4.6		14.6		5		-				-		-	
					Bottom	7.8	0.0	6	28.9	28.9	8.2	8.2	22.1	22.1	70.7	70.7	4.8	4.8	14.6		7		-				-		-	
						7.8	0.0	6	28.9		8.2		22.1		70.7		4.8		14.6		9		-				-		-	
SR4A	Fine	Calm	16:48	9.2	Surface	1.0	0.3	61	28.7	28.7	8.1	8.1	23.3	23.4	73.8	73.8	5.0	5.0	12.9	14.3	4	11	-	-	817193	807790	-	-	-	-
						1.0	0.3	62	28.7		8.1		23.4		73.8		5.0		13.3		5		-				-		-	
					Middle	4.6	0.3	60	28.6	28.6	8.1	8.1	24.7	24.8	74.3	74.5	5.0		14.0		14		-				-		-	
						4.6	0.3	60	28.6		8.1		24.8		74.6		5.0		14.4		14		-				-		-	
					Bottom	8.2	0.3	66	28.6	28.6	8.1	8.1	24.9	24.9	77.9	78.0	5.3	5.3	15.4		14		-				-		-	
						8.2	0.3	68	28.6		8.1		24.9		78.1		5.3		15.6		16		-				-		-	
SR5A	Fine	Calm	17:04	4.0	Surface	1.0	0.1	35	30.5	30.5	8.2	8.2	19.8	19.9	101.1	100.5	6.8	6.8	10.4	11.6	9	8	-	-	816599	810692	-	-	-	-
						1.0	0.1	35	30.4		8.2		19.9		99.9		6.7		10.8		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.0	0.1	12	30.0	30.0	8.1	8.1	20.2	20.2	98.5	98.6	6.7	6.7	12.6		9		-				-		-	
						3.0	0.1	12	30.0		8.1		20.2		98.6		6.7		12.6		7		-				-		-	
SR6	Fine	Calm	17:27	4.2	Surface	1.0	0.1	352	30.8	30.8	8.2	8.2	18.8	18.8	92.3	90.8	6.2	6.1	6.9	7.1	6	8	-	-	817900	814675	-	-	-	-
						1.0	0.1	324	30.7		8.1		18.8		89.2		6.0		7.2		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.2	0.0	100	29.1	29.1	8.1	8.1	20.2	20.2	94.6	94.9	6.5	6.5	7.1		9		-				-		-	
						3.2	0.0	105	29.1		8.1		20.2		95.2		6.5		7.1		11		-				-		-	
SR7	Fine	Moderate	18:14	20.1	Surface	1.0	0.7	78	29.4	29.4	8.1	8.1	20.2	20.2	83.6	83.6	5.7	5.6	5.1		6		-				-		-	
						1.0	0.7	83	29.4		8.1		20.2		83.5		5.7		5.1		5		-				-		-	
					Middle	10.1	0.2	86	29.1	29.1	8.0	8.0	20.7	20.7	80.2	80.3	5.5		5.1		5	5	-	-	823643	823760	-	-	-	-
						10.1	0.2	92	29.1		8.0		20.7		80.3		5.5		5.1		5		-				-		-	
					Bottom	19.1	0.1	220	29.1	29.1	8.0	8.0	21.6	21.6	85.3	85.5	5.8	5.8	5.2		5		-				-		-	
						19.1	0.1	226	29.1		8.0		21.6		85.6		5.8		5.2		4		-				-		-	
SR8	Fine	Moderate	17:26	4.8	Surface	1.0	0.0	198	30.9	30.9	8.1	8.1	16.1	16.1	85.9	85.9	5.9	5.9	7.4	7.7	4	5	-	-	820246	811418	-	-	-	-
						1.0	0.0	200	30.9		8.1		16.1		85.9		5.9		7.4		4		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.8	0.1	215	31.0	31.0	8.0	8.0	16.6	16.6	86.2	86.2	5.9	5.9	8.0		6		-				-		-	
						3.8	0.1	234	31.0		8.0		16.6		86.2		5.9		8.0		6		-				-		-	

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 29 July 17 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Fine	Moderate	11:11	8.9	Surface	1.0	0.7	37	29.0	29.0	8.0	8.0	18.2	18.2	75.4	75.4	5.2	5.1	8.3	12.9	3	6	78	85	815612	804239	<0.2	<0.2	1.6	1.3
						1.0	0.7	39	29.0		8.0		18.2		75.3		5.2		8.5		3		79				<0.2		1.6	
					Middle	4.5	0.9	43	28.6	28.6	8.0	8.0	24.4	24.4	73.3	73.3	5.0		12.7		5		86				<0.2		1.4	
						4.5	0.9	43	28.5		8.0		24.4		73.2		5.0		13.9		5		86				<0.2		1.4	
					Bottom	7.9	0.8	35	28.4	28.4	8.0	8.0	26.2	26.2	74.2	74.2	5.0	5.0	17.0		10		89				<0.2		0.8	
						7.9	0.8	37	28.4		8.0		26.2		74.2		5.0		16.9		10		89				<0.2		0.7	
C2	Fine	Moderate	11:48	12.6	Surface	1.0	0.3	336	29.2	29.2	7.9	7.9	16.8	16.8	61.5	61.5	4.3	4.2	8.7	11.9	5	7	84	88	825683	806951	<0.2	<0.2	2.6	2.4
						1.0	0.3	341	29.2		7.9		16.8		61.5		4.3		8.7		6		86				<0.2		2.5	
					Middle	6.3	0.4	316	28.6	28.6	8.0	8.0	20.7	20.7	58.8	58.8	4.1		12.5		6		87				<0.2		2.4	
						6.3	0.4	322	28.6		8.0		20.7		58.8		4.1		12.5		6		87				<0.2		2.5	
					Bottom	11.6	0.7	290	28.6	28.6	7.9	7.9	21.7	21.7	60.4	60.4	4.2	4.2	14.6		8		92				<0.2		2.0	
						11.6	0.7	313	28.6		7.9		21.7		60.4		4.2		14.6		8		91				<0.2		2.2	
C3	Cloudy	Moderate	09:17	12.1	Surface	1.0	0.5	275	28.9	28.9	8.0	8.0	19.1	19.1	65.8	65.8	4.6	4.4	8.1	8.1	6	5	87	90	822128	817811	<0.2	<0.2	1.6	1.9
						1.0	0.5	278	28.9		8.0		19.1		65.8		4.6		8.1		5		88				<0.2		1.7	
					Middle	6.1	0.4	264	28.4	28.4	8.0	8.0	21.4	21.4	61.1	61.1	4.2		8.4		5		89				<0.2		1.9	
						6.1	0.4	280	28.4		8.0		21.4		61.0		4.2		8.4		5		90				<0.2		1.9	
					Bottom	11.1	0.8	74	27.9	27.9	8.0	8.0	24.6	24.6	58.8	58.8	4.0	4.0	7.9		5		92				<0.2		2.2	
						11.1	0.9	78	27.9		8.0		24.6		58.8		4.0		7.9		5		93				<0.2		2.0	
IM1	Fine	Moderate	11:31	7.9	Surface	1.0	0.6	6	29.0	29.0	8.0	8.0	20.5	20.6	75.2	75.3	5.2	5.2	6.6	7.7	5	7	77	82	818366	806446	<0.2	<0.2	1.6	1.4
						1.0	0.6	6	29.0		8.0		20.6		75.3		5.2		6.6		6		77				<0.2		1.4	
					Middle	4.0	0.6	16	29.0	29.0	8.0	8.0	20.8	20.8	75.3	75.4	5.2		7.3		7		82				<0.2		1.3	
						4.0	0.6	17	28.9		8.0		20.8		75.4		5.2		7.4		6		82				<0.2		1.3	
					Bottom	6.9	0.6	8	28.8	28.8	8.0	8.0	22.2	22.2	77.3	77.4	5.3	5.3	9.1		9		86				<0.2		1.2	
						6.9	0.6	8	28.8		8.0		22.2		77.5		5.3		9.1		8		86				<0.2		1.3	
IM2	Fine	Moderate	11:36	8.3	Surface	1.0	0.6	24	29.1	29.1	8.0	8.0	19.7	19.7	75.4	75.5	5.2	5.3	7.0	8.0	6	6	76	82	818853	806194	<0.2	<0.2	1.2	1.4
						1.0	0.6	24	29.1		8.0		19.7		75.5		5.2		7.0		4		77				<0.2		1.1	
					Middle	4.2	0.6	36	28.9	28.9	8.0	8.0	21.4	21.4	76.8	76.9	5.3		7.9		6		82				<0.2		1.5	
						4.2	0.6	37	28.9		8.0		21.4		76.9		5.3		8.0		5		82				<0.2		1.4	
					Bottom	7.3	0.6	38	28.7	28.7	8.0	8.0	24.1	24.1	81.5	81.5	5.5	5.5	9.1		7		88				<0.2		1.7	
						7.3	0.6	41	28.7		8.0		24.1		81.5		5.5		8.9		6		88				<0.2		1.6	
IM3	Fine	Moderate	11:42	8.7	Surface	1.0	0.6	23	29.0	29.0	8.1	8.1	21.3	21.4	74.2	74.2	5.1	5.1	7.9	8.6	2	8	78	84	819398	806024	<0.2	<0.2	1.5	1.3
						1.0	0.6	23	28.9		8.1		21.5		74.2		5.1		8.0		4		78				<0.2		1.6	
					Middle	4.4	0.6	36	28.8	28.8	8.1	8.1	21.8	21.9	74.4	74.4	5.1		9.1		7		83				<0.2		1.3	
						4.4	0.6	38	28.8		8.1		21.9		74.4		5.1		9.2		8		84				<0.2		1.3	
					Bottom	7.7	0.6	32	28.6	28.6	8.1	8.1	25.5	25.5	77.2	77.3	5.2	5.2	8.7		13		90				<0.2		1.0	
						7.7	0.6	34	28.6		8.1		25.5		77.4		5.2		8.5		12		90				<0.2		0.9	
IM4	Fine	Moderate	11:50	8.1	Surface	1.0	0.5	4	29.1	29.1	8.0	8.0	18.1	18.1	74.2	74.2	5.2	5.2	8.7	10.9	4	5	80	83	819562	805034	<0.2	<0.2	1.9	1.7
						1.0	0.5	4	29.1		8.0		18.1		74.2		5.2		8.8		4		79				<0.2		1.9	
					Middle	4.1	0.7	15	28.7	28.7	8.1	8.1	20.1	20.1	74.6	74.6	5.2		11.8		4		82				<0.2		1.7	
						4.1	0.7	16	28.7		8.1		20.1		74.6		5.2		12.0		6		83				<0.2		1.6	
					Bottom	7.1	0.6	11	28.6	28.6	8.1	8.1	25.6	25.6	78.6	78.8	5.3	5.3	12.1		5		86				<0.2		1.6	
						7.1	0.6	12	28.6		8.1		25.6		78.9		5.3		11.9		5		86				<0.2		1.4	
IM5	Fine	Moderate	12:00	7.5	Surface	1.0	0.7	21	29.4	29.4	8.0	8.0	17.5	17.5	75.1	75.2	5.2	5.2	8.7	15.2	6	6	76	80	820575	804925	<0.2	<0.2	2.0	1.8
						1.0	0.8	21	29.4		8.0		17.5		75.2		5.2		8.8		5		77				<0.2		2.0	
					Middle	3.8	0.7	20	29.0	29.0	8.1	8.1	20.4	20.4	74.2	74.0	5.1		13.0		6		79				<0.2		1.8	
						3.8	0.7	21	29.0		8.1		20.4		73.8		5.1		14.3		5		79				<0.2		1.6	
					Bottom	6.5	0.5	21	28.4	28.4	8.1	8.1	25.7	25.7	73.2	73.5	4.9	5.0	23.4		8		83				<0.2		1.6	
						6.5	0.5	22	28.4		8.1		25.7		73.7		5.0		22.7		8		84				<0.2		1.7	
IM6	Fine	Moderate	12:07	7.3	Surface	1.0	0.4	35	29.4	29.4	8.0	8.0	18.8	18.8	75.8	75.8	5.2	5.1	9.8	16.2	4	11	77	82	821064	805844	<0.2	<0.2	2.1	1.7
						1.0	0.4	36	29.4		8.0		18.8		75.7		5.2		10.0		6		77				<0.2		2.0	
					Middle	3.7	0.4	42	29.0	29.0	8.1	8.1	21.8	21.8	72.9	72.9	5.0		16.5		6		81				<0.2		1.9	
						3.7	0.4	45	29.0		8.1		21.8		72.8		5.0		16.8		6		81				<0.2		1.9	
					Bottom	6.3	0.3	59	28.6	28.6	8.1	8.1	24.5	24.5	73.9	74.0	5.0	5.0	22.2		21		87				<0.2		1.1	
						6.3	0.3	61	28.6		8.1		24.5		74.1		5.0		21.9		20		86				<0.2		1.0	
IM7	Fine	Moderate	11:20	8.4	Surface	1.0	0.1	328	29.4	29.4	7.9	7.9	13.1	13.1	65.8	65.8	4.7	4.7	9.8	12.3	6	7	84	87	821352	806831	<0.2	<0.2	3.2	3.0
						1.0	0.1	344	29.4		7.9		13.1		65.8		4.7		9.8		7		84				<0.2		3.2	
					Middle	4.2	0.4	22	29.1	29.1	8.1	8.1	17.3	17.3	66.1	66.1	4.6		12.6		7		86				<0.2		2.9	
						4.2	0.5	24	29.1		8.1		17.3		66.1		4.6		12.6		7		87				<0.2		3.0	
					Bottom	7.4	0.4	42	28.9	28.9	8.3	8.3	22.0	22.0	68.0	68.0	4.6	4.6	14.5		6		89				<0.2		2.9	
						7.4	0.4	45	28.9		8.3		22.0		68.0		4.6		14.5		7		90				<0.2		3.0	
IM8	Fine	Moderate	11:07	8.6	Surface	1.0	0.2	321	29.2	29.2	7.9	7.9	13.8	13.8	67.2	67.2	4.8	4.6	8.7	9.6	6	6	84	86	821688	807851	<0.2	<0.2	3.1	3.2
						1.0	0.2	328	29.2		7.9		13.8		67.2		4.8		8.7		6		85				<0.2		3.3	
					Middle	4.3	0.3	186	28.9	28.9	7.9	7.9	16.6	16.6	61.2	61.2	4.3		8.9		6		85				<0.2		3.2	
						4.3	0.3	192	28.9		7.9		16.6		61.2		4.3		8.9		5		87				<0.2		3.0	
					Bottom	7.6	0.3	184	28.8	28.8	8.0	8.0	20.0	20.0	64.9	64.9	4.5	4.5	11.1		5		88				<0.2		3.3	
						7.6	0.3	194	28.8		8.0		20.0		64.9		4.5		11.1		5		89				<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

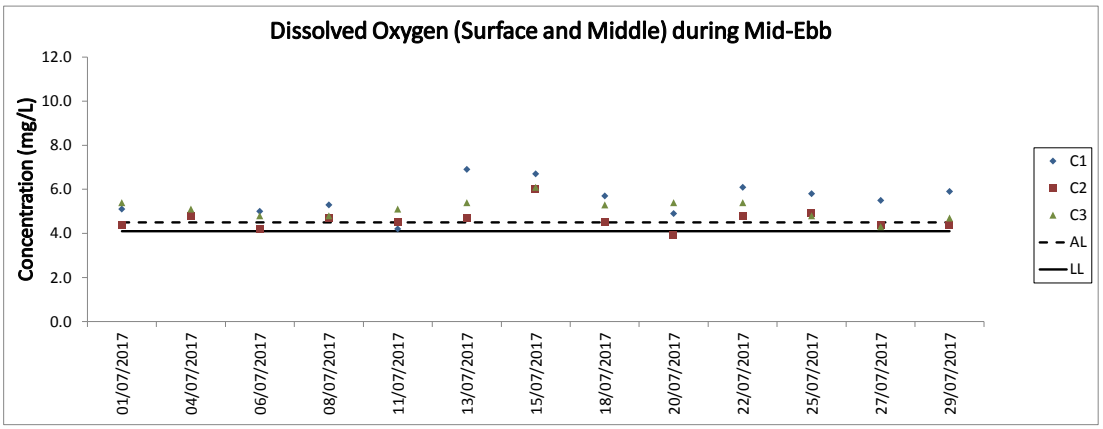
Water Quality Monitoring Results on 29 July 17 during Mid-Flood Tide

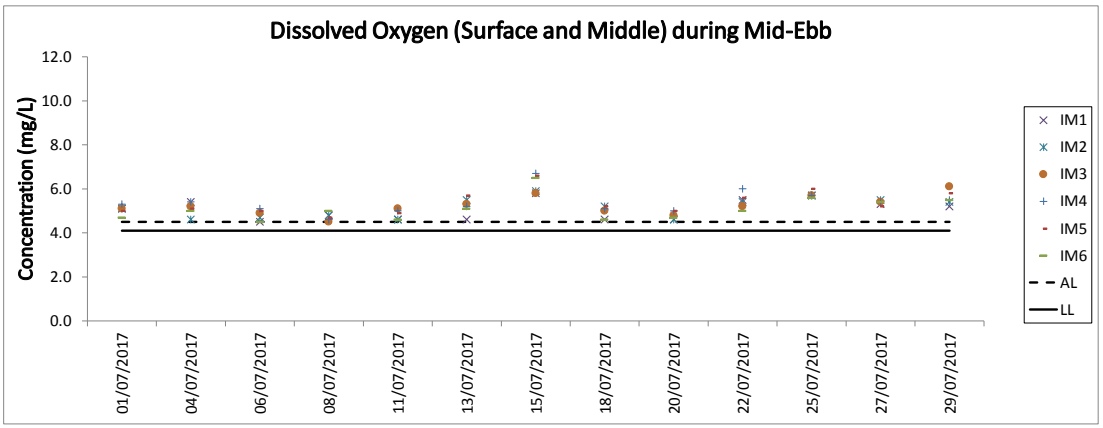
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	10:59	7.5	Surface	1.0	0.2	279	29.5	29.5	7.9	7.9	13.2	13.2	66.3	66.3	4.7	4.6	8.3	10.7	4	6	85	88	822091	808792	<0.2	<0.2	2.9	2.8
						1.0	0.2	300	29.5		7.9		13.2		66.3		4.7		8.3		6		85				<0.2		3.0	
					Middle	3.8	0.3	307	29.0	29.0	8.0	8.0	15.9	15.9	64.0	64.0	4.5		9.9		6		87				<0.2		2.7	
						3.8	0.3	311	29.0		8.0		15.9		64.0		4.5		9.9		6		88				<0.2		2.6	
					Bottom	6.5	0.3	262	29.0	29.0	8.1	8.1	18.1	18.1	65.4	65.4	4.6	4.6	14.0		6		90				<0.2		2.6	
						6.5	0.4	273	29.0		8.1		18.1		65.4		4.6		14.0		8		91				<0.2		2.7	
IM10	Fine	Moderate	10:47	7.2	Surface	1.0	0.3	323	29.3	29.3	8.0	8.0	16.1	16.1	67.7	67.7	4.7	4.7	8.8	11.2	5	7	85	89	822230	809838	<0.2	<0.2	2.3	2.4
						1.0	0.3	324	29.3		8.0		16.1		67.7		4.7		8.8		6		86				<0.2		2.4	
					Middle	3.6	0.4	314	29.0	29.0	8.0	8.0	18.4	18.4	66.4	66.4	4.6		11.2		5		88				<0.2		2.4	
						3.6	0.4	335	29.0		8.0		18.4		66.4		4.6		11.2		6		89				<0.2		2.5	
					Bottom	6.2	0.3	318	28.7	28.7	8.1	8.1	20.5	20.5	65.5	65.5	4.5	4.5	13.5		9		92				<0.2		2.2	
						6.2	0.3	327	28.7		8.1		20.5		65.5		4.5		13.5		9		92				<0.2		2.3	
IM11	Fine	Moderate	10:34	8.0	Surface	1.0	0.3	313	29.3	29.3	8.0	8.0	16.3	16.3	70.8	70.8	5.0	4.9	7.7	11.2	6	6	85	88	821496	810553	<0.2	<0.2	2.4	2.4
						1.0	0.3	342	29.3		8.0		16.3		70.8		5.0		7.7		4		85				<0.2		2.5	
					Middle	4.0	0.4	261	29.0	29.0	8.0	8.0	18.6	18.6	67.1	67.1	4.7		11.5		4		86				<0.2		2.3	
						4.0	0.4	285	29.0		8.0		18.6		67.1		4.7		11.5		4		87				<0.2		2.4	
					Bottom	7.0	0.3	292	28.6	28.6	8.1	8.1	21.6	21.6	66.0	66.0	4.5	4.5	14.3		7		92				<0.2		2.4	
						7.0	0.3	299	28.6		8.1		21.6		66.0		4.5		14.3		8		90				<0.2		2.4	
IM12	Fine	Moderate	10:26	8.7	Surface	1.0	0.4	283	29.2	29.2	8.0	8.0	16.2	16.2	69.9	69.9	4.9	4.7	8.4	12.7	8	8	86	89	821173	811536	<0.2	<0.2	2.2	2.2
						1.0	0.5	292	29.2		8.0		16.2		69.9		4.9		8.4		8		87				<0.2		2.4	
					Middle	4.4	0.5	286	28.8	28.8	8.0	8.0	19.8	19.8	64.7	64.7	4.5		12.9		8		89				<0.2		2.0	
						4.4	0.5	305	28.8		8.0		19.8		64.7		4.5		12.9		8		89				<0.2		2.1	
					Bottom	7.7	0.3	275	28.1	28.1	8.0	8.0	23.5	23.5	60.6	60.6	4.2	4.2	16.8		9		91				<0.2		2.1	
						7.7	0.3	278	28.1		8.0		23.5		60.6		4.2		16.8		8		92				<0.2		2.1	
SR2	Cloudy	Moderate	09:40	4.4	Surface	1.0	0.2	292	29.2	29.2	8.0	8.0	16.3	16.3	71.5	71.5	5.0	5.0	7.9	8.5	4	4	87	89	821476	814165	<0.2	<0.2	2.6	2.5
						1.0	0.2	296	29.2		8.0		16.3		71.5		5.0		7.9		4		87				<0.2		2.5	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.4	0.1	290	28.9	28.9	8.0	8.0	19.3	19.3	70.8	70.8	4.9	4.9	9.0		4		90				<0.2		2.4	
						3.4	0.2	304	28.9		8.0		19.3		70.8		4.9		9.0		4		90				<0.2		2.4	
SR3	Fine	Moderate	11:13	9.2	Surface	1.0	0.2	321	29.5	29.5	7.8	7.8	13.3	13.3	68.8	68.8	4.9	4.6	8.6	10.5	5	6	-	-	822157	807557	-	-	-	-
						1.0	0.2	342	29.5		7.8		13.3		68.8		4.9		8.6		5		-				-		-	
					Middle	4.6	0.2	269	28.9	28.9	8.0	8.0	17.2	17.2	61.3	61.3	4.3		9.4		6		-				-		-	
						4.6	0.2	294	28.9		8.0		17.2		61.3		4.3		9.4		6		-				-		-	
					Bottom	8.2	0.1	245	28.8	28.8	8.1	8.1	20.4	20.4	64.2	64.2	4.4	4.4	13.4		7		-				-		-	
						8.2	0.1	255	28.8		8.1		20.4		64.2		4.4		13.4		7		-				-		-	
SR4A	Cloudy	Calm	10:49	8.8	Surface	1.0	0.4	241	29.0	29.0	8.0	8.0	20.5	20.5	75.3	75.2	5.2	5.2	11.6	12.4	5	10	-	-	817178	807822	-	-	-	-
						1.0	0.4	260	29.0		8.0		20.5		75.0		5.2		11.8		6		-				-		-	
					Middle	4.4	0.4	241	28.8	28.8	8.0	8.0	21.0	21.0	74.3	74.3	5.1		12.5		11		-				-		-	
						4.4	0.4	244	28.8		8.0		21.0		74.2		5.1		12.8		9		-				-		-	
					Bottom	7.8	0.2	250	28.6	28.6	8.0	8.0	24.8	24.8	76.2	76.4	5.1	5.2	12.7		14		-				-		-	
						7.8	0.2	262	28.6		8.0		24.8		76.5		5.2		12.7		13		-				-		-	
SR5A	Cloudy	Calm	10:34	4.5	Surface	1.0	0.4	291	28.7	28.7	7.9	7.9	21.7	21.8	68.8	68.9	4.7	4.7	16.4	16.6	7	10	-	-	816578	810695	-	-	-	-
						1.0	0.4	299	28.6		7.9		21.8		68.9		4.7		16.8		8		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.5	0.3	307	28.6	28.6	7.9	7.9	22.0	22.0	72.7	73.5	5.0	5.1	16.9		12		-				-		-	
						3.5	0.3	322	28.6		7.9		21.9		74.3		5.1		16.2		13		-				-		-	
SR6	Cloudy	Calm	09:59	4.1	Surface	1.0	0.2	225	28.7	28.7	7.9	7.9	19.3	19.3	72.3	72.3	5.0	5.0	16.6	18.4	10	13	-	-	817889	814648	-	-	-	-
						1.0	0.2	230	28.7		7.9		19.2		72.3		5.0		17.0		11		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.1	0.0	359	28.7	28.7	7.9	7.9	19.4	19.5	73.3	73.5	5.1	5.1	19.8		15		-				-		-	
						3.1	0.0	359	28.7		7.9		19.5		73.6		5.1		20.2		17		-				-		-	
SR7	Cloudy	Calm	09:08	16.2	Surface	1.0	0.1	262	28.5	28.5	7.9	7.9	19.9	19.9	73.9	74.1	5.1	5.2	5.0	5.3	4	6	-	-	823651	823759	-	-	-	-
						1.0	0.1	285	28.5		7.9		19.9		74.2		5.2		5.0		3		-				-		-	
					Middle	8.1	0.4	197	28.5	28.5	7.9	7.9	20.0	20.0	74.5	74.5	5.2		5.1		5		-				-		-	
						8.1	0.4	213	28.5		7.9		20.0		74.4		5.2		5.1		4		-				-		-	
					Bottom	15.2	0.1	86	28.2	28.3	7.9	7.9	22.7	22.7	75.7	75.9	5.2	5.2	5.7		9		-				-		-	
						15.2	0.1	88	28.3		7.9		22.6		76.1		5.2		5.7		8		-				-		-	
SR8	Fine	Moderate	10:06	4.6	Surface	1.0	0.1	96	29.9	29.9	7.9	7.9	15.9	15.9	76.6	76.6	5.3	5.3	10.3	9.1	7	7	-	-	820246	811418	-	-	-	-
						1.0	0.1	96	29.9		7.9		15.9		76.6		5.3		10.3		6		-				-		-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-		-		-		-				-		-	
						-	-	-	-		-		-		-		-		-		-		-				-		-	
					Bottom	3.6	0.1	112	29.7	29.7	7.9	7.9	17.4	17.4	80.9	80.9	5.6	5.6	7.9		7		-				-		-	
						3.6	0.1	112	29.7		7.9		17.4		80.9		5.6		7.9		7		-				-		-	

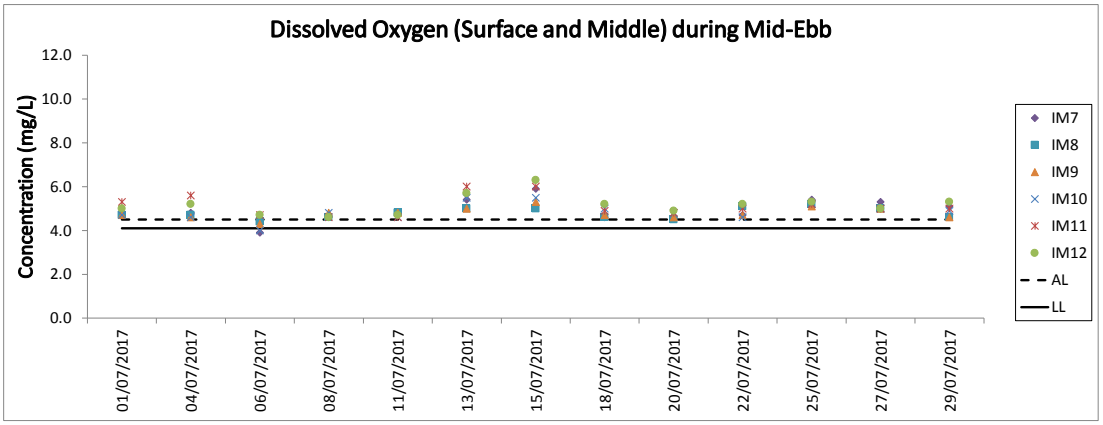
DA: Depth-Averaged

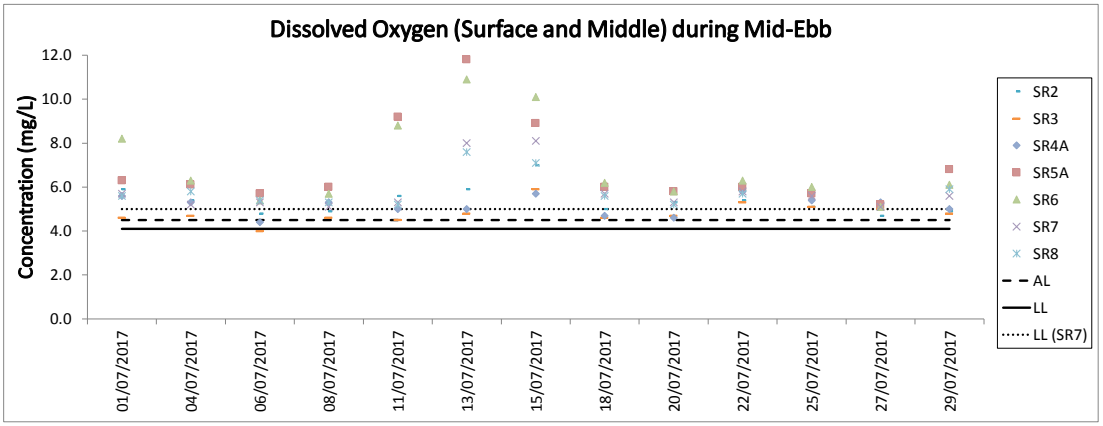
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

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

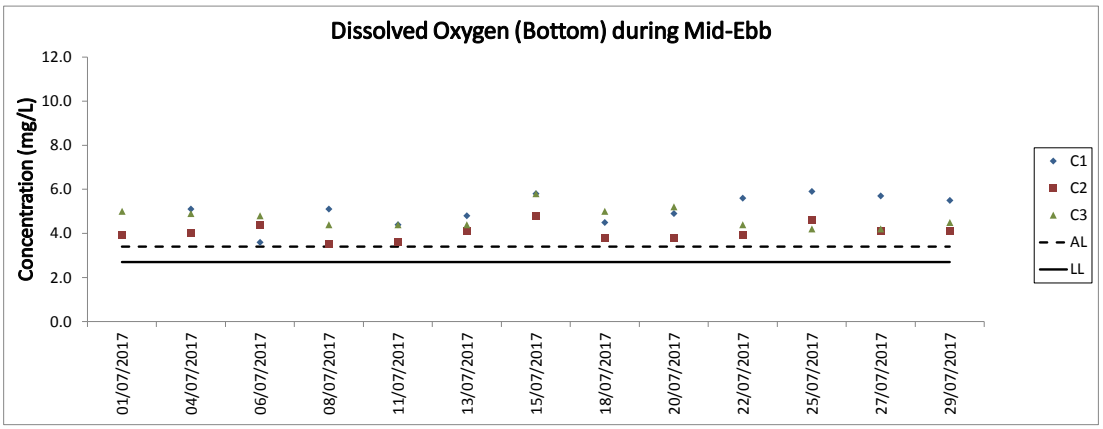


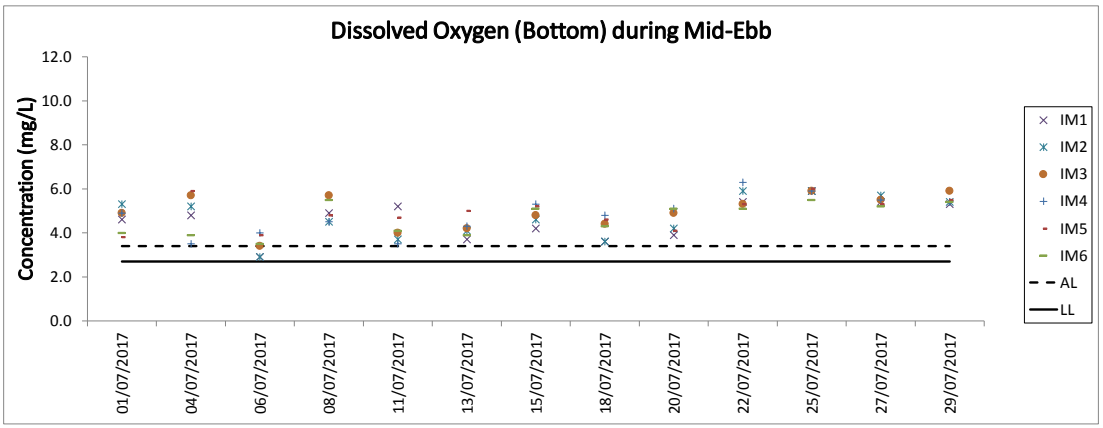


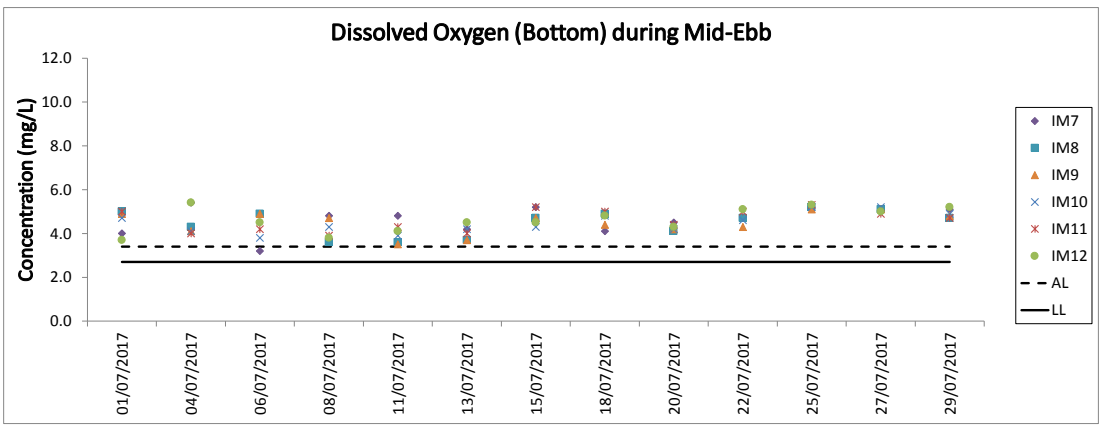


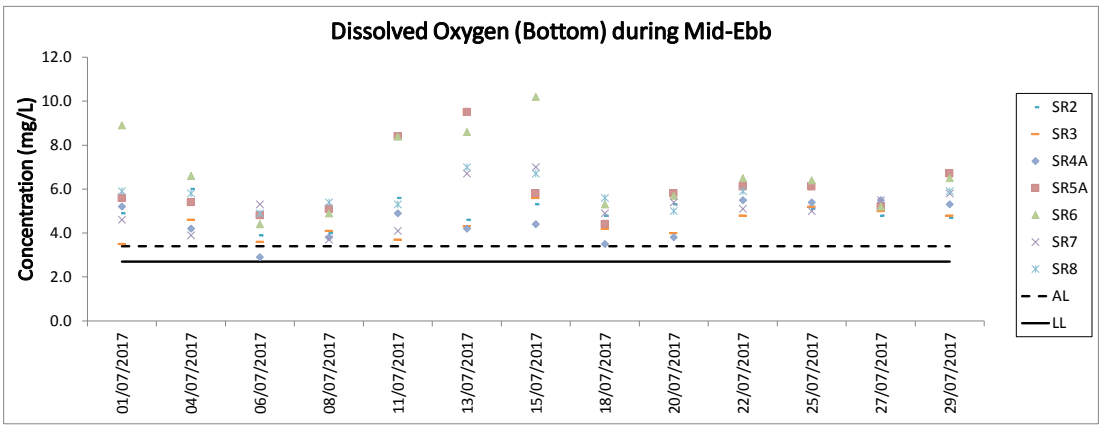


Note: SR8 does not have Action and Limit Levels for DO concentration.

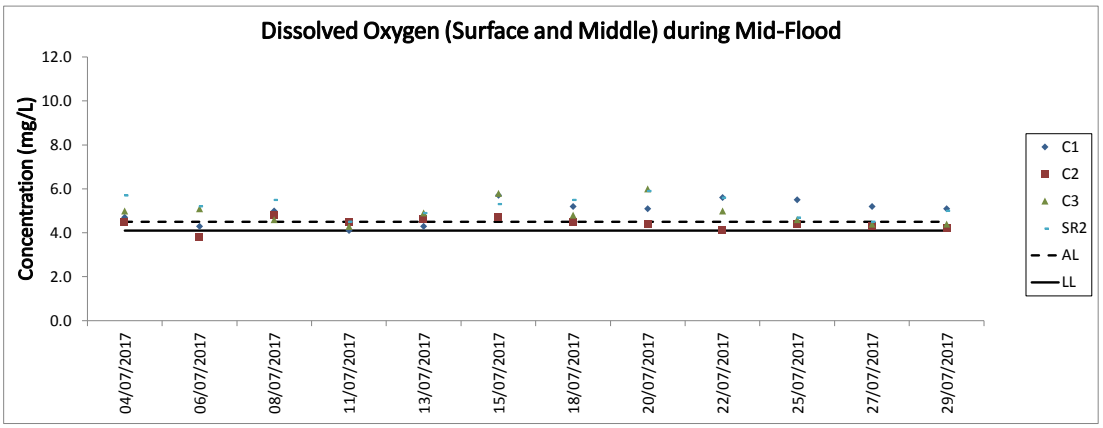


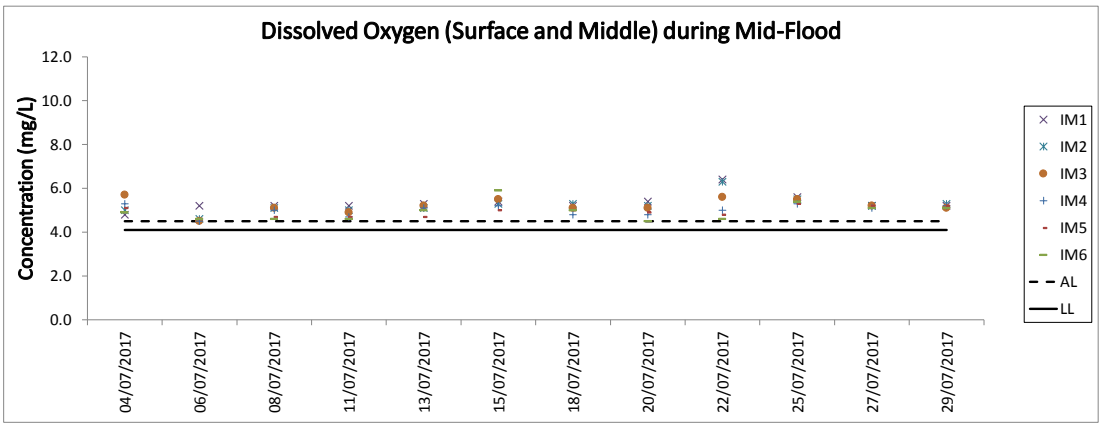


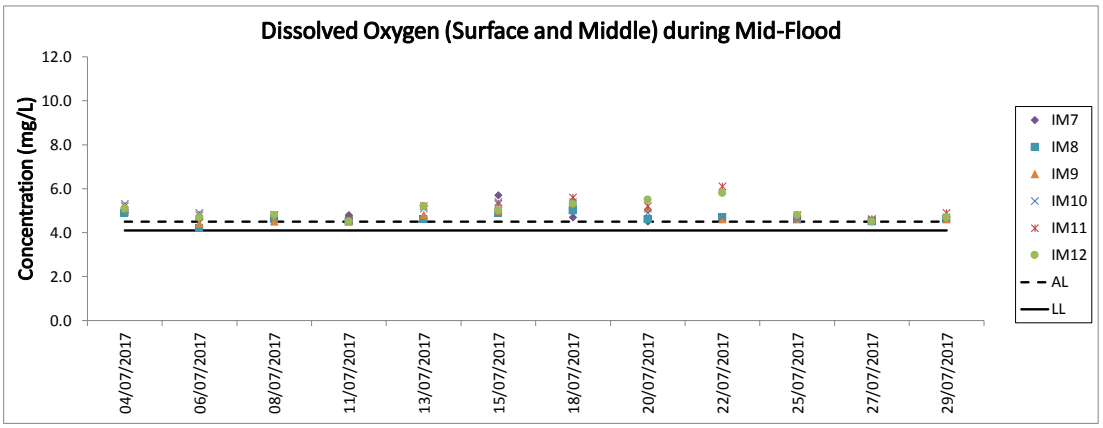


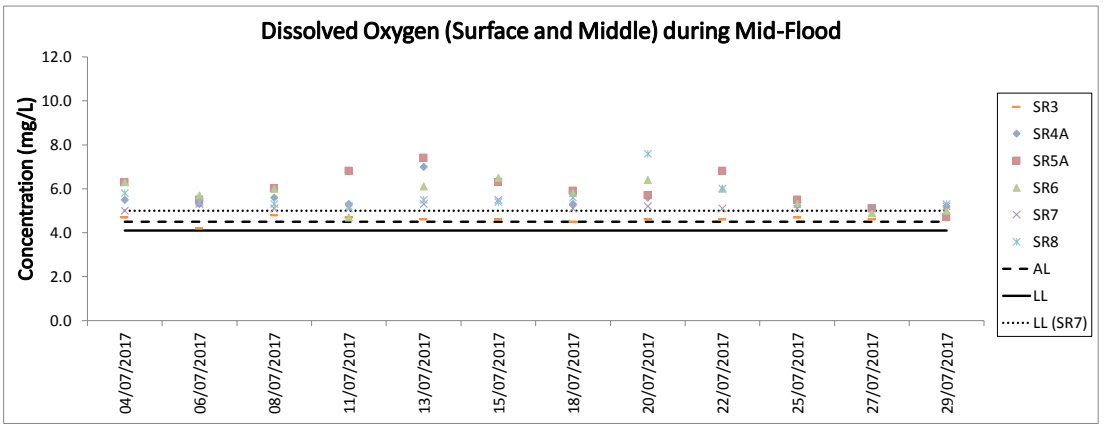


Note: SR8 does not have Action and Limit Levels for DO concentration.

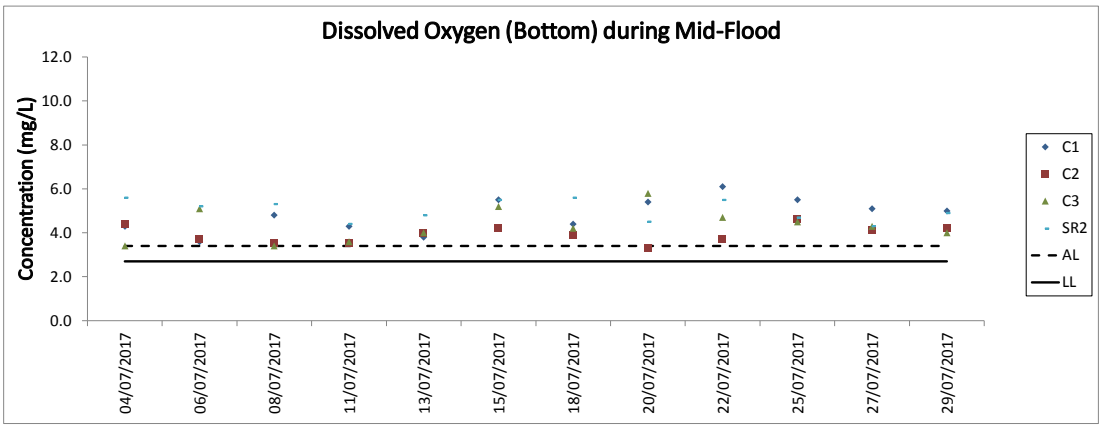


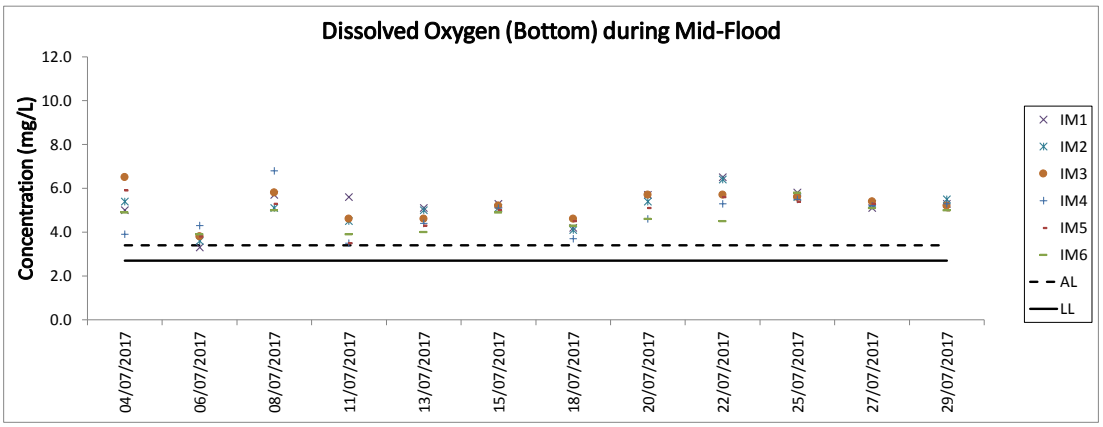


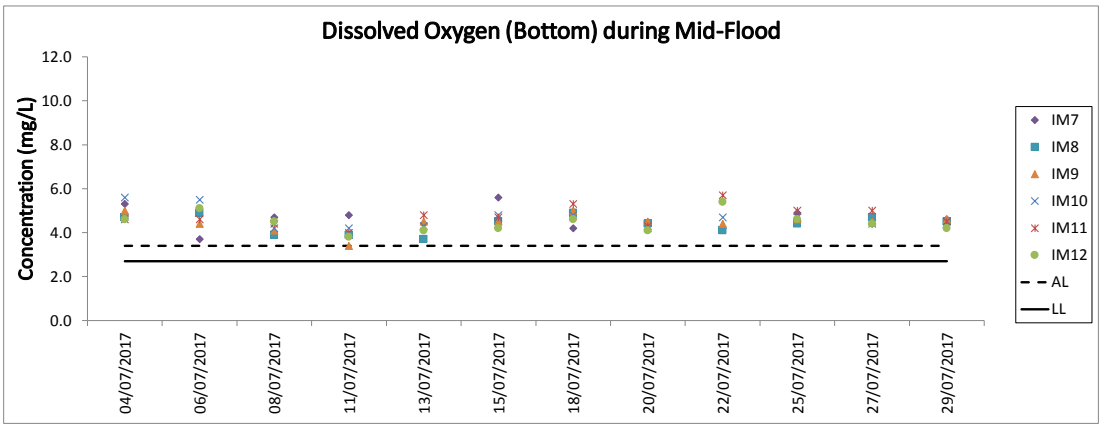


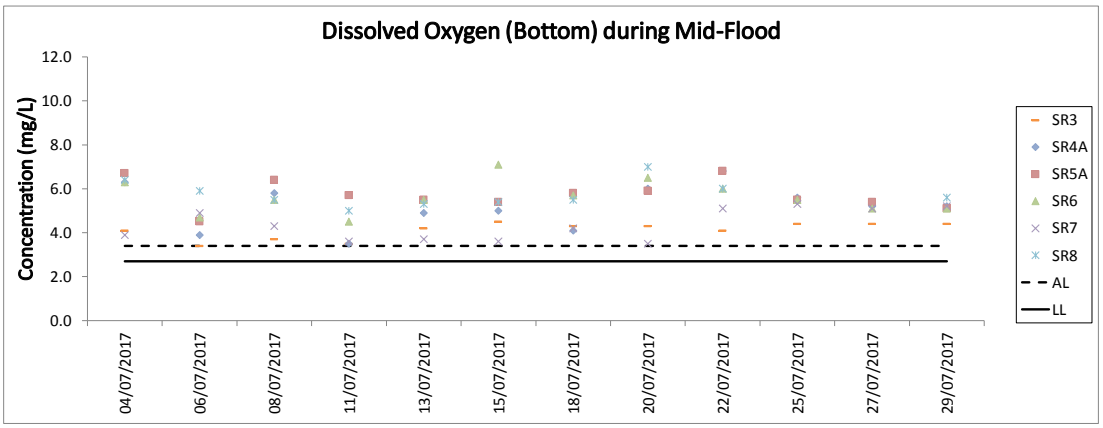


Note: SR8 does not have Action and Limit Levels for DO concentration.

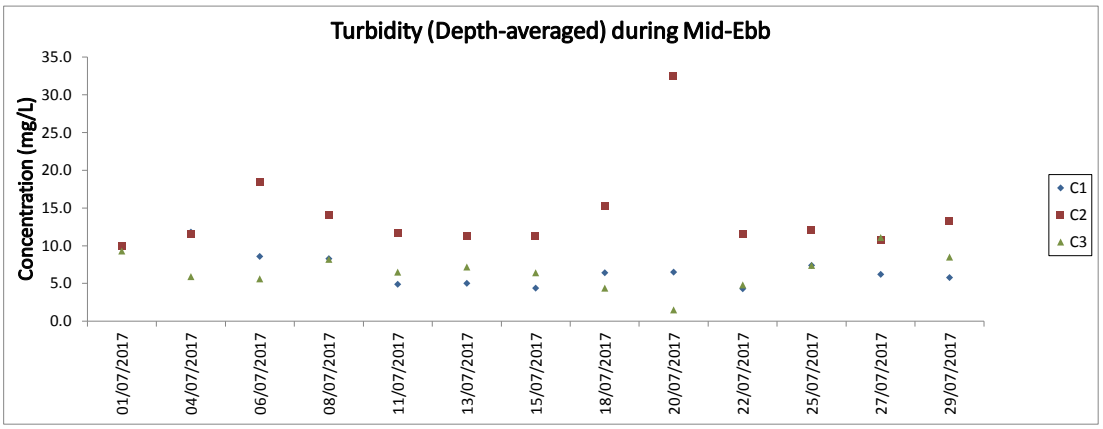


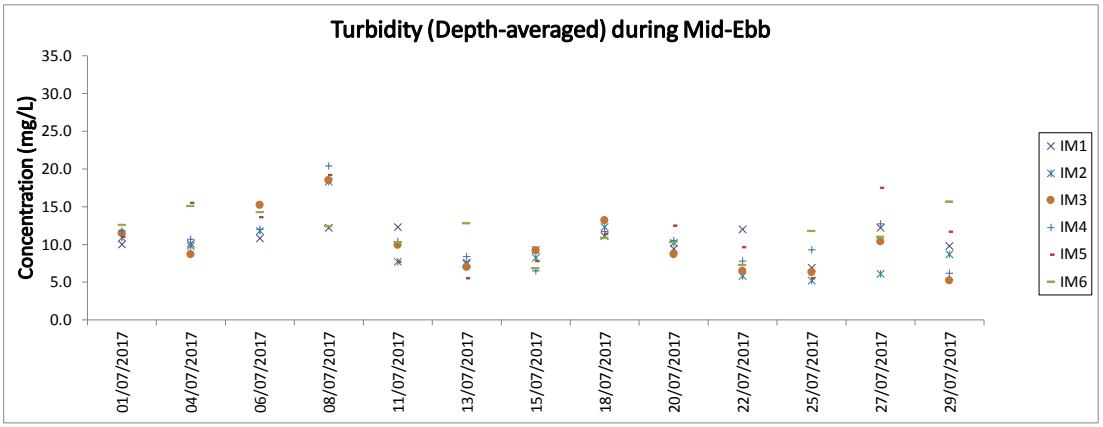


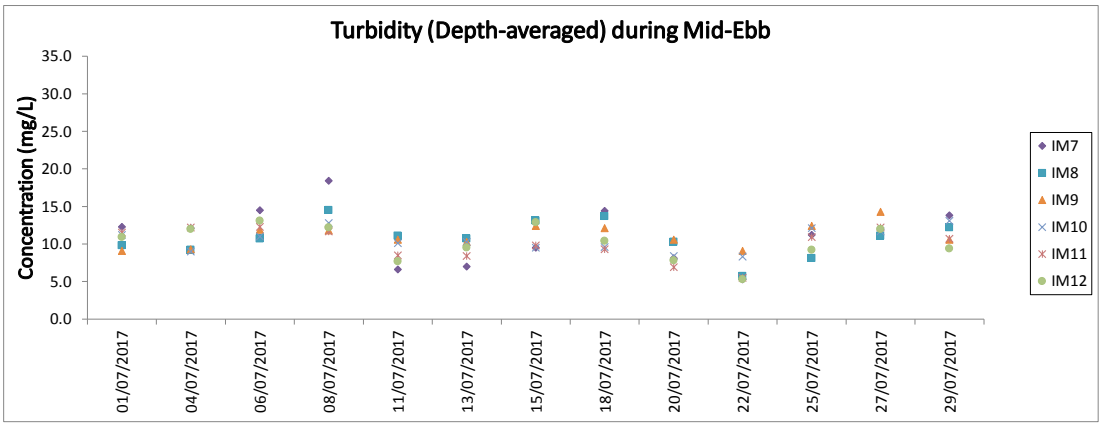


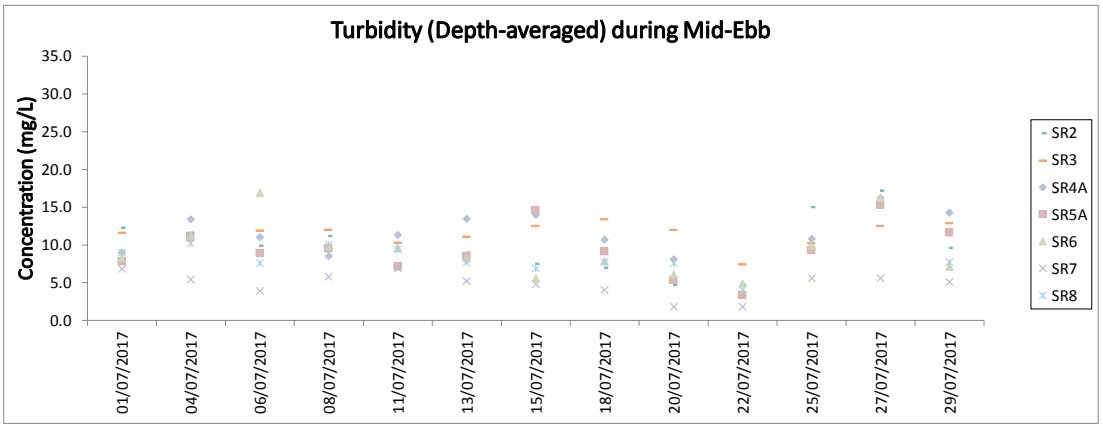


Note: SR8 does not have Action and Limit Levels for DO concentration.

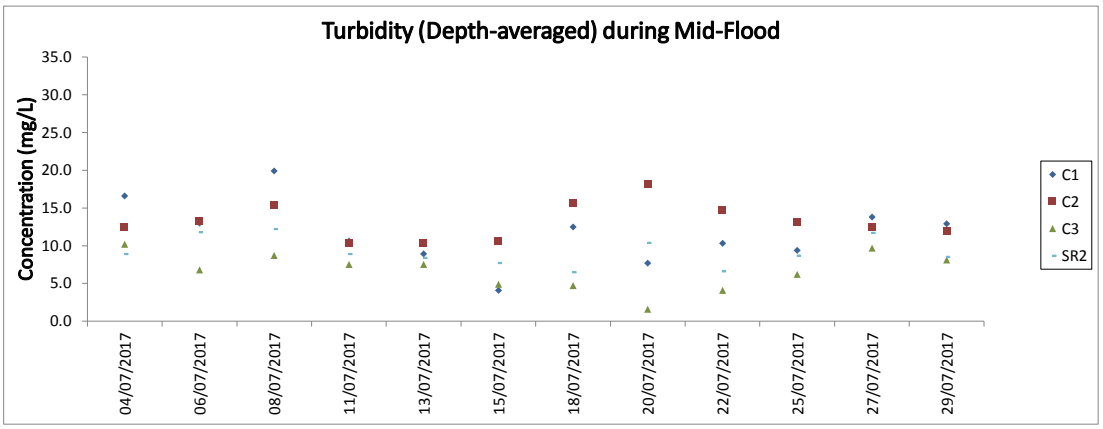


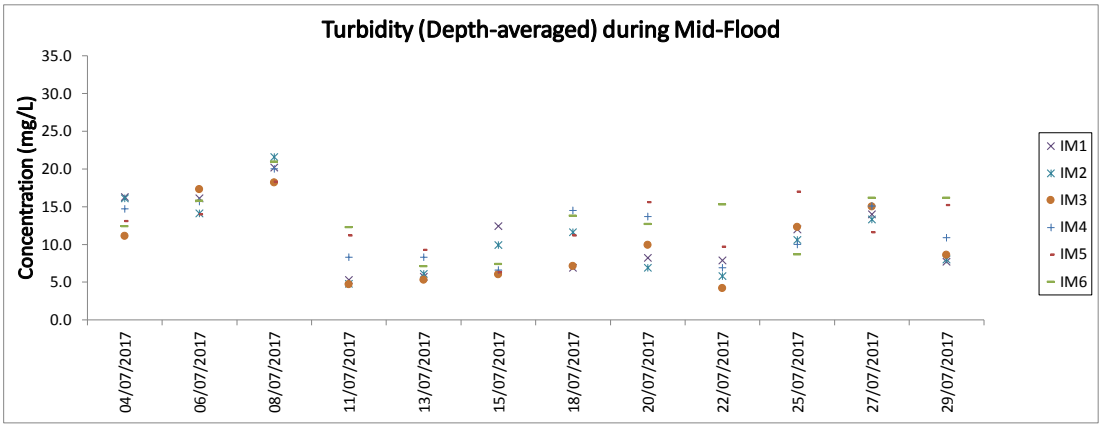


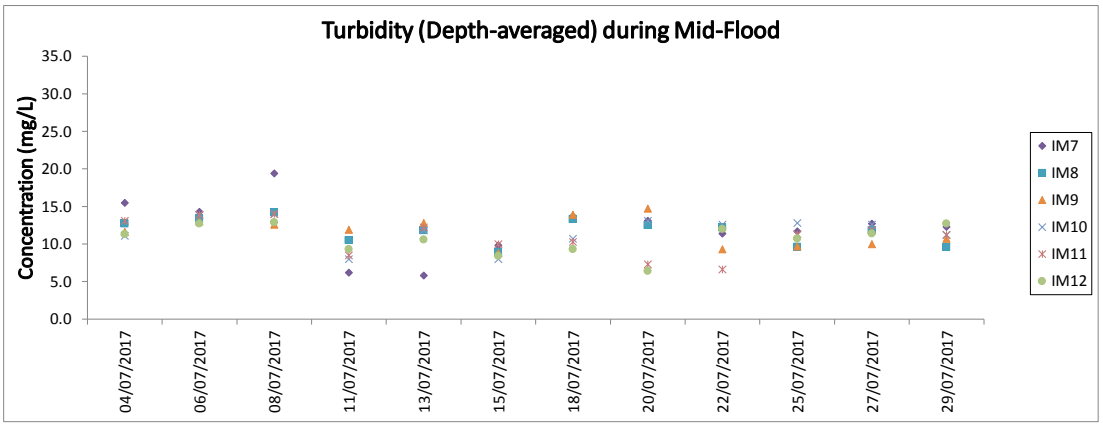


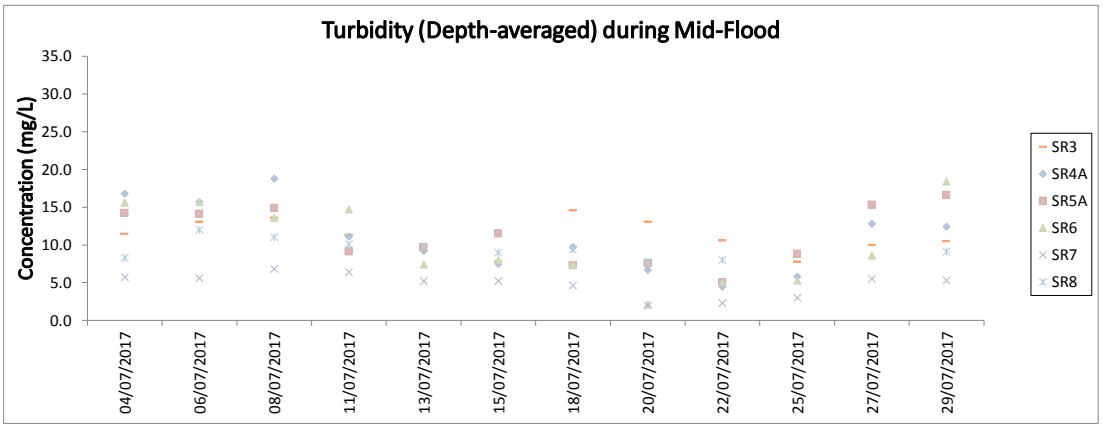


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

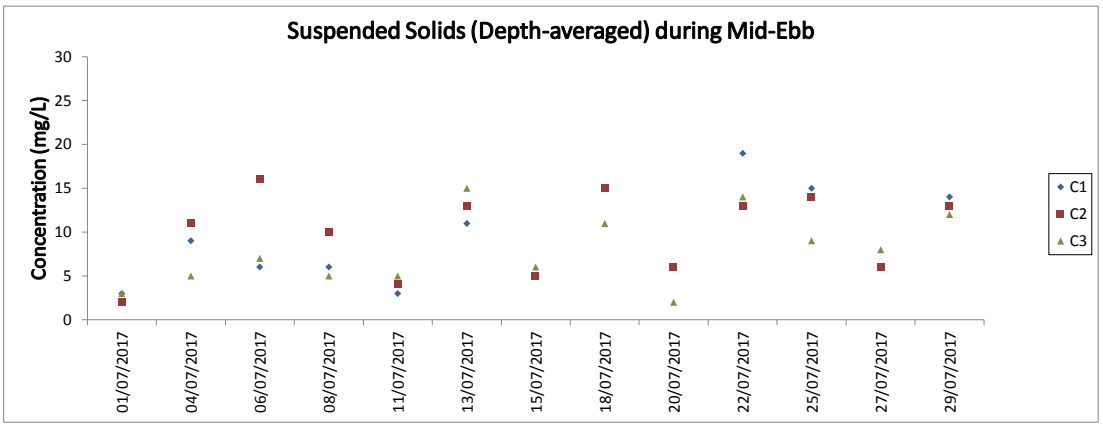


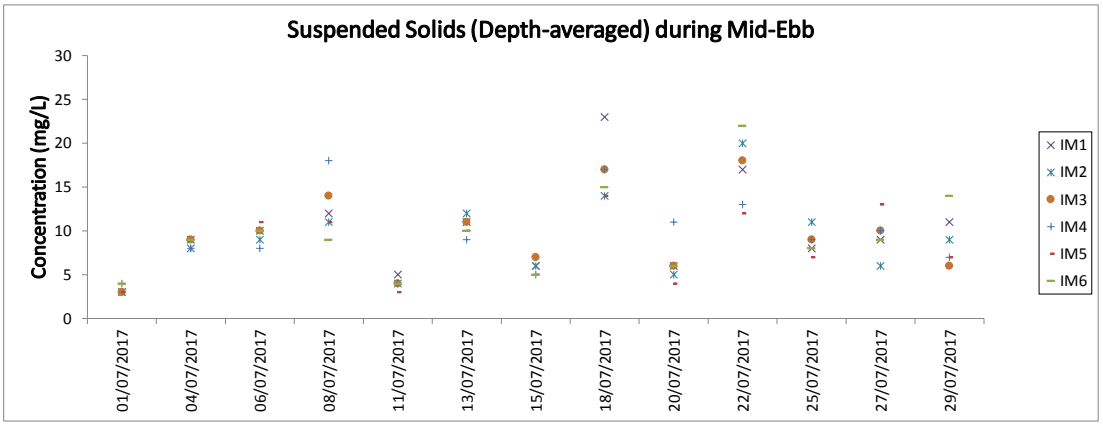


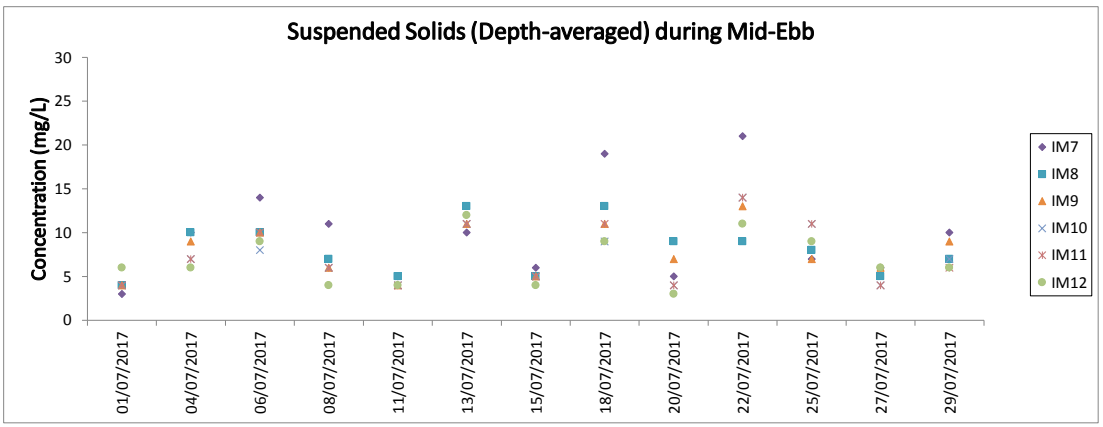


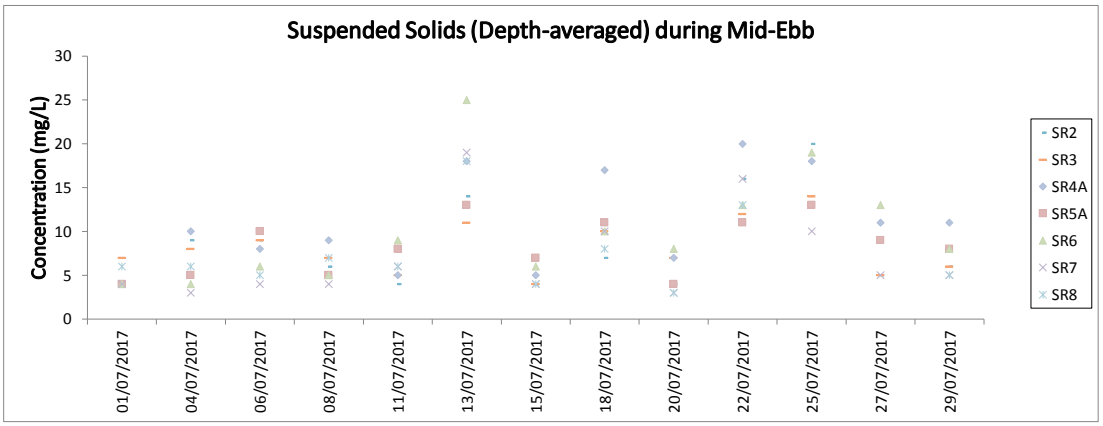


Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.

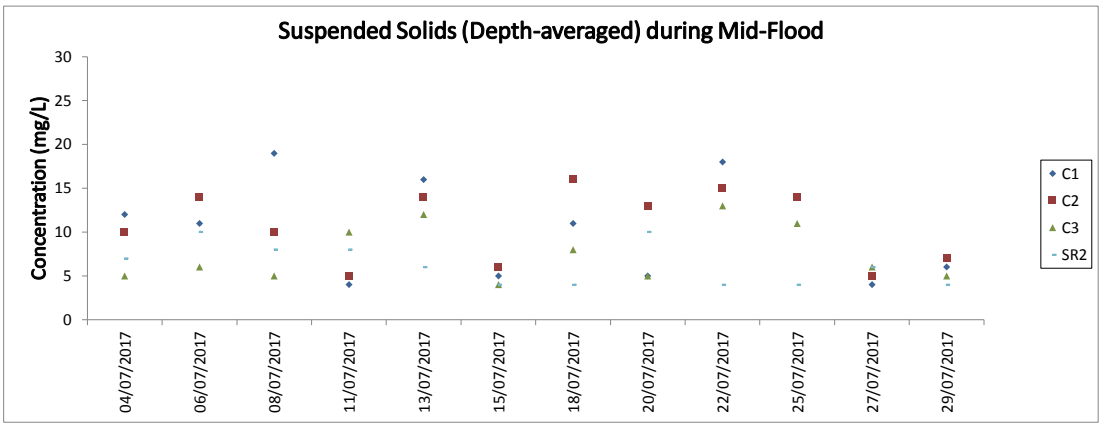


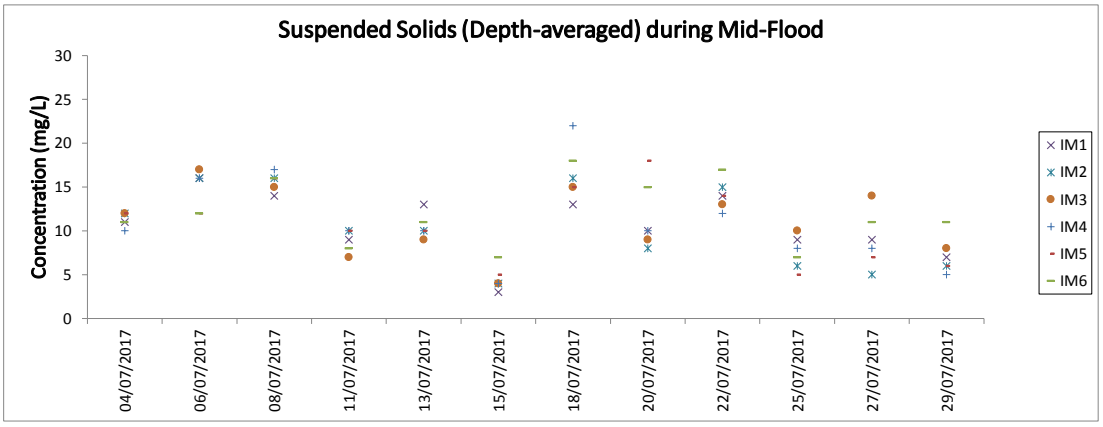


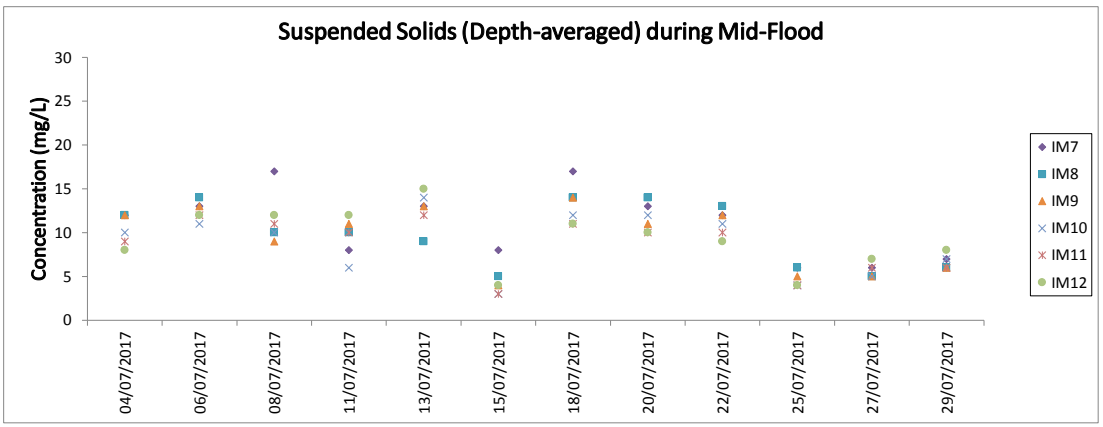


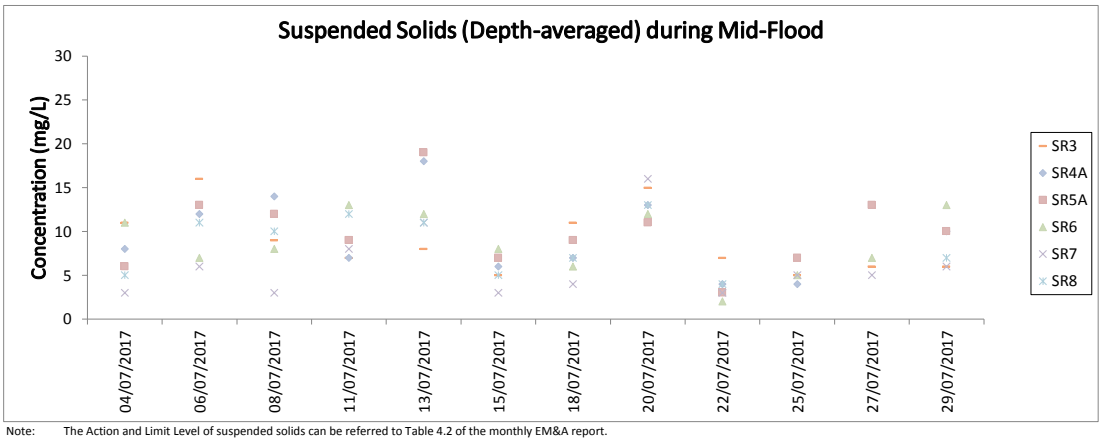


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

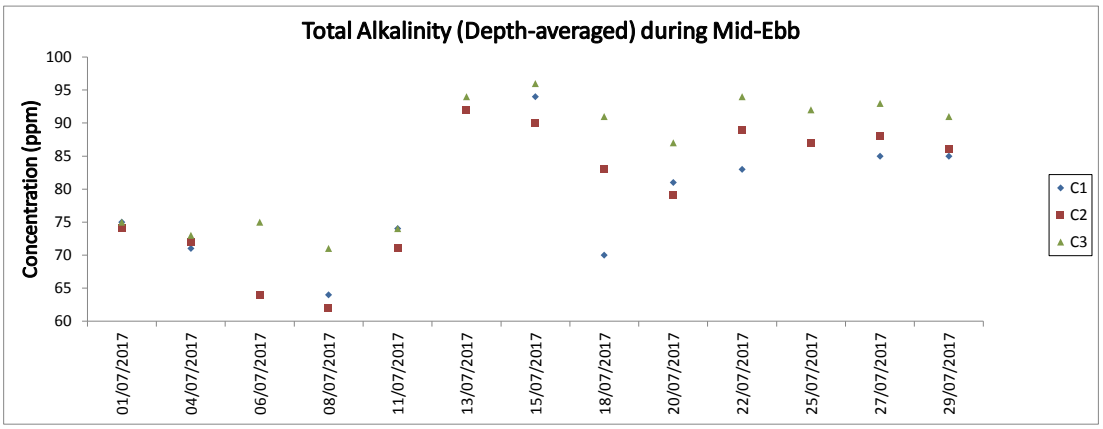


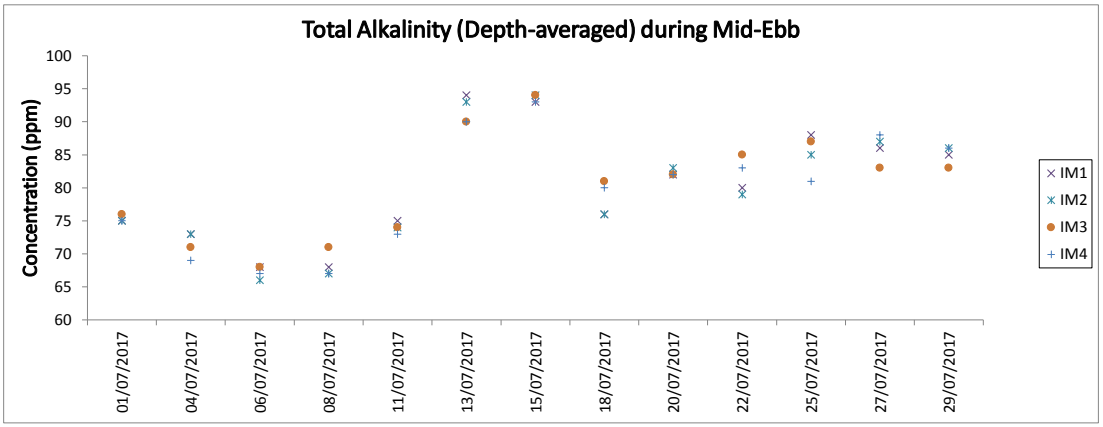


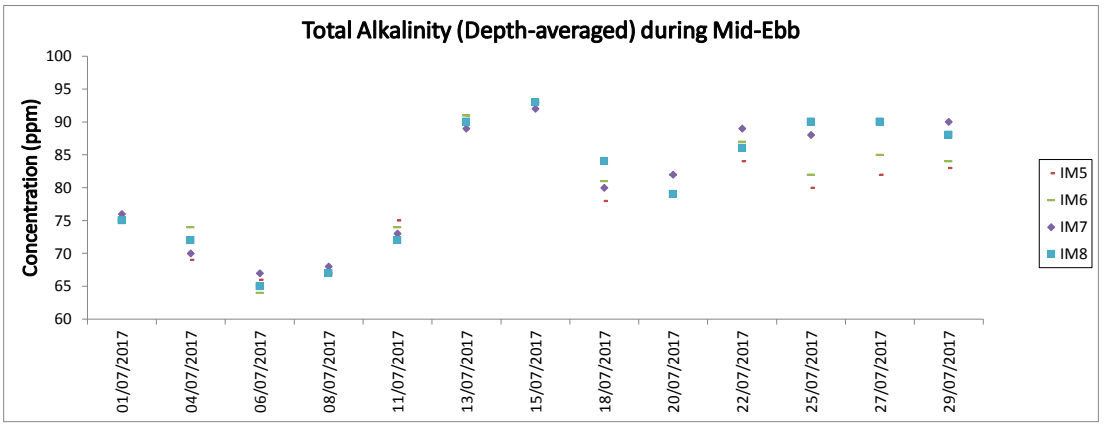


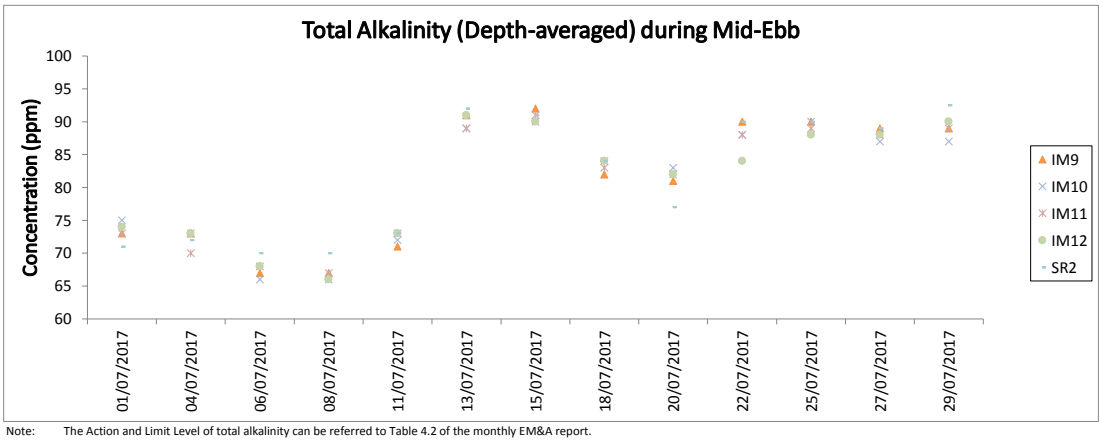


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

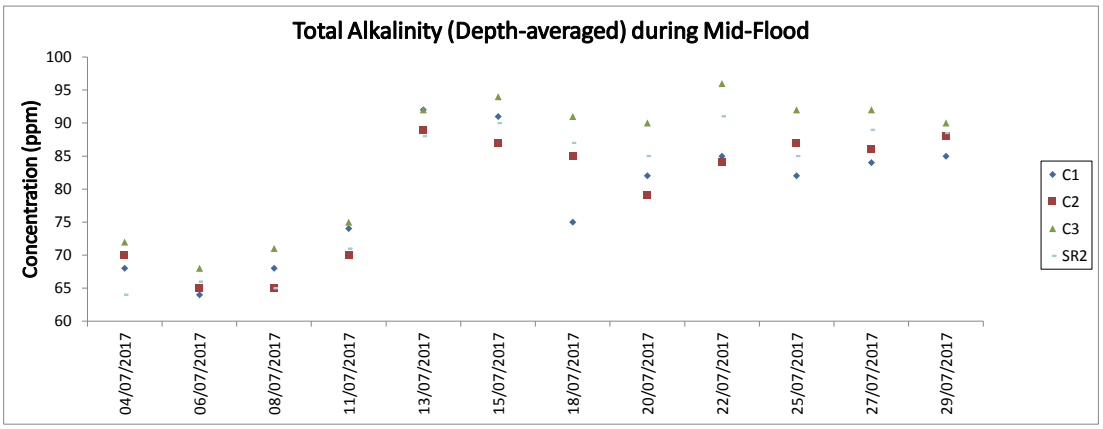


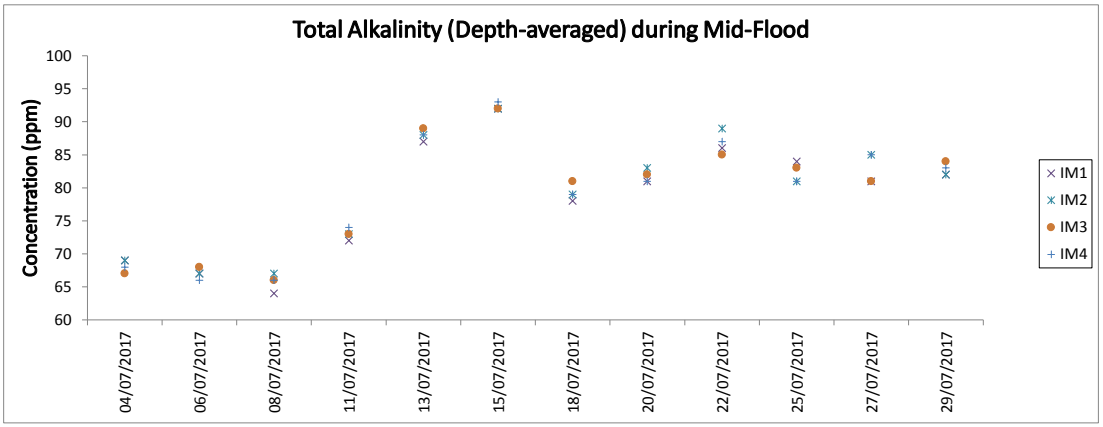


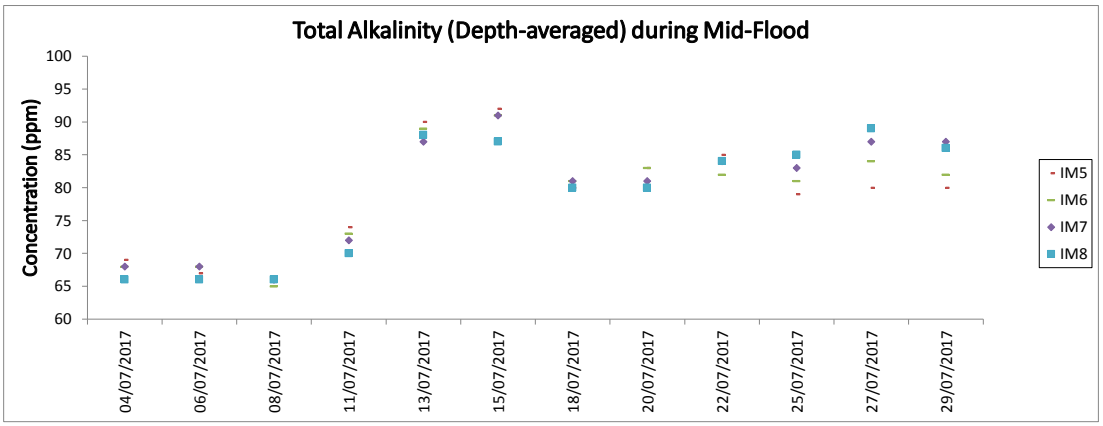


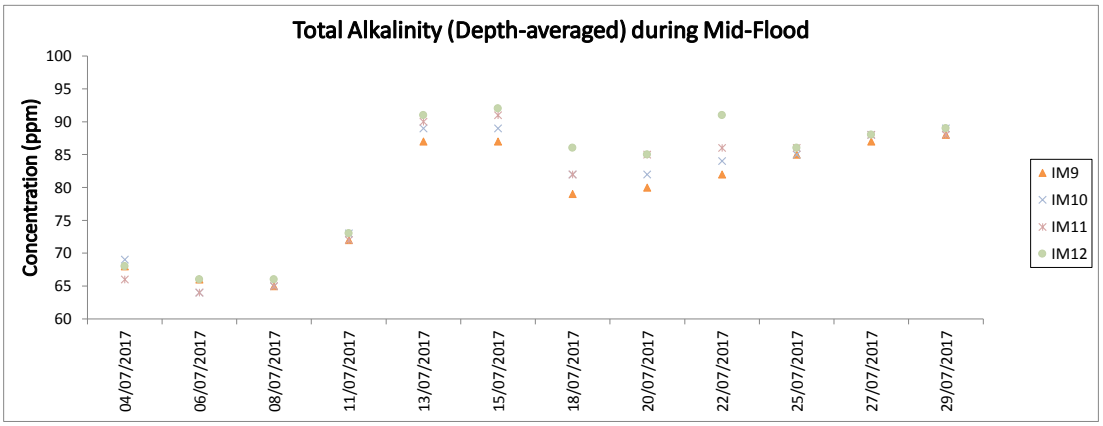


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

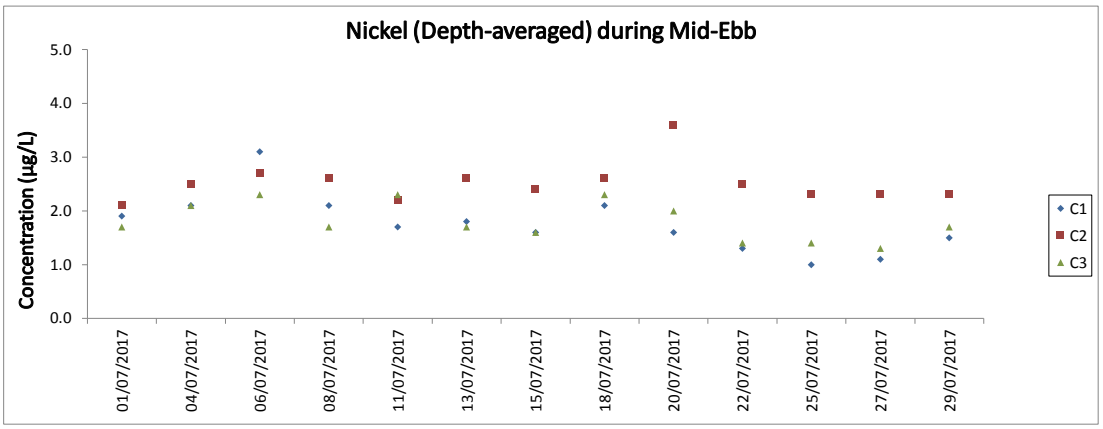


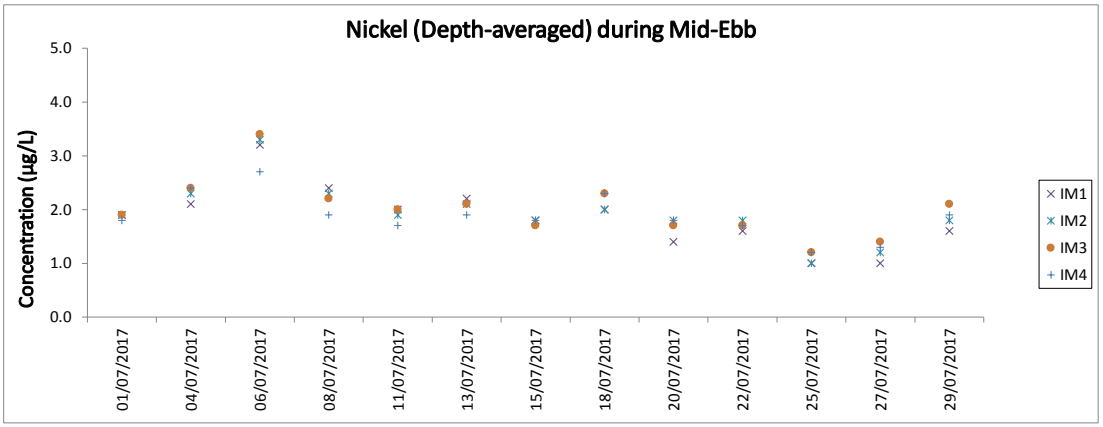


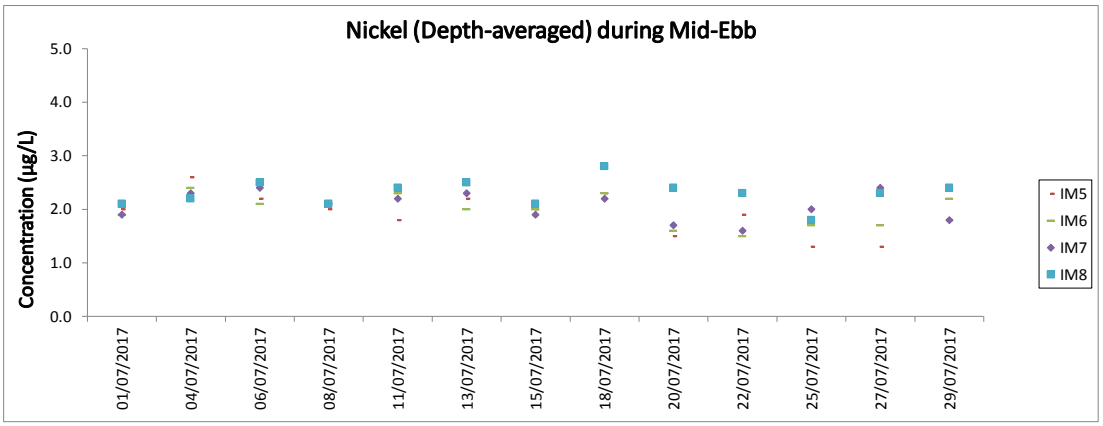


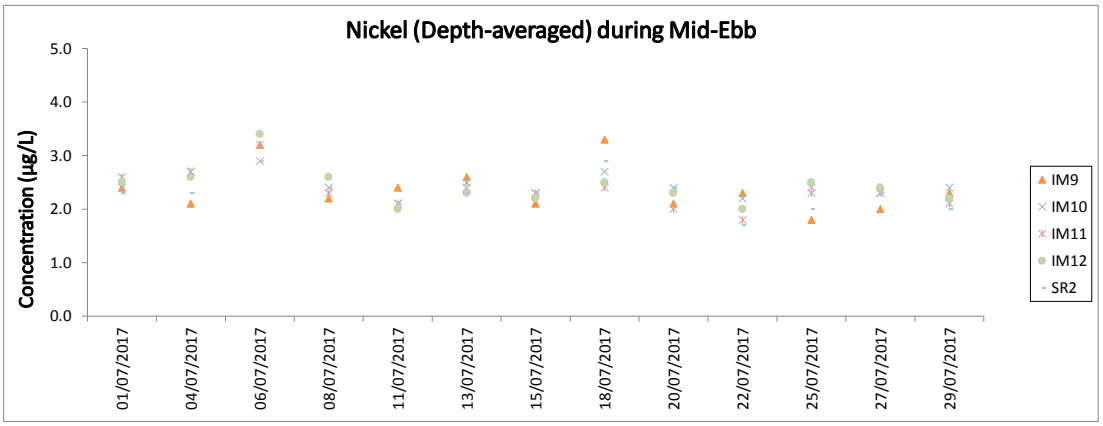


Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.

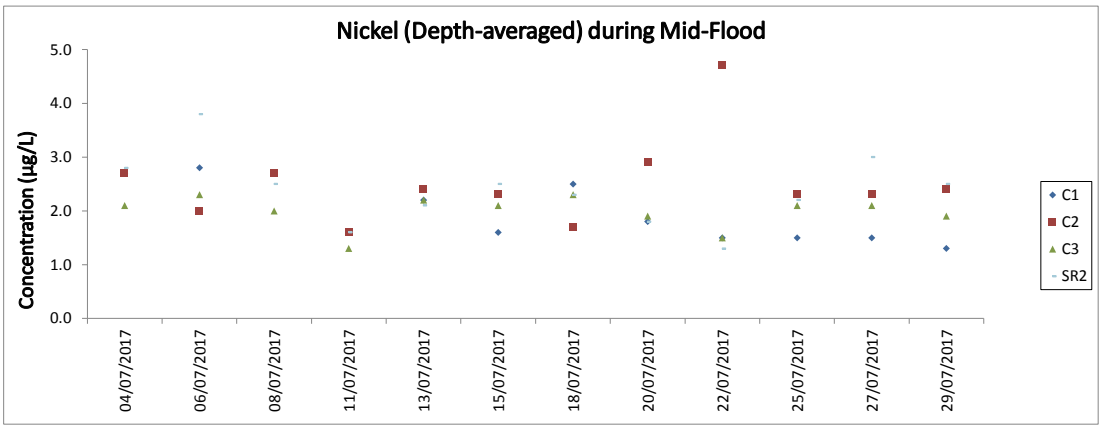


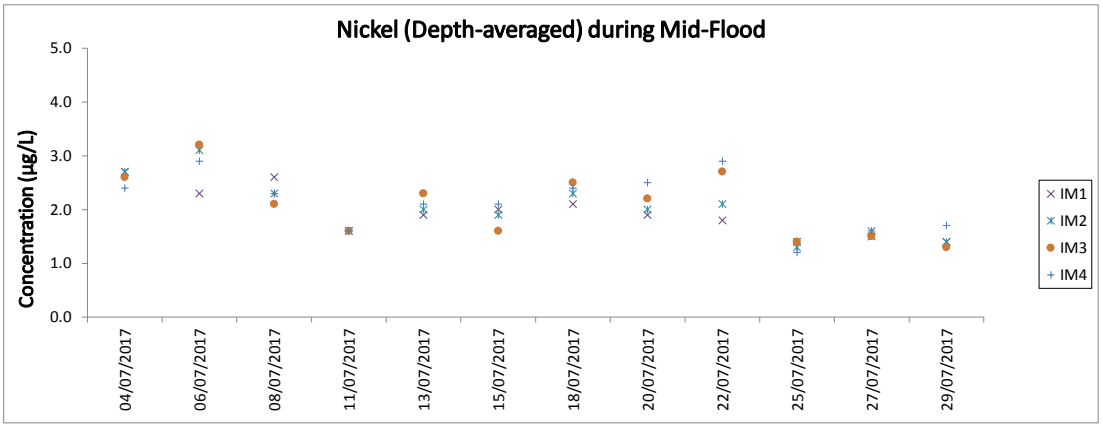


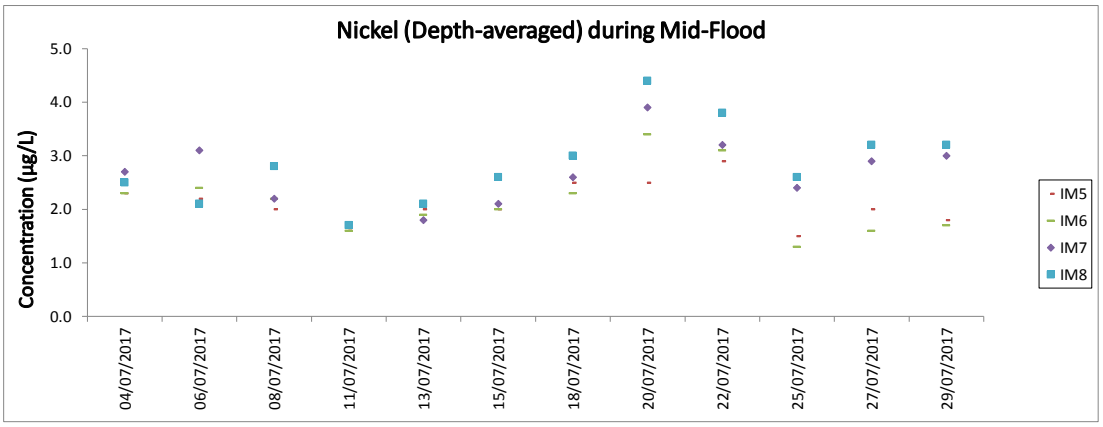


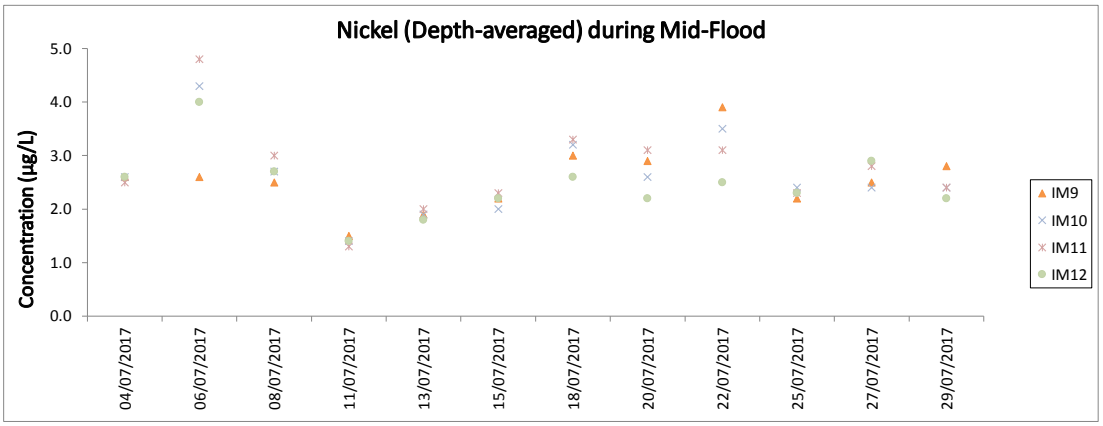


Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
All chromium results in the reporting period was below the reporting limit 0.2 µg/L.









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.

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey — Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
04-May-17	SWL	1	1.190	SPRING	32166	3RS ET
04-May-17	SWL	2	43.260	SPRING	32166	3RS ET
04-May-17	SWL	3	17.450	SPRING	32166	3RS ET
05-May-17	AW	1	5.010	SPRING	32166	3RS ET
05-May-17	WL	2	24.605	SPRING	32166	3RS ET
05-May-17	WL	3	7.320	SPRING	32166	3RS ET
05-May-17	SWL	1	2.630	SPRING	32166	3RS ET
05-May-17	SWL	2	4.260	SPRING	32166	3RS ET
08-May-17	NWL	3	51.352	SPRING	32166	3RS ET
08-May-17	NWL	4	24.048	SPRING	32166	3RS ET
09-May-17	NEL	2	40.300	SPRING	32166	3RS ET
09-May-17	NEL	3	7.100	SPRING	32166	3RS ET
11-May-17	AW	1	4.590	SPRING	32166	3RS ET
11-May-17	WL	1	13.043	SPRING	32166	3RS ET
11-May-17	WL	2	2.621	SPRING	32166	3RS ET
11-May-17	WL	3	7.059	SPRING	32166	3RS ET
11-May-17	WL	4	5.220	SPRING	32166	3RS ET
11-May-17	SWL	2	0.520	SPRING	32166	3RS ET
11-May-17	SWL	3	2.050	SPRING	32166	3RS ET
11-May-17	SWL	4	2.970	SPRING	32166	3RS ET
17-May-17	NWL	1	8.700	SPRING	32166	3RS ET
17-May-17	NWL	2	60.600	SPRING	32166	3RS ET
17-May-17	NWL	3	6.300	SPRING	32166	3RS ET
22-May-17	NEL	2	6.960	SPRING	32166	3RS ET
22-May-17	NEL	3	27.140	SPRING	32166	3RS ET
22-May-17	NEL	4	12.700	SPRING	32166	3RS ET
23-May-17	SWL	2	26.840	SPRING	32166	3RS ET
23-May-17	SWL	3	33.160	SPRING	32166	3RS ET
07-Jun-17	SWL	2	33.230	SUMMER	32166	3RS ET
07-Jun-17	SWL	3	27.200	SUMMER	32166	3RS ET
07-Jun-17	SWL	4	1.900	SUMMER	32166	3RS ET
08-Jun-17	NWL	2	29.074	SUMMER	32166	3RS ET
08-Jun-17	NWL	3	26.566	SUMMER	32166	3RS ET
08-Jun-17	NWL	4	18.660	SUMMER	32166	3RS ET
08-Jun-17	NWL	5	1.100	SUMMER	32166	3RS ET
09-Jun-17	AW	1	1.040	SUMMER	32166	3RS ET
09-Jun-17	AW	2	3.900	SUMMER	32166	3RS ET
09-Jun-17	WL	1	2.850	SUMMER	32166	3RS ET
09-Jun-17	WL	2	5.782	SUMMER	32166	3RS ET
09-Jun-17	WL	3	13.859	SUMMER	32166	3RS ET
09-Jun-17	WL	4	8.589	SUMMER	32166	3RS ET
09-Jun-17	WL	5	0.920	SUMMER	32166	3RS ET
09-Jun-17	SWL	2	0.521	SUMMER	32166	3RS ET
09-Jun-17	SWL	3	1.399	SUMMER	32166	3RS ET
09-Jun-17	SWL	4	4.060	SUMMER	32166	3RS ET
12-Jun-17	NEL	2	1.100	SUMMER	32166	3RS ET

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
12-Jun-17	NEL	3	28.890	SUMMER	32166	3RS ET
12-Jun-17	NEL	4	7.910	SUMMER	32166	3RS ET
15-Jun-17	NEL	1	4.600	SUMMER	32166	3RS ET
15-Jun-17	NEL	2	37.200	SUMMER	32166	3RS ET
22-Jun-17	SWL	2	25.837	SUMMER	32166	3RS ET
22-Jun-17	SWL	3	29.935	SUMMER	32166	3RS ET
22-Jun-17	SWL	4	2.840	SUMMER	32166	3RS ET
23-Jun-17	NWL	2	37.550	SUMMER	32166	3RS ET
23-Jun-17	NWL	3	31.360	SUMMER	32166	3RS ET
23-Jun-17	NWL	4	4.790	SUMMER	32166	3RS ET
23-Jun-17	NEL	2	4.930	SUMMER	32166	3RS ET
23-Jun-17	NEL	3	2.930	SUMMER	32166	3RS ET
28-Jun-17	AW	2	4.750	SUMMER	32166	3RS ET
28-Jun-17	WL	2	4.697	SUMMER	32166	3RS ET
28-Jun-17	WL	3	16.707	SUMMER	32166	3RS ET
28-Jun-17	WL	4	8.280	SUMMER	32166	3RS ET
28-Jun-17	SWL	3	4.960	SUMMER	32166	3RS ET
11-Jul-17	AW	2	4.860	SUMMER	32166	3RS ET
11-Jul-17	WL	2	12.725	SUMMER	32166	3RS ET
11-Jul-17	WL	3	13.429	SUMMER	32166	3RS ET
11-Jul-17	WL	4	2.400	SUMMER	32166	3RS ET
11-Jul-17	SWL	2	1.616	SUMMER	32166	3RS ET
11-Jul-17	SWL	3	3.150	SUMMER	32166	3RS ET
12-Jul-17	NWL	1	16.730	SUMMER	32166	3RS ET
12-Jul-17	NWL	2	27.170	SUMMER	32166	3RS ET
12-Jul-17	NWL	3	30.520	SUMMER	32166	3RS ET
12-Jul-17	NWL	4	0.700	SUMMER	32166	3RS ET
13-Jul-17	NEL	2	4.253	SUMMER	32166	3RS ET
13-Jul-17	NEL	3	27.477	SUMMER	32166	3RS ET
13-Jul-17	NEL	4	14.770	SUMMER	32166	3RS ET
14-Jul-17	NWL	2	29.960	SUMMER	32166	3RS ET
14-Jul-17	NWL	3	33.840	SUMMER	32166	3RS ET
14-Jul-17	NWL	4	9.330	SUMMER	32166	3RS ET
20-Jul-17	SWL	2	9.500	SUMMER	32166	3RS ET
20-Jul-17	SWL	3	39.350	SUMMER	32166	3RS ET
20-Jul-17	SWL	4	12.780	SUMMER	32166	3RS ET
20-Jul-17	SWL	5	1.030	SUMMER	32166	3RS ET
21-Jul-17	AW	2	3.510	SUMMER	32166	3RS ET
21-Jul-17	AW	3	1.320	SUMMER	32166	3RS ET
21-Jul-17	WL	2	13.854	SUMMER	32166	3RS ET
21-Jul-17	WL	3	10.040	SUMMER	32166	3RS ET
21-Jul-17	WL	4	7.050	SUMMER	32166	3RS ET
21-Jul-17	SWL	3	1.970	SUMMER	32166	3RS ET
21-Jul-17	SWL	4	4.660	SUMMER	32166	3RS ET
25-Jul-17	NEL	2	31.060	SUMMER	32166	3RS ET
25-Jul-17	NEL	3	15.740	SUMMER	32166	3RS ET
26-Jul-17	SWL	2	41.124	SUMMER	32166	3RS ET
26-Jul-17	SWL	3	11.530	SUMMER	32166	3RS ET

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE
26-Jul-17	SWL	4	9.430	SUMMER	32166	3RS ET

Notes:

CWD monitoring survey data of the two preceding survey months (i.e. May and June 2017) 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.
04-May-17	1	1423	CWD	2	SWL	1	318	ON	3RS ET	22.2114	113.8839	SPRING	NONE
05-May-17	1	1032	CWD	11	WL	3	143	ON	3RS ET	22.2318	113.8279	SPRING	NONE
05-May-17	2	1121	CWD	3	WL	2	263	ON	3RS ET	22.2231	113.8363	SPRING	NONE
05-May-17	3	1135	CWD	1	WL	2	271	ON	3RS ET	22.2230	113.8263	SPRING	NONE
05-May-17	4	1211	CWD	5	WL	2	343	ON	3RS ET	22.2053	113.8398	SPRING	NONE
05-May-17	5	1305	CWD	7	WL	2	650	ON	3RS ET	22.1966	113.8405	SPRING	NONE
11-May-17	1	1041	CWD	1	WL	1	171	ON	3RS ET	22.2598	113.8467	SPRING	NONE
11-May-17	2	1118	CWD	9	WL	1	800	ON	3RS ET	22.2466	113.8511	SPRING	NONE
11-May-17	3	1148	CWD	13	WL	2	442	ON	3RS ET	22.2414	113.8442	SPRING	NONE
11-May-17	4	1217	CWD	6	WL	2	118	ON	3RS ET	22.2407	113.8333	SPRING	NONE
11-May-17	5	1228	CWD	6	WL	1	79	ON	3RS ET	22.2378	113.8266	SPRING	NONE
11-May-17	6	1236	CWD	7	WL	2	760	ON	3RS ET	22.2316	113.8287	SPRING	NONE
11-May-17	7	1315	CWD	9	WL	3	306	ON	3RS ET	22.2231	113.8195	SPRING	NONE
11-May-17	8	1335	CWD	11	WL	3	26	ON	3RS ET	22.2157	113.8177	SPRING	NONE
11-May-17	9	1432	CWD	6	WL	3	1021	ON	3RS ET	22.1867	113.8433	SPRING	NONE
11-May-17	10	1513	CWD	6	SWL	4	409	ON	3RS ET	22.1827	113.8498	SPRING	NONE
11-May-17	11	1543	CWD	4	SWL	3	354	ON	3RS ET	22.1967	113.8590	SPRING	NONE
23-May-17	1	1115	CWD	2	SWL	3	1472	ON	3RS ET	22.1802	113.9281	SPRING	NONE
23-May-17	2	1459	CWD	2	SWL	2	N/A	OFF	3RS ET	22.2029	113.8976	SPRING	NONE
07-Jun-17	1	1224	CWD	1	SWL	2	N/A	OFF	3RS ET	22.1766	113.9070	SUMMER	NONE
07-Jun-17	2	1249	CWD	6	SWL	2	125	ON	3RS ET	22.2030	113.9079	SUMMER	NONE
07-Jun-17	3	1507	CWD	2	SWL	2	116	ON	3RS ET	22.2007	113.8684	SUMMER	NONE
08-Jun-17	1	1202	CWD	2	NWL	3	362	ON	3RS ET	22.3993	113.8889	SUMMER	NONE
09-Jun-17	1	1106	CWD	5	WL	2	846	ON	3RS ET	22.2413	113.8450	SUMMER	NONE
09-Jun-17	2	1207	CWD	2	WL	4	138	ON	3RS ET	22.2311	113.8382	SUMMER	NONE
09-Jun-17	3	1240	CWD	3	WL	3	44	ON	3RS ET	22.2120	113.8372	SUMMER	NONE
09-Jun-17	4	1358	CWD	5	SWL	3	6	ON	3RS ET	22.1915	113.8592	SUMMER	NONE
22-Jun-17	1	1026	CWD	9	SWL	2	620	ON	3RS ET	22.2094	113.9364	SUMMER	NONE
22-Jun-17	2	1200	CWD	3	SWL	3	11	ON	3RS ET	22.2054	113.9266	SUMMER	NONE
22-Jun-17	3	1212	CWD	1	SWL	3	67	ON	3RS ET	22.2055	113.9258	SUMMER	NONE
22-Jun-17	4	1222	CWD	1	SWL	3	25	ON	3RS ET	22.2053	113.9191	SUMMER	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
22-Jun-17	5	1230	CWD	2	SWL	2	64	ON	3RS ET	22.2026	113.9178	SUMMER	NONE
22-Jun-17	6	1248	CWD	1	SWL	2	720	ON	3RS ET	22.1941	113.9184	SUMMER	NONE
22-Jun-17	7	1354	CWD	2	SWL	2	28	ON	3RS ET	22.1916	113.9083	SUMMER	NONE
22-Jun-17	8	1406	CWD	3	SWL	2	5	ON	3RS ET	22.2063	113.9061	SUMMER	NONE
23-Jun-17	1	1001	CWD	1	NWL	2	72	ON	3RS ET	22.3476	113.8690	SUMMER	NONE
23-Jun-17	2	1212	CWD	2	NWL	3	17	ON	3RS ET	22.4073	113.8882	SUMMER	NONE
28-Jun-17	1	1028	CWD	3	WL	3	869	ON	3RS ET	22.2694	113.8568	SUMMER	NONE
28-Jun-17	2	1047	CWD	3	WL	2	65	ON	3RS ET	22.2649	113.8580	SUMMER	NONE
28-Jun-17	3	1119	CWD	5	WL	3	49	ON	3RS ET	22.2480	113.8515	SUMMER	NONE
28-Jun-17	4	1141	CWD	2	WL	3	250	ON	3RS ET	22.2411	113.8454	SUMMER	NONE
28-Jun-17	5	1201	CWD	2	WL	3	4	ON	3RS ET	22.2321	113.8296	SUMMER	NONE
28-Jun-17	6	1214	CWD	5	WL	4	482	ON	3RS ET	22.2232	113.8342	SUMMER	NONE
28-Jun-17	7	1250	CWD	2	WL	3	441	ON	3RS ET	22.2144	113.8268	SUMMER	NONE
28-Jun-17	8	1330	CWD	5	WL	3	224	ON	3RS ET	22.1953	113.8375	SUMMER	NONE
28-Jun-17	9	1428	CWD	1	SWL	3	1164	ON	3RS ET	22.1831	113.8593	SUMMER	NONE
11-Jul-17	1	1038	CWD	2	WL	2	82	ON	3RS ET	22.2668	113.8592	SUMMER	NONE
11-Jul-17	2	1055	CWD	8	WL	2	19	ON	3RS ET	22.2608	113.8536	SUMMER	NONE
11-Jul-17	3	1133	CWD	2	WL	3	351	ON	3RS ET	22.2498	113.8403	SUMMER	NONE
11-Jul-17	4	1144	CWD	1	WL	2	8	ON	3RS ET	22.2500	113.8500	SUMMER	NONE
11-Jul-17	5	1159	CWD	4	WL	2	726	ON	3RS ET	22.2432	113.8488	SUMMER	NONE
11-Jul-17	6	1216	CWD	1	WL	2	17	ON	3RS ET	22.2414	113.8463	SUMMER	NONE
11-Jul-17	7	1242	CWD	2	WL	3	11	ON	3RS ET	22.2279	113.8378	SUMMER	NONE
11-Jul-17	8	1259	CWD	2	WL	3	196	ON	3RS ET	22.2185	113.8137	SUMMER	NONE
11-Jul-17	9	1318	CWD	2	WL	3	16	ON	3RS ET	22.2143	113.8333	SUMMER	NONE
11-Jul-17	10	1350	CWD	7	WL	4	324	ON	3RS ET	22.1969	113.8397	SUMMER	NONE
11-Jul-17	11	1414	CWD	3	WL	4	157	ON	3RS ET	22.1864	113.8401	SUMMER	NONE
11-Jul-17	12	1435	CWD	4	SWL	2	118	ON	3RS ET	22.1903	113.8499	SUMMER	NONE
11-Jul-17	13	1506	CWD	4	SWL	2	299	ON	3RS ET	22.1883	113.8593	SUMMER	NONE
12-Jul-17	1	0950	CWD	2	NWL	1	70	ON	3RS ET	22.3715	113.8673	SUMMER	NONE
12-Jul-17	2	1316	CWD	1	NWL	3	102	ON	3RS ET	22.3998	113.8983	SUMMER	NONE
14-Jul-17	1	0953	CWD	1	NWL	3	351	ON	3RS ET	22.3615	113.8666	SUMMER	NONE
14-Jul-17	2	1048	CWD	2	NWL	2	890	ON	3RS ET	22.2773	113.8689	SUMMER	NONE

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.
14-Jul-17	3	1210	CWD	1	NWL	2	169	ON	3RS ET	22.3909	113.8780	SUMMER	NONE
20-Jul-17	1	1412	CWD	2	SWL	3	319	ON	3RS ET	22.1776	113.8785	SUMMER	NONE
20-Jul-17	2	1457	CWD	1	SWL	3	2226	ON	3RS ET	22.1900	113.8678	SUMMER	NONE
20-Jul-17	3	1524	CWD	3	WL	2	N/A	OFF	3RS ET	22.2178	113.8339	SUMMER	NONE
21-Jul-17	1	1032	CWD	5	WL	2	20	ON	3RS ET	22.2649	113.8585	SUMMER	NONE
21-Jul-17	2	1131	CWD	2	WL	3	65	ON	3RS ET	22.2318	113.8372	SUMMER	NONE
21-Jul-17	3	1151	CWD	2	WL	2	17	ON	3RS ET	22.2288	113.8383	SUMMER	NONE
21-Jul-17	4	1208	CWD	2	WL	3	190	ON	3RS ET	22.2182	113.8138	SUMMER	NONE
21-Jul-17	5	1223	CWD	2	WL	4	27	ON	3RS ET	22.2139	113.8322	SUMMER	NONE
21-Jul-17	6	1243	CWD	1	WL	4	62	ON	3RS ET	22.2048	113.8383	SUMMER	NONE
21-Jul-17	7	1310	CWD	6	WL	3	27	ON	3RS ET	22.1956	113.8425	SUMMER	NONE
26-Jul-17	1	1026	CWD	1	WL	2	N/A	OFF	3RS ET	22.2362	113.8409	SUMMER	NONE
26-Jul-17	2	1033	CWD	2	WL	2	N/A	OFF	3RS ET	22.2183	113.8339	SUMMER	NONE
26-Jul-17	3	1045	CWD	2	SWL	2	N/A	OFF	3RS ET	22.1948	113.8509	SUMMER	NONE
26-Jul-17	4	1056	CWD	3	SWL	2	252	ON	3RS ET	22.1999	113.8684	SUMMER	NONE
26-Jul-17	5	1301	CWD	7	SWL	2	234	ON	3RS ET	22.2036	113.9083	SUMMER	NONE
26-Jul-17	6	1411	FP	2	SWL	3	87	ON	3RS ET	22.1534	113.9183	SUMMER	NONE
26-Jul-17	7	1437	CWD	2	SWL	3	711	ON	3RS ET	22.2040	113.9181	SUMMER	GILLNET

Abbreviations: STG# = Sighting Number; GP SZ = Dolphin 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

Notes:

CWD monitoring survey data of the two preceding survey months (i.e. May and June 2017) are presented for reference only. No relevant figure or text will be mentioned in the 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 2017 encounter rates STG and ANI in the whole survey area (NEL, NWL, AW, WL, SWL):

A total of 384.728 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 26 on-effort sightings and total number of 71 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in July 2017 are shown as below:

Encounter Rate by Number of Dolphin Sightings (STG) in July 2017

$$STG = \frac{26}{384.728}\ x\ 100 = 6.76$$

Encounter Rate by Number of Dolphins (ANI) in July 2017

$$ANI = \frac{71}{384.728}\ x\ 100 = 18.45$$

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

A total of 1169.655 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 67 on-effort sightings and total number of 245 dolphins from on-effort sightings were collected under such condition. Calculation of the running quarterly encounter rates are shown as below:

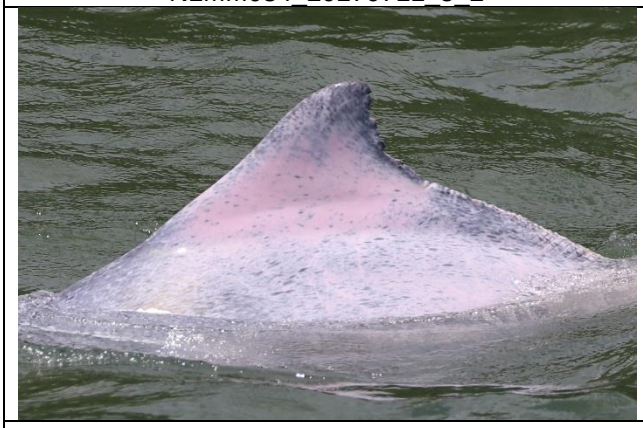
Running Quarterly Encounter Rate by Number of Dolphin Sightings (STG)

$$STG = \frac{67}{1169.655}\ x\ 100 = 5.73$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{245}{1169.655}\ x\ 100 = 20.95$$

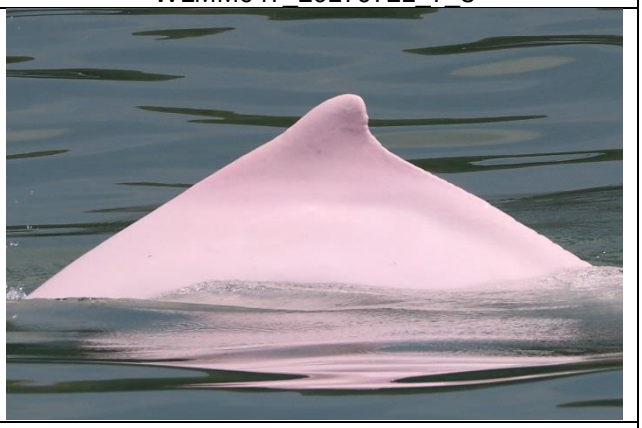
CWD Small Vessel Line-transect Survey **Photo Identification**

	
WLMM097_20170711_1_8	WLMM098_20170711_1_3
	
NLMM034_20170711_2_4	WLMM099_20170711_3_7
	
NLMM034_20170711_5_2	WLMM038_20170711_5_1
	
SLMM040_20170711_7_6	WLMM079_20170711_7_3

	
WLMM015_20170711_9_3	WLMM001_20170711_10_4
	
WLMM028_20170711_10_6	WLMM100_20170711_10_3
	
WLMM006_20170711_12_1	WLMM009_20170711_12_2
	
WLMM067_20170711_12_4	NLMM023_20170711_13_5

	
WLMM001_20170711_13_3	WLMM003_20170711_13_3
	
NLMM019_20170712_1_2	NLMM020_20170712_1_5
	
NLMM013_20170714_1_2	NLMM050_20170714_2_10
	
SLMM010_20170720_1_4	SLMM011_20170720_1_7

	
WLMM006_20170720_3_2	WLMM009_20170720_3_1
	
WLMM013_20170721_2_4	WLMM015_20170721_2_4
	
SLMM040_20170721_5_1	WLMM043_20170721_5_6
	
SLMM030_20170721_7_2	SLMM045_20170721_7_6

	
WLMM043_20170721_7_3	WLMM047_20170721_7_3
	
WLMM008_20170726_3_3	SLMM003_20170726_4_4
	
WLMM079_20170726_4_2	SLMM059_20170726_5_10
	
WLMM076_20170726_5_3	WLMM078_20170726_5_5

CWD Land-based Theodolite Tracking

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
5/Jul/17	Lung Kwu Chau	8:39	14:39	6:00	2-4	1	0	N/A
10/Jul/17	Lung Kwu Chau	8:44	14:44	6:00	2	2	5	1-6
14/Jul/17	Lung Kwu Chau	8:46	14:56	6:10	2-3	1	4	1-4
21/Jul/17	Sha Chau	8:46	14:46	6:00	2-3	2	0	N/A
24/Jul/17	Sha Chau	8:39	14:39	6:00	2	2	0	N/A

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

Appendix E. Calibration Certificates

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

Certificate of Calibration
校正證書

Certificate No. : C173907
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC17-1606)

Date of Receipt / 收件日期 : 11 July 2017

Description / 儀器名稱 : Integrating Sound Level Meter
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 2238
Serial No. / 編號 : 2800932
Supplied By / 委託者 : Atkins China Limited
13/F., Wharf T&T Centre, Harbour City,
Tsim Sha Tsui, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 17 July 2017

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
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee
Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 17 July 2017

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 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青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C173907
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 B & K Acoustic Calibrator 4231, S/N : 3004068 was performed before the test.

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	C170048
CL281	Multifunction Acoustic Calibrator	PA160023

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 Spec. (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.1	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
50 - 130	L_{AFP}	A	F	94.00	1	94.1 (Ref.)
				104.00		104.1
				114.00		114.1

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)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
50 - 130	L_{AFP}	A	F	94.00	1	94.1	Ref.
	L_{ASP}		S			94.1	± 0.3

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Certificate of Calibration
校正證書

Certificate No. : C173907
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)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{AFP}	A	F	94.00	63 Hz	67.9	-26.2 ± 1.5
					125 Hz	77.9	-16.1 ± 1.5
					250 Hz	85.4	-8.6 ± 1.4
					500 Hz	90.8	-3.2 ± 1.4
					1 kHz	94.1	Ref.
					2 kHz	95.3	+1.2 ± 1.6
					4 kHz	95.1	+1.0 ± 1.6
					8 kHz	92.9	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.8	-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)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
50 - 130	L_{CFP}	C	F	94.00	63 Hz	93.3	-0.8 ± 1.5
					125 Hz	93.9	-0.2 ± 1.5
					250 Hz	94.0	0.0 ± 1.4
					500 Hz	94.0	0.0 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	93.9	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	90.9	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
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Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 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青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C173907
證書編號

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2793199

- 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)

- 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.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 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 and Testing Laboratory

Certificate of Calibration
校正證書

Certificate No. : C173906
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC17-1606) Date of Receipt / 收件日期 : 11 July 2017

Description / 儀器名稱 : Acoustical Calibrator
Manufacturer / 製造商 : Brüel & Kjær
Model No. / 型號 : 4231
Serial No. / 編號 : 3004068
Supplied By / 委託者 : Atkins China Limited
13/F., Wharf T&T Centre, Harbour City,
Tsim Sha Tsui, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 17 July 2017

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
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By 測試 : K C Lee
Engineer

Certified By 核證 : H C Chan
Engineer

Date of Issue 簽發日期 : 17 July 2017

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
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Certificate of Calibration
校正證書

Certificate No. : C173906
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	C173864
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

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	94.0	± 0.2	± 0.2
114 dB, 1 kHz	114.0		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

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.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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Appendix F. 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	Launching Site	397150	Receipt acknowledged by EPD on 15 Jan 2016
		Site Office	397151	
		Stockpiling Area	398015	Receipt acknowledged by EPD on 18 Jan 2016
		Sheung Sha Chau	405860	Receipt acknowledged by EPD on 5 Aug 2016
	Construction Noise Permit (General Works)	Launching Site	GW-RS0243-17	Valid from 21 Mar 2017 to 20 Sep 2017
		Stockpiling Area	GW-RS0242-17	Valid from 23 Mar 2017 to 22 Sep 2017
	Discharge License under WPCO	Launching Site	WT00024249-2016	Approved on 25 Apr 2016
		Stockpiling Area	WT00024250-2016	Approved on 25 Apr 2016
	Registration as Chemical Waste Producer	Launching Site	WPN 5213-951-L2902-01	Update the Registration on 3 Oct 2016
		Stockpiling Area	WPN 5213-951-L2902-02	Update the Registration 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-RS0398-17	Valid from 28 Apr 2017 to 27 Oct 2017
	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	407624	Receipt acknowledged by EPD on 15 Sep 2016
	Construction Noise Permit (General Works)	Works area of 3202	GW-RS0312-17	Valid from 7 Apr 2017 to 26 Sep 2017

Contract No.	Description	Location	Permit/ Reference No.	Status
				(Superseded by GW-RS0613-17 on 19 Jul 2017)
		Works area of 3202	GW-RS0613-17	Valid from 19 Jul 2017 to 16 Jan 2018
		Site Office of 3202	GW-RS0469-17	Valid from 2 Jun 2017 to 29 Nov 2017
	Registration as Chemical Waste Producer	Works area of 3202	WPN 5213-951-S3967-01	Completion of Registration on 24 Oct 2016
	Discharge License	Works area of 3202	WT00028293-2017	Valid from 12 Jun 2017 to 30 June 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
	Construction Noise Permit (General Works)	Works area of 3203	GW-RS0323-17	Valid from 19 Apr 2017 to 18 Oct 2017
	Registration as Chemical Waste Producer	Works area of 3203	WPN 5213-951-S3954-01	Update the Registration on 12 Dec 2016
	Discharge License	Works area of 3203	WT00028251-2017	Valid from 9 Jun 2017 to 30 June 2022
	Bill Account for disposal		A/C 7025846	Approval granted from EPD on 9 Sep 2016
3204	Notification of Construction Work under APCO	Works area of 3204	406446	Receipt acknowledged by EPD on 19 Aug 2016
	Construction Noise Permit (General Works)	Works Area of 3204	GW-RS0213-17	Valid from 14 Mar 2017 to 13 Sep 2017 (Superseded by GW-RS0588-17 on 12 Jul 2017)
		Works Area of 3204	GW-RS0588-17	Valid from 12 Jul 2017 to 9 Jan 2018 (Superseded by GW-RS0629-17 on 21 Jul 2017)
		Works Area of 3204	GW-RS0629-17	Valid from 21 Jul 2017 to 20 Jan 2018
		Site Office of 3204	GW-RS0136-17	Valid from 17 Feb 2017 to 16 Aug 2017
	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	Works area of 3204	WT00028245-2017	Valid from 5 Jun 2017 to 30 June 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	Completion of Registration on 13 Jan 2017
		Works Area of 3205	WPN 5111-421-B2509-01	Completion of Registration on 22 Feb 2017
	Construction Noise Permit (General Works)	Works Area of 3205	GW-RS0434-17	Valid from 15 May 2017 to 11 Nov 2017

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License	Works area of 3205	WT00028370-2017	Valid from 21 Jun 2017 to 30 June 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-RS0458-17	Valid from 25 May 2017 to 20 Sep 2017 (Superseded by GW-RS0589-17 on 12 July 2017)
		Works Area of 3206	GW-RS0589-17	Valid from 12 Jul 2017 to 12 Dec 2017
		Works Area of 3206	GW-RS0430-17	Valid from 20 May 2017 to 19 Nov 2017
		Site Office of 3206	GW-RS0511-17	Valid from 14 Jun 2017 to 15 Sep 2017
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3501	Notification of Construction Work under APCO	Works area of 3501	417903	Receipt acknowledged by EPD on 13 Jun 2017
	Registration as Chemical Waste Producer	Works area of 3501	WPN 5213-951-B2520-02	Completion of Registration on 25 Jul 2017
	Bill Account for disposal	Works area of 3501	A/C 7028144	Approval granted from EPD on 23 Jun 2017

Appendix G. 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 month	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 month	0	0	0
From 28 December 2015 to end of the reporting month	5	1	0

Appendix H. Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 31 July 2017)

Data of SkyPier HSF Movements to/from Zhuhai and Macau (between 1 and 31 July 2017)

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
01-Jul	08:22	3A061	YFT	Arrival	12	-	-
01-Jul	08:32	8S210	MFM	Arrival	12	-	-
01-Jul	10:01	3A071	MFM	Arrival	12.1	-	-
01-Jul	10:35	8S212	MFM	Arrival	12.4	-	-
01-Jul	10:51	3A081	ZUI	Arrival	12.4	-	-
01-Jul	10:59	8S121	MFM	Departure	13.1	-	-
01-Jul	11:22	3A063	YFT	Arrival	12.5	-	-
01-Jul	12:16	3A168	YFT	Departure	13.1	-	-
01-Jul	12:24	3A181	ZUI	Departure	13.4	-	-
01-Jul	12:53	8S215	MFM	Arrival	12.8	-	-
01-Jul	13:06	3A064	YFT	Arrival	11.9	-	-
01-Jul	13:15	8S123	MFM	Departure	12.5	-	-
01-Jul	13:44	3A082	ZUI	Arrival	12	-	-
01-Jul	14:20	3A164	YFT	Departure	12.7	-	-
01-Jul	14:20	3A182	ZUI	Departure	13.8	-	-
01-Jul	15:03	3A065	YFT	Arrival	12	-	-
01-Jul	16:18	3A167	YFT	Departure	13	-	-
01-Jul	16:38	8S218	MFM	Arrival	12.3	-	-
01-Jul	16:43	3A083	ZUI	Arrival	12.6	-	-
01-Jul	17:03	8S126	MFM	Departure	11.4	-	-
01-Jul	17:04	3A067	YFT	Arrival	12.6	-	-
01-Jul	17:05	3A183	ZUI	Departure	13.4	-	-
01-Jul	19:03	3A166	YFT	Departure	12.1	-	-
01-Jul	19:44	3A084	ZUI	Arrival	13.1	-	-
01-Jul	20:06	3A185	ZUI	Departure	13.1	-	-
01-Jul	21:01	8S2113	MFM	Arrival	12.3	-	-
01-Jul	21:05	3A169	YFT	Departure	11.6	-	-
01-Jul	22:12	8S522	MFM	Departure	12.3	-	-
02-Jul	08:24	3A061	YFT	Arrival	11.6	-	-
02-Jul	08:38	8S210	MFM	Arrival	12.9	-	-
02-Jul	09:56	3A071	MFM	Arrival	13	-	-
02-Jul	10:44	8S212	MFM	Arrival	11.8	-	-
02-Jul	10:52	3A081	ZUI	Arrival	13.2	-	-
02-Jul	11:14	8S121	MFM	Departure	11.2	-	-
02-Jul	11:22	3A063	YFT	Arrival	12	-	-
02-Jul	12:11	3A181	ZUI	Departure	13.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
02-Jul	12:16	3A168	YFT	Departure	11.8	-	-
02-Jul	12:54	8S215	MFM	Arrival	12.8	-	-
02-Jul	13:02	3A064	YFT	Arrival	11.8	-	-
02-Jul	13:19	8S123	MFM	Departure	13.1	-	-
02-Jul	13:46	3A082	ZUI	Arrival	12.9	-	-
02-Jul	14:19	3A182	ZUI	Departure	11.3	-	-
02-Jul	14:20	3A164	YFT	Departure	12.5	-	-
02-Jul	15:13	3A065	YFT	Arrival	12	-	-
02-Jul	16:07	3A167	YFT	Departure	12.1	-	-
02-Jul	16:33	8S218	MFM	Arrival	10.8	-	-
02-Jul	16:40	3A083	ZUI	Arrival	12.9	-	-
02-Jul	17:02	3A067	YFT	Arrival	12.2	-	-
02-Jul	17:04	8S126	MFM	Departure	13.4	-	-
02-Jul	17:06	3A183	ZUI	Departure	13.4	-	-
02-Jul	19:03	3A166	YFT	Departure	13.1	-	-
02-Jul	19:45	3A084	ZUI	Arrival	13.4	-	-
02-Jul	20:04	3A185	ZUI	Departure	12.7	-	-
02-Jul	20:53	8S2113	MFM	Arrival	12.8	-	-
02-Jul	21:00	3A169	YFT	Departure	12.8	-	-
02-Jul	22:01	8S522	MFM	Departure	13.2	-	-
03-Jul	08:22	3A061	YFT	Arrival	12.4	-	-
03-Jul	08:31	8S210	MFM	Arrival	13.2	-	-
03-Jul	09:56	3A071	MFM	Arrival	11.7	-	-
03-Jul	10:38	8S212	MFM	Arrival	11.8	-	-
03-Jul	10:47	3A081	ZUI	Arrival	13.1	-	-
03-Jul	11:04	8S121	MFM	Departure	12.6	-	-
03-Jul	11:20	3A063	YFT	Arrival	11.7	-	-
03-Jul	12:14	3A181	ZUI	Departure	12.5	-	-
03-Jul	12:16	3A168	YFT	Departure	12.1	-	-
03-Jul	12:45	8S215	MFM	Arrival	12.7	-	-
03-Jul	13:08	3A064	YFT	Arrival	12.3	-	-
03-Jul	13:17	8S123	MFM	Departure	13.4	-	-
03-Jul	13:45	3A082	ZUI	Arrival	12.5	-	-
03-Jul	14:20	3A164	YFT	Departure	12.7	-	-
03-Jul	14:22	3A182	ZUI	Departure	12.8	-	-
03-Jul	15:06	3A065	YFT	Arrival	11.2	-	-
03-Jul	16:09	3A167	YFT	Departure	11	-	-
03-Jul	16:39	8S218	MFM	Arrival	12.4	-	-
03-Jul	16:40	3A083	ZUI	Arrival	12.4	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
03-Jul	16:59	3A067	YFT	Arrival	12	-	-
03-Jul	17:06	8S126	MFM	Departure	13.6	-	-
03-Jul	17:06	3A183	ZUI	Departure	13	-	-
03-Jul	19:09	3A166	YFT	Departure	13.4	-	-
03-Jul	19:45	3A084	ZUI	Arrival	13.2	-	-
03-Jul	20:06	3A185	ZUI	Departure	13.6	-	-
03-Jul	21:03	3A169	YFT	Departure	12.6	-	-
03-Jul	21:17	8S2113	MFM	Arrival	13	-	-
03-Jul	22:09	8S522	MFM	Departure	12.8	-	-
04-Jul	08:19	3A061	YFT	Arrival	11.8	-	-
04-Jul	08:34	8S210	MFM	Arrival	11.8	-	-
04-Jul	09:58	3A071	MFM	Arrival	11.8	-	-
04-Jul	10:38	8S212	MFM	Arrival	12.4	-	-
04-Jul	10:51	3A081	ZUI	Arrival	13	-	-
04-Jul	11:10	8S121	MFM	Departure	13.1	-	-
04-Jul	11:16	3A063	YFT	Arrival	11.7	-	-
04-Jul	12:16	3A168	YFT	Departure	12.9	-	-
04-Jul	12:25	3A181	ZUI	Departure	12.4	-	-
04-Jul	12:50	8S215	MFM	Arrival	12.8	-	-
04-Jul	12:58	3A064	YFT	Arrival	12.3	-	-
04-Jul	13:14	8S123	MFM	Departure	12.1	-	-
04-Jul	13:53	3A082	ZUI	Arrival	13.1	-	-
04-Jul	14:14	3A182	ZUI	Departure	12.4	-	-
04-Jul	14:20	3A164	YFT	Departure	12.4	-	-
04-Jul	15:02	3A065	YFT	Arrival	12.2	-	-
04-Jul	16:18	3A167	YFT	Departure	12.4	-	-
04-Jul	16:43	8S218	MFM	Arrival	12.7	-	-
04-Jul	16:46	3A083	ZUI	Arrival	12.6	-	-
04-Jul	16:57	3A067	YFT	Arrival	11.8	-	-
04-Jul	17:01	8S126	MFM	Departure	11.6	-	-
04-Jul	17:07	3A183	ZUI	Departure	13.7	-	-
04-Jul	19:09	3A166	YFT	Departure	13.4	-	-
04-Jul	19:53	3A084	ZUI	Arrival	13	-	-
04-Jul	20:13	3A185	ZUI	Departure	13.4	-	-
04-Jul	21:02	8S2113	MFM	Arrival	12.1	-	-
04-Jul	21:08	3A169	YFT	Departure	13	-	-
04-Jul	21:57	8S522	MFM	Departure	12.4	-	-
05-Jul	08:18	3A061	YFT	Arrival	12.8	<= 5	< 1min
05-Jul	08:34	8S210	MFM	Arrival	13.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
05-Jul	09:59	3A071	MFM	Arrival	11.3	-	-
05-Jul	10:42	8S212	MFM	Arrival	12	-	-
05-Jul	10:56	3A081	ZUI	Arrival	13.2	-	-
05-Jul	10:57	8S121	MFM	Departure	11.3	-	-
05-Jul	11:20	3A063	YFT	Arrival	13	-	-
05-Jul	12:15	3A181	ZUI	Departure	12.6	-	-
05-Jul	12:19	3A168	YFT	Departure	12.8	-	-
05-Jul	12:54	8S215	MFM	Arrival	12.7	-	-
05-Jul	13:01	3A064	YFT	Arrival	11.8	-	-
05-Jul	13:18	8S123	MFM	Departure	12.9	-	-
05-Jul	13:49	3A082	ZUI	Arrival	12.7	<= 5	< 1min
05-Jul	14:12	3A182	ZUI	Departure	11.9	-	-
05-Jul	14:13	3A164	YFT	Departure	12.4	-	-
05-Jul	15:19	3A065	YFT	Arrival	12.4	-	-
05-Jul	16:19	3A167	YFT	Departure	12.5	-	-
05-Jul	16:47	8S218	MFM	Arrival	12.6	-	-
05-Jul	16:54	3A083	ZUI	Arrival	12.3	-	-
05-Jul	17:02	3A067	YFT	Arrival	12.6	-	-
05-Jul	17:03	8S126	MFM	Departure	13.6	-	-
05-Jul	17:10	3A183	ZUI	Departure	12.1	-	-
05-Jul	19:01	3A166	YFT	Departure	12.5	-	-
05-Jul	19:51	3A084	ZUI	Arrival	12.5	-	-
05-Jul	20:11	3A185	ZUI	Departure	13.4	-	-
05-Jul	21:08	8S2113	MFM	Arrival	12.1	-	-
05-Jul	21:08	3A169	YFT	Departure	12.2	-	-
06-Jul	08:16	3A061	YFT	Arrival	12.4	-	-
06-Jul	08:31	8S210	MFM	Arrival	13	-	-
06-Jul	10:01	3A071	MFM	Arrival	12.7	-	-
06-Jul	10:39	8S212	MFM	Arrival	12.4	-	-
06-Jul	10:48	3A081	ZUI	Arrival	13.3	-	-
06-Jul	10:58	8S121	MFM	Departure	12.3	-	-
06-Jul	11:19	3A063	YFT	Arrival	12.2	-	-
06-Jul	12:23	3A168	YFT	Departure	11.7	-	-
06-Jul	12:28	3A181	ZUI	Departure	12.9	-	-
06-Jul	12:49	8S215	MFM	Arrival	11.8	-	-
06-Jul	12:57	3A064	YFT	Arrival	13	-	-
06-Jul	13:15	8S123	MFM	Departure	12.4	-	-
06-Jul	13:49	3A082	ZUI	Arrival	12.3	-	-
06-Jul	14:14	3A182	ZUI	Departure	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
06-Jul	14:17	3A164	YFT	Departure	12.8	-	-
06-Jul	14:58	3A065	YFT	Arrival	11.7	-	-
06-Jul	16:19	3A167	YFT	Departure	11.9	-	-
06-Jul	16:42	8S218	MFM	Arrival	12	<= 5	< 1min
06-Jul	16:58	3A083	ZUI	Arrival	12.5	-	-
06-Jul	16:59	3A067	YFT	Arrival	12.8	-	-
06-Jul	17:13	3A183	ZUI	Departure	13.7	-	-
06-Jul	17:17	8S126	MFM	Departure	12.8	-	-
06-Jul	19:12	3A166	YFT	Departure	13.2	-	-
06-Jul	19:53	3A084	ZUI	Arrival	13.2	-	-
06-Jul	20:11	3A185	ZUI	Departure	13.4	-	-
06-Jul	20:53	8S2113	MFM	Arrival	12.9	-	-
06-Jul	20:56	3A169	YFT	Departure	11.8	-	-
06-Jul	22:01	8S522	MFM	Departure	13.5	-	-
07-Jul	08:21	3A061	YFT	Arrival	11	-	-
07-Jul	08:27	8S210	MFM	Arrival	12	-	-
07-Jul	10:09	3A071	MFM	Arrival	12	-	-
07-Jul	10:37	8S212	MFM	Arrival	12.6	-	-
07-Jul	10:57	3A081	ZUI	Arrival	13.5	-	-
07-Jul	11:02	8S121	MFM	Departure	11.2	-	-
07-Jul	11:26	3A063	YFT	Arrival	12.6	-	-
07-Jul	12:29	3A181	ZUI	Departure	12.4	-	-
07-Jul	12:30	3A168	YFT	Departure	12.4	-	-
07-Jul	12:47	8S215	MFM	Arrival	12.5	-	-
07-Jul	13:03	3A064	YFT	Arrival	11.8	-	-
07-Jul	13:16	8S123	MFM	Departure	13.2	-	-
07-Jul	13:59	3A082	ZUI	Arrival	12.2	-	-
07-Jul	14:17	3A182	ZUI	Departure	11.5	-	-
07-Jul	14:18	3A164	YFT	Departure	11.4	-	-
07-Jul	15:18	3A065	YFT	Arrival	12.2	-	-
07-Jul	16:15	3A167	YFT	Departure	11.9	-	-
07-Jul	16:42	8S218	MFM	Arrival	10.8	-	-
07-Jul	16:47	3A083	ZUI	Arrival	12.3	-	-
07-Jul	17:02	3A067	YFT	Arrival	11.3	-	-
07-Jul	17:08	8S126	MFM	Departure	10.6	-	-
07-Jul	17:11	3A183	ZUI	Departure	13	-	-
07-Jul	19:00	3A166	YFT	Departure	13.5	-	-
07-Jul	19:57	3A084	ZUI	Arrival	13.1	-	-
07-Jul	20:15	3A185	ZUI	Departure	13.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
07-Jul	21:00	3A169	YFT	Departure	10.9	-	-
07-Jul	21:08	8S2113	MFM	Arrival	11.1	-	-
07-Jul	22:16	8S522	MFM	Departure	11.7	-	-
08-Jul	08:18	3A061	YFT	Arrival	12.7	-	-
08-Jul	08:32	8S210	MFM	Arrival	13.1	-	-
08-Jul	09:52	3A071	MFM	Arrival	12.1	-	-
08-Jul	10:41	8S212	MFM	Arrival	12.3	-	-
08-Jul	10:54	3A081	ZUI	Arrival	13.4	-	-
08-Jul	11:04	8S121	MFM	Departure	11.7	-	-
08-Jul	11:20	3A063	YFT	Arrival	13.6	-	-
08-Jul	12:12	3A181	ZUI	Departure	13.1	-	-
08-Jul	12:29	3A168	YFT	Departure	13.9	-	-
08-Jul	12:49	8S215	MFM	Arrival	12.4	-	-
08-Jul	13:00	3A064	YFT	Arrival	12.7	-	-
08-Jul	13:17	8S123	MFM	Departure	11.3	-	-
08-Jul	13:47	3A082	ZUI	Arrival	12.3	-	-
08-Jul	14:12	3A182	ZUI	Departure	12.2	-	-
08-Jul	14:19	3A164	YFT	Departure	11.7	-	-
08-Jul	15:02	3A065	YFT	Arrival	13.3	-	-
08-Jul	16:17	3A167	YFT	Departure	13.3	-	-
08-Jul	16:35	8S218	MFM	Arrival	11.6	-	-
08-Jul	16:56	3A083	ZUI	Arrival	12.9	-	-
08-Jul	17:02	8S126	MFM	Departure	11.5	-	-
08-Jul	17:03	3A067	YFT	Arrival	12.1	-	-
08-Jul	17:11	3A183	ZUI	Departure	11.8	-	-
08-Jul	19:11	3A166	YFT	Departure	12.6	-	-
08-Jul	19:52	3A084	ZUI	Arrival	13.4	-	-
08-Jul	20:19	3A185	ZUI	Departure	13.4	-	-
08-Jul	21:01	8S2113	MFM	Arrival	12.1	-	-
08-Jul	21:06	3A169	YFT	Departure	12.3	-	-
09-Jul	08:17	3A061	YFT	Arrival	13.1	-	-
09-Jul	08:33	8S210	MFM	Arrival	11.4	-	-
09-Jul	09:58	3A071	MFM	Arrival	11.1	-	-
09-Jul	10:43	8S212	MFM	Arrival	11.8	-	-
09-Jul	10:50	3A081	ZUI	Arrival	13	-	-
09-Jul	11:14	8S121	MFM	Departure	11.3	-	-
09-Jul	11:21	3A063	YFT	Arrival	11.9	-	-
09-Jul	12:14	3A181	ZUI	Departure	13.1	-	-
09-Jul	12:20	3A168	YFT	Departure	11.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
09-Jul	12:50	8S215	MFM	Arrival	12	-	-
09-Jul	13:04	3A064	YFT	Arrival	12.3	-	-
09-Jul	13:18	8S123	MFM	Departure	12.9	-	-
09-Jul	13:43	3A082	ZUI	Arrival	12.2	-	-
09-Jul	14:14	3A182	ZUI	Departure	11.7	-	-
09-Jul	14:21	3A164	YFT	Departure	13.1	-	-
09-Jul	15:04	3A065	YFT	Arrival	11.5	-	-
09-Jul	16:14	3A167	YFT	Departure	11.6	-	-
09-Jul	16:47	3A083	ZUI	Arrival	12.7	-	-
09-Jul	16:51	8S218	MFM	Arrival	11.9	-	-
09-Jul	16:59	3A067	YFT	Arrival	12.4	-	-
09-Jul	17:06	3A183	ZUI	Departure	12	-	-
09-Jul	17:08	8S126	MFM	Departure	13.2	-	-
09-Jul	19:04	3A166	YFT	Departure	12.6	-	-
09-Jul	19:56	3A084	ZUI	Arrival	11	-	-
09-Jul	20:20	3A185	ZUI	Departure	13.5	-	-
09-Jul	21:09	8S2113	MFM	Arrival	12.7	-	-
09-Jul	21:11	3A169	YFT	Departure	13	-	-
09-Jul	22:13	8S522	MFM	Departure	13.2	-	-
10-Jul	08:20	3A061	YFT	Arrival	11.3	-	-
10-Jul	08:33	8S210	MFM	Arrival	10.7	-	-
10-Jul	09:58	3A071	MFM	Arrival	12.7	-	-
10-Jul	10:40	8S212	MFM	Arrival	11.8	-	-
10-Jul	10:53	3A081	ZUI	Arrival	13.5	-	-
10-Jul	11:09	8S121	MFM	Departure	12.2	-	-
10-Jul	11:17	3A063	YFT	Arrival	12.3	-	-
10-Jul	12:17	3A168	YFT	Departure	12.2	-	-
10-Jul	12:19	3A181	ZUI	Departure	12.9	-	-
10-Jul	12:55	8S215	MFM	Arrival	12.9	-	-
10-Jul	13:02	3A064	YFT	Arrival	12.3	-	-
10-Jul	13:14	8S123	MFM	Departure	12.5	-	-
10-Jul	13:46	3A082	ZUI	Arrival	12.4	-	-
10-Jul	14:19	3A182	ZUI	Departure	12	-	-
10-Jul	14:23	3A164	YFT	Departure	11.4	-	-
10-Jul	15:05	3A065	YFT	Arrival	10	-	-
10-Jul	16:24	3A167	YFT	Departure	12.4	-	-
10-Jul	16:42	8S218	MFM	Arrival	12.8	-	-
10-Jul	16:52	3A083	ZUI	Arrival	12.9	-	-
10-Jul	17:06	3A067	YFT	Arrival	12	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	17:11	3A183	ZUI	Departure	12.3	-	-
10-Jul	17:15	8S126	MFM	Departure	12.2	-	-
10-Jul	19:05	3A166	YFT	Departure	12.7	-	-
10-Jul	19:56	3A084	ZUI	Arrival	12.9	-	-
10-Jul	20:14	3A185	ZUI	Departure	13.6	-	-
10-Jul	21:00	3A169	YFT	Departure	11.5	-	-
10-Jul	21:00	8S2113	MFM	Arrival	11.4	-	-
11-Jul	08:29	3A061	YFT	Arrival	11.4	-	-
11-Jul	08:31	8S210	MFM	Arrival	12.8	-	-
11-Jul	10:06	3A071	MFM	Arrival	12.8	-	-
11-Jul	10:38	8S212	MFM	Arrival	12.4	-	-
11-Jul	10:43	3A081	ZUI	Arrival	12.4	-	-
11-Jul	11:05	8S121	MFM	Departure	10.6	-	-
11-Jul	11:22	3A063	YFT	Arrival	11.5	-	-
11-Jul	12:16	3A168	YFT	Departure	11.5	-	-
11-Jul	12:18	3A181	ZUI	Departure	14	-	-
11-Jul	12:52	8S215	MFM	Arrival	12	-	-
11-Jul	13:11	3A064	YFT	Arrival	12	-	-
11-Jul	13:19	8S123	MFM	Departure	12.9	-	-
11-Jul	13:45	3A082	ZUI	Arrival	13.7	-	-
11-Jul	14:16	3A164	YFT	Departure	12.1	-	-
11-Jul	14:18	3A182	ZUI	Departure	11.8	-	-
11-Jul	15:03	3A065	YFT	Arrival	11.2	<= 5	< 1min
11-Jul	16:20	3A167	YFT	Departure	11.2	-	-
11-Jul	16:44	3A083	ZUI	Arrival	12.8	-	-
11-Jul	16:46	8S218	MFM	Arrival	12.1	-	-
11-Jul	17:06	3A067	YFT	Arrival	11.8	<= 5	< 1min
11-Jul	17:07	3A183	ZUI	Departure	13.4	-	-
11-Jul	17:18	8S126	MFM	Departure	12.1	-	-
11-Jul	19:02	3A166	YFT	Departure	11.8	-	-
11-Jul	19:39	3A084	ZUI	Arrival	12.7	-	-
11-Jul	20:15	3A185	ZUI	Departure	12.3	-	-
11-Jul	21:04	3A169	YFT	Departure	12.9	-	-
11-Jul	21:10	8S2113	MFM	Arrival	11.1	-	-
11-Jul	21:58	8S522	MFM	Departure	11.7	-	-
12-Jul	08:22	3A061	YFT	Arrival	12.9	-	-
12-Jul	08:39	8S210	MFM	Arrival	12.1	-	-
12-Jul	10:01	3A071	MFM	Arrival	11.3	-	-
12-Jul	10:39	8S212	MFM	Arrival	13.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
12-Jul	10:46	3A081	ZUI	Arrival	12.8	-	-
12-Jul	11:01	8S121	MFM	Departure	12.8	-	-
12-Jul	11:19	3A063	YFT	Arrival	11.8	-	-
12-Jul	12:13	3A168	YFT	Departure	12.3	-	-
12-Jul	12:16	3A181	ZUI	Departure	13.7	-	-
12-Jul	12:59	8S215	MFM	Arrival	11.4	-	-
12-Jul	13:04	3A064	YFT	Arrival	13.3	-	-
12-Jul	13:24	8S123	MFM	Departure	12.1	-	-
12-Jul	13:44	3A082	ZUI	Arrival	13.1	-	-
12-Jul	14:32	3A164	YFT	Departure	13.5	-	-
12-Jul	14:33	3A182	ZUI	Departure	13.3	-	-
12-Jul	15:07	3A065	YFT	Arrival	12	-	-
12-Jul	16:20	3A167	YFT	Departure	11.4	-	-
12-Jul	16:42	3A083	ZUI	Arrival	13	-	-
12-Jul	16:44	8S218	MFM	Arrival	12.3	-	-
12-Jul	17:00	3A183	ZUI	Departure	13.2	-	-
12-Jul	17:04	8S126	MFM	Departure	12.6	-	-
12-Jul	17:09	3A067	YFT	Arrival	12.9	<= 5	< 1min
12-Jul	18:59	3A166	YFT	Departure	13.2	-	-
12-Jul	20:06	3A084	ZUI	Arrival	12.9	-	-
12-Jul	20:26	3A185	ZUI	Departure	13.3	-	-
12-Jul	21:02	8S2113	MFM	Arrival	12.3	-	-
12-Jul	21:07	3A169	YFT	Departure	13.2	-	-
12-Jul	22:02	8S522	MFM	Departure	12.7	-	-
13-Jul	08:20	3A061	YFT	Arrival	11.9	-	-
13-Jul	08:46	8S210	MFM	Arrival	12.1	-	-
13-Jul	10:01	3A071	MFM	Arrival	11.9	-	-
13-Jul	10:40	8S212	MFM	Arrival	11.8	-	-
13-Jul	10:49	3A081	ZUI	Arrival	12.8	-	-
13-Jul	11:11	8S121	MFM	Departure	12.3	-	-
13-Jul	11:20	3A063	YFT	Arrival	12.6	-	-
13-Jul	12:23	3A168	YFT	Departure	12.7	-	-
13-Jul	12:24	3A181	ZUI	Departure	13.9	-	-
13-Jul	12:52	8S215	MFM	Arrival	11.9	-	-
13-Jul	13:06	3A064	YFT	Arrival	11.9	-	-
13-Jul	13:15	8S123	MFM	Departure	12.2	-	-
13-Jul	13:43	3A082	ZUI	Arrival	13.8	-	-
13-Jul	14:25	3A182	ZUI	Departure	12.8	-	-
13-Jul	14:31	3A164	YFT	Departure	12.5	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	15:08	3A065	YFT	Arrival	12.1	-	-
13-Jul	16:19	3A167	YFT	Departure	11.8	-	-
13-Jul	16:41	8S218	MFM	Arrival	11.9	-	-
13-Jul	16:51	3A083	ZUI	Arrival	12.7	-	-
13-Jul	16:59	8S126	MFM	Departure	12.8	-	-
13-Jul	17:05	3A183	ZUI	Departure	13.7	-	-
13-Jul	17:14	3A067	YFT	Arrival	12.5	-	-
13-Jul	19:02	3A166	YFT	Departure	9.9	-	-
13-Jul	19:49	3A084	ZUI	Arrival	13.3	-	-
13-Jul	20:05	3A185	ZUI	Departure	13.3	-	-
13-Jul	21:00	3A169	YFT	Departure	12.3	-	-
13-Jul	21:07	8S2113	MFM	Arrival	12.1	-	-
13-Jul	21:53	8S522	MFM	Departure	12.5	-	-
14-Jul	08:22	3A061	YFT	Arrival	12.3	-	-
14-Jul	08:43	8S210	MFM	Arrival	12.7	-	-
14-Jul	09:56	3A071	MFM	Arrival	11.8	-	-
14-Jul	10:42	8S212	MFM	Arrival	12.9	-	-
14-Jul	10:55	3A081	ZUI	Arrival	12.9	-	-
14-Jul	11:02	8S121	MFM	Departure	12.4	-	-
14-Jul	11:30	3A063	YFT	Arrival	11.8	-	-
14-Jul	12:23	3A181	ZUI	Departure	13.7	-	-
14-Jul	12:29	3A168	YFT	Departure	12.1	-	-
14-Jul	12:52	8S215	MFM	Arrival	13.1	-	-
14-Jul	13:07	3A064	YFT	Arrival	12.2	-	-
14-Jul	13:16	8S123	MFM	Departure	13.5	-	-
14-Jul	13:46	3A082	ZUI	Arrival	13.3	-	-
14-Jul	14:13	3A182	ZUI	Departure	13.3	-	-
14-Jul	14:20	3A164	YFT	Departure	12.3	-	-
14-Jul	15:26	3A065	YFT	Arrival	11.9	-	-
14-Jul	16:16	3A167	YFT	Departure	12	-	-
14-Jul	16:37	8S218	MFM	Arrival	12.9	-	-
14-Jul	16:42	3A083	ZUI	Arrival	13.4	-	-
14-Jul	17:03	3A183	ZUI	Departure	12.6	-	-
14-Jul	17:05	8S126	MFM	Departure	13.4	-	-
14-Jul	17:06	3A067	YFT	Arrival	12.4	-	-
14-Jul	19:17	3A166	YFT	Departure	11.6	-	-
14-Jul	19:52	3A084	ZUI	Arrival	13	-	-
14-Jul	20:10	3A185	ZUI	Departure	13.1	-	-
14-Jul	20:58	3A169	YFT	Departure	12.1	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
14-Jul	21:05	8S2113	MFM	Arrival	11.4	-	-
14-Jul	21:59	8S522	MFM	Departure	12.2	-	-
15-Jul	08:18	3A061	YFT	Arrival	11.4	-	-
15-Jul	08:33	8S210	MFM	Arrival	12.7	-	-
15-Jul	10:04	3A071	MFM	Arrival	11.9	-	-
15-Jul	10:40	8S212	MFM	Arrival	11.5	-	-
15-Jul	10:51	3A081	ZUI	Arrival	12.4	-	-
15-Jul	11:08	8S121	MFM	Departure	12	-	-
15-Jul	11:14	3A063	YFT	Arrival	12.6	-	-
15-Jul	12:26	3A181	ZUI	Departure	13	-	-
15-Jul	12:27	3A168	YFT	Departure	12.6	-	-
15-Jul	12:56	8S215	MFM	Arrival	10.7	-	-
15-Jul	12:57	3A064	YFT	Arrival	11.3	-	-
15-Jul	13:18	8S123	MFM	Departure	12.2	-	-
15-Jul	14:04	3A082	ZUI	Arrival	13	-	-
15-Jul	14:19	3A164	YFT	Departure	12	-	-
15-Jul	14:20	3A182	ZUI	Departure	12.6	-	-
15-Jul	14:56	3A065	YFT	Arrival	12.9	-	-
15-Jul	16:13	3A167	YFT	Departure	13.1	-	-
15-Jul	16:44	8S218	MFM	Arrival	12	-	-
15-Jul	16:47	3A083	ZUI	Arrival	13	-	-
15-Jul	16:58	3A067	YFT	Arrival	12.1	-	-
15-Jul	17:05	3A183	ZUI	Departure	13.2	-	-
15-Jul	17:11	8S126	MFM	Departure	12.8	-	-
15-Jul	18:59	3A166	YFT	Departure	11.3	-	-
15-Jul	19:50	3A084	ZUI	Arrival	13.3	-	-
15-Jul	20:06	3A185	ZUI	Departure	12.7	-	-
15-Jul	21:03	8S2113	MFM	Arrival	11.6	-	-
15-Jul	21:04	3A169	YFT	Departure	12.6	-	-
15-Jul	21:58	8S522	MFM	Departure	12.8	-	-
16-Jul	08:19	3A061	YFT	Arrival	11.5	-	-
16-Jul	08:34	8S210	MFM	Arrival	11.5	-	-
16-Jul	10:02	3A071	MFM	Arrival	12.4	-	-
16-Jul	10:50	3A081	ZUI	Arrival	12.7	-	-
16-Jul	10:53	8S212	MFM	Arrival	12.4	-	-
16-Jul	11:14	8S121	MFM	Departure	12.5	-	-
16-Jul	11:23	3A063	YFT	Arrival	12	-	-
16-Jul	12:19	3A168	YFT	Departure	13	-	-
16-Jul	12:21	3A181	ZUI	Departure	13	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
16-Jul	12:54	8S215	MFM	Arrival	12.7	-	-
16-Jul	13:01	3A064	YFT	Arrival	11.7	-	-
16-Jul	13:19	8S123	MFM	Departure	11.7	-	-
16-Jul	13:53	3A082	ZUI	Arrival	11.7	-	-
16-Jul	14:15	3A182	ZUI	Departure	13	-	-
16-Jul	14:18	3A164	YFT	Departure	11.7	-	-
16-Jul	15:00	3A065	YFT	Arrival	11.4	-	-
16-Jul	16:18	3A167	YFT	Departure	12.9	-	-
16-Jul	16:46	8S218	MFM	Arrival	12	-	-
16-Jul	16:49	3A083	ZUI	Arrival	13.3	-	-
16-Jul	17:06	3A067	YFT	Arrival	11.8	-	-
16-Jul	17:10	8S126	MFM	Departure	12.2	-	-
16-Jul	17:10	3A183	ZUI	Departure	13.1	-	-
16-Jul	19:02	3A166	YFT	Departure	12.1	-	-
16-Jul	19:48	3A084	ZUI	Arrival	13	-	-
16-Jul	20:06	3A185	ZUI	Departure	13.1	-	-
16-Jul	21:01	8S2113	MFM	Arrival	12.5	-	-
16-Jul	21:02	3A169	YFT	Departure	12.3	-	-
16-Jul	21:59	8S522	MFM	Departure	11.8	-	-
17-Jul	08:30	3A061	YFT	Arrival	10.9	-	-
17-Jul	08:34	8S210	MFM	Arrival	13.1	-	-
17-Jul	09:59	3A071	MFM	Arrival	12.6	-	-
17-Jul	10:47	8S212	MFM	Arrival	12.1	-	-
17-Jul	10:49	3A081	ZUI	Arrival	13.2	-	-
17-Jul	11:07	8S121	MFM	Departure	12.1	-	-
17-Jul	11:19	3A063	YFT	Arrival	11.5	-	-
17-Jul	12:13	3A181	ZUI	Departure	13.6	-	-
17-Jul	12:16	3A168	YFT	Departure	11.8	-	-
17-Jul	12:56	8S215	MFM	Arrival	11.8	-	-
17-Jul	13:07	3A064	YFT	Arrival	11.9	-	-
17-Jul	13:20	8S123	MFM	Departure	13.1	-	-
17-Jul	13:44	3A082	ZUI	Arrival	13.1	-	-
17-Jul	14:18	3A164	YFT	Departure	11.9	-	-
17-Jul	14:19	3A182	ZUI	Departure	13.3	-	-
17-Jul	14:57	3A065	YFT	Arrival	11.5	-	-
17-Jul	16:17	3A167	YFT	Departure	11.8	-	-
17-Jul	16:42	8S218	MFM	Arrival	12.9	-	-
17-Jul	17:05	3A067	YFT	Arrival	12.1	-	-
17-Jul	17:06	3A083	ZUI	Arrival	13.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	17:12	8S126	MFM	Departure	13.3	-	-
17-Jul	17:21	3A183	ZUI	Departure	13.8	-	-
17-Jul	19:06	3A166	YFT	Departure	13.5	-	-
17-Jul	20:03	3A084	ZUI	Arrival	13.4	-	-
17-Jul	20:19	3A185	ZUI	Departure	12.9	-	-
17-Jul	21:05	8S2113	MFM	Arrival	11.5	-	-
17-Jul	21:05	3A169	YFT	Departure	12.5	-	-
17-Jul	21:56	8S522	MFM	Departure	11.5	-	-
18-Jul	08:25	3A061	YFT	Arrival	12.1	-	-
18-Jul	08:42	8S210	MFM	Arrival	12.5	-	-
18-Jul	09:56	3A071	MFM	Arrival	11.6	-	-
18-Jul	10:38	3A081	ZUI	Arrival	12.7	-	-
18-Jul	10:42	8S212	MFM	Arrival	11.9	-	-
18-Jul	11:01	8S121	MFM	Departure	12.2	-	-
18-Jul	11:17	3A063	YFT	Arrival	12.5	-	-
18-Jul	12:18	3A168	YFT	Departure	12.6	-	-
18-Jul	12:20	3A181	ZUI	Departure	13.2	-	-
18-Jul	12:50	8S215	MFM	Arrival	11.9	-	-
18-Jul	13:08	3A064	YFT	Arrival	11.8	-	-
18-Jul	13:20	8S123	MFM	Departure	10.4	-	-
18-Jul	13:48	3A082	ZUI	Arrival	12.4	-	-
18-Jul	14:15	3A164	YFT	Departure	12.3	-	-
18-Jul	14:19	3A182	ZUI	Departure	11.3	-	-
18-Jul	14:57	3A065	YFT	Arrival	12.6	-	-
18-Jul	16:19	3A167	YFT	Departure	12.6	-	-
18-Jul	16:41	3A083	ZUI	Arrival	13.2	-	-
18-Jul	16:49	8S218	MFM	Arrival	12.9	-	-
18-Jul	17:03	3A067	YFT	Arrival	12	-	-
18-Jul	17:05	3A183	ZUI	Departure	13.4	-	-
18-Jul	17:08	8S126	MFM	Departure	13.7	-	-
18-Jul	19:06	3A166	YFT	Departure	11.7	-	-
18-Jul	19:50	3A084	ZUI	Arrival	12.9	-	-
18-Jul	20:07	3A185	ZUI	Departure	13.6	-	-
18-Jul	20:54	8S2113	MFM	Arrival	12.9	-	-
18-Jul	21:02	3A169	YFT	Departure	12.6	-	-
19-Jul	08:13	3A061	YFT	Arrival	12.9	-	-
19-Jul	08:29	8S210	MFM	Arrival	11.9	-	-
19-Jul	09:59	3A071	MFM	Arrival	12.3	-	-
19-Jul	10:37	3A081	ZUI	Arrival	12.6	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	10:47	8S212	MFM	Arrival	12.3	-	-
19-Jul	11:10	8S121	MFM	Departure	12.1	-	-
19-Jul	11:20	3A063	YFT	Arrival	11.8	-	-
19-Jul	12:13	3A168	YFT	Departure	12.6	-	-
19-Jul	12:14	3A181	ZUI	Departure	12.7	-	-
19-Jul	12:57	8S215	MFM	Arrival	12.7	-	-
19-Jul	12:58	3A064	YFT	Arrival	12.4	-	-
19-Jul	13:21	8S123	MFM	Departure	10.9	-	-
19-Jul	13:56	3A082	ZUI	Arrival	11.6	-	-
19-Jul	14:23	3A164	YFT	Departure	13.1	-	-
19-Jul	14:27	3A182	ZUI	Departure	12.8	-	-
19-Jul	15:01	3A065	YFT	Arrival	12	-	-
19-Jul	16:18	3A167	YFT	Departure	12.5	-	-
19-Jul	16:42	3A083	ZUI	Arrival	12.7	-	-
19-Jul	16:49	8S218	MFM	Arrival	10.7	-	-
19-Jul	16:58	3A067	YFT	Arrival	13	-	-
19-Jul	17:07	3A183	ZUI	Departure	13.2	-	-
19-Jul	17:08	8S126	MFM	Departure	12.1	-	-
19-Jul	19:07	3A166	YFT	Departure	12	-	-
19-Jul	19:47	3A084	ZUI	Arrival	13.2	-	-
19-Jul	20:10	3A185	ZUI	Departure	13.3	-	-
19-Jul	21:00	8S2113	MFM	Arrival	11.7	-	-
19-Jul	21:01	3A169	YFT	Departure	12.8	-	-
19-Jul	21:57	8S522	MFM	Departure	11.4	-	-
20-Jul	08:23	3A061	YFT	Arrival	12.7	-	-
20-Jul	08:36	8S210	MFM	Arrival	12.2	-	-
20-Jul	09:59	3A071	MFM	Arrival	12	-	-
20-Jul	10:46	8S212	MFM	Arrival	11.9	-	-
20-Jul	10:46	3A081	ZUI	Arrival	12.9	-	-
20-Jul	11:08	8S121	MFM	Departure	11.5	-	-
20-Jul	11:18	3A063	YFT	Arrival	12.5	-	-
20-Jul	12:21	3A168	YFT	Departure	13.2	-	-
20-Jul	12:27	3A181	ZUI	Departure	13	-	-
20-Jul	12:47	8S215	MFM	Arrival	12.9	-	-
20-Jul	13:01	3A064	YFT	Arrival	12	-	-
20-Jul	13:18	8S123	MFM	Departure	13.2	-	-
20-Jul	13:51	3A082	ZUI	Arrival	12.7	-	-
20-Jul	14:16	3A182	ZUI	Departure	12	-	-
20-Jul	14:19	3A164	YFT	Departure	12.7	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
20-Jul	14:59	3A065	YFT	Arrival	12.5	-	-
20-Jul	16:12	3A167	YFT	Departure	13	-	-
20-Jul	16:38	8S218	MFM	Arrival	12.4	-	-
20-Jul	16:49	3A083	ZUI	Arrival	12.4	-	-
20-Jul	16:58	8S126	MFM	Departure	13.3	-	-
20-Jul	17:06	3A067	YFT	Arrival	12.2	-	-
20-Jul	17:07	3A183	ZUI	Departure	13.6	-	-
20-Jul	19:05	3A166	YFT	Departure	13.1	-	-
20-Jul	19:58	3A084	ZUI	Arrival	12.6	-	-
20-Jul	20:20	3A185	ZUI	Departure	13.5	-	-
20-Jul	20:58	3A169	YFT	Departure	11.2	-	-
20-Jul	21:09	8S2113	MFM	Arrival	11.7	-	-
21-Jul	08:18	3A061	YFT	Arrival	11.6	-	-
21-Jul	08:29	8S210	MFM	Arrival	13.6	-	-
21-Jul	09:56	3A071	MFM	Arrival	12.8	-	-
21-Jul	10:41	8S212	MFM	Arrival	12.8	-	-
21-Jul	10:52	3A081	ZUI	Arrival	13.4	-	-
21-Jul	11:17	8S121	MFM	Departure	12.9	-	-
21-Jul	11:23	3A063	YFT	Arrival	12.1	-	-
21-Jul	12:09	3A168	YFT	Departure	10.9	-	-
21-Jul	12:13	3A181	ZUI	Departure	13.1	-	-
21-Jul	12:47	8S215	MFM	Arrival	11.8	-	-
21-Jul	13:04	3A064	YFT	Arrival	11.4	-	-
21-Jul	13:18	8S123	MFM	Departure	12.2	-	-
21-Jul	13:43	3A082	ZUI	Arrival	11.9	-	-
21-Jul	14:17	3A164	YFT	Departure	11.3	-	-
21-Jul	14:19	3A182	ZUI	Departure	11.4	-	-
21-Jul	15:10	3A065	YFT	Arrival	11.5	-	-
21-Jul	16:16	3A167	YFT	Departure	11.7	-	-
21-Jul	16:41	8S218	MFM	Arrival	11.8	-	-
21-Jul	16:50	3A083	ZUI	Arrival	12.6	-	-
21-Jul	17:01	3A067	YFT	Arrival	12.7	-	-
21-Jul	17:07	3A183	ZUI	Departure	13.2	-	-
21-Jul	17:10	8S126	MFM	Departure	12.9	-	-
21-Jul	19:02	3A166	YFT	Departure	13.1	-	-
21-Jul	20:00	3A084	ZUI	Arrival	12.8	-	-
21-Jul	20:21	3A185	ZUI	Departure	13.7	-	-
21-Jul	21:00	3A169	YFT	Departure	13.4	-	-
21-Jul	21:00	8S2113	MFM	Arrival	12.7	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	22:09	8S522	MFM	Departure	13.2	-	-
22-Jul	08:18	3A061	YFT	Arrival	12.1	-	-
22-Jul	08:35	8S210	MFM	Arrival	10.4	-	-
22-Jul	10:04	3A071	MFM	Arrival	12.3	-	-
22-Jul	10:47	8S212	MFM	Arrival	12	-	-
22-Jul	10:51	3A081	ZUI	Arrival	13.6	-	-
22-Jul	11:11	8S121	MFM	Departure	12.8	-	-
22-Jul	11:23	3A063	YFT	Arrival	12.3	-	-
22-Jul	12:17	3A168	YFT	Departure	11.9	-	-
22-Jul	12:21	3A181	ZUI	Departure	12.6	-	-
22-Jul	12:53	8S215	MFM	Arrival	11.9	-	-
22-Jul	13:00	3A064	YFT	Arrival	12.7	-	-
22-Jul	13:17	8S123	MFM	Departure	11.2	-	-
22-Jul	13:48	3A082	ZUI	Arrival	12.7	-	-
22-Jul	14:18	3A164	YFT	Departure	12.5	-	-
22-Jul	14:19	3A182	ZUI	Departure	11.7	-	-
22-Jul	15:05	3A065	YFT	Arrival	11.4	-	-
22-Jul	16:22	3A167	YFT	Departure	11.9	-	-
22-Jul	16:43	8S218	MFM	Arrival	11.8	-	-
22-Jul	16:52	3A083	ZUI	Arrival	12.6	-	-
22-Jul	17:04	3A067	YFT	Arrival	11.3	-	-
22-Jul	17:11	8S126	MFM	Departure	13.5	-	-
22-Jul	17:13	3A183	ZUI	Departure	13.6	-	-
22-Jul	19:10	3A166	YFT	Departure	12.6	-	-
22-Jul	19:48	3A084	ZUI	Arrival	13.3	-	-
22-Jul	20:11	3A185	ZUI	Departure	14	-	-
22-Jul	21:00	8S2113	MFM	Arrival	12.2	-	-
22-Jul	21:00	3A169	YFT	Departure	12	-	-
22-Jul	21:57	8S522	MFM	Departure	12.4	-	-
23-Jul	08:17	3A061	YFT	Arrival	12.8	-	-
23-Jul	08:37	8S210	MFM	Arrival	12	-	-
23-Jul	09:32	3A071	MFM	Arrival	12.6	-	-
23-Jul	10:09	8S212	MFM	Arrival	11.8	-	-
23-Jul	16:20	3A167	YFT	Departure	13.2	-	-
23-Jul	16:30	8S218	MFM	Arrival	12.7	-	-
23-Jul	16:46	3A083	ZUI	Arrival	12.8	-	-
23-Jul	17:01	3A067	YFT	Arrival	11.5	-	-
23-Jul	17:21	3A183	ZUI	Departure	13.5	-	-
23-Jul	17:26	8S126	MFM	Departure	12.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
23-Jul	19:04	3A166	YFT	Departure	13	-	-
23-Jul	20:02	3A084	ZUI	Arrival	11.7	-	-
23-Jul	20:18	3A185	ZUI	Departure	13	-	-
23-Jul	21:03	3A169	YFT	Departure	12.3	-	-
23-Jul	21:08	8S2113	MFM	Arrival	12.8	-	-
23-Jul	21:58	8S522	MFM	Departure	13.7	-	-
24-Jul	08:22	3A061	YFT	Arrival	13.5	-	-
24-Jul	08:38	8S210	MFM	Arrival	13.1	-	-
24-Jul	10:01	3A071	MFM	Arrival	13.1	-	-
24-Jul	10:34	3A081	ZUI	Arrival	13.3	-	-
24-Jul	10:41	8S212	MFM	Arrival	12.2	-	-
24-Jul	11:06	8S121	MFM	Departure	11.5	-	-
24-Jul	11:26	3A063	YFT	Arrival	12.1	-	-
24-Jul	12:22	3A168	YFT	Departure	12.2	-	-
24-Jul	12:28	3A181	ZUI	Departure	13.1	-	-
24-Jul	12:55	8S215	MFM	Arrival	13.1	-	-
24-Jul	13:03	3A064	YFT	Arrival	13.1	-	-
24-Jul	13:19	8S123	MFM	Departure	12.8	-	-
24-Jul	14:00	3A082	ZUI	Arrival	12.4	-	-
24-Jul	14:19	3A182	ZUI	Departure	12.2	-	-
24-Jul	14:20	3A164	YFT	Departure	12.9	-	-
24-Jul	15:08	3A065	YFT	Arrival	12.5	-	-
24-Jul	16:18	3A167	YFT	Departure	12.2	-	-
24-Jul	16:41	3A083	ZUI	Arrival	12.8	-	-
24-Jul	16:49	8S218	MFM	Arrival	12.6	-	-
24-Jul	17:02	3A067	YFT	Arrival	12.6	-	-
24-Jul	17:08	8S126	MFM	Departure	12.7	-	-
24-Jul	17:12	3A183	ZUI	Departure	12.8	-	-
24-Jul	19:08	3A166	YFT	Departure	11.7	-	-
24-Jul	19:55	3A084	ZUI	Arrival	11.4	-	-
24-Jul	20:19	3A185	ZUI	Departure	13.3	-	-
24-Jul	21:03	8S2113	MFM	Arrival	12.5	-	-
24-Jul	21:04	3A169	YFT	Departure	11	-	-
24-Jul	22:02	8S522	MFM	Departure	12.4	-	-
25-Jul	08:25	3A061	YFT	Arrival	11.1	-	-
25-Jul	08:32	8S210	MFM	Arrival	13	-	-
25-Jul	09:48	3A071	MFM	Arrival	12.2	-	-
25-Jul	10:45	3A081	ZUI	Arrival	13.6	-	-
25-Jul	10:46	8S212	MFM	Arrival	12.3	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - Macao (Maritime Ferry Terminal) YFT – Macao (Taipa) ZUI - Zhuhai Jiuzhou]	Travel Direction [Arrival at / Departure from HKIA SkyPier]	Average Speed within Speed Control Zone (knots)	Extent of Instantaneous Speeding by SkyPier HSFs across SCZ (knots)	Duration of the Instantaneous Speeding (min)
25-Jul	11:06	8S121	MFM	Departure	12.2	-	-
25-Jul	11:21	3A063	YFT	Arrival	12.2	-	-
25-Jul	12:18	3A168	YFT	Departure	11.9	-	-
25-Jul	12:19	3A181	ZUI	Departure	13.6	-	-
25-Jul	12:48	8S215	MFM	Arrival	12.5	-	-
25-Jul	13:00	3A064	YFT	Arrival	11.5	-	-
25-Jul	13:16	8S123	MFM	Departure	11.8	-	-
25-Jul	13:42	3A082	ZUI	Arrival	13.3	-	-
25-Jul	14:19	3A182	ZUI	Departure	11.4	-	-
25-Jul	14:20	3A164	YFT	Departure	10.7	-	-
25-Jul	15:02	3A065	YFT	Arrival	10.1	-	-
25-Jul	16:16	3A167	YFT	Departure	12.1	-	-
25-Jul	16:45	3A083	ZUI	Arrival	13.6	-	-
25-Jul	16:53	8S218	MFM	Arrival	11.9	-	-
25-Jul	16:58	3A067	YFT	Arrival	12.3	-	-
25-Jul	17:12	3A183	ZUI	Departure	11.6	-	-
25-Jul	17:13	8S126	MFM	Departure	12.5	-	-
25-Jul	19:08	3A166	YFT	Departure	11.8	-	-
25-Jul	19:56	3A084	ZUI	Arrival	12.6	-	-
25-Jul	20:16	3A185	ZUI	Departure	13.4	-	-
25-Jul	20:56	3A169	YFT	Departure	12.4	-	-
25-Jul	20:58	8S2113	MFM	Arrival	12.3	-	-
26-Jul	08:24	3A061	YFT	Arrival	11.5	-	-
26-Jul	08:42	8S210	MFM	Arrival	12.4	-	-
26-Jul	09:58	3A071	MFM	Arrival	13	-	-
26-Jul	11:05	8S212	MFM	Arrival	12.7	-	-
26-Jul	11:10	3A063	YFT	Arrival	11.7	-	-
26-Jul	11:32	8S121	MFM	Departure	11.8	-	-
26-Jul	11:40	3A081	ZUI	Arrival	12.2	-	-
26-Jul	12:14	3A181	ZUI	Departure	13.4	-	-
26-Jul	12:27	3A168	YFT	Departure	12.9	-	-
26-Jul	12:49	8S215	MFM	Arrival	12.5	-	-
26-Jul	13:08	3A064	YFT	Arrival	11.6	-	-
26-Jul	13:15	8S123	MFM	Departure	13.2	-	-
26-Jul	13:45	3A082	ZUI	Arrival	13.3	-	-
26-Jul	14:14	3A182	ZUI	Departure	12.1	-	-
26-Jul	14:16	3A164	YFT	Departure	11.2	-	-
26-Jul	15:00	3A065	YFT	Arrival	13.1	-	-
26-Jul	16:19	3A167	YFT	Departure	12.9	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	16:43	3A083	ZUI	Arrival	12.6	-	-
26-Jul	16:49	8S218	MFM	Arrival	13	-	-
26-Jul	17:03	3A183	ZUI	Departure	12.7	-	-
26-Jul	17:07	8S126	MFM	Departure	12.1	-	-
26-Jul	17:08	3A067	YFT	Arrival	11.8	-	-
26-Jul	19:13	3A166	YFT	Departure	12.3	-	-
26-Jul	19:54	3A084	ZUI	Arrival	11.9	-	-
26-Jul	20:10	3A185	ZUI	Departure	13.4	-	-
26-Jul	21:09	3A169	YFT	Departure	13.3	-	-
26-Jul	21:51	8S2113	MFM	Arrival	11.4	-	-
27-Jul	08:26	3A061	YFT	Arrival	13.2	<= 5	< 1min
27-Jul	08:28	8S210	MFM	Arrival	13.1	-	-
27-Jul	09:58	3A071	MFM	Arrival	10.9	-	-
27-Jul	10:44	3A081	ZUI	Arrival	13.3	-	-
27-Jul	10:49	8S212	MFM	Arrival	11.4	-	-
27-Jul	11:14	8S121	MFM	Departure	11	-	-
27-Jul	11:24	3A063	YFT	Arrival	11.4	-	-
27-Jul	12:08	3A181	ZUI	Departure	13.1	-	-
27-Jul	12:22	3A168	YFT	Departure	11.2	-	-
27-Jul	12:45	8S215	MFM	Arrival	13.3	-	-
27-Jul	13:01	3A064	YFT	Arrival	13.4	-	-
27-Jul	13:20	8S123	MFM	Departure	12.7	-	-
27-Jul	13:44	3A082	ZUI	Arrival	13.5	-	-
27-Jul	14:21	3A164	YFT	Departure	13.1	-	-
27-Jul	14:26	3A182	ZUI	Departure	11.5	-	-
27-Jul	15:14	3A065	YFT	Arrival	11.5	-	-
27-Jul	16:20	3A167	YFT	Departure	11.6	-	-
27-Jul	16:40	8S218	MFM	Arrival	13.2	-	-
27-Jul	16:45	3A083	ZUI	Arrival	13.3	-	-
27-Jul	16:59	3A067	YFT	Arrival	13.3	-	-
27-Jul	17:12	8S126	MFM	Departure	12.5	-	-
27-Jul	17:15	3A183	ZUI	Departure	12.5	-	-
27-Jul	19:13	3A166	YFT	Departure	12.7	-	-
27-Jul	19:52	3A084	ZUI	Arrival	12.2	-	-
27-Jul	20:14	3A185	ZUI	Departure	13.2	-	-
27-Jul	20:59	3A169	YFT	Departure	11.9	-	-
27-Jul	21:12	8S2113	MFM	Arrival	12.6	-	-
28-Jul	08:18	3A061	YFT	Arrival	12.3	-	-
28-Jul	08:30	8S210	MFM	Arrival	13.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	10:08	3A071	MFM	Arrival	11.7	-	-
28-Jul	10:40	8S212	MFM	Arrival	12.8	-	-
28-Jul	10:50	3A081	ZUI	Arrival	12.5	-	-
28-Jul	11:06	8S121	MFM	Departure	12.6	-	-
28-Jul	11:29	3A063	YFT	Arrival	11.9	-	-
28-Jul	12:21	3A181	ZUI	Departure	13.7	-	-
28-Jul	12:23	3A168	YFT	Departure	11.9	-	-
28-Jul	12:48	8S215	MFM	Arrival	13	-	-
28-Jul	13:00	3A064	YFT	Arrival	12.2	-	-
28-Jul	13:16	8S123	MFM	Departure	11.8	-	-
28-Jul	13:43	3A082	ZUI	Arrival	13.3	-	-
28-Jul	14:16	3A164	YFT	Departure	11.8	-	-
28-Jul	14:18	3A182	ZUI	Departure	13	-	-
28-Jul	15:05	3A065	YFT	Arrival	12.3	-	-
28-Jul	16:13	3A167	YFT	Departure	12.1	-	-
28-Jul	16:38	8S218	MFM	Arrival	12.3	-	-
28-Jul	16:43	3A083	ZUI	Arrival	13.3	-	-
28-Jul	17:03	8S126	MFM	Departure	12.3	-	-
28-Jul	17:03	3A067	YFT	Arrival	12.6	-	-
28-Jul	17:08	3A183	ZUI	Departure	12.8	-	-
28-Jul	19:08	3A166	YFT	Departure	12.2	-	-
28-Jul	19:54	3A084	ZUI	Arrival	13.1	-	-
28-Jul	20:08	3A185	ZUI	Departure	13.1	-	-
28-Jul	20:59	8S2113	MFM	Arrival	12.1	-	-
28-Jul	21:04	3A169	YFT	Departure	12.5	-	-
29-Jul	08:18	3A061	YFT	Arrival	12.3	-	-
29-Jul	08:34	8S210	MFM	Arrival	12.8	-	-
29-Jul	10:00	3A071	MFM	Arrival	12.6	-	-
29-Jul	10:47	8S212	MFM	Arrival	12.1	-	-
29-Jul	10:56	3A081	ZUI	Arrival	11.9	-	-
29-Jul	11:14	8S121	MFM	Departure	11.4	-	-
29-Jul	11:21	3A063	YFT	Arrival	11.9	-	-
29-Jul	12:34	3A181	ZUI	Departure	13.7	-	-
29-Jul	12:42	3A168	YFT	Departure	12.3	-	-
29-Jul	12:49	8S215	MFM	Arrival	13.4	-	-
29-Jul	13:02	3A064	YFT	Arrival	12.2	-	-
29-Jul	13:20	8S123	MFM	Departure	13.6	-	-
29-Jul	13:42	3A082	ZUI	Arrival	12.7	-	-
29-Jul	14:16	3A182	ZUI	Departure	13.2	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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)
29-Jul	14:16	3A164	YFT	Departure	12.4	-	-
29-Jul	15:14	3A065	YFT	Arrival	12.5	-	-
29-Jul	16:21	3A167	YFT	Departure	11.8	-	-
29-Jul	16:37	3A083	ZUI	Arrival	12.7	-	-
29-Jul	17:03	3A067	YFT	Arrival	12.4	-	-
29-Jul	17:10	3A183	ZUI	Departure	12.8	-	-
29-Jul	17:13	8S218	MFM	Arrival	13.7	-	-
29-Jul	17:45	8S126	MFM	Departure	12.9	-	-
29-Jul	19:18	3A166	YFT	Departure	13	-	-
29-Jul	19:49	3A084	ZUI	Arrival	13.2	-	-
29-Jul	20:37	3A185	ZUI	Departure	12.9	-	-
29-Jul	21:06	8S2113	MFM	Arrival	11.9	-	-
29-Jul	21:11	3A169	YFT	Departure	13.4	-	-
29-Jul	22:27	8S522	MFM	Departure	12.1	-	-
30-Jul	08:19	3A061	YFT	Arrival	12.1	-	-
30-Jul	08:30	8S210	MFM	Arrival	13.2	-	-
30-Jul	09:58	3A071	MFM	Arrival	12.1	-	-
30-Jul	10:42	8S212	MFM	Arrival	12.5	-	-
30-Jul	10:45	3A081	ZUI	Arrival	12.7	-	-
30-Jul	11:11	8S121	MFM	Departure	12.2	-	-
30-Jul	11:19	3A063	YFT	Arrival	12.7	-	-
30-Jul	12:21	3A168	YFT	Departure	13.3	-	-
30-Jul	12:27	3A181	ZUI	Departure	13.7	-	-
30-Jul	12:53	8S215	MFM	Arrival	12.6	-	-
30-Jul	13:03	3A064	YFT	Arrival	11.7	-	-
30-Jul	13:17	8S123	MFM	Departure	12.7	-	-
30-Jul	13:50	3A082	ZUI	Arrival	13.1	-	-
30-Jul	14:18	3A182	ZUI	Departure	13.1	-	-
30-Jul	14:19	3A164	YFT	Departure	11.7	-	-
30-Jul	14:52	3A065	YFT	Arrival	12.5	-	-
30-Jul	16:20	3A167	YFT	Departure	13.2	-	-
30-Jul	16:47	8S218	MFM	Arrival	12.8	-	-
30-Jul	16:51	3A083	ZUI	Arrival	11.9	-	-
30-Jul	17:09	8S126	MFM	Departure	13.2	-	-
30-Jul	17:11	3A183	ZUI	Departure	13.4	-	-
30-Jul	17:12	3A067	YFT	Arrival	11.9	-	-
30-Jul	19:15	3A166	YFT	Departure	12	-	-
30-Jul	19:54	3A084	ZUI	Arrival	12.1	-	-
30-Jul	20:19	3A185	ZUI	Departure	12.8	-	-

Date	Time [Arrival at / Departure from HKIA SkyPier]	Ferry No.	Connecting Port [MFM - 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	20:58	8S2113	MFM	Arrival	12.9	-	-
30-Jul	21:10	3A169	YFT	Departure	13.4	-	-
30-Jul	21:56	8S522	MFM	Departure	12.9	-	-
31-Jul	08:19	3A061	YFT	Arrival	12.5	-	-
31-Jul	08:34	8S210	MFM	Arrival	13.2	-	-
31-Jul	10:04	3A071	MFM	Arrival	12.1	-	-
31-Jul	10:45	8S212	MFM	Arrival	12	-	-
31-Jul	10:51	3A081	ZUI	Arrival	12.7	-	-
31-Jul	11:16	8S121	MFM	Departure	12.2	-	-
31-Jul	11:24	3A063	YFT	Arrival	12	-	-
31-Jul	12:22	3A168	YFT	Departure	11.8	-	-
31-Jul	12:23	3A181	ZUI	Departure	13.4	-	-
31-Jul	12:57	8S215	MFM	Arrival	12.2	-	-
31-Jul	13:04	3A064	YFT	Arrival	12.6	-	-
31-Jul	13:19	8S123	MFM	Departure	11.7	-	-
31-Jul	13:41	3A082	ZUI	Arrival	11.7	-	-
31-Jul	14:16	3A182	ZUI	Departure	10.7	-	-
31-Jul	14:17	3A164	YFT	Departure	12.8	-	-
31-Jul	15:06	3A065	YFT	Arrival	11.8	-	-
31-Jul	16:19	3A167	YFT	Departure	11.8	-	-
31-Jul	16:48	3A083	ZUI	Arrival	12.2	-	-
31-Jul	16:49	8S218	MFM	Arrival	12.5	-	-
31-Jul	17:00	3A067	YFT	Arrival	12.5	-	-
31-Jul	17:08	8S126	MFM	Departure	11.8	-	-
31-Jul	17:17	3A183	ZUI	Departure	12.7	-	-
31-Jul	19:10	3A166	YFT	Departure	11.9	-	-
31-Jul	20:00	3A084	ZUI	Arrival	12.4	-	-
31-Jul	20:17	3A185	ZUI	Departure	13	-	-
31-Jul	21:08	8S2113	MFM	Arrival	11.8	-	-
31-Jul	21:11	3A169	YFT	Departure	12	-	-

Follow-up on instantaneous speeding

Referring to the data of SkyPier HSF movements in July 2017, 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 7 HSF movements. The duration of instantaneous speeding of 7 HSF movements were less than one minute The AIS data and ferry operators' responses showed the cases were due to local strong water currents. The captain had reduced speed and maintained the speed at less than 15 knots after the incidents.

One HSF movement with insufficient transmission of AIS data were received in July 2017. Vessel captain was also requested to provide the AIS plots to indicate the vessel entered the SCZ though the gate access point with no speeding in the SCZ.